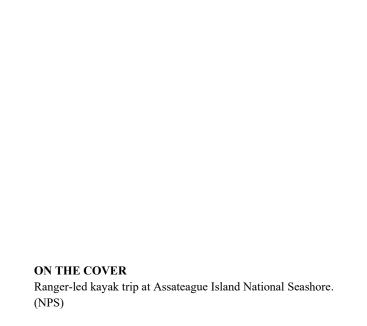


National Park Service Comprehensive Survey of the American Public

2018 – Broad Comparisons to the 2000 and 2008–2009 Surveys

Natural Resource Report NPS/NRSS/EQD/NRR—2020/2082





National Park Service Comprehensive Survey of the American Public

2018 – Broad Comparisons to the 2000 and 2008–2009 Surveys

Natural Resource Report NPS/NRSS/EQD/NRR—2020/2082

Resource Systems Group (RSG) White River Junction, Vermont

Wyoming Survey and Analysis Center (WYSAC) Laramie, Wyoming

February 2020

U.S. Department of the Interior National Park Service Natural Resource Stewardship and Science Fort Collins, Colorado The National Park Service, Natural Resource Stewardship and Science office in Fort Collins, Colorado, publishes a range of reports that address natural resource topics. These reports are of interest and applicability to a broad audience in the National Park Service and others in natural resource management, including scientists, conservation and environmental constituencies, and the public.

The Natural Resource Report Series is used to disseminate comprehensive information and analysis about natural resources and related topics concerning lands managed by the National Park Service. The series supports the advancement of science, informed decision-making, and the achievement of the National Park Service mission. The series also provides a forum for presenting more lengthy results that may not be accepted by publications with page limitations.

All manuscripts in the series receive the appropriate level of peer review to ensure that the information is scientifically credible, technically accurate, appropriately written for the intended audience, and designed and published in a professional manner.

This report received formal peer review by subject-matter experts who were not directly involved in the collection, analysis, or reporting of the data, and whose background and expertise put them on par technically and scientifically with the authors of the information.

Views, statements, findings, conclusions, recommendations, and data in this report do not necessarily reflect views and policies of the National Park Service, U.S. Department of the Interior. Mention of trade names or commercial products does not constitute endorsement or recommendation for use by the U.S. Government.

This report is available in digital format from the <u>Natural Resource Publications Management</u> <u>website</u>. If you have difficulty accessing information in this publication, particularly if using assistive technology, please email <u>irma@nps.gov</u>.

Please cite this publication as:

Resource Systems Group (RSG) and Wyoming Survey and Analysis Center (WYSAC). 2020. National Park Service comprehensive survey of the American public: 2018 – broad comparisons to the 2000 and 2008–2009 surveys. Natural Resource Report NPS/NRSS/EQD/NRR—2020/2082. National Park Service, Fort Collins, Colorado.

Contents

Pag	ge
Tablesi	iv
Abstract	.v
Authors	vi
Acknowledgmentsv	⁄ii
Introduction	. 1
Comparing Methods	.2
Sampling	.2
Language of Interviewing	.2
Weighting	.3
Response Rates	.3
Questionnaire Content	.4
Identifying Recent Visitors	.4
Margin of Error	. 5
Statistical Testing	. 5
Comparing Visitation Estimates	.6
Comparing Planned Visitation	.8
Comparing Perceived Barriers to Visitation	0 ا
Comparing Overall Satisfaction1	l 1
Discussion1	13
Literature Cited1	14
Appendix 1: Wording of CSAP Survey Questions used in Comparisons	15

Tables

	Page
Table 1. Margins of error for key CSAP3 subgroups, assuming simple random sample and no weighting.	5
Table 2. Reported visitation to National Park System units.	6
Table 3. Reported plans to visit, all respondents.	8
Table 4. Reported plans to visit, recent visitors only.	9
Table 5. Percent strongly agreeing with reasons for not visiting, non-visitors only	10
Table 6. Satisfaction with national parks, recent visitors only	12
Table 7. Survey questions used to compare reported visitation to National Park System Units, by CSAP year.	15
Table 8. Survey questions used to compare reported plans to visit, by CSAP year	16
Table 9. Survey questions used to compare percent strongly agreeing with reasons for not visiting, by CSAP year	17
Table 10. Survey questions used to compare satisfaction with national parks, by CSAP year	18

Abstract

In 2018, the National Park Service (NPS) conducted its third Comprehensive Survey of the American Public (CSAP3), a nationwide telephone survey consisting of 25-minute interviews with more than 2,700 adult respondents across the United States. The survey obtained information on public attitudes and behaviors related to programs and services provided by the NPS, demographic characteristics, and recent visitation behavior. This third iteration of the survey also incorporated new modules focused on program awareness and youth engagement with the National Park System. The present report compares CSAP3 results to results obtained in 2000 (CSAP1) and 2008-2009 (CSAP2) for the subset of questions that were repeated across all three survey efforts. It also discusses methodological differences across the three surveys that are essential to interpreting the findings.

Comparisons across the three surveys indicate that the percentage of recent (i.e., within the last two years) and lifetime visitors to NPS units has increased; over 90% of respondents indicated in 2018 that they have visited an NPS unit at some point in their lives and half named a valid NPS unit that they had visited within the past two years. Similarly, the percentage of respondents planning a visit within the next 12 months has steadily increased, nearly reaching half of all respondents in 2018. With respect to perceived barriers to visitation among non-visitors, the most notable trends across the three surveys include a decline in the percentage of respondents indicating that NPS units are too crowded, an increase in the percentage indicating that they lack information about what to do at NPS units, and an increase in the percentage indicating that NPS units are not accessible to the physically disabled. Finally, overall satisfaction with the NPS among recent visitors has increased across the three surveys, with over 90% indicating that they were satisfied with the NPS in 2018.

The comparisons presented here are suggestive but not definitive regarding trends over time. Any apparent change (or stability) could result from methodological differences in the three surveys and/or non-response bias due to declining response rates.

Authors

Resource Systems Group, Inc. (RSG) 55 Railroad Row White River Junction, VT 05001 (802) 295-4999 www.rsginc.com

RSG has a nationally and internationally recognized practice in the field of Public Lands Planning and Management (PLPM). The PLPM practice specializes in socioeconomic data collection, analysis, modeling, and peer-reviewed publication to help the NPS and other federal land management agency clients address nationally significant issues.

Wyoming Survey & Analysis Center (WYSAC) University of Wyoming, Dept. 3925 1000 East University Avenue Laramie, WY 82071 (307) 766-2189 www.uwyo.edu/wysac

WYSAC has a staff of 20 full-time employees and numerous part-time student workers, research aides, and interviewers. Together they conduct public opinion surveys, evaluation research, and software development for state and local governments and federal agencies.

Acknowledgments

The research team is grateful to Bret Meldrum, Dave Pettebone, and Phadrea Ponds (National Park Service Social Science Program) for assistance and support throughout the current project, from its initial conception and design through the peer review and final editing of this report. The researchers are also grateful to Burke Grandjean (Emeritus Professor of the University of Wyoming and RSG affiliated statistician) for his contributions to sampling and weighting considerations. The researchers also thank Burton Levine (RTI International) for developing survey weights for use in the data analysis; and the anonymous reviewers of this and other reports on the project for their careful, detailed, and helpful comments.

Introduction

For many Americans, the national parks represent a sense of place, a marker of identity, and a reminder of the country's past (see Runte, 1987; Stokowski, 2002). However, the lands set aside as units of the National Park System do not have the same meaning for everyone. Some Americans visit the parks frequently; others, rarely or not at all. The National Park Service (NPS) uses data from a variety of social surveys to assess the public's relationship to national parks, national monuments, and the other natural, historical, and cultural sites managed by the NPS. Most of these surveys focus only on visitors to specific NPS units, but in the past two decades three surveys sponsored by the NPS have collected comprehensive national data. The distinguishing characteristic of the three national surveys is that non-visitors as well as visitors were interviewed about their behaviors and opinions concerning national parks.

Each of the three national surveys is referred to as a "Comprehensive Survey of the American Public," or CSAP. The first CSAP was conducted in 2000 by Northern Arizona University (hereafter, CSAP1). The second CSAP was conducted in 2008-2009 by the Wyoming Survey & Analysis Center (WYSAC) at the University of Wyoming (hereafter, CSAP2). The third and most recent CSAP was conducted in 2018 by Resources Systems Group (RSG) and WYSAC (hereafter, CSAP3). All three CSAPs were conducted via telephone interviews with a nationwide sample of adults and obtained information on visits to the National Park System, public attitudes and behaviors related to programs and services provided by the NPS, and demographic characteristics of recent visitors and non-visitors. In addition, CSAP3 covered current initiatives related to program awareness and youth engagement. Each of the three surveys has generated a national report as well as topical reports on specific issues. Taken together, the three sets of reports derived from these surveys help NPS policymakers understand how the American public relates to the National Park System.

The present report compares findings across the three CSAPs and provides methodological context essential to interpreting those comparisons. The comparisons are limited to the subset of items that were included in all three surveys. In addition to this report, companion reports will be published that provide tabulations of national- and regional-level results for each item in the questionnaire, examine differences across major racial and ethnic groups, and summarize responses to questionnaire items that focus on current initiatives.

Comparing Methods

Details regarding survey methodology are provided in the national reports associated with CSAP1, CSAP2, and CSAP3. Those reports also include the full text of the questionnaires and tables of responses for every survey question. Here we summarize only those aspects of the methodology relevant to comparisons across the three surveys.

Sampling

While the sampling methods for all three CSAPs were designed to represent the U.S. adult population, three differences warrant consideration. First, the three surveys differed in the extent to which cell phone numbers were incorporated. Over the past two decades, there has been a rapid increase in the prevalence of cell phone-only and cell phone-reliant households in the U.S. (Brick et al., 2007; Keeter et al., 2007). The CSAP sampling methods have evolved to account for this shift. CSAP1 relied exclusively on landline phone numbers, with the sample disproportionately stratified by the seven NPS regions. CSAP2 sampled landline numbers using methods analogous to CSAP1, but supplemented the landline sample with a small, nationwide sample of cell phone numbers. Finally, CSAP3 used a fully integrated sample of landline and cell numbers, with the entire sample (landline and cell numbers) disproportionately stratified by NPS region, and with landline and cell numbers sampled in proportions that reflected their relative frequencies within each region.

Second, the timing of the three surveys differed. Interviews for CSAP1 were conducted during the late winter/spring, from February 21 to May 21, interviews for CSAP2 were conducted throughout an entire year, and interviews for CSAP3 were conducted during the summer and fall, from June 15 to November 30.

Third, the three surveys used different methods to select an adult within each contacted household to complete the survey. For CSAP1, interviewers asked to speak to the adult in the household who had had the most recent birthday. For CSAP2, each contacted household in the landline sample was randomly assigned one of three different selection methods: (1) the adult who had had the most recent birthday, (2) the adult who would have the next birthday, and (3) the adult selected using a random number generator. Statistical checks indicated that the three different methods yielded comparable results. For the cell phone sample of CSAP2, there was no within-household selection of an adult, as cell phone numbers typically are not shared within households. For CSAP3, no within-household sampling was implemented in either the landline sample or in the cell phone sample.

Language of Interviewing

The interviews for CSAP1 occurred exclusively in English. For CSAP2 and CSAP3, households that were identified in the initial calling as potentially requiring a Spanish-speaking interviewer were called back by bilingual interviewers. These interviewers then used either the English or Spanish version of the questionnaire, whichever was more comfortable for the respondent. The CSAP2 analysis found that Hispanic respondents who were interviewed in English were in general more favorably disposed toward national parks than those interviewed in Spanish (Taylor, Grandjean, and Gramann, 2011).

Weighting

The weighting methods used in CSAP surveys have evolved over time, with changes primarily reflecting evolving approaches to incorporating cell phone numbers and advancements in cell/landline weighting methods applied by survey practitioners. In CSAP1, only landline numbers were included in the sample. Regional weights were iteratively adjusted to match census demographic data (age, gender, ethnicity, and race) by region. Separate national weights were also developed that accounted for differences in sampling rates across the seven regions and that allowed the weighted survey data to match census demographics at the national level.

CSAP2 incorporated a supplemented sample of cell phone numbers, which necessitated adjustments to the weighting process. Within each region, weights were applied that calibrated the sample data to match estimates of the proportion of cell/landline phones (as estimated by the National Center for Health Statistics). For landline numbers, the weights were adjusted to reflect differences in the number of adults and the number of landlines within each household (both of which impact selection probabilities). These weights were then iteratively adjusted to match census demographics at the regional level. Finally, as with CSAP1, national weights were developed that accounted for differences in sampling rates across the seven regions and that allowed the weighted survey data to match national-level census demographics.

With CSAP3, cell phone numbers were fully integrated into the sampling process, with cell phone/landline sampling rates within each region reflecting the region's relative proportion of each type of phone number. As with CSAP1 and CSAP2, survey weights were iteratively adjusted to match regional- and national-level census demographics. However, with CSAP3, education and phone status (landline, cell phone-only, or dual user) were introduced as additional characteristics for calibration. In addition, CSAP3 did not adjust for the number of adults in the household. Finally, because CSAP3 calibrated simultaneously by region and demographics, a single set of weights was developed that could be used for both regional and national analyses.

Response Rates

There were 3,515 respondents to CSAP1, 4,103 respondents to CSAP2, and 2,704 respondents to CSAP3. Response rates for phone surveys have been declining rapidly in recent decades (Keeter et al., 2017), and this trend is reflected in the response rates achieved in the two most recent CSAPs. While the overall response rate for CSAP2 was 12.5%, the overall response rate for CSAP3 was only 8.9% (8.3% for landlines and 9.3% for cell phone numbers). The response rate for CSAP1 was not reported, but recent response rate trends suggest that CSAP1 likely achieved a response rate that was higher than 12.5%.

To mitigate potential non-response bias due to low response rates, survey practitioners routinely develop weights for use in analysis (e.g., Brick et al., 2007), as was done in all three iterations of the

-

¹ All response rates reported in this section were calculated using the "RR3" formula defined by the American Association for Public Opinion Research (AAPOR, 2015).

CSAP. To the degree that demographic factors used in the weighting are correlated with other characteristics addressed in the survey, such as opinions and behaviors, weighting helps to reduce the adverse effects of non-response. However, some bias in the estimates is unavoidable when non-respondents have characteristics different from those of interviewed people in the same demographic group.

Questionnaire Content

After CSAP1, minor changes were made to the questionnaire, with questions removed and new questions added in each subsequent implementation. This report compares responses to survey questions that were repeated across all three surveys, including questions about visitation and planned visitation to NPS units, perceived barriers to visiting NPS units more often, and overall satisfaction with NPS. In some circumstances, the question wording or response options differed across the three surveys. For example, in CSAP1 the questions asking about agreement with a particular statement provided only four response categories, ranging from "strongly agree" to "strongly disagree." In contrast, CSAP2 and CSAP3 include a middle category of "neither agree nor disagree." In the presentation of substantive findings below, any major differences in question wording or response options are described. The verbatim wordings and response choices for the three questionnaires are provided in Appendix 1 of this report.

Identifying Recent Visitors

For analysis purposes, "recent visitors" were defined as respondents who could name a valid unit of the National Park System they had visited in the previous two years; all other respondents were defined as "non-visitors." There were minor differences across the three surveys in the procedures used to identify recent visitors. In all three surveys, the main body of the questionnaire began identically: "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. How many times in the past two years have you visited a unit of the National Park System?" Respondents who reported at least one visit over that time span were considered part of the pool of potential "recent visitors," subject to validation. Those who said they had not visited in the past two years were then asked if they had ever visited. At this point, the CSAP2 and CSAP3 questionnaires diverged somewhat from the CSAP1 questionnaire. CSAP2 and CSAP3 added a timeline check by asking those who said they had ever visited how long ago that was. Those respondents who volunteered that it was in fact within the past two years were put back into the pool of potential recent visitors.

All three questionnaires then asked respondents to name the last NPS unit they had visited in the past two years, and only respondents who identified a valid NPS unit on that question were defined as "recent visitors" for the analysis. For CSAP1, only the official list of NPS units was available for reference when this question was asked. In contrast, for CSAP2 and CSAP3, the list of NPS units included commonly used aliases to assist in park identification (e.g., "Gateway Arch" for Gateway Arch National Park [formerly Jefferson National Expansion Memorial] or "Mount McKinley" for Denali National Park and Preserve). In addition, CSAP2 introduced several optional probes to assist the interviewer in identifying the recently visited park. The probes were, "Do you know what state that's in? Is it in [state]? Is there any other name for it? Can you spell it for me?"

Margin of Error

For simplicity, the report does not present the margin of error associated with each estimate. Approximate margins of error for estimates of percentages derived from the full sample and from key subgroups are presented in Table 1 for CSAP3. The margins of error in Table 1 are based on the standard formula for a proportion, assuming a simple random sample from a large population with equal sampling weights. The margin of error for any specific estimate in the report will ultimately be a function of the sample size for that estimate, the underlying variance of the measure of interest, and the variance of the sampling weights. Margins of error for CSAP1 and CSAP2 are likely slightly smaller than the values reported in Table 1 due to the larger sample sizes achieved in those surveys.

Table 1. Margins of error for key CSAP3 subgroups, assuming simple random sample and no weighting.

Group	Number of respondents	Margin of error
All respondents	2704	±2%
Visitors	1674	±2%
Non-visitors	1030	±3%

Statistical Testing

Significance tests comparing the three CSAP surveys are not reported here. Such tests would imply a degree of precision in the comparisons that is not warranted given the methodological differences summarized above. In fact, tables that compare results across the three CSAP surveys round all numbers to the nearest whole percent.

5

² The margin of error is calculated as 1.96 $x\sqrt{\frac{0.25}{n}}$, where *n* is the sample size.

Comparing Visitation Estimates

Respondents' self-reported NPS visitation is summarized in Table 2 for CSAP1, CSAP2, and CSAP3. The first row of Table 2 shows that, in all three survey years, approximately 9 of 10 respondents reported that they had visited a unit of the National Park System at least once in their lifetime. These figures are based solely on unvalidated responses to the first two items in the main part of the questionnaire; i.e., without requiring that the respondent name a valid NPS unit visited recently. The percentage increased over time, from 85% in CSAP1 to 87% in CSAP2 and 91% in CSAP3. With response rates declining across the three CSAP surveys, it is difficult to determine whether this trend is the result of an actual increase in lifetime visitation within the population or if it is the result of non-response bias. Non-response bias can arise if individuals who have visited national parks are more willing to participate in a survey that focuses on national parks than those who have never visited.³

Table 2. Reported visitation to National Park System units.

Measure of Visitation	CSAP1 2000	CSAP2 2008-2009	CSAP3 2018
Says ever visited, unvalidated (including past two years)	85%	87%	91%
Says visited in past 2 years, unvalidated	52%	60%	65%
Visited NPS unit in the past 2 years, as validated by interviewers using a unit list	32%	47%	50%

The second row of Table 2 shows that, on the more specific question of visits within the past two years, approximately one-half to two-thirds of respondents indicated that they had visited an NPS unit at least once in the past two years. Similar to lifetime visitation, the percentage increased over time, from 52% in CSAP1 to 60% in CSAP2 and 65% in CSAP3. Here too, however, non-response bias could potentially explain most or all of the increase. As measured by entrance counts compiled at NPS units, total annual recreation visits remained relatively constant between 2000 (285m visits) and 2008-2009 (275m-286m visits), then increased by approximately 11% from 2009 (286m visits) to 2018 (318m visits) (NPS VUStats, 2019).

As indicated by the third row of Table 2, when respondents are required to name a valid NPS unit that they visited within the past two years, approximately one-third to one-half of all respondents can be classified as recent visitors. Once again, this percentage increased over time, from 32% in CSAP1 to 47% in CSAP2 and 50% in CSAP3. The large increase from CSAP1 to CSAP2 is likely due in

6

³ Even with identical methodologies and comparable response rates, it is possible that the observed differences between CSAP2 and CSAP3 would not be larger than the combined margins of error of the two surveys, after accounting for added variance due to sampling weights.

part to refinements in the method used to validate park units visited. In CSAP2, interviewers used an improved list of park units (including commonly used aliases) and non-directive probes. These refinements seem to have substantially reduced the number of false negatives in the interviewer-based validation process. Absent those design features, the 2000 survey probably underestimated the proportion of recent visitors. This is supported by entrance count totals compiled at the parks, which changed very little between 2000 and 2009 (Street, 2010). Entrance count totals increased substantially between 2009 and 2017 (from 285 million visits to 330 million visits) (Street, 2010; Ziesler and Singh, 2018), which is only partially reflected in the minor increase in recent visitors between CSAP2 and CSAP3 (from 47% to 50%).

All three surveys amply demonstrate that the NPS serves, directly and immediately, a very substantial proportion of the U.S. population. About 9 of 10 respondents said they had visited a national park unit at some time in their lives and approximately half indicated that they have done so within the past two years.

Survey-based estimates of visitation are important to the NPS for describing the nature and extent of the connection between the National Park System and the American public. Counts at park entrances tally the number of visits, not unique visitors. They do not distinguish repeat visitors to any one unit during the counting period, nor do they identify those who visit more than one unit. In addition, entrance counts include a large number of international visitors. The three comprehensive surveys, by contrast, sought to estimate the proportion of visitors in a broadly representative U.S. sample. They give the NPS another valuable perspective on the use of the National Park System by the American public.

Comparing Planned Visitation

After several questions about past visits to NPS units, the surveys asked if the respondent planned to visit an NPS unit "within the next 12 months." In CSAP1, the question allowed for four possible responses, ranging from "very likely" to "not at all likely." In CSAP2 and CSAP3, the item was reworded as a declarative statement, with five responses ranging from "strongly agree" to "strongly disagree" and including a neutral option of "neither agree nor disagree."

Results for this question about near-future visits are summarized in Table 3 and Table 4. To improve comparability among the three surveys, the most extreme response options are compared in the tables, and the middle categories ("somewhat likely," "somewhat agree," "somewhat unlikely, "somewhat disagree," and "neither agree nor disagree") are combined with the missing responses (i.e., "don't know/not sure" and "no answer/refused"). The differences in question wording and response options make comparisons imprecise, but the results are nonetheless informative.

Table 3 indicates that between one-third and one-half of all respondents had strong expectations for visiting an NPS unit within the next year. The most positive responses increased substantially over time, from 33% in CSAP1 to 42% in CSAP2 and 49% in CSAP3. As with the responses to questions about past visitation, it is difficult to determine whether this trend is the result of an actual increase in planned visitation within the population or if it is the result of non-response bias. In addition, variations in wording and response options between CSAP1 and CSAP2/CSAP3 make comparisons even more difficult to interpret. Nonetheless, the increase is quite large, and an increase in planned visitation within the population may be a contributing factor.

Table 3. Reported plans to visit, all respondents.

Response Categories*	CSAP1 2000	CSAP2 2008-2009	CSAP3 2018
Most positive response (very likely; strongly agree)	33%	42%	49%
Mixed responses (not very/somewhat/neither/missing)	47%	44%	39%
Most negative response (not at all likely; strongly disagree)	20%	14%	13%
Total	100%	100%	100%

^{*} Note: Response scales differed between CSAP1 and CSAP2/CSAP3 (see Table 8), which makes comparisons imprecise.

Table 4. Reported plans to visit, recent visitors only.

Response Categories*	CSAP1 2000	CSAP2 2008-2009	CSAP3 2018
Most positive response (very likely; strongly agree)	61%	59%	71%
Mixed responses (not very/somewhat/neither/missing)	35%	35%	27%
Most negative response (not at all likely; strongly disagree)	4%	6%	3%
Total	100%	100%	100%

^{*} Note: Response scales differed between CSAP1 and CSAP2/CSAP3 (see Table 8), which makes comparisons imprecise.

Table 4 limits the comparison to confirmed recent visitors (as validated by the interviewer), which should largely control for non-response bias. That is, recent visitors in any year would be expected to have similarly high levels of interest in the parks, even if self-selection results in an increasing proportion of recent visitors over time. Among recent visitors, the percentage of very positive responses remained relatively constant between CSAP1 (61%) and CSAP2 (59%), then increased substantially in CSAP3 (71%). This temporal pattern is consistent with visitation trends across the three CSAP years as measured through entrance counts at national parks. Visitation plans are certainly not perfect predictors of actual future visits. Nevertheless, the results in Table 3 serve as a reminder to the NPS that repeat visitors form an important segment of the clientele for the National Park System.

Comparing Perceived Barriers to Visitation

In addition to investigating past and planned visitation to NPS units, all three surveys included questions designed to assess perceived barriers to visitation. Respondents were presented with a number of statements that could potentially explain "why people don't visit national parks or don't visit more often." For each statement, they were asked to indicate how much they agreed or disagreed. The response categories differed somewhat across the three surveys. CSAP1 offered only four levels of agreement for each statement, whereas CSAP2 and CSAP3 added a fifth, neutral category, "neither agree nor disagree." Only the percentages associated with the highest level of agreement ("strongly agree") are presented here.

Results for the six statements that were identical (or nearly identical) across the three surveys are summarized in Table 5. While <u>all</u> respondents received these six questions in CSAP1 and CSAP2, only non-visitors received the questions in CSAP3. As a result, to enhance comparability across the three surveys, results are only presented for non-visitors. The most notable trends across the three surveys include a decline in the percentage of respondents strongly agreeing that NPS units are too crowded (from 13% in CSAP1 to 5% in CSAP3), an increase in the percentage strongly agreeing that they lack information about what to do at NPS units (from 11% in CSAP1 to 17% in CSAP3), and an increase in the percentage strongly agreeing that NPS units are not accessible to the physically disabled (from 5% in CSAP1 to 12% in CSAP3). Although there was a substantial increase in the percentage of respondents strongly agreeing that it takes too long to get to NPS units from CSAP2 to CSAP3, this result may have been related to a change in question wording.

Table 5. Percent strongly agreeing with reasons for not visiting, non-visitors only⁴.

Reason	CSAP1 2000	CSAP2 2008-2009	CSAP3 2018
	34%	22%	34%
Takes too long to get there*			
Too crowded	13%	9%	5%
Lack of information about what to do there	11%	12%	17%
Entrance fees too high	10%	10%	12%
Not accessible to the physically disabled	5%	5%	12%
NPS units not safe	2%	4%	4%

^{*} The wording of this statement changed in CSAP3 but was intended to measure the same concept. In CSAP3, the statement was "The travel distance is too far from my home to get to any national parks I'm interested in visiting."

10

⁴ In calculating these percentages, the denominator includes "don't know/not sure" and "no answer/refused" in addition to the remaining levels of agreement/disagreement.

Comparing Overall Satisfaction

All three surveys included a question focused on the respondent's overall satisfaction with NPS, although the question wording and response options varied across CSAPs. CSAP1 asked all recent visitors the following question: "Please consider all your experiences to date with National Park System units, including national parks, historic or cultural sites, or monuments. Using a 10-point scale on which 1 means very dissatisfied and 10 means very satisfied, how satisfied are you with the National Park System?" A somewhat similar question in CSAP2 read as follows: "We'd like to know how satisfied you are with the way the National Park Service manages the national parks, national historic and cultural sites, and national monuments. In general, are you very satisfied, somewhat satisfied, neither satisfied nor dissatisfied, somewhat dissatisfied, or very dissatisfied?" Finally, CSAP3 included a question that was worded in a manner similar to CSAP2: "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 very satisfied, somewhat satisfied, neither satisfied nor dissatisfied, somewhat dissatisfied, or very dissatisfied, somewhat satisfied, neither satisfied nor dissatisfied, somewhat dissatisfied, or very dissatisfied?"

With differences in question wording and response options, comparisons for this question must be approached with caution. As a further complication, in CSAP2, the satisfaction question was asked during the initial household contact, before selecting an individual adult for the survey. As a result, the individual who reported on satisfaction was not necessarily the same person who answered the visitation items in the main questionnaire. In CSAP3, the satisfaction question was also asked during the initial contact, but because CSAP3 did not incorporate within-household sampling, the individual who reported on satisfaction was the same person who answered the remainder of the questionnaire.

Despite these differences, the general goal of the satisfaction question remained constant across surveys. The results are therefore summarized in Table 6 for recent visitor households. For comparison purposes, both the 10-point scale from CSAP1 and the five-point scale from CSAP2 and CSAP3 have been collapsed into three broad categories encompassing the predominantly positive, the neutral or missing, and the predominantly negative responses. Overall, satisfaction with NPS appears to be extremely high, with approximately 9 in 10 households providing positive responses. The overall satisfaction level appears to have been generally stable between CSAP1 (86%) and CSAP2 (88%), with a small increase in satisfaction for CSAP3 (93%).

Table 6. Satisfaction with national parks, recent visitors only.

Response Categories*	CSAP1 2000	CSAP2 2008-09	CSAP3 2018
Positive responses (very/somewhat satisfied; 10/9/8/7)	86%	88%	93%
Mixed responses (neither; 6/5; missing)	11%	10%	5%
Negative responses (very/somewhat dissatisfied; 4/3/2/1)	3%	2%	2%
Total	100%	100%	100%

^{*} Note: Response scales differed between CSAP1 and CSAP2/CSAP3 (see Table 8), which makes comparisons imprecise.

Discussion

The implementation of three surveys of the American public over the past 18 years has created opportunities for comparisons over time to assess trends in park visitation and attitudes towards the NPS. These nationwide surveys provide important information about the attitudes and behaviors of both visitors and non-visitors – information that is impossible to obtain through in-park studies.

Comparisons across the three CSAPs indicate that all three measures of visitation (lifetime visitation, unconfirmed visitation within the past two years, and confirmed visitation within the past two years) appear to have increased somewhat over time, reaching 91% for lifetime visitation and 50% for confirmed visitation within the past two years in 2018. In addition, the percentage of respondents that plan to visit NPS units within the next 12 months appears to have increased over time. The increase is especially notable for recent visitors, for whom planned visitation has increased from approximately 60% in 2000 and 2008-2009 to approximately 71% in 2018. With respect to potential barriers to visiting NPS units, only six were presented to respondents across all three CSAPs, and with the exception of "takes too long to get there" (which was selected by approximately one-third of respondents in CSAP1 and CSAP3), none of these barriers was selected by more than one-fifth of respondents in any of the CSAPs. Among those less significant barriers, notable trends include an increase in the percentage of non-visitors who indicate that they lack information about things to do in NPS units or who indicate that NPS units are not accessible to persons with physical disabilities, and a decrease in the percentage of non-visitors who indicate that NPS units are too crowded. Questions posed to recent visitors about overall satisfaction with NPS indicate that satisfaction rates are currently extremely high (93%) and suggest that rates may have increased somewhat in recent decades (although comparisons are challenging due to differences in methods).

Several complications make comparisons across the three surveys challenging and limit the number of items that can be compared. First, in contrast to previous decades, rapid changes in the phone survey landscape over the past two decades have made it challenging to compare results across CSAPs implemented in 2000, 2008-2009, and 2018. Specifically, cell phones have exploded in popularity over this period and have replaced landline telephones in most households. As a result, the sampling methodology for CSAP has evolved rather significantly, from incorporating no cell phone numbers in 2000, using only a supplemental sample of cell phone numbers in 2008-2009, and relying primarily on cell phone numbers in 2018. In concert with this increasing cell phone usage, phone survey response rates have declined, which could potentially lead to concerns about non-response bias if individuals who are interested in national parks self-select into the survey. Between CSAP2 and CSAP3, the response rate decreased moderately, from 12.5% to 8.9%, and although a response rate was not reported for CSAP1, it is likely to have been higher than 12.5%.

Finally, as the NPS evolves and management priorities shift, questions have been changed, dropped, and added to the CSAP surveys. All of these changes influence the degree to which questionnaire items can be reliably compared across the three surveys. Despite challenges with comparing CSAP surveys across years, these nationwide surveys provide valuable insight into how the American public relates to the National Park System.

Literature Cited

- Brick, J.M., W.S. Edwards, and S. Lee. 2007. Sampling telephone numbers and adults, interview length, and weighting in the California Health Interview Survey Cell Phone Pilot Study. Public Opinion Quarterly 71(5):793-813. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1455002.
- Farrar, S., and M. Ryan. 1999. Response-ordering effects: A methodological issue in conjoint analysis. Health Economics 8(1):75-79.
- Keeter, S., C. Kennedy, A. Clark, T. Thompson, and M. Mokrzycki. 2007. What's missing from national RDD surveys? The impact of the growing cell-only population. Paper presented at the American Association for Public Opinion Research, May 17-20, 2007. Orange County, California. Available at: http://assets.pewresearch.org/wp-content/uploads/sites/12/old-assets/pdf/514.pdf.
- 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.
- National Park Service Visitor Use Statistics (NPS VUStats). 2019. Available at: https://irma.nps.gov/Stats/
- Runte, A. 1987. National parks: The American experience. Lincoln, NE: University of Nebraska Press.
- Street, B. 2010. Statistical abstract: 2009. Natural Resource Data Series NPS/NRPC/SSD/NRR—2010/039. National Park Service, Fort Collins, CO. Available at: https://irma.nps.gov/DataStore/Reference/Profile/2189233.
- Stokowski, P.A. 2002. Languages of place and discourses of power: constructing new senses of place. Journal of Leisure Research 34:368–382.
- Taylor, P.A., B.D. Grandjean, and J.H. Gramann. 2011. National Park Service comprehensive survey of the American public, 2008-2009: Racial and ethnic diversity of national park system visitors and non-visitors. Natural Resource Report NPS/NRSS/SSD/NRR-2011432. National Park Service, Fort Collins, Colorado.
- The American Association for Public Opinion Research (AAPOR). 2015. Standard definitions: Final dispositions of case codes and outcome rates for surveys (8th ed.). Available at: https://www.aapor.org/AAPOR_Main/media/publications/Standard-Definitions2015_8theditionwithchanges_April2015_logo.pdf
- Ziesler, P.S., and P. Singh. 2018. Statistical abstract: 2017. Natural Resource Data Series NPS/NRSS/EQD/NRDA-2018/1156. National Park Service, Fort Collins, CO. Available at: https://irma.nps.gov/DataStore/DownloadFile/600257.

Appendix 1: Wording of CSAP Survey Questions used in Comparisons

Table 7. Survey questions used to compare reported visitation to National Park System Units, by CSAP year.

Study	Question	Response Options
CSAP1 2000	How many times in the past two years have you visited a unit of the National Park System?	Number of visits
	Which National Park System unit did you last visit?	Name of NPS unit
CSAP2 2008-2009	How many times in the past two years have you visited a unit of the National Park System?	Number of visits
	[If zero] Have you ever, in your lifetime, visited a national park, historic or cultural site, monument, or other unit managed by the National Park Service?	Yes No
	[If yes] We want to ask about the last time you visited a unit of the National Park System. Was your most recent visit	Never visited More than 5 years ago From 2 to 5 years ago Within 2 years
	Which National Park System unit did you LAST visit?	Name of NPS unit
CSAP3 2018	How many times in the past two years have you visited a national park?	Number of visits
	[If zero, don't know, or no answer] Have you ever, in your lifetime, visited a national park?	Yes No
	[If yes] We would like to know about the last time you visited a national park. Was your most recent visit	More than 5 years ago From 2 to 5 years ago Within the past two years Never
	[If visited within last two years] Which national park did you LAST visit?	Name of NPS unit

 Table 8. Survey questions used to compare reported plans to visit, by CSAP year.

Study	Question	Response Options
CSAP1 2000	How likely are you to visit any National Park System unit within the next 12 months?	Very likely Somewhat likely Not very likely Not at all likely
CSAP2 2008-2009	Please tell us whether you strongly agree, somewhat agree, neither agree nor disagree, somewhat disagree, or strongly disagree with the following statement: "I plan to visit a unit of the National Park System within the next 12 months."	Strongly agree Somewhat agree Neither agree nor disagree Somewhat disagree Strongly disagree
CSAP3 2018	Please tell us whether you strongly agree, somewhat agree, neither agree nor disagree, somewhat disagree, or strongly disagree with the following statement: "I plan to visit a national park within the next 12 months."	Strongly agree Somewhat agree Neither agree nor disagree Somewhat disagree Strongly disagree

Table 9. Survey questions used to compare percent strongly agreeing with reasons for not visiting, by CSAP year.

Study	Question	Response Options
CSAP1 2000	Now we are interested in understanding why people do not visit National Park System units more often. I am going to ready a list of statements. I would like you to think of your own experiences and tell me if you Takes too long to get to NPS unit. NPS units are too crowded. There isn't much information on what to do once inside NPS unit. Entrance fees are too high. NPS units not accessible to disabled. NPS units are not safe places to visit.	Strongly agree Somewhat agree Neither agree nor disagree Somewhat disagree Strongly disagree
CSAP2 2008-2009	 I'd like you to think of your own experiences, and tell me if you strongly agree, somewhat agree, neither agree nor disagree, somewhat disagree, or strongly disagree with each statement: It takes too long to get to any National Park System units from my home. National Park System units are too crowded. There isn't enough information available about what to do once inside a National Park System unit. Entrance fees are too high at National Park System units. National Park System units are not accessible to persons with physical disabilities. National Park System units are not safe places to visit. 	Strongly agree Somewhat agree Neither agree nor disagree Somewhat disagree Strongly disagree
CSAP3 2018	 I don't visit national parks or don't visit more often because: The travel distance is too far from my home to get to any national parks I'm interested in visiting. National parks are too crowded. I don't know much about what there is to do in national parks. Entrance fees are too expensive or high at national parks. National parks are not accessible to people with disabilities. The risk of crime or vandalism in national parks makes me feel unsafe. 	Strongly agree Somewhat agree Neither agree nor disagree Somewhat disagree Strongly disagree

Table 10. Survey questions used to compare satisfaction with national parks, by CSAP year.

Study	Question	Response Options
CSAP1 2000	Please consider all your experiences to date with National Park System units, including national parks, historic or cultural sites, or monuments. How satisfied are you with the National Park System?	10-point scale on which 1 means very dissatisfied and 10 means very satisfied
CSAP2 2008-2009	We'd like to know how satisfied you are with the way the National Park Service manages the national parks, national historic and cultural sites, and national monuments.	Very satisfied Somewhat satisfied Neither satisfied nor dissatisfied Somewhat dissatisfied Very dissatisfied
CSAP3 2018	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.	Very satisfied Somewhat satisfied Neither satisfied nor dissatisfied Somewhat dissatisfied Very dissatisfied



National Park Service U.S. Department of the Interior



Natural Resource Stewardship and Science 1201 Oakridge Drive, Suite 150

Fort Collins, CO 80525