

MEMORANDUM | September 1, 2015

TO Craig O'Connor, NOAA
FROM Frank Lupi
SUBJECT C1 - Backyard Boating Survey

BACKYARD BOATING SURVEY

This memo summarizes the survey of boat owners that sought to collect information on the number of boating trips taken from coastal waterfront residences and private marinas in Louisiana, Mississippi, Alabama, and the Gulf coast of Florida. This survey is referred to as the “Backyard Boating Survey” as a shorthand. The information complements the counts of boating trips from the infield surveys of boating.

The sample frame of sites surveyed for the infield boating counts consisted of the sites covered by Federal surveys in the Marine Recreational Information Program (MRIP).¹ The MRIP sample frame does not include private marinas (those not accessible to the general public) and waterfront residences.

Thus, the primary purpose of the backyard boating surveys was to measure boating trips from waterfront residences and private marinas that were not covered in the sampling frame of the boating infield survey, and to do so in two time periods: April 2010-March 2011 and April 2011-March 2012. In addition to measuring boating trips, in the initial year the survey also collected information on whether respondents felt the spill affected their trips, with the questions asked in a manner that roughly paralleled questions about the spill from the infield and other surveys.²

METHODS

There were three main parts to the backyard boating survey. First, a mail questionnaire was used to identify boat owners likely to be eligible for a telephone interview. Second, a telephone interview was conducted in 2011 to collect information about boating trips from April 2010 to March 2011. Third, a re-contact telephone interview was conducted to collect information on trips from April 2011 to March 2012 with eligible respondents from the previous telephone interview. The surveys were implemented by Westat, Inc. in Rockville, MD.

SURVEY SAMPLE

The sample for the backyard boating survey consisted of addresses from lists of registered boats in counties near coastal areas of Louisiana, Mississippi, Alabama, and the Gulf coast of Florida (referred to later as the four states). The sample was drawn from the lists of registered boats which were obtained from each of the four states. The sample was stratified by state, and counties in the Florida panhandle were sampled at a higher

¹ For details of the infield survey and sample frame, see Technical Memo B1 - Estimation Procedures for Count Data.

² For example, the Local Coastal Activities Survey (see Technical Memo I1 - Local Coastal Activity Survey).

rate than counties in the Florida peninsula. Only coastal counties and counties next to coastal counties were included in the sample, and coastal counties were sampled at a higher rate than the adjacent non-coastal counties. The counties included in the Backyard Boating sample are shown in Exhibit 1.

STAGE 1: MAIL SURVEY

The first stage of the backyard boating survey used a mail questionnaire to find boat owners who were likely to be eligible for the telephone interviews. Specifically, the mail questionnaire was aimed at identifying boat owners likely to have a boat kept at a waterfront residence with access to the Gulf of Mexico or a boat kept at a private marina with access to the Gulf. The one-page questionnaire began with three simple sets of questions about motor homes, off-road vehicles and boats. For each of these, respondents were asked about the locations where they were used or kept. Boat owners with boats kept at private marinas or kept at a residence with water access, and those kept “at some other place”, were then eligible to be followed for the telephone survey. The mail questionnaire also elicited a telephone number in case of further questions. The questions about motor homes and off-road vehicles were included to avoid providing specific information about the topic of the survey, reducing the potential for nonresponse bias.

STAGE 2: INITIAL TELEPHONE INTERVIEW

The second stage of the backyard boating survey consisted of a telephone interview of boat owners who had indicated on the mail survey that they kept a boat at a private marina or a residence with water access. The interview was aimed at collecting information on trips to the Gulf for April 2010 to March 2011. The interview was conducted using a CATI (computer assisted telephone interviewing) program. The design of the CATI program allowed for customization of question sequencing and question wording as needed to accommodate respondents’ previous answers about their boating.

As a general outline, the telephone interviews had the following sections, described in more detail below:

- Eligibility
- Trips per month
- Adjustments to trips
- Typical party sizes
- Oil spill questions
- Demographics.

Eligibility

The telephone interviews began with questions to further establish eligibility. These again asked where the boat was kept. If a boat was kept at a residence or private marina, respondents were asked if that location had a water route to the Gulf. At this point, a telephone respondent was considered eligible for the full telephone interview if they (a) kept a boat at a private marina or a waterfront residence, and (b) the location had water access to the Gulf.

Trips per month

After establishing eligibility, the CATI elicited monthly boating trips from April 2010 through March 2011. The interview elicited these trips by first asking if the respondent took the boat out in March of 2011. If so, they were asked how many times they took the boat out in March, as well as if any of the times were overnight trips and then how many. The interview went through the same set of questions for each month working back in time to April 2010. After completing the 12 months, respondents were told how many trips they reported in total and in each month, and they were offered a chance to adjust these. In each of the months and in the other questions involving trip numbers, respondents who were unsure could report lower and upper bound numbers.

Adjustments to trips

The next set of survey questions covered special cases of trips that might have been reported in the yearly totals. Specifically, respondents were asked if their trip counts included any of the following (and if so, how many): trips for business or commercial purposes; trips from other places that were public sites; and times other people used their boat without them.

Typical party sizes

For the total of trips reported, respondents were asked to report the number of people typically on board the boat. If a respondent had any overnight trips, then the number of people typically on the boat was collected separately for single and multiple day trips. Similarly, if a respondent had any overnight trips, they were asked about their typical trip length (nights away) for those trips.

Oil spill questions

The following questions were asked to gauge possible effects of the oil spill: (1) if they did anything different in 2010 than in typical years, in terms of places they went, number of times they went, or the activities they did; (2) awareness of spill; and (3) changes in places and activities in response to spill. These items were asked in a manner that roughly paralleled the questions in the Local Coastal Activities Survey (see Technical Memo II – Local Coastal Activity Survey) and questions in the in-field surveys, although the in-field questions pertained to a specific intercepted trip.

Demographics

The final section of the telephone interview collected demographic characteristics of the respondents and their households.

STAGE 3: RE-CONTACT TELEPHONE INTERVIEW:

The third stage of the backyard boating survey consisted of a follow-up telephone interview of respondents to the first telephone interview and was aimed at collecting trips for April 2011 to March 2012. The interviews were conducted using a modified version of the previous CATI instrument. The interviews began by clarifying whether a respondent still owned their boat and whether it was still kept at a private marina or a residence with water access to the Gulf. After establishing their continued eligibility, the re-contact interview asked the monthly boating trip questions in the same manner as the previous interviews. The only difference was that the questions started in March 2012 working back through the months until completing April 2011. The questions about the

number of people typically on the boat and nights away, if any, were asked as before. Similarly, the interview asked the questions about commercial uses of the boat, if any of the trips were to other places that were public sites, and times other people used the boat without them. Unlike the first telephone interview, there were no questions about the oil spill and only a subset of the demographic questions was asked again. Weights were developed by Westat, Inc. for expanding the sample to the eligible population.

DEVELOPMENT AND TESTING OF QUESTIONS AND INTERVIEW PROTOCOLS

The development and testing of the Backyard Boating Survey followed similar procedures as for the surveys described in Technical Memos F1 – National Valuation Survey and G1 – Local Valuation Survey.

The experience gained in designing and implementing the Local Coastal Activities Survey (Technical Memo I1 – Local Coastal Activity Survey), as well as other related surveys, was used by team members to prepare initial drafts of the telephone interview instrument.

During the development of the telephone interview instrument, potential respondents were identified by an independent market research firm. Potential respondents were drawn from the four state study areas and were recruited to call a conference phone number at a specified time. At the appointed time, a team member administered the telephone survey. As part of this process the team member asked respondents about their understanding of the draft questions and their ability to remember and report the details of their boating trips by months. In addition to the team member conducting the interview, other team members listened as the interview was being conducted. At the end of each instrument testing session, team members met via conference call to discuss their observations on how the respondents understood and answered the survey questions. Questions were adjusted iteratively throughout this process.

At the end of the initial survey development process, a basic instrument was provided to Westat for programming into a CATI (computer assisted telephone interviewing) program. The CATI program utilized customized question sequencing and wording as needed to accommodate respondents' previous answers about their boating. The performance of the draft CATI instrument was tested by both the CATI programmers at Westat and team members. Team members accessed the CATI program through a secure website and provided answers to questions as they were presented by the program. Any required changes (typically skip patterns and fill phrases) were communicated to the CATI programming team and a new CATI program was posted. This process of testing and revising was repeated numerous times until all survey questions were finalized.

EXHIBIT 1: BACKYARD BOATING SURVEY SAMPLE AREAS

