

Project Title: Institutionalizing Social Science Data Collection

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Abstract

The Community Panels project has been exploring the use of community-based and participatory research on the social, cultural, and economic implications of regulatory, environmental, and socio-economic change in New England fishing ports. Relying on suggestions from an advisory group, panels of 10 to 12 individuals, representing a cross-section of the fishing industry and associated communities, were established in three

ports, Jonesport/Beals Island, ME; Gloucester and Scituate, MA. The panels each identified issues of concern to their port, sought data through meetings and interviews, and drafted a report of their results. In order to have a basis from comparison among the three ports, each considered infrastructure needs as one of their topics of concern. The panels proved to be a useful starting point for eliciting community responses to change and providing information useful to management.

Introduction

A lack of fisheries social science data that has been consistently collected over an extended period of time presents a major obstacle to sound community planning. While individual projects have collected such data for specific places and points in time, there has been nothing comparable to the 30-year stream of biological data that National Marine Fisheries Service has been collecting via their fisheries assessment cruises and landings data.

Those responsible for planning in order to meet changing needs in fishing communities face the daunting challenge of doing so in the context of scarce and declining support for government functions. This proposal for this project suggested that establishing a community-based group for gathering and assessing data would be one way to meet that challenge. The hope was that it would be in the interest of the panel members to institutionalize the project with help from principal investigators.

When this project was proposed, NMFS was defending itself in more than 100 lawsuits, of which several were brought by fishing associations demanding that socio-economic data be considered when management plans were formulated, as required by the Magnuson-Stevens Act. Both NMFS and those in the fishing industry consider this information valuable. Although lacking a comparable legal mandate, the Atlantic States Marine Fisheries Commission and the coastal states are also interested in identifying fisheries-dependent communities and the effects of management alternatives on them.

In addition, many coastal communities are struggling with choices among multiple and conflicting demands on their limited coastlines and fishing grounds. The use of community-based panels to review, add to, and create new socio-economic profiles provides an important forum for people to decide what choices are appropriate given the values, worldviews, economic situations, and social relationships of community residents. The information collected could also help communities protect their needs and interests in the fisheries management, coastal zone management, and economic development arenas.

This project specifically addresses two of the Northeast Consortium's goals:

- *Develop partnerships between commercial fishermen and scientists, educators, and coastal managers*

- Commercial fishermen were active participants on each of the community panels, along with various educators, social scientists, shoreside businesses and in some cases, managers.
- *Help bring fishermen's information, experience, and expertise into the scientific framework needed for fisheries management.*
 - The interim and/or draft reports on the panels' work have been made available to both fisheries managers and town officials, thus bringing the fishermen's knowledge into a scientific framework that can be tapped when management decisions were being made.

Project objectives and hypotheses

Our primary objective was to develop a community-based process for gathering and assessing social science data relevant to the fishing industry. Equally important, our project intended to provide managers with information that would enable them to more accurately anticipate social impacts and mitigate those that are negative. The project is based on the premise that the generation of accurate community profiles requires active participation of a broad group of stakeholders. We hypothesized that fishing industry participants, managers, scientists and members of fishing communities can contribute information through participatory research that is not readily accessible to a researcher from outside the community being studied.

Participants

Interviewees and panel members in Beals Island/Jonesport

Robin Alden	Wayne Beal
Arthur Alley	John Church
Ted Ames	Gloria Feeney
Ann Beal	Colleen Haskell
Becky Beal	Ted Hoskins
Charlotte Beal	Amr Ismail
Wayne Beal	Mike Kirby
Cal Carver	Dana Rice
Dwight Carver	Ralph Smith
Mark Carver	John
Stephen Carver	Jennifer Brewer (Coordinator)
Rosalie Carver	Nancy Colbeth (Coordinator)
Herman Backman, Jr.	

These represent: two fishing vessel owners, one crew member, one fisherman's wife, two shoreside business owners, one school administrator, one natural scientist, one community development consultant, a minister, four current or former town officers, five

members of fishing industry organizations, four former fisheries management staff and/or advisory committee members.

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Nancy
Colbeth
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Interviewees and panel members South Shore, Massachusetts

Ed Barrett	John Havaland
Bernie Feeney	Frank Carey
Laddie Dexter	John Muncey
Mike Duane	Ken Corson III
John Carver	Sgt. Leonard Laforest
William Adler	Joseph Ritz
Bill Kelly	Gregory E. Fayne
Bob Figueiredo	Frank C. Regan
Jim Figueiredo	Mark Patterson
Ed Figueiredo	Frank C. Carey
Paul Figueiredo	Tommy Alioto
Bill Stone	Eric Jesse
Jeff Stone	Donald Spring
Michael Lane	Rich LaLonde
Dan Graham	Reidar Bendiksen
Bob Turner	Richard S. Armstrong
John Grey	Kirin Dekas
Steve Kelley	Peter Pratt
Dave Crowell	Richard Karoff
Dave Kandrick	Mrs. Richard Karoff
Dick Gibbs	Peter J. Lawrence
Bob Colburt	Richard Swanborg
Frank Mirarchi	Bob MacKinnon
Fred Dauphinee	Chuck Haddad
Dave Casoni	Chris Mullaney
Bob Marcela	Lainy Silva (Graduate student)
Steve Welch	Jay Michaud (Coordinator)

These represent lobsterfishermen, groundfishermen (dragger and gillnetter), a gear designer, a former New England Fishery Management Council member, a restaurant owner, a grocery store owner, a lobster dealer, harbormasters, two state level officials, and a graduate student.

Key contact:
 Jay Michaud
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Interviewees and panel members, Gloucester, Massachusetts

Corrado Buccheri	Jackie Odell
Maria Churchill	Jerry O'Neill
Joe Ciaramitaro	Rosalie Parisi
Laurence Ciulla	Sam Parisi
Rose Ciulla	Steve Parkes
Bill Crossen	Nino Randazza
Dave Ellenton	Frank Rose
Vito Giacalone	Clark Sandler
David Goethel	Marc Sandler
Viking Gustafson	Angela Sanfilippo
David P. Jackson	Joe Scola
Greg Ketchen	Chris Sherman
Don King	Russell Sherman
Joe Maccarone	Brian Tarr
Grace Maceri	Paul Vitale
Dave Marciano	Sarah Robinson (Coordinator)
Scott Memhard	
John B Nicastro	

Among these individuals are fishermen (owners and operators of small, medium, and large draggers, small and medium gillnet boats, and one small long-lining vessel), owners and operators of shoreside businesses (the seafood display auction, fish processing facilities, the ice company, gear shops, the marine railways), a settlement agent, a maritime attorney, representatives of fishing industry organizations (the Gloucester Fishermen's Wives Association and the Northeast Seafood Coalition), Gloucester's Harbor Plan Implementation Coordinator, and others. Some members represent both the shoreside and the harvesting sector and the coordinator is a graduate student.

Key contact:
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Methods¹

The three communities selected for this project, Beals Island/Jonesport (Maine), Gloucester and Scituate (Massachusetts) were selected as representative of the variety of characteristics of the fishing industry in the region including inshore/offshore, large/small, urban/rural, fish/shellfish, mobile/fixed gear, auction/entrepreneur-dealer, etc. Over the course of the project, the Scituate panel members made it clear that they considered themselves a part of a variety of small communities nearby that have some commercial fishing, so we settled on “South Shore” of Massachusetts as a more appropriate site than simply Scituate.

Since one of our goals was to take a participatory approach, we started the project by forming an advisory committee based on recommendations from fishing organizations in the region. The panel was asked to identify the kinds of people who would be representative of the fisheries and communities involved in fisheries-dependent communities of New England and then asked to identify individuals who would fit these categories.

The Panels Project hired coordinators for each panel. We found it difficult to identify members of the fishing industry community who were able and willing to devote time to scheduling and rescheduling meetings, discussing, debating, facilitating meetings and producing reports. The MFP office had to devote far more time than budgeted to seeking coordinators and helping schedule meetings. We ended up hiring two graduate students and eventually, one lobsterman and one lobsterman’s wife to act as coordinators. The coordinators also cultivated key community panel members who helped with some of the data collection and panel coordination.

When 10 to 12 individuals had agreed to participate as panel members in each community, an orientation/training workshop was held to introduce them to the existing data on their communities and industry. Most of the available information is incorporated in Hall-Arber, et al, *New England’s Fishing Communities*.² The need for long-term data collection was discussed. The panels were offered the opportunity to identify what issues or data they considered most significant and worthy of recording. They were also asked which methods of data collection they would prefer.

The Panels Project relied on semi-structured key informant interviews as a major source of data. Initial drafts of the interview schedules were prepared by the principal investigators then revised based on comments of the coordinators and some participants. Interviewees are purposively selected through the “snowball method,” based on recommendations of key respondents, to be representative of boat owners, crew and

¹ A more detailed version entitled “Community Panels Project Methodology” can be found at <http://web.mit.edu/seagrant/aqua/cmss/comm%20mtgs/commmtgs.html>

² *New England’s Fishing Communities* by Madeleine Hall-Arber, Chris Dyer, John Poggie, James McNally and Renee Gagne. 2001. Cambridge, MA: MIT Sea Grant College Program.

shoreside business owners. Before interviews began, the researchers explained the project, goals, how data was to be used, how it would be stored, confidentiality, and noted that the respondent did not have to answer any questions they did not wish to, as per the federal government protocol set up for the Protection of Human Subjects.

The Panels Project used an ethnographic approach to interviewing. While protocols were developed to collect information that can be systematically analyzed, there was room for the introduction of additional questions and topics. The responses and/or conversation often extended beyond the specific questions included in the protocol. These “provide detailed personal accounts about unique experiences of particular people.”³ Permission to record was also requested so that such details could be accurately recorded. Also used were participant-observation techniques and focus groups.

Panels’ interest areas

We found that we had to shift the focus to topics that were more current and compelling than the collection and analysis of what is considered background data for profiles of communities required by the fisheries management process. Those who are involved in the fishing community already attend an overabundance of meetings, so if they were to agree to spend time on the Panels Project, the results had to be viewed as likely to be relevant to management decisions affecting the individual communities and their needs.

Each of the panels struggled for several meetings to identify an area of concern that they felt was worthy of their time and attention. All three panels independently recognized that their efforts were likely to have more impact on local and state level issues than on federal fisheries management.

Nevertheless, the reports that each of the panels have produced identify issues and information that will help the New England Fishery Management Council’s staff fulfill requirements for analyzing the socio-economic impacts of regulatory change.

All the panels initially expressed concern that fishing industry infrastructure and the impacts of regulations on infrastructure had not been studied and were not understood by fisheries managers. Also all panels identified the lack of an historical perspective of regulatory impacts on communities. Cumulative impacts and change affecting the communities had never been analyzed, nor did the Magnuson-Stevens Act require such analysis. After the Gloucester panel took the lead, both of the other two communities addressed the question of their own infrastructure needs and constraints, how these have changed and been impacted over time as well as other threats to their sustainability as fishing ports.

One of the intriguing results of this common focus was the difference in what was perceived as essential. Gloucester’s panel listed a host of necessities, while the other two had very limited requirements for the individual ports. However, what the two “satellite”

³ Morgan, p33

ports needed in addition to a dock, winch, and parking space for their trucks, was access to a “full-service hub port” such as Gloucester.

Data

Panel members and interviewees were promised that the information they gave to the project would not be revealed directly or in such a way that the participants’ information could be attributed to individuals. Rather, we agreed to present the data as reports from each of the panels that were reviewed by panel members prior to release. These reports are available on line at <http://web.mit.edu/seagrant/aqua/cmss/comm%20mtgs/commmtgs.html>.

Results and Conclusions

The Community Panels proved to be effective and useful structures to collect and analyze social science information in response to grassroots driven needs and priorities. The project gained valuable experience in how such social science data collection and analysis can be institutionalized to inform fisheries and coastal zone management. Specific results of the project are discussed in the reports for each of the three community panels. Panels Project was most visible and effective in Gloucester where the local community’s information needs dovetailed with the identified interests of project participants. Early in the process, Panel members stated their interest in identifying infrastructure essential for a sustainable fishing port. As they began to document what infrastructure remained viable in Gloucester and what they anticipated needing in the future, the harbor planning process began. The panels’ reports played an important role in helping the harbor planning committee develop their priorities for their report to the mayor and City Council. Panel members benefited from seeing that their participation was valuable and practical.

In Beals Island and Jonesport, panel members were also interested in investigating issues that they might effectively address. In addition, the panel members were adamant that they were not interested in painting a doom and gloom depiction of their town or the industry. For example, the panel emphasized that their fishing industry had not declined, but rather has profoundly changed. Historically, the Jonesport/Beals Island fishing community focused on the tradition of alternating from a variety of finfish to shellfish fisheries or vice versa depending on species availability. This panel’s greatest concern centered on their fear that if current management practices continue, their fishing industry will suffer future decline because they will no longer have the flexibility to shift harvesting to a variety of species (particularly groundfish, given the current management practices).

The Scituate to South Shore Panel originally wanted to work only as a small group, without a coordinator. Later, however, they found that the information that they wanted recorded was more readily acquired when a coordinator who was a fishing industry member met with individuals and small groups in several of the primary, but small ports along the South Shore. The resulting tally of infrastructure needs, constraints and threats was presented to representatives of all the selected communities and a variety of gear types before final editing and publication. The information has been used in local zoning decisions in Cohasset and Plymouth with useful results. In Cohasset a lobster pier with a

pound has been allowed to stay in place, allowing 31 lobster boats to remain in business there. In Plymouth trucks are being allowed to continue to park near the fishing vessels so the fishermen can work.

Many of the three panels' members expressed appreciation for the opportunity to express their views on a variety of related topics such as infrastructure, fisheries management, and community. However, the organizational difficulties (arranging meetings at a time and place that allowed the majority to attend, recording and/or transcribing notes on the panel meetings and interviews) and analyzing the results of the data collection were daunting tasks for individual panels. Where the coordinator was able to devote considerable time to the project (and/or related projects), the partnerships between fishing industry and social science worked well.

As the project progressed, the PIs held periodic workshops with the Panel Coordinators. Towards the end of this project, a day-long workshop with invitees from each of the panels, the coordinators, managers, and the PIs was held to discuss the implications of this project, exploring whether this was a good way to generate social science data useful for fishery management and local planning and whether or not it would be feasible for the panels to continue.

Lessons Learned

Institutionalizing Community Panels

- The Community Panels project was effective as a mode of organizing community participation and collaboration in social science data collection.
- The industry organization role in the project was pivotal to coordinate, interpret, and focus research priorities and methods.
- The project indicated the importance of a multidisciplinary approach integrating:
 - Anthropology
 - Economics
 - Policy and planning
 - Industry and business
- Full-time industry-based project coordinator is essential with policy or social science expertise
- Full-time academic-based social science participation is essential and may be provided by a graduate student/PhD candidate or candidates
- Academic-based Principal Investigators are essential and may be part-time with sufficient graduate student/PhD candidate participation with strong PI supervision and guidance.
- Academic-based PIs should integrate multiple proficiencies into the project team.
- One or two strong local community-based panel members/local coordinators are essential for local outreach.
- Local panel members/coordinators require administrative and technical support from the industry-based organization and the academic PIs or graduate students/PhD candidates.

- The communities that are related to local, state and/or federal management issues or policy questions must identify clearly defined research questions and goals.

Coordinators qualities are critical to success:

- Coordinators have to be familiar with social science methodology and familiar with the fishing industry. The Panels project benefited from one PhD candidate who was able to make the project her dissertation project. Thus we were able to obtain a level of social science expertise in the fieldwork that the project budget simply did not support. Nevertheless, fishing community members were able to function proficiently as coordinators when they had:
 - sufficient social science guidance and supervision,
 - they possessed good social and writing skills, and
 - they were able to devote enough time to the project.

We also sought coordinators known and liked in the communities. Importantly, the coordinators must be able to explain the goals and objectives of the project without imposing a personal agenda. They must be able and willing to summarize what is known and facilitate their panel's discussions. They must be flexible and willing to make an extraordinary number of phone calls to organize meetings and recruit participation. They must be able to help panel members set tasks and deadlines for accomplishment and they must be able to devote time to research and writing in order to further the work of the panels and the project. In addition, the coordinators need to communicate frequently with the PIs and other coordinators to share problems and solutions. This last point is critical to the identification of cross-panel interests, research questions and priorities.

Panels composition:

- Panels should be comprised of 8-12 core members and be open to additional members on a permanent or task basis
- Panel should be comprised of roughly half industry representatives and half people with broader non-fishing-related experience
- Panels should include a dealer, harvesters representing at least the range of vessel sizes, if not the range of gear types and species, someone with experience in local and state government policies and agency structures, someone with a personal or professional interest in young people who want to fish for a living.
- Good panel members are often people who are already over-committed to civic activities. Respecting their scheduling and pacing needs is important.
- In some communities (e.g., Beals Island/Jonesport area), adding core panel members on a permanent basis can be difficult after the second meeting or so, once group rapport and goals are being formed. This makes it important to obtain a good mix of skills and experience from the start.
- However, in larger communities (e.g., Gloucester), it is probably best not to think of the panel as a fixed object, but rather as a collection of individuals with various, interconnected expertise. We have found that for certain purposes, it is most effective to have sub-groups of the panel meet to develop data on a particular topic within their

expertise. For other purposes, it is most effective to have the group meet as a whole and pool their expertise.

- In any case, panel members should not be asked to invest large amounts of time in topics for which other panel members have greater expertise

Panel coordination

- Depending on the number of hours the panel coordinator has available for data collection and administrative tasks, recruiting a core panel member with basic administrative, research or data entry skills as well as time to invest in panel support tasks can be successful with adequate oversight by a trained social scientist
- Distributing responsibility for panel coordination from the beginning helps to ensure that backup human resources are in place should the primary coordinator have to leave the project temporarily or permanently. This backup person could be a panel member, a PI, or a secondary coordinator.

Objectives, data and group dynamics

- Clarity and realism in communicating project objectives is crucial. Panel members are being asked to invest in a process with uncertain outcomes. This should be understood. It should also be clear how differences between the goals of the panel or the goals of the scientists will be negotiated.
- Although consensus may not always be possible, it is desirable for group cohesion and project momentum
- Participants need to believe that their input will be taken seriously and have a positive, practical impact

Social science

- The project must be designed to collect social *and* economic information. To panel members, it makes no sense to focus on social impacts without also, simultaneously, looking at economic impacts. The two are tied together and must be investigated together.
- Panels need regular access to quality advice on methodology and realistic goals from a social scientist and someone with regulatory experience. Such expertise might be offered by the coordinator, the PIs (in attendance or in close communication with the coordinator), or by a panel member familiar with these issues.
- It is critical that the PIs and the coordinators provide information about social science methodologies and instruments to panel members. Panel members do not want the task of reinventing social science; rather, they want to work with social scientists as active partners. In exchange for their participation, their views, and their hard work, they want information about effective social science methods. They want to be sure their work will be taken seriously and not dismissed as inadequate. At the same time, they raise good, hard methodological questions about existing social science methods, and their collaboration can be critical in the further design of effective methods.

Technicalities

- For future projects of this nature, digital recording of interviews and workshops should be encouraged. Concomitantly, funds for transcribing and notating should be an essential requisite of the budget.

Partnerships

Strong partnerships developed in the project, particularly between the graduate student coordinators and the Panel members. The Principal Investigators worked closely with the students and met periodically with the Panels. The participants in the Panels Project gained a greater appreciation for social science and its methodology. Though the PIs on the project have had many years of experience working closely with the industry, the graduate students learned a great deal about the industry and two of them apply this understanding by continuing to work with the industry on other projects and/or in fisheries-related organizations.

Impacts and Applications

The New England Fishery Management Council and the Atlantic States Marine Fisheries Commission have expressed interest in the Panel Project reports. The October 15, 2003 interim report, *Comments on Amendment 13 by the Community Panels Project*, provided scientific information to the NEFMC when the Council needed it to evaluate the development of a “fifth alternative” different from the four alternatives presented for public hearing. A fifth alternative was adopted and implemented.

Perhaps the most explicit application of any of the reports was by the City of Gloucester’s Harbor Committee, citizens charged with making recommendations to the Mayor and City Council for Gloucester’s Harbor Plan and Designated Port Area Master Plan. The Harbor Committee relied heavily on the Panel report in their consideration of the fishing industries current infrastructure and likely future needs to sustain a viable industry and port.

By documenting the value of the fishing industry to their communities and clarifying what aspects of the infrastructure were essential, the South Shore Community Panel report helped the industry convince Cohasset to retain their last lobster pound and access for 31 fishing vessels. Information presented by the project to the Town of Plymouth also resulted in a decision by the town to continue to allow fishermen to park trucks near their vessels so they could work.

Need for further research was identified in Massachusetts ports and smaller ports in particular. Clarifications of questions concerning adequate access to moorings, parking, and docks would benefit from further research in Marshfield, Cohasset, Hingham and Plymouth.⁴ The need most likely exists in other smaller Massachusetts fishing ports as well. The need is not limited to a fine scale description and inventory of the fishing infrastructure in these ports. It is equally important to make all the information about local and state coastal management regulations available to both fishing industry

⁴ Our Saltonstall-Kennedy project has identified a similar need in New Bedford.

participants and local and state officials. Such information must be synthesized and presented in a coherent manner so that industry and governmental agencies have access to the relevant facts, policies, constraints and opportunities.

The project has determined that this approach facilitates better communication and helps communities make better management and zoning decisions. Mutual ignorance between the industry participants and local and state government officials can lead to unnecessary friction and make effective communication difficult or even impossible.

Principal Investigators for an Environmental Justice project funded by the Northeast Science Center met initially with Madeleine Hall-Arber and Sarah Robinson to learn more about the fishing industry and the Panels Project. Later, they met with members of the Jonesport/Beals Island Panel as part of their data gathering. Their project is on-going.

Related Projects

A project of the same name extended the Panels Project to three other communities, New Bedford, MA; Portland, ME and Pt. Judith, RI. This project was funded by Saltonstall-Kennedy funds.

Presentations

Madeleine Hall-Arber (Each of the following presentations/publications presented data from or made reference to the Panels Project.)

- Case Study 2: The Community Panels Project—Institutionalizing Social Science Data Collection presented to Managing Fisheries, Empowering Communities Conference, Anchorage, Alaska, April 2005 (For powerpoint presentation, see <http://www.uaf.edu/seagrant/Conferences/fish-com/agenda.html>)
- “More or Less a ‘Fishing-Dependent Community’ but Critical, Nevertheless,” (Session: "Issues in Community Profiling: When Is a Community a Community?") SfAA, Santa Fe, NM, April 5-10, 2005
- Testimony on S2066 before the Subcommittee on Oceans, Fisheries and Coast Guard Committee on Commerce, Science and Transportation, U.S. Senate (June 19, 2004)
- “Acting Locally: Using the Oceans Wisely,” Fish Expo 2004, Providence, Rhode Island
- Panelist for The Institute for Community Research on "Crossroads: Critical Issues in Community-Based Research Partnerships," Hartford, CT.
- Comments on proposed Amendment 13, September 2003
- “Not Quite Grassroots Organizing, But Truly ‘Social’ Science,” presented at the Society for Applied Anthropology Annual Meeting in Portland, Oregon, April 2003.
- “On the Waterfront in New England’s Fishing Communities,” presented at the American Anthropological Association Annual Meeting in New Orleans, November 2002
- Panelist for Writers’ Workshop sponsored by NE Aquarium and the Knight Center, Boston University, November 24, 2002
- Grassroots Organizations: Community Panels Project. Fish Expo, Boston, September 2002

- Excerpts from “Fishing Industry Economic Needs Assessment,” presented to Governor Jane Swift’s Massachusetts Fisheries Task Force, August 2002

David Bergeron and Madeleine Hall-Arber.

- Panelists for “Protecting Community Interests” National Conference, *Managing our Nation’s Fisheries: Past, Present and Future*, sponsored by NOAA and the regional Fishery Management Councils, Washington, DC, November 2003.
- Community Panels Project—Evolving Cooperative Social Science, Presented at the Northeast Consortium’s Annual Meeting, October 2002.
- Community Panels Project: An Introduction for Discussion, Maine Fishermen’s Forum, March 2002.

David Bergeron

- MFP newsletter, *Waypoints*, Vol. 3, No. 2, April 2004
- *Waypoints*, Vol. 3, No. 1, April 2003
- *Waypoints*, Vol. 2, No. 2, September 2002
- *Waypoints*, Vol. 2, No. 1, November 2001
- Comments on Amendment 13 to the NEFMC Multispecies Fishery Management Plan, Gloucester, September 2003
- Comments on Amendment 13 to the NEFMC Multispecies Fishery Management Plan, New Bedford, September 2003

Sarah Robinson, Coordinator, Gloucester Panel

- Panelist for The Institute for Community Research on "Crossroads: Critical Issues in Community-Based Research Partnerships. (Held in Hartford, CT).
- Article in *Commercial Fisheries News*, August 2005

David Martins, Panel Member, New Bedford

- Comments on Amendment 13 to the NEFMC Multispecies Fishery Management Plan, September 2003

Gina LeDuc, Assistant to Coordinator (Maine)

- Comments on Amendment 13 to the NEFMC Multispecies Fishery Management Plan, September 2003

Jay Michaud, Panel coordinator

- Panelist for The Institute for Community Research on "Crossroads: Critical Issues in Community-Based Research Partnerships. (Held in Hartford, CT).

Greg Ketchen, Panel member

With Jack Wiggin, the consultant from Urban Harbors Institute at University of Massachusetts, Boston who is drafting the recommendations for the Harbor Committee, were on local broadcasting TV June 1, 2005 to talk about what the draft recommendations are for Gloucester Harbor. They mentioned the panels project several times.

Student Participation

Sarah Robinson, Ph.D. candidate, Harvard University

Jennifer Brewer, Ph.D. candidate, Clark University

Lahny Silva, Master's candidate, Boston University

Published Reports

- The Community Panels' reports are on the web at <http://web.mit.edu/seagrant/aqua/cmss/comm%20mtgs/commmtgs.html>
- "Fishing Industry Economic Needs Assessment," a memorandum presented to Massachusetts Fisheries Task Force, August 2002. (Prepared by Madeleine Hall-Arber, Ph.D., Sarah Robinson, J.D., S.J.D. and David Bergeron) is available at http://www.mass-fish.org/MFP_Economic_Needs_Report.pdf

Future Research

In addition to the on-going project note above in three additional communities, two topics raised by the Community Panels have led to proposals for improvements in marketing and safety training. The latter has been recently funded.

Images

Photographs are incorporated into the reports on the web.

Massachusetts Fishermen's Partnership
Institutionalizing Social Science Data Collection:

The Community Panels Project

Methodology

Madeleine Hall-Arber and Bonnie McCay

Introduction

The primary objective for this project is to develop a community-based process for gathering and assessing social science data relevant to the fishing industry.

We want to

- ground-truth an academic product intended as a baseline study
- identify what communities consider important
- locate new data sources
- offer communities the opportunity to define themselves and articulate their values.

Community-based panels are reviewing, adding to, and creating socio-economic profiles for their communities. Equally important, our project is beginning to provide fisheries managers with information that will enable them to more accurately anticipate social impacts. The communities selected for this project are Beals Island/Jonesport and Portland (Maine), Gloucester, South Shore and New Bedford (Massachusetts) and Pt. Judith, Rhode Island. These six were purposively chosen as representative of the variety of characteristics of the fishing industry in the region including inshore/offshore, large/small, urban/rural, fish/shellfish, mobile/fixed gear, auction/entrepreneur-dealer, etc.

Despite good intentions and legal requisites,¹ fisheries managers often find it difficult to weigh and/or incorporate social data in the analysis of management options. Sometimes this is simply due to an absence of data, but other times it is due to doubts about the reliability of the data that has been offered. This essay addresses the question of the reliability of the Panels Project data by describing a selection of the classic methods used by academic researchers in the social sciences, identifying the strengths and weaknesses of each, and noting which methods are being used by the project.

Representativeness

A bedrock principle of social science is that research results must represent the population being described. However, each of the social science disciplines of

¹ E.g. National Standard 8

anthropology, sociology, cultural geography and economics has favorite methods for obtaining representative results. While each method has positive attributes, there are also potential sources of error in their representativeness.

The Panels Project adopted the approach to representativeness known as the “snowball” method, or networking through key individuals. This approach is appropriate because the project is founded on the principle of participatory and collaborative research, whereby some members of the community are themselves researchers.

The “*snowball*” method relies on interviewing key individuals who then introduce the researcher to, or at least offer contact information about, others in the community who are knowledgeable and willing to be interviewed or participate in the research. Although this method is a non-random way of selecting people to interview, it is often the most effective method for identifying a variety of people in a fishing community. The proliferation of meetings in fisheries management, competition among shoreside businesses, the long work days involved in fishing, the sheer volume of demands for data (e.g., log books), and anxiety about negative impacts of data collection, make it difficult to find volunteers via random sampling. Thus the “snowball” method is appropriate given the realities of working within fishing communities, where scheduling of visits for interviews is particularly difficult.

The “snowball” method is also appropriate in situations—such as most U.S. fisheries—where there are few available datasets and other conditions necessary for the better known and more demanding approach to representativeness: random sampling. Most people consider *random samples* the most appropriate way to select a portion of a population that will properly reflect the characteristics of the whole. The U.S. Census, for example, sends their long form to a random sample of one in six people. When the attributes of interest are widely distributed in the whole population, such a sample is probably a good representation of the whole. However, when the attribute of interest is found only among a small percentage of the whole population, the chance of randomly selecting a sufficiently large number of people with that attribute to make inferences about the whole is unlikely. For this reason, the Census data on fishing as an occupation is not a reliable indicator for either the total numbers of fishermen, or specific characteristics elicited by the Census’s long form.

One technique used to counter the problems associated with purely random samples is to use a “stratified” sample. This allows the researcher to choose a set of characteristics or “strata” from which the sample will be drawn. For fisheries social scientists interested in revenues, strata might include gear types, boat sizes or engine horsepower, and landing port, for example. Within each stratum, a sample is randomly selected. The choice of appropriate strata, however, is not necessarily obvious. Age, ethnicity, or education might also be significant, particularly if the topic of interest is employment rather than simply revenue.

Furthermore, because each characteristic must be considered with respect to each of the others, the numbers of strata can multiply exponentially. In the example of revenues, there might be 5 gear types (trawler, gillnet, longline, dredge, pot), three ranges of boat sizes (small, medium and large) and 6 ports of interest resulting in 90 strata! Depending on how many people fit each strata, the researcher may or may not have samples that are representative of the whole population. When the Atlantic Coast Cooperative Statistics Program (ACCSP) designed a pilot program to study summer flounder, a variety of pertinent strata were identified. As the project progressed, however, and individuals dropped out of the study, the strata had to be collapsed to retain representativeness, albeit at a broader rather than detailed level.

Quota samples bear some similarity to stratified random samples. Again certain characteristics are identified as pertinent and the proportion of each characteristic that is represented in the population as a whole is estimated (or known), and the sample is specifically designed to reflect that proportion. So, if the sample size is 500 vessels, 20% of which should be from Portland, and the Portland fleet has 5% large trawlers, 10% medium trawlers and 3% small trawlers, 18 vessels should be studied in detail. The sample thus chosen will theoretically be representative of geographical area (i.e., port) and gear type and vessel size. However, the small size of the sample makes it virtually impossible to be sure that any other characteristic is representative. Random selection of the small sample, though, can help reduce error.

Both of these research designs require “a *sampling frame*, a list of the people that are available to be selected. But that list is almost never, in fact, compiled for the purposes of academic research.”² This is particularly true in fisheries research. National Marine Fisheries Service’s permit file has a fairly complete list of vessel owners, but since owners may be a corporation rather than an individual, even this list is not entirely reliable as a sampling frame for owners. Nowhere is there a reliable list of crewmembers. Nor is there a definitive list of fishing ports or fishing communities.

In addition, a bias can be introduced by the decisions of individuals to, or not to, participate. And, bias can be introduced by methods used to contact those being interviewed. In addition, characteristics used to set boundaries (gender is often used in social science) may or may not retain differences over time. Also individuals may change over time, so what have been considered relevant differences may disappear.

² Frank Bechhofer and Lindsay Paterson, *Principles of Research Design in the Social Sciences*. London: Routledge, 2000, pg. 37

Starting the snowball with an Advisory panel

The first step for the Panels Projects was to form an advisory panel of thoughtful and experienced fishing industry stakeholders. The projects relied on recommendations from fishing organizations in Maine, New Hampshire, Rhode Island, and Massachusetts to help us form the advisory panel.

The panel was asked to identify the kinds of people who would be representative of the fisheries and communities involved in fisheries-dependent communities of New England and then asked to identify individuals who would fit the categories articulated for the six communities in New England.

Once the selection of participants in the research, or at least the method to be used for selection, is known, decisions about the way data is to be obtained must be addressed. The Panels Project is drawing on a variety of techniques ranging from semi-structured interviews to focus groups to participant observation. As mentioned above, an overriding concern for the project, however, is that the approaches used for data collection and analysis are participatory.

Participatory approach

In participatory research, members of the community or other group being studied participate in aspects of the research—ideally, everything from study design to data collection and analysis. One of the arguments for participatory research is that “An outside researcher may be unlikely, or even unable, to collect the in-depth, inside data that a community member volunteer can elicit.”³ In other words, community members may have both in-depth knowledge that improves the research and also better access to others in the community who have such knowledge. Indeed, the research process can be a learning process for both community members and outside researchers. Constructivist theory “point[s] to the powerful learning that can occur if people are engaged in a process that creates or constructs knowledge.”⁴

There are also practical considerations. Through participatory research, community members are more likely to care about the results, especially if they become involved at every level of the study, helping develop the questions, collecting the data and analyzing the results.⁵ In addition, through participatory research, community expertise and social capital can be created: some gain sufficient confidence to continue research over time. Other benefits of a participatory approach include the fact that a variety of viewpoints are represented insuring credibility and relevance to the community. Furthermore,

³ Richard Krueger and Jean King. 1998. *Involving Community Members in Focus Groups*. London: Sage Publications, p.5

⁴ Ibid, p.7

⁵ Richard Krueger and Jean King. 1998. *Involving Community Members in Focus Groups*. London: Sage Publications, p.6

participation by community members usually helps generate support for the recommendations.

The negative aspect of a participatory approach can be summarized in one word: “time.” A collaborative research process takes much more time than do other forms of research. Identifying and recruiting the participants, finding a variety of talents and sufficient commitment to the study can be daunting and time consuming, even when it is possible to provide funds to compensate participants for their time and travel, as in this case.

Appointing Coordinators

Because of the time constraints, The Panels Project eventually hired coordinators for each panel. The coordinators are not necessarily members of the place-based communities involved, but they are knowledgeable about the industry and able and willing to devote time to scheduling and rescheduling meetings, discussing, debating, and facilitating meetings. The coordinators also find additional key community members who can help with the different forms of data collection.

Forming the panels

When 10 to 12 individuals had agreed to participate as panel members in each community, an orientation/training workshop was held to introduce them to the existing data on their communities and industry.⁶ The need for long-term data collection was explained. The panels were offered the opportunity to identify what issues or data they considered most significant and worthy of recording. They were also asked which methods of data collection they would prefer.

- Each of the panels argued strongly that the most important outcome of the Panels Project must be the collection of data that is considered credible and reliable by fisheries managers and others. No one was interested in devoting time to a project that would result in more papers on a shelf. There was acute awareness that representations of the local communities would mean very little unless they were done in ways that fit into regional and national criteria for legitimacy in the fisheries management decision-making processes. Therefore the participatory nature of the project was re-directed: Although a goal was to offer communities the opportunity to define themselves and articulate their values, the community members themselves were more concerned about the values and definitions of the larger socio-political system, hoping through this project to find ways to influence an agenda driven by outside legislation and political processes.

⁶ *New England's Fishing Communities* by Madeleine Hall-Arber, Chris Dyer, John Poggie, James McNally and Renee Gagne. 2001. Cambridge, MA: MIT Sea Grant College Program.

Data Collection Methods

The Panels Project has focused on semi-structured key informant interviews as a major source of data. Interviewees are purposively selected through the “snowball method,” based on recommendations of key respondents, to be representative of boat owners, crew and shoreside business owners. Before interviews begin, the researchers explain the project, goals, how data will be used, how it will be stored, confidentiality, and notes that the respondent does not have to answer any questions they did not wish to, following the federal government protocol set up for the Protection of Human Subjects.

Structured Interviews

Structured interviews in a survey are the most commonly used method in sociology and, to a lesser extent, anthropology. One advantage of structured interviews is that the responses to factual questions can often be analyzed to show how representative the sample is of the whole. A disadvantage is that the researcher has already decided on the questions, the order they should be asked and in some cases, what the choices are for answers.

Moreover, “when one asks people questions in an interview situation, it is a particular kind of social encounter with its own interactional rules.”⁷ Whereas the information gathered might be readily summed up in numbers on a spreadsheet and statistically analyzed, that information has been shaped by how the interviewers designed the questions, how they were asked, and how the respondent interpreted them in a particular social situation—the interview. This may or may not provide information that is deemed credible and helpful by the community and by fishery managers. (A parallel problem is reliance on public hearings for information about the social and economic impacts of fisheries management regulations: the structure and culture of the public hearing situation strongly influences what is said, heard, and deemed worth acting upon).

Key respondent interviews (semi-structured)

The Panels Project is using a more open or ethnographic approach to interviewing. While protocols have been developed to collect information that can be systematically analyzed, there is room for the introduction of other questions and topics. The factual questions may be the same, but often the conversation extends beyond the specific questions included in the protocol. These often “provide[s] detailed personal accounts about unique experiences of particular people.”⁸ Permission to record is also requested so that such details may be accurately recorded.

⁷ Ibid, p. 96

⁸ David Morgan. *The Focus Group Guidebook*. Thousand Oaks: Sage Publications, 1998, p.33

In order to address the need for accurate economic data in commercial fisheries, our project developed a protocol in consultation with settlement agents (accountants who specialize in maintaining the books for commercial fishing businesses) and an economist familiar with the fishing industry. The settlement agents then selected a group of vessels typical of large, medium and small trawlers and/or gillnetters and recorded their fixed and variable costs at several year intervals.

Participant observation (fieldwork)

In each of the six communities we selected for this project, at least one member of the team –principal investigator or coordinator—lives nearby and/or spends significant time in the community observing and participating in community life. This helps establish rapport and encourages those being observed to continue their daily routine as though being unobserved. The researcher, however, is sufficiently apart from the daily routine to be able to record and analyze what is observed. This is the fieldwork method of participant observation.

Anthropology has traditionally relied on participant observation to understand the population being studied. This method allows the researcher to gain “experiential knowledge...more directly, more naturally and in a less mediated way than does an interview programme or survey.”⁹ Because the researcher is actively engaged in the community and follows the patterns of the daily lives of some portion of the population, the information generated reflects what the portion of the population actually does, rather than just what they say. In addition, the fieldworker can double-check the representativeness of interviewees selected via the “snowball” method and make appropriate additions; enhance the participatory nature of the research by helping to articulate local concerns and ideas; and give feedback to the overall project about how it is perceived and faring in diverse communities.

Researchers conducting fieldwork do run the risk of losing their objectivity when closely participating in and observing a community. The Panels Project has addressed this problem by ensuring that the researchers meet regularly as a group to discuss methods and results. Comparison and contrast with the other panels helps researchers retain a neutral perspective.

Focus groups

Focus groups base their results on a “purposive sample” of participants who are likely to be knowledgeable about the subject under consideration. The goal of the researcher is to create an open, non-threatening environment for a meeting of people with shared interests who will respond to specific questions guided by a moderator. The research team selects the topic and who will attend. As “research-created situations,” focus groups are very

⁹ Ibid. p. 95

different from participant observation.¹⁰ Nevertheless, the flow of discussion can be quite flexible and open-ended, generating information of great ethnographic and sociological value. Participants compare their opinions, observations and experiences with each other and this synergy can generate new questions or ideas.

Focus groups are excellent for identifying critical issues and raising awareness of the complexity surrounding specific topics. They may be used to form consensus within the specific group represented. However, the results of focus groups may or may not be appropriately generalized to the broader population.

The Panels Project has used the general approach of focus groups for topical discussions of critical importance to the community. Meetings in Gloucester on infrastructure were the closest to formal focus group meetings. Other communities have met to discuss economic needs in the face of Judge Kessler's ruling on groundfish management in New England and are currently meeting to focus on potential impacts of Amendment 13 to the Multispecies Fisheries Management Plan. Because the Project complements the focus group approach with interviews and participant observation, some of the data collected in the focus groups may be generalized.

Analysis

The panels will be asked to discuss how managers should use or weigh the gathered data. Each of the coordinators will be looking for patterns, trends or themes that are characteristic of the communities they have been focused on. We anticipate that interpretation of the data will be an iterative process involving panel participants, coordinators and the principal investigators.

The Panels Project offers communities the opportunity to clarify their long-term goals and objectives, participate in collaborative decision-making, and work towards the sustainability of their communities.

Guidance from professionals

Two of the principal investigators have their doctorates in anthropology and have spent many years studying the fishing industry. In addition, the investigators have consulted with an economist to facilitate analysis of the economic data that is being collected.

Their role is to provide outsiders' perspectives, provide cross-cutting ties across the six sites of the project, offer technical expertise and specialized skills, organize and coordinate the on-going work.

¹⁰ David Morgan. *The Focus Group Guidebook*. Thousand Oaks: Sage Publications, 1998, p. 31