**Supporting Statement B**

**Comprehensive Survey of the American Public – (CSAP4)**

**OMB Control Number: 1024-0254**

**Collections of Information Employing Statistical Methods**

*1. Describe (including a numerical estimate) the potential respondent universe and any sampling or other respondent selection methods to be used. Data on the number of entities (e.g., establishments, State and local government units, households, or persons) in the universe covered by the collection and in the corresponding sample are to be provided in tabular form for the universe as a whole and for each of the strata in the proposed sample. Indicate expected response rates for the <u>collection as a whole</u>. If the collection had been conducted previously, include the actual response rate achieved during the last collection.*

**Respondent Universe**

The respondent universe for this survey is adults aged 18 or over (English or Spanish speaking), living in the seven NPS administrative regions (Alaska Region, Intermountain Region, Midwest Region, National Capital Region (NCR), Northeast Region (NER), Pacific West Region, and Southeast Region).  The stratified sampling method for the survey is designed to allow for summaries that represent opinions and behaviors of adult residents of each region. Table 1.1 includes the breakdown for the respondent universe by National Park Service (NPS) geographic region.

**Table 1.1 Respondent Universe and Estimated Number of Completed Surveys[1]**

| Stratum (NPS administrative region) | Respondent universe size (estimated) | Initial sample size | Estimated number of completed surveys |
|---|---|---|---|
| National Capital Region | 547,328 | 5,556 | 500 |
| Northeast Region | 59,412,872 | 5,556 | 500 |
| Southeast Region | 60,042,811 | 5,556 | 500 |
| Midwest Region | 53,626,659 | 5,556 | 500 |
| Intermountain Region | 41,477,830 | 5,556 | 500 |
| Pacific West Region | 45,172,170 | 5,556 | 500 |
| Alaska Region | 557,060 | 5,556 | 500 |
| **Total** | 260,836,730 | 38,892 | 3,500 |

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[1] Source: "Estimates of the Total Resident Population and Resident Population Age 18 Years and Older for the United States, Regions, States, District of Columbia, and Puerto Rico: July 1, 2022 (SCPRC-EST2022-18+POP)", U.S. Census Bureau, Population Division. Release Date: December 2022

**Response Rate**

The overall response rate for CSAP3 was 8.8% (8.3% for landlines and 9.3% for cell phone numbers).[2] Recent surveys conducted by OmniTrak (anticipated data vendor/call center) have yielded similar or better response rates.  For the purposes of this iteration, we assume a response rate of 9%, in line with CSAP3.

Given the above information, the sample for the proposed survey will consist of a total of 38,892 phone numbers drawn from all phone numbers belonging to residents of the included geographies. Like CSAP3, this iteration will use a fully integrated sample of landline and cell numbers, with landline and cell phone numbers sampled in proportions that reflect their relative frequencies within each region based on estimates developed by the data vendor/call center. We expect, based on the estimated 9% of those contacted, 3,500 will complete the survey interview. This will yield approximately 500 completed responses per NPS administrative region.  We expect that of the 35,392 individuals attempted to be contacted, who either choose not to participate, or do not pick up, about 20% (n=7,078) will agree to answer the non-response bias questions. All those attempted contacts who do not pick up, are accounted for in the hard refusal grouping of Table 1.2.

**Table 1.2. Anticipated Survey Response Rates**

| Total Number of Contacts | Completed Surveys (9% of contacts) | Refusals (91% of contacts) | Soft Refusals Complete Non-Response Surveys (20% of refusals) | Hard Refusals (80% of refusals) |
|---|---|---|---|---|
| 38,892 | 3,500 | 35,392 | 7,078 | 28,314 |

***2. Describe the procedures for the collection of information including:***

- ***2.1 Statistical methodology for stratification and sample selection,***
- ***2.2 Unusual problems requiring specialized sampling procedures***
- ***2.3 Estimation procedure, and degree of accuracy needed for the purpose described in the justification, and***
- ***2.4 Any use of periodic (less frequent than annual) data collection cycles to reduce burden.***

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[2] Resource Systems Group (RSG) and Wyoming Survey and Analysis Center (WYSAC). 2019. National Park Service comprehensive survey of the American public: 2018 – national technical report. Natural Resource Report. NPS/NRSS/EQD/NRR —2019/2047. National Park Service. Fort Collins, Colorado

## 2.1 Statistical methodology for stratification and sample selection,

_Phone-Based Household Survey -_ A dual sampling frame will be used to include both landline and cell phone numbers. Landline and mobile numbers are purchased from a professional, national sampling house.  Sample quantities can be determined by geographical location(s) targeted, city, county, state etc.  For the purpose of this collection, the sample will be stratified by NPS region. Omnitrak (call center vendor) also maintains a proprietary panel of landline and mobile numbers. Recruitment of new panel members is continuous and the panel is continually updated and refreshed.  Sample files are prepared and randomized using an algorithm developed by Omnitrak and sampling features from the CATI program.

Following identification of geographic targets, sample (including both landline and mobile) quantities are ordered using a standard call to completion ratio (e.g., 15:1).  This ratio allows for fall-out due to non-working, business/government, refusals, unqualified for participation etc. Sample then is de-duped (if necessary) randomized and loaded into CATI. Sample files are monitored to ensure call-backs (programmed for frequency and time between) is working properly.

Landline and mobile sample files are de-duped by number type and cannot be de-duped by household.  To avoid multiple surveys within a single household, at initial screening, the respondent will be asked if he/she or any adult member of the household participated in a survey concerning (subject matter) during the data collection dates.

## 2.2 Unusual problems requiring specialized sampling procedures

The telephone numbers will be pre-screened to attempt to eliminate, insofar as possible, disconnects, businesses, and other known ineligibles. Any ineligibles not identified through pre-screening process will be further screened during the survey calling process. Every call made is documented in a Disposition Summary which is maintained during the data collection period and includes calls made to disconnected numbers, etc.  Up to 8 attempts are made to each usable number until the sample is exhausted.

This telephone survey will employ the following protocols:

- Use probability samples of phone numbers.
- Use a combination of land line and cell phone RDD samples in a proportion reflective of the prevalence of cell phone only and cell phone mostly households at the time the samples are drawn. Omnitrak uses current NIH data to determine the appropriate split between landline vs mobile completions.

- Phone numbers are called up to 8 times if previous attempts did not result in a completed survey, an irate refusal, or an otherwise ineligible number.
- Calls are made during calling sessions Sundays through Thursdays from 5 to 9 PM respondent time and on Friday and Saturday afternoons.
- Potential respondents who do not agree to complete the full survey are solicited to answer a few demographic questions, as well as two substantive questions. The information will be used in the non-response bias analysis.

### *2.3 Estimation procedure, and degree of accuracy needed for the purpose described in the justification*

For each region in the collection effort, the research team will target approximately 500 completed surveys to meet sample size needs (Sample Equation Below). This yields an estimated 3,500 total surveys nationwide.

Using the Alaska Region as an example, the formula[3] below calculates the sample size (n). Other regions with higher populations will also require approximately 385 surveys. We are targeting 500 completed surveys per region to ensure adequate sample per each question, given some questions are not asked to all respondents (e.g., visitor vs. non-visitor question sections).

Unlimited Population -
$$n = \frac{z^2 * \hat{p}(1-\hat{p})}{\varepsilon^2}$$

Finite Population Correction -
$$n' = \frac{n}{1 + \frac{z^{2*¿}\hat{p}(1-\hat{p})}{\varepsilon^2 N}¿}$$

Where:

- Z score (based on 0.95 Confidence Level):      z = 1.96
- Population Proportion:      $\hat{p}$ = 0.5
- Approximate Population Size (18+):      N = 550,000
- Margin of error:      ε = 0.05

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[3] Sample Size Calculator | Good Calculators

Given the equations and values above the finite population correction $n' = 384$.

## 2.4 Any use of periodic (less frequent than annual) data collection cycles to reduce burden

This is not applicable to this effort as each contacted respondent is sampled once.

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

Declining response rates in phone-based surveys is a readily acknowledged challenge in survey research over the last several decades (Leeper, 2019). For example, from 1997 to 2016 response rates for telephone surveys from the Pew Research Center have declined from 36 to 9 percent (Keeter et al., 2017). Similarly, in previous CSAP iterations response rates fell from 12.5% in the 2008 iteration to 8.9% in the 2018. While low response rates do not inherently undermine survey quality, they do necessitate careful evaluation of potential nonresponse.  This data collection will employ the following protocols in an effort to achieve adequate coverage of the population in the universe studied, to maximize effective response rates, to secure representativeness of the final sample, and to obtain reliable data that can be generalized to the universe studied:

- **Use a combination of landline and cellphone.**  The samples will be in a proportion reflective of the prevalence of cellphone only and cellphone mostly households at the time the samples are drawn. This sample design will secure adequate coverage of the universe studied.
- **Use probability samples of phone numbers.** This methodology will allow the findings for the respondents to be generalizable to the universe studied. The statistical power of the inferences that will be made will vary depending on the effective final sample sizes.
- **Use in-house random selection of respondents for land lines.**  To achieve better representativeness of the final sample, survey methodology in previous iterations has employed various methods of within-household random selection of the respondent. For the present iteration of the survey, the adult currently at home with the most recent birthday will be asked to complete the survey. Current survey industry standards do not prescribe attempting to apply random within-household selection of respondent with cellphone samples.

- **Use multiple callbacks**. Protocols for conducting telephone surveys using RDD samples dictate calling phone numbers up to 8 times if a previous attempts did not result in a completed survey, an irate refusal, or an otherwise ineligible number. This extensive effort is intended to increase response rates, reduce non-response bias, reduce early response bias, and improve the demographic distribution of the final sample.
- Use a **calling schedule** to include both weekday and weekend, and both evening and daytime calling. Calls will be made Sundays through Thursdays from 5 to 9 PM respondent time and on Friday and Saturday afternoons. Additional daytime calling sessions may be added on an as needed basis.
- **Conducted** interviews **in Spanish**. In all cases where the first successful contact with the household identifies the need to transfer that record to a bilingual interviewer.
- **Completions will be monitored for each region individually**, so that any lag in completion rates will be established early on and additional effort and resources will be employed to compensate for that lag.

Non-response may be two-fold. For example, in the case of cell phones, a 2020 survey by Pew found that only 19% of Americans indicated they generally pick up cellphone calls from unknown numbers. Further, several demographic variables influence this rate of picking up, with men, non-white, younger, and lower income adults being most likely to pick up (McClain, 2020). However, likelihood to pick up does not necessarily translate into a response. As summarized by Smith (2008), traditional surveys have often yielded women more likely than men, younger more likely than older, and white more likely than non-white to participate, regardless of how comprehensive the sampling frame is and how well the samples are drawn. This presents serious challenges to survey research. As such, the potential for bias of the results exists when certain demographic groups are underrepresented in the final samples. To compensate for that potential bias, as a standard procedure, known population demographic benchmarks (for sex, age, education, race, etc.) obtained from the U.S. Census Bureau, will be used for **weighting (post stratification)** of the final survey sample, to bring the weights of key demographic variables in the sample of respondents in line with the true weights of those demographic variables in the population within each region and the country as a whole. Insofar as demographic characteristics are correlated with behaviors and attitudes, the post-weighting should adjust for that type of non-response bias.

In addition to post-weighting, we will conduct **non-response bias analysis**. Potential respondents who do not agree to complete the full-length survey will be asked to answer the non-response bias survey.

**Script for Non-Response Survey**

> *Surveyor: Hello, my name is _____. I'm calling on behalf of the National Park Service, and I'm not selling anything. I'm working with a research firm called Omnitrak Group helping to produce the National Park Service Comprehensive Survey of the American Public.  Your phone number was randomly chosen. I will need about 25 minutes of your time to ask some questions about the services the National Park Service offers. Would you be able to help me out with this?*

**SOFT REFUSAL**
**Surveyor: Okay. Would you be willing to answer just five questions for me? It will take less than five minutes of your time.**

If **Yes** or **maybe**,  →Skip to NON-RESPONSE

1. **Please tell me how satisfied you are with the way the National Park Service manages the national parks, national seashores, historic sites, battlefields, national monuments and other designations. In general, are you:**

    **1. Very satisfied**
    **2. Somewhat satisfied**
    **3. Neither satisfied nor dissatisfied**
    **4. Somewhat dissatisfied, or**
    **5. Very dissatisfied?**
    998. Don't know/Not sure
    999. No Answer/Refused

2. **How many times in the past two years have you visited a national park?**

[Interviewer will read if needed for clarification: The National Park System consists of all the units managed by the National Park Service, including national parks, historic and cultural sites, and national monuments.]  _____ (type number of visits here)

    998. Don't know/Not sure

    999. No Answer/Refused

3. **In what state do you currently live, or do you live in D.C.?**

_____ (enter state or D.C.)

      998. Don't know/Not sure
      999. No Answer/Refused


**4. What is your age?**

      _____ (type answer here)

      998. Don't know/Not sure
      999. No Answer/Refused


**5. Are you Hispanic or Latino?**
**1.    Yes**
**2.    No**
      998. Don't know/Not sure
      999. No Answer/Refused


**6. I'm going to read a list of racial categories. Please select one or more to describe your race. Are you...?**
      1**. American Indian or Alaska Native**
      2**. Asian**
      3**. Black or African American**
      4**. Native Hawaiian or other Pacific islander**
      5**. White**
      998. Don't know/Not sure
      999. No Answer/Refused


The information collected in the non-response survey will be used to perform non-response bias analysis. Specifically, respondents will be compared to non-respondents on their answers to the questions in the survey that correspond to the non-response bias questions. In addition, respondents' demographic characteristics will be compared to US Census Bureau statistics, where applicable. Implications and results of the non-response bias analysis will be discussed in the final report for this survey.

*4. Describe any tests of procedures or methods to be undertaken. Testing is encouraged as an effective means of refining collections of information to minimize burden and improve utility. Tests must be approved if they call for answers to identical questions from 10 or more respondents. A proposed test or set of test may be submitted for approval separately or in combination with the main collection of information.*

As previously stated, the proposed data collection is an extension of previous methods used, with the majority of the instrument carried forward from previous CSAP iterations. New sections/questions are labeled as such on the survey instrument and are constructed in similar wording and structure to those found in the NPS Pool of Known Questions; particularly from the Crowding and Transportation Management sections (currently under review; OMB Control #: 1024-0224; Programmatic Clearance for NPS Sponsored Public Surveys). Further, the survey was pretested for clarity and burden estimation with 9 University of Montana students. Similar to reviewer comments described in SSA, pretest respondents noted the need for set up text to introduce each section.  The burden was estimated to be 25 minutes.

**_5. Provide the name and telephone number of individuals consulted on 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._**

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References

Keeter, S., Hatley, N., Kennedy, C., and A. Lau. 2017. What low response rates mean for telephone surveys. Pew Research Center. Available at http://assets.pewresearch.org/wp-content/uploads/sites/12/2017/05/12154630/RDD-Non-response-Full-Report.pdf.

Leeper, T. 2019.  Where have the respondents gone? Perhaps we ate them all, *Public Opinion Quarterly*, Volume 83, Issue S1, Pages 280–288. Available at https://doi.org/10.1093/poq/nfz010

McClain, C. 2020. Most Americans don't answer cellphone calls from unknown numbers. Pew Research Center. Available at https://www.pewresearch.org/short-reads/2020/12/14/most-americans-dont-answer-cellphone-calls-from-unknown-numbers/

Smith, W.G. 2008. Does gender influence online survey participation?: A record-linkage analysis of university faculty online survey response behavior. Available at: https://files.eric.ed.gov/fulltext/ED501717.pdf