

**SUPPORTING STATEMENT
COASTAL HOUSEHOLD TELEPHONE SURVEY (CHTS)
OMB CONTROL NO. 0648-XXXX**

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.

The Coastal Household Telephone Survey (CHTS) is a bi-monthly (wave), random digit dial (RDD) telephone survey designed to estimate the number of recreational shore and private boat fishing trips taken by residents of coastal counties. Each year, the CHTS will be conducted for six, two-month reference waves in 17 states bordering the Atlantic Coast and Gulf of Mexico, with the exception of Texas, as well as in Puerto Rico and Hawaii.

The target population for the CHTS is the population of full-time, residential households located in the coastal counties of the survey states¹. To represent this population, we will sample a sufficient number of telephone numbers to achieve a target of 228,000 completed household interviews. Table 1 provides the estimated size of the target population, the expected number of sampled telephone numbers and completed household interviews, and the expected response rates², overall and by reference wave.

¹ In general, coastal counties are those within 25 miles of ocean coastline (including coastlines of major bays or estuaries). In the South Atlantic and Gulf of Mexico during May through October coastal counties are those within 50 miles of the coast. Sampling in North Carolina is increased to counties within 50 miles of the coast during November to April and within 100 miles of the coast during May through October. Data collected from the complementary Access-Point Angler Intercept Survey (OMB Control No. 0648-0659) demonstrate that 70-90% of saltwater fishing trips are taken by residents of the counties covered by the CHTS.

² Response rates based upon results from 2013 CHTS.

Table 1. Estimated size of the target population, number of sampled telephone numbers, expected percentage of sampled telephone numbers that are residential, expected response rates and estimated number of completed household interviews per wave for the Coastal Household Telephone Survey.

Reference Wave	Estimated Number of Households in Target Population ³	Estimated Number of Sampled Telephone Numbers	Expected Percent of Sampled Telephone Numbers that are Residential	Expected Response Rate	Expected Number of Completed Household Interviews
1 (Jan/Feb)	11,623,764	551,694	12.0	30.0	19,861
2 (Mar/APR)	27,784,857	819,278	12.0	30.0	29,494
3 (May/Jun)	30,107,559	1,312,806	12.0	30.0	47,261
4 (Jul/Aug)	30,107,559	1,635,972	12.0	30.0	58,895
5 (Sep/Oct)	30,107,559	1,182,611	12.0	30.0	42,574
6 (Nov/Dec)	27,784,857	830,972	12.0	30.0	29,915
Overall		6,333,333	12.0	30.0	228,000

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.

2.1. Sampling Design

The CHTS utilizes a list-assisted RDD approach. The sample frame for the survey includes all telephone numbers in hundred-banks (the set of numbers with the same first eight digits) that contain at least one number listed in the white pages directory. Consequently, the frame includes both listed and unlisted telephone numbers. The sample frame excludes telephone exchanges that are known to be assigned only to cell phones and is updated each wave to ensure that working blocks of telephone numbers are not inappropriately excluded.

Sampling for the CHTS is stratified by state and county. For each wave and stratum, a simple random sample of telephone numbers is selected from county-specific sample frames. Within a wave and state, sample is allocated among counties in proportion to the square root of the county population. This approach ensures that counties with small populations receive sufficient sample to detect saltwater fishing activity. Following sampling, telephone numbers are pre-dialed to identify and eliminate non-working numbers. Approximately 85% of working numbers in the sample are loaded into the Computer Assisted Telephone Interviewing (CATI) system for dialing. The remaining 15% are held in reserve in the event that sample yields fall below

³ The target population for the CHTS is full-time occupied households in coastal counties. Because the CHTS is an RDD survey, the sample frame excludes households without landline telephone service. The CHTS assumes that landline and non-landline households are similar in terms of recreational fishing activity. This assumption is being evaluated by the MRIP Fishing Effort Survey (OMB Control No. 0648-0652). CHTS sample weights are post-stratified to the estimated total number of occupied households within coastal counties to account for this source of under-coverage.

expectations. Productivity of the sample is monitored throughout the data collection period, and additional sample is released as needed to complete the required number of interviews.

2.2. Data Collection Procedures

The CHTS collects fishing information for fixed, two-month reference waves. Data collection for each wave begins one week prior to the end of the wave and continues for a period of two weeks. All interviews are conducted via a CATI system that automatically dials sampled telephone numbers, schedules call-back interviews, ensures that dialing protocols are satisfied for each sampled number, navigates the interview through complex skip patterns, and verifies suspect or illogical responses at the point of data entry.

Once a number has been loaded into the CATI system, a minimum of five contact attempts are made to categorize the number as an interview (partial or complete), nonrespondent, ineligible or unknown eligibility. Once dialed, each telephone number is allowed to ring five times before the number is classified as “no answer.” Telephone calls are distributed among weekend/weekday and day/evening, such that the following criteria are satisfied:

- Each number receives at least one weekday attempt and three night or weekend attempts. The time delineating day and night is 5 pm.
- At least one of the night-time attempts must also be a weekend attempt.
- Calling is completed between 8:00 a.m. and 9:00 PM local time for the geographic area being dialed.

Once a household has been contacted, the interviewer determines if any household residents participated in saltwater fishing during the reference period and then attempts to interview each individual angler to collect detailed information about recent saltwater fishing trips. In the event that interviews with all anglers within a household cannot be completed during the initial contact, up to five additional attempts are made to complete the interview. Appointment interviews are scheduled to facilitate the collection of complete household data. If an individual angler cannot be contacted after five additional attempts, data can be accepted from another household member.

2.3. Estimation Design

The estimation weights for the CHTS are formed in stages. The first stage is the creation of a base weight for the household, which is the inverse of the probability of selection of the telephone number. The second stage is the adjustment of the base weights for households with multiple telephone numbers. The third stage is a non-response adjustment. The fourth stage is the poststratification adjustment of the weights to estimates of household totals within the survey area⁴. These household-level weights implicitly include nonresponse and undercoverage adjustments, resulting, for example, from the exclusion of non-landline households from the sample frame. Estimates of total fishing effort by residents of coastal counties (\hat{Y}_c) are produced using these poststratified household weights.

⁴ Estimates provided by Nielsen Company, Inc.

$$\hat{Y}_c = \sum_{h=1}^H \sum_{i=1}^{n_h} \omega_{hi}^{\hat{c}} y_{hi}$$

where $\omega_{hi}^{\hat{c}}$ and y_{hi} are the final, poststratified weight and reported number of recreational fishing trips, respectfully, for household i of stratum h .

Total fishing effort (\hat{Y}_t) is estimated by multiplying coastal resident effort by correction factors derived from a complementary survey, the Access-Point Angler Intercept Survey (APAIS, OMB Control No. 0648-0659). Specifically, APAIS respondents are asked for their state and county of residence. CHTS estimates are then expanded by the ratio of total intercepted trips to intercepted trips taken by residents of coastal counties.

$$\hat{Y}_t = \hat{Y}_c \hat{R}$$

where $\hat{R} = \frac{\text{Total APAIS Intercepts}}{\text{APAIS Intercepts with Coastal Residents}}$

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 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 surveys. Call-center supervisors monitor in-progress interviews and provide immediate feedback and additional training as needed. Refusal rates for the telephone surveys have rarely exceeded five percent during the 30 years of the survey.

Nonresponse will be handled through nonresponse weighting adjustment. Specifically, the weights of nonrespondents will be transferred to respondents within adjustment cells. Generally, nonresponse adjustment cells will be defined at the stratum level. Weights will also be post-stratified to population control totals within strata, which will ensure that sample data represent the entire population of households within the geographic coverage area of the CHTS.

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.

No additional testing is planned.

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.

Anjunell Lewis, NOAA Fisheries Service, Office of Science and Technology, 301-427-8145 is the point-of-contact for the Agency. The current contractor for the CHTS is ICF International, of Fairfax, Virginia. Data collections are performed under contract; NMFS staff performs analyses.