

North Pacific Fishery Management Council Social Science Planning Team
Minutes from Annual Meeting
May 8th and 9th, 2018

Meeting agenda and reference documents:

http://legistar2.granicus.com/npfmc/meetings/2018/5/981_A_Social_Science_Planning_Team_18-05-08_Meeting_Agenda.pdf

Members present: Sally Bibb, Sam Cunningham, Mike Downs, Mike Fey, Elizabeth Figus, Steve Kasperski (chair), Seth Macinko, Sarah Marrinan (staff coordinator), and Marysia Szymkowiak

Members absent: Matt Reimer

Also present: Jim Fall, Brian Davis, Jackie Keating, Julie Raymond-Yakoubian, Brenden Raymond-Yakoubian, Ernie Weiss, Scott Miller, Courtney Carothers, Rachel Donkersloot, Brian Garber-Yonts, Jon McCracken, Diana Evans, Jim Armstrong; On the telephone: Sarah Wise, Megan Peterson

The North Pacific Fishery Management Council (Council)'s newly formed Social Science Planning Team (SSPT) hosted its inaugural meeting on May 8th and 9th at the Hilton in Anchorage, Alaska. The following minutes summarize the discussions and highlight key areas of interest voiced by members of the group. This group did not take formal votes on specific recommendations; this document is meant to serve as the primary medium for communicating the discussions, individual member recommendations and points made throughout the meeting. This report is organized similarly to the meeting agenda outline, but with slightly different groupings according to topics that merged together in discussion.

1. Introductions, mission, discussion of communication flow

Steve Kasperski (AFSC) welcomed the group, introduced the agenda, and reiterated the mission of the newly formed group, which is as follows:

The Social Science Planning Team (SSPT) is established to improve the quality and application of social science data that informs management decision-making and program evaluation. The SSPT is constituted of representatives who will strategize medium- and long-term improvements in data collection and analytical methodology, allowing the NPFMC to better meet its own program objectives as well as LAPP review requirements defined in the Magnuson-Stevens Act and recommended in NMFS guidelines. The SSPT will identify data needs, make recommendations regarding research priorities, and advise analysts in efforts to improve analytical frameworks when possible. The SSPT will support the collection and aggregation of social science data in a manner that cuts across Fishery Management Plans and specific management programs within the North Pacific region.

Steve stated our goals for the meeting were to (1) provide a common understanding of institutions and data gaps, (2) address gaps, and (3) chart a path forward for next steps and next meeting.

Based on previous discussion and SSPT member input, Steve provided an overview of the tasking and communication flow for the SSPT with the Council and other associated bodies. The SSPT will set its own agenda with approval from the Council's Executive Director and Chair. The SSPT sees formal tasking only coming through the Council, perhaps during staff tasking. Other topics for the SSPT agenda

can be informally generated through suggestions from SSPT members, the Council's Scientific and Statistical Committee (SSC), Advisory Panel (AP), other Council Committees and Plan teams, or public testimony. These informal suggestions would be communicated to the SSPT chair and Council staff coordinator. Each year, likely in November, the SSPT expects to have a teleconference discussing the agenda and logistics for the annual in-person meeting. At that point, members could weigh in on agenda topics. Ultimately the SSPT chair and staff coordinator (with the approval of the Council ED and Chair) will set the agenda based on interest expressed, available expertise, and available meeting time. Recommended agenda items will also be considered with regards to the SSPT's core purpose. For instance, the group is intended to focus on medium and long-term improvements in data collection and analytical methodology, rather than as review body for specific Council actions.

In addition to hosting publicly available meetings, the SSPT's primary communication tool, at least at this point, is this report which will be presented to the SSC, AP and Council with an opportunity for public feedback.

2. Provide comments on AFSC funding proposals

Steve Kasperski spoke to the timing and process in which Alaska Fisheries Science Center (AFSC) research proposals respond to the NMFS Office of Science and Technology (S/T) and NMFS Office of Sustainable Fisheries (S/F) requests for proposals (RFP). The proposals put forward for the upcoming RFP (FY18) are due by the end of June to be considered for funding the spring of 2019 (FY19). This work is intended to address RFPs, which are written for current and future management needs, as well as AFSC staff's interests, and the state of literature and potential for scientific achievement. AFSC has requested input from the SSPT on the scope and methods of their proposals, as well as their relevance to management needs.

There was discussion about whether this was an appropriate task for the SSPT. The group is essentially providing a review service to the researchers who may be able to take this feedback to bolster their proposal; the SSPT noted that this might come at the expense of other proposals. However, perhaps providing this service speaks to the SSPT's mission of "improv[ing] the quality and application of social science data that informs management decision-making". If that is the case, perhaps the SSPT should provide this service more broadly. The SSPT—with Council oversight—should carefully consider what precedent it intends to set.

The point was made that reviewing these proposals might be a different task than reviewing other unfunded proposals as the review of AFSC economic and social science research proposals is a task already requested of the NMFS AK regional staff and sometimes the Council staff. In the past this process has not been conducive to quality review from these bodies primarily due to timing. Having a better review process could allow for work to align better with fisheries management needs identified through the Council process. Additionally, these proposals are in response to an internal NMFS funding mechanism that is not competitive with outside researchers.

The group decided it was appropriate to proceed at this time; however, this type of task should have further consideration under future agendas in order to determine what type of precedent should be set in the role of critiquing other types of unfunded research proposals. Feedback on the specific proposals was provided to the AFSC to convey to the authors.

3. ADF&G Division of Subsistence presentation and discussion on subsistence data

Jim Fall (ADF&G's Division of Subsistence) provided an overview of context, research methods and results of work done in his division as well as work done in estimating subsistence halibut harvest in Alaska. The Division's goal is to provide a holistic understanding of a mixed economy and way of life. This work is intended to provide community baseline studies (often in-depth work in a specific area), incorporate local and traditional knowledge, and conduct multi-year harvest monitoring, all generally using multi-method (qualitative and quantitative) approaches. Most projects they participate in are partnerships. Almost all data collections and projects are funded through special project funds and are connected to specific issues, such as pipeline development, Pebble Mine, or disasters like the Exxon Valdez oil spill. This means the research is often ad hoc and often will provide only a snapshot for a given time period. However, this also means when resources are available to collect information, the information collected is thorough and fine-grained. Despite temporal limitations, such data could be utilized in the Council process when subsistence harvest impacts are a consideration of an analysis and analysts want to provide information about general utilization of subsistence resources in an area.

The Division of Subsistence is staff to both the Board of Fish and the Board of Game. This division monitors more than just fish; their work has collected information on all types of subsistence use (e.g., migratory birds, land mammals, and wild plants in addition to salmon and other fish). Data limitations include uneven temporal coverage, uneven areal coverage, uneven participation in permit systems and/or surveys, potential recall bias, potential strategic bias, and incomplete documentation of sources of salmon (e.g., rod and reel, home pack).

Jim provided a second presentation on estimation of subsistence halibut harvests. Subsistence users of halibut are required to hold a subsistence halibut registration certificate (SHARC). SHARC-holding households have been surveyed every year from 2003 through 2016, with some exceptions (2013 and 2015). These surveys have generated between a 58% to 71% response rate of SHARC holders. They asked users about number and weight of fish harvested on both hook-and-line and skate gear. These surveys allow ADF&G to produce estimates of overall subsistence use. The overall number of SHARC holders have been declining since 2007 and there is some concern about the non-renewal of these cards. There is an understanding that some people are harvesting halibut without a SHARC card, therefore they try to follow-up with interviews in these regions.

Jim fielded many questions from SSPT members on specific data collections and findings. One SSPT member wondered how old is too old for subsistence data to be useful. This may depend on the region, topic and purpose. The last comprehensive survey for Kodiak was done in 1993; this may not be worth using in a characterization of current subsistence use in Kodiak. Depending on where the information is from, and if the community has experienced big changes, data from the early 2000s may still have relevance. It was mentioned that NMFS has not established best practices on when data may be out of date. Public comments can help to identify whether significant changes in the community have rendered subsistence information outdated in providing an understanding current practice.

In addition, there was discussion about how perhaps nothing can substitute for hearing the subsistence and cultural value straight from the affected users. Analysts may try to characterize that value but there seems to be a limit between what an analyst does to describe value versus people telling it directly to decision-making bodies; for instance, when attempting to characterize the value of subsistence use of salmon relative to uses of salmon. While a researcher may not be able to convey that same passion and experience that these users can offer, this work can offer the benefit of providing context for what is stated with quantitative information from surveys.

4. Incorporating qualitative information, moving towards co-production of knowledge, and expanding stakeholder engagement

The group discussed the differences between systematically gathered qualitative information and anecdotal accounts, and the current roles of these types of information in the fisheries management process. The point was made that Council staff often seeks to groundtruth information that is not available through typical data sources by listening to public testimony and communicating with different user groups. In order to better understand the status quo of a fishery, or to better predict the impacts of an action, staff will often attempt to contact participants they feel may have differing perspectives in order to triangulate an understanding of the proposed action. Council analysts have been comfortable pursuing and incorporating qualitative information in the form of anecdotal accounts from key, highly-engaged fishery participants and industry representatives to provide greater context to analyses and the Council has seemed comfortable accepting this type of information in order to provide greater context for decision-making.

The discussion continued about how the use of the qualitative information might be broadened in a way that would be accepted in the Council process. A member commented that understanding the different types of qualitative information and methods, and how they have been/ could be incorporated into the process may be useful. The difference between this kind of anecdotal information and systematically gathered qualitative information is that the latter is informed by a documented and reproducible methodology that is intended to limit the introduction of biases in both how the information is acquired and how it is analyzed. The methodology of gathering data, the context of the information sharing, and the analytical approach to synthesizing qualitative information marks differences in the type of information amassed. Possibly having a “best practices” document on these different methods could make this type of work accessible and more accepted within the process. It was noted that the Council might never receive qualitative information the same way it receives quantitative information. If there are political reasons to support or dismiss certain research, it might be received differently. Moreover, even if we had a repository of qualitative information, it is not always going to be as accessible and topic-relevant as data that one can access through AKFIN. The SSPT’s role might be in supporting the value of both qualitative and quantitative data.

Diana Evans (NPFMC) and Elizabeth Figus (NPFMC) presented the SSPT information about the Bering Sea Fishery Ecosystem Plan (FEP) development. The FEP team is producing a core document in addition to “Action Modules”. They explained that the first draft of the FEP was expected in October 2018, at which point they would kick off the work on the action module. One of the FEP action modules is designed to incorporate Local and Traditional Knowledge (LTK) and coproduction of knowledge more systematically into the management process. FEP representatives sought SSPT feedback on the definition of LTK and coproduction of knowledge used in the Bering Sea FEP. In addition, FEP team representatives asked if the SSPT saw a role for itself in the development of the LTK action module; perhaps there could be overlapping team members.

In a separate but related action, Diana mentioned that effort was also underway by the Council to consider ways to improve community engagement. She explained that the direction these efforts take will be a policy decision by the Council.

What is the role of the SSPT in relation to the LTK Action Module? FEP team representatives asked if members would be involved on this team. Elizabeth Figus is currently a member of both FEP and SSPT teams and Sarah Wise (AFSC, not a member of SSPT but participating over the phone) offered to be involved as well. The SSPT may also serve in a consultation role to the team in these efforts. However,

the fact that the SSPT meets in person only once a year will limit its ability to provide timely input to analyses and initiatives with deadlines prior to the next SSPT meeting.

What does the SSPT think about independently presenting LK, TK, and Co-Production of Knowledge in the Bering Sea FEP (instead of lumping it into ‘LTK’)? The SSPT members were presented with a flyer describing abbreviated definitions:

***Local Knowledge** is based on personal and shared experiences. LK is place-based, so bearers of LK are often connected to a specific geographic location.*

***Traditional Knowledge** is a living body of knowledge acquired and utilized by indigenous communities and individuals through multi-generational socio-cultural, spiritual, and environmental engagement.*

***Co-Production of Knowledge** is a method for collaboration between knowledge-holders from different systems, and it is a process for sharing information, values, and ideas.*

SSPT members discussed how different definitions of LK, TK and Co-Production of Knowledge exist. Generally, literature will cite the definition it is using at the start of an article. NOAA has certain definitions of ethnoecological research terms that it often relies on; however, one SSPT member noted that the groups may want to ensure these definitions are co-produced. Who contributed to these definitions? Does this represent the understanding for the whole region? Do we need to reach out to more indigenous groups?

FEP representatives explained that they used a shortened version of Kawerak’s definition for Traditional Knowledge.¹ Kawerak’s definition represents many years of working with the 20 tribes represented in its region.

One SSPT member commented that these definitions may make sense for the FEP in the Bering Sea; however, these definitions for the Bering Sea FEP are not meant to be imposed on other regions of Alaska. The application of these definitions in other contexts should be qualified to indicate who created these definitions. A better approach (although one that may not be feasible given time and budgetary constraints) is one through which these definitions are co-created with the bearers of knowledge that are specific to the action item at hand. It was discussed that perhaps the Council’s efforts in community engagement could gather and consider definitions of Traditional Knowledge from other regions. However, in order for the core FEP to move forward, which is currently slated for October 2018, there must be a consensus in terminology. The SSPT did not make any specific recommendations endorsing the definitions above or identifying anything specifically problematic about the definitions, other than the general observations noted in these minutes. It was noted that if these terms move forward specific to the Bering Sea, similar to the literature, there should always be context for how this terminology was developed.

5. Public testimony

Public testimony was received by Julie Raymond-Yakoubian of Kawerak.

6. Use of existing data sources in policy analysis

Mike Fey (AKFIN) presented on the types of data most commonly used in the Council process. In general, Council staff rely on (1) NMFS AK Region comprehensive data, (2) CFEC fish tickets,

¹ <http://kawerak.org/wp-content/uploads/2018/04/Kawerak-TK-def.pdf>

(3) ADF&G Commercial Operator's Annual Report (COAR) data and (4) North Pacific (NORPAC) Observer data. Mike estimated that about 50% of the data used is from the AK Region comprehensive data, which includes observer data and can be enhanced with other variables from CFEC and ADF&G data. Many of the data runs used for analyses are routine. The comprehensive datasets were developed 10 years ago and have only had a few tweaks since. Beyond these sources there are a few other sources they will use for ad hoc data requests.

Mike Fey spoke to some of the data issues he has encountered. AKFIN receives ADF&G fish ticket information once a year, compared to the other datasources that are a weekly feed. In addition, it is not the full range of information reported on fish tickets. Certain fields like size grading of fish (particularly sablefish) are missing from what they receive. They could put in a special request to get size grades for different species. A second issue that was raised is that they do not have a good grasp on wholesale prices. Fish tickets only report an ex-vessel value, so production is often understood through ex-vessel value. The ADF&G COAR data provides wholesale prices, but not at a scale that typically allows disaggregation by gear type or sub-area of a specific region.

The group had a discussion about the ability for the data to demonstrate business affiliations. This can be particularly important for the Regulatory Flexibility Act (RFA) in assessing any disproportionate adverse impacts to "small entities" as defined by certain RFA thresholds. Currently we only have old flags for a few particular affiliations, so rather than including these few spotty connection, affiliations (beyond cooperatives) are usually not accounted for. Not accounting for all of the affiliations between business partners means routinely analyses over-estimate the number of small entities. NMFS Restricted Access Management (RAM) receives documentation for corporate affiliations in order to enforce the use caps in certain fisheries (e.g. AFA, crab, IFQ); however, these connections can be convoluted and are not in a form easily accessible for RFA. Brian Garber-Yonts has done some work using these corporate affiliations to "decompose" the ownership affiliations for crab quota share holding entities and will utilize this information in future iterations of the Crab Economic SAFE report. Extending that type of effort to the groundfish fisheries would be a substantial undertaking and would not be likely to yield results that are both perfectly accurate and likely to remain so as business arrangements evolve over time.

Council staff also use EDR data for analysis; however, it was noted that this is a data source that could be capitalized on more. Sally Bibb (NMFS AKRO SF) described recent industry requests for the Council to review or repeal requirements for the collection of Economic Data Reports (EDRs). NMFS offered to prepare for the Council a discussion paper (in collaboration with Council staff) about the costs and benefits of these data collections. The Council tasked preparation of this discussion paper at its April 2018 meeting. The discussion paper will describe the EDR requirements for all programs, explain how the data are used, and provide estimates of the costs of complying with the EDR requirements. The information presented to the SSPT by Brian Garber-Yonts (AFSC) described in the next section will be a major component of this discussion paper. Mike Downs (Northern Economics/SSC) noted that when he seeks information from industry in support of social impact assessments, he also gets comments suggesting that some of the information he is seeking should already be derivable from the data they report in their EDRs and/or that it not apparent how at least some of information that they already provide through what they consider a burdensome EDR process is being used in a meaningful way. He suggested this paper will be a helpful resource for him to use when engaging with industry members who are required to fill out these forms.

Brian Garber-Yonts (AFSC) presented on the economic data collection of fisheries in the North Pacific. His presentation provided a description of the impetus for and evolution of the EDRs. Brian noted that there have been other Council committees in the past tasked to evaluate (and re-evaluate) data

needs (e.g. Interagency Data Collection Working Group, Alaska Cost, Earnings and Employment Survey, NPFMC Social and Economic Data Collection, Crab EDR advisory committee, Comprehensive Data Committee). Brian mentioned that it might be worthwhile for the SSPT to find minutes from those committees to see what they focused on (some were project-specific), what they produced, and what, if anything, inhibited more successful completion of their work.

Brian described the information collected from EDRs. Currently, the North Pacific has four management programs/fisheries with mandatory EDRs:

- 1) the BSAI non-AFA trawl/ Amendment 80 EDR (initiated 2008),
- 2) Crab Rationalization EDR (initiated 2005, substantially revised in 2012),
- 3) AFA Chinook Bycatch/ Amendment 91 EDR (initiated 2012), and
- 4) the GOA trawl EDR (initiated 2015).

There was discussion on the strengths and limitations of the information collected. Brian suggested one of the biggest limitations of the EDRs is the lack of consistent framework for collecting comprehensive cost information, and the limited extent of EDR coverage across all fisheries. He presented information comparing collection of fisheries cost data from the North Pacific to other parts of the U.S. His figures demonstrated that Alaska placed last, relative to other regions in terms of number of fisheries with economic cost data collections, with only 10% of our fisheries collecting fixed cost data (Amendment 80) and 30% collecting operating cost data (Amendment 80, BSAI Crab, and GOA Trawl).² Brian noted that only the Amendment 80 EDR was designed based on a generalized framework of fixed and variable costs, whereas other current EDR forms collect more fragmented variable cost elements, for a variety of reasons associated with Council objectives and process. The North Pacific has information on revenue, but very little on cost and profit in fisheries without EDR data. The Amendment 80 fishery is an exception; the comprehensiveness of Amendment 80 EDR allows the calculation of certain kinds of profit. Other regions have much broader information on cost and profit in fisheries. However, not all regions employ mandatory annual economic census approach as the EDR program, using a variety of approaches including voluntary, biannual, or trip-level surveys and/or representative sampling. In the Northeast, observers collect trip-level economic information, and in some regions, it's collected in vessel logbooks.

Another limitation discussed by the SSPT is that there is no mechanism to know cost estimates for local spending by fishery participants in different communities. In particular, there is no time series data to show changes that may have occurred. When analysts think about economic impacts from a certain action, they usually just qualitatively speak to the fact that for the communities associated with port of landing, and the home community of vessel owners, crew, and QS holders, money is likely spent on things related to fishing and from fishing revenue. But impacts are not diffused through communities in the same way. Some may be "leakier" than others. Brian spoke about current work by Chang Seung (AFSC) to produce the information for input/output models that is specific to seven bureaus/census areas in southwest Alaska. This work includes working with existing regional economic modeling data (IMPLAN) and disaggregating the fishing sectors (fishing and processing) to stratify by fishery or fleet for fisheries management purposes and then conducting interviews to supplement non-spatially explicit data with survey data on where those expenditures occurred.

² More information on how these were categorized can be found at <http://www.st.nmfs.noaa.gov/Assets/economics/images/collectionUSCommercialFisheriesCosts.jpg> and in Thunberg et al. (2015), available at: <https://spo.nmfs.noaa.gov/tm/TM154.pdf>.

Some of the strengths of the economic data collection in the North Pacific include a robust data collection platform, an online web portal, rapid validation, years of experience collecting and using these data (since 2005), and improved industry collaboration. This infrastructure is the result of substantial investment over time but could be used much more efficiently and productively in the future if the existing EDR program could be updated based on a coherent framework for collecting and analyzing economic data and generalized to more fisheries under Council oversight.

Brian also presented on the AFSC Charter Business Survey administered in 2011, 2012, 2013, 2015 and 2017. This is a voluntary survey on cost and earnings information for the charter sector. This survey collects information on employment/wages, revenue, costs, client profile/sources, and business/household characteristics. This survey is mail- and web-based. Response rates have been between 20% and 30%; however, it appears that there is some survey fatigue as response rates have declined. Researchers use certain techniques to make a non-response adjustment. In addition, AFSC is designing a study to look at using “Amazon Mechanical Turk” to crowd-source data collection on charter prices from charter business websites. This may allow them to cross-check trip and pricing data collected in the charter business survey and potentially eliminate questions on the survey to reduce industry burden.

The SSPT had some follow-up discussion about what to do with this information about the EDRs and economic data effort. NMFS will be completing a discussion paper about the EDRs for review by the Council, likely later in 2018, and can provide an update to the SSPT at its next meeting, if so desired by the SSPT. However, given the timing of the SSPT meetings, the SSPT did not recommend that it have a formal role in reviewing the EDR discussion paper before it is presented to the Council. There is a potential that this process will improve the EDRs and the EDR process, but also a possibility that there will be new information gaps, at which point there may be a role for SSPT input.

Brian believes that the fragmented framework of EDR cost and earnings variables, is currently the EDR program’s biggest liability. He thinks a useful change would be getting summary cost information and having the analyst break it out using standardized cost dis-aggregation methods; having broader, but less detailed reporting in terms of stratifying individual variables. While the original crab EDR (prior to 2012) was designed with extensive input from both economists and industry to achieve specific analytical objectives, the original surveys were extremely detailed and required reporting many cost variables with multiple levels of stratification (e.g., bait costs reported by fishery, location of purchase, and species of bait). For example, we don’t need information on the different species of bait used, but we’re missing key cost variables like maintenance costs. Brian thinks that in order to put more focus on net economic benefits, we’d essentially want to be able to create firm-level financial statements. But we’re limited by certain cost data. The EU fisheries directorate is able to make benchmark financial analyses at the vessel-level (operating profit and total returns, etc.) and they make these available to the submitter. It’s a voluntary survey, so this is the incentive to submit.

Some members highlighted that even if this information is available, comparisons across user groups will continue to prove challenging. For instance, a researcher is not going to be able to value a subsistence fishery or characterize the sharing economy of subsistence in the same way that one might be able to compare total returns by commercial harvesters in the same fishery.

There were some questions from the group about solicitation of feedback on the burden of reporting. The PRA process that NMFS completes prior to a new data collection and every three-years thereafter, requires an estimate of the burden and allows for public comment on this burden. In terms of individual survey question improvement, currently, Pacific States maintains a log of all user comments. All reports of problems are recorded.

7. Current and upcoming Council issues and information needs

Sam Cunningham (NPFMC) and Sarah Marrinan (NPFMC) gave some examples of issues the Council will soon be considering and led a discussion about data needs relative to those projects. They highlighted that the Council's project-specific informational needs are always changing and often require a quick turn-around time. The purpose of the exercise was to elicit discussion about persistent underlying data gaps, and not necessarily to project-plan for upcoming Council actions.

Sam raised the topic of an upcoming discussion paper on Western GOA pollock trawl vessel limitations. This paper considers implementing a vessel size limit and/ or a sideboard limit on the catch of pollock by trawl vessels over 58 ft LOA. Council staff is tasked with illustrating historical dependence of smaller vessels in this fishery and the extent to which measures protect the communities supported by WGOA pollock fisheries. The analyst is also asked to evaluate the broader economic contributions of smaller trawl vessels (under 58 ft LOA) to their communities.

The first scoping challenge here is in how you define the "communities" supported by the WGOA pollock fisheries? This might be Sand Point and King Cove, but it also might be Seattle, WA or Petersburg, AK. Which metrics should be used to determine these connections?

SSPT members noted several different methods. The analyst could look at the local economic multipliers of a fishery (if that was available). A likely more accessible (and commonly used method) would be to consider relative dependence on different species at the processing plants, although confidentiality may be an issue here. GOA trawl EDR data might be useful, although that information exists only for a short time series. Additionally, the analyst could link vessel owners with home community and harvesting diversification in that community. This technique is more difficult with crew. If the vessels are known, that information might be able to be linked to crew licenses via the GOA trawl EDR.

Sam mentioned that there are not a large number of vessels in this fishery; about 20 vessels less than 58 ft LOA, and about 5 to 7 larger vessels that are based out of the Pacific Northwest and Alaska communities outside of the Aleutians East Borough. One SSPT member mentioned that perhaps community connections could be made by talking to the vessel owners. However, the Paperwork Reduction Act (PRA) requires approval by OMB for surveys involving questions repeated to more than nine individuals. This process requires advance planning to obtain the needed approval in time to conduct a survey as part of an analytical project. Perhaps a blanket PRA package could be submitted for instances like this where a quick information collection could improve the quality of the analysis. Sam noted that in most cases he would talk to fleet and processor representatives even if he could not administer a standardized survey. Although we may have more comprehensive information if people participated in a quick survey, it may turn off key informants if we sent them a questionnaire to fill out rather than engaging with them through a semi-structured interview-style conversation.

The group further discussed the multi-method approach that is typically part of the analytical process and how that could be expanded to reach more voices and in short time frames. Many SSPT members felt that building up ethnographical work and establishing the connections involved in that work shouldn't be treated as an analytical luxury. Members highlighted that while these approaches are resource-intensive to begin with, the resources dedicated to these efforts can produce large returns in the long-run. For instance, these investments in a continuity of staff to conduct this work can allow for rapid ethnographical assessments, which could particularly help in cases like this WGOA pollock trawl action, with a limited number of communities and vessels.

There were questions about how to engage with the Washington and Oregon side of communities. Would a rapid ethnographical assessment work in Seattle? Even if Seattle drops out when you quantify community dependency, what about community engagement? National Standard 8 addresses the sustained participation of fishing communities that are defined as those communities that are substantially engaged in the fishery as well as those that are substantially dependent on the fishery. Seattle is highly engaged in many of the North Pacific fisheries. The February 2018 meeting was heavily attended by Seattle fishermen that participate in the halibut/sablefish IFQ fisheries off Alaska. One SSPT member suggested that even in a community like Seattle, going in-person to meet with those involved in the fisheries can be valuable and can facilitate other types of data collection as well. Ethnography is in part about showing up—being present and building institutional capacity and continuity.

One SSPT member suggested that one of the region's primary challenges in gathering social science data is lack of continuity. This SSPT member thought that if the Council can make a long-term institutional commitment to include Council staff in this process, relationships that improve quality and continuity could be built. The institutional capacity and returns to data quality could warrant the investment of regularly putting qualified investigators in the field. Once connections are established, the researcher can accomplish in a few days, what previously took much longer. This is often perceived as a "big ask", but it should be a core part of the region's data collection work. One of the other discussion points here was the need to build and expand upon existent collaborative partnerships with researchers who have expertise across the geographic span and diversity of stakeholders and communities that participate in North Pacific fisheries as a way of building this institutional capacity.

Sarah raised the issue of allocation program reviews. In particular, the Council asked for help identifying a research priority to encompass the types of information it may need for a Catch Sharing Plan (CSP) allocation review. The Catch Sharing Plan creates the allocation process for the commercial and charter halibut fisheries in Area 2C and 3A. What types of information will be needed for an allocation review of the commercial and charter halibut sectors?

Sarah proposed a few general concepts based around past work that focuses on comparing commercial and charter sectors activities in Alaska (for example, some of the work conducted by Gunnar Knapp on the Alaska salmon fisheries³). These papers have stressed having measures that are comparable; which is a real challenge because the activities, benefits, and participants in commercial and sport fishing vary drastically. Asking for a portfolio of different metrics to help evaluate these fisheries (both charter and commercial) could allow stakeholders to understand and speak to the different ways that these fisheries and their allocations matter.

For instance, Sarah suggested having the **marginal value** of halibut in both fisheries would allow a comparison of each additional pound (or fish) in that fishery. If truly in comparable terms, this would be

³ Knapp, G. 2001. Five principles for economic comparisons of commercial and sport fisheries. Summary from Basic Issues in Economic Comparisons of Commercial and Sport Fisheries: A Study of Allocation Alternatives for Alaska's Kenai River Sockeye Salmon Fisheries. Proceedings of the First North American Fisheries Economics Forum, New Orleans, Louisiana, April 2001.

Knapp, G. 2008. The most important things for Alaska Board of Fisheries members to know about economics. Presentation for the Alaska Board of Fisheries, Fairbanks, Alaska, October 9, 2008.

Knapp, G. 2009. Comparison of recent sport and commercial fisheries economic studies. A presentation to the Alaska Legislature's Cook Inlet Salmon Task Force, January 29, 2009. Anchorage, AK.

Knapp, G, M. Guettabi, and S. Goldsmith. 2013. The economic importance of the Bristol Bay salmon industry. Prepared for the Bristol Bay Regional Seafood Development Association. April 2013. Anchorage, AK.

an ideal metric for understanding the economic value of an allocation between fishery sectors. **Economic impacts** are useful in understanding how that sector is interacting with the economy and communities. This is different than marginal or total value; it describes where money is going. **Total value** demonstrates all of the revenue generated by a sector but does not deduct cost and does not provide an understanding of the net value. This measure could be useful if presented alongside measures of marginal value to aid in demonstrating the difference. Additional information could contribute to understanding of **indirect effects** of these fisheries. Sarah asked for the SSPT thoughts on proposing these broad topics as a research priority.

SSPT members commended the Council for this forward-thinking process. Limited Access Privilege Program reviews and allocation reviews are some of the few actions that the Council can see coming years in advance, and they require significant resources. The Council should consider them when the time is ripe for strategic responses. This may be a good model for other scheduled, resource-intensive projects. This timeline allows the Council to solicit AFSC researchers and the academic community to contribute work that may be useful for these mandated documents. Additionally, some SSPT members highlighted an interest in building the internal (Council staff or AFSC) capacity to conduct ethnographic research as well.

This CSP allocation review may be a great example of a place where both qualitative and quantitative research methods should be applied. Ethnographic research may complement any type of economic impact work done. There are spatial characteristics of these fisheries that are unique to communities and specific operations. The diversity within both sectors means that just demonstrating the multiplier effect of charter fishing in a community, for example, may not tell the whole story of the sector's interactions with the community. The community impacts of halibut are immense, not just in terms of quantitative value for participants but there is a huge culture around halibut fishing and even a spiritual component for some participants. This is a good opportunity to think broadly about methods used.

Sam also highlighted two other IFQ-related discussion papers on the Council's list of upcoming agenda items: one that will consider hired master use and one that considers eligibility requirements to retain quota share ownership. The challenge in the former is that there is a subset of halibut and sablefish fishermen who feel that the hired master program is working for them and a subset that don't feel like the existing hired master regulations are allowing them to run viable owner-operated businesses. The ask was to describe participation patterns and connectivity between quota holders, vessel owners, and crew.

The second discussion paper looks at different types of eligibility requirements. In the halibut and sablefish IFQ fisheries the bar to purchase QS is 150 sea days but, for example, this could theoretically have been accomplished setnetting in the 1990s. What if in order to continue to hold QS, the holder needs to be active in the fishery (by some as-yet-undetermined metric)? This paper would look at different business arrangements in the IFQ fishery. A key question that is not readily addressed with available data is how to distinguish between so-called "walk-ons"—QS holders who crew vessels in which they do not have an ownership stake—and "ride-alongs"—QS holders who must be onboard but do not serve as crew.

Marysia published a paper describing the variety of IFQ business arrangements,⁴ but existent data on the IFQ fisheries is not helpful in terms of informing an understanding of the prevalence of any one type of arrangement over another. A researcher can tell if a hired master is on a boat if the landing is made by

⁴ Szymkowiak, M and A.H. Himes-Cornell. 2015. Towards individual-owned and owner-operated fleets in the Alaska halibut and sablefish IFQ program. Dec. 2, 2015. Maritime Studies 14:19. <https://link.springer.com/article/10.1186/s40152-015-0037-6>

someone other than the QS holder, but there is no more detail about connectivity. Marysia and Steve are working on a study of QS transfers in IFQ fisheries. This work will examine whether transfers are occurring and what networks exist between QS holders and hired masters on their boats. The study will examine if there is a greater probability of selling to someone who has worked as hired master for them in the past. They are still in the analytical stages of this work and is not likely to be available to Council analysts who are tasked with the Council's upcoming request.

The SSPT discussed the Crab program as an example of participation requirements. Amendment 31 to the BSAI crab FMP instituted stricter active participation measures for crab crew shares. However, in that case the relevant metric is participating in deliveries or merely being on a fishing boat in Alaska, rather than something who could make a distinction between being a "ride-along" or being a "walk-on".

8. Text analysis of SSC minutes on social science

Elizabeth Figus (NPFMC) and Sarah Wise (AFSC) presented an exploratory text analysis they conducted for discussion at the SSPT. This exploratory analysis searched key terms and phrases to examine how frequently the SSC has discussed economic and non-economic social science terms in their minutes, and to identify patterns of usage. A list of 35 economic and non-economic terms and phrases was constructed iteratively by the analysts and others and tracked through 18 years of SSC minutes (June 2000 to February 2018). Terms and phrases were reviewed in context using Atlas.ti and MAXQDA text analysis software to determine whether occurrences reflected economic or non-economic social science meaning. The analysts then coded the terms and phrases in thematic groupings.

One observation of this project was a high frequency of economic-related terms relative to non-economic social terms. Factors that may influence words used in the SSC minutes were proposed in the analysis document and discussed by the SSPT members, including: the context of an SSC discussion (e.g. Economic SAFE will likely be addressed using economic terms); the type of projects that are put in front of the SSC; who is on the SSC (their expertise); or, the perspective or memory of the people who write/finalize the SSC minutes. The absence of certain socioeconomic terms in the minutes might indicate that the SSC found no gaps or faults in the social and economic analysis.

Another observation of this project was that many economic terms in the analysis had distinct meanings (e.g. revenue, cost, market, etc.), whereas non-economic social terms did not. Non-economic terms may have varied meanings or be conveyed using multiple word choices. For instance, a "community" may refer to a group of people or a group of fishes. In addition, the words, "satisfaction", "utility", and "positive impacts" could all be conveying a similar story. One SSPT member further noted that the process of writing the SSC minutes has changed over the years.

Elizabeth noted that there were many words that could be added if this project was expanded beyond the exploratory stage. The intent of this project was to provide a snapshot of the way social science has been discussed over time. Elizabeth clarified that the project was not designed to quantify a set of gaps in social science or to make a statement about social science biases, but to begin a discussion among the SSPT about the language that's been used to talk about social science in the Council process. The project does not imply causality, but it does suggest the potential for misinterpretation or lack of understanding concerning some non-economic social science terms. Elizabeth also noted that the least common terms used in the SSC minutes from the past are relevant to ongoing and future work at the Council, especially as relates to the BS FEP and community engagement.

The SSPT expressed appreciation for this work, and there was some discussion about whether the text analysis might be expanded. One SSPT member pointed out that if there were interest in staff spending

more time on this to bring a finished product to the SSC (noting of course that these minutes will go to the SSC), we would want there to be a clear purpose. This appears to be less of a statement to the SSC and more a discussion topic for the SSPT. There are many factors that go into what is presented to the SSC, what is in an analysis, and ultimately what gets written in the minutes. The SSPT member suggested that the productive thing here would be to focus on what our analysts need to consider: if we think there is a lack of important social science information in our documents and how best to communicate the use of social science information to the Council, SSC, AP, and the public.

9. Discussion of gap analysis

Steve Kasperski (AFSC) and Marysia Szymkowiak (AFSC) prepared a draft gap analysis for the SSPT.⁵ The following summarizes the comments made about the gaps highlighted and additional data gaps:

- Processing plants do not disaggregate processing labor by fishery so we're not going to be able to collect processing labor that way.
- The quality of crew data and the inability to track crew license holders over time has emerged several times over the years and led to the creation of an inter-agency working group to examine these issues. In 2007, the Commercial Fisheries Entry Commission published a report titled "Preliminary Examination of Commercial Crewmember License Data", which summarizes the commercial crewmember data from 1988 to 2006 and the quality of this data. The intent of this report was to examine the potential capacity to track individual crew license holders through time and to match license holders with permit holding information. Improvements in name matching algorithms since 2007 have made it more feasible to track individuals in the crew license database over time. In 2010, that group met several times to discuss how to improve crew data. Additional information about the outcome of this working group and other efforts over the years to improve crew data can be incorporated into the data gaps analysis paper in the future.
- Short of an EDR, it is not possible to identify vessels' expenditures on shoreside goods and services and it is even more unlikely that such spending could be disaggregated by fishery
- We don't collect information by QS holder, we typically gather information by vessel owner. Vessel owners are an over-surveyed population, but there is a lot we don't know about QS holders and their connection to the fisheries. Demographics is one example.
- NMFS used to produce an IFQ Transfer Report and an IFQ Report to the Fleet, which were very helpful for analysts and the public. One SSPT member thought that reinstituting the annual publication of these reports should be resurrected on a regular (if not annual) basis. AKFIN is currently working on making a version of the Transfer Report available. They may pare down the document somewhat.
- The SSPT could weigh in on standing reports AKFIN could produce on a regular basis. These reports could be constructed for public access, inter-agency access, or a combination of the two.
- There is a lot we don't know about vessel, permit/license, and quota ownership and what we do know is hard to use. Business structures can be very complex.
- An interest was expressed for getting revenue decomposition for vessels networks. Analysts are consistently asking AKFIN for vessel harvesting diversification tables.

⁵ Attached to the agenda

- Analysts are interested in regular reports that classify and describe the demographics and activity of vessel networks. A network could be as broad as a sector (e.g., Amendment 80) or a specific as a vessel-size class within a gear group.
- It was mentioned there have been previous endeavors to define fishing groups through cluster or métier analysis, which have been used in several fisheries around the world. Another SSPT member noted the work of Kari MacLauchlin Buck, a former SAFMC staff member, who has conducted social network analyses of fishing portfolios to identify patterns that provide information on relationships between fishery participants and how they intersect.⁶
- Lack of information on gear conflicts was a data gap highlighted in the IFQ Program review and it has been problematic in the analysis of halibut pots in the BSAI.
- One SSPT member noted that some demographic information may exist behind walls and we might be missing certain connections. Certain types of collaborations may help us get this type of data (e.g. Department of Labor, ADF&G, etc).
- ADF&G's Community Subsistence Information System (CSIS) has a lot of really fine grain data (e.g. number of people living in the household and household income diversification and it also includes home pack). However, it's a snapshot, in specific communities and may be fairly dated.
- Well-being information is more available on a case study basis.
- Courtney Carothers and Rachel Donkersloot spoke briefly to some of their work on well-being. They are involved with State of Alaska Salmon and People Project. This work specifically looks at how to better integrate well-being concepts into management practices through defining well-being indicators. They hope that this work can be a model for more work that needs to be done in this area.
- The subsistence section of the gap analysis will be updated to reflect ADF&G's subsistence division's research, especially information that was presented by Jim Fall and Brian Davis.
- There was quite a bit of discussion around the LTK data gaps. Even though the Council has acknowledged this gap, one SSPT member was concerned about the actual willingness of the Council to accept LK and TK into its usual body of methods. The importance of LTK data gaps have been highlighted, but (as the above text analysis highlighted) in a vocabulary that may not be accessible to everyone. Moreover, political interests may not align with this work especially if it's talking about TK and the people whose interests have been marginalized in the past. One SSPT member stressed the importance of the agency heads to support their staff in this work. It was also noted that the FEP is a non-actionable item in terms of regulatory amendments, so it might provide a freer window for this work. The Pacific cod discussion at the Council's Ecosystem workshop was a good example of this. Additionally, one SSPT member mentioned that any perceived lack of acceptance of qualitative LTK information in the Council process may be in how the work is delivered. The Council has heard and accepted qualitative information many times before. In line with the above text analysis, some members thought that clearly defining the vocabulary and methods could help bridge that gap. One SSPT member suggested the focus should be on creating a section in the analytical template for best practices of

⁶ MacLauchlin Buck, K. 2018. Socio-economic profile of the snapper grouper commercial fishery in the South Atlantic region. May 2018.

incorporating LTK information to assist staff in dealing with tough questions with confidence and support.

10. Amendment 91 skipper survey

Brian Garber-Yonts presented on the AFA vessel master survey (skipper survey), a component of the Amendment 91 EDR, as well as current efforts to develop a voluntary survey of captains in the Pacific cod fisheries. The Amendment 91 skipper survey was designed to help evaluate the effectiveness of Amendment 91 Chinook avoidance incentives. The Amendment 91 skipper surveys asks AFA pollock skippers about their experience with (1) the Chinook hard cap and Incentive Plan Agreement, (2) other closed areas, and (3) fishing and environmental conditions. They have conducted 120 surveys per year from 2012 through 2016. This information, including its strengths and weaknesses, are presented in the Economic SAFE. AFSC is awaiting any further direction from the Council about how or whether they should change the survey. AFSC is working on a technical report to provide more detail on the data and suggested that there could be some improvements in some of the wording of survey questions.

In addition, Alan Haynie (AFSC) and Allan Hicks (IPHC) have been drafting a Pacific cod questionnaire intended to be distributed to skippers in this fishery to potentially inform stock assessment. They would ask about changes in Pacific cod fishing (e.g. CPUE or size selectivity), how management changes have affected fishing, seasonal fishing pattern changes, how and when they decided to move grounds, and other biological changes in the fish or fishery. Brian stated that this survey will be voluntary, but they are working with a very engaged group of skippers and there are a variety of potential methods (focus groups, post-season interviews, online survey) and approaches (limit only to Pacific cod or allow skippers to comment on other species) that could provide this information in a timely manner to inform current year stock assessments. AFSC has presented this information to the Groundfish Plan Teams and have received strong support. Brian asked the SSPT members if they had any thoughts or ideas.

One member thought it was a good idea and described how there is a literature which these authors may have seen, on how to conduct surveys on local ecological knowledge. Including maps and figures can be a useful tool. There is a similar project going on with rockfish data between an academic and an ADF&G employee.

One SSPT member wondered how this might be filtered back to the plan teams and how you might deal with selection bias. There are some best practices for how to determine project participants. They could think about bringing a social scientist into the mix.

11. Academic research relevant to the Council

Seth Macinko (University of RI) highlighted a paper done by Courtney Carothers (and others) titled *"Little kings": community, change, and conflict in Icelandic fisheries*.⁷ Courtney was in attendance and was asked to speak briefly to the group about this work and other recent work she has conducted. She mentioned she will be presenting "Turning of the Tides" to the Council in June.⁸

In "Turning of the Tides", Courtney's work comments on restricted access management programs and providing access to groups of people who are systematically left out of rationalization programs. She mentioned there is a lot of literature on this subject, but these are not topics that are commonly brought in front of a body like the Council. Courtney also described work on the Salmon and People SaSAP project, which focuses on how to better integrate well-being concepts into management practices through defining

⁷ Linked on our agenda

⁸ <http://fishermen.alaska.edu/turning-the-tide>

well-being indicators. Courtney mentioned that Native participation in commercial fisheries has plummeted, and there are few indigenous experts in management to address this issue. In addition, it is difficult to analyze Native participation at present, because many data are housed in the Bureau of Indian Affairs or the CFEC and it is challenging to get the two agencies to work together. The SaSAP project is finishing up in June 2018, and Courtney recommended that SSPT members review the project results through the website.⁹ Courtney feels that in social science we should pay much more attention to underrepresented people.

One SSPT member thought a reoccurring theme emerging from this meeting is that we need a “best practices guide” for how to incorporate certain types of information into the process. If an analyst wants to reference work that uses methods unfamiliar to the Council process, it’s difficult to have discussion about that work. Perhaps we could bring experts into the Council process to present about the different methodological approaches, their strengths and weaknesses, where there is debate within the field, etc. Using case studies of these methods could help with this explanation (e.g. here is a place where ADF&G did work incorporating LTK). Courtney mentioned that she has a paper designed for environmental managers describing the difference between qualitative methods.¹⁰ She could be available to present that. Perhaps it would fit in with further discussion of the FEP and LTK module?

Some SSPT members highlighted another important connection—how does this information get into the analytical document? How can we help the analysts use this information? This may continue to be a charge of the SSPT.

12. Public testimony

Public testimony was received by Julie Raymond-Yakoubian of Kawerak and Rachel Doonkersloot of Alaska Marine Conservation Council.

13. SSPT priorities for filling data gaps

The SSPT discussed that one method of filling data gaps was through the introduction of this group and the ability to communicate about and highlight the necessity of robust social science in fisheries management. In this way, the SSPT is accomplishing one of its goals of establishing connections among the agencies, sharing resources and research relevant to North Pacific fisheries, highlighting existing data sources that have been underutilized, and developing a common understanding of the areas where information is lacking.

The minutes from this meeting, and specifically the draft gap analysis, have highlighted a multitude of specific informational gaps that could contribute to fisheries management. The SSPT did not vote on the priority level of this missing information. Some of the most apparent and persistent gaps are expected to remain for years to come. It will be the SSPT’s task to collaborate with groups that can address the gaps, or to help define best practices for dealing with them as they come up in relation to Council issues.

Some of the broader topics that the group reiterated on several occasions over the course of the meeting include:

⁹ <https://knb.ecoinformatics.org>

¹⁰ Charnley, S., Carothers, C., Satterfield, T., Levine, A., Poe, M.S., Norman, K., Donatuto, J., Breslow, S.J., Mascia, M.B., Levin, P.S., Basurto, X., Hicks, C.C., Garcia-Quijano, C., and St. Martin, K. 2017. Evaluating the best available social science for natural resource management decision-making. *Environmental Science and Policy* 73: 80-88.

- Incorporation of TK and LK in the management process, from stock assessments through to Council decision making documents.
- The importance of investing in ethnographic research and building institutional capacity within Council staff to conduct non-economic social science on a continuing basis.
- Encouraging review and refinement of EDRs (streamlining and utilization) to align with stated and ongoing Council objectives for these and other fisheries.
- Having presentations of unfamiliar qualitative data collections and analytical methods in the Council process.
- Providing training and guidance (possibly a best-practices guide) to analysts about qualitative data collection and other social science analytical methods.
- Continue iterative refinement and further discussion of the data gap analysis.
- Usefulness of publicly available references: e.g. the Halibut/Sablefish QS Transfer Report and IFQ Report to the Fleet.
- Try to form partnerships and get access to existing datasets from other departments and agencies (both State and Federal).

The group did not have an abundance of time to discuss how the individual points highlighted throughout the discussion may be accomplished; however, the path forward will be circumstantial for each issue raised. For example, review and refinement of EDRs will occur on a separate track through a NMFS-produced discussion paper. The SSPT may or may not weigh in on the details of this discussion depending on the scope and timeline of that action. Similarly, the Bering Sea FEP will move forward and the SSPT may have further opportunity to contribute to “LTK Action Module” development and use depending on the timing. Despite no vote for consensus recommendations, other points highlighted by the SSPT provide an opportunity for NMFS, the Council, AP, SSC, and the public to consider and react to elements they agree (or disagree) with. Many of these topics will continue to be considered by the SSPT at future meetings. In addition, the SSPT will continue to work to make connections between available resources and data gaps.

The SSPT discussed their potential role in relation to the Council’s research priorities.¹¹ At this point, the group does not plan to review the Council’s research priorities at each meeting in the detailed way the SSC and Council do. The SSPT could easily add a multitude of social science priorities to the list. At this point in the process, the group is not making specific recommendations. It is possible that at a future meeting, particularly after the gap analysis is further developed, the group may wish to be more proactive in its requests. Reviewing, adding and changing research priorities may be one avenue to solicit more specific analytical requests.

14. Discussion of future meetings and next steps

SSPT discussed future meeting logistics. Future meetings would likely require more than two days, as many topics ran short on time. However, at this point the SSPT is committed for one in-person meeting a year. May appears to be a preferable month. A November teleconference would again be beneficial to further discuss progress, upcoming issues, and meeting logistics, and agenda items.

¹¹ The socio-economic related research priorities are attached to the agenda.