

1SUPPORTING STATEMENT
MARINE RECREATIONAL FISHERY STATISTICS SURVEY
OMB CONTROL NO. 0648-0052

A. JUSTIFICATION

1. Explain the circumstances that make the collection of information necessary.

Collection of these data is necessary to fulfill statutory requirements of Section 303 of the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1852 et. seq.; Attachment 10) and to comply with Executive Order 12962 on Recreational Fisheries (Attachment 11). Section 303 (a) of the Magnuson-Stevens Act specifies data and analyses to be included in Fishery Management Plans (FMPs), as well as pertinent data that shall be submitted to the Secretary of Commerce under the plan.

In the past, it was thought that commercial fisheries took the greater part of the fishery catch in the marine waters of the United States. However, most species of fish in estuarine and inshore areas, as well as in many open ocean waters, are harvested by both commercial and recreational fishermen. Recent data indicate that catches by the marine recreational fishery are a significant portion of the total landings of many marine species. Therefore, it is essential to monitor both the commercial and recreational components of the fishery on a continuing basis.

This request includes several data collection components for the Marine Recreational Fisheries Statistics Program. These are detailed in answer #12 below. The Marine Recreational Fisheries Statistics Survey (MRFSS) makes up the core of the Agency's recreational fishery data collection efforts. Implementation of the new components and sampling levels for the previously approved survey components will depend on fiscal year funding.

2. Explain how, by whom, how frequently, and for what purpose the information will be used. 1If the information collected will be disseminated to the public or used to support information that will be disseminated to the public, then explain how the collection complies with all applicable Information Quality Guidelines.

The data are used annually by NMFS, regional fishery management councils, interstate marine fisheries commissions, and state fishery agencies in developing, implementing and monitoring fishery management programs. Failure to conduct these data collections would prevent the Secretary from meeting statutory requirements of the Magnuson-Stevens Act of 1996.

Catch and effort statistics are fundamental for assessing the influence of fishing on any stock of fish. The quantities taken, the fishing effort, and both the seasonal and geographic distributions of the catch and effort are required for the development of regional management policies and plans.

1Social and economic data are used to provide descriptive and behavioral information on marine recreational fishing participants; **provide estimates of the value of important recreational**

fisheries; analyze fisheries management decisions regarding allocation, changes in management strategies or changes in factors that affect catch rates and/or access to marine recreational species for fishing sites; estimate the contribution of recreational fisheries to regional economies; and estimate the impact of fisheries regulations on regional economies. In addition to the need for data on recreational anglers, fisheries management requires cost-earnings on the charter boat fleet.

Accurate and timely catch statistics collected over the range of a species must be used in association with biological studies to perform the stock assessments necessary for monitoring the effectiveness of fishery management planning for optimum yield. Several fish species are now being managed under FMP quota systems that include recreational fishery components. For example, this collection has been the key source of data used to monitor recreational quotas for the harvest of red snapper, king mackerel and Spanish mackerel in the Southeast Region. This collection provides coastwide information on quantity, species composition, and size distribution of catch. Such information is not available from any other source. For example, catch distributions and harvested size distributions obtained in this data collection have formed the basis of FMPs developed for bluefish, red drum, red snapper, summer flounder, weakfish, winter flounder, and other key species targeted by the marine recreational fishery.

It is anticipated that the information collected will be disseminated to the public or used to support publicly disseminated information. As explained in the preceding paragraphs, the information gathered has utility. NOAA Fisheries will retain control over the information and safeguard it from improper access, modification, and destruction, consistent with NOAA standards for confidentiality, privacy, and electronic information. See response #10 of this Supporting Statement for more information on confidentiality and privacy. The information collection is designed to yield data that meet all applicable information quality guidelines. Prior to dissemination, the information will be subjected to quality control measures and a pre-dissemination review pursuant to Section 515 of Public Law 106-554.

3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological techniques or other forms of information technology.

The methodological approach for the MRFSS has been developed and refined over 23 years, employing the experience of NMFS statisticians and contractors in statistical sampling and survey methods. State-of-the-art interviewing methods have been used to minimize response times. Most of the proposed data collections require interviewer-mediated reporting of data by respondents in order to minimize item non-response and maximize accuracy of the collected data and statistics estimated from those data. Proposed telephone surveys require use of computer-assisted telephone interviewing (CATI) methods that greatly reduce response errors and data entry errors.

The For-Hire Survey (FHS), a vessel directory telephone survey of for-hire representatives, allows two alternate response options on the Atlantic Coast. Along with their advance notification, vessel representatives receive a 7-digit Personal Identification Number (PIN) and a

logsheet to assist them in recording their data for their fishing week. They can either wait for a phone call to retrieve their information, fax in their logsheet to a toll-free number, or use their PIN to logon and complete the questionnaire online. The logsheet and web tool mirror the CATI program, and are only used as additional response options to accommodate the schedule of for-hire captains during their reporting week.

4. Describe efforts to identify duplication.

NMFS has the lead Federal responsibility for collection of data from marine recreational fishermen and coordinates marine recreational fishing informational needs with other agencies. For example, in 1987 NMFS coordinated an economic study of marine recreational anglers on the Atlantic Coast with the Environmental Protection Agency. Also NMFS has worked with State fishery agencies each year to coordinate data collection efforts and avoid duplication. In some cases, NMFS employs State personnel under contract to conduct field interviewing. The Survey is not conducted in Texas, since existing Texas-sponsored surveys provide the information that would have been obtained by NMFS.

Specialized NMFS data collections, such as the Large Pelagics Survey (LPS), which obtains information on recreational catch of large pelagic species, such as tunas, billfishes and pelagic sharks, overlap to a minor extent with the MRFSS and its related data collections. Such overlap with the Coastal Household Telephone Survey (CHTS) and its related catch component is minimal because the MRFSS is designed to cover marine recreational fishing for all finfish species. Contacts with anglers who fished for large pelagic species are relatively rare in these samples, however, anglers who fish for large pelagic species are not excluded from the MRFSS sampling because representative sampling of their fishing trips in relation to other marine recreational angler fishing trips is necessary to avoid biasing catch estimates for any given species.

When NMFS began fielding of the FHS on the Atlantic coast in 2003 however, we anticipated a more substantial overlap in the for-hire fishery. Since the LPS telephone survey relies on a list of permit holders, we knew that many for-hire captains might be contacted twice to report. As a result, the effort portion of the LPS for charter permit holders was folded into the FHS. During the June-November LPS fielding period, vessel representatives contacted for the FHS are asked additional LPS questions if they hold a current charter category Highly Migratory Species (HMS) permit. A logsheet and webtool are also used during this period as additional response options.

In some states, NMFS has required anglers to report their catches of Atlantic bluefin tuna for the purpose of real-time quota monitoring. Although that data collection overlaps to a minor extent with the MRFSS, it does not collect information on the other finfish species caught on bluefin tuna fishing trips. That specialized data collection places a priority on obtaining up-to-date catch information on only one species. On the other hand, the MRFSS is designed to obtain accurate marine recreational fishery catch information for all finfish species. Therefore, the minimal overlap is necessary.

5. If the collection of information involves small businesses or other small entities, describe the methods used to minimize burden.

Charter and party boat businesses are respondents in the FHS, a coast-wide vessel directory telephone survey of fishing effort by the charter and party boat recreational fisheries. The survey instrument is restricted in length to minimize response time per interview, and randomized sampling distributes both telephone and intercept reporting burdens randomly among individual charter or party boat operators.

Advance notification is sent to selected respondents, alerting them that they have been randomly selected for an interview and letting them know when they will be contacted. Included with the pre-contact letter is a logsheet to record their data, and a webcard, with a website address and 7-digit Personal Identification Number (PIN). Captains are not required to use the logsheet, but it lets them know exactly what information they will be asked for as part of the survey. They have the option of faxing in their logsheet to a toll-free fax number, or using their assigned PIN to logon to a password protected website to report their data online. Interviewed charter or party boat operators are also asked at the conclusion of their interview to specify preferred calling times which will be used for future contact attempts to minimize disruption of their daily activities. State-of-the-art CATI methods are also used to minimize response times.

6. Describe the consequences to the Federal program or policy activities if the collection is not conducted or is conducted less frequently.

An annual survey of recreational anglers is required to monitor changing conditions in the fishery and support modifications in fishery regulations for each fishing year. A continuous time series of data is scientifically essential. Start up costs in hiring and training of interviewers and in overhauling of the site selection frame for biannual surveys would greatly exceed the budgeted amount for the Survey, and reduce funds available to collect sufficient interviews to meet statistical objectives.

7. Explain any special circumstances that require the collection to be conducted in a manner inconsistent with OMB guidelines.

The collection is consistent with OMB guidelines.

8. Provide a copy of the PRA Federal Register notice that solicited public comments on the information collection prior to this submission. Summarize the public comments received in response to that notice and describe the actions taken by the agency in response to those comments. Describe the efforts to consult with persons outside the agency to obtain their views on the availability of data, frequency of collection, the clarity of instructions and recordkeeping, disclosure, or reporting format (if any), and on the data elements to be recorded, disclosed, or reported.

A Federal Register Notice (Attachment 12) solicited public comment on this renewal. One comment was received regarding the frequency of the data collection.

Comment: US DOC NOAA ID 06l804g - Information Collection – Marine Recreational Statistics

When is the marine industry, which profits from use of these statistics, going to be charged with paying for this kind of information collection? The general American taxpayer is already overburdened with paying for everything else in the world and doesn't need this added burden. I oppose and object to this information collection. This seems to be a completely wasteful activity.

Even if it was done, why every year? Certainly every 5 years would be more than often enough. License sales also could be used to tell the story. License every boat and get a fee. After all if you can afford to buy a boat, you can afford to pay for a license.

1Response: The commenter questioned the use of taxpayer money to fund the survey and the frequency of the data collection. Law mandates our collection of marine recreational fishing data and the required frequency. Collection of these data is necessary to fulfill statutory requirements of Section 303 of the Magnuson-Stevens Fishery Conservation and Management Act, and Executive Order 12962 on Recreational Fisheries.

The commenter also recommended that the marine industry pay for the information collection, or that license sales be used to somehow estimate participation in the fishery. There is not currently a national license requirement either for recreational anglers, or boat owners, that would allow for such an estimate. Many states do not have license requirements, and therefore, a pool of eligible anglers cannot be established. The methodological approach for the MRFSS has been developed and refined over 23 years, employing the experience of NMFS statisticians and contractors in statistical sampling and survey methods. It is the approved method for estimating marine recreational catch and effort by every regional council, interstate commission and participating state.

Consultations with other Federal and State agencies occur continuously throughout the survey year. Regional Councils, Interstate Marine Fisheries Commissions and the Marine Fishery Advisory Committee (a Federally-chartered advisory group) receive regular briefings on the MRFSS and make recommendations as appropriate. In addition, in 2004 the MRFSS team hosted its first annual Constituent Data Review, to allow stakeholders to ask questions about the MRFSS program, learn how the data is used to create annual estimates of landings, and discuss ongoing concerns

with the various data collections. Because all participants deemed the two-day meeting a great success, NMFS plans to hold an annual review every spring prior to the release of final estimates.

Individual respondents are provided with the name and telephone number of the MRFSS team leader if they wish to comment or receive additional information. Attachment 1 includes statements of mean individual response times that are given to potential survey respondents in accordance with OMB requirements.

9. Explain any decisions to provide payments or gifts to respondents, other than remuneration of contractors or grantees.

No payments or gifts to respondents are given under this program.

10. Describe any assurance or confidentiality provided to respondents and the basis for assurance in statute, regulation, or agency policy.

Responses are kept confidential as required by section 402(b) of the Magnuson-Stevens and NOAA Administrative Order 216-100, Confidentiality of Fisheries Statistics, and will not be released for public use except in aggregate statistical form without identification as to its source. Section 402(b) stipulates that data required to be submitted under an FMP shall be confidential and shall not be released except to Federal employees and Council staff responsible for FMP monitoring and development or when required under court order. Data such as personal addresses and phone numbers will remain confidential.

11. Provide additional justification for any questions of a sensitive nature, such as sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered private.

No sensitive questions are asked.

12. Provide an estimate in hours of the burden of the collection of information.

- (a) **Coastal Household Telephone Survey** (i.e. base telephone survey) Based on previously approved sampling targets for the Northeast, Southeast, Pacific, Western Pacific, and Caribbean Regions.

	Persons	Contacts	Mean Time (min.)	Total Time (min.)

Non-households	72,354	72,354*	0.5	136,177
Non-fishing Households	375,833	1375,833	1.0	375,833
Fishing Households	49,542***	134,167**	7.0	346,794
TOTALS	497,729	1482,354		758,804 (12,647 hrs.)

* About 15 percent of all random-digit-dialing contacts are expected to be non-household contacts. The other 85 percent are expected to be residential households. Therefore, 72,354 non-household contacts are expected in order to achieve the sampling goal of 410,000 household contacts. About 15 percent of all random-digit-dialing contacts are expected to be non-household contacts. The other 85percent are expected to be residential households. Therefore, 70,589 non-household contacts are expected in order to achieve the sampling goal of 400,000 household contacts.

** An estimated 8.3335 percent of the targeted 410,000 household contacts are expected to be with households whose residents fished within the last two months.

*** Contacted fishing households are expected to have an average of 1.45 anglers who will be interviewed to collect fishing effort data.

(b) Longitudinal Sampling for Coastal Household Telephone Survey (i.e. base telephone survey) Based on recontact of identified anglers in a) CHTS who agree to participate in additional interviews.

	Persons*	Contacts	Mean Time (min.)	Total Time (min.)
Fishing Households**	0	137,500	7.0	262,500
TOTALS	0	37,5001		262,500 (4,375 hrs.)

* No new persons since these are recontacts of identified fishing households.

** Assumes sampling in four states in pilot year, resulting in 10,000 contacts; and 1.5 times the expected sample of fishing households (34,167) in a) CHTS in subsequent years.

1(c) Directory Frame Telephone Survey of licensed marine recreational anglers (Revision based on conduct coastwide.) Angler license-frame surveys will be conducted in CA, WA, OR in 2005 to collect effort data from licensed anglers on the Pacific Coast.

	Persons	Contacts	Mean Time (min.)	Total Time (min.)
Anglers with no trips*	9,600	9,600	1.0	9,600
Anglers with trips	6,400	6,400	6.0	38,400
TOTALS	16,000**	16,000		48,000 (800 hrs.)

* Based on 40 percent of anglers having trips during last two months.

** Based on sample sizes of 10,000 in California, 3,000 in Washington and 3,000 in Oregon.

(d) Base intercept survey of catch per unit fishing effort (Revised based on incorporation of previously approved Caribbean and Western Pacific intercept survey sampling and increased sampling targets for the Northeast, Southeast, Pacific, Western Pacific, and Caribbean Regions.)

	Persons	Contacts	Mean Time (min.)	Total Time (min.)
Intercept Interviews	153,000	153,000	4.5	688,500
Verification Calls (10 percent)	0	15,300	1.5	22,950
TOTALS	153,000	168,300		711,450 (11,858 hrs.)

(e) For-Hire Survey of angler fishing effort on headboats, partyboats, and charter boats in the Northeast, Southeast, Caribbean, Pacific, and Western Pacific Regions.

	Party/Charter Boat Representatives	Party/Charter Boat Representative Contacts	Mean Time (min.)	Total Time (min.)
Telephone Interviews	8,500	44,200	7.0	309,400 (5,157 hrs.)

* Based on vessel frames of 4,500 in Northeast, 2,500 in the Gulf, 1,000 in the Pacific, 300 in Western Pacific and 200 in the Caribbean regions, and a 10 percent weekly sample in each region, across 52 weeks.

- (f) **1Maintenance of telephone/address directories of headboats, partyboats, and charter boats** at previously approved levels.

	Boat Representatives	Mean Time (min.)	Total Time (min.)
Telephone Interviews	5,000	2.0	10,000 (167 hrs.)

- (g) **Extension of base telephone survey to collect economic data** once every three years in Northeast, Southeast, Pacific, Western Pacific, and Caribbean Regions (Revision based on sample size increases needed for improved precision on economic statistics.)

	Persons	Mean Time (min.)	Annual Frequency	Total Time (min.)
Non-Fishing Households	132,633*	3.0	1/3 yrs	32,633
Fishing Households	29,667	3.0	1/3 yrs	29,667
TOTALS	62,300			62,300 (1,038 hrs.)

* Based on 10 percent sampling of estimated 326,332 non-fishing households contacted by Base Telephone Survey in Northeast, Southeast, Pacific, Western Pacific, and Caribbean Regions.

- (h) **Extension of base intercept survey to collect economic data.** Annual collection of minimal economic data through extended interviews of intercepted anglers and collection of more detailed data through follow-up telephone interviews once every three years in Northeast and Southeast Regions. This survey will periodically be used to develop a sample frame for j) Follow-up economic mail survey in the Northeast, Southeast, Western Pacific, and Caribbean Regions. (Revision based on sample size increases needed for improved precision on economic statistics.)

	Persons	Contacts (Eligible Anglers)	Mean Time (min.)	Annual Frequency	Total Time (min.)
Extended Intercept Interviews	0	104,500*	1.0	1/yr	104,500
Follow-Up Telephone Interviews	0	38,500**	7.0	1/3 yrs	89,833

TOTALS		143,000			194,333 (3,239 hrs.)
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- * Based on 95 percent of the estimated 110,000 intercepted anglers in the Northeast, Southeast, Western Pacific and Caribbean Regions responding to the add-on economic questions.
- ** Based on 35 percent of intercepted anglers responding to follow-up telephone survey in the Northeast and Southeast Regions.

(i) Extension of directory frame telephone survey of anglers to collect economic data.
 The Pacific Region’s current intercept surveying protocol cannot be used to collect the same data we collect in the Northeast or Southeast Regions, and, therefore, no intercept add-on survey will be conducted in the Pacific Region. Less contacts are necessary since first contact will be made by phone, rather than through an initial intercept and telephone follow-up. Telephone surveys will be conducted using the same questionnaire in h) Extension of base intercept survey to collect economic data.

	Persons	Contacts	Mean Time (min.)	Annual Frequency	Total Time (min.)
Pacific Coast Telephone Interviews	22,000*	22,000	8.0	1/3 years	58,667
TOTALS	22,000				978 hrs.

- * Based on 22,000 new contacts from the Pacific Region license frame.

(j) Follow-up economic mail survey once every three years, as an extension of the base intercept survey in the Northeast, Southeast, Pacific, Western Pacific, and Caribbean Regions to collect **stated and revealed preference data** needed for economic valuation analyses. In the Northeast, Southeast, Western Pacific, and Caribbean Regions, names and addresses will be sourced from anglers agreeing to participate in a follow-up mail survey from either g) Extension of base telephone survey to collect economic data or h) Extension of base intercept survey to collect economic data or non-fishing households agreeing to participate in g) Extension of base telephone survey to collect economic data. Neither the Pacific Region’s current intercept survey nor its telephone survey of license holders provides large enough sample sizes for use in our economic surveys. As a result, mail surveys in the Pacific Region will be sent to newly contacted anglers from the license frame for each individual Pacific Region state.

	Cooperating Anglers	Contacts with Cooperating Anglers	Mean Time (min.)	Annual Frequency	Total Time (min.)

Follow-Up Mail Surveys	16,800*	50,400**	15.0	1/3 yrs	84,000 (1,400 hrs.)
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* Based on a subsample of 12,000 intercepted anglers, telephoned anglers and telephone non-anglers in the Northeast, Southeast, Western Pacific, and Caribbean Regions and anglers from 16,000 newly contacted anglers from the Pacific Region license frame and an expected 60 percent response rate.

** Up to two additional mailings will be sent to each cooperating angler to remind them to complete and return the mail survey questionnaire.

(k) Economic surveys of headboat, partyboat, and charter boat businesses in the Northeast, Southeast, Western Pacific and Caribbean regions once every three years as an add-on to the For-Hire Survey.

	Party/Charter Boat Representatives	Party/Charter Boat Representative Contacts	Mean Time (min.)	Annual Frequency	Total Time (min.)
In-Person Interviews	1,125	1,125*	60.0	1/3 yrs	22,500
Telephone Interviews	7,500	39,000**	8.0	1/3 yrs	104,000
TOTALS	8,625	40,125			126,500 (2,108 hrs.)

* In-person contacts are based on an independent 15 percent sample of the boat operators contacted by the vessel directory telephone surveys of headboat, partyboat, and charter boat fishing effort in the Northeast and Southeast Regions will be interviewed in person to collect annual cost and earnings data.

** Telephone contacts based on sample frame for the party/charter boat directory telephone survey of fishing effort in the Northeast and Southeast Regions will be extended to collect cost and earnings data for randomly selected trips in one of the next three years for both the Northeast and Southeast Regions.

(l) Biological data collection in the Northeast, Southeast, and Pacific Regions.

	Eligible Intercepted Anglers	Mean Time (min.)	Total Time (min.)
Intercept Interviews	10,000	1.0	10,000 (167 hrs.)

Total program burden:

Survey	Persons	Contacts	Hours
(a) Coastal Household Telephone Survey (CHTS)	497,729	1482,354	12,647 ¹
(b) Longitudinal Sampling – CHTS	0	37,500	4,375
(c) Angler Directory Telephone Surveys	16,000	16,000	800
(d) Base Intercept Survey	153,000	168,300	11,858 ²
(e) For-Hire Telephone Survey	8,500	44,200	5,157
(f) Vessel Directory Maintenance	5,000	5,000	167
(g) Economic Telephone Survey	0	0	1,038 ³
(h) Economic Intercept/Telephone Survey	0	38,500	3,239 ⁴
(i) Economic Telephone Survey of Angler Directory	22,000	22,000	978
(j) Follow-up Economic Mail Survey	0	50,400	1,400 ⁵
(k) Economic Survey of For-Hire Businesses	0	1,125 ⁶	2,108 ⁶
(l) Biological Data Collection	10,000	10,000	167
TOTALS	712,229	875,379	43,934

¹ 1NMFS anticipates contracting for 280,000 household telephone interviews to be conducted on the Atlantic and Gulf coasts, 76,000 household telephone interviews to be conducted on the Pacific coast, 40,000 household telephone interviews to be conducted in Puerto Rico and the Virgin Islands, and 14,000 household telephone interviews to be conducted in Hawaii. In order to get the total of 410,000 household contacts with the random-digit-dialing method of sampling, NMFS estimates that an additional 72,354 non-household contacts will occur.

² NMFS anticipates contracting for 64,000 intercept interviews to be conducted on the Atlantic and Gulf coasts, 3,500 intercept interviews to be conducted in Puerto Rico and the U.S. Virgin Islands, and 3,500 intercept interviews to be conducted in Hawaii; an additional 36,000 intercept interviews will be conducted as part of a cooperative agreement between NMFS, the Pacific States Marine Fisheries Commission, California Department of Fish and Game, Oregon Department of Fish and Wildlife, and the Washington Department of Fish and Wildlife. The remainder (46,000) is contracted for by individual states as sampling efforts added to the basic NMFS contract. Participation by individual states is at the discretion of the states. However, many states have made the MRFSS methodology, forms, etc. the basis for their own recreational fishery data collection programs.

- ³ Questions regarding fishery economic data will be included as an extension of the Base Telephone Survey for household residents having prior saltwater fishing experience; therefore, no additional telephone contacts will be made. This data collection will be conducted no more than once every three years in each Region.
- ⁴ Some questions regarding fishery economic data will be included as an extension of the Base Intercept Survey; therefore, no additional persons will be sampled in the Northeast and Southeast Regions. In the Pacific Region, this request includes 11,550 new persons from the license frame survey. The collection of economic data on extended intercept interviews will be done annually. Other economic questions will be included in follow-up telephone interviews conducted with anglers already interviewed by the Base Intercept Survey or already on the license frame in Oregon, Washington, and California. The follow-up telephone survey will be conducted no more than once every three years in each Region.
- ⁵ Questionnaires will be mailed to anglers already interviewed by the Base Intercept Survey in the Northeast and Southeast Regions and new contacts from the license frame in the Pacific Region who volunteer to participate in the follow-up mail survey. Up to two additional mailings will be sent to volunteers reminding them to complete and return their questionnaires. The follow-up mail survey will be conducted no more than once every three years in each Region, and will never be conducted in the same year as the follow-up economic telephone survey in any given Region.
- ⁶ An independent 15 percent sample of the 7,500 boat operators contacted by the vessel directory telephone surveys of headboat, partyboat, and charter boat fishing effort in the Northeast, Southeast, Western Pacific and Caribbean regions (item 12e above) will be interviewed in person to collect annual cost and earnings data. This will add 525 new contacts. Telephone interviews for the party/charter boat directory telephone survey (item 12e) of fishing effort in the Northeast, Southeast, Western Pacific and Caribbean regions will be extended to collect cost and earnings data for randomly selected trips in one of the next three years for both the Northeast and Southeast Regions. Because no new contacts are required to conduct the add-on economic interviews, no further change in the number of contacts is requested.

13. Provide an estimate of the total annual cost burden to the respondents or record-keepers resulting from the collection (excluding the value of the burden hours in #12 above).

These data collections will incur no cost burden on respondents beyond the costs of response time.

14. Provide estimates of annualized cost to the Federal government.

Annual cost to the Federal government is approximately \$8.5 million divided as follows: \$8.0 million in contract award money and \$500,000 in professional staff, overhead and computing costs.

15. Explain the reasons for any program changes or adjustments reported in Items 13 or 14 of the OMB 83-I.

- (a) An increase of 37,500 contacts for b) Longitudinal Sampling for Coastal Household Telephone Survey to increase sampling efficiency and improve precision of effort estimates results in an increase of 4,375 burden hours;
- (b) An increase of 16,000 contacts with licensed anglers will be added as part of a cooperative agreement between NMFS, the Pacific States Marine Fisheries Commission, California Department of Fish and Game, Oregon Department of Fish and Wildlife, and the Washington Department of Fish and Wildlife through directory frame telephone surveys results in an increase of 800 burden hours;
- (c) An increase of 18,200 contacts with for-hire representatives to completely implement the e) For-Hire Telephone Survey in all regions results in an increase of 2,124 burden hours;
- (d) An increase of 3,000 Base Intercept Survey interviews of anglers to improve statistical precision of catch-per-trip estimates in the Pacific results in an increase of 233 burden hours;
- (e) An increase of 18,200 contacts with for-hire representatives to completely implement the k) Economic Survey of For-Hire Businesses in all regions results in an increase of 984 burden hours;
- (f) Removing the Pacific region from h) Extension of base intercept survey to collect economic data and surveying through i) Extension of the directory frame telephone survey to collect economic data results in an increase of six burden hours;
- (g) An increase in 18,900 contacts for conduct of the follow-up economic mail survey results in an increase of 525 burden hours.

Item 12a (Coastal Household Telephone Survey).

A copy of the 2003 CHTS (base telephone survey) questionnaire is provided as Attachment 2. Only minor wording changes are anticipated in this questionnaire.

¹The target sample size for the CHTS in the Northeast, Southeast, Caribbean, Pacific and Western Pacific Regions will be maintained at already approved levels.

The use of phone directories and predictive dialing technologies in recent years has greatly increased the efficiency of the CHTS by decreasing the number of non-household contacts made to obtain a given number of contacts with eligible residential households.

About 85 percent of successful random-digit-dialing contacts now turn out to be contacts with eligible residential households. Prior to 1995, this rate was closer to 72 percent.

Item 12b (Longitudinal Sampling for Coastal Household Telephone Survey).

1Modifications to the current CHTS design have been proposed to increase the efficiency of the sampling frame. Current plans involve the implementation of longitudinal sampling, or the recontacting of fishing households that have been identified in previous waves. 1 Recontacting previously interviewed fishing households would allow us to reach a larger sample size of households from which to estimate fishing behavior among fishing households, greatly improve precision for the calculated estimates of angler trips by fishing mode in the given wave.

In the 1CHTS interview, respondents will be asked if they would be willing to be contacted again and asked similar questions later in the year. Based on previous survey results, we estimate that approximately 85 percent of respondents will indicate a willingness to participate in future waves.

Initially, these recontacts would not replace any part of the CHTS sample size as the CHTS would still be required to estimate the proportion of households with fishing activity. Data collection will be independent of the CHTS. However, data-collection and recall periods will overlap with the CHTS, and all interview and dialing protocols will be identical. We anticipate only minor CHTS questionnaire changes.

Sample size is based on four states for the pilot year (10,000), and 1.5 times the expected sample of fishing households obtained in the CHTS (34,167) for the two subsequent years.

Item 12c (Directory Frame Telephone Survey of licensed marine recreational anglers).

In the Pacific region, Washington, Oregon and California have coordinated the use of a saltwater-license directory to further increase sampling efficiency for collecting angler effort data. Questionnaires are designed to collect data elements similar to those of the CHTS instrument (see Attachments 2a-2c). Since each state has a saltwater license, the same methodology will be used in each state for a license-based telephone survey of angler effort. A target sample size of 16,000 is added in the Pacific region to accommodate the angler-license frame surveys in WA, OR and CA. The CHTS will overlap with these surveys for several years to allow for side-by-side comparisons and calibration of the new effort estimation approach with the traditional method.

Item 12d (Base Intercept Survey).

Copies of the 2004 MRFSS Intercept Survey Questionnaires are provided as Attachments 3-3f. Only minor wording changes are anticipated in these questionnaires.

The target sample size for the Base Intercept Survey will be maintained at currently approved levels in the Northeast and Southeast regions. The Pacific target sample size has been increased from 33,000 to 36,000 angler interviews to improve precision of catch-per-trip estimates generated from the collected data.

Items 12e (For-Hire Telephone Survey).

The For-Hire Survey (FHS) differs from the MRFSS because it uses a telephone survey of boats, rather than households, as the primary method for estimating fishing effort. The FHS telephone survey (included as Attachment 4) is a weekly survey that uses a directory of charter boats and/or party/headboats as its sampling frame. Samples of boats are selected at random, and the operators of those boats are contacted for telephone interviews to collect information on the number of boat trips and the numbers of anglers who fished. Advance notification is sent one week prior to the week they are selected for, alerting them that they have been randomly selected for an interview and letting them know when they will be contacted. Included with the pre-contact letter is an optional logsheet (Attachment 4a) to record their data, and a webcard, with a website address and 7-digit Personal Identification Number (PIN).

The telephone survey estimates the number of trips by boats included in the sampling frames. A dockside survey of boat slips is used to validate the phone-reported effort data and estimate appropriate corrections for any reporting errors. The total catch of any one species is calculated as the product of the adjusted estimate of total angler trips and the estimated mean catch per trip. Separate estimates are generated for charter boat and party/headboat fishing.

12g (Add-On Economic Telephone Survey) and 12h (Add-On Economic Intercept Survey).

Fishery managers are required by law to report the economic consequences of their decisions regarding the allocations of limited fish resources between commercial and recreational fishing sectors. High quality economic data are needed to evaluate the economic claims of constituents and to resolve potential political conflicts between the commercial and recreational fishing constituents as they compete for the limited fish resources. However, fishery managers do not currently have access to much economic information about recreational fisheries. These surveys are intended to help fill the data and research gaps in our knowledge of the economics of marine recreational fishing.

The objectives of the Supplemental MRFSS Economic Surveys, broadly characterized, are as follows:

1. to collect demographic, social and economic data on the people who participate in marine recreational fishing in the various regions of the continental United States

2. to collect data needed for the statistical estimation of models to assess the net values of marine recreational fishing for specific finfish species that are highly sought by marine recreational anglers and are either currently managed by the Fishery Management Councils and/or the Interstate Marine Fisheries Commissions, or are expected to come under management in the near future;
3. to collect data needed for construction of models to assess the economic impacts of management actions on communities and both fishery-dependent and fishery-independent businesses.

Economic Telephone Survey

A series of questions will be added to the Base Telephone Survey to obtain demographic and participation data. For the 2004-2006 Surveys, the telephone add-on interview will obtain data (Attachment 5) from experienced saltwater anglers that reside in households contacted by the Base Telephone Survey. No more than one experienced angler in each contacted household will be asked to respond. The extended telephone interview will first ask questions needed to categorize the respondent as one of the following:

- (1) an experienced saltwater angler who has not fished within the last 12 months.
 - (2) an experienced saltwater angler who fished within the last 12 months, but not within the last 2 months,
 - (3) an experienced saltwater angler who fished within the last two months,
- Saltwater anglers who have not fished within the last 2 months (categories 1 and 2) will be asked the questions in Version A of the questionnaire, and saltwater anglers who fished within the last 2 months (category 3) will be asked the questions in Version B of the questionnaire.

Economic Intercept Survey

The questionnaires in Attachments 5, 5a, and 5b are provided to show examples of the types of questions which would be added to the base intercept and telephone surveys in each Region. These questionnaires were designed primarily for previous data collections and are subject to minor revision including wording changes to tailor the instrument to specific regions. The economic data collections will be conducted in each region no more than once during the three-year period from 2004 through 2006. The supplemental MRFSS Economic Surveys for 2004-2006 will focus on both the economic impacts and the economic valuation of the sportfishing.

For the 2004-2006 Economic Surveys, a series of questions (Attachments 5a-5b) will be added to the base intercept survey questionnaire to obtain economic data on trip duration, travel costs, distance traveled, and on site expenditures associated with the intercepted trip. These data will be used to develop angler or trip profiles and in the development of statistical behavioral models to estimate saltwater fishing values. The intercept survey

economic questions will only be asked of anglers who are at least 16 years of age (regardless of target species), and who complete all key data items preceding the catch inspection questions. The economic questions to be added to the MRFSS intercept field interview are shown on the form in Attachment 5a.

The economic intercept follow-up telephone survey questionnaires will be administered to obtain additional information from anglers who responded to the economic questions asked during the intercept survey. Based on experience from similar surveys conducted in 1998-2000, only about 35 percent of the anglers who complete an intercept interview are expected to complete a follow-up telephone interview. The telephone follow-up questionnaire shown in Attachment 5b is designed to obtain both further data needed for economic valuation and detailed data on trip-related expenditures. The follow-up interview will consist of three sets of questions. The first set of questions (Q1-Q8) will obtain information needed for valuation of recreational fishing for specific species. The second set of questions (Q9-Q12) will be asked to obtain detailed information on fishing-related expenditures. The last set of telephone follow-up questions (Q13-17) are used to obtain demographic information.

Item 12j (Add-On Economic Intercept/Mail Survey).

Analyzing the effects of policies that may be enacted in a recreational fisheries setting, such as bag and size limits, requires further refinements in the valuation models. To date, data collection and models were designed to measure anglers' value of access to recreational fishing resources, and to measure their value for catching an additional fish. These models are not ideally suited for measuring the change in value from changes in bag or size limits. This data collection effort and resulting research is intended to get at several key issues relating to bag and size limit changes. The objectives of this Supplemental MRFSS data collection effort and resulting research product, broadly characterized, are as follows:

- (a) to collect data needed for the statistical estimation of models to assess the net values of marine recreational fishing for specific species;
- (b) to collect data needed to assess the change in net values with changes in likely management policies, such as bag and size limits, for those species;
- (c) **to evaluate the reliability of stated preference (SP)** compared with models that use information on the actual choices made by recreational anglers (revealed preference [RP]);

An example mail survey questionnaire is provided as Attachment 6. The Follow-Up Mail Survey will be administered to each intercepted angler who volunteers or in the case of the Pacific Region, to anglers on the each state's license frame that agree to participate. In the Northeast and Southeast Regions, the intercept survey interview will close with a question asking the intercepted angler if he/she would be willing to cooperate with a subsequent mail survey. In the Pacific Region, a random sample of anglers will be drawn from the state license lists and screened by telephone for

participation in saltwater angling and willingness to participate in a follow-up mail survey. The mail survey will ask ten to twenty questions to obtain additional social and/or economic information from cooperating intercepted or license frame anglers. Specifically, the questionnaire will ask the respondent five to ten questions about their attitudes about motivations for fishing, attitudes about catch and release fishing, and attitudes about regulations. **Finally, each respondent will be presented an additional series of five to ten discrete choice paired comparisons. Each one of these questions will ask respondents to make a comparison between two hypothetical trips.** Each trip will have associated with it attributes (such as cost of traveling to the recreation site, number of fish of selected species the angler expects to catch, the bag limit, the size limit, the expected number of legal size fish, and the expected success of fishing for other species). For each trip comparison, the fisherman will also be given the choice of not taking a saltwater angling recreational fishing trip.

Systematic repeated mailings to non-respondents will be used in an attempt to keep the response rate for the mail survey above 60 percent. A variation of Dillman's Total Design method will be used¹. The major steps of the method are as follows:

- (a) First, each respondent eligible for the mail survey must have agreed to participate in the survey at the time of the base intercept survey interview or the license frame screening.
- (b) The mail survey will be sent to respondents within two weeks of their intercept interview. The survey packet will contain a cover letter (designed by NMFS) and the questionnaire. It is expected that the packet will be folded in the way described by Dillman (so that the cover letter is easily accessible and the first thing the respondent sees). The questionnaire will be in a booklet format and will not exceed a total of three to five pages.
- (c) One week after this mailing, a postcard will be sent to all volunteers. It will promote the study, thank respondents who have already responded, and remind those that did not to respond.
- (d) Three weeks after the initial mailing, another follow-up mailing will be sent, but only to non-respondents. This will have the complete packet with a slightly modified cover letter and questionnaire. It should also be folded in a manner consistent with Dillman.

Item 12k (FHS Economic Add-On Surveys).

The universe for these sampling surveys will be all headboats, partyboats, and charter boats that actively participate in the marine recreational fishery. The for-hire boat fishery is expected to be the focus of increased fishery management. Both the federal fishery management councils and the National Marine Fisheries Service (NMFS) have been faced with increasingly difficult management decisions that have significant implications for the for-hire boat industry, as well as numerous fish stocks.

¹ See Don A. Dillman, Mail and Telephone Surveys: The Total Design Method. John Wiley and Sons, NY. 1978.

The cost-and-earnings information collected from this fleet will be used in support of analyses needed to comply with the National Environmental Policy Act, the Regulatory Flexibility Act, the Magnuson-Stevens Fishery Conservation and Management Act, the Endangered Species Act and other applicable federal laws. These analyses will be conducted and reviewed by economists and other fishery management staff affiliated with the Councils and the Fisheries Science Centers of NMFS.

The data collected will be used for four general purposes. First, the data will be used to predict potential effects on the head, party, and charter boat fleets of alternative regulatory actions to be considered by the Councils. Examples would be the setting of allocations or bag limits for the recreational fisheries for certain species, and creation of marine reserves. The need for economic data to conduct regulatory analysis has been heightened by a 1996 amendment to the Regulatory Flexibility Act, which allows agencies to be sued for inadequately considering the effects of regulations on small businesses.

Second, the data will be used to estimate the extent of overcapacity in the for-hire boat fleets and to help identify reasonable alternative approaches to reducing capacity, should such reduction be deemed necessary. Overcapacity has been identified by the federal fishery management councils as a high priority management issue requiring immediate attention.

Third, the data – in combination with other available information on the fishing efforts and harvests of headboat, partyboat, and charter boats - will be used to measure and monitor the economic performance of the fishery. Such routine monitoring is important for anticipating fishery management problems before they become severe and difficult to address.

Finally, the data will be used to help evaluate the effects of restrictions imposed by NMFS to protect species stocks listed under the Endangered Species Act. Currently NMFS is engaged in consultations with the Pacific coast states regarding changes in salmon hatchery practices to protect wild stocks. Because most of the salmon caught on the Pacific coast originate from hatcheries, such changes are expected to have significant effects on commercial and sport fisheries.

Without this survey data, significant gaps in knowledge of the for-hire boat industry would occur and the quality of the required analyses would be impaired. This would make it difficult for the Councils and NMFS to make informed fishery management decisions, and cause NMFS to be much more vulnerable to lawsuits under the Regulatory Flexibility Act.

The questionnaires and sampling methods were cooperatively developed by representatives of NMFS, the interstate marine fisheries commissions, the state agencies that conduct data collections for the MRFSS, and the for-hire boat industry. Industry views on the availability of data, the frequency of collection, the clarity of instructions, the amount of burden to be imposed, and ways to minimize the burden were integral to the consultation process.

Communications from industry representatives as well as preliminary data analyses indicate that for-hire boat fishing activity varies significantly by vessel size. Larger vessels, which typically

carry more passengers and travel to more distant fishing grounds (often for multi-day trips), tend to generate higher revenues and costs than smaller vessels. Because of these size-related differences, as well as differences in target species and species availability at different locations along the coast, it was decided that sampling of vessels would be uniform among vessel size categories and principal port areas and random within those size/area strata.

In order to obtain comprehensive economic profiles of the headboat, partyboat, and charter boat fleets, the questionnaires cover both fishing and non-fishing (e.g., whale watching) activities of boats. The questions were designed to be sufficiently broad in scope to accommodate all the general types of analyses discussed above. An explanation of the elements of each of the survey instruments follows.

In-Person Survey Instrument:

The instrument used for the in-person interviews (Attachment 7) describes questions that will be asked in a one-time survey of headboat, partyboat, and charter boat operators regarding the volume and types of activities engaged in during the year, as well as annual economic revenues, costs and employment.

Telephone Survey Instrument:

The telephone add-on survey instrument is provided as Attachment 7a. This survey will be conducted as an add-on to the ongoing, weekly telephone survey of party and charter boat fishing effort. The economic add-on to the MRFSS directory telephone survey of operators of headboats, partyboats, and charter boats will be conducted weekly over the course of one full year to ensure that the range and seasonality of for-hire boat activity are captured. The responses of boat operators to Q1-Q16 are needed to estimate individual trip costs and to evaluate how those costs vary with passenger load, trip duration, trip location and target species.

Using the contact information contained in the sampling frame, the MRFSS will send a letter to 10 percent of vessels that actively fish in each week, notifying them that they have been selected to participate in a survey of their fishing effort during that week and that they will be contacted within one week after receipt of the letter for a telephone interview. A form that describes the information to be collected in the telephone interview and allows them to record their information will accompany the letter. Respondents will be asked to consider returning a completed form via fax if repeated dialing attempts by survey interviewers fail to reach them for an interview within the designated sampling week.

16. For collections whose results will be published, outline the plans for tabulation and publication.

All data collected and analyzed will be included in table format available on the web page of the Fisheries Statistics Division, Office of Science and Technology, National Marine Fisheries Service. The web address is <http://www.st.nmfs.gov/st1/recreational>. Additional summaries of data will be included in the annual publication "Fisheries of the United States."

17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons why display would be inappropriate.

N/A.

18. Explain each exception to the certification statement identified in Item 19 of the OMB 83-I.

There are no exceptions.

B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS

1. Describe (including a numerical estimate) the potential respondent universe and any sampling or other respondent selection method to be used. Data on the number of entities (e.g. establishments, State and local governmental units, households, or persons) in the universe and the corresponding sample are to be provided in tabular form. The tabulation must also include expected response rates for the collection as a whole. If the collection has been conducted before, provide the actual response rate achieved.

Attached is a copy of a general description of the MRFSS Methodology which currently appears on NMFS Fisheries Statistics Division website at:

<http://www.st.nmfs.gov/recreational/survey/survey/overview.html> (Attachment 8). Also provided is a copy of a technical report which details the calculations used to estimate catch, effort and participation (Attachment 9). The Survey utilizes a “complemented surveys” approach, which includes both a telephone survey of coastal county households (about 35 million potential respondents) to estimate fishing effort and an intercept survey of recreational anglers (about 17 million potential respondents) at fishing sites to obtain catch per unit effort data and biological data. This approach was developed and tested over a period of several years to minimize response and sampling errors for the different data elements. Conducted since 1979, both the telephone and intercept survey portions of the MRFSS have maintained refusal rates of less than 10 percent. NMFS is a leader in the field of survey sampling of marine recreational fishermen.

2. Describe the procedures for the collection, including: the statistical methodology for stratification and sample selection; the estimation procedure; the degree of accuracy needed for the purpose described in the justification; any unusual problems requiring specialized sampling procedures; and any use of periodic (less frequent than annual) data collection cycles to reduce burden.

Survey procedures described in Attachments 8 and 9 are briefly summarized below:

Coastal Household Telephone Survey (CHTS): Random-digit-dialing procedures are used to screen coastal county telephone exchanges for working blocks of telephone numbers that are then screened for eligible households. Households are screened to identify anglers eligible for interview. The interview obtains data on the frequency of

fishing trips by both mode and area of fishing over a two-month recall period. The telephone household survey instrument is included as Attachment 2.

MRFSS Intercept Survey: Intercept survey interviewing has been assigned to specific sites and fishing modes in coastal states on the basis of seasonal fishing activity. Site lists have been generated during the study to establish sampling strata, and fishing pressure estimates have been used to allocate assignments among sites. Data obtained has included descriptive information on the fishing trip, catch by species and associated biological data. Intercept survey instrument are included as Attachments 3-3f.

Estimation: Telephone data are combined with U. S. Census data on number of households and telephone ownership in coastal counties to estimate the number of in-state fishing trips by coastal county residents in each state/mode/area/2-month-wave combination. The proportions of trips made by anglers not covered by the telephone survey (non-coastal-county state residents and out-of-state residents) are obtained from intercept survey data and used to estimate the total number of trips taken within each state. Estimates of catch for each species are derived by multiplying the estimates of catch per trip obtained from the intercept survey by the estimate of total trips.

Variances, standard errors and coefficients of variation are estimated for each estimate of effort and catch. Estimates fall within the confidence limit goals established for 95 percent reliability at the Regional Council level of aggregation.

Control of response biases such as time-related recall error, telescoping, fish misidentification and prestige bias have resulted in the choice of the unique complemented surveys approach.

Supplemental Economic Telephone and Intercept Surveys: Attachments 5, 5a, and 5b are copies of survey instruments similar to those which will be used for the 2002-2004 add-on surveys to collect economic impact and/or value data. Minimal economic data collections will be conducted annually by extending base intercept survey interviews, but full-scale economic surveys, including follow-up telephone interviews of intercept survey respondents and extended interviews of base telephone survey respondents, will be conducted only once every three years in each Region to minimize respondent burden.

Supplemental Economic Mail Survey: Attachment 6 is an example of a survey instrument to be used for the 2002-2004 add-on intercept mail survey to collect economic value data regarding alternative bag and size limits for federally managed species. Economic questionnaires will be mailed to cooperative base intercept survey respondents only once every three years in each Region to minimize respondent burden.

For-Hire Telephone Survey (FHS): Attachment 4 is the telephone survey instrument used to collect fishing effort data by sampling operators of party and charter boats. The effort data collected by this weekly telephone survey are used to estimate the mean number of

angler trips per boat. This mean estimate is expanded by the number of boats included in the sampling frame to estimate the total number of angler trips made by in-frame boats each week. The proportions of fishing trips made by anglers on out-of-frame charter and head boats are obtained from intercept survey data and used to calculate estimates of total angler trips on charter and head boats. Catch-per-trip estimates obtained from the base intercept survey sample are expanded by the estimate of total trips to get estimates of catch for different finfish species.

Response rates of approximately 65 percent were maintained for the 2003 Atlantic FHS through concerted efforts to maximize contact rates. By mailing a letter to each potential respondent in advance of attempted telephone contacts and by spreading the contact attempts over different days and times throughout the sampling week, contact rates above 60 percent have been consistently achieved. Refusal rates for successful contacts have rarely exceeded five percent in each wave. Cooperation with the survey has been encouraged through the distribution of a brochure describing the survey, as well as through the distribution of periodic newsletters that answer questions about the survey and provide summaries of survey results.

For-Hire Economic Add-On Telephone Survey: Attachment 7a is a copy of the instrument to be used for the cost-earnings survey of party and charter boat businesses. Extended interviews of the party and charter boat operators contacted by the weekly directory telephone survey of fishing effort will be conducted to collect trip-level cost and earnings data only once every three years in each Region. Independent, in-person interviews of a sample of party and charter boat operators to collect annual cost and earnings data will be conducted on the same 3-year schedule in each Region.

3. Describe the methods used to maximize response rates and to deal with nonresponse. The accuracy and reliability of the information collected must be shown to be adequate for the intended uses. For collections based on sampling, a special justification must be provided if they will not yield "reliable" data that can be generalized to the universe studied.

Intensive interviewer training and tested methodological approaches are employed to maximize response rates. Interviewers are tested for skills in fish identification, effective communication with potential respondents, and/or accurate coding of responses before they are hired for training. Training familiarizes interviewers with a procedures manual and develops their interviewing skills through role-playing exercises. Supervision and additional training of interviewers occurs during the conduct of all telephone and intercept surveys. Field supervisors visit intercept survey interviewers periodically to observe their performance and provide additional training as needed. Refusal rates for both the telephone and intercept surveys have rarely exceeded five percent during the 23 years of the Survey. The current refusal rate for the FHS telephone portion is less than eight percent.

Response rates to the Supplemental Economic Survey of the Party/Charter Boat Industry are expected to be enhanced by a number of FHS features, such as advance notification and alternate

response options (fax). The fax option is intended to increase opportunities for survey participation, particularly during those times of year when vessel operators are at sea for long hours and less likely to be available for a telephone interview.

Consolidating effort and economic questions into a single interview was deemed advantageous for several reasons: (1) minimizing the burden on industry, (2) enhancing the ability of industry to recall details of the trip because of the MRFSS strategy of conducting interviews shortly after completion of the trip, (3) allowing the data analyst to link the economic details of the trip with trip-specific fishing effort information, and (4) reducing economic survey costs. In addition, the MRFSS also agreed to allow use of its sampling frame as a basis for identifying and contacting vessels for the annual economic survey, which would be conducted separately from the weekly effort survey.

The trip-level data will also be used to estimate a type of discrete choice model known as multinomial logit to predict how for-hire boat effort is likely to shift from one activity to another in response to regulatory changes. The model will be estimated using maximum likelihood techniques, with t-statistics used to evaluate the statistical significance of individual model parameters and a likelihood ratio test used to evaluate the overall fit of the model. A statistical package such as LIMDEP will be used for model estimation.

Generalizing survey results to the entire population: The annual economic survey will be based on a stratified random sampling procedure that ensures that each area/vessel size stratum is represented in the sample in adequate numbers to derive statistically valid estimates of revenue and cost by stratum. Once completed, the MRFSS sampling frame will allow determination of the population of boats in each stratum. This population information will allow results of the annual economic survey to be generalized from the sample to the population by weighing the data points in each stratum by the proportion of the population represented by that stratum.

4. Describe any tests of procedures or methods to be undertaken. Tests are encouraged as effective means to refine collections, but if ten or more test respondents are involved OMB must give prior approval.

More than 24 years of testing, methodological research and professional experience in survey work were used in formulating the present methodology.

5. Provide the name and telephone number of individuals consulted on the statistical aspects of the design, and the name of the agency unit, contractor(s), grantee(s), or other person(s) who will actually collect and/or analyze the information for the agency.

Dave Van Voorhees (301-713-2328) is Chief of the Fisheries Statistics Division, which administers the MRFS Program. The present contractor for the telephone survey is Macro International, Inc., of Burlington, Vermont. The present contractor for the FHS telephone portion is NuStats. A new contract for the 2005-2007 FHS will be awarded by November 30, 2004. The intercept survey is currently conducted in Georgia through Maine under another

contract with Macro International. A new contract for the 2006-2008 MRFSS intercept survey in those states will be awarded by November 30, 2005.

The Pacific States Marine Fisheries Commission and the state marine fishery agencies of California, Oregon, and Washington conduct the intercept survey on the Pacific coast under a cooperative agreement. The Gulf States Marine Fisheries Commission and the respective state marine fishery agencies currently conduct the intercept survey in Louisiana, Mississippi, Alabama, and Florida under a cooperative agreement. Although data collections are performed either under contract or cooperative agreement, analyses are performed entirely by NMFS.