

Statement of Work

MRFSS Telephone Survey of
California Party/Charter Boat Fishing Effort
2001

Working Draft April 16, 2001

1. BACKGROUND

The purpose of this task is to conduct a telephone survey of angler fishing effort on party boats and charter boats which is based on a vessel directory sampling frame stratified by boat type. Such a telephone survey has been found to be a much more efficient method for estimation of fishing effort from for-hire vessels that would allow for separate estimation of party boat and charter boat trips by anglers who pay a fee to fish.

Very few coastal zone households contacted by the Telephone Survey have residents who fish from party boats or charter boats. Therefore, Telephone Survey estimates of coastal resident fishing effort are usually much less precise for the for-hire boat mode than for the other fishing modes.

Data collected since 1979 by the Intercept Survey component of the MRFSS has shown that many anglers who pay a fee to fish on party boats or charter boats reside outside the coastal zone covered by the Telephone Survey component. Consequently, the adjustment ratios estimated from Intercept Survey data and used to correct for the undercoverage of the Telephone Survey's coastal zone sampling frame may be much larger and much less precise for party boat and charter boat fishing effort than for shore or private/rental boat fishing effort. In some cases, the estimated correction ratio is so large that the corrected effort estimate for a given state/wave stratum is greater than the maximum number of angler trips possible for the known fleet of for-hire vessels.

To increase the precision of for-hire vessel fishing effort estimates, the MRFSS has traditionally increased effective sample sizes by combining party boat and charter boat fishing together into one stratum and by pooling three years of Telephone Survey effort data and Intercept Survey adjustment ratio data prior to running estimates. Without pooling, unstable estimates of coastal resident effort and unstable estimates of undercoverage correction ratios would cause extremely imprecise annual estimates of total fishing effort from party boats and/or charter boats. However, estimates based on combined data which has been pooled across years are still of little use in tracking differences between party boat and charter boat fishing or year-to-year effort trends in the combined for-hire vessel fishery.

Implementation of a telephone survey which uses a relatively complete vessel directory as a sampling frame should lead to more precise estimates of for-hire vessel fishing effort. As long as the vessel directory used for sampling is fairly complete, coverage of the fishery should be greatly enhanced and sampling of for-hire vessel fishing trips should be much more efficient. Therefore, telephone survey estimates of fishing effort should be much more precise and intercept survey correction ratio estimates should be both much smaller and more precise.

2. METHODOLOGY

2.1. Sample Allocation

For the California survey, sampling of for-hire vessels shall be stratified to separate the state into two subregions. Boats within each subregion stratum shall also be assigned to specific counties and size categories. Each boat shall be assigned to a specific county based on the location of its principal port. In addition, each boat shall be assigned to a particular size category based on either its total length and/or angler capacity. Size categories will be defined such that no category will be so small as to place undue burden on the member vessels of the category.

A program which conducts the sample draw will be provided to PSMFC by the MRFSS team at NMFS. The number of boats to be sampled in each subregion-week stratum shall be 10% of the number of “good” boat records in the vessel directory. Fractions should be rounded to the next highest whole number. Within each subregion stratum, sampling shall be systematic by county of port and vessel size category, and random within composite county/vessel size categories. In preparation for each sample draw, each stratum’s vessels shall be sorted in random county or port order and by descending vessel size category within each county.

2.2. Sample Frame

A directory of California for-hire boats will be developed for the purpose of this survey method. The PSMFC shall obtain an initial boat directory prepared by California Department of Fish and Game (CDFG) and provide this to the Contractor at no cost. In addition, the PSMFC shall provide timely updates to this directory obtained from CDFG’s charter vessel permit renewal activity. Each vessel record in the directory shall include its name and state registration number, and the names, addresses and phone numbers of vessel operators, owners and landing offices for both mail and telephone contact purposes. For some vessels, the name of the owner may be included as one of the operators of the vessel. The PSMFC shall work with CDFG’s staff and the Contractor to identify a principal “representative” for each vessel in the initial directory. That principal representative may be the owner, one of the captains of the vessel or some other person designated by the owner such as the landing office.

When a given vessel is selected for telephone sampling, the telephone interviewer should first attempt to contact the principal representative. If that individual is not available, then the interviewer should attempt to contact one or more other known owners, landing offices or operators of the vessel during the week in question. Three weeks prior to each wave, the PSMFC, the state and the Contractor shall review the vessel directory. The PSMFC shall work in cooperation with the Contractor and CDFG staff to provide updates to the vessel directory regarding the addition of new vessels. It shall be the responsibility of the Contractor to update the frame regarding respondent cooperation status based on prior contacts. In addition, it shall be the Contractor’s responsibility to flag boats that have been determined to be “ineligible” from contact information developed prior to each two-month sampling wave.

2.3. Weekly Sampling of Vessels

The vessels to be sampled each week should be drawn at random from the “good” vessels in the directory according to the procedure specified above in Section 2.1. This approach ensures that only eligible and active vessels with good contact information in the directory are included in the sample frame. The sample frame is then used to randomly draw 10% weekly with replacement.. The PSMFC shall supply the Contractor with a SAS program which should be used to conduct each week’s sample draw if this duty is transferred to the contractor.

To be considered eligible for sampling for a particular two-month period, a vessel record must include the following:

- at least one vessel representative’s telephone number,
- the name of the vessel or a registration number (State or U.S. Coast Guard number) for the vessel,
- and evidence that the vessel is currently active in the fishery.

If the number dialed has been disconnected and a new number assigned, the new number should be recorded and dialed as a replacement. For complete sampling of the weekly angler effort on some vessels, it will be necessary to contact and interview more than one vessel operator. Duplicate vessel operator telephone numbers must be screened out of the generated set of random numbers for each week unless the re-selected number represents a different operator or it is the number of an operator who pilots more than one vessel. With replacement sampling across weeks and a 10% rate of sampling, it is very likely that vessel operators will be contacted more than once during the course of the survey. Special tracking procedures must be used to monitor the frequencies with which the telephone sampling contacts individual vessel representatives.

2.4. Dialing Period

All dialings should be completed during the 7-day week following a specified week of fishing (Monday-Sunday). Respondents should be asked to report angler and vessel fishing activity for the prior week that ended on a Sunday. This approach results in a recall period of 7-14 days for all respondents.

Telephone calls must be made during that time of day that maximizes the potential to contact vessel operators. At least ten attempts must be made on each vessel representative’s telephone number(s). All first attempts should be made the first day, and repeat attempts should be distributed among weekend/weekday and day/evening time periods as listed below. At least five additional attempts must be made to reach each representative once a phone contact with a co-resident has been made.

When each number is dialed, the telephone should be allowed to ring five times before the interviewer classifies it as a "no answer." Interviewers should continue to attempt to contact vessel representatives until they have either conducted an interview or determined that the boat is no longer operating. Although repeated attempts to contact an individual vessel

calls attempted in any stratum. The Contractor shall record the final dialing result after the minimum ten dialing attempts for each sampled vessel. The recommended list of possible result codes is provided in Appendix B.

The pattern of dialing for each number should include at least one daytime attempt and three night attempts. The time separating day and night is 5:00 p.m. No calls should be attempted after 9:00 PM. Once a vessel representative is contacted, future calls to that individual should be made on an appointment basis. Household members should be questioned as to the best time to call back in order to interview the eligible respondent(s).

The PSMFC request that the contractor mail a precontact postcard to each selected vessel representative one week prior to the week in which they will be contacted to notify them of their selection for the survey and remind them of potential questions. PSMFC shall deliver copies of the sample draws for all weeks of a given two-month MRFSS sampling wave to the contractor at least two weeks prior to the start of the wave.

3. TELEPHONE DATA COLLECTION

3.1. Screening Procedures

3.1.1. Respondent Eligibility

Only current owners, operators or otherwise designated representatives of listed vessels are eligible to be interviewed as part of the for-hire vessel telephone survey. If the person answering the phone indicates that the designated representative of the selected vessel is unavailable, then the interviewer should ask for an appropriate time to call back and then make another contact attempt at that time. Respondents who are no longer operating the vessel for which they are listed are ineligible to provide information on that vessel.

If the interviewer is unable to talk with anyone in the household that can communicate in English, then the vessel becomes ineligible for the survey because of the language barrier.

3.1.2. Screening Introduction

The telephone survey screening must generally match the respondent with the vessel drawn for sampling to screen for eligible vessel operators. If the person sought does not answer the phone, it may be difficult to determine potential eligibility. Asking an initial question like "Does name of vessel representative operate a charterboat, party boat, or guide boat?" will accomplish this goal. This data can potentially be useful in determining whether a listed, but non-contacted, vessel operator operates an ineligible boat or is simply a non-respondent.

Other screening questions included in the interview must address the following items.

Recreational Trips with Paying Passengers vs Commercial Trips - Charter boat or party boat trips are "for-hire" trips where the vessel has been hired by recreational anglers whose primary purpose of fishing is for fun or relaxation, as opposed to providing income from the sale of fish.

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Charterboat vs Party boat Trips - Charter vessel trips are “for-hire” trips where the vessel has been hired by a group of recreational anglers who paid as a group. Party boat trips are for-hire trips where anglers paid on a “per- head” basis either as individuals or as a small group for transportation and the privilege to fish.

Private Trips vs For-Hire Trips - Private vessel trips are recreational fishing trips for which no fee was paid for a captain or crew. The vessel may be rented by the anglers but the trip is still private if they operate the vessel on their own for their own recreational fishing.

Saltwater vs Freshwater - Saltwater includes oceans and open water areas, as well as inland salt or brackish water bodies affected by the tides. Inland saltwater bodies include sounds, passes, inlets, bays, estuaries, tidal portions of rivers, and other areas of salt or brackish water like bayous and canals. Some coastal water bodies are called lakes but should still be considered saltwater.

Finfish vs Shellfish - Only fishing trips directed at fish with fins are eligible for a full interview. Information on trips made in pursuit of crabs, shrimp, lobster, clams, oysters, mussels, scallops, and other invertebrates is not to be collected.

In-state fishing vs Mexico fishing - Fishing trips made to Mexican waters are to be distinguished from trips made in the state or substate area where the survey is being conducted. Boat trips that left from the surveyed state for fishing in waters off another state are considered in-state trips.

Fishing in the past week - Only fishing trips made entirely, or in part, during the last week (Monday through Sunday) are eligible for the survey. Data on trips outside of the one-week period should not be kept.

3.1.3. Privacy Act Statement

All surveys conducted by the Federal government are regulated by the Privacy Act of 1974. This Act stipulates that each person interviewed must be informed of the following:

- the auspices under which the survey is being conducted,
- whether participation is voluntary or mandatory,
- what will happen if they choose not to participate,
- and how the information will be used.

Under the Privacy Act, the person interviewed remains anonymous, the responses to the questions are completely voluntary, and there is no penalty for refusal to answer any or all of the questions. All of the information collected remains completely confidential. The Act is paraphrased on each questionnaire and must be read at the designated point in the screening introduction. A copy of the Privacy Act Statement (Attachment E) must be in possession of the interviewer and may be read at any point during the interview to reassure a wary respondent.

3.2. For-Hire Boat Telephone Survey Instrument

3.2.1. General Instructions

A copy of the Questionnaire is included in Appendix D. Some general instructions for conducting the interview are:

Wording - The questions to be put to the angler are written out in full for a purpose. Methodological studies have shown that even slight changes in wording, for example, "should" versus "could", drastically influence item response. The interviewer should always read each item on the Pilot Telephone Survey Questionnaire exactly as it is written. Instructions to interviewers that are not to be read during the interview are written in bold letters on the Questionnaire.

Provide Definitions, Not Answers - If the angler asks for the interviewer's opinion about an item, the interviewer should provide a definition for the item in question, rather than supply an opinion or the actual response. For example, if the vessel representative is unsure about whether the vessel was operated as a party boat or a charterboat, the interviewer should explain the difference and let the vessel representative decide.

Codes for Not Applicable Questions - As a general rule, items on the questionnaire that are not applicable to a particular angler (i.e., items falling out in skip patterns) are coded with "8"s, as indicated on the questionnaire.

Codes for Refused Questions - As a general rule, items on the questionnaire that are refused are coded with "9"s.

Codes for Don't Know - As a general rule, items on the Questionnaire that the angler does not know the answer to are coded with "9"s and a last digit of "8".

Right Justify and Add Leading Zeros - If a data entry does not require use of all boxes provided, the interviewer should right justify the entry and add leading zeros.

"Other (SPECIFY)" - The response codes for some data items are not exhaustive and include codes designated "Other (SPECIFY)". If an angler gives a response not covered by the precoded responses, the interviewer should enter the "other" code and write out the angler's exact response next to the coding boxes.

Notes/Footnotes - Unusual responses require explanation through the use of footnotes on the coding form. For example, more than 14 trips by a single vessel during a week would not be common and would require a note. In such cases the interviewer should place an asterisk (*) by the item and provide a footnote explaining the situation near the bottom of the coding form.

Terminate - Some responses are followed by the instruction to "TERMINATE." When the respondent answers with a response which has the "TERMINATE" instruction following it, the interviewer must thank the respondent pleasantly and say goodbye.

.Maps - Maps for the State being dialed must be available to help interviewers determine the county in which cities are located and to help locate areas of fishing. Saltwater cut-off points for rivers are particularly useful to help determine if the respondent was fishing in fresh or saltwater.

3.2.2. *Item-by-Item Instructions*

3.2.2.1. *Screening Questions*

After successfully contacting the vessel representative sought for interview, it will be necessary to ask a series of screening questions to determine whether the individual contacted is still an appropriate representative who can accurately report on all of the vessel's activity, whether there is another person who must be contacted, and whether the vessel is still being operated. The following explanations indicate why each screening question is being asked.

Valid vessel representative. Does the person contacted consider himself, or herself, to be qualified to report on at least some of the designated vessel's activity? If no, then the interviewer must ask additional questions to determine whether the vessel is no longer operating or whether it is now operated by somebody else. If the vessel is now operated by somebody else due to a change in owner(s) and/or operator(s), then the interviewer should probe to obtain a name and/or telephone number of the new vessel representative. If the contact person cannot provide information on a new owner and/or operator, then thank the respondent for his/her time and terminate the interview. If the *vessel* is no longer operating, then the interviewer should note that the vessel is now "inactive", thank the respondent, and terminate the interview.

Sole vessel representative. Once the contacted person has been identified as a valid vessel representative, the interviewer should ask to determine whether the respondent is capable of reporting on all of the subject vessel's activity during the prior week. If the respondent can only report on some of the vessel's activity, then the interviewer must probe to determine the names and telephone numbers of other vessel representatives who could report on the remainder of the vessel's activity during the prior week. If other vessel representatives are identified and their information is required, then the interviewer should attempt to contact them for interviews after the current interview is completed.

After using the screening questions to verify that the respondent is an appropriate representative and to determine whether other representatives must be contacted, then the interviewer should proceed to interview the current respondent.

3.2.2.2. *Statement of Survey Purpose*

Before proceeding with the base questionnaire, the interviewer must briefly state the purpose of the data collection and explain how the respondent's name and phone number were selected for the interview. Interviewers should be prepared to answer spontaneous questions that the respondent may have concerning the survey purpose or the intended use of their reported data by the PSMFC or the CDFG. This brief statement of the Survey's purpose

must always be read to the respondent because it is required under the Paperwork Reduction Act by the U. S. Office of Management and Budget (OMB).

3.2.2.3. *Statement of Confidentiality*

The interviewer must also state that the data will remain confidential in accordance with the Privacy Act of 1974. The interviewer must also explain that the respondent's responses to questions are entirely voluntary. Respondents are not obligated in any way to have to answer any questions that they consider to be an invasion of their privacy. This statement of the voluntary nature of the survey and the confidentiality of the data must always be read to the respondent because it is required by law and by OMB.

3.2.2.4. *Interview Questions*

Once the statements of purpose and confidentiality have been read, the interviewer should proceed immediately with the basic interview questions.

Pacific Coast PC Telephone Survey Questions - 2001

Prior to call record vessel name, vessel number, vessel type, contact name, phone number, vessel state, vessel county and interviewer number. Key questions are preceded by an asterisk. All key questions must be answered to obtain a "complete" interview.

Hello my name is name of interviewer. I'm calling for a survey being conducted for the National Marine Fisheries Service of the U. S. Department of Commerce and the California Department of Fish & Game. Am I speaking to name of contact? If "no", ask: Can I please speak with name of contact? If person sought is not available, ask for convenient time to call back to talk to that person, thank respondent, and terminate interview.

SCREENING QUESTIONS: Are you still the captain, owner or designated representative of the name of vessel?

If "yes", ask: Do I need to contact anyone else to obtain information on the activity of the name of vessel during the last week (Monday through Sunday) or do you have all that information on hand?

If "yes", ask for name(s) and telephone number(s) of other persons, note that other persons will have to be contacted for this vessel's effort data and then continue.

If "no", continue.

If "no", ask: Is the name of the vessel currently being operated by someone else?

If "yes", then ask: Do you know the name and telephone number of someone who operated the name of vessel during the last week (Monday through Sunday)?

If "yes", take name and telephone number, thank respondent and terminate interview.

If "no", thank respondent and terminate interview.

If "no", note that vessel is inactive, thank respondent and terminate interview.

We are surveying owners and operators of partyboats and charter boats to collect data needed to estimate total marine recreational fishing trips by individual anglers. The name of vessel

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has been selected at random from a directory of partyboats and charter boats to be included in this week's survey of trips.

I would like to ask you a few questions about trips made last week by the *name of vessel*. This data will remain confidential. This survey is being conducted in accordance with the Privacy Act of 1974, therefore you are not obligated to answer any question if you find it to be an intrusion of your privacy. (Continue with interview.)

*Q1. During the last week (Monday through Sunday), how many saltwater fishing trips targeting finfish did the *name of vessel* take with paying passengers? Record number of saltwater fishing trips with paying passengers. If "0" then skip to Follow-Up questions.

*Q1A. How many of these trips consisted of more than one day of fishing? Record number of multi-day for-hire trips.

TRIP LOOP Q2-Q14A.: We will begin with the most recent recreational fishing trip and work backwards to last Monday.

*Q2. Did your boat take any saltwater fishing trips with paying passengers that ended on day of week (starting with Sunday)? If "yes", obtain the total number of trips that day. Repeat this and the following questions for each day of the week. If more than one trip is made in one day, profile each trip separately for that day. (Record day of trip.)

1=Monday

2=Tuesday

3=Wednesday

4=Thursday

5=Friday

6=Saturday

7=Sunday

*Q3. Did passengers pay as a group to charter the boat or did passengers pay on a per-head basis for fishing space on the boat?

6=passengers chartered boat as a group (charter mode)

7=passengers paid on per-person basis for fishing space (party mode)

Definitions:

Charter trip: A trip with paying passengers who hired the vessel as a group.

Party trip: A trip with paying passengers who paid on a per-person basis for fishing space.

*Q4. Excluding captain and crew, how many people went to fish on this trip? (Record number of people on trip.)

Range: 1-150

- *Q5. Did all of those people actually fish on the trip? (If “yes”, record same number as given for Q4.) If no, then ask: How many of them did fish on the trip?
Range: 1-150
- *Q6. Was this trip taken from a California marina, dock, or launch ramp? If “no”, ask: From what state was the trip taken? (Record state of trip.)
- *Q7. From what county was this trip taken? (Record county of trip.)
See FIPS codes in Intercept Survey Training Manual.
- Q8. Was this trip taken from a marina, dock, or launch ramp to which the public normally has access? (Record “public” or “private”.)
1=public
2=private
8=don’t know
9=refused
- Q9. What fishing method or methods (trolling, bottom fishing or casting) were used on that trip? List up to two fishing methods.
1=trolling
2=bottom fishing
3=casting
4=drift
5=other
8=don’ t know
9=refused
- Q10. What was the primary target species on that trip? (Record 10-digit NMFS code, refer to SCDNR short list).
- *Q11. Was most of your fishing effort on that trip in the ocean, a gulf, a river, a sound or a bay? (Record area.)
1= ocean
2= sound
3= river
4= bay
5= other
M= Mexico
- *Q12. If Q10 is “ocean” ask: Was most of your fishing less than or greater than three miles from shore? (Record Distance from Shore.)
1=less than 3 miles
2=greater than 3 miles
8=not applicable (Q11 is not 1).

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- Q13. At what time (to the nearest half-hour) did your boat return from that trip?
(Record return time as military time.)
Range: 0030 - 2400
- Q14. To the nearest half-hour, how much time was spent actively fishing with gear in the water? Record vessel fishing hours.
Range: .5 - 24.0
- *Q14A. Did this trip cover more than one day of fishing? If “yes”, record “yes” for multi-day trip and ask: How many days of fishing occurred on this trip? Record number of fishing days. (Split into individual day trips on consecutive days with equal fishing hours.) If “no”, record “no” for multi-day trip and record number of fishing days as “1”.

END TRIP LOOP: Repeat Questions 2-13 until all trips in the past week have been profiled.

- *Q15. During the last week (Monday through Sunday), did your boat make any additional trips? This would include any commercial or private fishing trips, as well as any non-fishing trips for other recreational activities, fuel, bait, etc. Record total number of vessel trips. If “0”, then skip to Follow-Up questions.
- *Q16. On what days did each of these additional boat trips occur? Record only the day and mode (“9”) of each additional trip and proceed to Follow-Up questions.

FOLLOW-UP

Did you receive notification from us that you would be contacted for this interview?
If “no”, ask for correct mailing address and briefly explain that notification will be sent prior to any later contacts and continue.

In case the name of vessel is ever selected again for this survey, at what time of day would you prefer to be called? (Record preferred time as military time.)

Thank respondent and conclude interview.

Each current operator of a vessel must be interviewed separately about vessel fishing trips and number of anglers who fished on each trip in the last week. There are exceptions to this rule. If the initial respondent indicates that he/she was the sole operator of the vessel for the prior week, then it may not be necessary to contact other potential operators of that vessel that week.

Interviewers must have a calendar available to help respondents with dates, particularly with weekend dates.

If the vessel operator cannot recall all the trips within the week, the interviewer must note the date they stopped counting. The angler must then be asked to estimate the number of trips in

each mode of fishing (“charter”, “head”, or “other”) during the period between their last reported trip date and the beginning of the week. A trip record should be created for each trip even if complete details are not remembered.

4. INTERVIEWERS

4.1. Qualifications

The PC telephone survey of for-hire boat fishing effort is to be conducted on a weekly basis beginning with wave 2, 2001. Interviewers must have strong communications skills and be able to interact with people in a friendly and professional manner. Experience in telephone interviewing is desirable to effectively deal with a variety of situations while conducting the interview.

4.2. Training

An extensive training session must be held for all personnel. This training must cover general telephone interviewing procedures as well as procedures specific to the pilot for-hire boat effort survey. Subjects addressed in the telephone survey training sessions must include, but not necessarily be limited to:

- Recording call attempts and completions,
- Summarizing number of attempts and final outcome for each call
- Screening respondents for eligibility,
- Setting appointments and making callbacks,
- Overcoming respondent resistance and discouraging refusals,
- Recording respondents level of cooperation
- Recording and coding responses,
- Proper probing to clarify ambiguous or confusing responses,
- Reading the questionnaire verbatim in a manner that respondents can easily understand,
- Obtaining complete verbatim responses,
- Importance of systematic random sampling of the “charter” and “head” boat strata for weekly interviews,
- Assuring confidentiality of responses,
- Awareness of weekly sampling quotas, and
- Callbacks to verify unusually high numbers of reported trips.
- Monitoring by supervisors to validate 10% of the interviews.

Training sessions must include a general overview of the background, purpose and design of the pilot telephone survey of charter boat and party boat angler fishing effort. In addition, they must cover the background, purpose and design of the MRFSS. Questions and discussion should be encouraged to ensure that all interviewers understand the importance and overall purpose of the MRFSS studies. This overview must be followed by an item-by-item explanation of the data collection instruments for the telephone survey of angler fishing effort on charter and party boats, and a review of all materials used in conduct of the interviews.

Each training session must contain periods of role playing designed to provide practice and to develop good interviewing techniques. All trainees must conduct practice interviews with an experienced supervisor to allow first-hand constructive criticism of their interviewing technique.

All interviewers, including those employed during the prior wave, must receive a briefing before the start of each wave. This briefing will refresh techniques established in the previous wave, review the basic details of the study, explain any changes or exclusions in questionnaires that are applicable to the next wave and point out any changes in forms. Questions should be strongly encouraged during these final briefings.

4.3. Supervision

Project supervisors and/or assistant supervisors must oversee the operation of the telephone survey. These individuals must be experienced in telephone interviewing and be knowledgeable about the MRFSS. They must also have effective skills in managing and motivating personnel.

Supervisors should periodically monitor interviews in progress. Additional training or other remedial action must be taken when appropriate to ensure that only competent interviewers are conducting the interviews. Interview monitoring allows supervisors to offer suggestions to interviewers to help improve their interviewing technique.

Supervisors or designated assistants with considerable telephone interviewing experience must review all completed forms and/or computer files of interviewing results on a daily basis during the dialing. They must check to see that coding forms and computer data are completed fully and accurately. Any apparent mistakes or inconsistencies must be checked with interviewers and, if necessary, the respondent should be recontacted to clarify an answer. Respondents who report an unusually high number of trips should be re-contacted for follow-up verification interviews (see Section 5.1 below).

5. DATA ENTRY AND EDITING

5.1. Data Editing

Upon completion of interviewing for the day, interviewers must review their completed coding and key entry for completeness and accuracy. All responses should be checked to be sure that they fall within the range of allowable responses. Variable ranges are defined in the variable descriptions (Appendix A) and provided on the questionnaire (Appendix C).

In addition to range checks, variable values should be checked for reasonableness. For example, a reported count of 25 marine recreational fishing trips for a given vessel in a given week or a reported count of 30 persons (charter boat) or 200 persons (party boat) fishing on a given vessel trip should be double-checked because they appear to unreasonably high counts.

Cross-variable checks should also be conducted to be sure that the value recorded for one variable is compatible with the values recorded for other variables. If the total number of

dock-to-dock trips reported is "8", then the number of marine recreational fishing trips cannot exceed that same number.

If a computer aided telephone interview (CATI) system is used to conduct telephone interviews, then the Contractor should be sure to include checks for out-of-range or unreasonable responses in the interactive CATI program. In addition, the Contractor should program cross-variable checks to verify responses. For example, if the respondent indicates that he/she took one multi-day trip during the week but later does not describe any individual trip as a multi-day trip, then the program should catch this mismatch and prompt the interviewer to verify that no multi-day trips were taken. Another example would be a check to verify a reported number of passengers greater than "6" for a vessel with a vessel capacity of six passengers.

5.2. Record Format

Telephone data are to be stored in a specified format such that multiple records for each vessel and vessel operator can be linked by unique survey-specific identifiers. The vessel ID will be specific to a particular combination of vessel name and vessel number (State or U. S. Coast Guard registration number) in the vessel directory. The first two digits of the vessel ID shall be "06", the FIPS code for California. The remaining 5 digits will be assigned by sorting the entire directory of boats by name and then assigning numbers starting with "00001" and ascending upwards.

The variable descriptions and formats are provided in Appendix A and B.

5.3. Data Entry and Edits

Data will be coded, edited and stored on computer disks with back ups. Data will be in agreed on formats that can be read on computers used by the PSMFC, Contractor and the CDFG.

Data entry procedures must be designed to achieve a data entry accuracy rate of at least 99.5 percent of all keystrokes. Dual data entry or other error checking data entry techniques should be employed.

Error checking must be accomplished through the use of range, logic and table lookups during data entry and/or editing routines on the data set after data entry is completed for a wave. All checks described in Section 5.1 must be incorporated into machine edits. Every data element must be checked for data entry errors, reasonableness in falling within an acceptable range, and logic in relation to other data elements. Duplicate vessel numbers in the vessel directory must also be identified and corrected.

Electronic copies of all resulting data files must be sent to the PSMFC within 21 days following the end of each two-month sampling wave. Finalized versions of all files will be due 21 days following the end of the project.

6. QUALITY CONTROL

6.1. Administrative Data Reports

A number of data reports will be needed by the MRFSS on a monthly basis to effectively monitor the conduct of the PC telephone survey. Included are such items as completion rates and dialing results by state/subregion and boat size. Dialing results include, but are not necessarily limited to:

- Line busy,
- No answer,
- Answering service,
- Answering machine,
- Not in service/disconnected number/dead line,
- Connected to wrong number,
- Initial refusal,
- Communication problem (deaf, foreign language),
- Could not answer effort question,
- Refused to answer effort question.

In addition, summaries of dialing results should report the following:

- Number of first-time contacts who turned out to be ineligible,
- Number of vessel operators who refused to provide trip information,
- Number of vessel operators not available to be interviewed,
- Number of ineligible (e.g. no longer operating vessel), and
- Number of uncooperatives (e.g. those who previously asked not to be called again).

Monthly submission of these performance data is necessary to maintain data collection quality through identification of problem areas and adjustment of procedures as necessary.

Also of critical importance to quality control is regular reporting from supervisors on interview validation results. Results of supervisory activities must be fully documented. These include observations of in-progress interviews by interviewers, follow-up counseling after in-progress monitoring that identifies problem areas and improves interview technique, and counseling on problem areas following callback verification.

6.2. Outlier Analyses

Unusually large reported numbers of trips, given these sample sizes, can result in unrealistic expanded estimates of trips, and then catch. In these cases, it is appropriate to conduct analyses to verify outliers in the data set.

APPENDIX A

Telephone Survey Results Variable Descriptions

Variable	Description Values/Range
INT_ID	Interviewer ID Code Range: 0001-9999
VSL_ID	Vessel ID Number for the Survey Range: 060001-069999
VSL_TYP	Vessel Type (Charter or Party from the For-hire Directory) 'C'=charter 'H'=party boat
SMP_WEEK	Sampling Week Range: '01'-'52'
YEAR	Sampling Year 'YYYY'
WAVE	MRFSS Sampling Wave '1'=Jan/Feb '2'=Mar/Apr '3'=May/Jun '4'=Jul/Aug '5'=Sep/Oct '6'=Nov/Dec
SUB_REG	Subregion Code '1'=S. California '2'=N. California
ST	State Code (FIPS Code) '06'=California
NUM_REPS	Number of Vessel Representatives Contacted Range: 0-9
REP_NUM	Interviewed Vessel Representative Number for the Week Range: 1-9
REP_ID	Vessel Representative ID '1'= Representative '2'= First Captain '3'= Second Captain '4'= Third Captain '5'= Owner '6'= New Representative
INT_DATE	Date of Vessel Representative Interview YYYYMMDD
INT_TIME	Time of Vessel Representative Interview Range: '0900' - '2100'
STATUS	Status of Vessel Representative Interview '1'=Complete interview '2'=Incomplete, but all key questions answered '3'=Refusal '4'=Language barrier '5'=Mid-Interview refusal '6'=Ineligible (Boat doesn't take paying passengers not for hire) '7'=No contact

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'8'=Inactive (Boat temporarily not for hire)
'9'=Uncooperative (Boat representative asked not to be called again)

BT_TRIPS Total Number of Dock-to-Dock Vessel Trips
Range: 0-30

OT_TRIPS Total Number of "Other" Trips (Commercial or Private Non-Fishing Trips)
Range: 0-10

RF_TRIPS Number of Vessel Trips for Marine Recreational Fin-fishing
Range: 0-30

MD_TRIPS Number of Multi-Day Vessel Trips for Marine Recreational Fin-fishing

TRIP_NUM Number of Trip Reported by Vessel Representative
Range: 1-30

TRIP_DAY Day of Week on which Trip Occurred
'1'=Monday
'2'=Tuesday
'3'=Wednesday
'4'=Thursday
'5'=Friday
'6'=Saturday
'7'=Sunday

TRIPDATE Date of the Trip
'YYYYMMDD'

T_OF_DAY Trip of Day
'1'=First (or only)
'2'=Second
'3'=Third...

MODE_F Mode of Trip
'6'=Head (Paying Passengers Pay Fee on Per Head Basis)
'7'=Charter (Paying Passengers Pay Group Charter Fee)
'9'=Other (Commercial, Private/Rental Recreational, Non-Fishing)

PEOPLE Number of Passengers Who Went to Fish.
Range 1-150

NANGLERS Number of Passengers Who Did Not Fish
Range 0-10

ANGLERS Number of People Who Actually Fished on Trip
Range: 1-150

TRIP_ST State of Access Site for Trip
'06'=California

TRIPCNTY FIPS County of Trip

ACCESS Public vs. Private Access
'1'=Public
'2'=Private
'8'=Don't Know
'9'=Refused

METHOD1 Primary Fishing Method
'1'=Trolling
'2'=Bottom fishing
'3'=Casting
'4'=Fly fishing
'5'=Other
'6'=Drifting
'8'=Don't Know
'9'=Refused

METHOD2 Secondary Fishing Method
'1'=Trolling

'2'=Bottom fishing
 '3'=Casting
 '4'=Fly fishing
 '5'=Other
 '6'=Drifting
 '8'=No Second Method Used
 '9'=Refused

TARGET Primary Target Species (10 digit NODC code)

AREA Primary Fishing Area
 '1'=Ocean
 '2'=Sound
 '3'=River
 '4'=Enclosed bay
 '5'=Other
 'M'=Mexico

DIST Distance from Shore
 '1'=Less than 3 miles
 '2'=Greater than 3 miles
 'M'=Mexican Waters
 '8'=Not Applicable (Q10 is not '1')

AREA_X Collapsed Primary Fishing Area
 '1'=Ocean less than 3 miles
 '2'=Ocean greater than 3 miles
 '5'=Inland
 'M'=Mexico

TIME Time of Return from Trip
 Range: '0030-2400'

HRSF Hours Fished on Trip
 Range: 0.5-24.0

MULTIDAY Multi-Day Trip?
 '1'=Yes
 '2'=No

DAYSF Days Fished on Trip
 Range: 1 - 7

NOTIFIED Receipt of Notification
 '1'=Yes
 '2'=No

BESTTIME Preferred Time to be called if chosen again
 Range: '0600-2200'

VERIFIED Was Interview Validated?
 '1'=Yes
 '2'=No

ERRORS Did Validation Reveal any Errors?
 '1'=Yes
 '2'=No
 '8'=Not Applicable (VERIFIED='2')

VAL_ID Validation Interviewer's Initials
 Range: 'AA' to 'ZZ'

VAL_DATE Date of Follow-Up Validation Interview (Yr/Mo/Day)
 'YYYYMMDD'

RESULT Result of the last phone attempt
 '01'= Line Busy
 '02'= No Answer
 '03'=Answering Machine or Service
 '04'=Wrong number - new number available
 '05'=Rep Not available

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'06'=Not in service/wrong number
'07'=Initial Refusal/Uncooperative
'08'=Communication problem
'09'=Ineligible
'10'=Successful Contact
'11'=Fax/Computer

APPENDIX B

Telephone Survey Results Variable Formats

<i>Variable</i>	<i>Type</i>	<i>Len</i>	<i>Variable Description</i>
INT_ID	Char	4	Interviewer ID (same as for MRFSS Intercept Survey)
VSL_ID	Char	7	Vessel ID (randomly assigned survey-specific ID)
VSL_TYP	Char	1	Vessel type (indicated on the For-Hire directory)
SMP_WEEK	Char	2	Sampling Week
YEAR	Char	4	Sampling Year
WAVE	Char	1	MRFSS Sampling Wave
SUB_REG	Char	1	Subregion Code
ST	Char	2	State Code (FIPS Code)
NUM_REPS	Num	1	Number of Vessel Representatives Contacted
REP_NUM	Num	1	Interviewed Vessel Representative Number
REP_ID	Char	2	ID of Vessel Rep. Interviewed (survey-specific ID)
INT_DATE	Char	8	Date of Vessel Representative Interview (Yr/Mo/Day)
INT_TIME	Char	4	Time of Vessel Representative Interview (military time)
STATUS	Char	1	Status Code for Vessel Representative Interview
BT_TRIPS	Num	2	Number of Dock-to-Dock Vessel Trips
OT_TRIPS	Num	2	Number of Non-For-Hire, or "Other", Vessel Trips
RF_TRIPS	Num	2	Number of For-Hire Vessel Trips for Marine Recreational Fishing
MD_TRIPS	Num	2	Number of Multi-Day Fishing Trips For-Hire Vessel
TRIP_NUM	Num	2	Number of Trip Reported by Vessel Representative
TRIP_DAY	Char	1	Day of the Week on which Trip occurred
TRIPDATE	Char	8	Date of the Trip (Yr/Mo/Day)
T_OF_DAY	Char	1	Trip of Day (first, second, third)
MODE_F	Char	1	Mode of Trip
PEOPLE	Num	3	Number of Passengers on Trip
NANGLERS	Num	2	Number of Passengers Who Did Not Fish
ANGLERS	Num	3	Number of Passengers Who Fished on Trip
TRIP_ST	Char	2	State of Trip
TRIPCNTY	Char	3	County (or Parish) of Trip
ACCESS	Char	1	Public vs. Private Access
METHOD1	Char	1	Primary Fishing Method
METHOD2	Char	1	Secondary Fishing Method
TARGET1	Char	10	Primary Target Species
AREA	Char	1	Primary Fishing Area
DIST	Char	1	Distance from Shore
AREA_X	Char	1	Collapsed Primary Fishing Area
TIME	Char	4	Time of Return from Trip
HRSF	Num	4	Hours Fished on Trip
MULTIDAY	Char	1	Multi-Day Trip?
DAYSF	Num	1	Days Fished on Trip
NOTIFIED	Char	1	Receipt of Notification
BESTTIME	Char	4	Preferred time to call again
VERIFIED	Char	1	Was Interview Validated?
ERRORS	Char	1	Did Validation Reveal any Errors?
VAL_ID	Char	2	Validation Interviewer=s Initials
VAL_DATE	Char	8	Date of Follow-Up Validation Interview (Yr/Mo/Day)

APPENDIX C

Initial Planning Outline

- A) Vessel Directory
- 1) Develop from available lists of for-hire boats (state registration lists & variety of other possible sources)
 - 2) Each record should represent one boat
 - 3) Key variables
 - a) Vessel name
 - b) Vessel registration number (State or Coast Guard)
 - c) Contact information (name, phone number, mailing address) for:
 - Owner
 - Captain(s)
 - Designated representative for reporting effort
 - Designated representative for reporting trip-level economic data
 - d) Vessel ID (created by us) to use as boat identifier in survey databases
 - e) Vessel length
 - f) Location of principal port (state, county, MRFSS site code)
 - g) Licensed passenger capacity
 - h) Vessel status:
 - Ineligible (never used as for-hire boat)
 - Inactive eligible (used as for-hire boat but not currently active)
 - Active eligible (used as for-hire boat and currently active)
 - Uncooperative eligible (used as for-hire boat but refused to report)
 - i) Date of re-activation of a currently inactive, eligible boat (month)
 - 4) Assign vessels to specific counties and size categories
 - a) County of principal port
 - b) Broad size category based on length or passenger capacity (large vs. small)
 - 5) Standardize variable names and formats to match Gulf directories
 - 6) Directory is source for development of sampling frame for each two-month wave
 - 7) Must be updated with new information as it becomes available
 - a) Add new boats when state registration is updated (new licenses, annual renewals, etc.)
 - b) Add new boats encountered by MRFSS intercept interviewers
 - c) Update vessel information on telephone survey contacts:
 - Track sold boats to new owners/captains
 - Update contact information
 - 8) Never remove ineligible or inactive boats from directory, flag them
 - 9) Pre-season dialing should confirm key variables for each vessel
 - a) Get valid contact information
 - b) Identify appropriate vessel representatives for effort and economic data
- B) Bimonthly Telephone Survey Sample Frames
- 1) Develop sample frame for each wave at least 2 weeks before start of wave

- 2) Same sample frame should be used to draw all weekly samples for the wave
 - 3) Sample frame should only include boats in directory with minimum contact information and possible active status (sample frame will be subset of directory):
 - a) Minimum contact information:
 - Vessel name or registration number
 - Valid telephone number
 - Name of boat representative
 - b) Possible active status:
 - Eligible boats that may be “active” at some time during the wave
 - “Uncooperative” eligibles
 - 4) Save and archive a copy of the sample frame used for each two-month wave
 - 5) Provide copy of sample frame for the wave to each MRFSS intercept survey interviewer so they can determine whether boats used by intercepted anglers were “on-frame” or “off-frame” (data will be used to estimate telephone survey under-coverage correction ratio)
 - 6) Draws of Weekly Dialing Samples
 - 7) Draw all weekly samples for the wave two weeks prior to the start of the wave
 - a) NMFS providing SAS program to PSMFC
 - 8) draw systematically from list of boats sorted in following manner:
 - a) Sorted by county of principal port
 - b) Sorted by size category within each county
 - c) Randomly sorted within each county/size category
 - 9) Save and archive a copy of each week’s sample of boats
 - 10) Provide copy of each week’s sample draw to MRFSS interviewers who will make dockside observations of activity of drawn boats
 - a) MRFSS interviewers will attempt to visit principal port of each drawn boat on at least one day during the week prior to the scheduled telephone interview to look for evidence of fishing activity
 - b) Dockside observations of boats “fishing” or “not fishing” will be checked against what was reported in subsequent telephone interview
- C) Mailing of Pre-Contact Letters
- 1) Coordinate mailing of pre-contact letter and optional data form to occur at least two weeks prior to the start of dialing for each weekly sample (one week prior to the week for which effort would be reported)
 - 2) Pre-contact letter informs designated boat representative that he/she will be contacted (who mails the letter and form?)
 - a) identify boat by name and/or registration number
 - b) specify week of dialing
 - c) specify week of fishing effort to be reported
 - 3) Optional form shows information to be obtained
 - a) identifies variables to be reported in response to interviewer questions
 - b) explains alternative responses allowed for each question
- D) Dialing of Samples
- 1) For each week start dialing on Monday and continue until all boat representatives contacted
 - 2) Record ultimate dialing result for each boat (see Gulf codes)

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- a) Complete interview
- b) Incomplete interview (key questions answered)
- c) Incomplete interview (refused one or more key questions)
- d) Refusal
- e) No contact made (and specify reason)
- 3) Update information on boats in directory while sampling during the wave
 - a) Flag boats identified as ineligible or refusals (uncooperatives)
 - b) Flag boats identified as no longer active in the wave (inactive)
- 4) Check boats in dialing sample each week against updated directory to avoid re-dialing boats flagged as “ineligibles”, “uncooperatives”, or “inactives” record such boats as having same result
- E) Telephone Interviewing (CATI?)
 - 1) Finalize questionnaire – minimize number of questions
 - 2) Identify “key” questions – minimum information needed for estimation purposes
 - a) Number of trips (commercial fishing, recreational fishing and non-fishing)
 - b) Number of fishing trips
 - c) Numbers of other recreational for-hire trips by category (for F/SWC’s economic analyses)
 - d) For each fishing trip:
 - Number of anglers
 - Primary area fished (Inland, ocean < 3, ocean > 3)
 - Mode of payment (group charter or anglers paid per-head)
 - State and county of trip
 - Times of departure and return
 - 3) Add-on questions for trip-level economic data
 - a) Randomly select one recreational for-hire trip reported for the prior week
 - b) Ask for economic data on that trip
 - 4) Verification of telephone interview data
 - a) Remote monitoring of 10% of calls by supervisors
 - b) Taping of interviews option
- F) Data Processing
 - 1) Data entry program for validation checks
 - 2) Check data for errors get GSMFC error-checking program as example
- G) Dockside Observers – visits to principal ports of dialing sample vessels
 - 1) Check all boats once or check clusters of some more than once
 - 2) If boat clusters, vary location of clusters from week to week
 - 3) Visits should be at different sites than ones visited for intercepts on same day
- H) Publications
 - 1) Outreach
 - a) Brochure
 - b) Results newsletter
 - 2) Mail contacts
 - a) Introductory letter
 - b) Weekly pre-contact letter
 - c) Weekly pre-contact data record form
 - 3) Observer contacts

- a) Vessel directory
- b) Vessel record add/change form
- c) Vessel sample frame for each wave
- d) Vessel on/off sample frame form
- e) Vessel trip validation form
- f) Weekly vessel check lists