



**U.S. Fish & Wildlife Service**

# **NATIONAL WILDLIFE REFUGE VISITOR SURVEY**

*2018 Results for  
Pinckney Island National Wildlife Refuge*



**THE OHIO STATE  
UNIVERSITY**



## Acknowledgments

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*Front cover: Dick Point Trail at Pinckney Island National Wildlife Refuge. Photo credit: Nicole Stagg.*

# Contents

Acknowledgments .....	ii
Understanding Wildlife Refuge Visitors & Their Experiences .....	1
Surveying Visitors at This Wildlife Refuge .....	3
Visitor Characteristics .....	5
Trip Characteristics .....	6
Information Sources Used for Trip Planning.....	9
Use of Social Media .....	11
Participation in Recreational Activities .....	12
Comfort in Nature/Feeling Safe & Welcome .....	14
Satisfaction with Refuge Experiences .....	16
Economic Benefits to Local Communities & Visitors.....	20
Encouraging Return Visits & Future Recreation Participation.....	22
Conclusion.....	25
References .....	26
Appendix A: Survey Methodology .....	27
Appendix B: Response Frequencies and Averages by Survey Question .....	29
Appendix C: Open-Ended Survey Responses by Question.....	41





# Understanding Wildlife Refuge Visitors & Their Experiences

A hundred years in the making, the National Wildlife Refuge System (Refuge System) is a vast network of habitats that supports over 2,000 species of birds, mammals, reptiles, amphibians, and fish across the United States on national wildlife refuges (wildlife refuges). Wildlife refuges also provide unparalleled outdoor recreation experiences and health benefits to people by offering a chance to unplug from the stresses of modern life and reconnect with their natural surroundings. The National Wildlife Refuge System Improvement Act of 1997 specifically identified six priority recreational uses: hunting, fishing, wildlife observation and photography, environmental education, and interpretation (Fig. 1). These recreational activities are prioritized on every refuge where compatible with the refuge's stated purposes. Visitors may also engage in many other activities (for example, hiking, paddling, boating, and auto tour routes) where compatible.

At least one wildlife refuge exists within an hour's drive of most major metropolitan areas. With over 55 million visits per year, the Refuge System is committed to maintaining customer satisfaction and public engagement while helping people and wildlife to thrive. Increased

visitation is not limited to the Refuge System—over the past few years, there has been a rise in the number of people traveling to public lands and waters for recreation (Outdoor Foundation, 2018). This nationwide trend demands effective management of visitor access and use to ensure benefits for present and future generations.

The need to understand visitors and their experiences, as well as preferences for future opportunities, is further underscored by widespread societal changes that are shaping how people engage with nature and wildlife (Kellert et al., 2017; Manfredo et al., 2018). Researchers and land management professionals alike recognize the need to connect the next generation to nature and wildlife to enhance mental and physical well-being and build a broader conservation constituency (Charles & Louv, 2009; Larson, Green, & Cordell, 2011).

The National Wildlife Refuge Visitor Survey is a Refuge System-wide effort to monitor visitor characteristics, experience, and satisfaction with refuge experiences, as well as visitor economic contributions to local communities. The survey is conducted every five years on a rotating basis on wildlife refuges that have at least 50,000 visits per year. This effort provides refuge professionals with reliable baseline information and trend data that can be used to plan, design, and deliver quality visitor experiences, communicate the value of wildlife refuges to different audiences, and set future priorities. The National Wildlife Refuge Visitor Survey is a collaboration between the U.S. Fish & Wildlife Service (Service), The Ohio State University (OSU), and American Conservation Experience (ACE).

This report summarizes visitors and their experiences at Pinckney Island National Wildlife Refuge, referred to as “this wildlife refuge” or “refuge” throughout this report. Percentages noted throughout the report were rounded



*Fig. 1: Priority recreational uses of National Wildlife Refuges.*

to the nearest whole number and, when summarized per survey question, may not equal 100%. Additionally, most figures do not display a percentage for any category containing less than 5% of visitors. See Appendix A for the

survey methodology and limitations of findings. See Appendix B and C for visitor responses to specific survey questions for this wildlife refuge.



*2018 National Visitor Survey interns in action at wildlife refuges across the United States. Photo credit: U.S. Fish & Wildlife Service.*



# Surveying Visitors at This Wildlife Refuge

## REFUGE DESCRIPTION

Pinckney Island National Wildlife Refuge is located on the southern coast of South Carolina. The refuge was established in 1975, but had previously been managed as a private game reserve since 1935 until the owners generously donated the land to the U.S. Fish and Wildlife Service. The 4,053-acre site is composed of multiple islands and the dominant habitat type is salt marsh. The islands also contain forests, brushlands, fallow fields, and freshwater ponds. The refuge provides seasonal homes along the Atlantic Flyway to migratory birds, including the colorful painted bunting. This wildlife refuge also provides nesting habitat for wading birds, such as the American white ibis, and is one of the best locations to see the yellow-crowned night-heron. American Alligators are another charismatic species that frequent the area.

Pinckney Island National Wildlife Refuge attracts over 226,922 visitors annually (U.S. Fish and Wildlife Service, 2018, written comm.). While this wildlife refuge encompasses multiple islands, only the largest of these, Pinckney Island, is open to the public. Here, visitors can enjoy hiking and biking on the refuge's



*A clear day over the wetlands at Pinckney Island National Wildlife Refuge. Photo credit: Nicole Stagg.*

trail system. A boat ramp allows visitors to explore the waters via motor boats or kayaks. Birdwatching and wildlife photography are also popular activities on the refuge. Saltwater fishing is permitted year round and a one-day whitetail deer hunt is held annually in November.

## SAMPLING

Refuge professionals at this wildlife refuge identified two separate 14-day sampling periods and one or more sampling locations that best reflected the primary uses of the refuge as well as the diversity of activities that occur (Fig. 2). For more details on methodology for the National Wildlife Refuge Visitor Survey, see Appendix A.

- During the two sampling periods, a total of 385 visitors agreed to participate in the survey by providing their names and addresses.
- In all, 201 visitors completed the survey online (39%) or by mail (61%) after their refuge visit, resulting in a 54% response rate.
- Results for this wildlife refuge have a  $\pm 6\%$  margin of error at the 95% confidence level. For more details on limitations of results and survey methodology, see Appendix A.



Fig. 2: Map of Pinckney Island National Wildlife Refuge. Visitors were contacted at the circled locations from 4/6/2018–4/15/2018 and 11/16/2018–11/25/2018.



# Visitor Characteristics

An important first step in managing visitor experiences is to understand the characteristics of those who currently visit wildlife refuges. Refuge professionals can compare visitor demographics to the demographic composition of nearby communities or the nation to inform engagement efforts with new audiences. Useful tools for these comparisons include Headwaters Economics' Economic Profile System and their Populations at Risk (<https://headwaterseconomics.org>) or U.S. Census Bureau products ([www.census.gov](http://www.census.gov); [www.socialexplorer.com](http://www.socialexplorer.com)).

## AGE & GENDER

- 49% of visitors were female with an average age of 58 years (Fig. 3).
- 51% were male with an average age of 60 years.

## EDUCATION

- 7% of visitors had a high school degree or less.
- 49% had at least some college.
- 43% had an advanced degree.

## RACE & ETHNICITY

Most prevalent race or ethnicity (Fig. 4):

- White (95%).
- Hispanic (2%).
- Multiracial (2%).

## INCOME

- Visitors had a mean income range of \$100,000-\$149,999 (Fig. 5).

## OTHER TRIP CHARACTERISTICS

- Average group size of 3 people.
- 14% visited the refuge alone.
- 64% visited with at least one other adult.
- 22% visited with a combination of at least 1 adult and 1 child.

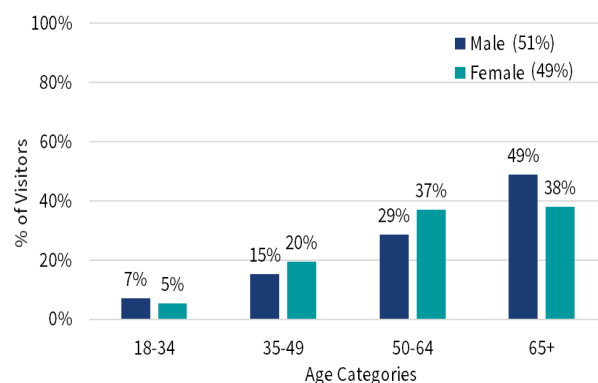


Fig. 3: Distribution of visitors to this refuge by gender and age group.

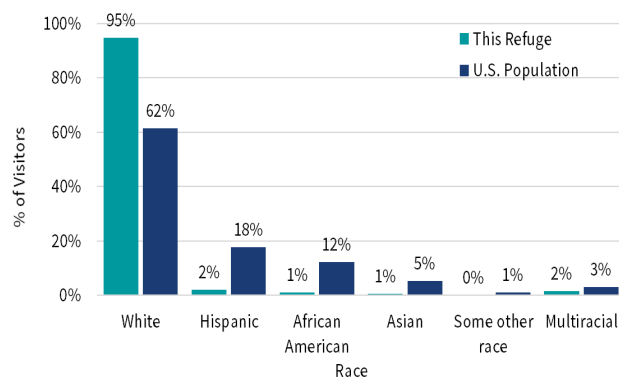


Fig. 4: Race and ethnicity of visitors to this refuge compared to the national average.

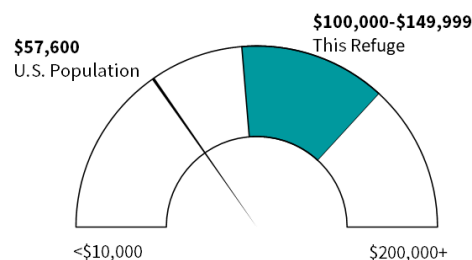


Fig. 5: Mean income range of visitors to this refuge compared to the national median income.

# Trip Characteristics

Understanding the travel patterns of visitors and why they choose to visit wildlife refuges is important for effective visitor use management. Comparisons of responses from local visitors (those living  $\leq 50$  miles from the refuge) and nonlocal visitors (those living  $> 50$  miles from the refuge) can inform communication efforts with current visitors and those who have yet to visit. Understanding seasonality helps refuge professionals better understand visitor use patterns and gauge supply and demand.

## LOCAL VISITORS

Highlights of trip characteristics for local visitors to this wildlife refuge (34%) include:

- For locals, this refuge was the primary reason for their trip (80%) (Fig. 6).
- Local visitors traveled an average of 17 minutes to arrive at this refuge (Fig. 7).

## NONLOCAL VISITORS

Highlights of trip characteristics for nonlocal visitors to this wildlife refuge (67%) include:

- For nonlocals, this refuge was an incidental stop as part of a trip taken for other purposes (53%) (Fig. 6).
- Nonlocal visitors traveled an average of 16 hours to arrive at this refuge (Fig. 8).
- Of the 96% of visitors who lived in the U.S., nonlocal visitors were most often from Georgia (13%) and South Carolina (11%).
- 4% of respondents were international visitors.

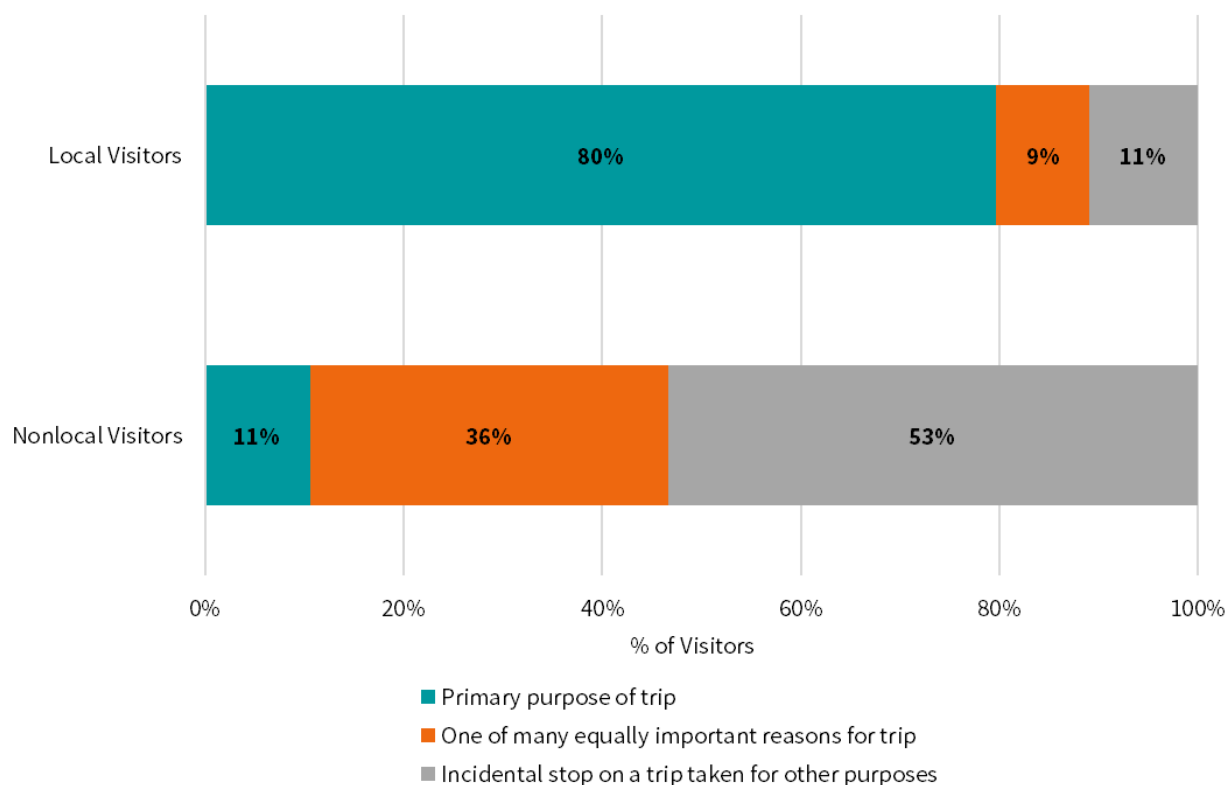


Fig. 6: Purpose of most recent refuge visit for local (living  $\leq 50$  miles from the refuge) and nonlocal (living  $> 50$  miles from the refuge) visitors.

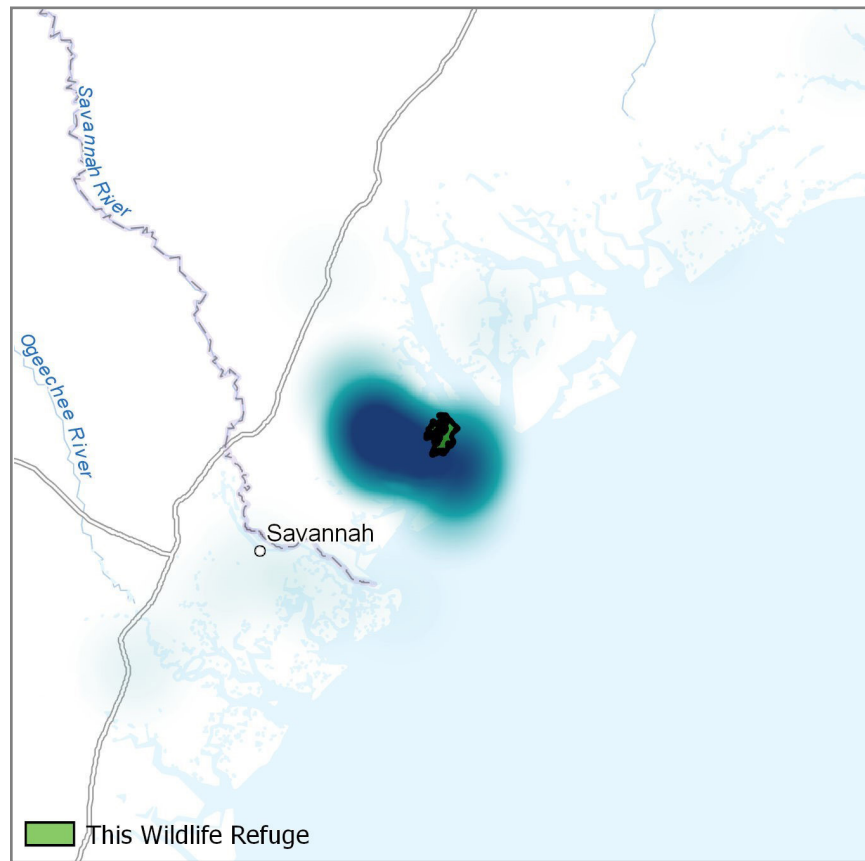


Fig. 7: Map showing residence of local visitors to this refuge. Darker shading represents relatively higher visitation from that area.

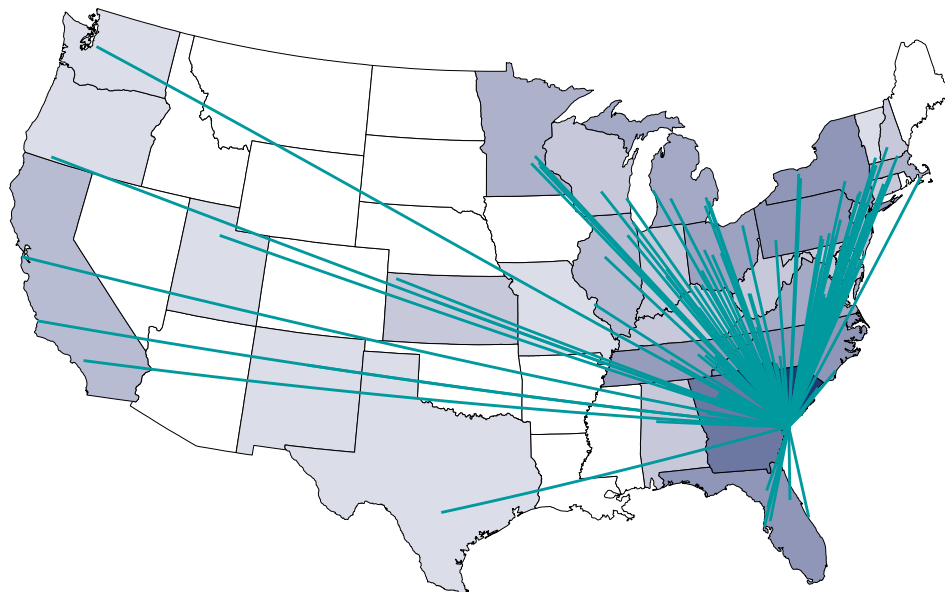


Fig. 8: Map showing residence of visitors to this refuge by zip code, with each line representing visitation from a different zip code. The convergence point of the lines is the geographical center of the refuge. Darker shading of the states represents higher visitation from that state.

## OTHER TRIP CHARACTERISTICS

Other trip characteristics include:

- To get to this wildlife refuge, visitors primarily traveled by private vehicle without a trailer (87%) and by foot (12%) (Fig. 9).
- Once on the refuge, visitors primarily traveled by foot (58%) and by private vehicle without a trailer (23%) (Fig. 9).
- Visits occurred during winter (24%), spring (62%), summer (26%), and fall (63%).
- 96% of visitors made a single-day trip to this refuge, spending an average of 3 hours, while 4% of visitors were on a multi-day trip to this wildlife refuge that averaged 3 days.

During the 12 months prior to completing the survey, visitors also made multiple trips to this wildlife refuge, other wildlife refuges, and other public lands:

- 49% were repeat visitors to this wildlife refuge, visiting an average of 13 times.
- 62% visited other national wildlife refuges, averaging 3 visits.
- 77% visited other public lands, averaging 6 visits.

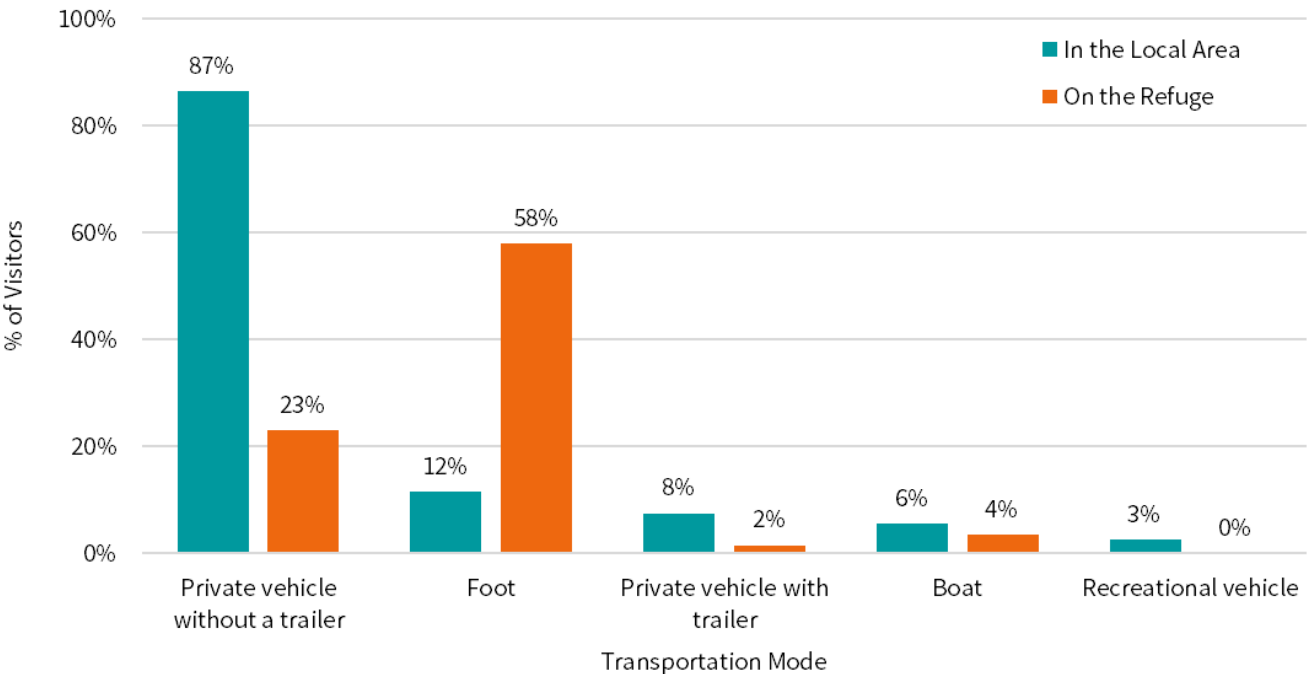


Fig. 9: Modes of transportation used by visitors to get from the local area to this refuge and within the boundaries of this refuge.



## Information Sources Used for Trip Planning

Knowing more about which information sources visitors use (or do not use) to plan their trips can improve communication strategies and facilitate positive experiences on refuges. The Refuge System's success in reaching new and diverse audiences as well as current visitors also depends on its ability to keep pace with communication trends (U.S. Fish & Wildlife Service, 2016a).

Visitors to this wildlife refuge found a variety of in-person, print/internet, and refuge-specific information sources helpful when planning their trips. Details for information sources identified as very or extremely helpful include:

- In-person sources that were most helpful to visitors regardless of age included word of mouth and people in the local community.
- Print and internet sources that were most helpful to visitors regardless of age included printed map/atlas and web-based map.
- Refuge-specific sources that were most helpful to visitors regardless of age included kiosks/displays/exhibits at this refuge and refuge printed information.
- Use of information sources varied by age groups (see Figs. 10-12 for details).

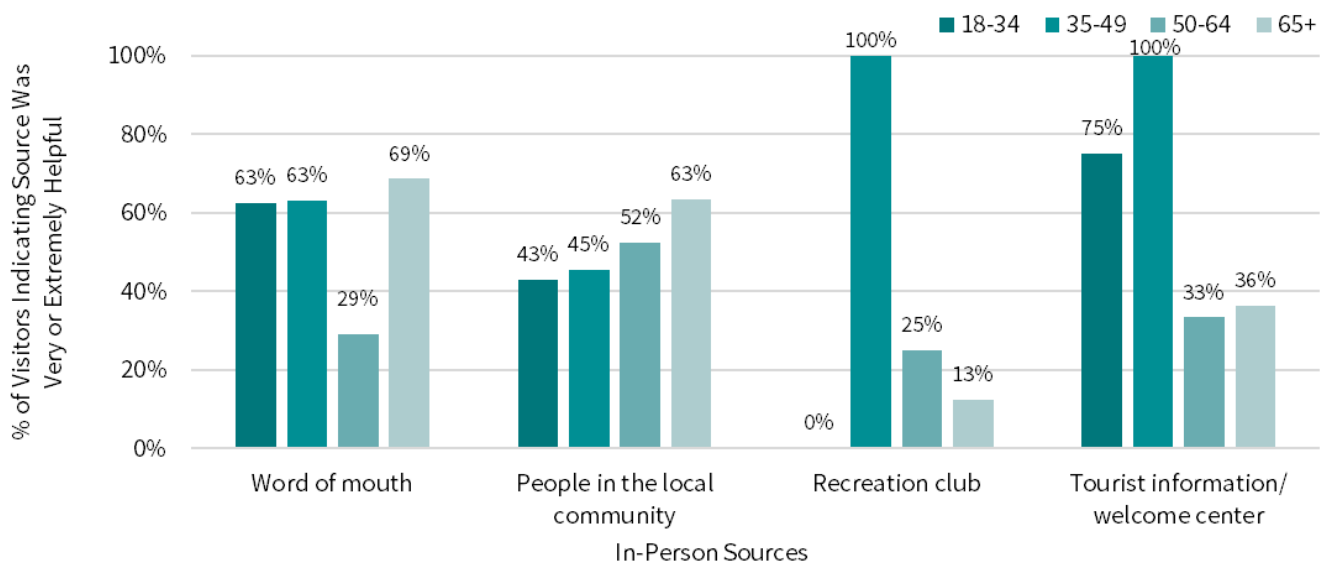


Fig. 10: Percent of visitors by age group who found in-person information sources very or extremely helpful in planning their trip.

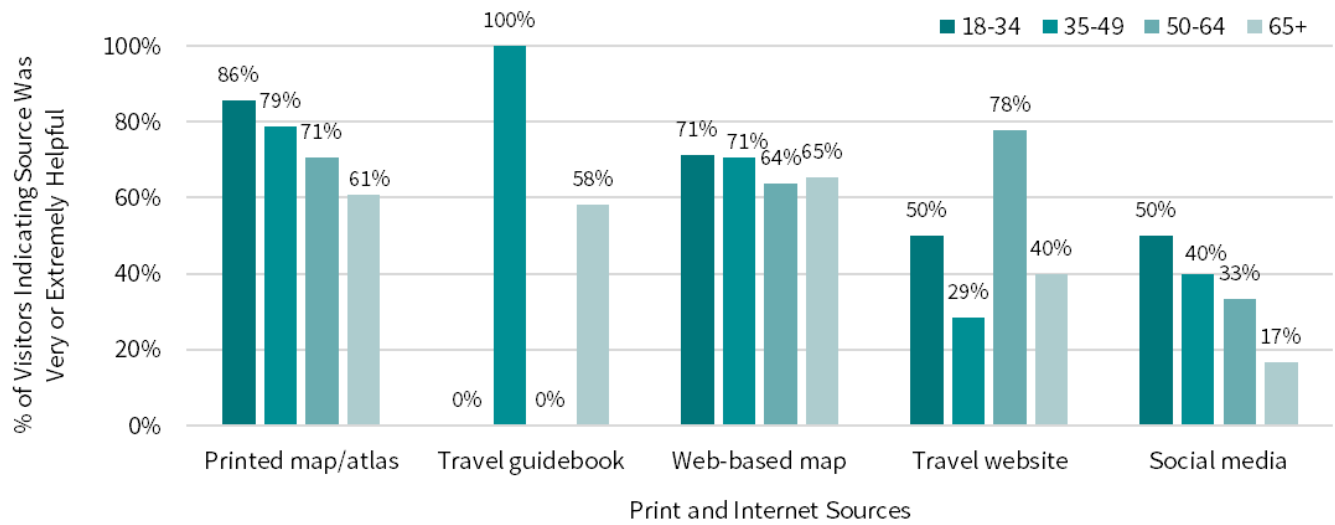


Fig. 11: Percent of visitors by age group who found print and internet information sources very or extremely helpful in planning their trip.

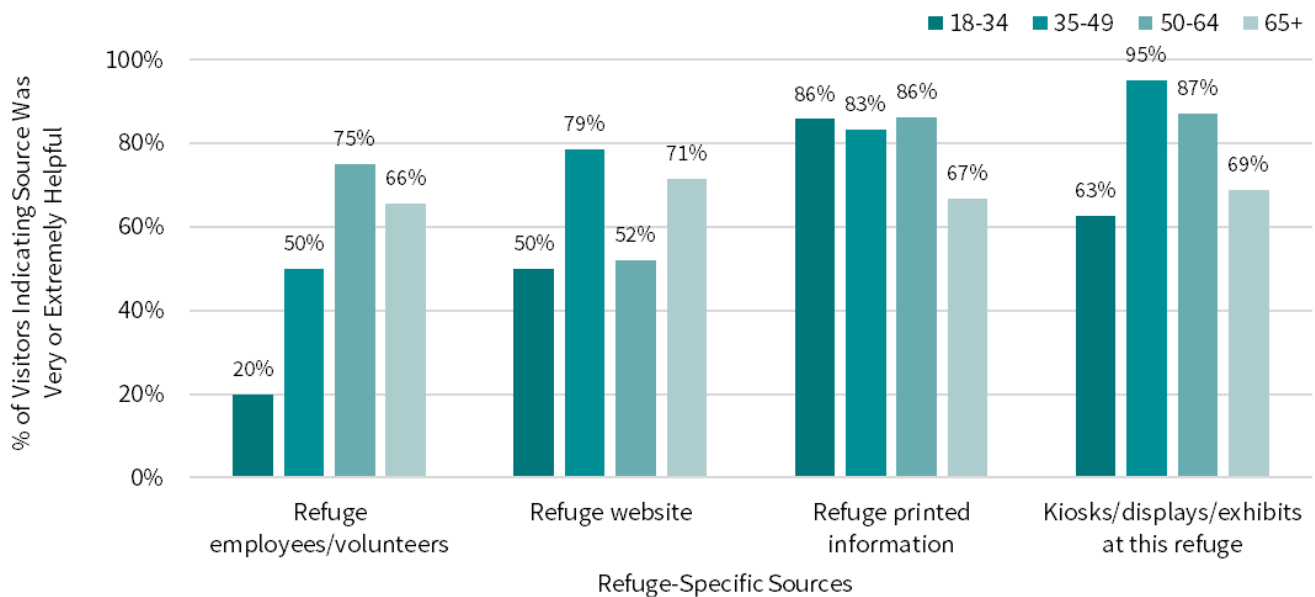


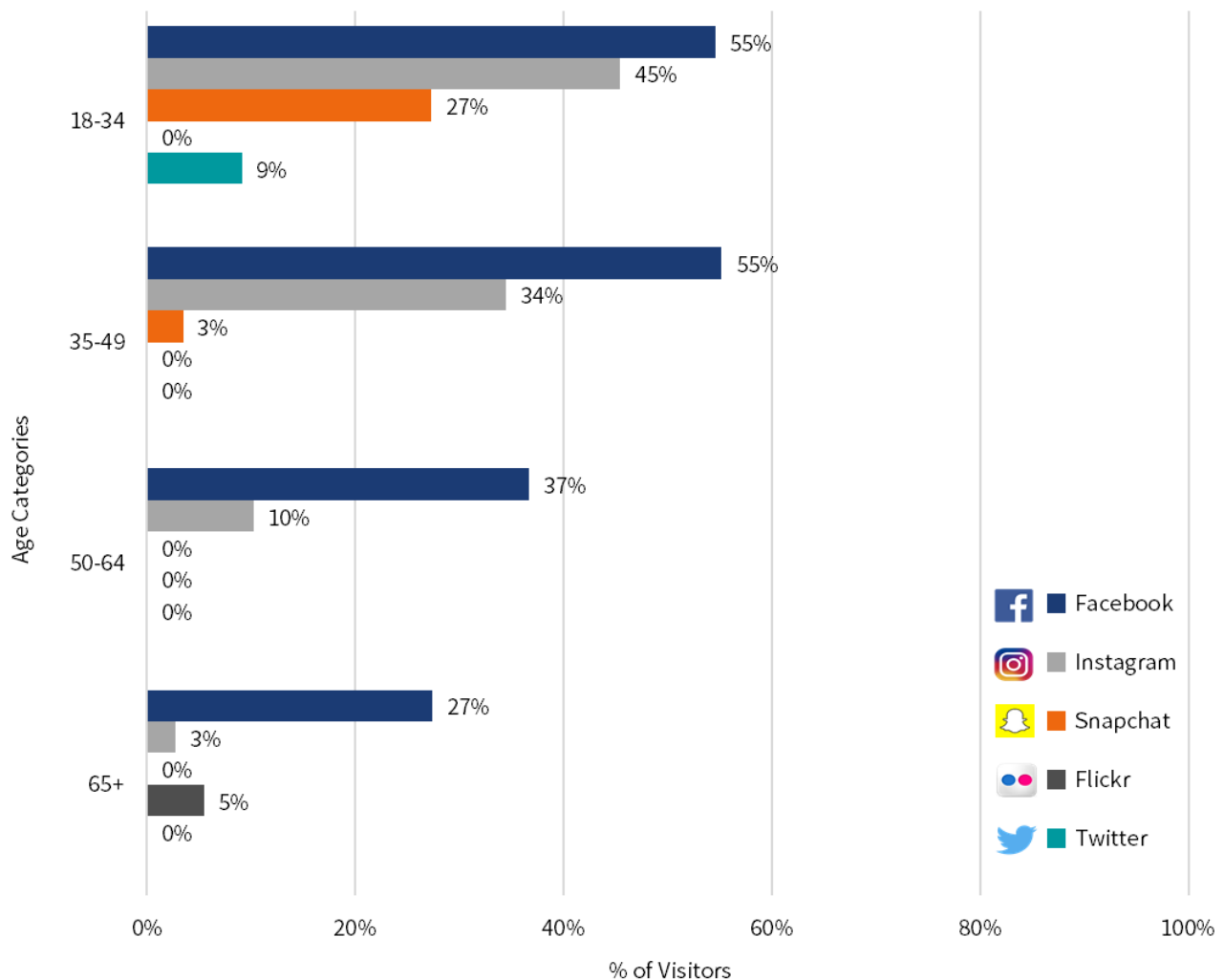
Fig. 12: Percent of visitors by age group who found refuge-specific information sources very or extremely helpful in planning their trip.

## Use of Social Media

Around 70% of Americans use social media to connect with one another, engage with news content, share information, and entertain themselves (Smith & Anderson, 2018). Social media posts can act as a virtual “word of mouth” method for increasing awareness about the refuge to the visitor’s network and beyond. A social media presence can further generate awareness of the refuge and its resources among audiences that do not use or did not otherwise learn about the refuge through traditional advertising outlets.

Social media was used by 44% of visitors to share their experience on this refuge with others. Use of specific social media platforms varied by age group (Fig. 13):

- Visitors 18-34 years old preferred to use Facebook (55%), Instagram (45%), and Snapchat (27%).
- Visitors 35-49 years old preferred to use Facebook (55%) and Instagram (34%).
- Visitors 50-64 years old preferred to use Facebook (37%).
- Visitors 65 or older preferred to use Facebook (27%).



*Fig. 13: Percent of visitors by age group who used various social media platforms to share their experience on this refuge with others.*

## Participation in Recreational Activities

Some research shows that rates of participation in outdoor recreation activities have increased (Outdoor Foundation, 2018), while other studies have indicated declines in participation in heritage activities such as hunting (U.S. Fish & Wildlife Service, 2016a). In light of these trends it is important to understand recreation participation on refuges to create quality visitor experiences and foster personal and emotional connections to the refuge and its resources (U.S. Fish & Wildlife Service, 2011). Understanding what people do while visiting refuges can also aid in developing programs that facilitate meaningful interactions between visitors and refuge professionals. Finally, such information can help to ensure impacts to resources and conflicts among visitor groups are minimized.

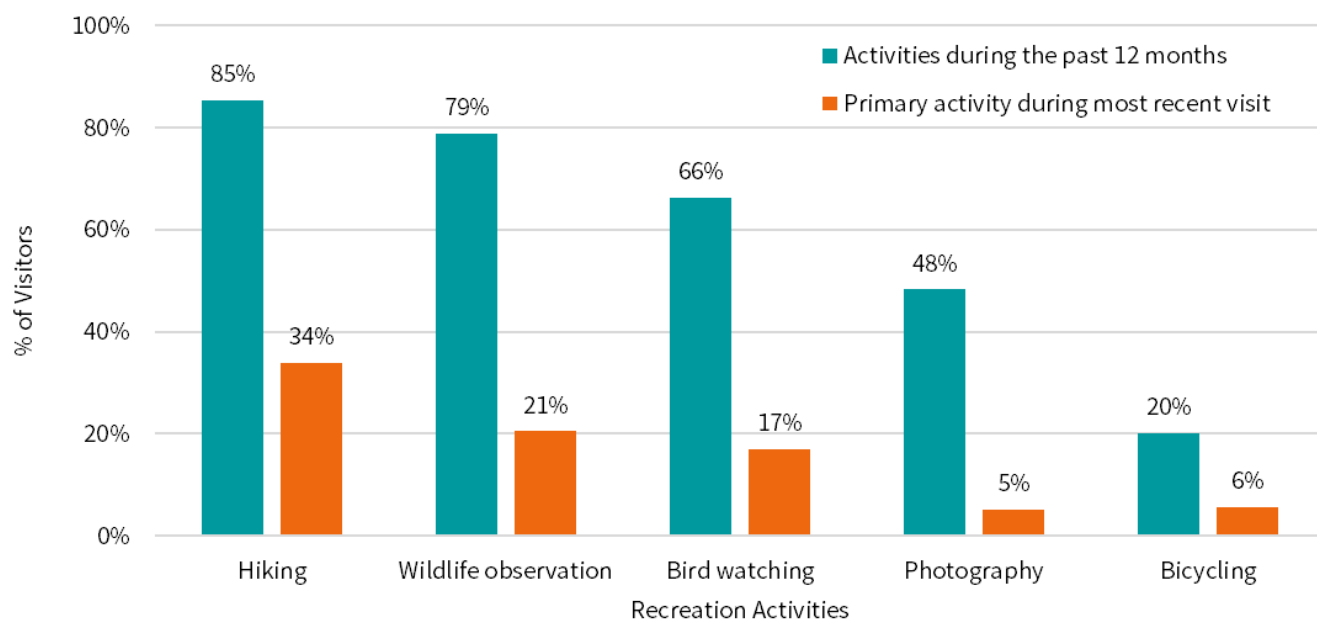
Participation in recreational activities at this wildlife refuge can be characterized as follows:

- The top three activities in which visitors participated during the past 12 months were hiking (85%), wildlife observation (79%), and bird watching (66%) (Fig. 14).
- The top three activities noted as their primary activity on the day visitors were contacted to participate in the survey were hiking (34%), wildlife observation (21%), and bird watching (17%) (Fig. 14).



*Photo credit: U.S. Fish & Wildlife Service.*





*Fig. 14: Recreational activities visitors participated in during the past 12 months and their primary activity during their most recent visit to this refuge.*



*Sunset over Pinckney Island National Wildlife Refuge. Photo credit: Nicole Stagg.*

## Comfort in Nature/Feeling Safe & Welcome

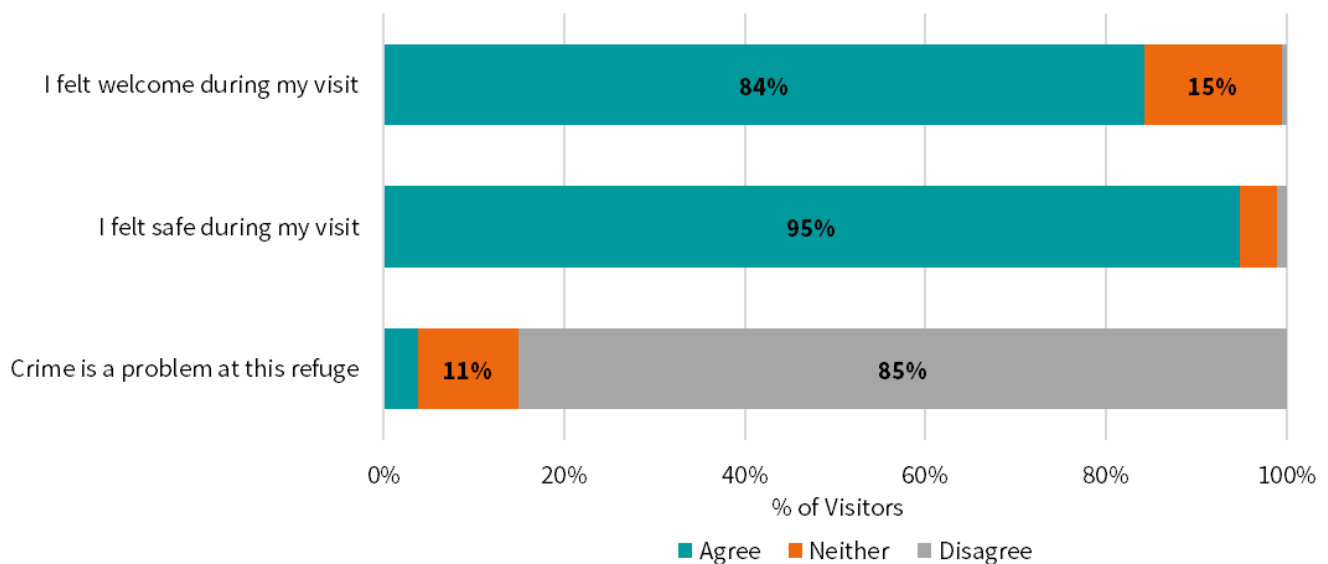
While many people are repeat visitors to refuges, each year thousands of people experience these lands and waters for the first time. One barrier for some visitors, particularly those living in urban areas or with little past exposure to nature-based recreation, is the perception that being in nature is dangerous or unsafe (U.S. Fish & Wildlife Service, 2014). There may also be negative stigmas associated with outdoor spaces that arise from social contexts (for example, people associating being outdoors with poverty or ‘dirty’ contexts) and historical contexts in which being ‘in the woods’ was dangerous and unsafe (Sexton, Ross-Winslow, Pradines, & Dietsch, 2015).

While ensuring that visitors feel safe and welcome is a foundational standard of the Urban Wildlife Conservation Program (<https://www.fws.gov/urban>), these basic needs apply across the Refuge System.

Before visitors can appreciate the wonders of nature, their basic need for safety and belonging must be met. Thus, an understanding of how visitors perceive safety, belonging, accessibility, and comfort in nature is critical to ensure real threats to safety are minimized, and that individuals from all demographic groups feel as welcome and comfortable in nature as possible.

Visitors to this wildlife refuge shared the following about safety, belonging, and their comfort while being in nature:

- 84% of visitors felt welcome during their refuge visit (Fig. 15).
- 95% of visitors felt safe during their refuge visit (Fig. 15).
- 98% of visitors reported that they feel comfortable being in nature, but 10% do not like being in nature alone (Fig. 16).



*Fig. 15: Visitors' perceptions of safety and feeling welcome at this refuge during their visit.*

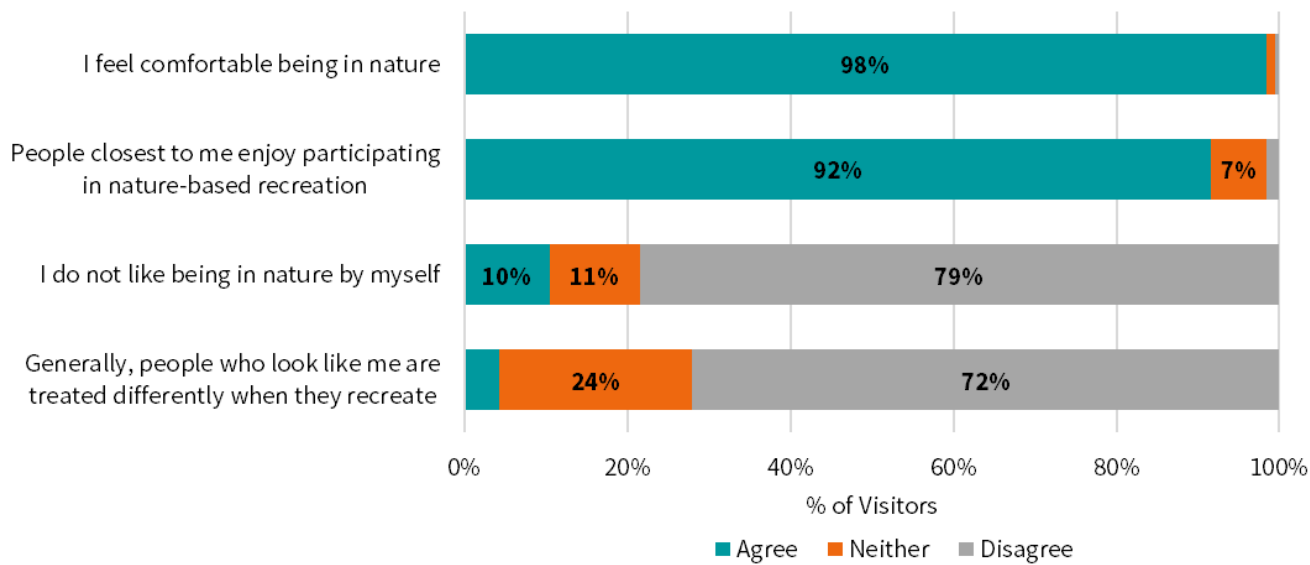


Fig. 16: Visitors' comfort with being in nature.



Photo credit: U.S. Fish & Wildlife Service.

# Satisfaction with Refuge Experiences

## OVERALL SATISFACTION

Refuge professionals strive to maintain a high level of customer satisfaction by operating visitor centers; designing, installing, and maintaining accessible trails; constructing viewing blinds; and much more to facilitate quality recreational experiences. A solid understanding of visitors' perceptions of their experiences provides a framework for monitoring and responding to trends across time. Overall satisfaction with this wildlife refuge is summarized as follows:

- 91% of visitors were very or extremely satisfied with the overall experience at this wildlife refuge (Fig. 17).
- 88% of visitors were very or extremely satisfied with this wildlife refuge's job of conserving fish, wildlife, and their habitats (Fig. 17).

## CUSTOMER SERVICE

Refuge professionals regularly interact with visitors and maintain facilities to ensure high quality experiences. From greeting visitors, to keeping bathrooms clean, to clearly stating regulations, providing quality customer service is important to ensuring overall satisfaction.

Satisfaction with customer service was highest among visitors for the following (Fig. 18):

- refuge hours/days of operation (93%),
- signage stating rules and regulations (78%), and
- courteous and welcoming employees/volunteers (74%).

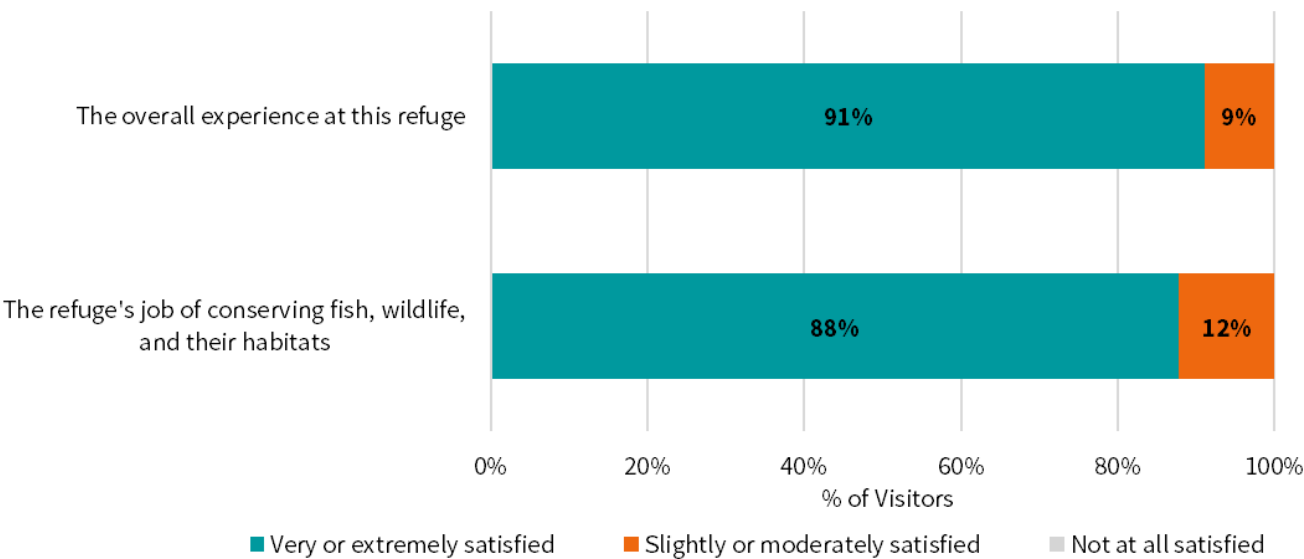


Fig. 17: Visitors' satisfaction with their experience at this refuge and with this refuge's job of conserving fish, wildlife, and habitats.



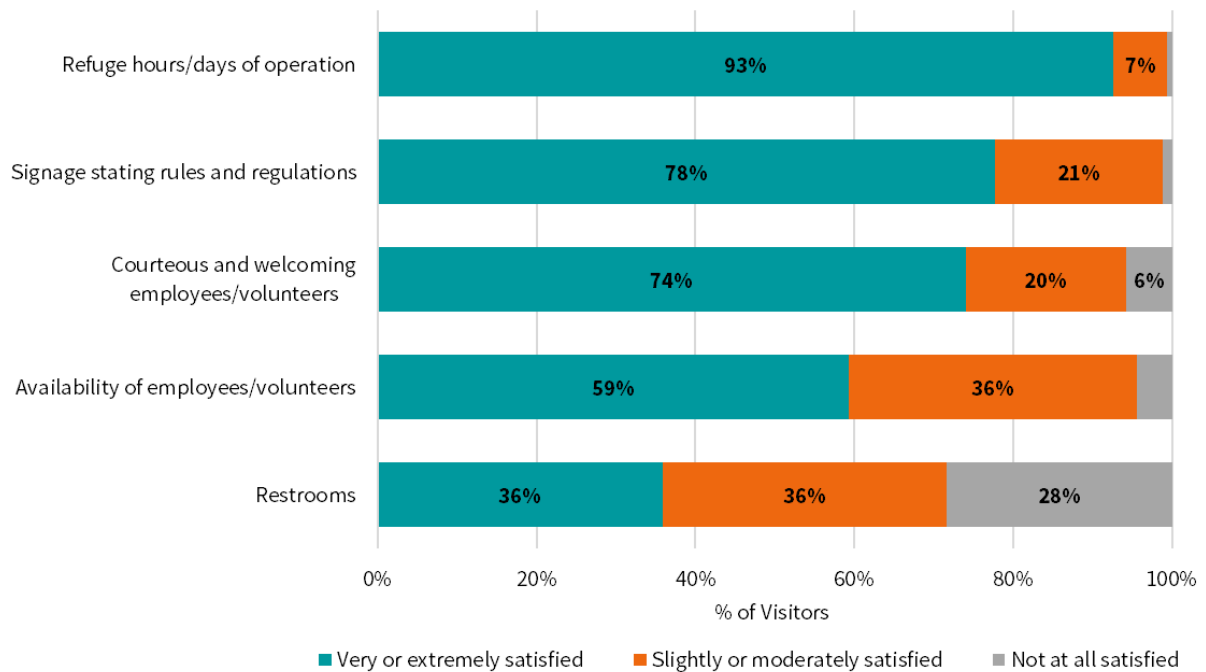


Fig. 18: Visitors' satisfaction with customer service and amenities at this refuge.

## RECREATIONAL OPPORTUNITIES

Outdoor recreation on wildlife refuges is a fundamental part of a visit. As American's values toward wildlife and their relationship with nature continue to shift (Kellert et al., 2017; Manfredo et al., 2018), public desires for recreational experiences on public lands are also likely to shift. In addition, researchers and land management professionals recognize the need to connect the next generation to nature and wildlife (Charles & Louv, 2009; Larson et al., 2011). A solid understanding of visitors' perceptions of their experiences provides a

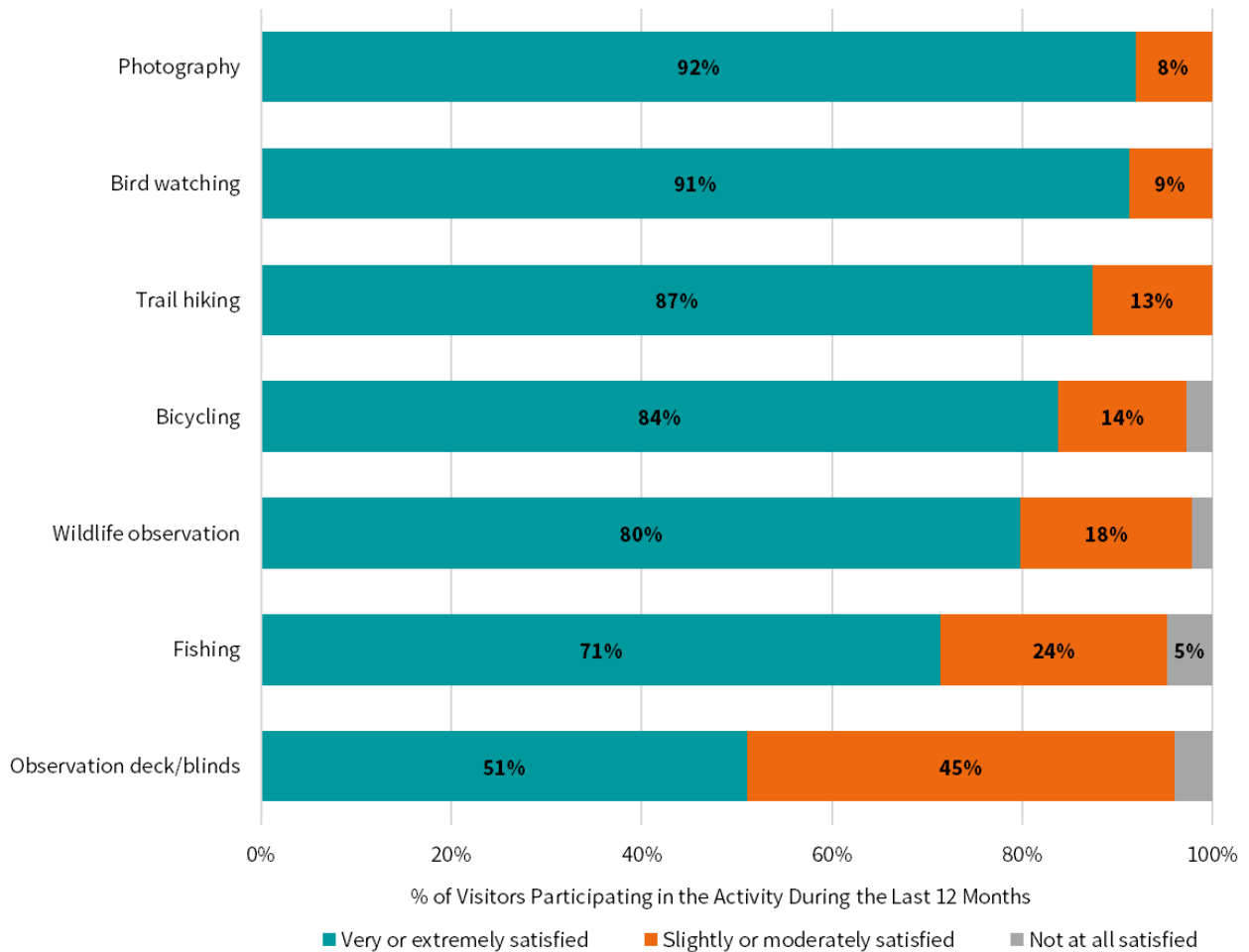
framework for monitoring and responding to these recreation trends across time.

Satisfaction with recreation opportunities among visitors who had participated in the activity during the last 12 months was highest for the following (Fig. 19):

- photography (92%),
- bird watching (91%), and
- hiking (87%).

*"This wildlife refuge is a small pocket of tranquility in an area that is greatly overdeveloped. I try to take my grandchildren here whenever we are visiting the area because we all enjoy watching the birds and other wildlife. It is also an excellent opportunity to take a hike and get some exercise." – Visitor to Pinckney Island National Wildlife Refuge*





*Fig. 19: Visitors' satisfaction with recreational opportunities at this refuge. Only visitors (10 or more) who participated in activities related to each opportunity at this refuge during the last 12 months were included.*

## TRANSPORTATION SAFETY & ACCESS

Transportation networks connect local communities to refuges and are critical to visitors' experiences there. Visitors access refuges by plane, car, train, boat, bike, and foot. The Service works to ensure that the roads, trails, and parking areas are welcoming and safe for visitors of all abilities. A goal of the Service's National Long-Range Transportation Plan is to enhance experiences on wildlife refuges and fish hatcheries through improvement to the transportation network (U.S. Fish & Wildlife Service, 2016b). How visitors perceive different transportation features can be used to prioritize access and transportation improvements.

Visitors were satisfied with transportation safety and access at this wildlife refuge as follows (Fig. 20):

- Getting to this wildlife refuge, visitors were most satisfied with safety of refuge road entrances and exits (70%).
- Getting around this wildlife refuge, visitors were most satisfied with safety of driving conditions on refuge roads (88%), condition of bridges on roadways (86%), and condition of parking areas (77%).
- Accessing recreation on this wildlife refuge, visitors were most satisfied with safety of roads or trails for nonmotorized use (86%), and condition of trails and boardwalks (84%).

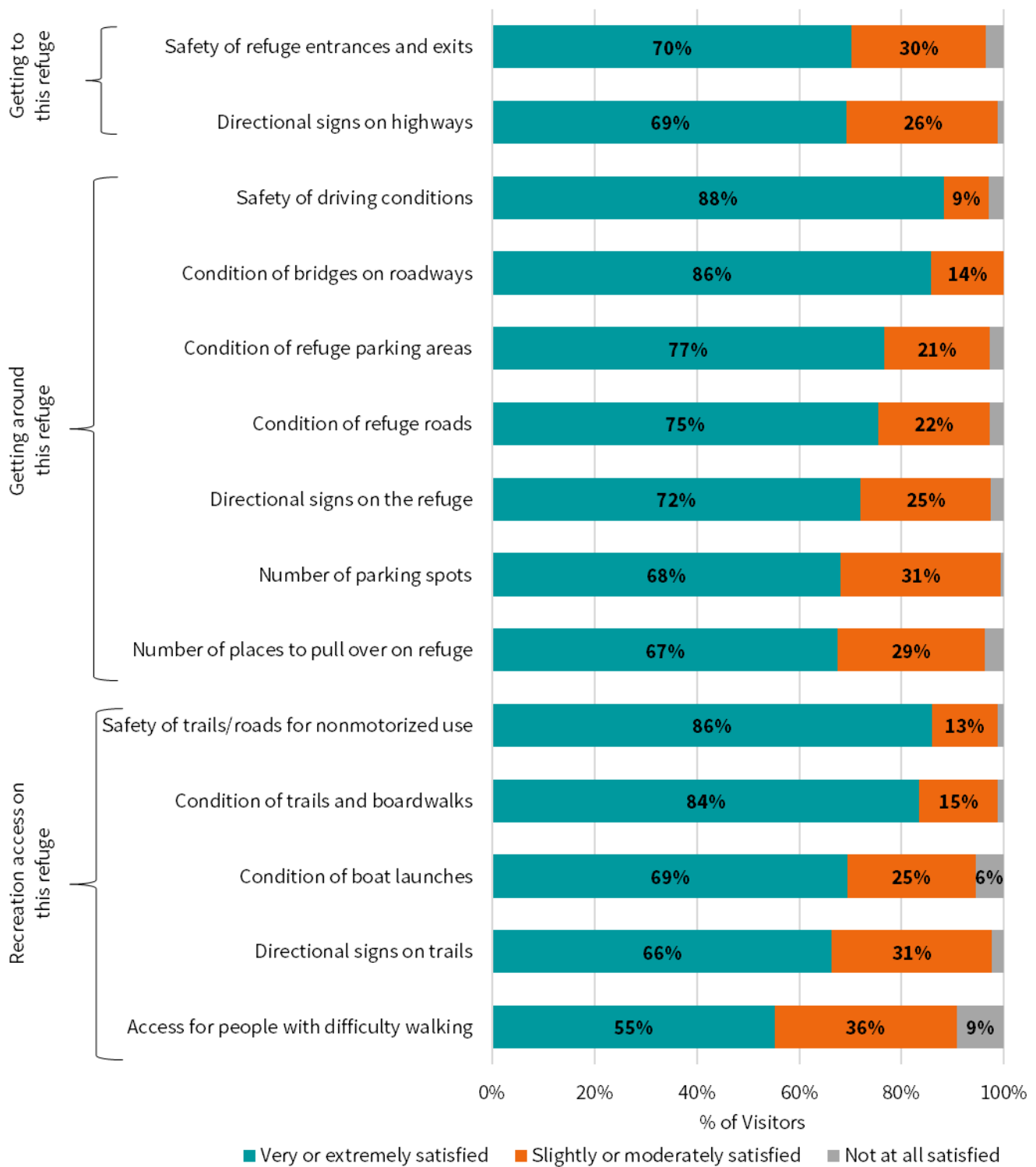


Fig. 20: Visitors' satisfaction with how the refuge is managing transportation-related features.

## Economic Benefits to Local Communities & Visitors

The value of any commodity is comprised of two elements: 1) the amount paid and 2) the additional benefit derived above and beyond what is paid. The first element equates to direct expenditures. Visitors to wildlife refuges pay for a variety of things, including nearby lodging, gas, food, and other purchases from local businesses. This spending has a significant positive contribution to local economies. The *Banking on Nature* report (Caudill & Carver, 2017) highlights how nearly 54 million visits to wildlife refuges during 2017 generated \$3.2 billion of economic output in local communities and supported over 41,000 jobs. The report further indicates that recreational spending on wildlife refuges generated \$229 million in tax revenue at the local, county, and state levels.

Determining benefits derived above and beyond what is paid is commonly estimated by “willingness to pay” for an experience. Studies show people are often willing to pay more for a recreational experience than what they actually spent (Neher, Duffield, & Patterson, 2011; Rosenberger & Loomis, 2001). For example, a visitor may have spent \$500 on lodging, food, and gasoline to make the trip possible, while also indicating that they would be willing to pay an additional \$50 to visit this wildlife refuge if total trip costs were to increase.

Results for local visitors (those living  $\leq 50$  miles from this wildlife refuge; 34%) are as follows:

- On average, local visitors accounted for 3% of expenditures.
- Top trip expenditures by locals were for food/drink and retail (Fig. 21).
- The average amount paid by locals to visit this wildlife refuge was \$55 per person per day (Fig. 21).
- Local visitors were personally willing to pay an additional \$40 per day on average to visit this wildlife refuge (Fig. 22).

Results for nonlocal visitors (those living  $>50$  miles from this wildlife refuge; 67%) are as follows:

- On average, nonlocals accounted for 97% of expenditures.
- Top trip expenditures by nonlocals were for lodging and food/drink (Fig. 21).
- The average amount paid by nonlocals to visit this wildlife refuge was \$119 per person per day (Fig. 21).
- Nonlocal visitors were personally willing to pay an additional \$177 per day on average to visit this wildlife refuge (Fig. 22).
- Nonlocal visitors spent an average of 7 days in the local community during this visit.





Fig. 21: Individual daily expenditures in the local community for local, nonlocal, and all visitors. Expenditures were reported by respondents on a per group basis; the total expenditures were divided by the number of people in the group who shared trip expenditures and the number of days spent in the local community. The number of people sharing trip expenditures was often smaller than the total group size.

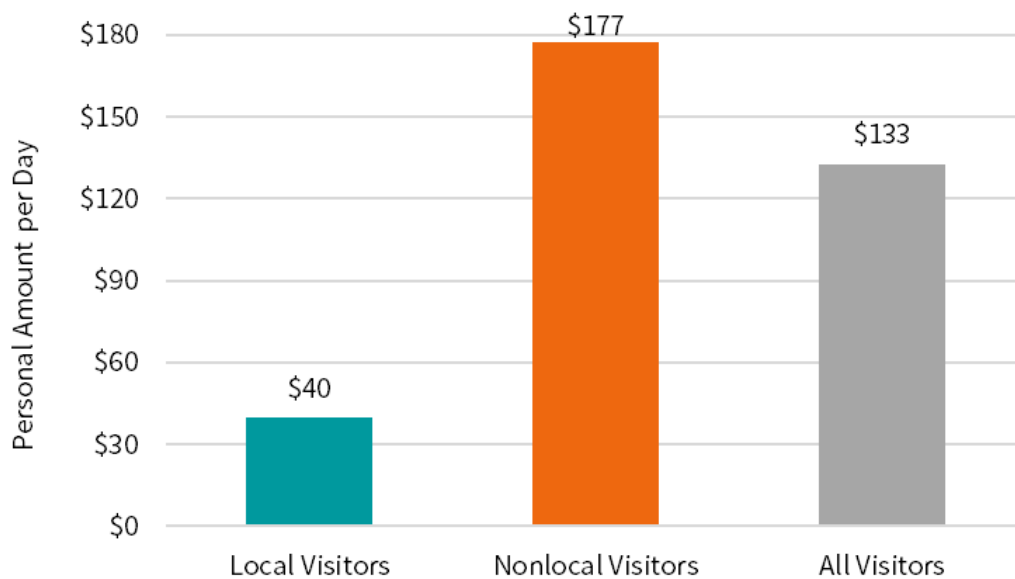


Fig. 22: Total personal willingness to pay per day above and beyond most recent trip expenses if costs were to increase for local, nonlocal, and all visitors. Due to the fixed-response question format, estimates of willingness to pay may underestimate the amount visitors would actually pay. Responses were divided by the number of days spent at the refuge.



# Encouraging Return Visits & Future Recreation Participation

Public land managers strive to maximize benefits for visitors while achieving and maintaining desired resource conditions. This complex task requires that managers accurately estimate visitor numbers, as well as where visitors go, what they do, their impacts on resources, how they perceive their experiences, and their desires for future visits. Gaining a sense of what would encourage visitors to return and how management activities affect their likelihood of returning can lead to improved visitor use and resource management (U.S. Fish & Wildlife Service, 2014).

## PROGRAMS AND OTHER OFFERINGS

Programming and other offerings that are compatible with the purpose of a refuge and the Refuge System mission can encourage people to continue visiting the refuge. Additionally, changes to regulations and access for improving resource availability may increase or decrease future participation, or have little effect at all.

In the future, changes in programming, offerings, or regulations would have an effect on visitation to this wildlife refuge as follows:

- Programs most likely to encourage visitors to return to this wildlife refuge included those focused on highlighting unique local culture (59%), skill-building (40%), and engaging youth (29%) (Fig. 23).
- The top two factors likely to increase visitors' future participation in their primary recreation activity were more infrastructure (50%) and recreation equipment available for rent (17%) (Fig. 24).
- The top two factors likely to decrease visitors' future participation in their primary recreation activity were less regulations on hunting (30%) and more people participating in their primary activity (18%) (Fig. 24).

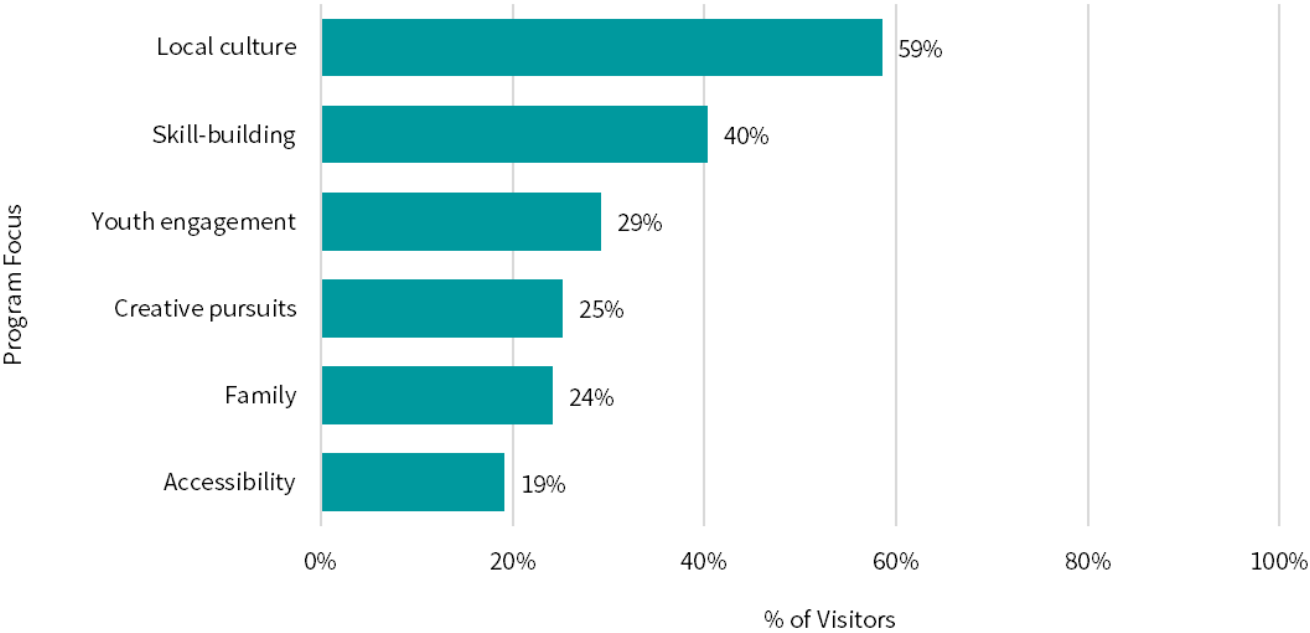


Fig. 23: Types of programs that would encourage visitors to return to this refuge.

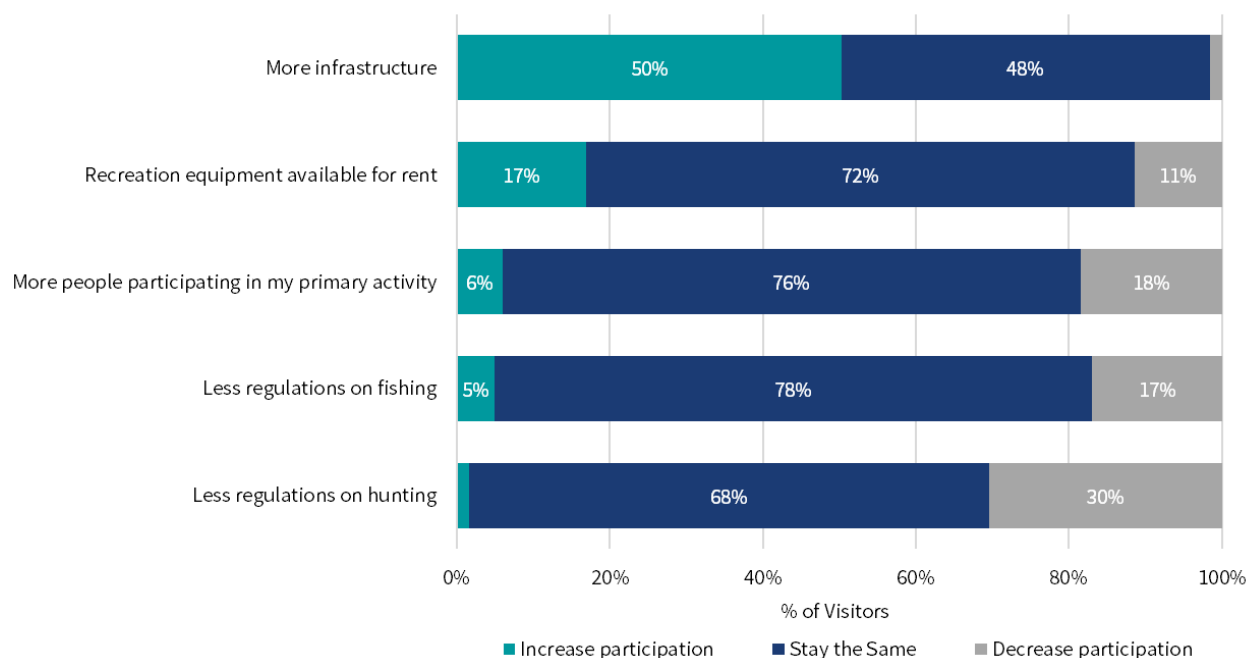


Fig. 24: Changes in visitors’ participation in their primary activity if the listed recreation factors were to change.

## ALTERNATIVE TRANSPORTATION

Understanding visitor demand for alternative transportation options is a goal of the Service’s National Long-Range Transportation Plan (U.S. Fish & Wildlife Service, 2016b). Alternative transportation options can be valuable in realizing refuge goals to conserve natural resources, reduce visitors’ carbon footprint (Volpe Center, 2010), and improve visitor experiences. Even though demand may be relatively small, any use of alternative transportation that is feasible at a wildlife refuge can help to meet goals.

The top future alternative transportation options supported by visitors at this wildlife refuge included (Fig. 25):

- a bike-share program (23%),
- pedestrian paths (19%),
- bus/tram that provides a guided tour (18%),
- bus/tram that takes passengers to different points on the refuge (18%).

## ECOSYSTEM SERVICES

Natural processes associated with wildlife refuges can provide benefits to people,

including provisioning services such as food and water; regulating services such as flood and disease control; cultural services such as spiritual, recreational, and educational benefits; and supporting services such as nutrient cycling (Millennium Ecosystem Assessment, 2005). Understanding how changes in natural resources and related processes may impact future visitation and participation in certain recreation activities can improve resource and visitor management, as well as inform communication efforts with stakeholders and policy-makers (Patton, Bergstrom, Covich, & Moore, 2012).

In the future, changes to resources would affect visitation to this refuge as follows (Fig. 26):

- The top resource changes likely to increase visitors’ future participation in their primary recreation activity were a greater diversity of species (62%) and an improvement in the quality of wildlife habitat other than wetlands (57%).
- The top resource changes likely to decrease visitors’ future participation in their primary recreation activity were more acreage open to hunting and fishing (33%) and less water available for recreation (28%).

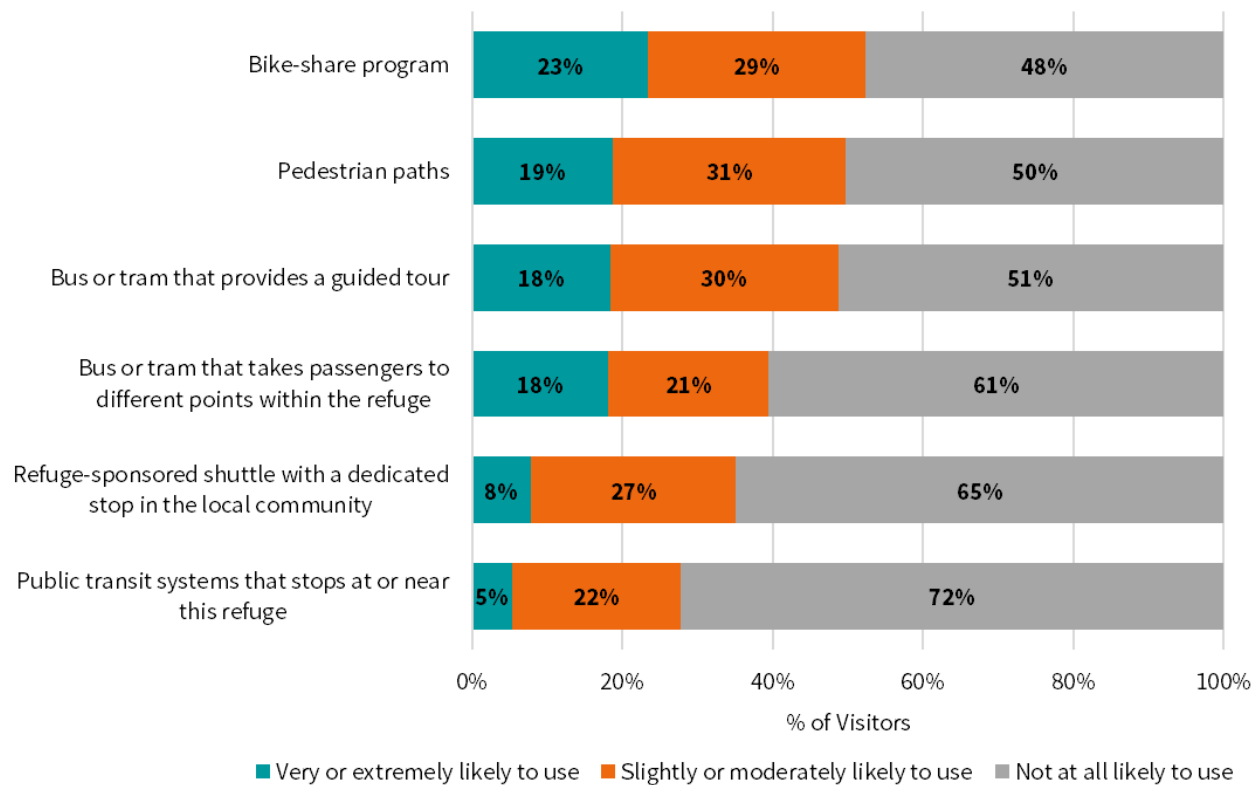


Fig. 25: Visitors' likelihood of using alternative transportation options if offered at this refuge.

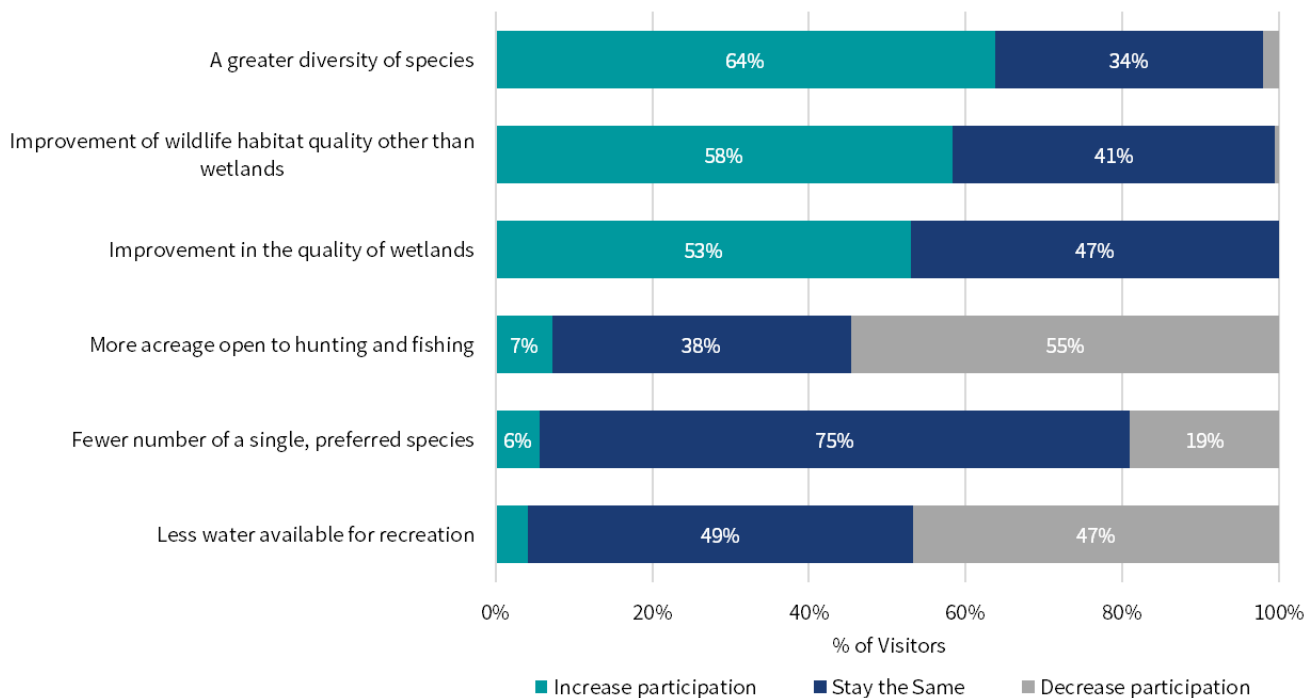


Fig. 26: Changes in visitors' participation in their primary activity if the listed resources were to change.

## Conclusion

These individual refuge results provide a summary of trip characteristics and experiences of a sample of visitors to Pinckney Island National Wildlife Refuge during 2018. They are intended to inform refuge planning, including the management of natural resources, recreation, and the design and delivery of programs for visitors. These results offer a baseline that can be used to monitor and evaluate efforts over time. Refuge professionals

who understand visitor demographics, trip characteristics, and desires for future conditions can make informed decisions for proactive visitor management and resource protection. Integrating this social science with biophysical science ensures that management decisions are consistent with the Refuge System mission while fostering a continued public interest in and connection with these special places we call national wildlife refuges.



*Photo credit: U.S. Fish & Wildlife Service.*



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## Appendix A: Survey Methodology

The National Wildlife Refuge Visitor Survey (NVS) team consisted of staff from The Ohio State University (OSU), U.S. Fish & Wildlife Service (Service), and American Conservation Experience (ACE) who collectively developed the following NVS methodology. Staff from OSU and the Service designed the survey instrument with multiple reviewers within the Refuge System providing feedback about content and wording. The logistical coordinator and interns from ACE conducted sampling on refuges. OSU staff coordinated survey mailings, analyzed data, and in cooperation with Service staff, designed the report template and created each refuge report.

### SAMPLING SCHEDULE

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Interns (survey recruiters) sampled on each participating refuge for two 14-day sampling periods between March 2018 and February 2019. Refuge staff identified the sampling periods and locations that best reflected the diversity of use and visitation patterns of the refuge.

The national visitor survey team developed a sampling schedule for each refuge that included eight randomly selected sampling shifts during each 14-day sampling period. Shifts were four-hour time bands stratified across mornings and afternoons/evenings. The NVS team customized the schedule as needed to accommodate the individual refuge sampling locations and specific spatial and temporal patterns of visitation. The target number of contacts was 25 adult visitors (18 years of age or older) per shift for a total of 375 participants contacted per refuge. Shifts were moved, added, or extended to address logistical limitations (for example, bad weather or low visitation).

### CONTACTING VISITORS ONSITE

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ACE interns received a multi-day training that included role-play exercises on a refuge to

simulate engagement of visitors. Once onsite, the interns contacted visitors following a protocol developed by OSU and Service staff. Interns surveyed across the entire sampling shift and only one visitor per group was asked to participate. If a visitor declined to participate, interns recorded a direct refusal. Visitors willing to participate provided their name, mailing address, language preference (English or Spanish), and answered a few initial questions about their experience that could be used for nonresponse comparisons. Willing visitors were also given a small token incentive (for example, sticker) as a thank you and reminder of their participation.

### COMPLETING A SURVEY AT HOME

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All visitors that agreed onsite to participate in the survey received a postcard mailed to their address within 10 days. The postcard thanked visitors for agreeing to participate, provided a weblink and unique password, and invited the visitor to complete the survey online. All participants then received the following sequence of correspondence by mail from OSU until a survey was returned and the address removed from the mailing list (as suggested by Dillman et al., 2014):

- 1) A packet consisting of a cover letter, survey, and postage-paid return envelope approximately seven days after the first postcard was mailed.
- 2) A reminder postcard mailed 14 days after the first packet was mailed.
- 3) A final packet consisting of a cover letter, survey, and postage-paid return envelope mailed seven days after the reminder postcard.

All printed correspondence and online material were provided in the language chosen by visitors onsite; however, visitors who went online to complete the survey were able to switch between English and Spanish. The

survey was designed to take no more than 25 minutes to complete, and the average completion time recorded by the online survey software was approximately 20 minutes.

## DATA ENTRY & ANALYSIS

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The NVS team used Qualtrics survey software to collect survey data online. OSU staff then exported the data for cleaning (for example, treatment of missing data) and analyses. The team entered data from the paper surveys into Microsoft Excel using a standardized survey codebook and data entry procedures. All data from the two sources (paper and online) were merged and analyzed using Statistical Package for the Social Sciences (SPSS, v.25) software.

## LIMITATIONS OF RESULTS

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The degree to which these results represent overall visitation at a wildlife refuge depends on the number of visitors who completed the survey (sample size), and how well the sample reflects the degree of use at the refuge (Scheaffer et al., 2011). Many respondents completing the survey will produce a smaller margin of error, leading to greater confidence in results, but only to a point. For example, a margin of error of  $\pm 5\%$  at a 95% confidence level signifies that if a reported percentage is 55%, then 95 out of 100 times that sample estimate would fall between 50% and 60% (if the same question was asked in the same way of the same sample). The margin of error for this survey was calculated with an 80/20

response distribution, meaning if respondents were given a dichotomous choice question, approximately 80% of respondents would select one choice and 20% would select the other (Salant & Dillman, 1994).

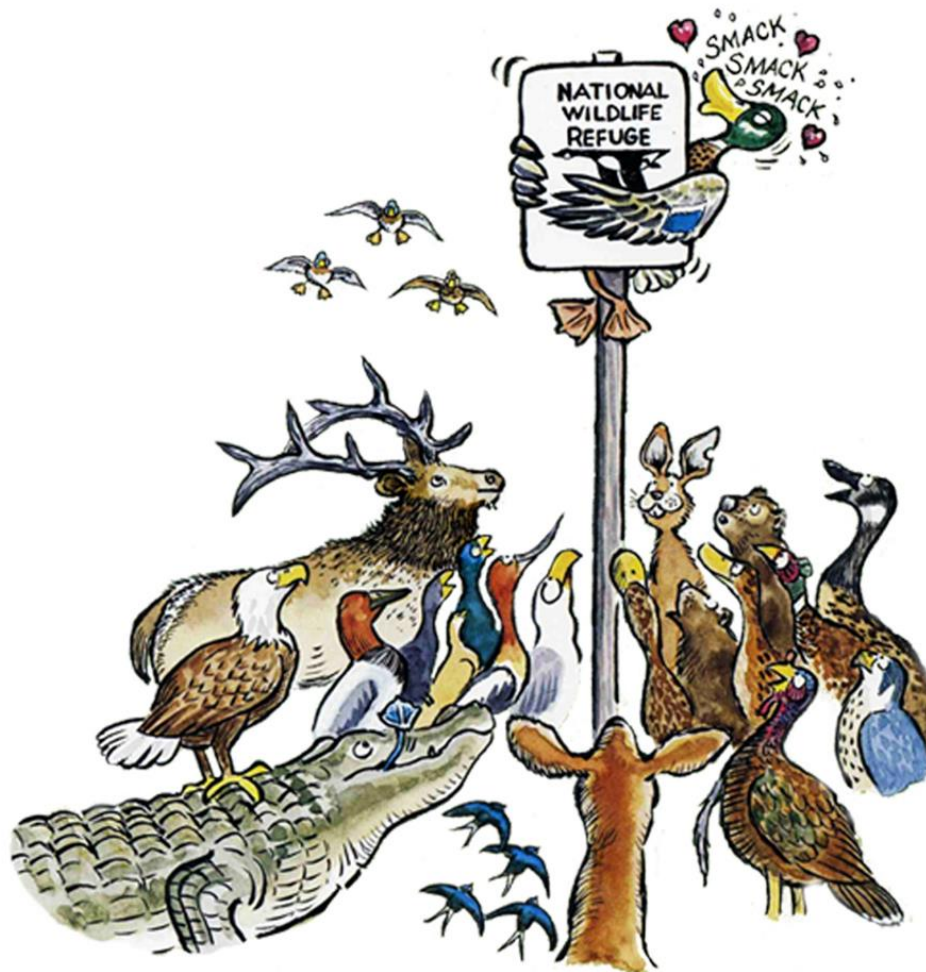
While OSU designed the standardized sampling protocol to account for spatial and temporal visitation patterns, the geography and infrastructure of wildlife refuges vary widely. This variation can affect who is ‘captured’ as part of the survey. For example, contacting visitors is much easier if everyone must pass through a single-entry point and much more difficult if a refuge has multiple access points over a large area. Additionally, the two 14-day sampling periods may not have effectively captured all visitor activities throughout the year on some wildlife refuges (for example, visitors who solely engage in ice fishing). As such, results presented in any one of these reports are aimed at representing overall visitation at a wildlife refuge while recognizing that particular visitor groups may vary in their beliefs and activities.

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# National Wildlife Refuge Visitor Survey



Front cover of the 2018 National Wildlife Refuge Visitor Survey instrument. Artwork credit: Kent Olson.



**PLEASE READ THIS FIRST:**

Thank you for visiting a national wildlife refuge and agreeing to participate in this study! We hope that you had an enjoyable experience. The U.S. Fish and Wildlife Service and The Ohio State University are conducting this survey to learn more about refuge visitors and their experiences in order to improve management and enhance visitor opportunities.

**Please respond regarding the refuge and the visit for which you were asked to participate in this survey. The cover letter indicates the refuge you visited.**

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**SECTION 1. Your visit to this refuge**

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1. Including your most recent visit, which activities did you participate in during the past 12 months at this refuge?  
(Mark all that apply.)

<input type="checkbox"/> 79% Wildlife observation	<input type="checkbox"/> 85% Hiking/Walking	<input type="checkbox"/> 2% Volunteering
<input type="checkbox"/> 66% Bird watching	<input type="checkbox"/> 12% Jogging/Running/Exercising	<input type="checkbox"/> 1% Environmental education program (classroom visits, labs)
<input type="checkbox"/> 48% Photography	<input type="checkbox"/> 20% Bicycling	
<input type="checkbox"/> 1% Big game hunting	<input type="checkbox"/> 2% Auto tour route/Driving	<input type="checkbox"/> 4% Interpretative program (bird walks, staff/volunteer-led talks)
<input type="checkbox"/> 1% Upland/Small game hunting	<input type="checkbox"/> 8% Motorized boating	
<input type="checkbox"/> 2% Waterfowl/Migratory bird hunting	<input type="checkbox"/> 2% Nonmotorized boating (canoeing, kayaking)	<input type="checkbox"/> 1% Refuge special event ( <i>specify</i> ) <u>See Appendix C</u>
<input type="checkbox"/> 0% Freshwater fishing	<input type="checkbox"/> 1% Foraging (berries, nuts, other)	<input type="checkbox"/> 1% Other ( <i>specify</i> ) <u>See Appendix C</u>
<input type="checkbox"/> 11% Saltwater fishing	<input type="checkbox"/> 5% Picnicking	

2. Which of the activities above was the primary purpose of your most recent visit to this refuge?

(Please write **only one activity** here.) See Appendix C

3. Which of the following best describes your most recent visit to this Refuge? (*Mark only one.*)

<input type="checkbox"/> 33% It was the primary purpose or sole destination of my trip.
<input type="checkbox"/> 28% It was one of many equally important reasons or destinations for my trip.
<input type="checkbox"/> 39% It was just an incidental or spur-of-the-moment stop on a trip taken for other purposes or to other destinations.

4. How many people were in your personal group, including yourself, on your most recent visit to this refuge?  
(Please answer each category.)

2 number of people 18 years and older      0 number of people under 18 years

5. Did you go to a visitor center at this refuge during your most recent visit?

This refuge does not have a Visitor Center – no results are presented.

6. How much time did you spend **at this refuge** during your most recent visit?

If you spent less than one day at this refuge, enter the number of hours: 3 hour(s)

If you spent one day or more at this refuge, enter the number of days: 3 day(s)

7. Do you live in the local area (within 50 miles of this refuge)?

☐ 34% Yes

☐ 67% No → How much time did you spend in **the local area** on this trip?

If you spent less than one day in the local area, enter the number of hours: 4 hour(s)

If you spent one day or more in the local area, enter the number of days: 7 day(s)

8. Approximately how many hours/minutes (one-way) did you travel from your home to this refuge?

If you travelled less than one hour, enter the number of minutes: 20 minutes

If you travelled more than one hour, round to the nearest hour: 16 hours

9. Including this visit, during which seasons did you visit this refuge in the last 12 months? (*Mark all that apply.*)

☐ 62% Spring  
(March-May)

☐ 26% Summer  
(June-August)

☐ 63% Fall  
(September-November)

☐ 24% Winter  
(December-February)

10. In the last 12 months, how many times have you visited...

...this refuge (including this visit)? 7 number of visits

...other national wildlife refuges? 3 number of visits

...other public lands (for example, national or state parks) to participate in the same primary activity as this visit? 6 number of visits

11. Which, if any, of the following social media outlets did you use to share your refuge experience with other people? (*Mark all that apply.*)

<input type="checkbox"/> 36%	Facebook	<input type="checkbox"/> 2%	Snapchat	<input type="checkbox"/> 1%	Personal blog (for example, Tumblr, Wordpress)
<input type="checkbox"/> 2%	Flickr	<input type="checkbox"/> 1%	Twitter	<input type="checkbox"/> 3%	Travel-related website (for example, Trip Advisor)
<input type="checkbox"/> 13%	Instagram	<input type="checkbox"/> 1%	Vimeo	<input type="checkbox"/> 2%	Other ( <i>specify</i> ) <u>See Appendix C</u>
<input type="checkbox"/> 1%	Pinterest	<input type="checkbox"/> 1%	YouTube	<input type="checkbox"/> 56%	I do not use social media

## SECTION 2. Information about this refuge and its resources

1. How helpful was each of the following sources to get information about this refuge and its resources? (*Circle one number for each source, or mark the box if you did **not** use a source.*)

Information source	For those who used a source, the % who found it to be...					Did not use
	Not at all helpful	Slightly helpful	Moderately helpful	Very helpful	Extremely helpful	
Personal knowledge from previous visit(s)	<input type="checkbox"/> 3%	<input type="checkbox"/> 3%	<input type="checkbox"/> 10%	<input type="checkbox"/> 25%	<input type="checkbox"/> 59%	<input type="checkbox"/> 40%
Word of mouth (for example, a friend or relative)	<input type="checkbox"/> 8%	<input type="checkbox"/> 11%	<input type="checkbox"/> 26%	<input type="checkbox"/> 28%	<input type="checkbox"/> 27%	<input type="checkbox"/> 55%
People in the local community near the refuge	<input type="checkbox"/> 9%	<input type="checkbox"/> 11%	<input type="checkbox"/> 26%	<input type="checkbox"/> 41%	<input type="checkbox"/> 14%	<input type="checkbox"/> 62%
Refuge employees or volunteers	<input type="checkbox"/> 5%	<input type="checkbox"/> 11%	<input type="checkbox"/> 21%	<input type="checkbox"/> 38%	<input type="checkbox"/> 25%	<input type="checkbox"/> 62%
Printed map or atlas	<input type="checkbox"/> 3%	<input type="checkbox"/> 5%	<input type="checkbox"/> 23%	<input type="checkbox"/> 45%	<input type="checkbox"/> 24%	<input type="checkbox"/> 43%
Web-based map (for example, Google Maps, Waze)	<input type="checkbox"/> 4%	<input type="checkbox"/> 8%	<input type="checkbox"/> 21%	<input type="checkbox"/> 41%	<input type="checkbox"/> 26%	<input type="checkbox"/> 63%
Refuge website	<input type="checkbox"/> 4%	<input type="checkbox"/> 8%	<input type="checkbox"/> 23%	<input type="checkbox"/> 35%	<input type="checkbox"/> 30%	<input type="checkbox"/> 62%
Travel website (for example, TripAdvisor)	<input type="checkbox"/> 13%	<input type="checkbox"/> 17%	<input type="checkbox"/> 17%	<input type="checkbox"/> 40%	<input type="checkbox"/> 13%	<input type="checkbox"/> 84%
Other website ( <i>specify</i> ) <u>See Appendix C</u>	<input type="checkbox"/> 60%	<input type="checkbox"/> 0%	<input type="checkbox"/> 20%	<input type="checkbox"/> 0%	<input type="checkbox"/> 20%	<input type="checkbox"/> 97%
Social media (for example, Facebook, Instagram)	<input type="checkbox"/> 35%	<input type="checkbox"/> 15%	<input type="checkbox"/> 15%	<input type="checkbox"/> 15%	<input type="checkbox"/> 20%	<input type="checkbox"/> 90%
Recreation club or organization	<input type="checkbox"/> 43%	<input type="checkbox"/> 14%	<input type="checkbox"/> 21%	<input type="checkbox"/> 7%	<input type="checkbox"/> 14%	<input type="checkbox"/> 93%
Refuge printed information (for example, brochure)	<input type="checkbox"/> 2%	<input type="checkbox"/> 4%	<input type="checkbox"/> 16%	<input type="checkbox"/> 45%	<input type="checkbox"/> 32%	<input type="checkbox"/> 49%
Kiosks/displays/exhibits at the refuge	<input type="checkbox"/> 1%	<input type="checkbox"/> 5%	<input type="checkbox"/> 15%	<input type="checkbox"/> 37%	<input type="checkbox"/> 41%	<input type="checkbox"/> 43%
Travel guidebook or other book	<input type="checkbox"/> 28%	<input type="checkbox"/> 11%	<input type="checkbox"/> 17%	<input type="checkbox"/> 39%	<input type="checkbox"/> 6%	<input type="checkbox"/> 91%
Tourist information or welcome center	<input type="checkbox"/> 12%	<input type="checkbox"/> 12%	<input type="checkbox"/> 31%	<input type="checkbox"/> 31%	<input type="checkbox"/> 15%	<input type="checkbox"/> 86%
Other source ( <i>specify</i> ) <u>See Appendix C</u>	<input type="checkbox"/> 20%	<input type="checkbox"/> 0%	<input type="checkbox"/> 20%	<input type="checkbox"/> 40%	<input type="checkbox"/> 20%	<input type="checkbox"/> 96%

### SECTION 3. Transportation and access at this refuge

1. First rate how important each of the following transportation-related features is to you when visiting this refuge; then rate how satisfied you are with the way this refuge is managing each feature. *If this refuge does not have a specific feature or you did not experience it during this visit, please rate how important it is to you and then circle NA “Not Applicable” under the satisfaction column.*

Importance <i>Circle one for each item.</i>					Transportation-Related Features	Satisfaction <i>Circle one for each item.</i>					
Not at all Important	Slightly Important	Moderately important	Very Important	Extremely Important		Not at all Satisfied	Slightly Satisfied	Moderately Satisfied	Very Satisfied	Extremely Satisfied	Not Applicable
8%	15%	38%	25%	13%	Surface conditions of refuge roads	3%	1%	21%	48%	27%	NA
8%	15%	42%	24%	11%	Surface conditions of parking areas	3%	1%	20%	47%	30%	NA
7%	9%	27%	36%	21%	Condition of bridges on roadways	0%	2%	13%	53%	33%	NA
5%	5%	22%	43%	25%	Condition of trails and boardwalks	1%	2%	13%	50%	34%	NA
49%	6%	15%	14%	15%	Condition of boat launches	6%	0%	25%	50%	19%	NA
2%	9%	28%	39%	22%	Number of places for parking	1%	7%	24%	46%	22%	NA
18%	16%	35%	23%	7%	Number of places to pull over on refuge roads	4%	4%	25%	51%	17%	NA
7%	7%	23%	35%	29%	Safety of driving conditions on refuge roads	3%	0%	9%	58%	31%	NA
3%	6%	20%	37%	34%	Safety of refuge road entrances/exits	4%	9%	17%	47%	23%	NA
4%	5%	17%	39%	35%	Safety of roads/trails for nonmotorized users (for example, bicyclists and hikers)	1%	3%	10%	51%	35%	NA
5%	7%	28%	39%	21%	Signs on highways directing you to this refuge	1%	5%	25%	46%	23%	NA
5%	8%	24%	40%	22%	Signs directing you around refuge roads	3%	5%	20%	50%	22%	NA
5%	3%	15%	42%	35%	Signs directing you on trails	2%	11%	21%	46%	20%	NA
21%	12%	20%	27%	19%	Access for people with physical disabilities or who have difficulty walking	9%	8%	28%	40%	15%	NA

2. If you have any comments about transportation-related features at this refuge, please write them here.

See Appendix C



3. What modes of transportation did you use to travel from the local area to this refuge and within this refuge during your most recent trip? (*Mark all that apply.*)

Transportation modes used to travel...	...from the local area to this refuge	...within the boundaries of this refuge
Private/rental vehicle without a trailer	87%	23%
Private/rental vehicle with a trailer (for boat, camper, or other)	8%	2%
Recreational vehicle (RV)	3%	0%
Refuge shuttle bus/tram	0%	0%
Tour bus/van	0%	0%
Public transportation	1%	0%
Motorcycle	1%	0%
Bicycle	2%	15%
Foot (for example, walking/hiking)	12%	58%
Boat	6%	4%
Other ( <i>specify</i> ): <u>See Appendix C</u>	3%	0%
Other ( <i>specify</i> ): <u>See Appendix C</u>	0%	0%

4. Please tell us how likely you would be to use each transportation option **at this refuge** if it were available in the future. Not all options are currently available at every refuge. (*Circle one number for each option.*)

Transportation options	Not at all Likely	Slightly Likely	Moderately Likely	Very Likely	Extremely Likely
Bus or tram that takes passengers to different points within refuge boundaries (such as the Visitor Center)	61%	12%	9%	12%	6%
Bus or tram that provides a guided tour of the refuge with information about this refuge and its resources	51%	15%	16%	13%	6%
Refuge-sponsored shuttle with a dedicated stop in the local community for picking up people at set times	65%	15%	12%	4%	4%
Public transit system that stops at or near this refuge	72%	15%	7%	3%	3%
Bike-share program that offers bicycles for rent on or near this refuge	48%	11%	18%	15%	8%
Pedestrian paths for access to this refuge from the local community	50%	14%	17%	8%	11%

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## SECTION 4. Your expenses related to your refuge visit

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1. Record the amount of money that you and other members of your group spent in the local 50-mile area during your most recent visit to this refuge. Your group would include you and those with whom you shared expenses (for example, family members, traveling companions). *Enter the amount spent or enter 0 (zero) if you did not spend any money in a particular category.*

Categories	Amount spent in the local area/communities & at this refuge (within 50 miles of this refuge)
Hotel, bed & breakfast, cabin, etc.	
Camping fees (for example, tent, RV)	
Restaurants and bars	
Groceries	
Gasoline and oil (for private vehicles, boats, RVs, or other motors)	
Local transportation (for example, public transit, rental car)	See report for summary of visitor expenditures
Guides and tour fees	
Equipment rental (for example, bicycle, canoe, kayak)	
Sporting goods (for example, bait, binoculars)	
Souvenirs/clothing and other retail	
Other (specify) <u>See Appendix C</u>	

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2. Including yourself, how many people in your group shared these trip expenses?

2 number of people sharing expenses

3. As you know, costs of travel such as gasoline, hotels, and public transportation often increase. If your total trip costs were to increase, what is the maximum extra amount you would pay and still visit this refuge? (*Mark the dollar amount that represents your response.*)

<input type="checkbox"/> 11% \$0	<input type="checkbox"/> 3% \$30	<input type="checkbox"/> 16% \$100	<input type="checkbox"/> 5% \$250
<input type="checkbox"/> 6% \$5	<input type="checkbox"/> 3% \$45	<input type="checkbox"/> 1% \$125	<input type="checkbox"/> 3% \$350
<input type="checkbox"/> 9% \$10	<input type="checkbox"/> 3% \$60	<input type="checkbox"/> 3% \$150	<input type="checkbox"/> 8% \$500
<input type="checkbox"/> 10% \$20	<input type="checkbox"/> 3% \$75	<input type="checkbox"/> 13% \$200	<input type="checkbox"/> 4% \$750

## SECTION 5. Your experience at this refuge

1. First rate how important each of the following services, facilities, and opportunities is to you when visiting this refuge; then rate how satisfied you are with the way this refuge is managing each item. *If this refuge does not offer a specific item or you did not experience it on this visit, please rate how important it is to you and then circle NA "Not Applicable" under the satisfaction column.*

Importance <i>Circle one for each item.</i>					Refuge Services, Facilities, and Opportunities	Satisfaction <i>Circle one for each item.</i>					
Not at all Important	Slightly Important	Moderately important	Very Important	Extremely Important		Not at all Satisfied	Slightly Satisfied	Moderately satisfied	Very Satisfied	Extremely Satisfied	Not Applicable
3%	2%	15%	44%	37%	Convenient hours/days of operation for this refuge	1%	1%	6%	52%	40%	NA
25%	23%	29%	16%	6%	Availability of employees or volunteers	4%	10%	27%	37%	22%	NA
22%	17%	23%	24%	14%	Courteous and welcoming employees or volunteers	6%	8%	13%	39%	35%	NA
6%	8%	29%	38%	18%	Signs with rules/regulations for this refuge	1%	2%	19%	46%	31%	NA
This refuge does not have a Visitor Center.											
6%	7%	24%	34%	29%	Well-maintained restrooms	28%	9%	27%	24%	12%	NA
13%	15%	37%	25%	10%	Recreational structures (decks, blinds, platforms)	4%	11%	32%	37%	16%	NA
11%	6%	19%	26%	38%	Bird-watching opportunities	0%	3%	11%	38%	48%	NA
5%	2%	21%	34%	38%	Opportunities to observe wildlife other than birds	2%	5%	19%	43%	30%	NA
8%	5%	18%	27%	42%	Opportunities to photograph wildlife and scenery	1%	3%	11%	42%	43%	NA
14%	18%	31%	24%	13%	Environmental education opportunities	1%	15%	40%	27%	16%	NA
90%	2%	5%	2%	2%	Hunting opportunities	41%	18%	23%	14%	5%	NA
65%	8%	13%	7%	8%	Fishing opportunities	20%	9%	20%	22%	30%	NA
5%	1%	16%	33%	46%	Trail hiking opportunities	0%	1%	13%	44%	41%	NA
17%	7%	22%	26%	28%	Bicycling opportunities	3%	4%	15%	47%	31%	NA
28%	11%	27%	22%	11%	Water trail opportunities for canoeing or kayaking	10%	10%	31%	35%	14%	NA
50%	16%	23%	8%	2%	Volunteer opportunities	13%	18%	37%	24%	8%	NA
19%	11%	30%	19%	21%	Wilderness experience opportunities	2%	7%	33%	32%	25%	NA

2. If you have comments about the services, facilities, and opportunities at this refuge, please write them here.

See Appendix C

3. How much do you disagree or agree with each statement below? (*Circle one number for each statement.*)

	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
I felt welcome during my visit to this refuge.	0%	1%	15%	41%	43%
I felt safe during my visit to this refuge.	1%	1%	4%	45%	50%
Crime <u>is</u> a problem at this refuge.	53%	32%	11%	2%	2%
I feel comfortable being in nature.	1%	0%	1%	36%	62%
I do <u>not</u> like being in nature by myself.	56%	23%	11%	7%	3%
People closest to me enjoy participating in nature-based recreation.	0%	2%	7%	47%	45%
Generally, people who look like me are treated differently when they participate in nature-based recreation.	54%	18%	24%	1%	3%

4. How satisfied are you with the following? (*Circle one number for each statement.*)

	Not at all Satisfied	Slightly Satisfied	Moderately satisfied	Very Satisfied	Extremely Satisfied
The job this refuge is doing of conserving fish, wildlife, and their habitats.	0%	1%	12%	52%	35%
The quality of the overall experience when visiting this refuge.	0%	1%	8%	52%	39%



## SECTION 6. Future visits to this refuge

1. Considering **the primary activity** you participated in during your most recent visit to this refuge, please tell us how the following factors, if they occurred, could affect your future participation in that activity at this refuge. (*Circle one number for each factor.*)

If there was...	My participation in my primary activity would...		
	Decrease	Stay the same	Increase
Less water in lakes, rivers, or streams available for recreation	28%	71%	2%
More acreage open to hunting and fishing	33%	58%	9%
More infrastructure (for example, bathrooms, observation decks)	2%	48%	50%
Recreation equipment available for rent (for example, fishing rods, binoculars, snowshoes)	11%	72%	17%
Less regulations on fishing	17%	78%	5%
Less regulations on hunting	30%	68%	2%
A greater diversity of species	2%	36%	62%
Fewer numbers of a single, preferred species	22%	74%	4%
More people participating in my primary activity	18%	76%	6%
An improvement in the quality of wetlands	1%	48%	52%
An improvement in the quality of wildlife habitat other than wetlands	1%	42%	57%

2. Do you plan to return to this refuge in the next 12 months?

48% Yes      28% No      23% Not sure

3. Which of the following types of programs, if offered, would encourage you to return to this refuge in the future? (*Mark all that apply.*)

46% I do not typically participate in refuge programs

For those that do participate in refuge programs, the % that would be encouraged to return if the following programs were offered:

29% Programs that engage youth

25% Programs that focus on creative pursuits (for example, art, writing, meditation)

24% Programs that focus on family/multiple-generations

19% Programs that support people with accessibility concerns (for example, difficulty walking, in a wheelchair)

40% Programs that teach skills to visitors

14% Other (*specify*) See Appendix C

59% Programs that highlight unique local culture

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## SECTION 7. A little about you

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**\*\* Please tell us a little bit about yourself. Your answers to these questions will help us to know more about who visits national wildlife refuges. Answers will not be linked to any individual taking this survey. \*\***

1. Are you? ☐ 51% Male ☐ 49% Female

2. In what year were you born? 1959 (YYYY)

3. How many years of formal schooling have you had? (Circle one number.)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20+
(elementary)					(junior high or middle school)			(high school)				(college or technical school)				(graduate or professional school)			
					<input type="checkbox"/> 1%			<input type="checkbox"/> 7%				<input type="checkbox"/> 49%				<input type="checkbox"/> 43%			

4. What race or ethnicity do you consider yourself? (Mark all that apply.)

<input type="checkbox"/> 97% White	<input type="checkbox"/> 1% American Indian or Alaska Native
<input type="checkbox"/> 2% Hispanic, Latino, or Spanish	<input type="checkbox"/> 0% Middle Eastern or North African
<input type="checkbox"/> 1% Black or African American	<input type="checkbox"/> 0% Native Hawaiian or Other Pacific Islander
<input type="checkbox"/> 1% Asian	<input type="checkbox"/> 1% Some other race or ethnicity

5. How many people (including yourself) live in your household? 2 persons

6. What was your approximate household income from all sources (before taxes) last year? (Mark only one.)

<input type="checkbox"/> 0% Less than \$10,000	<input type="checkbox"/> 10% \$35,000 - \$49,999	<input type="checkbox"/> 26% \$100,000 - \$149,999
<input type="checkbox"/> 2% \$10,000 - \$24,999	<input type="checkbox"/> 11% \$50,000 - \$74,999	<input type="checkbox"/> 12% \$150,000 - \$199,999
<input type="checkbox"/> 1% \$25,000 - \$34,999	<input type="checkbox"/> 22% \$75,000 - \$99,999	<input type="checkbox"/> 16% \$200,000 or more

7. Which of the following best describes your current employment situation? (Mark only one.)

<input type="checkbox"/> 33% Employed full-time	<input type="checkbox"/> 0% Unemployed	<input type="checkbox"/> 46% Retired
<input type="checkbox"/> 5% Employed part-time	<input type="checkbox"/> 4% Homemaker/caregiver	<input type="checkbox"/> 0% Disabled/unable to work
<input type="checkbox"/> 11% Self-employed	<input type="checkbox"/> 1% Student	<input type="checkbox"/> 0% Other (specify): <u>See Appendix C</u>

**Thank you for completing the survey.**

**There is space on the next page for any additional comments you may have regarding your visit to this refuge.**

## Comments?

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See Appendix C

PAPERWORK REDUCTION ACT STATEMENT: The Paperwork Reduction Act requires us to tell you why we are collecting this information, how we will use it, and whether or not you have to respond. The information that we collect in this survey will help us understand visitor satisfaction with and use of national wildlife refuges and to inform management and policy decisions. Your response is voluntary. An agency may not conduct or sponsor and you are not required to respond to a collection of information unless it displays a valid OMB Control Number. We estimate it will take an average of 25 minutes to complete this survey. You may send comments concerning the burden estimate or any aspect of the survey to the Information Collection Clearance Officer, Fish and Wildlife Service, 4401 North Fairfax Drive, MS 222-ARLSQ, Arlington, VA 22203. OMB CONTROL # 0596-0236 EXPIRATION DATE 11/30/2020

## Appendix C: Open-Ended Survey Responses by Question

### Survey Section 1

Question 1: “Including your most recent visit, which activities did you participate in during the past 12 months at this refuge?”

Special Event	Frequency
Savannah wildlife refuge	1

Other Activity	Frequency
Forest bathing	1
Transportation via boat	1

Question 2: “Which of the activities above was the primary purpose of your most recent visit to this refuge?”

Primary Activity	Frequency
Activity with dog(s)	1
Auto tour route/driving	1
Bicycling	11
Bird watching	33
Fishing	14
Hiking	66
Hunting	2
Interpretation	2
Motorized boating	7
Nonmotorized boating	1
Photography	10
Running	5
Sightseeing	2
Wildlife observation	40

Question 3: “Did you go to a visitor center at this refuge during your most recent visit?”; If Yes, “What did you do there?”

Other Visitor Center Activity	Frequency
Picked up brochures	1



Question 11: “Which, if any, of the following social media outlets did you use to share your refuge experience with other people?”

Other Social Media Outlets	Frequency
Shutterfly	1
Strava	1
Yelp	1

## Survey Section 2

Question 1: “How helpful was each of the following sources to get information about this refuge and its resources?”

Other Information Sources	Frequency
AllTrails	1
Refuge signs	2

## Survey Section 4

Question 1: “Record the amount of money that you and other members of your group spent in the local 50-mile area during your most recent visit to this refuge. Your group would include you and those with whom you shared expenses (for example, family members, traveling companions).”

Other Expenses	Frequency
Donation	1
Fishing charter	1
Golf	2
Mini golf	1
Sunscreen	1
Tennis	1

## Survey Section 6

Question 3: “Which of the following types of programs, if offered, would encourage you to return to this refuge in the future?”

Other Programs	Frequency
Bird-related programs	4
Fishing-related activities	1
General environmental education	2
Hunting-related activities	2
Local history programs	1
Wildlife-related programs	3

### Survey Section 3

Question 2: "If you have any comments about transportation-related features at this refuge, please write them here."

#### Comments on Transportation-Related Features at This Refuge (n=45)

A light post at the boat launch ramp.

As I age, I would like to make it all the way through the park. I would like to see more auto access deeper into the park (with minimal impact on the wildlife).

Better parking area.

Boat launch is one of the best. Having a well-maintained dual launch with plenty of room for parking boat trailers is very important to us.

Busy area, could use more parking.

Did not use any of the roads or trails on the refuge. Entered the refuge by boat for hunting.

Entrance from Bluffton and also the exit onto Hilton Head are bad but that is a problem with the roads, not the refuge. Often have to turn the opposite way and back track because of the traffic.

Entrance to Pinkney can be difficult due to highway traffic.

Exit is difficult as traffic speeds toward you from bridge!

For the final item above accessibility, I marked not at all important for me personally since I am able bodied, but I do not think public lands should be accessible for all.

Getting there is easy. Leaving to go east can be very difficult.

I like that there are no cars allowed in refuge. It does make it difficult for people with disabilities though to be able to experience the refuge.

I volunteer with physically challenged people (strokes, Parkinson's, etc.) and I thought that Pinkney was most suitable for those that I have contact.

If one could not walk long distances, many areas were not accessible. Since we were on a bike, distance to other trails was less important. Volunteer shuttles would be a positive solution. I think we saw one.

It can be dangerous getting out of the refuge area and turning left during heavy traffic that is exiting Hilton Head Island. A stoplight might need to be added at a later date at that main entrance.

It is a great place to visit for many purposes. Keep up the good work.

It is extremely hard to enter and exit this landing due to the constant flow of traffic on the bridges.

It would be great if they would rent bicycles at the entrance so that you get around the entire island more easily.

It would have been nice to ride bikes (safely) from our resort on Hilton Head Island to Pinckney Island. This was our only "complaint" if it could be called that.

It's a long walk for the elderly and people with disabilities to see the birds. I recommend a closer parking lot, or either a drive through the bird area.

Large sized gravel makes biking and walking more difficult.

Left turn exit out of the boat launch is nearly impossible during rush hour traffic morning and evening. Left turn into boat launch during the morning rush hours also impossible and dangerous. Need to build entrance and exit road off entrance to the wildlife area passing east of second bridge to Hilton Head Island.

Many folks ride bikes at PINWR. Please take into account when the trail roads are refilled with gravel, sometimes it's too loose in spots for bikes.

Most refuge roads are not accessible to cars.

Need bathroom facilities!!

No advance signs on the main highway. Entrance is right at the bottom of a hump back bridge which makes turns difficult if you are not familiar with the area. All other roads within were fine.

Not easy for those using canes or have difficulty walking on uneven bumpy surfaces.

Not great for biking due to surface of trails. We thought the trail markers were only marginal.

On Shell Point Trail there were no signs specifically saying it was a dead end, we ended up taking another hour of hiking, but the maintenance on them was great!

Parking was a little bit of an issue. I arrived in a 24-foot motor home. The only motor home parking was being occupied by the volunteer kiosk. I did find parking, but probably more extending parking is warranted.

Paths were not clearly marked so we turned back to not get lost. Disappointed. Marked when you came upon a pond but expected color coded tree markings to keep on-trail to further points of interest.

Paved road to Ibis Pond for wheelchair access would be good.

Roads in good condition. Educational signage was adequate.

Security of parking area very satisfied.

Since roads at Pinckney are not open to vehicles, they are great. Also toured Savannah, very happy there.

Something needs to be done in order to facilitate the departure from the boat ramp onto 278. To say it is dangerous pulling out with a boat in tow is an understatement.

The only thing I would point out is the gravel on the road the bikes use is hard to ride on and makes for bumpy traveling. I wish it was smoother.

The park trail system is well maintained and the map at the park was very clear.

The parking area is small so it was no big deal, but we did drive through once before we figured out acceptable parking - probably us, but a sign or two might help with clarity.

The sign leading to the pond in which the osprey & other wildlife gathered was not visible from the main road. We discovered it because we noticed many visitors on this trail. This area is the highlight of our visit to refuge.

The walkways to the docks are very steep at low tide so extra grips on the walkway or signs might be helpful to warn tourist.

The water level at high tide was very close to the road level.

There should be at least one port-a-john to use. Many elderly people do not use the refuge at all because the gravel is so difficult to walk on. Very hard place to get around. Unlike, Savannah National Wildlife Refuge, where you can easily drive your car to explore the area.

We had an excellent tour guide and we did a walking tour. It was a very positive experience and educational too!

Would be nice to have a loop road that could be driven and have pull outs available.

## Survey Section 5

Question 2: "If you have comments about these services, facilities, and opportunities at this refuge, please write them here."

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### Comments on Services, Facilities, and Opportunities at This Refuge (n=55)

A restroom would be nice.

A restroom would be very welcome.

Although there are two signs reading, "no pets", many people walk their dogs. You do run into alligators walking, about which could bring about a dangerous situation.

Bathrooms needed. Kayaks. Landing for kayak in the refuge instead of the boat landing. Boat landing is too much boat traffic. Grass is too high. We get ticks and chigger bites when we visit the birds.

Better signs for quiet around rocky bathrooms at parking area would be nice.

Boat launch is good.

Did not use any of the services or facilities on the refuge. I used the hunting and fishing opportunities within the refuge.

Fabulous refuge. Loved biking and hiking. A bike path so one is not riding on large gravel would be wonderful.

Fantastic public boat launch. Our specific visits here are for access to our second home which is only accessible via boat. But we do tour and visit other refuges for other recreational purposes.

For our picnicking, walking and bird watching, Pinkney was a delightful day trip.

Great refuge!! Bicycling isn't near the best, but we had fun exploring. Would like better bicycle paths.

I am a docent for the Coastal Discovery Museum and do guided nature walks here. There are no restrooms and we sure could use them at Pinckney. Also, they took the port-a-potties away at Savannah National Wildlife Refuge and we really need them back! My friends and I often spend 6 hours there and we need our restrooms.

I do think they should install some public restroom facilities near the parking area. Also, the signs for the entrance can be easily missed, as one couple missed the turnoff and almost missed the tour with the volunteers. We were told by friends to watch carefully for the sign, so we found it ok.

I enjoyed the park and don't think they need a center or bathrooms. It's natural.

I like it just the way it is.

I like the set up. I would not update too much on this island. The primitive state of the facilities is just what the doctor ordered.

I sometimes like to walk alone but don't like to come here because it's so secluded and I don't feel safe. It would be great if there was someone patrolling the main trail.

I would be happy to be an annual member pass or a small entrance fee like state and national parks offer.

I would like to see better maintained bicycle trails. The dirt access roads are not well serviced for cycling.

I would love more educational signage. Also, more signs for guidance on trails. I can't remember if restrooms were available or not because I didn't use them.

I would not like to see any commercialization at this park. The beauty of it is because it is so pristine. Any type of commercialization -- shuttle, tours, bike rentals, etc. -- would take away from the silence in bird watching, walking, taking photos, etc. This is one of the only places on the island that is accessible and quiet. We need more quiet places in our busy lives.

It is a refuge and should stay that way.

Loved this place. I love to see bird rookeries. Paths are easy to walk.

Need a restroom in the public parking area to allow longer visits.

Need bathroom facilities.

Need washrooms at this refuge.

Needs bathrooms!

Nice place to hike and fish, only salt water fishing. Parking needed to expand. Fun place to visit, come down twice a year.

No facilities - pretty wild area.

No restrooms or water on the trails.

Over the years Pinkney goes through changes, it would be nice to know what is happening and why. This year the Ibis Pond had a lot of dead nesting areas. There was no explanation as whether it was caused by man or natural causes. In the past, man made "improvements" have caused birds to abandon to "improved" areas.

Pickney is a day-use area. It appears to be well maintained. In my opinion, impound signage and a large will service porta-potty would help a great deal.

Pinckney Island NWR needs a privy or something.

Portable toilets would be nice.



Really need to have some type of restrooms available. I would visit more often if this were the case.

Refuge is in great shape this year. Many new walking trails cut. Lots of rain this year was helpful to bring back lots of wildlife and birds.

Signage could be improved (how far away, etc.).

The only downside to Pinckney is lack of toilet facilities. Port-a-potties would be great in improvement.

The parking lot is very nicely designed. It would be nice to add a 1 stand.

The place is wonderfully free of noise or anything resembling commercial options. Just a great place to observe and be at peace with nature!

The refuge I visited did not have a bathroom. While I knew this to be the case before arrival, others were surprised.

The whole family loves Pinckney Island Refuge. It is well maintained and simple so you can really enjoy nature.

There doesn't have to be a visit center - but there really does need to have restroom facilities.

There should be a covered area in case of bad weather, and a restroom.

This refuge has no bathrooms - very important to have by parking area and inside refuge - better bike trails.

This refuge is a small pocket of tranquility in an area that is greatly overdeveloped. I try to take my grandchildren here whenever we are visiting this area because we all enjoy watching the birds and other wildlife that are prevalent here. It is also an excellent opportunity to take a hike and get some exercise.

Trails around/between some of the ponds are poorly marked. At times we veered off onto a wild animal trail thinking it was the hiking trail, only to hit a dead end and have to retrace our steps. An animal scat id sign would have been educational. Not enough landmarks are described on the park trail guide to make the guide truly useful. The benches that have been added are a plus for hikers needing rest.

Volunteers handing out this survey were extremely helpful and knowledgeable.

We need to have a building with bathrooms. The john at the boat landing stinks and is always dirty!!!

We were geocaching and really enjoyed the opportunities in this park.

We were very satisfied with facilities, tour, guide, driver, etc.

While we have and still will visit, it would be nice if Pinckney Island NWR had restrooms.

Workers were very courteous and helpful.

Working restrooms would be greatly appreciated.

Would like a few more sitting areas to observe wildlife for a length of time, particularly at the Ibis Pond.

## End of Survey

### General Comments (n=48)

A beautiful place that we enjoy visiting during different times of the year.

Access to this refuge is convenient to anyone spending a vacation on Hilton Head Island, SC. The undisturbed environment, fine scenery and wildlife viewing available at the Pinckney Wildlife Refuge is an amenity equal to the beaches or golf courses.

All access is on foot, it would be good to occasionally open the further ends of the refuge via car - it is a long way to walk to the end of the island. Maybe open the roads for traffic once a week.

Birding at Pickney Island NWR is exceptional and should be preserved as much as possible.

Could you help me identify one of the birds I took a photo of in the sanctuary? You can see it on my photo website at: [website]. I'm wondering if it is an eagle. It appears to only have one leg. Feel free to contact me at [email].

Good luck!

Had a great time this year. We enjoy going for walks to get some exercise and observe the wildlife. We have our annual beach trip to Hilton Head every year, for about 20 years now. We always come to the refuge while on the trip. It is fun to see how it evolves and changes. This year was better than normal. Lots of rain led to all the ponds being full which led to more waterfowl and birds than some other recent years.

I am a certified forest therapy guide. If you would like to offer forest therapy at this refuge or just talk about the opportunities, please contact me at [email].

I am a first-time visitor from St. Louis, MO and would return if I get back into the area.

I found the survey a bit challenging inasmuch as it was point in time Pinckney, which is one wonderful, but small part of the much larger Savannah WR system. Visited SNWR and in past have also gone to other sites watches that system during my visits. P.S. the folks getting the info for surveys were charming and very nice. Enjoyed talking with them.

I had an incredible time there. What a joy!!

I have a second home across the waterway from Pinckney Island Refuge, so that may skew my answers.

I just wish there was some kind of security there for females who like to walk alone. I don't go to the refuge during the week or early on Sat or Sun because there's nobody there and I'm concerned about my safety.

I live on Hilton Head Island, and I enjoy walking on PINWR several times per month. I love the island just the way it is. Do not change a thing! Everyone should have a Pinckney Island nearby. Sincerely, [name].

I love visiting Pinckney! It is a true treasure and presents a rare opportunity (in this hectic, noise polluted world) to spend time in peace in a natural, native habitat without motor bikes, jet skis, ATV's - but requiring non-motorized physical movement either by bike or walking if one is to get from point a to point b. I would not be in favor of tour buses, shuttle buses, etc. Since more tourism inevitable means more discarded trash and entry into the facility of and by persons who may not be respectful of what it uniquely is - a fairly pristine natural world! I am very grateful for its existence - just as it now exists!

I participate in clean up on the Blue Ridge Parkway. It is volunteer work. It would be nice if you had a sign stating that if you want, you can take a trash bag and help clean up some trash. Pinkney Island did not have

much trash but there was some that needed to be removed. I will do it anyway, but maybe some other people could do it also. Most of the trash was on the far end, close to the waterways and beach area.

I think a bike rental opportunity would work there because of the long walk on the gravel road. Also, I think a battery powered tram would be a good idea for future use in the refuge. It would allow those with handicaps to enjoy more of what those without handicaps enjoy. A ramped observation tower at the first pond would allow one to take better photos and allow children or those individuals with handicaps to have a better view of the nesting birds. Sometime in the future, a welcome center/teaching center with restrooms and a gift shop might work well. The gift shop could sell nature photos and books, t-shirts and caps with the refuge logo. Also, a vending machine that sold water and Gatorade type drinks might be added only to be consumed in certain areas where there are recycle containers. I'm not certain what was past the 2nd pond area, but the refuge lends itself as a teaching/learning area to get groups like the scouts or young children involved in nature and teach them to help wildlife and not to harm it. The refuge should not become too people friendly, as it may endanger the wildlife and the refuge itself.

I visited Pinckney Island National Wildlife Refuge over Thanksgiving weekend, while visiting my boyfriend's parents in Bluffton. Pinckney is such a lovely place, and I've been encouraging them to check it out!! If you're interested in attracting new visitors, I'd suggest targeting the neighborhood associations in Sun City to organize field trips -- especially for those who don't typically consider themselves to be nature-oriented.

Love the Pinckney Is. NWR. Rules are fair and we believe it helps people to see nature w/o motorized vehicles around. A quiet and very clean environment. We would not miss it on our trips to the Hilton Head area.

Loved our visit. I recommend to everyone I hear that is headed to Hilton Head. Lovely visit. Easy paths which would also be wheelchair friendly as well.

Loved to be there!

My wife and I were at Hilton Head for a week in May but unlikely to go back this way. There are too many other areas in the US to explore. :) I hope these comments have been helpful.

National wildlife refuges and parks like Pinckney Island are such important places for both conservation and education. We value the opportunity to visit and hope the federal government continues to fully fund and provide the resources necessary to maintain and preserve these special places. I hope your survey reveals the full extent to which people use and care for our wild spaces. If you need to follow up in anyway, please feel free to contact me at [email address].

Need more bike paths and add washrooms. Don't want it too touristy or built up.

Nice place, great long walk opportunity, peaceful, serene and seems safe.

Our visit was after personal time of year - so not much activity or people visiting. Also did not realize that you could not drive around the refuge - which made it hard for our handicap friend to enjoy and for us to travel on our own since we were there together. Otherwise would enjoy another time and would recommend.

Pickney Island. Don't ever change it! One of the most gorgeous pristine barrier islands around a national treasure!

Section 4 #36, it is hard to answer this. We have a time share week and always plan a trip to Pinkney Island. Hard to say how much costs would have to increase before I stop coming. Unfortunately, age would be the deciding factor in the long run. We love Pinckney Island and the varied wildlife mainly birds and alligators. We hope this place is maintained for generations to come.

Stopped here on my way home from Texas where we spent the winter birding at many parks etc. This is a great place with many birds, if I'm in the area we would definitely stop.

Thank you for taking the time to improve National Wildlife Refuges. They are a primary reason I travel and visit areas for recreation!

Thank you for the survey. Best of luck! Pinckney Island is a wonderful place. Please do all you can to protect it.

Thank you!

Thanks for our beautiful local refuges. Just would like restrooms/port-a-potties at Pinckney and bring them back to Savannah NWR.

Thanks for running this important program.

The refuge we visited was Pinckney Island NWR in SC. We visit every time we go. A restroom at this refuge would be very much appreciated. During alligator season, one does not want to go for a comfort break off the trail. Please consider providing this necessary provision. Thank you.

The students conducting this initial survey were delightful people. My wife and I enjoy the NWR sights in other areas of the country - we were in Hilton Head as guests of friends and stopped by Pinckney on our way home. Thanks for your efforts!

The volunteer docent leading our guided tram tour was excellent. She told about how the locals harvest the crabs and make the crab soup. So, when we went to Beaufort the next day, we ordered the crab soup at Hemmingway's restaurant and it was wonderful. She took us on a walking tour around the pond and gave us binoculars so we could see the birds up close. One man had brought an expensive magnifying telescope, so we got to see a number of birds really well.

The volunteers who told me about the survey were very helpful, welcoming, enjoying, etc. Thanks.

The worker at the refuge was friendly, knowledgeable, and helpful. My family and I enjoyed our brief visit.

There is a 12' alligator in Ibis Pond at Pinckney. When there is no one around, I feel very nervous about being near water's edge. I don't want to be the first statistic. Why can't they move this one to the Savannah Refuge? There is a Flickr site dedicated to Pinckney Refuge. I wish more people contributed photos to it and contributed to their daily sightings.

We are RVer's and travel the US yearly. One of our favorite activities is geocaching which brought us to the refuge. We were able to use the bicycle paths to find the hidden caches. This was an enjoyable day.

We drove from western New York to visit Hilton Head, SC about 950 miles. Did not know about the wildlife refuge until seeing a brochure in a rack at the hotel. Sadly, we did not have enough time to see all but what we did see was well worthwhile. We would gladly return next time we get to the area. The word "complaint" is awfully strong but the one concern I had was not knowing the area and driving on a divided highway with signage that was not all that good. We spotted the turnoff at the last minute before the road went up over a hump back bridge. The turn would have been missed had there been more traffic on the road.

We enjoy the outdoors and have visited wildlife refuges and national parks in Alaska, Wyoming, Utah, NC, SC, GA and CO in recent months. Thank you for furthering the research and opportunities for public access to nature. We are grateful and appreciative of our parks and wildlife services in the U.S. and enjoy hiking, biking, boating, photography and wildlife observation, as well as fishing in a variety of locales made accessible through our governmental agencies.

We had lots of fun!!

We love NWRs!

We need to have restrooms at both locations. We need lights at both locations.

We really enjoyed the refuge! But since we were on a travel from Germany it is not very likely that we will come back.

We very much enjoyed the visit to this park. You have positioned the park as an excellent learning experience for the spectrum of people enjoying this venue. However, the actions of your president do not make Canadians welcome. 3 billion spent for fruit and vegetables in Florida and California winter alone. Why would unwelcome people return? My retired peers are rethinking this as well!!!