Barriers to WHS Adoption in Australian Fisheries
FRDC 2017-046

Workplace Health & Safety Survey Findings Report

Authors:
Dr Kate Brooks – KAL Analysis Pty Ltd
Ms Alex Thomas – Alex Thomas Pty Ltd

October 2018

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1. Executive Summary

What is this report about?

This report presents the findings of the survey work undertaken as one component of the FRDC 2017-046 project, "What's stopping you from protecting yourself and your mates? Identifying barriers to the adoption of safe work practices in in the small-scale wild catch commercial fishing industry".

This report is on the survey component of the overall project report for 2017-046 which includes the background for the project in addition to a full literature review. This component provides the results of the survey and from this provides initial propositions as to the questions posed in the objectives of the project, being to generate knowledge about the industry's safety culture, understand the barriers to the adoption of safe(r) work practices and identify specific factors that would contribute to improvements in safety culture.

Further and most importantly for the next phase of the project, the survey was used to identify key questions to be explored with fishers in the focus groups in case study regions to further 'unpack' identified safety and culture issues, and to explore potential factors that may improve safety culture across the industry.

Who is the report targeted at?

This report is in the first instance for FRDC, however is developed with the target audience of not only fishers but as importantly regulators - both WHS and fisheries management - in mind. The findings identify a number of elements of safety culture, where increased collaborative approaches to WHS management and fisheries management's unintended consequences on that may in fact be beneficial to further engaging fishers in improved WHS outcomes.

Objectives of the survey

The key objective of the survey was to identify the safety culture and climate of the industry, in the context of the SEM categories. Further, to also gain insights to the general parameters of the industry in the context of training recency, coverage, perceived incident causes, experience in the industry and sector. It sought to establish an industry baseline of safety culture for the industry from which to work towards an improvement of safety outcomes.

Results/Key findings in relation to the objectives:

a. To generate knowledge to foster a stronger safety culture:

The survey indicates that the industry, nationally, has a marginally positive safety culture (average 4.9 across all five categories where 4.0 indicates a null[1] safety culture), with the NSW and WA case study results demonstrating slightly higher results at 5.02 and 5.13 respectively. Across all regions, the ***key areas of potential for improvement*** are those of;

- perception of ***management activity*** in ensuring safety, and
- ***fisher participation in the development of safety*** management programs and processes.

[1] Null = neither positive or negative. The scale is from 1 ('very negative') to 7 ('very positive'). In this case 4.89 almost represents a 'slightly positive' (4) culture.

The noteworthy difference between the two case study regions is that, those from Western Australia - which operate in a corporatised environment, despite still being share fishers, and where the role of management is much more defined and fishers have a clear line of sight to the management of their operations - had higher overall levels of safety culture in all categories than those of respondents in the case study response group of NSW.

By comparison, the NSW case study respondents, who were self-employed skippers and crew working in, in the main, single boat operations, overall had lower scores of safety culture in the areas of perceived levels of management safety culture and participation in development of safety systems. By contrast however, they had higher perceived levels of safety culture amongst co-workers and of their competence to operate safely.

It is noteworthy that nationally, this trend of the lowest categories of culture were in perceptions of management and participation in safety development. These are the two most formative areas for the development of safety culture according to Socio-ecological theory (Lee 2017).

b. To identify barriers to adoption and implementation of safe(r) work practices

The key barriers to adoption and implementation of safe(r) work practices appear from the data collected from the survey, to be:

- a lack of engagement with management and/or perception of a regulatory structure that they understood and can engage with to improve their safety knowledge and approaches.; and
- a perception of lack of process of safety management specific to individual sectors, as it is often perceived as a 'one size fits all' approach to safety.

c. Identify specific factors that would contribute to improvements in safety culture

The survey results suggest that stronger engagement with regulatory processes and the development of work health and safety management processes, through greater collaborative interaction and extension activities, would increase fisher, as well as corporate operator, engagement with safety.

The results of the survey suggest that the development of collaborative approaches between AMSA and AFMF agencies to address structural barriers to safety (such as regulatory applicability and management frameworks that contribute to risk levels), may be the most beneficial in significantly shifting fisher attitudes and behaviours toward the adoption of safer work practices.

Comments received in the free text areas of the survey generated a range of opportunities for further exploration, in regard to environmental, policy and organisational aspects of fisheries WHS management. Areas where issues were specifically identified as presenting opportunities were in regard to regulations that generate fatigue and, potentially, associated drug abuse, through pressure to fish. Conflicts were also identified in safety regulatory and fisheries management requirements, in the areas such the inability to have more than one person on board to increase safety - in inshore/estuary fishing - or the inability to modify trawl grids to prevent or minimise the likelihood of injury to crew from falling debris from grids.

These initial findings identify areas for further investigation through follow up focus groups to be held in the last quarter of 2018 with fishers in case study areas.

d. To identify issues and areas to explore in more detail in case study focus groups.

The questions identified from the survey for further investigation via focus groups have been identified to cover the following areas:

- How could fishers gain a greater say in the development of safety systems to ensure that they are more sector specific and relevant?
- How do fishers go about interpreting safety and fisheries management regulations and guidelines provided to them?
- When does safety take priority over getting the job done?
- How do fishers go about identifying what is risky that can be managed when at work?
- What do you think about SMS's?
- How would fishers like safety to be managed to improve outcomes?

e. Implications for relevant stakeholders:

The key implication is that previous attention to training packages - more and better - appears likely to be inappropriate to an objective of improving safety culture. This is possibly because training as provided by a registered training provider (RTO) classroom based, has been nested within the encompassing environments of regulatory organisations and policy, which it appears fishers are disconnected with in terms of relevancy to their particular sector. This may explain why previous endeavours to improve outcomes through individual and crew training (Jarrett 2017), have been ineffective, with initial results backsliding to pre training behaviours within three months.

The industry currently perceives that they are skilled and competent to undertake their work.

A mismatch appears to exist in understandings about what constitutes safety competence (in the context of fishing), and the risk appetite of industry versus safety management agencies (AMSA and various work safe organisations who may be implementing regulation of the industry).

Consequently, the current situation is akin to industry and the regulators and fisheries managers speaking separate languages, with the result of a lack of comprehension on the part of both industry and regulators, and attendant respect and/or interest, with the resultant tendency to 'blame the other party' as being at fault (Besharov 2014).

Approaches to improving the safety culture of the industry are reliant on new and different ways of talking about and 'doing' safety in the industry - not just more of the same but done better.

Further, there are potentially mental health implications for the industry, in continuing to pursue traditional modes of work health and safety management, training and communications. This is due to fisher perception of a lack of respect and increasing frustration with the lack of recognition of their professional pride in their work, and years of success in the industry to date.

2. Background and Literature Base for the Survey

The hypothesis identified as a result of the literature review was that: *Barriers to the adoption of safe work practices are related to the influence of interpersonal and community factors, which shape fisher attitudes and beliefs about work health and safety behaviours.* As a result, the project sought to identify a tested model for safety culture at these levels, which was found in Seo's work on safety climate. He developed and tested an explicative model of unsafe work behaviour to reveal the mechanisms by which the contributory factors to unsafe work behaviour influence safety behaviours of individuals at workplaces (Seo 2005). These factors in relation to safety climate, which he identified predicted culture, were; management commitment; supervisor support; employee participation; and competence level (Ibid, 187). Seo identified that management commitment and supervisor support were found to influence other dimensions of safety climate (2004). When integrated with the socio ecological model of behaviour and in relation to safety, this sits within the identified conclusion that the entire socio-ecological system influences the ability of individuals or groups to engage with changed outcomes.

Seo's safety climate survey aligned with the socio-ecological model theory identified in the literature review, and was consequently selected to identify where in the hierarchy of influences the opportunities existed to improve safety, and if these were in fact, in the areas posited as interpersonal and community as hypothesised.

The objective of implementing the survey was, from fishers' safety culture perspective, to understand their work place experience, and its impact on safety outcomes. Seo's categories of safety culture aligned with the SEM categories in the following manner:

1) *Management* = *Policy/Enabling environment:* in this case being employer or State/regional safety or professional organisations who set the policy and regulations for the operations;
2) *Participation* = *Organisational* - ability to participate in the institutions and process that develop safety systems;
3) *Supervisors/skippers* = *Community* - culture of groups and how this behaviour is supervised, in this case, by Skippers of fishers or each other;
4) *Co-workers* = *Interpersonal* - the culture between co-workers;
5) *Competence* = *Individual* - in the area of work place safety, individuals' perception of their own and immediate influencers of knowledge and behaviour in relation to safety.

See the following diagram (Fig.1)

Figure 1: Socio-Ecological Model relationship to Survey

NB: Adapted from Lee (2017)

Notably, Individual, interpersonal and community behaviours are all nested within and therefore responsive to the perceived organisational and policy/enabling environment - a factor that is crucial to be aware of given the results of the survey.

While the hypothesis emanating from the literature review had a focus on the interpersonal and community influences, the results of the survey have clearly highlighted that the areas where fishers perceive the biggest disconnect is at the higher levels of Organisational (participation) and Policy/Enabling environment (laws and management). This is a significant shift in focus from the origins of the project.

3. Methods Used

The key method used was targeted individual face-to -face interviews in case study locations, and then in addition to this, the survey was made available online, and available for voluntary (self-selected) completion by those in fishing industry.

Two case study locations were selected as a result of industry self-nomination, and comprised a corporatized environment in the Shark Bay Prawn Trawl in north west Western Australia, and largely owner operator and small crew fishers of the NSW northern coast (Sydney to Ballina).

The survey was originally developed for the USA grains industry, and as a result, was revised to be relevant to the Australian fishing industry, while maintaining the integrity of the questions as originally designed by Seo. A small voluntary pilot of the survey was undertaken with fishers in NSW, WA, VIC and SA and a number of further changes to wording, language and scales were undertaken to improve comprehension.

The survey comprised two elements; the first being the set of thirty-five (35) questions designed to reveal the level of safety culture amongst respondents, as developed by Seo (2004); while the second component was a further set of 21 questions, developed in conjunction with the industry focussed on experience, sector, safety training and recency, perception of incident causes and demographic data.

Individually administered surveys were conducted in case study regions in NSW (N= 66) and WA (Mareterram N=64). These were identified in NSW through contacts made in the first instance through NSW PFA and then through seeking support of regional fisherman' co-operatives and key industry leaders. In NSW co-operative visits were undertaken in Ballina, McLean, Illuka, Coffs Harbour, Newcastle and Sydney. In WA, they were identified from one company, Mareterram, and for the 2018 season (April to October).

The on-line administration of the survey, utilising Survey Monkey, procured further voluntary participation by industry members, nationally (N=89). Potential participants were made aware of the survey through announcements in newsletters, social media and email alerts by a variety of industry associations. Media releases were also utilised and were taken up by AMSA and other industry media (Working Boats magazine; Fish Magazine, as well as State industry association newsletters and social media). It was also taken up by ABC radio, with an interview undertaken for ABC Rural Hour SA, which was broadcast on June 4th, discussing the background, objectives and availability of the survey.

The survey secured a total of two hundred and nineteen complete and valid responses (Survey N = 219) with a further 139 partial responses not included in the survey results. The total number of valid responses represent approximately 1.9% of the total fisher population[2].

The data has been analysed by each case study area and national voluntary results to identify any variation by region and or across nation responses. The noteworthy difference between the two case study regions is that those from Western Australia operate in a corporatised environment, where the role of management is much more defined and fishers have a clear line of sight to the management of their operations (in this case Mareterram). By comparison, the case study respondents from NSW were self-employed skippers and crew working in, in the

[2] N=11,000 per Dept Agriculture, Robert Curtotti.)

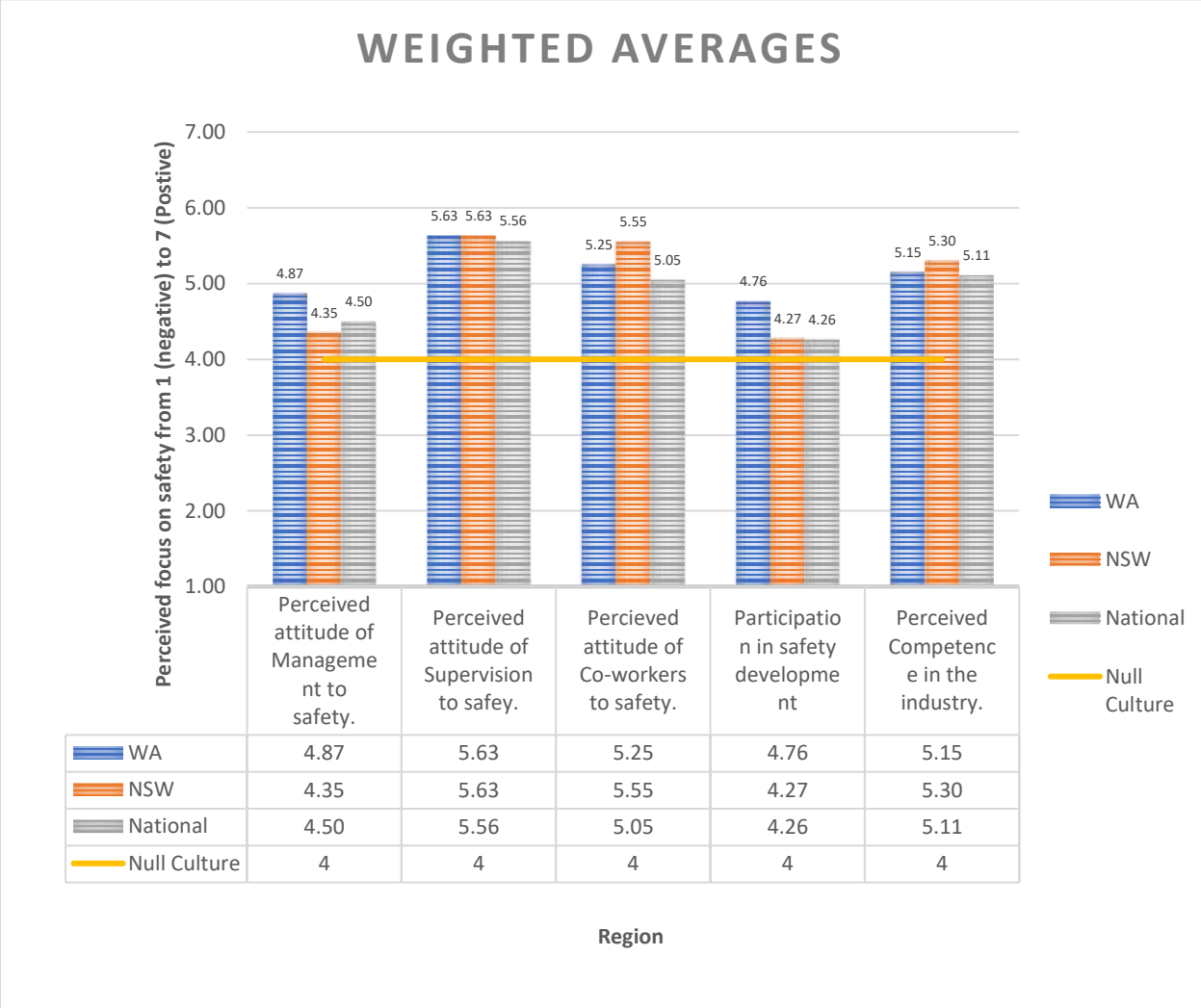
main, single boat operations, and with an individualistic approach to their operations and a much more diffused line of sight to ‘industry management’.

4. Results:

4.1. Safety Culture

The following is a summary of the data collected in the five-category safety culture component of the survey.

It is noteworthy that across the board, while all categories are only slightly above the mid line of null culture (4 = nul; 5 = slightly positive; 6= positive; 7 = very positive) with a top score in one category of 5.6, two categories are consistently lower across each case study group and the overall national data (which does incorporate the case study data). These are those of management safety and participation in the development of safety.



	Perceived attitude of Management to safety.	Perceived attitude of Supervision to safey.	Percieved attitude of Co-workers to safety.	Participation in safety development	Perceived Competence in the industry.
WA	4.87	5.63	5.25	4.76	5.15
NSW	4.35	5.63	5.55	4.27	5.30
National	4.50	5.56	5.05	4.26	5.11
Null Culture	4	4	4	4	4

2. Who do you think of as the organisation, business association or 'body' responsible for management and promoting safety in the area you work in the fishing industry?

It is noteworthy that 23% or 50 respondents chose not to answer this question, suggesting that to identify a single responsible entity was too difficult.

From those who did respond, this question generated a range of responses, with only just over a quarter of respondents identifying AMSA as the body responsible for the 'management and promotion' of safety. This also identifies a potential confusion generated by the question, as in

the minds of fishers those responsible for *management* (and enforcement of compliance) are different from those who are responsible for the *promotion* of safety.

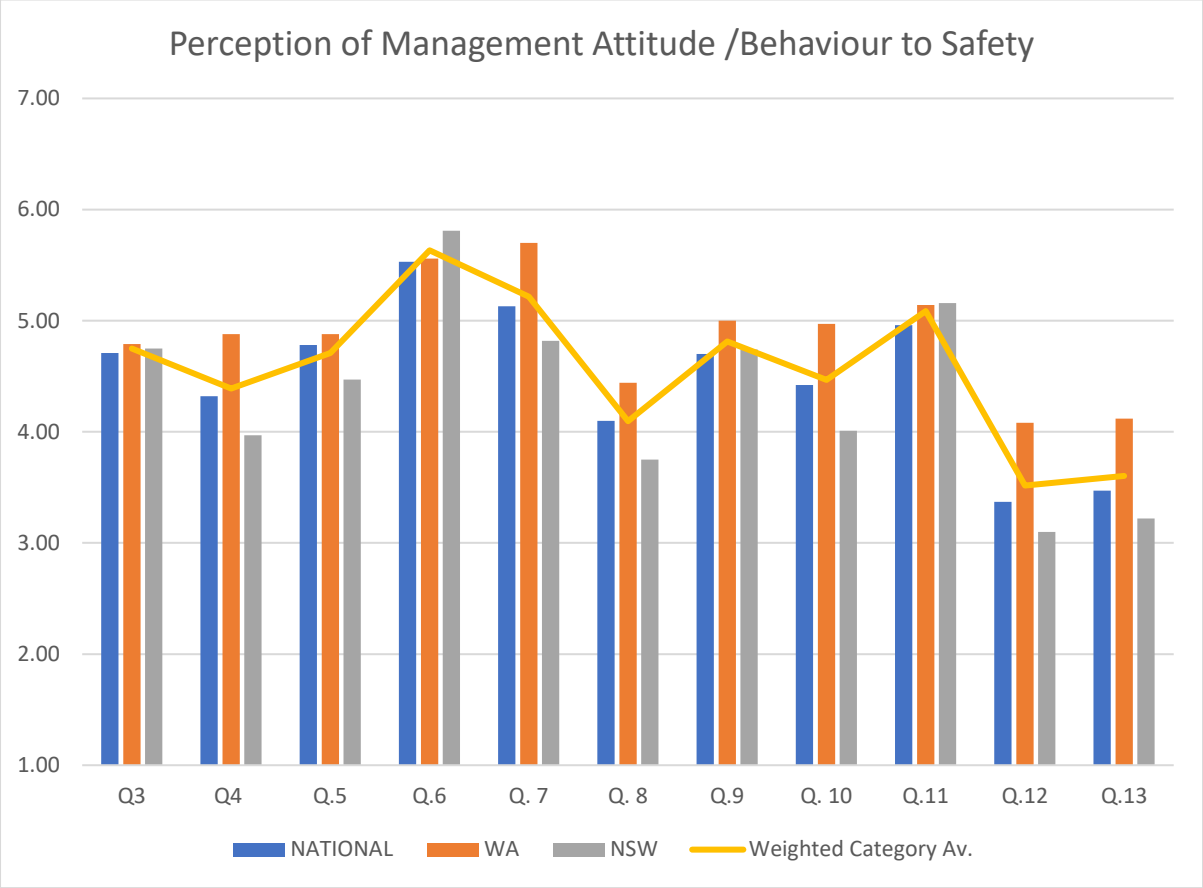
Figure 2: Responsible Body for the management and promotion of safety (Q.2)

4.2. Management: Questions 3 – 13

Respondents were often confused in regard to who 'management' is in relation to safety, and therefore unsure of who is responsible for what when it comes to safety, and when surveys were administered face to face it was evident that respondents were not at all confident as to who they should be deferring to in regard to the source of management safety rules, regulations or guidelines. Where fishers were self-employed, they often deferred to themselves as management as a default - that is 'I manage my own business and therefore I'm the management'.

Respondents also experienced difficulties in interpreting the safety language that was used, such as 'walk the talk'. Consequently, the higher result in WA case study may be due to this factor in relation to the corporate nature of the respondent's environment - that is, they not only felt slightly more familiar with the language, but also more connected with 'who' management was and what their expectations were and how these connected with 'on the ground' actions.

Figure 3: Perceptions of management



3. The management / my industry association related to my work, visibly demonstrates support (walks the talk) for safety

The national result (4.71) while being a slightly positive indicator of management safety culture, the result for WA alone (4.79) and NSW slightly lower (4.75), but organised through an active industry association (PFA) suggests management in the industry generally, can play a more active role.

4. Management/My industry association provides adequate training and education for safety

The national result (4.32), despite almost 49.7% respondents coming from other than the case study areas, represent the median between the corporatised and individual respondent case studies. In the WA case study, training and safety are more easily provided in the centralised environment. It is this environment of active safety training extension to Skippers, that is most likely to have generated the higher result (4.88) than in NSW (3.97).

Respondents interpretation of what 'adequate training and education for safety' is entirely subjective. Safety is often discussed formally or informally across different training and education forums. There may be some conjecture around what is safety training or education, versus what a respondent would consider as being 'just taught how to do the job' - often on the job. Formal training and education around safety is often symptomatic of a corporate environment, which is likely to be, the type of training being conceptualised by respondents here.

5. The management/my industry association is NOT willing to spend the money needed to improve safety

The raw national score of 3.12 (was inverted to 4.78, to make it comparable to the positive scale of all other scores) indicates that respondents are slightly disagree with the statement. Once again, WA case study respondents, closer to their direct management regime, see their management slightly more positively - disagreeing with the statement (vs slightly disagreeing), at 4.88) and the case study respondents in NSW were less confident than both WA and the remainder of respondents, at 4.47.

Respondents interpretation of 'spend the money needed to improve safety' would likely be attributed to the purchase of safety equipment, formal safety training – something easily attributed to 'safety'. Safety in design (i.e. changing out of old gear, deck layout etc.) isn't likely to be recognised by respondents as 'spending money to improve safety' – rather just businesses improvement / maintenance. Such interpretation does not consider the safe outcomes that arise from that spend.

6. Management/ my association believe work place safety and health are very important

The national result (5.53) indicates that respondents do have a degree of assurance that management / their industry association believe work health and safety are very important. The WA result (5.56) may be slightly lower than the NSW result (5.81) given differences in structure (i.e. WA – Mareterram / corporate, NSW – PFA).

It is pertinent to acknowledge that interpretation of the word 'believe' vs the more likely 'give the impression' may have confounded some respondents, however the results across the board, did represent a result consistently above 5.5, indicating an inclination more toward firm agreement with the statement.

Respondents who are self-employed may also be 'self-reporting' rather than thinking of AMSA/SafeWork or industry association, and therefore giving a more positive response.

7. Management / my industry association encourages everyone involved with our work to report all safety related incidents

The national result (5.13) indicates that respondents agree that management encourages reporting safety related incidents. The WA result (5.70) is slightly higher than the NSW result (4.82) – likely due to differences in structure (i.e. WA – corporate, NSW – non-corporate / more fragmented). It is noteworthy in this the context of this response, to acknowledge the anecdotal commentary received during the survey implementation in relation to this question. That is, that while the overt message from AMSA/SafeWork or other formal management agencies was to report all incidents, the consistently negative results (a lack of appreciation for relative impacts and broader extenuating circumstances) experienced (directly or anecdotally) of such reporting dis-inclines the industry to be encouraged to report incidents or accidents.

8. Management/My industry association is concerned about my health and safety generally, even when I'm away from work.

The results for this question were lower in all categories (National - 4.10; WA - 4.44 and NSW - 3.75) were all lower than most other questions in this part of the survey (with the exception of Q.12 – incentive-based rewards for safety and Q.13 formal recognition for safety).

Respondents may have had a propensity to lean in to the 'even when I'm away from work' component of this question. Management / the industry association may well be concerned about the respondent's safety when they're away. However, if management agencies and industry associations believe they are concerned about the general health and mental welfare

of fishers, this is not apparent to them. Conversely, fishers have given this only a marginally negative (NSW) and otherwise neutral score, which may indicate a lack of conception that they should be cared for or about when away from work, which may have implications for considerations of their mental health, and thereby their inclination to keep safe.

9. Management /My industry association demonstrates leadership by keeping people focused on safety

The national result (4.70) is slightly lower than the WA result (5.00), and higher than the NSW result (4.74).

Respondent's interpretation of what demonstrated 'safety leadership' looks like – in the absence of the ability to benchmark against a safer industry / corporate organisation – is likely to have had an effect on these results. Those who are self-employed and/or in the role of a 'skipper' (who is known to assume full responsibility for everything when at sea, regardless of any other arrangement) may also be self-reporting, which would likely skew the results positively.

10. Members of management/my industry association often informally discuss safety issues with those at work at all levels - skippers, deckies, administrative staff, transport workers, managers etc.

The national result (4.42) supported that supposition that responses to this would vary between those directly connected to their management (as in the case of WA demonstrated by their higher result at 4.97), and the largely independent and/or sole operators of NSW result of 4.01, where differences in perception of management would have skewed results.

The subjective interpretation of not only management, but in this question, what respondents identify as a 'safety issue', lends challenges in the ability to draw firm conclusions from the results of this question. The question itself implies that there are 'levels' within every fishing organisation, which is inapplicable to a 'one man/woman band'. Respondents may identify issues generally (i.e. if something breaks, something scary happens, people are tired) – however may not attribute them as 'safety issues'… the term in itself assumes that the respondent is able to identify between what is and isn't a safety issue. Non-verbal communications between crew members may also substitute for formal discussions.

Regardless of these issues, the largely neutral score indicates that conversations as such, about safety are perceived to be minimal, whether they be with agency mangers or industry groups.

11. Member of management/my industry association have/has a clearly defined set of core values, that clearly include safety.

The results indicate that across all groups the perception of management having a defined set of core values that includes safety was positive - even if only slightly (national 4.96; WA 5.14; and NSW 5.16). This may indicate that agencies such as AMSA and WorkSafe or industry associations have managed to effectively establish their safety core values in the minds of fishers.

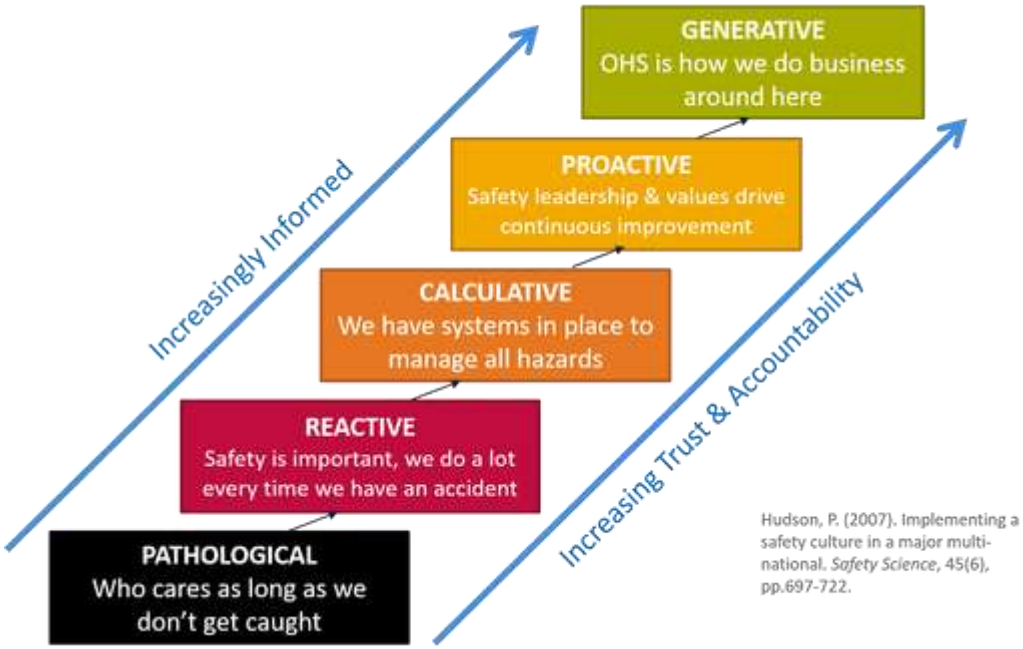
However, given that the agencies core values are largely expressed in terms of internal employees and 'stakeholders', the language would not resonate with fishers. This raises an opportunity in focus groups, in regard to exploring what understanding of agencies' core values exist, and what *would* 'core values' means in the context of the largely small/family businesses of the Australian wild catch fishing industry.

12. Management /My industry association makes effective use of incentive-based rewards relating to safety performance.

Across the board this question and the following one identified the lowest perception of safety culture or focus of management agencies. Nationally, the result (3.37) was between WA (4.08) and NSW (3.10). These results are significantly lower than others in this section, indicating that management / industry associations do not make effective use of incentive-based rewards relating to safety performance.

Respondents were challenged in their interpretation of what an '*incentive*-based reward relating to safety' was. Given the reactive state of the industry's safety culture (refer to the Hudson ladder, see Fig 2 following), the key measure of safety performance is one of *lag* i.e. safety incidents / serious injuries and fatalities (when reported). This alone supports the finding that respondents would not likely to be receiving incentive-based rewards. The uncertainty of the fishing in general also suggests that most businesses would not be in a position to offer a rewards scheme – period – and that survival is the key focus.

Figure 4: Hudson's Safety Ladder



13. The management/my industry association effectively utilises formal recognition for people in the industry demonstrating safe work practices

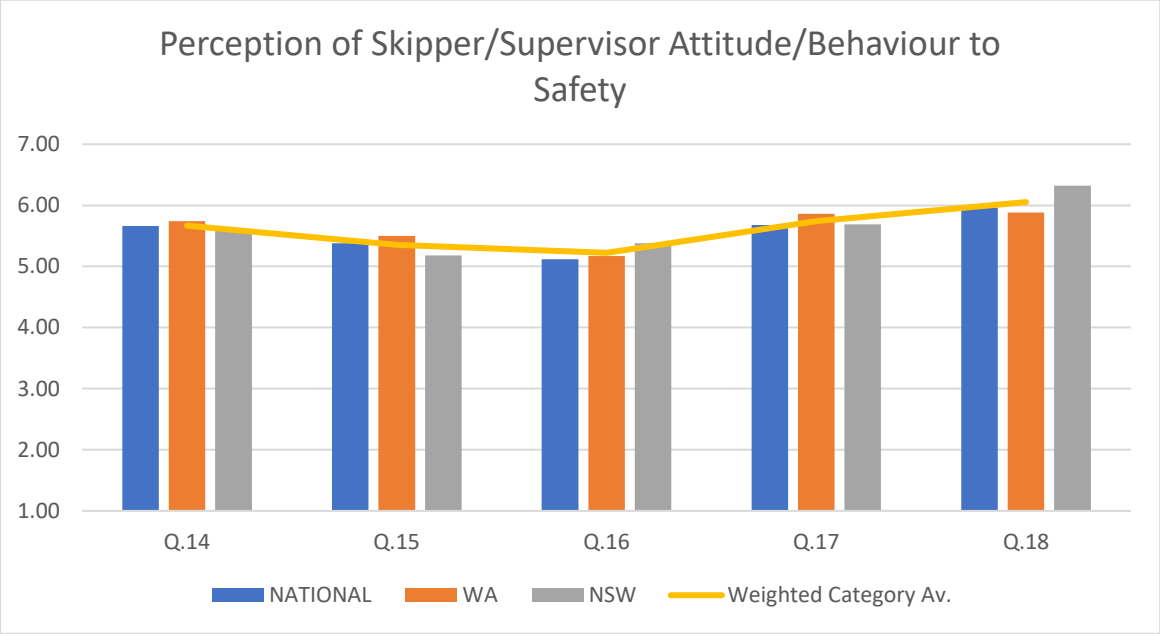
As with the previous question, the results are significantly lower than others in this section (national - 3.47; WA - 4.08; and NSW - 3.10. This would suggest that management / industry associations do not effectively utilise formal recognition for people in the industry demonstrating safe work practices.

This identifies an opportunity to explore what format or means of formal recognition for positive safety behaviours that industry members would respond to, in a means that recognises both agency objectives and interpretations and industry members of what 'good safety' looks like. For example, having an SMS is not likely to be taken as positive endorsement of safe behaviours by fishers as it has little impact on how they conduct day to day operations - rather observed proactive behaviours which are reported are more likely to resonate.

4.3. Supervision: Questions 14 – 18

Questions 14, 15 and 17 were all asked in the negative, which required inverting the final scores in aggregation to contribute to a coherent overall safety score. With all these questions, respondents acknowledged in the process of undertaking the survey that often conditions are such, that work tasks are undertaken in less than optimal or perfect conditions, but are financially necessary or sometimes to head off greater safety issues.

Figure 5: Perceptions of Supervision



14. My direct supervisor / skipper(s) /fellow skippers sometimes encourage UNsafe practices

The results, all being in the range of just below 'slightly disagree' (national - 2.34; WA - 2.26; and NSW- 2.4), indicate a sense that respondents do not believe their supervision encourages them to partake in unsafe practices. However, the results being less that definitively disagreeing are likely to be skewed by a sense of fatalism amongst respondents, whereby they recognise that factors out of anyone's control mean that at times tasks have to be undertaken in technically unsafe conditions such as weather – as reflected in the word bubble for Q.49.

15. My direct supervisor/ skipper(s) /fellow skippers do sometimes OVERLOOK Unsafe practices

These results indicated a slightly higher level of agreement with the statement - or perception of negative safety culture - with the national score being 2.62; WA at 2.5 and NSW at 2.82; or that fishers are between agreeing and slightly agreeing with the statement. This is marginally more negative than the previous question, but that relates to the key word of 'overlook' compared to 'encourage'.

16. My direct supervisor/skipper(s)/fellow skippers value my ideas about improving safety and health

Across the board, the results for this question were positive, but only in the category of 'slightly agree' (National - 5.12; WA - 5.17; and NSW - 5.38. It is likely that that is dictated by a strong culture of hierarchy in the fishing industry and the longevity of many skippers, placing them in a position of 'not to be questioned'. This may be change with the increasing number of younger skippers emerging in the industry.

17. My direct/ supervisor/skipper(s)/fellow skippers does NOT demonstrate a personal interest in safe operations

This identifies that Skippers working in the WA case study group (at 2.14 raw score) were perceived to be slightly more inclined to demonstrate an interest in safe operations. This compares with the NSW case study group at 2.31 and the overall national results being - 2.32 (noting that '2' equals a response of 'disagree' and '3' equals 'slightly disagree').

This may be attributable to the more corporatised environment of the WA case study respondents, where skippers perceive an overlay of supervision and/or are encouraged to consider safety more actively because of the corporate support received.

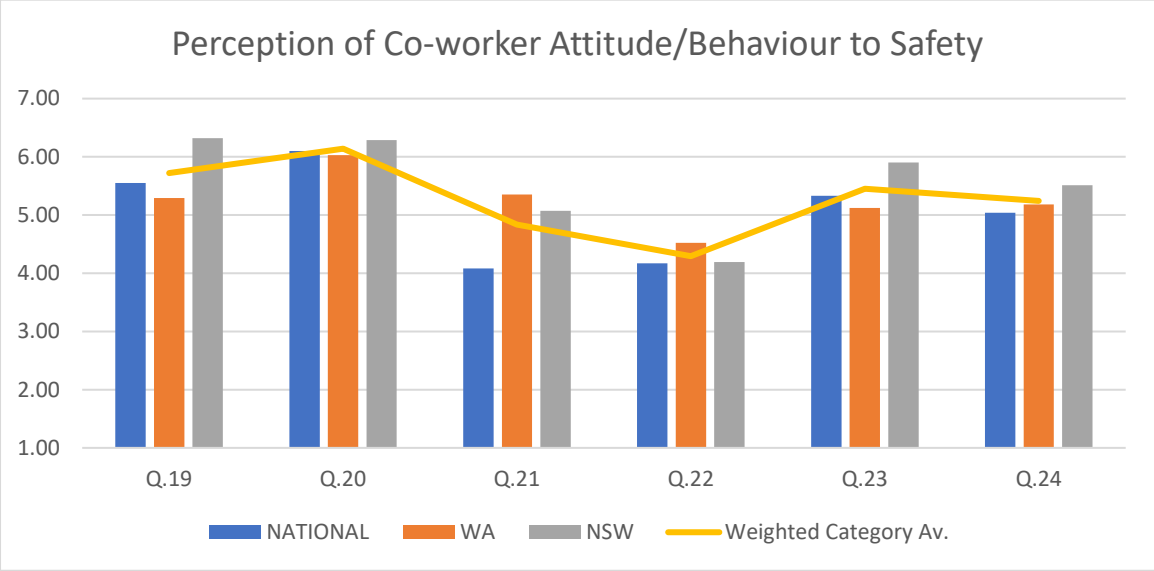
18. My direct supervisor/ skipper(s)/fellow skippers believe safety is very important

The results from this question were in the range of 'agree' erring toward strongly agree; National result (5.96), WA result (5.88) and NSW result (6.32). This was the second highest in the category of question, and the third most positive response in the safety culture section of the survey.

4.4. Co-workers: Questions 19 – 24

Perceptions of attitudes of co-workers toward safety was considered the third most positive in the survey, second to Skippers/Supervision and Competence. Questions 20 and 21were asked in the negative, which required inverting the final scores in aggregation to contribute to a coherent overall safety score

Figure 6: Perceptions of Co-Worker



19. When others take risks, most fishers/people at work make them aware of the risk they are taking.

Respondents indicate here that they do make those taking risks aware of the risk they're taking. Across the board, the results for this question were positive, but only in the category of 'slightly agree' (National - 5.55; WA - 5.29) with the exception of NSW, which at 6.32, was firmly in the category of 'Agree', erring toward 'strongly agree'.

These results in NSW and conversely WA may be ascribed to the relative level of accountability amongst NSW fishers given they're predominantly small/family businesses, compared to WA where the fishers were unrelated and often crews change during the course of a season, being a fly in/fly out industry group. There may be a greater sense of mateship and cohesion in the NSW (and other national respondents) than the more transient, and largely temporary nature of crews amongst WA respondents. It was also noted that where foreign workers were brought in for the season to secure crews in WA, this created tension due to pay arrangements which may also contribute to less crew cohesion and lower score in this question for WA respondents.

20. My co-workers often encourage me to DISREGARD safety rules

The results - national - 1.6; WA- 1.97 and NSW -1.7 ('strongly disagree', erring to 'disagree) - all indicate that respondents do not believe that co-workers encourage them to disregard of safety rules.

While subtle, this may suggest that crews believe they're being 'safe'.

21. My co-workers do NOT like to be cautioned about safety

National results - 3.92, WA - 2.65 and NSW - 2.93 indicating a response of almost clear 'disagree' amongst WA case study respondents, but this moves closer to a slightly disagree

amongst NSW case study respondents and almost neutral amongst the remainder of respondents to bring the national weighted average up to 3.92.

The neutrality of the national result may suggest that while people don't like to be cautioned, given the results of Q.19, they are still cautioned regardless. However, there is the culture of how such cautions are expressed, which due to stress and noise often results in such cautions being shouted, which may account for why people don't like to be cautioned.

22. My co-workers regularly complement each other for working safely

The results for this question indicated neutrality across the board, with the national results being 4.17, WA at 4.52 and NSW at 4.19.

The neutrality of the results for Q.21 and Q.22 may suggest that there is neither compliments nor cautions being consciously communicated.

23. Most of my co-workers actively support my/our safety program

With the results for the case study areas and nationally indicating that this statement is '(slightly) agreed' with (National 5.33; WA 5.12; and NSW 5.90) suggest that co-workers are in support safety programs.

Respondents may have had differing interpretations of what constitutes a 'safety program'. The results in NSW may be slightly higher given the likelihood of increased personal accountability in a small or family business versus in a corporate structure.

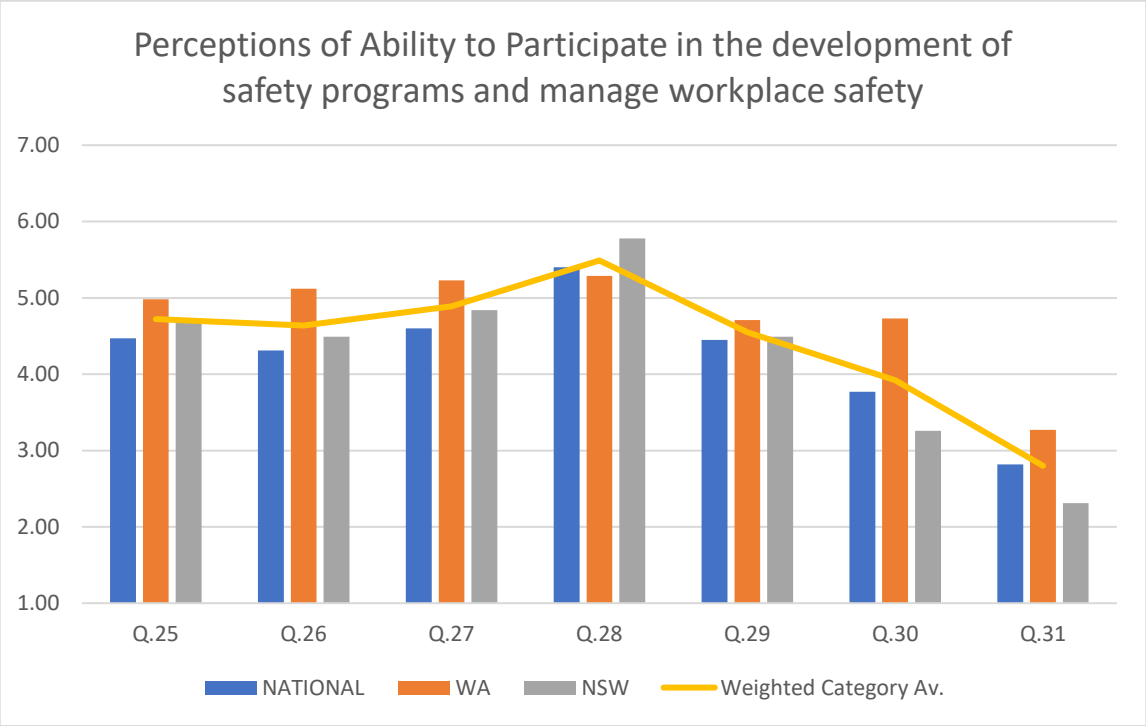
24. Most of my co-workers are willing to mentor each other about safety.

To the extent that respondents were able to relate the question to their environment, such as "I'll help my mate understand the safety stuff", the results for this question (national 5.04; WA 5.18 and NSW 5.51) indicate that this was slightly agreed with, and that they will support and assist each other. This may also indicate the prevalence of 'mateship' amongst respondents

4.5. Participation in safety development: Questions 25 – 31

Respondents identified a number of issues with this category of questions, around clear perceptions of what a 'safety program' was and also in regard to influencing safety. This latter point was in regard to their direct environment - on board their own vessel, which they felt very much able to control; or generally in regard to the overall rules and regulations with which they are asked to comply, which they felt as if they had little ability to influence.

Figure 7: Perceptions of Participation



25. People in the industry are actively involved and participate in safety programs

While the results for this question were marginally positive, (National - 4.47; WA - 4.98; and NSW - 4.72), the terminology of 'safety program' was identified as not resonating with fishers in the face to face administering of the survey and would explain the largely neutral response to this question.

26. People in the industry feel it is important to recognise and report near miss incidents / accidents.

The responses received to this question were neutral to slightly agreeing (National - 4.31; WA - 5.12; and NSW - 4.49) with the statement, reflecting commentary received during face to face administration of the survey. While respondents did identify that they feel it is important to report some near miss incidents and accidents, where serious external implications for others are not involved, they believe it is up to them to rectify the cause and continue with their business as quickly as possible. Negative experiences of reporting underpin this, either personally or anecdotally. Further, that a focus on efforts to be safe despite the outcomes are not recognised equally, but rather reporting only results in fines and other compliance breach penalties, rather than an appreciation for the broader operating environment, and external factors affecting safety outcomes.

There are varying definitions of what does / doesn't constitute as an 'incident' in work health and safety legislation, the work health and safety profession, and AMSA's National Standard for

Commercial Vessels Part E – Operations. This may cause confusion amongst respondents as to what should / shouldn't be reported.

A culture of reactivity, blame and 'too much [incident investigation] paperwork' may also be inhibiting respondents from wanting to proactively report near misses, incidents and accidents.

27. People in the industry make a lot of suggestions to improve safety

The results (national - 4.60; WA - 5.23; and NSW- 4.84) indicate that people in the industry may make suggestions to improve safety, with a higher result in WA potentially reflecting the corporate nature of the respondent's environment, where the skipper/crew hierarchy is interrupted with the addition of the corporate layer, and safety may be discussed more frequently due to the juxta position of the mining and fishing industries.

28. People in the industry do a good job of taking responsibility for their own safety

In this category of questions, this question produced the most positive result (national - 5.40; WA - 5.29; and NSW - 5.78) potentially indicating a sense of personal accountability for safety amongst respondents. It also indicates the possibility that respondents believe that they are as safe as they can be given the conditions they work in, and they acknowledge and take responsibility for that - a fatalistic approach, but with care.

29. People in the industry have a substantial impact on the design of safety programs that are used in their work environment.

The largely neutral to 'slightly agree' result (national - 4.45; WA- 4.71 and NSW - 4.49) indicates that people in the industry perceive that they have little substantial impact on the design of safety programs that are used in their work environment. What impact they do have would likely to have been interpreted as what they are able to do directly in their environment, given the responses to Q.30. which suggest that people in the industry don't believe that they *have an opportunity to attend and participate in safety meetings*.

30. People in the industry have an opportunity to regularly attend and participate in safety meetings

This was the second most negative result in the category of 'participation' (national result (3.77), WA result (4.73) and NSW result (3.26) suggesting that respondents don't believe people in the industry have an opportunity to regularly attend and participate in safety meetings. However, a 'safety meeting' is a corporate concept, and is unlikely to have been interpreted as the opportunity for the crew to talk over morning tea about concerns; potentially interpreting it as formal training.

It does raise the point that for a safety management system or program to be effective/ successful it requires ongoing engagement and consultation with the workforce. If respondents suggest that they're not 'meeting', then how is this engagement and consultation occurring to inform the development of a system or program?

31. People in the industry have very LITTLE control over safety in the workplace

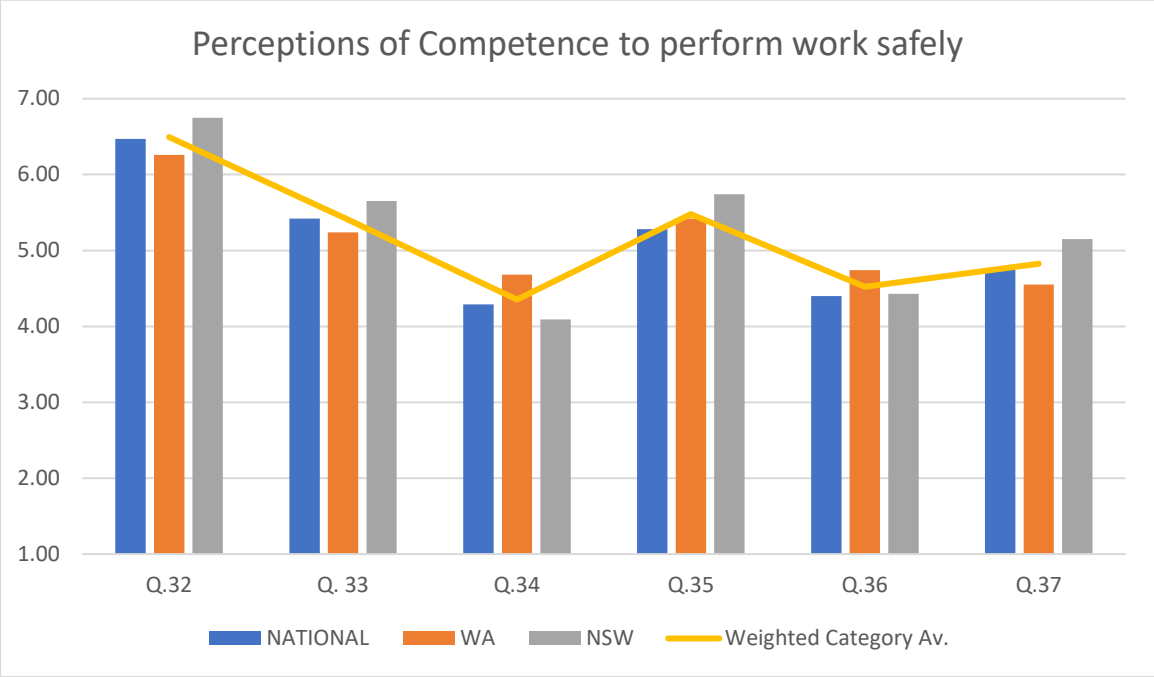
The results - national - 2.82; WA - 3.27 and NSW 2.31- suggest that with a response generally erring toward 'slightly disagree' identify a lack of certainty over their level of control over safety in the workplace / the industry in general. While they expressed a high level of personal accountability for their immediate environment in the surveys administered face to face, they also acknowledged that they had no control over weather - a key factor in on-board safety.

They also acknowledged that while they had control over safety in their direct workplace they expressed little or no control over the safety systems and processes that are imposed upon them to implement.

4.6. Competence: Questions 32 – 37

This category of safety culture questions was the second most positively responded to category of questions, at 5.11 or just above 'slightly agree'. This suggests that on the whole respondents felt that generally they were reasonably confident to undertake their work safely. The factor that deviated from this was in regard to new starters, who were recognised to - more often than not - starting day one on the job with no experience or knowledge of the industry and its dangers, but that 'learning on the job' has always been a reality in the industry.

Figure 8: Perceptions of competence



32. I know how to perform my job in a safe manner

The results, (national - 6.47; WA - 6.26; and NSW - 6.75) indicate that respondents 'agreed' to 'strongly agreed' that they were confident in how to perform their jobs in a safe manner. This result should be contextualised by the result of Question 52, which identifies that 75.8% of respondents have worked in the industry for over 10 years.

Given the pride of the industry and the length of time spent in the industry, it would not have been unexpected to have a higher response in terms of self-perceived competence.

Why respondents perceive themselves as only moderately competent to perform their jobs in a safe manner, is a question to be explored in the focus groups, in regard to if it is due to factors 'out of their control'; feelings of fatalism and the high rate of incidents; a lack of confidence, or other factors not currently considered.

33. People in the industry are skilled at a working safely as they are skilled in their jobs

The results in this category were marginally above the 'slightly agree' result (national - 5.42; WA - 5.24; and NSW - 5.65). While it may be reasonable to question this result in a similar manner to the previous question, it was accounted for in the responses procured in face to face interviews. It was strongly and consistently noted that those who have been in the industry for a length of time perceived themselves as very skilled at working safely in their jobs. However, new entrants who had to join boats with no experience or training, needed be watched and kept out of the way of danger until they had some experience of seeing what to be careful of and when.

34. People in the industry RARELY receive adequate training to perform their jobs safely

These results were inverted in the overall results to contribute sensible to the positive scale of the remainder of the survey. The results originally in relation to this question were; national 3.71; WA - 3.32; and NSW - 3.91, which equates to responses in the range of slightly disagree to being neutral toward the statement.

Results may be impacted by confusion over what the respondents' interpretation of 'training' and /or per the previous question, that the important training for safely undertaking their jobs, is undertaken 'on the job' therefore it is difficult to assess this and also that logically new starters never receive adequate training *prior* to starting on board.

Previously a lot of the focus on training has been on man overboard drills, emergency evacuation, first aid, how to use safety equipment etc. – as opposed to *training in how to do the job safely* – not just how to respond to an emergency scenario.

35. The fishing industry learns and adapts from its past mistakes in safety

Respondents perceive there to be some learning from past mistakes in safety, however, with results of 'slightly agree' (national - 5.28 and WA - 5.42) erring in the case of NSW (5.74) toward 'Agree', there is obviously substantial room for improvement from fishers' perspectives.

The word 'mistake' implies a process of exploration, reflection and adaptation, and also acknowledgement of what the individual perceives as 'right' when it comes to safety, versus what is 'wrong'. Respondents may also be compromised by the fatalistic belief that 'things just happen, and you can't control them', and that there is not that much more that can be learned in regard to the perceived major safety hazard of weather.

36. People in the industry receive sufficient training to perform their jobs safely

As an endorsement of question 34, this result (national - 4.40; WA - 4.74 and NSW- 4.43) which is effectively a 'neutral' result, underlines the complications of lumping all people in the industry together in regard to their training to undertake the jobs safely. While the industry does feel they do the best they can, they do recognise that there is no training prior to being 'on the job' in the industry.

37. Most people in the industry are highly qualified to perform their jobs safely

The results for this question were largely 'neutral' to 'slightly agree' (national - 4.77; WA - 4.55; and NSW - 5.15), likely reflecting on an inability to identify what 'highly qualified' might be assessed as.

Aside from 'trade-like' tickets (i.e. skipper, master, engineer etc.), it is more likely that fishers classify themselves and others as a good (and safe) worker or a bad (and unsafe) worker. Recruitment and labour retention challenges for crews in the fishing industry mean that levels of 'qualification' rarely enter the discussion during recruitment for a role on a boat.

4.7. General comments on Safety Culture Survey as used for the fishing industry:

Irrespective of location / and work environment the responses were nationally consistent.

Subjectivity around who respondents identify as 'management' and in what scenario (i.e. at sea, on shore, where someone is / isn't a member of an industry association) may have had an effect on the results, however despite these variations, which will be explored in the focus groups, again it is noteworthy that the responses remain consistent.

It must be noted that (Master) Skippers (58%) and or those who are self-employed[3] (34% owners) would be 'self-assessing' and also skewing their perceptions of the crews in their closest circles of operation. 43.53% of respondents identified as Crew/deckies/mates/or skippers in the crew or other

However, it is a valid question that may be worthy of further exploration as to if there is a likelihood of greater accountability for safety amongst self-employed fishers compared to corporate fishers.

[3] Respondents were able to complete multiple options for this question - an identified weakness in the survey when analysing the data.

4.8. General WHS Context and experience

The following set of questions were added to the safety culture set, in the first instance to add context to the survey in terms of simply understanding who the respondents were and where they were operating in the industry. These basic questions were then added to at the request of partners in the project to seek insight into types of training being undertaken, and by whom. In some instances, the results identify that preconceived parameters of safety being imposed upon the industry which may not be as useful to the industry's improved safety outcomes as envisaged (for example. Q.39 and 40).

4.8.1 State location of respondents (Q. 58)

Overall, the responses for the survey were received very evenly, despite being largely self-selected (with the exception of the WA case study participants) - either through voluntary on-line participation or making themselves available during port visits in the NSW case study area. As is evident in the overall participation graph below (Fig.8), with the exception of Victoria, which was inordinately low without explanation, all other states were equitable in participation numbers (Fig. 9) The participation rate compared to number of fishers in each state has not been calculated.

Figure 9: Percentage of respondents by State/Territory - Location of Respondent Q.58

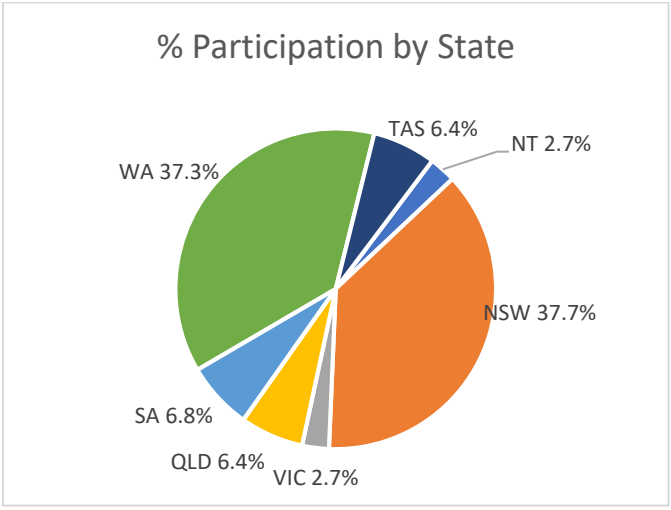
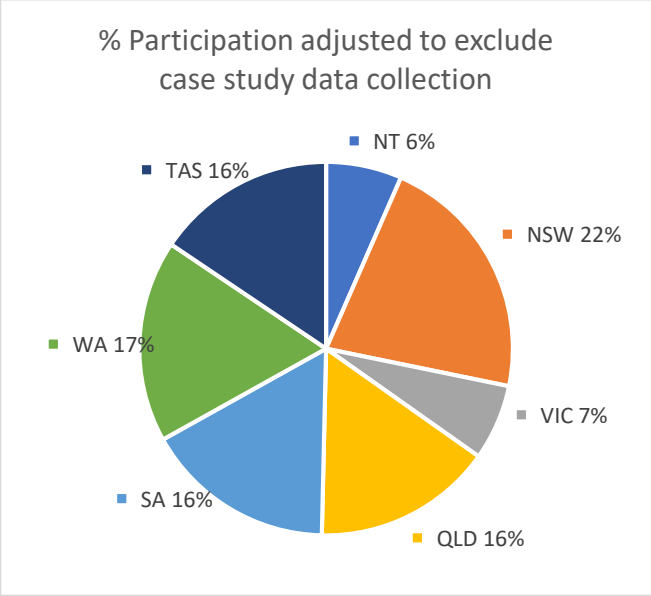


Figure 10: Percentage of respondents with case study respondents excluded (Q. 58).

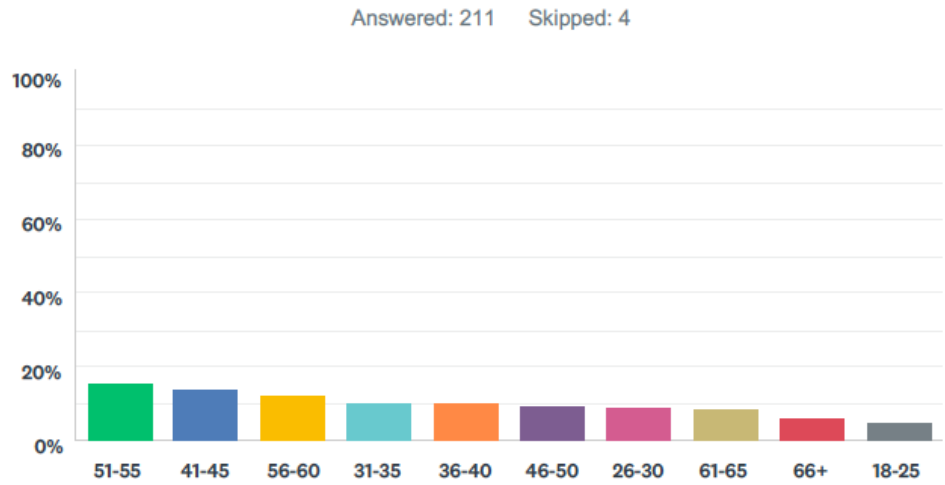


4.8.2 Age of respondents (Q.56):

Of those who answered this question (n=211or 96%), the majority of respondents were 51-55 years of age at their last birthday (15.1%), with the next highest category being those aged 41 - 45 years (13.7%). Overall, 73% of respondents were under the age of 55 years, and of those 34.6% were 40 years of age or under.

While these data could not be deemed statistically representative of the entire industry, the age data does cast a good light on perspectives within the industry regarding work health and safety given the younger than potentially expected, respondent demographic. Nationally and for all industries, the highest work health and safety related fatality rate is amongst those aged 65 and over, at 5.1 per 100,000, compared to those under the age of 55, where the rate drops to 1.4 or less.

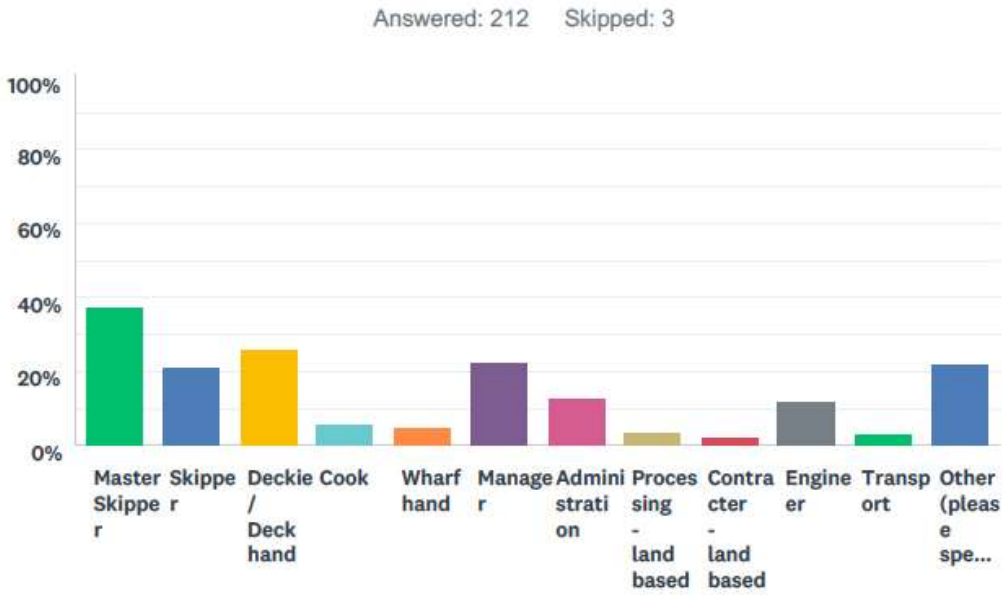
Figure 11: Age at last birthday Q 56



4.8.3 Current role in the Industry (Q.54)

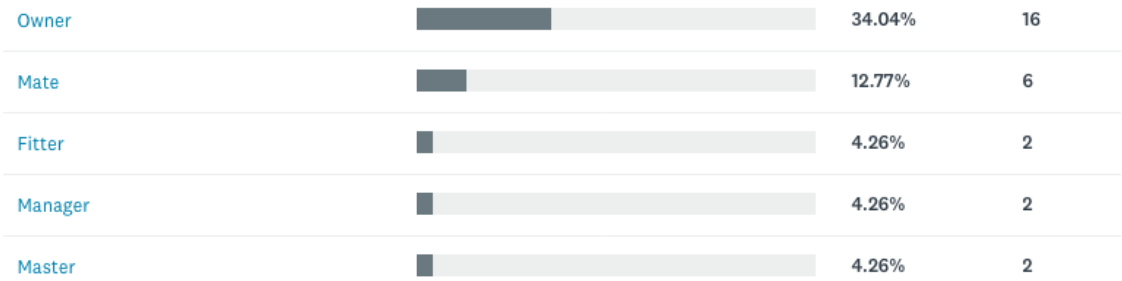
37% of respondents were Master Skippers; 26.5% were deck hands/crew; and 20.6% were skippers.

Figure 12: Current role in industry Q.54



Of the 'Other' category the majority were owners:

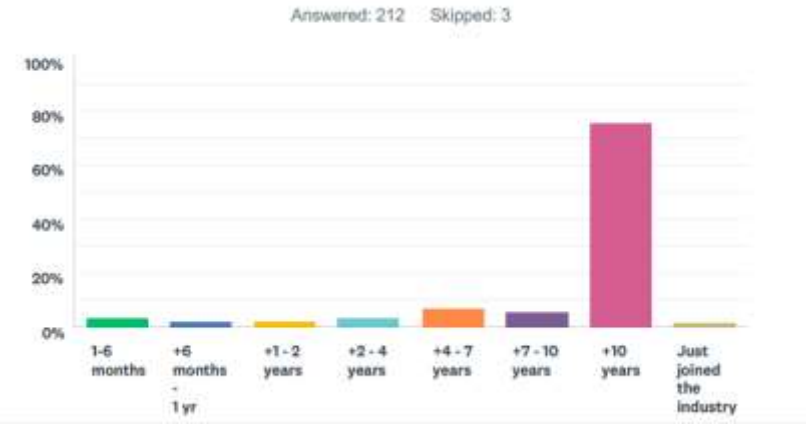
Figure 13: Other' category for current job/role in the fishing industry (Q.54)



4.8.4 Industry Experience Overall (Q.52 & 55)

Years in the industry overall (Q.52): 75.5% +10years (next highest category is 6.85% at +4-7 years), which may not be consecutive, but still represents a significant level of experience in the industry. The reasons for this longevity in the industry, given its dangers is worthy of further investigations in the focus groups, in regard to if it relates to their love for the work, or a lack of confidence to seek work elsewhere, both of which may influence interest and ability to engage with new approaches to work health and safety in the fishing environment.

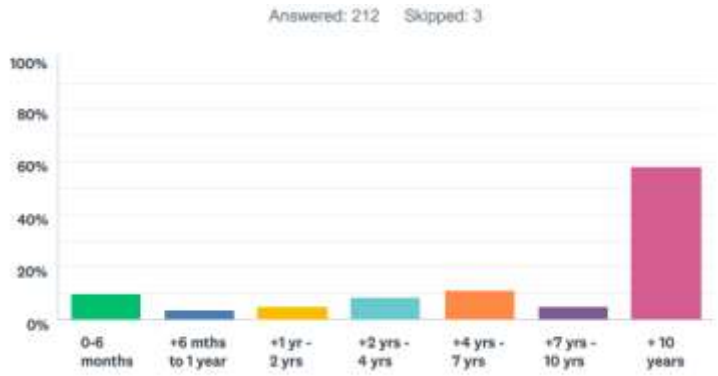
Figure 14: Years of Experience in the industry overall Q.52



Of the 75.5% who have been in the industry for 10 or more years, 58.02% have been 'actively working in [their] current position in the fishing industry' for ten or more years also. By contrast, only 12.73% had been working in their current position for less than a year (Refer Question 55, see Fig.15, following).

It is worth noting that given the organic nature of the fishing industry, working on the same boat may constitute 'current position' in the minds of some respondents, regardless of their role as crew, mate, skipper or owner.

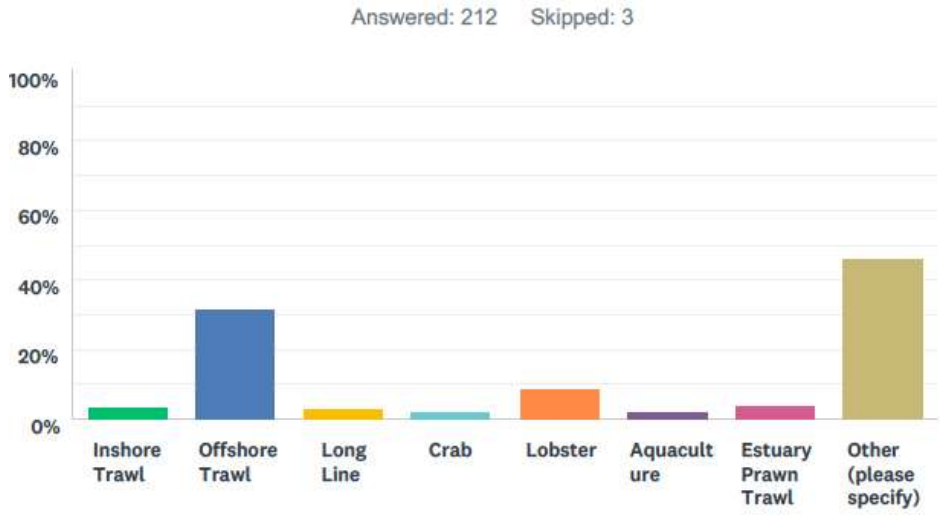
Figure 15: Actively working in current position in the Industry Q. 55



4.8.5 Industry Sector (Q.53)

The single largest sector that the majority of respondents came from was the offshore trawl sector - 30.6%, which was second only to the 'other' category.

Figure 16: Current Industry Sector Q.53



While the majority may be working in the trawl sector, respondents were able to enter multiple sectors in this category. Future surveys may consider if it is more meaningful for respondents to identify only one primary sector that they consider they operate in. However, as some fisher work equal portions of a year in different sectors, identifying only one sector is likely to prove problematic.

In regard to the 45.74% who identified as working in other sectors of the industry, the following word cloud serves to identify that *Inshore Trawl (29%)*, and *Estuary (22%)* significantly represented in those responses, followed closely by *Line* fishing.

Figure 17: 'Other' category for sector currently working in (Q53)

Overall, it is evident that the survey reached a broad cross section of industry sectors.

4.8.6 Fishing Family connections (Q.57)

Just over half of respondents (52.5%) came from a fishing family (immediate or extended). This question was asked to identify linkages to family or other practices, that may affect safety culture. This question is not regarded as highly illuminating in regard to attitudes, perceptions or consequent culture in regard to work health and safety.

4.8.7 Fishing Industry Association Membership (Q.59)

This question was asked to identify if industry associations may be a meaningful vehicle by which to communicate information about work health and safety or engender certain changed behaviours. The question identified that amongst respondents 47.64% were currently a member of a fishing industry association. Face to face interviews surveys also indicated a lack of awareness as to what a fishing industry association was – particularly amongst younger respondents / new entrants to the industry. A further 8.49% identified as, each, either "I'm not but my Skipper/employer is" or "I have been in the past but no longer".

This reinforces the fragmented nature of the industry and the challenges presented in communicating consistently with the industry.

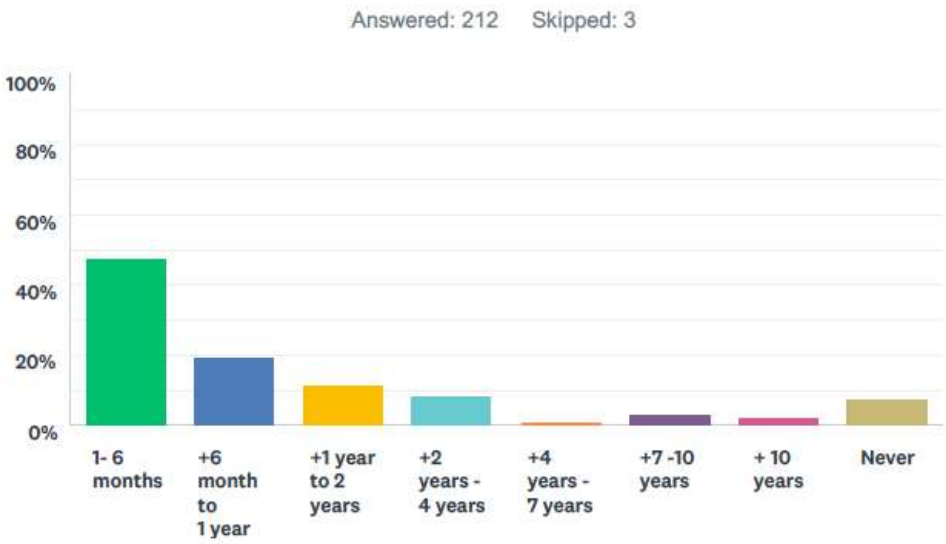
Figure 18: Membership of a Fishing Industry Association Q.59

4.8.8 Training Recency (Q.38) & Type (Q.39):

Of all respondents, 47.64% had undertaken training within the last six months, and the next highest category of recency was more than six months but within the last year (19.34%). The types of training suggested in the question were; man overboard drills, on board fire/general

fire drill, safe equipment handling, first aid course, emergency responses and or safety inductions (See Fig.18). Only 7.55% of respondents had 'never' undertaken any form of training.

Figure 19: Training recency Q.38



Respondents were asked in the following question (via free text) what type of training it was, and the most common responses received included: First Aid (38.5%); Drills (14.4%) and Safety Induction (12.3%). SMS as part of safety training was identified by 2.4% of, or 5, respondents. Items such as 'Discussion' and 'Checks' were mentioned by 3 respondents.

Figure 20: Training Type Undertaken Q.39

These statistics do highlight, however, that the industry is participating in training, however the future surveys may benefit from a closer examination and articulation of the type of training that is of interest and what format it is delivered in, to better identify the benefits of it, for example, what activities are being undertaken to reinforce safer attitudes and/or behaviours.

4.8.9 Who conducted training (Q.40):

In terms of who conducted the training, the most frequent provider was the Skipper (15.4%) with external providers being 11.7% and 'training' & 'company' being a combined total of 9.6%. TAFE and Registered Training Organisation (RTO) were identified each at 3.2%

Figure 21: Who ran or provided the training? (Q.40)

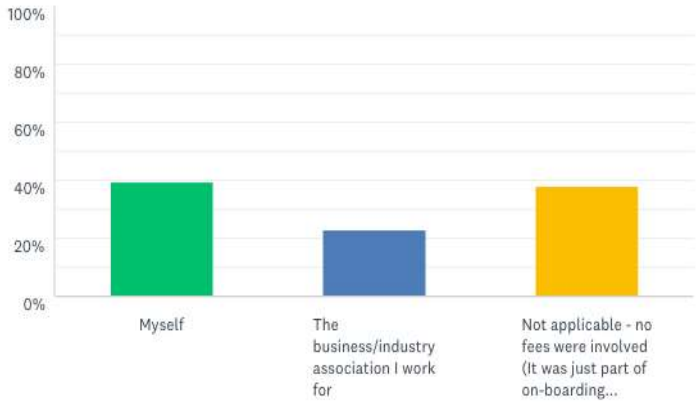
The questions raised from this question are where is the skipper gaining training information from and how are they actually conducting the training, particularly in situations where they are a sole operator, and the focus groups provide the opportunity to explore this.

4.8.10 Payment for training (Q.41)

Respondents were also asked to identify if there was a payment was required for the training, who covered that cost. The results identify that where training is undertaken it is in the majority of cases (39.4%) covered by 'Myself'. This is a strong indicator that respondents are motivated to engage with safety improvements, and are trying the best way they know how to meet the requirements imposed upon them.

Figure 22: If there was a fee for the training, who paid for you to have it? (Q.41)

Answered: 190 Skipped: 25



4.8.11 Operational planning (Q.42)

Of the 211 who responded to this question, 57.3% "A good, or very comprehensive, amount of thought is given to all people and every job of the trip" compared to 10.9% who reported that only the minimum amount of planning to function was undertaken, which could be related to a high level of familiarity with tasks and competency of the crew, rather than a lack of care.

Table 1: Planning for each trip (Q.42)

I DON'T KNOW - I HAVE NOTHING TO DO WITH BOATS	NONE	THE MINIMUM REQUIRED TO FUNCTION	MORE THOUGHT THAN REQUIRED TO FUNCTION, BUT ONLY FOR SOME PEOPLE OF THE TRIP	MORE THOUGHT THAN IS REQUIRED TO FUNCTION, BUT ONLY FOR SOME JOBS OF THE TRIP.	SOME THOUGHT IS GIVEN TO ALL PEOPLE AND EVERY JOB OF THE TRIP.	A GOOD AMOUNT OF THOUGHT IS GIVEN TO ALL PEOPLE AND EVERY JOB OF THE TRIP	A VERY COMPREHENSIVE AMOUNT OF THOUGHT IS GIVEN TO ALL PEOPLE AND EVERY JOB OF THE TRIP.	TOTAL
9.48% 20	0.47% 1	10.90% 23	4.74% 10	3.32% 7	13.74% 29	32.70% 69	24.64% 52	211

4.8.12 Maintenance schedule awareness (Q43& Q.44)

With 81.4% of respondents, of the 97% who answered the question regarding their awareness of a maintenance schedule for their boat, identifying that they did in fact know about their boat's maintenance schedule, it again reinforces that the majority are 'doing their best'. However, it worth noting that respondent's interpretation of what a 'maintenance schedule' is, is very likely to have varied.

However, that when asked when the last activity was undertaken on that schedule, only 78% responded to the question. Of those, 81.50% identified that the last activity from that maintenance schedule was undertaken within the last three months, and only 1.6% of respondents identified that they didn't know.

4.8.13 Vessel safety inductions (Q.45)

Only 83% of respondents answered this question and of those, 79.9% identified that they have had a safety induction for the vessel they are currently working on. (This equates to 66% of the total respondent group)

The fact that more than half are familiar with what an induction is, is a positive sign, however it also indicates significant room for improvement, with special consideration being given to the relevancy of this to sole operators. An induction is – where appropriately tailored – one of the more effective tools that are normally included in an SMS.

4.8.14 Safety equipment awareness (Q.46, 47 & 48)

Of the 184 (or 84%) of respondents who answered this question, 99.5% identified that they did know of safety equipment on board the vessel. Further to this, when asked to identify all safety equipment on board that they knew of and could identify exactly where it was kept, 179 or 81% answered, providing the following responses.

Table 2: Safety Equipment on Board (Q.47)

ANSWER CHOICES		RESPONSES	
Life jackets		99.44%	178
Life boats/Rafts		72.63%	130
Life Buoys /MOB Device		81.01%	145
Grappling Hooks		72.07%	129
Flares		86.59%	155
Radio HF/VHF		88.27%	158
Emergency Distress button/ EPIRB		81.56%	146
Emergency Fuel Shut off		76.54%	137
Fire Extinguishers/ Fire Blankets		94.41%	169
Fire Supression systems (CO2 suppression/ automatic water sprinklers etc)		57.54%	103
Mobile Breathing Apparatus (Respirator/ hooker or other)		30.17%	54
First aid Kit		97.21%	174
Trauma Kit		26.26%	47
Information on best practice for handling dangerous species - bites/stings/ etc.		53.07%	95
Other (please specify)	Responses	21.79%	39
Total Respondents: 179			

In regard to the 'other' category the following items were generated, with 'Lights' being the mostly commonly mentioned item (12.8%) followed by 'Bucket', 'SMS' and 'VSheet' all at (7.7% or 1.7% of the total respondents).

Figure 23: Other category of safety equipment on board (Q.47)

The question, developed by industry, reinforces that the industry has focussed on reactive / menial approaches to improving safety i.e. emphasis on safety equipment, rather than mind set and active hands on training specifically in relation to the actual risk profile of the sector and vessel. For example, the question and responses provide no insight as to whether respondents would choose to actually wear or use any of the items above, or had knowledge of how to use them.

Further to this question 48 did explore if the respondent had awareness as to when the equipment they had identified was last checked and if it was operable. One hundred and seventy-nine responded (all who had responded in the previous question) and of these the majority (73.2%) identified that knew when all of it was last checked and exactly where it was. Of all respondents, 15.1% admitted that they did not know when any of it was last checked.

4.8.15 Perceived causes of incidents or accidents (Q.49)

Incidents are very complex, non-linear events (HaSPA (Health and Safety Professionals Alliance) 2012) While it may appear to be difficult to identify and confirm specific incident or accident causes, in absence of extensive investigations, what the following word clouds do identify is the key elements that are perceived to present the greatest risks in the minds of fishers.

The specifics detailed in the answers when asked for the three key things fishers perceived caused the incidents, the issues/items covered a range from boat roll overs/sinkings; man overboard; combinations of lack of maintenance and concentration; inexperience; engine fires; dangerous species; cut hoses; hitting unlit markers; clothing caught in equipment; to scales and spikes in eyes during cleaning, amongst others.

The key items are highlighted in the following three word clouds, however what is common across all three key causes responses are: Fatigue and Weather, with training being mentioned in only two as a key common element.

Figure 24: Perceived Causes of Accidents (A) (Q.49)

Figure 25: Perceived Causes of Accidents (B) (Q.49)

Figure 26: Perceived Causes of Accidents (C)(Q.49)

4.8.16 Reponses to incidents and accidents (Q.50 & 51)

When respondents were asked if there had been any change in their operating environment or work place since experiencing or hearing of the event they reported on, 56.2% identified that changes had occurred. This was then followed up with a further question to explore why that change had or had not been undertaken (Q.51). It was most often identified where no change had been made, that the issue was not relevant to their operation as they understood the incident. Where changes had been made, these centred around increasing awareness of self or crew of the potential risk, and training for it; increasing maintenance schedules or placing guards on equipment. This response reflects strongly and endorses the response received to question 35 ('The fishing industry learns and adapts from its past mistakes in safety') where 55.1% agreed or strongly agreed with the statement.

5. Weaknesses of the survey:

The survey was designed for a corporatised environment and had to be modified to suit the multifaceted nature of the Australian fishing industry. The fragmented nature of the Australian industry is inconsistent with the corporatised nature of the safety climate component of the survey and the language used. While the majority of questions and the categories have produced very useful insights to the safety culture of the industry, it is highly recommended that the survey be reviewed prior to any future implementation, particularly those around management. Management was too loosely utilised and many respondents did not identify who they perceived 'management' to be in the responses they provided to this section of the survey.

A number of the questions requested by the industry for inclusion in the general context component of the survey (questions 38 - 62) could be improved through refinement of the questions (broken into two parts; increased clarification of terms; fisher familiar language, etc.) based on the responses received.

While attempts were made to pilot the survey through participants of the project, those who did pilot it are more accustomed to bureaucratic terms and phraseology, hence a number of issues were not identified until the survey was underway. A future iteration of the survey would benefit significantly from attempting to engage directly with a number of fishers not engaged with the management of the industry, to undertake the survey and receive their direct and honest feedback on question structure prior to future implementation.

6. Conclusions

At this point in time and the hypothesis to be confirmed, is that the industry is 'doing the best it can' within the environment within which it operates; both natural and constructed in the form of legislations and regulations.

While originally, the project posited that it would as a result of the survey and focus groups identify an alternative method of training communication to improve the safety culture amongst fishers, the findings from this first section of the survey have strongly identified that perceptions of management actions and commitment to safety and their ability to participate in the development of meaningful safety systems and programs by which to operate, both areas of culture that are structurally outside of fishers control. Therefore, it would be inappropriate (particularly given current mental health issues facing the fishing industry) to impose further

requirements upon the industry alone, without meaningfully exploring the structural elements impacting the ability to improve the overall safety culture of the fishing industry.

7. Next steps

While the survey has generated a safety culture profile of the industry, from the sample of respondents, as with all quantitative data, further questions and areas of investigation have been highlighted to be explored, prior to being able to make substantive conclusions. This will be undertaken through focus groups to be conducted with fishers in the two case study regions, exploring both their specific issues, and also the national positions generated by the survey, to delve into the 'why' these responses have been recorded.

The results of the focus group will further contextualise the survey results, and the hypothesis generated in the conclusion above.

8. REFERENCES

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WHAT'S STOPPING YOU FROM KEEPING YOU AND YOUR MATES SAFE?

Thank you for taking the time to participate in this survey: your input is essential!

How does this project affect me? This project is designed to find out about the attitudes, perceptions and behaviours around fishing safety that affect us. The data collected will be collated and used to help make your work environment safer, for both you and your mates.

Should I be completing this survey? We want anyone who works in the fishing industry - on or off boats; whether you work on your own or as part of a large organisation - to fill out this survey. We want as many people as possible in all parts of the industry, to get involved and undertake the survey. If you want to tell us about a particular issue or experience, please use the comments box at the end of the survey.

How's my information going to be used? After everyone has completed the survey, we will be pulling all the data together, so individual responses are not able to be identified. At no time will your information be used to identify you as an individual. From this information, we are aiming to develop a trial of better ways to ensure a safer work environment in the fishing industry.

How do I find out about the results? If you would like to receive information on the results of the survey and/or participate in any follow up survey(s), please include your contact details at the end of this survey (which is on a separate sheet).

WE ASSURE YOU OF THE CONFIDENTIALITY OF THE INFORMATION YOU PROVIDE!

The survey mostly asks for your ***instinctive response*** to a statement - don't overthink it. **The whole thing should take you about 20 - 25 minutes**.

We really do appreciate that your time is precious, but so is your life and that of your mates! It's only with your help, that we can try and find better ways to keep everyone safe. We do hope you'll help us.

This project is funded directly by the Fisheries Research and Development Corporation (FRDC) and the Commonwealth of Australia as part of FRDC Project 2017-046. It is also supported with in-kind support from the Australian Maritime Safety Authority.

If you have any questions or concerns regarding this survey please contact the Principal Investigator - Dr Kate Brooks - on email: kate@kalanalysis.com.au or Skye Barrett at the FRDC on (02) 6285 0400, quoting project 2017/46

1. Do you agree to the above Consent Information?

YES ☐

If you do not consent, please pass this survey back to the person who gave it to you. We would be sorry not to have your input but completely respect your decision.

Thank you for taking part in this survey, we appreciate your time and effort. If you need assistance or have any questions, yell out and we'll help clarify things for you. This survey has six parts and will take 20-30 minutes to complete. Part 1 asks you about your perceptions of how management / your industry association deals with safety. Part 2 asks about your perceptions of how supervision in your workplace deals with safety issues. Part 3 asks about your perceptions of how your co-workers think, feel and act about safety. Part 4 is focussed on your perceptions of how much you think you and others in your industry can get involved and improve safety. Part 5 is focussed on exploring how well equipped you think you and others in the industry are to undertake work safely. Lastly, Part 6 is seeking some information about your particular experiences and situation, but will not be connected to you individually.

Part 1: Management

2. Who do you think of as the organisation, business, association or 'body' responsible for managing and promoting safety in the area of your work in the fishing industry?

_____

_____

The following questions relate to the fishery you work in. Where we use the term 'management' it refers to either the management of the business you are working for, or the skipper/boat owner you are working for. If you fish or gain your income from your own or leased quota or endorsements, you should answer these questions thinking about the body you identified in the previous question that helps manage the fishery/ies you operate in.

What is your instinctive first response to the following questions on the scale of strongly Disagree to Strongly Agree?	**Strongly Disagree** ①	②	③	④	⑤	⑥	**Strongly Agree** ⑦
3. Management/my industry association related to my work, visibly demonstrates support (walks the talk) for safety.	□	□	□	□	□	□	□
4. Management/my industry association provides adequate training and education for safety.	□	□	□	□	□	□	□
5. Management/my industry association is **not willing** to spend the money needed to improve safety.	□	□	□	□	□	□	□
6. Management/my industry association believe work place safety and health are very important.	□	□	□	□	□	□	□
7. Management/my industry association encourages everyone involved with our work to report all safety related incidents.	□	□	□	□	□	□	□
8. Management/my industry association is concerned about my health and safety generally, even when I'm away from work.	□	□	□	□	□	□	□
9. Management/my industry association demonstrates leadership by keeping people focused on safety.	□	□	□	□	□	□	□
10. Members of management/my industry association often informally discuss safety issues with those at work at all	□	□	□	□	□	□	□

levels - skippers, deckies, administrative staff, transport workers, managers etc.							
11. Members of management/my industry association have/has a clearly defined set of core values, that clearly include safety.	□	□	□	□	□	□	□
12. Management/my industry association makes effective use of incentive-based rewards relating to safety performance.	□	□	□	□	□	□	□
13. The management/my industry association effectively utilises formal recognition for people in the industry demonstrating safe work practices.	□	□	□	□	□	□	□

Part 2: Supervision

The following questions are asking about the supervision of your work (i.e. by your skipper - or generally, by the variety of skippers you work for - or by your direct supervisor if you do not work on a boat). If you are a skipper or work on your own, these questions refer to those who observe what you do (such as other skippers in your fishery).

What is your instinctive first response to the following questions on the scale of Strongly Disagree to Strongly Agree?	**Strongly Disagree** ①	②	③	④	⑤	⑥	**Strongly Agree** ⑦
14. My direct supervisor/skipper(s)/fellow skippers sometimes **encourage unsafe** practices.	□	□	□	□	□	□	□
15. My direct supervisor/skipper(s)/fellow skippers sometimes **overlook unsafe** practices.	□	□	□	□	□	□	□
16. My direct supervisor/skipper(s)/fellow skippers value my ideas about improving safety and health.	□	□	□	□	□	□	□
17. My direct supervisor/skipper(s)/fellow skippers **do not** demonstrate a personal interest in safe operations.	□	□	□	□	□	□	□
18. My direct supervisor/skipper(s)/fellow skippers believe safety is very important.	□	□	□	□	□	□	□

Part 3: Co-workers

The following questions explore your perceptions of how those who works with and around you, think and act about safety.

What is your instinctive first response to the following questions on the scale of Strongly Disagree to Strongly Agree?	**Strongly Disagree** ①	②	③	④	⑤	⑥	**Strongly Agree** ⑦
19. When others take risks, most fishers/people at work make them aware of the risk they are taking.	□	□	□	□	□	□	□
20. My co-workers often encourage me to **disregard** safety rules.	□	□	□	□	□	□	□
21. My co-workers **do not like** to be cautioned about safety	□	□	□	□	□	□	□
22. My co-workers regularly compliment each other for working safely.	□	□	□	□	□	□	□

23. Most of my co-workers actively support my/our safety program.	□	□	□	□	□	□	□
24. Most of my co-workers are willing to mentor each other about safety.	□	□	□	□	□	□	□

Part 4: Participation

The following questions are asking about how much you think fishers and others in the industry that you work with, are able to get involved and improve safety issues.

What is your instinctive first response to the following questions on the scale of Strongly Disagree to Strongly Agree?	**Strongly Disagree** ①	②	③	④	⑤	⑥	**Strongly Agree** ⑦
25. People in the industry are actively involved and participate in safety programs.	□	□	□	□	□	□	□
26. People in the industry feel it is important to recognise and report near miss incidents/accidents.	□	□	□	□	□	□	□
27. People in the industry make a lot of suggestions to improve safety.	□	□	□	□	□	□	□
28. People in the industry do a good job of taking responsibility for their own safety.	□	□	□	□	□	□	□
29. People in the industry have a substantial impact on the design of safety programs that are used in their work environment.	□	□	□	□	□	□	□
30. People in the industry have an opportunity to regularly attend and participate in safety meetings.	□	□	□	□	□	□	□
31. People in the industry have very little control over safety in the workplace.	□	□	□	□	□	□	□

Part 5: Competence

The following questions are asking what you think about levels of safety training, learning, and the ability of you and people in the fishing industry to undertake work safely.

What is your instinctive first response to the following questions on the scale of Strongly Disagree to Strongly Agree?	**Strongly Disagree** ①	②	③	④	⑤	⑥	**Strongly Agree** ⑦
32. I know how to perform my job in a safe manner.	□	□	□	□	□	□	□
33. People in the industry are skilled at working safely as they are skilled in their jobs.	□	□	□	□	□	□	□
34. People in the industry rarely receive adequate training to perform their jobs safely.	□	□	□	□	□	□	□
35. The fishing industry learns and adapts from its past mistakes in safety.	□	□	□	□	□	□	□
36. People in the industry receive sufficient training to perform their jobs safely.	□	□	□	□	□	□	□
37. Most people in the industry are highly qualified to perform their jobs safely.	□	□	□	□	□	□	□

Part 6: About your experience

The following questions relate to your personal situation and experiences.

38. When did you *last* undertake safety training (such as man overboard drills/on board fire/general fire drill/ safe equipment handling/ first aid course/ emergency responses/safety induction etc.)?	☐ 1 - 6 months ☐ +6 months to 1 year ☐ +1 years - 2 years ☐ + 2 years - 4 years	☐ +4 years - 7 years ☐ +7 years - 10 years ☐ + 10 years ☐ Never (go to Q. 42)

39. What type of training was it?

_____

40. Who ran or provided the training?

_____

(E.g. Internal/ external provider or name of company if you can remember it?)

41. If there was a fee for the training, who paid for you to have it?

☐ Myself

☐ The business/industry association I work for/with

☐ Not Applicable - no fees were involved (it was just part of on-boarding activities or my regular workplace drills)

☐ Other (Please specify)

_____

42. How much planning goes into the responsibilities for each crew member on a trip, that all the crew is then told clearly about, so they are all aware of what each are supposed to be doing? (Thinking about the different skills and experience levels of people on the boat.)	☐ I don't know - I have nothing to do with boats (Go to Q. 49) ☐ None ☐ The minimum required to function ☐ More thought than is required to function, but only for some people of the trip. ☐ More thought than is required to function, but only for some jobs of the trip. ☐ Some thought is given to all people and every job of the trip. ☐ A good amount of thought is given to all people and every job of the trip. ☐ A very comprehensive amount of thought is given to all people and every job of the trip.

43. On the boat you work on most often, do you know if it maintained according to a regular maintenance schedule?

☐ Yes

☐ No

☐ Not Applicable to me as I don't work on a boat. (Go to Q.49)		
44. When was an activity last undertaken from that maintenance schedule?	☐ 0-3 months ☐ +3 to 6 months ☐ +6 months - 1 year ☐ + 1 year - 2 years	☐ +2 years - 4 years ☐ +4 years - 7 years ☐ +7 - 10 years ☐ +10 years
45. Have you had a safety induction for the vessel you are currently working on? ☐ Yes ☐ No ☐ Not Applicable, as I don't work on a boat. (Go to Q.49)		
46. Do you know of any safety equipment on board the fishing vessel your work on? ☐ Yes ☐ No ☐ Not Applicable to me as I don't work on a boat. (Go to Q.49)		
47. Please identify all safety equipment on board your vessel that you know of, **AND** are able to say where, exactly, it is kept. (Please tick all that apply.)	☐ Life Jackets ☐ Life Boat/Rafts ☐ Life Buoys/MOB Device ☐ Grappling Hooks ☐ Flares ☐ Radio HF/VHF ☐ Emergency Distress Beacon / EPIRB ☐ Emergency Fuel Shut off ☐ Fire Extinguishers/ Fire blankets	☐ Fire Suppression System (extinguishers/fire blankets/etc.) ☐ Mobile Breathing Apparatus (respirator/ hooker or other) ☐ First Aid Kit ☐ Trauma Kit ☐ Information on best practice for handing dangerous species - bites/stings/etc. ☐ Other (Please Specify) _____ _____

48. Do you know when this equipment was last checked (for both location and that it is operable)?

☐ Yes, I know exactly when all of it was last checked

☐ I know when some of it was last checked.

☐ No, I don't know when any of it was last checked.

☐ Not Applicable to me as I don't work on a boat. (Go to Q.49)

49. Thinking of the last accident, incident, or near miss that you are aware of, can you identify the three key things that you know of, or think, probably caused it?

Cause/Issue 1:
_____

Cause/Issue 2:
_____

Cause/Issue 3:
_____

50. Has anything changed in your operating environment/work place since hearing of this event?

☐ Yes

☐ No

☐ Not Applicable to me as I don't work on/or with, a boat. (Go to Q.52)

51. Why or why hasn't this caused any change in your work place that you are aware of? (E.g.; Ease/ expense/ previous near miss/ type of operating environment/family or friend pressure etc.)

_____

_____

_____

52. How long have you been working in the fishing industry <u>overall</u>?	☐ 1-6 months ☐ +6 months - 1 year ☐ + 1 year - 2 years ☐ +2 years - 4 years	☐ +4 years - 7 years ☐ +7 - 10 years ☐ +10 years ☐ Just joined the industry
53. Which fishing sector(s) do you currently work in?	☐ Inshore Trawl ☐ Offshore Trawl ☐ Long line ☐ Crab ☐ Lobster	☐ Aquaculture ☐ Estuary Prawn Trawl ☐ Mobile Breathing Apparatus ☐ Other (Please specify.) _____ _____

54. What's your current job/role in the fishing industry (type of work you do now)?	☐ Master Skipper ☐ Skipper ☐ Deckie/Deck Hand ☐ Cook ☐ Wharf Hand ☐ Engineer	☐ Manager ☐ Administration ☐ Processing - land based ☐ Contractor - land based ☐ Other (Please Specify) _____ ____
55. How long have you been working in your <u>current</u> position in the fishing industry?	☐ 0-6 months ☐ +6 months - 1 year ☐ + 1 year - 2 years ☐ +2 years - 4 years	☐ +4 years - 7 years ☐ +7 - 10 years ☐ +10 years
56. How old are you (on your last birthday)?	☐ 18- 25 ☐ 26- 30 ☐ 31- 35 ☐ 36- 40 ☐ 41 - 45	☐ 46 - 50 ☐ 51 - 55 ☐ 56 - 60 ☐ 61 - 65 ☐ +66 years
57. Do you come from a fishing family (immediate or extended)? ☐ Yes ☐ No		

58. What's the postcode of the port/area you most frequently fish or work out of? ____ ____ ____ ____ (4 digits)

59. Do you belong to a fishing industry association?

☐ Yes, I am currently a member.

☐ I'm not, but my Skipper/employer is.

☐ I have been in the past, but no longer.

☐ No, never. (Go to end.)

60. Which fishing industry association(s) do/did you/your skipper/employer belong to?

Association 1:
_____

Association 2:
_____

Association 3:
_____

Thank you!!

Thank you for participating in this survey. If you would like to receive a copy of the findings of all surveys put together and any follow up communications, please provide your contact details below. Please note, that **ALL information** provided here is **completely confidential** and will not be identified with any individual without specific permission.

If you have any concerns in regard to this survey or the research overall, please do not hesitate to contact Dr Kate Brooks (Principal Investigator) or the FRDC per the details as follows:

Dr Kate Brooks: Email - kate@kalanalysis.com.au

OR

Dr Emily Ogier, FRDC HDR Program Manager: Email - Emily.Ogier@utas.edu.au

Ms Skye Barrett, FRDC Projects Manager: Email - skye.barrett@frdc.com.au quoting FRDC Project 2017/046

✂

Providing your details is entirely voluntary and NOT A REQUIREMENT if you do not wish to. Any contact information you provide will be separated, and kept separate, from your responses:

NAME: _____

EMAIL: _____

PH: (If no email address): (_____) _____

If you have additional comments or thoughts, please write them below.