



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

# **NATIONAL WILDLIFE REFUGE VISITOR SURVEY**

*2018 Results for  
Canaan Valley  
National Wildlife Refuge*



**THE OHIO STATE  
UNIVERSITY**



## Acknowledgments

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*Front cover: A mountain stream flows through Canaan Valley National Wildlife Refuge on the Idlemans Run Trail. Photo credit: Michelle Ferguson.*

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# 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 Canaan Valley 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

Canaan Valley National Wildlife Refuge is located in northeastern West Virginia. The refuge was established in 1994 with the purchase of just 86 acres, but has since grown to 16,550 acres. This wildlife refuge protects a unique high elevation wetland complex, the largest of its type in the southern Appalachian Mountains. This complex is composed of many wetland types including muskeg, alder, wet meadow, swamp forest, and spiraea thicket. During the last ice age, many northern plant species were pushed southward by glaciation and eventually took hold in Canaan Valley. Today, this unique habitat hosts plant communities more commonly found at much higher latitudes and the refuge is sometimes described as “a little piece of Canada gone astray.” The wetland complex is home to a variety of mammals, such as beavers and mink, as well as ducks, wading birds, and shorebirds. The slopes surrounding the valley are covered in trees that are typical to a boreal forest community; these forests are home to species such as the threatened Cheat Mountain salamander and the endangered Indiana bat.



*Canaan Valley National Wildlife Refuge. Photo credit: Michelle Ferguson.*

Canaan Valley National Wildlife Refuge attracts over 59,776 visitors annually (U.S. Fish and Wildlife Service, 2018, written comm.). Visitors can hike the trail system while enjoying birdwatching and wildlife photography. A visitor center is available and provides environmental interpretation and education programs. In the wintertime, snowshoeing and cross-country skiing are popular activities. Hunting opportunities are plentiful with seasons for deer, black bear, small game, coyotes, bobcats, and a variety of birds.

## 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 196 visitors agreed to participate in the survey by providing their names and addresses.
- In all, 133 visitors completed the survey online (56%) or by mail (44%) after their refuge visit, resulting in a 68% response rate.
- Results for this wildlife refuge have a  $\pm 7\%$  margin of error at the 95% confidence level. For more details on limitations of results and survey methodology, see Appendix A.

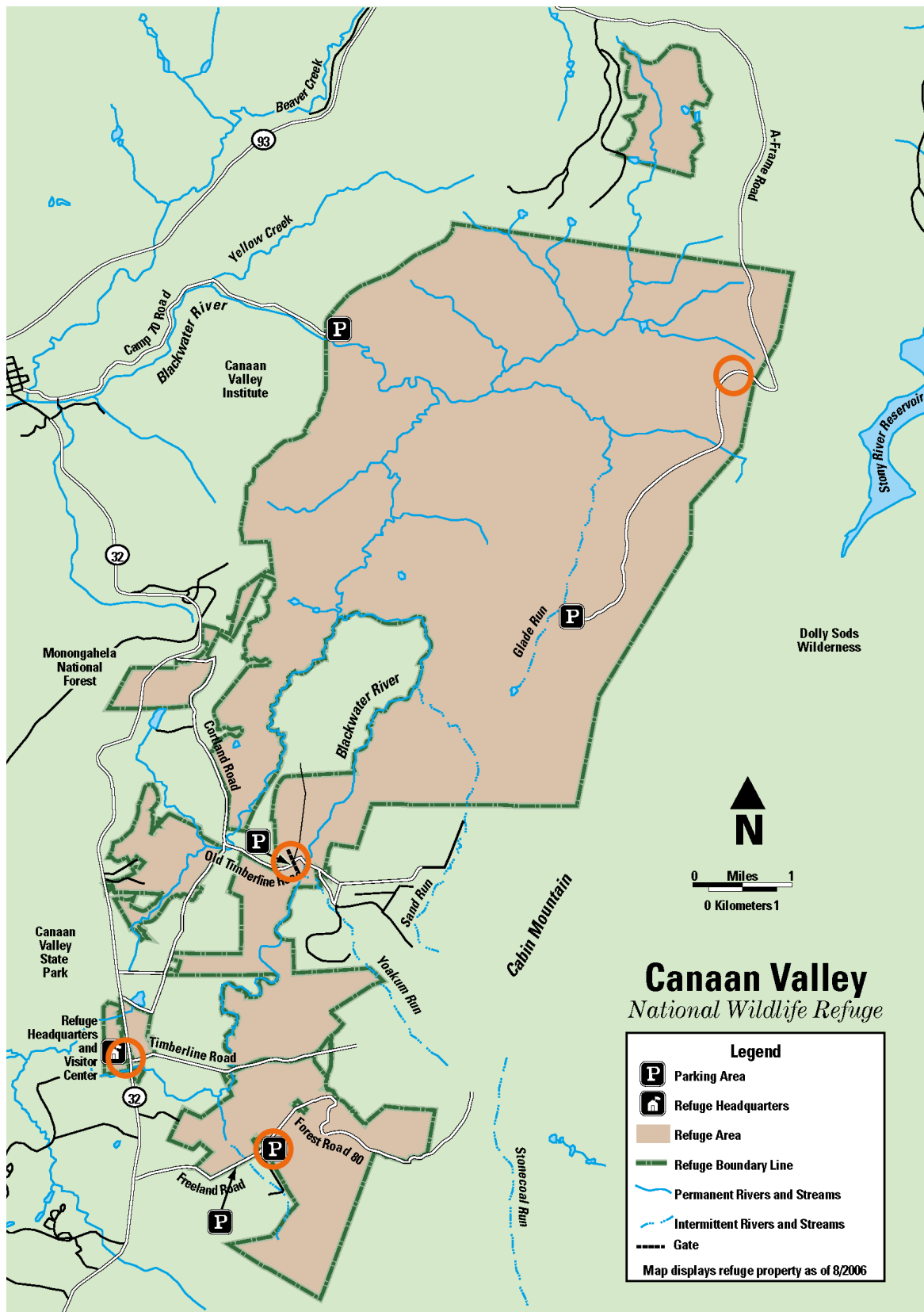


Fig. 2: Map of Canaan Valley National Wildlife Refuge. Visitors were contacted at the circled locations from 7/12/2018–7/22/2018 and 12/27/2018–1/6/2019.

# 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

- 44% of visitors were female with an average age of 54 years (Fig. 3).
- 56% were male with an average age of 56 years.

## EDUCATION

- 6% of visitors had a high school degree or less.
- 36% had at least some college.
- 58% had an advanced degree.

## RACE & ETHNICITY

Most prevalent race or ethnicity (Fig. 4):

- White (96%).
- Some other race (2%).

## INCOME

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

## OTHER TRIP CHARACTERISTICS

- Average group size of 4 people.
- 13% visited the refuge alone.
- 54% visited with at least one other adult.
- 33% visited with a combination of at least 1 adult and 1 child.

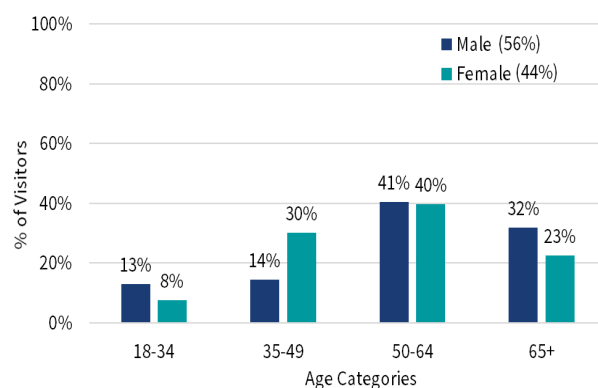


Fig. 3: Distribution of visitors to this refuge by gender and age group.

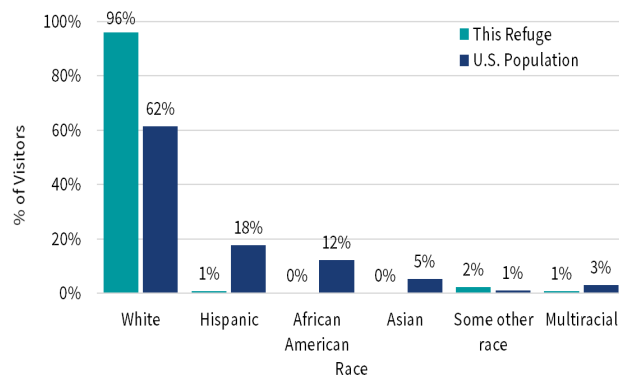


Fig. 4: Race and ethnicity of visitors to this refuge compared to the national average.

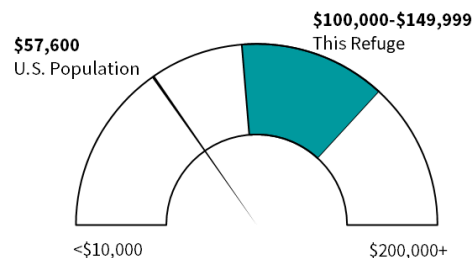


Fig. 5: Mean income range of visitors to this refuge compared to the national median income.

# 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

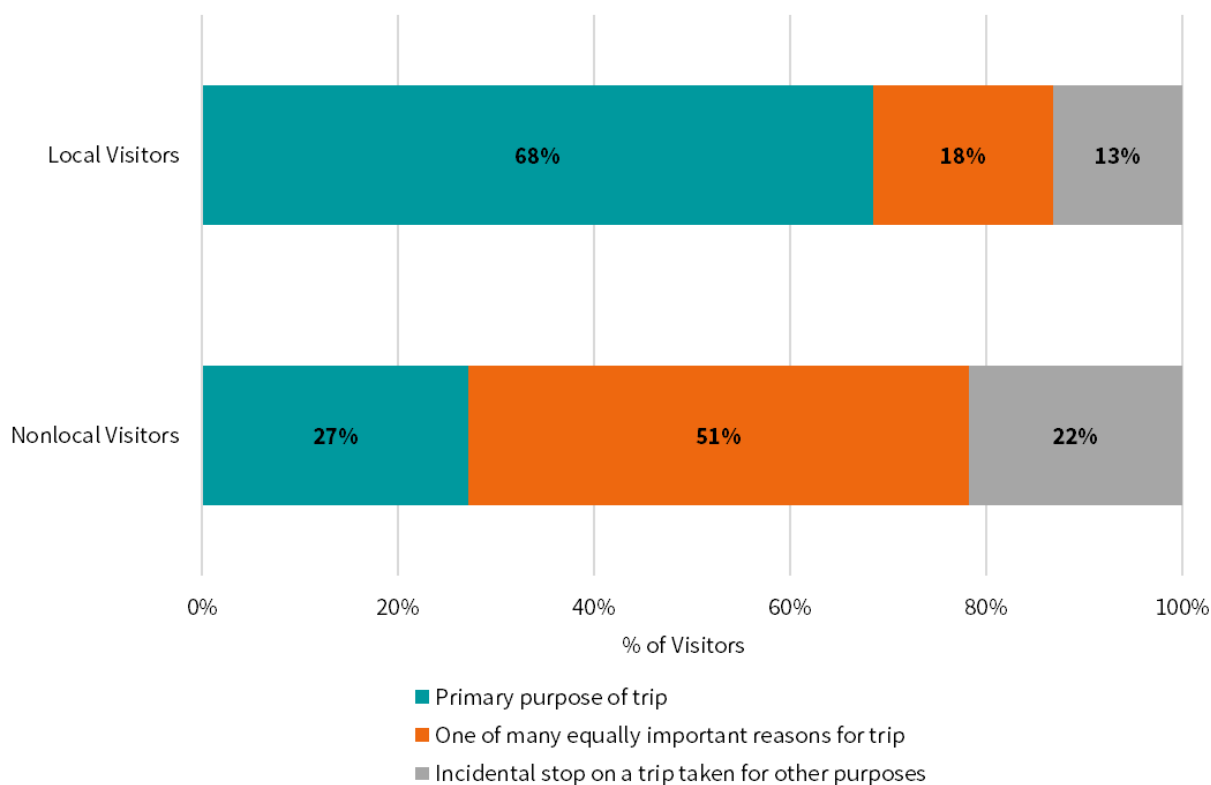
Highlights of trip characteristics for local visitors to this wildlife refuge (30%) include:

- For locals, this refuge was the primary reason for their trip (68%) (Fig. 6).
- Local visitors traveled an average of 20 minutes to arrive at this refuge (Fig. 7).

## NONLOCAL VISITORS

Highlights of trip characteristics for nonlocal visitors to this wildlife refuge (70%) include:

- For nonlocals, this refuge was one of many equally important reasons for their trip (51%) (Fig. 6).
- Nonlocal visitors traveled an average of 5 hours to arrive at this refuge (Fig. 8).
- Of the 99% of visitors who lived in the U.S., nonlocal visitors were most often from West Virginia (44%) and Virginia (23%).
- 2% 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.*

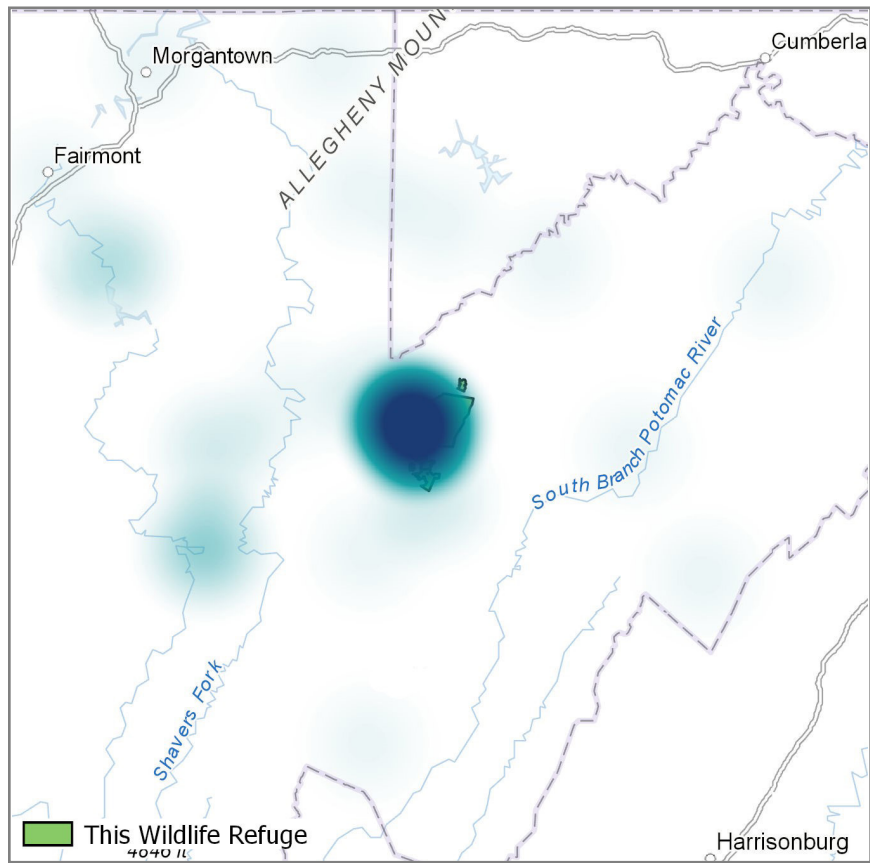


Fig. 7: Map showing residence of local visitors to this refuge. Darker shading represents relatively higher visitation from that area.

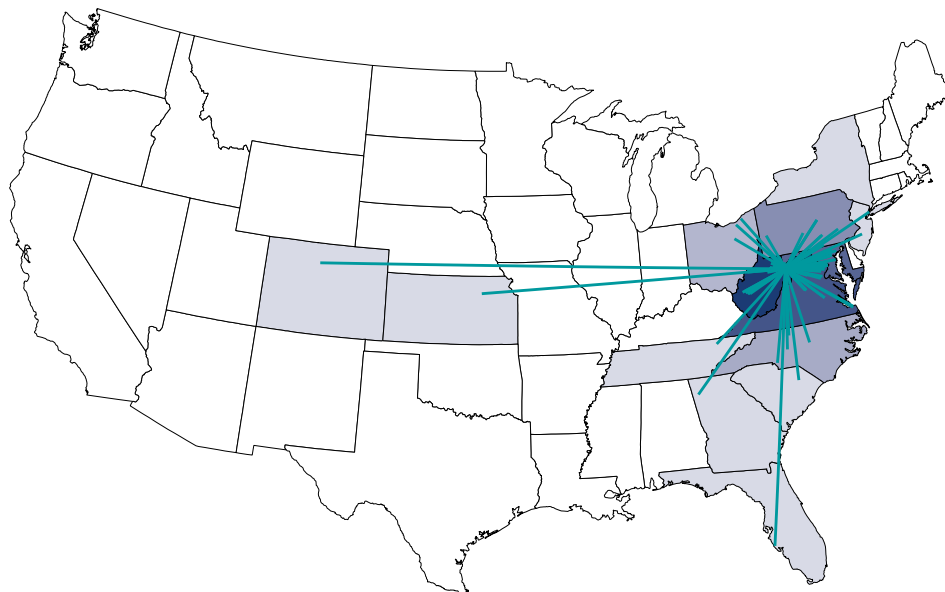


Fig. 8: Map showing residence of visitors to this refuge by zip code, with each line representing visitation from a different zip code. The convergence point of the lines is the geographical center of the refuge. Darker shading of the states represents higher visitation from that state.

## OTHER TRIP CHARACTERISTICS

Other trip characteristics include:

- To get to this wildlife refuge, visitors primarily traveled by private vehicle without a trailer (89%) and by foot (19%) (Fig. 9).
- Once on the refuge, visitors primarily traveled by foot (61%) and by private vehicle without a trailer (42%) (Fig. 9).
- Visits occurred during winter (66%), spring (49%), summer (70%), and fall (50%).
- 79% of visitors made a single-day trip to this refuge, spending an average of 3 hours, while 21% 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:

- 67% were repeat visitors to this wildlife refuge, visiting an average of 19 times.
- 65% visited other national wildlife refuges, averaging 3 visits.
- 84% visited other public lands, averaging 15 visits.

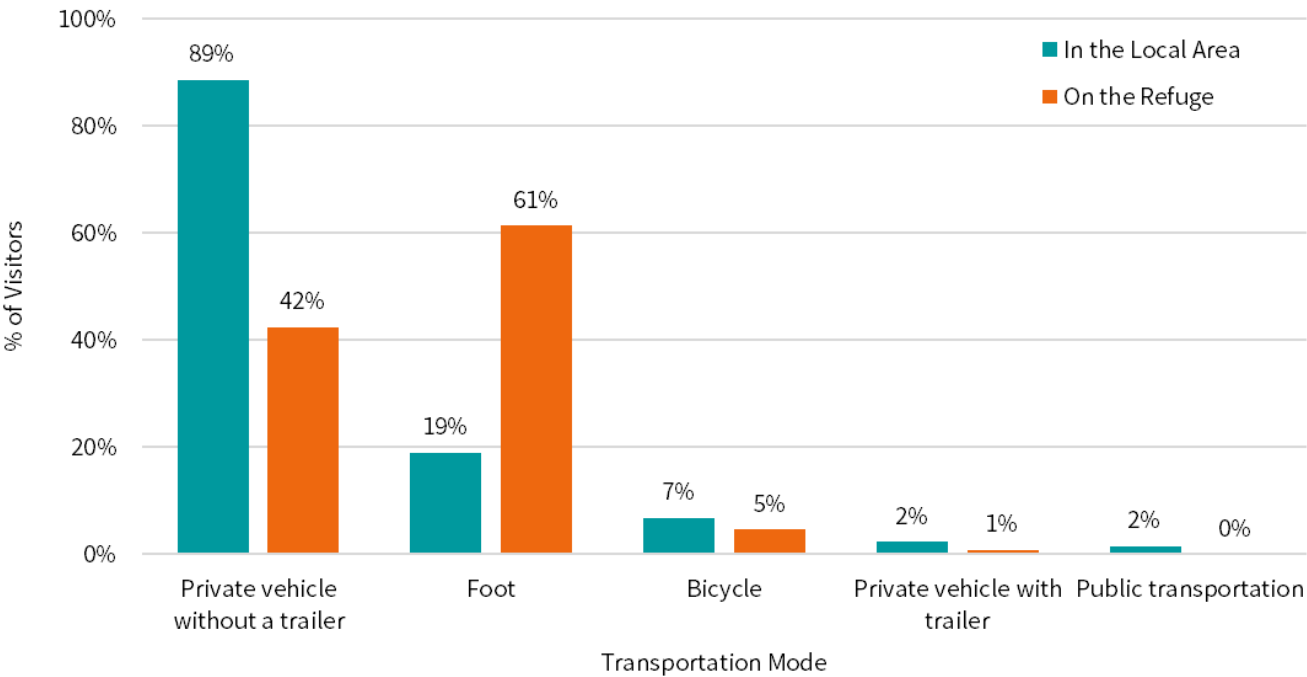


Fig. 9: Modes of transportation used by visitors to get from the local area to this refuge and within the boundaries of this refuge.

## 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 people in the local community and word of mouth.
- 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 refuge printed information and kiosks/displays/exhibits at this refuge.
- Use of information sources varied by age groups (see Figs. 10-12 for details).

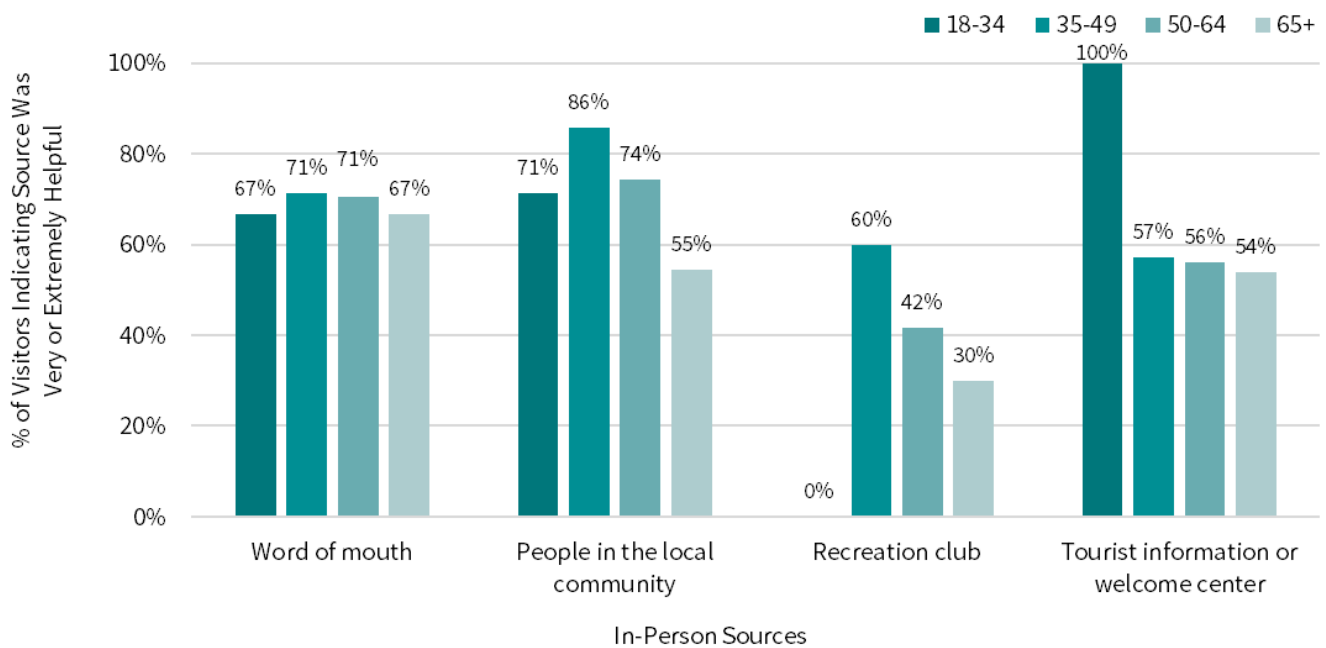


Fig. 10: Percent of visitors by age group who found in-person information sources very or extremely helpful in planning their trip.

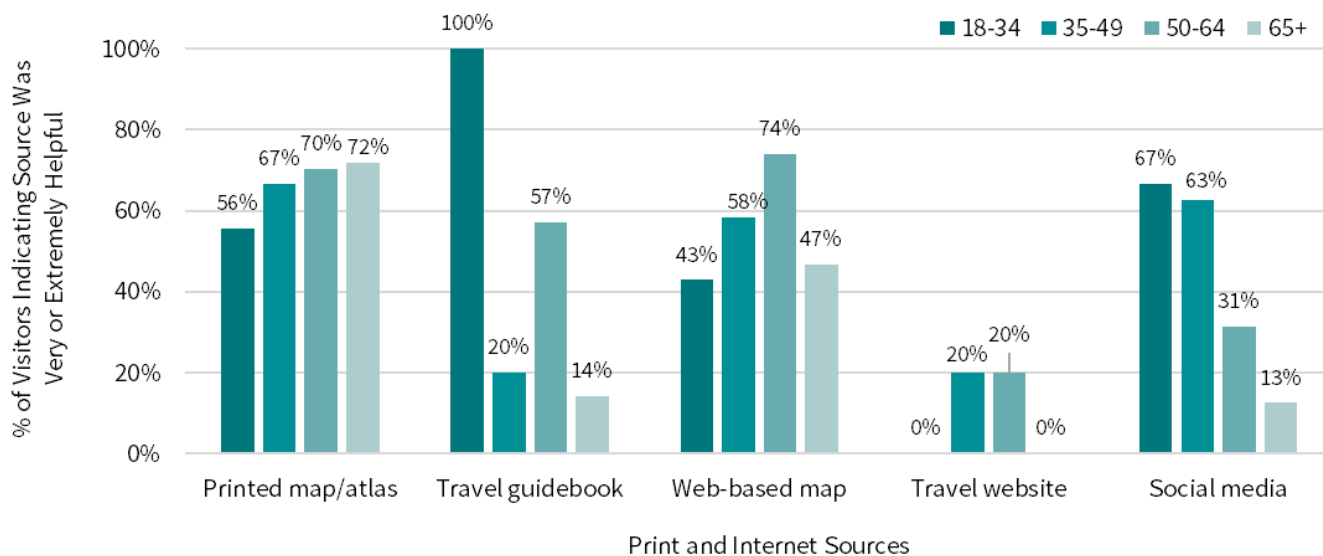


Fig. 11: Percent of visitors by age group who found print and internet information sources very or extremely helpful in planning their trip.

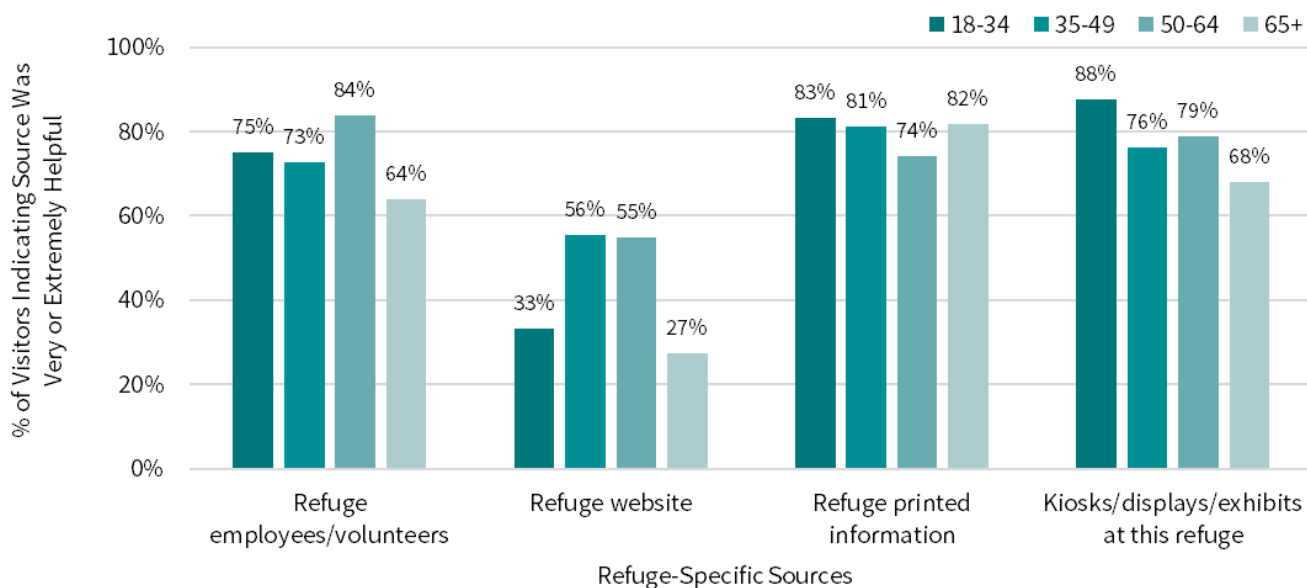


Fig. 12: Percent of visitors by age group who found refuge-specific information sources very or extremely helpful in planning their trip.

## 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 54% 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 (50%) and Instagram (50%).
- Visitors 35-49 years old preferred to use Facebook (50%) and Instagram (29%).
- Visitors 50-64 years old preferred to use Facebook (55%) and Instagram (7%).
- Visitors 65 or older preferred to use Facebook (25%) and Instagram (6%).

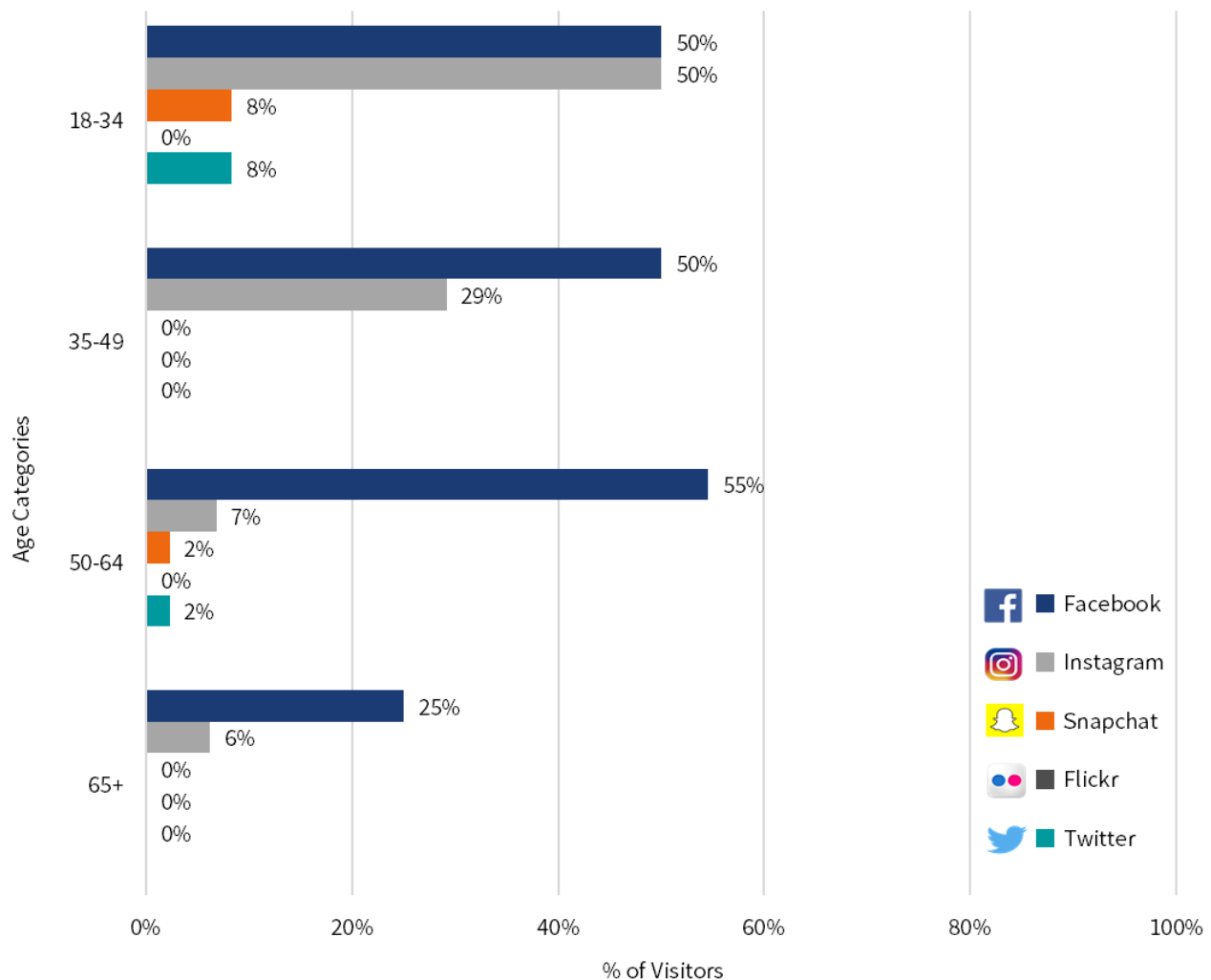


Fig. 13: Percent of visitors by age group who used various social media platforms to share their experience on this refuge with others.

## 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 (89%), wildlife observation (66%), and bird watching (39%) (Fig. 14).
- The top three activities noted as their primary activity on the day visitors were contacted to participate in the survey were hiking (41%), cross country skiing (10%), and bird watching (9%) (Fig. 14).
- Approximately 31% of visitors went to the visitor center, and they most often asked for information (66%), viewed the exhibits (59%), and visited the gift shop or bookstore (56%) (Fig. 15).



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

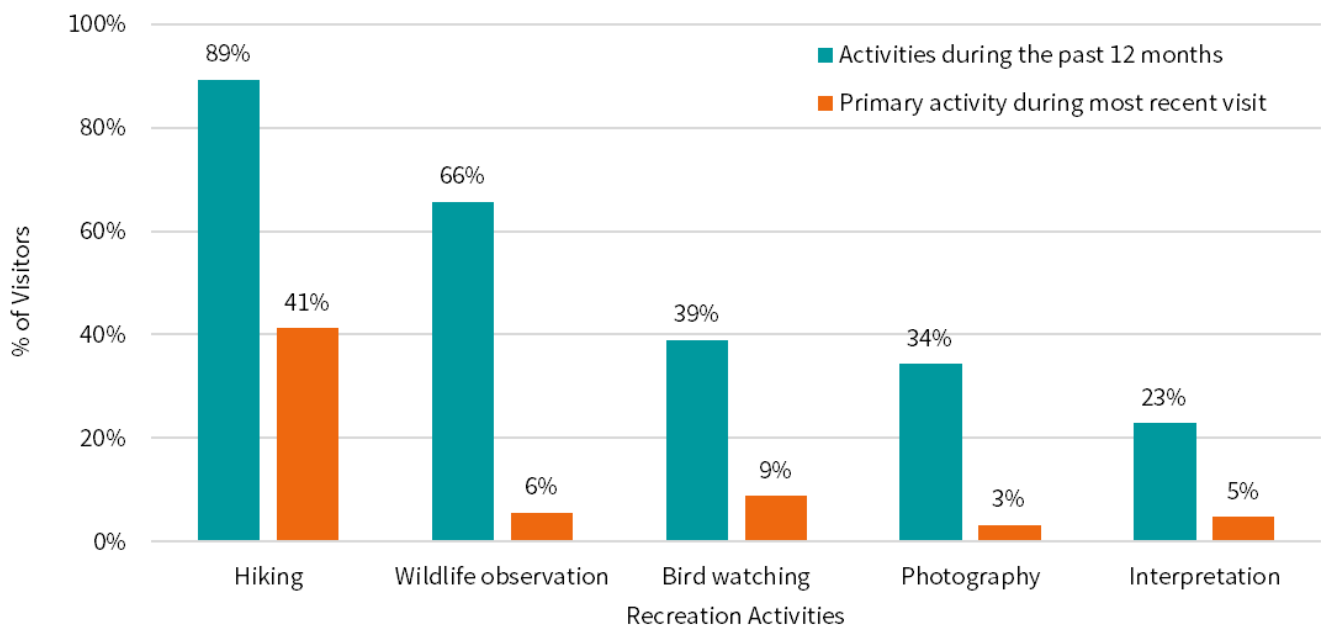


Fig. 14: Recreational activities visitors participated in during the past 12 months and their primary activity during their most recent visit to this refuge.

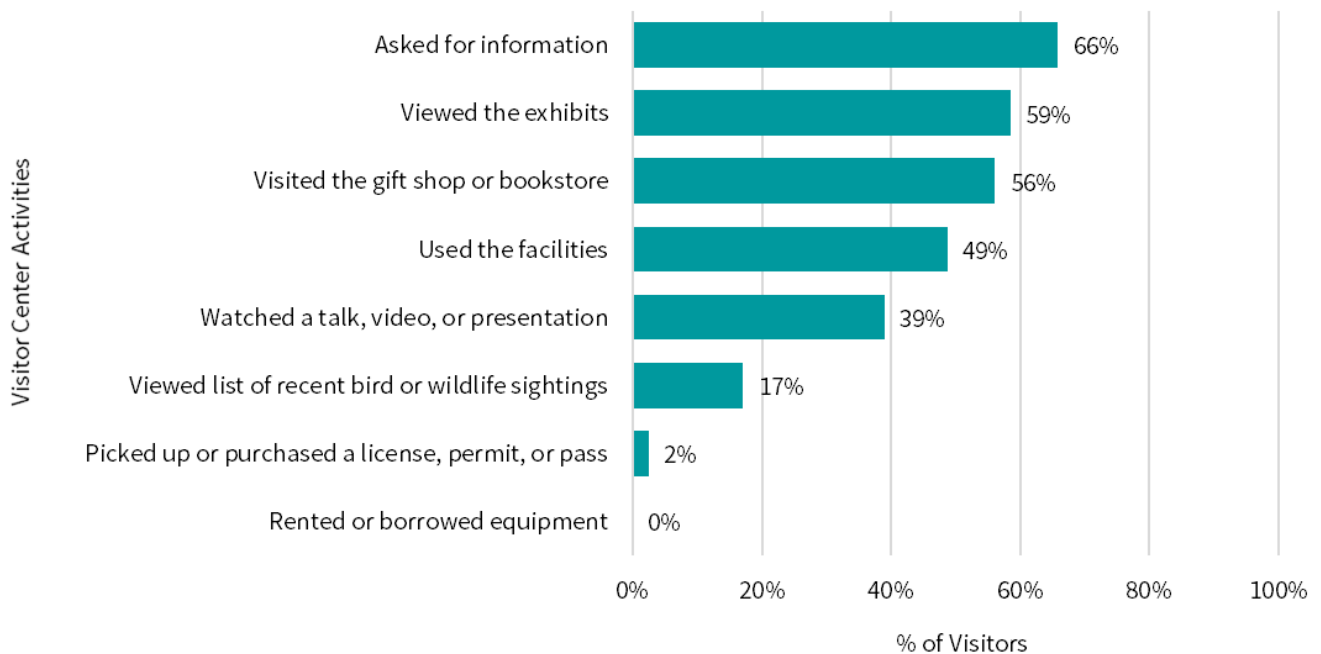


Fig. 15: Reasons visitors used the visitor center during their most recent visit to this refuge.

## 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:

- 88% of visitors felt welcome during their refuge visit (Fig. 16).
- 98% of visitors felt safe during their refuge visit (Fig. 16).
- 98% of visitors felt comfortable in nature, but 5% did not like being in nature alone (Fig. 17).

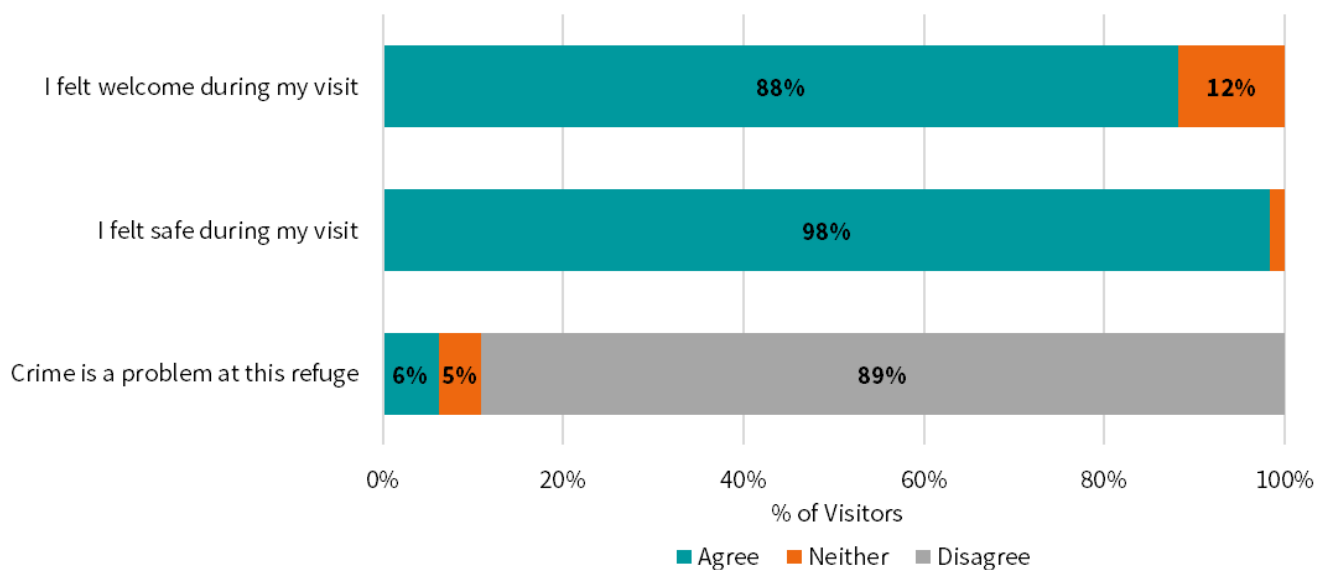


Fig. 16: Visitors' perceptions of safety and feeling welcome at this refuge during their visit.

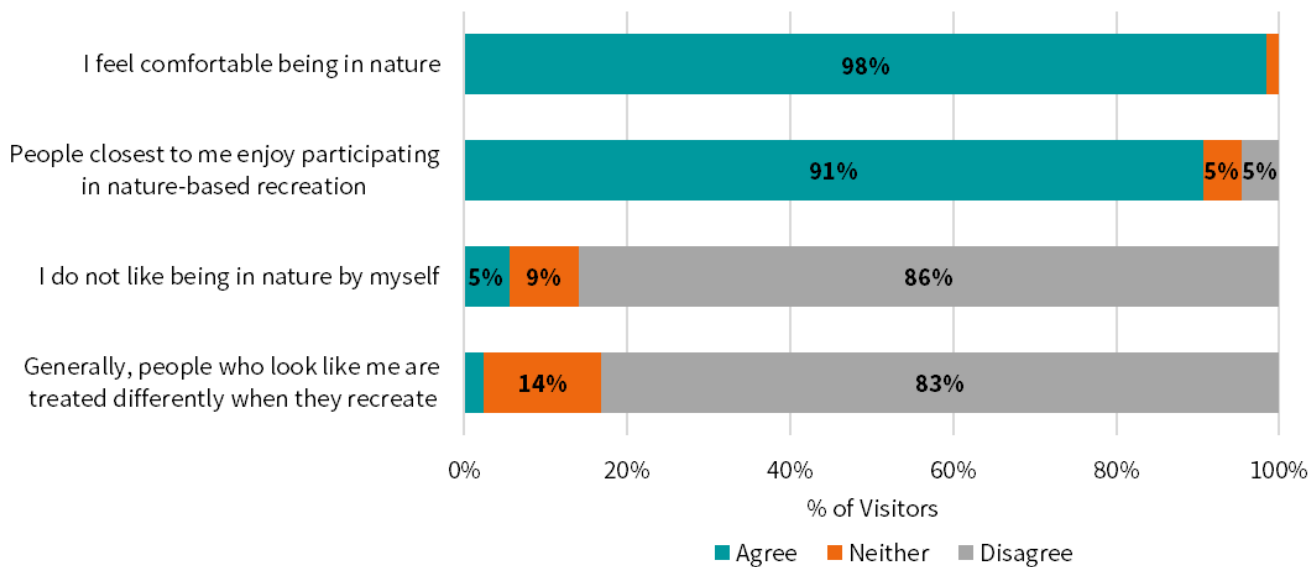


Fig. 17: Visitors' comfort with being in nature.



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:

- 93% of visitors were very or extremely satisfied with the overall experience at this wildlife refuge (Fig. 18).
- 88% of visitors were very or extremely satisfied with this wildlife refuge's job of conserving fish, wildlife, and their habitats (Fig. 18).

## 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. 19):

- courteous and welcoming employees/volunteers (93%),
- refuge hours/days of operation (89%), and
- restrooms (88%).

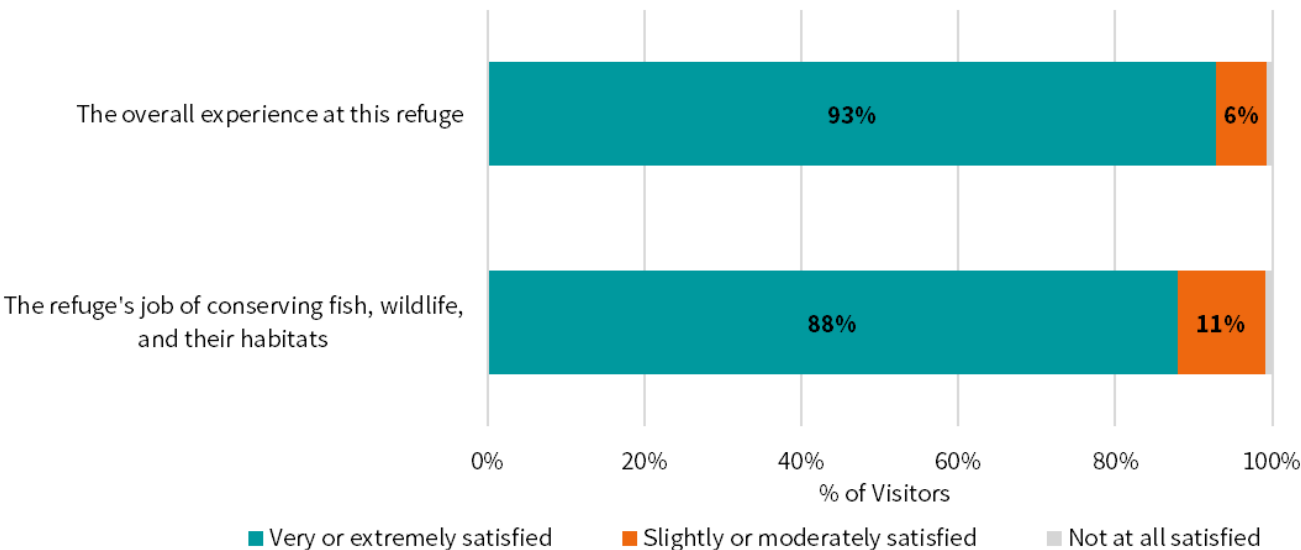


Fig. 18: Visitors' satisfaction with their experience at this refuge and with this refuge's job of conserving fish, wildlife, and habitats.

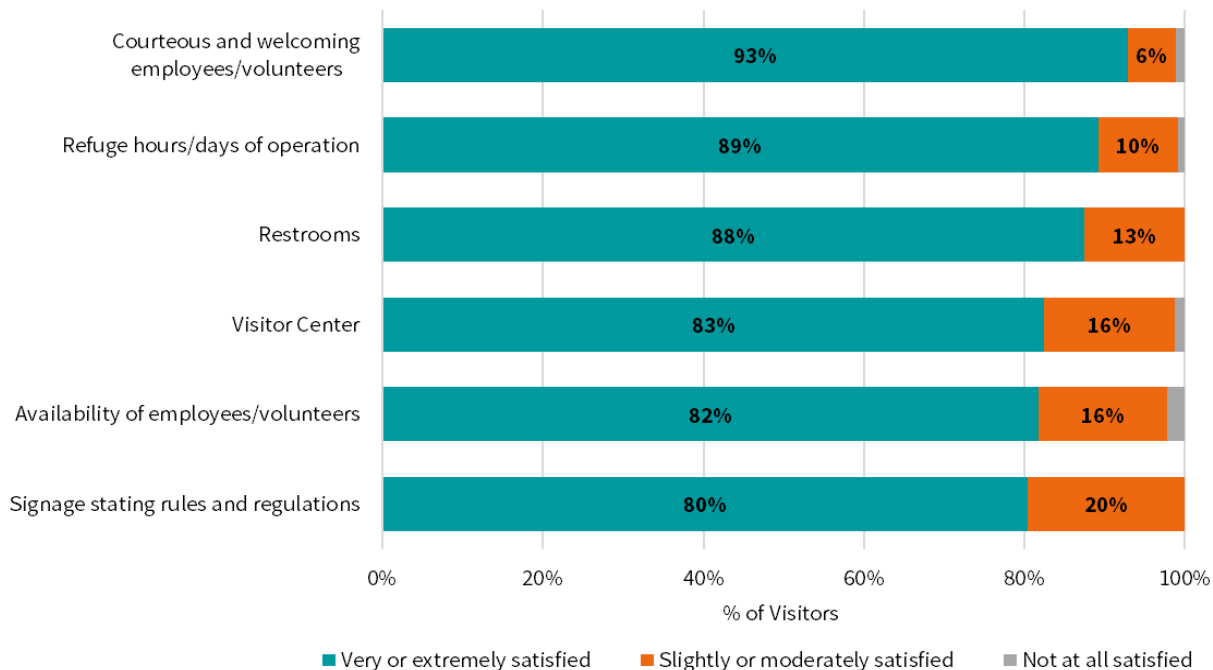


Fig. 19: Visitors' satisfaction with customer service and amenities at this refuge.

## RECREATIONAL OPPORTUNITIES

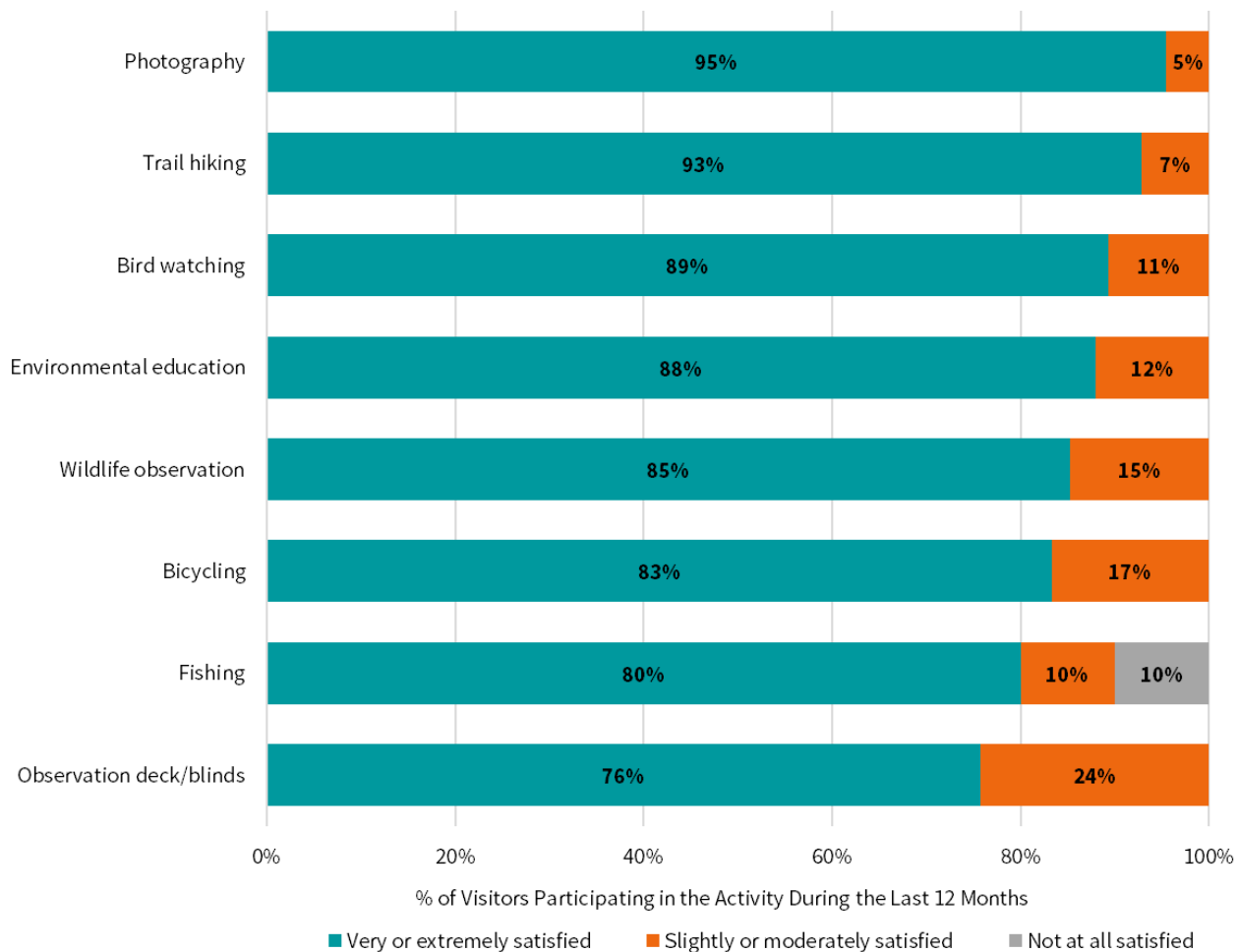
Outdoor recreation on wildlife refuges is a fundamental part of a visit. As American's values toward wildlife and their relationship with nature continue to shift (Kellert et al., 2017; Manfredo et al., 2018), public desires for recreational experiences on public lands are also likely to shift. In addition, 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. 20):

- photography (95%),
- trail hiking (93%),
- bird watching (89%), and
- environmental education (88%).

*"This wildlife refuge has [an] amazing diversity of species, and beautiful landscapes! It's a wonderful recreation spot near our home!" – Visitor to Canaan Valley National Wildlife Refuge*



*Fig. 20: 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. 21):

- Getting to this wildlife refuge, visitors were most satisfied with the safety of refuge road entrances and exits (91%).
- Getting around this wildlife refuge, visitors were most satisfied with safety of driving conditions on refuge roads (89%), condition of parking areas (89%), condition of refuge roads (87%), and condition of bridges on roadways (87%).
- Accessing recreation on this wildlife refuge, visitors were most satisfied with safety of roads or trails for nonmotorized use (88%), condition of trails and boardwalks (86%), and condition of boat launches (77%).

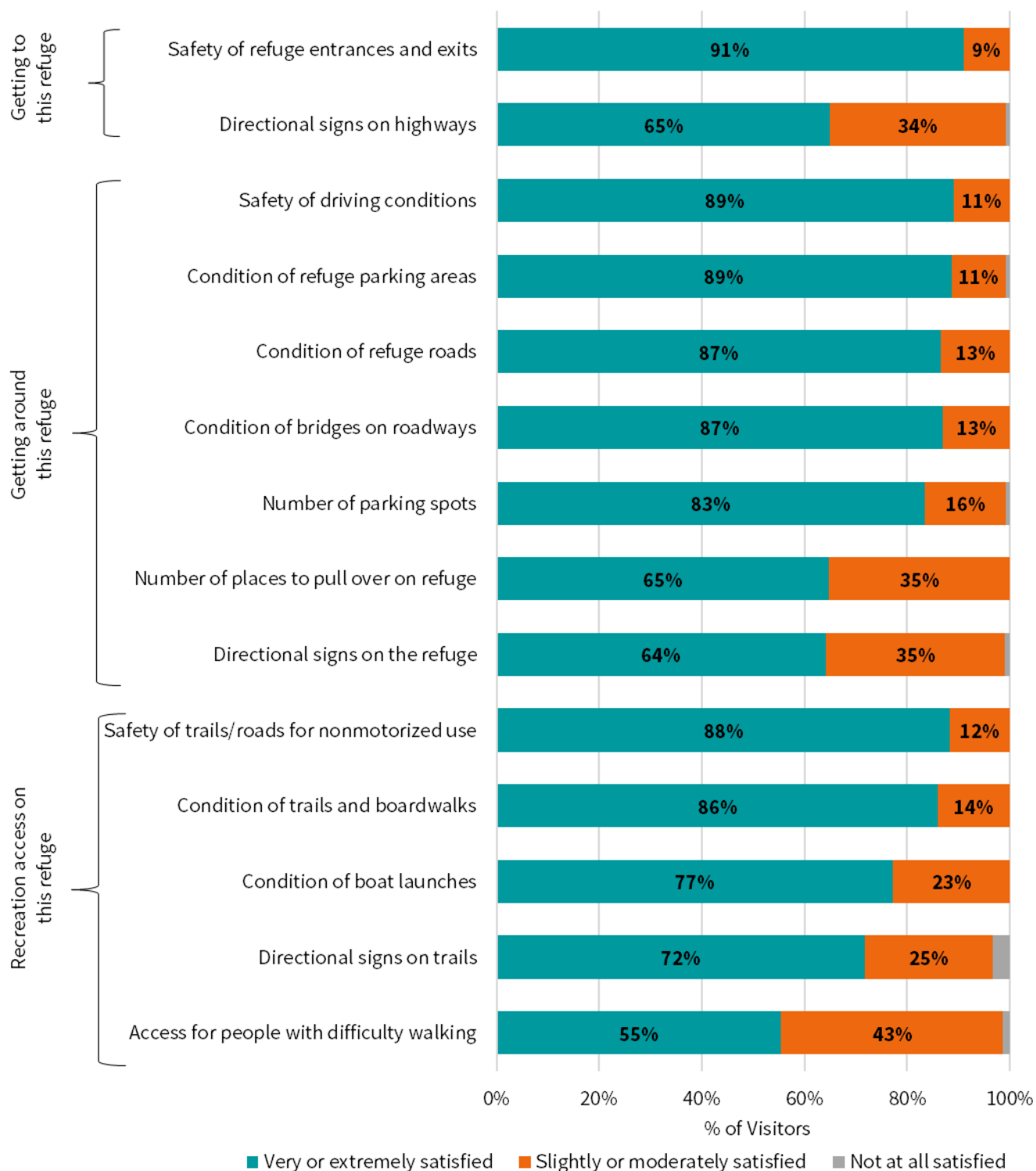


Fig. 21: Visitors' satisfaction with how the refuge is managing transportation-related features.

## 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; 30%) are as follows:

- On average, local visitors accounted for 5% of expenditures.
- Top trip expenditures by locals were for food/drink (Fig. 22).
- The average amount paid by locals to visit this wildlife refuge was \$67 per person per day (Fig. 22).
- Local visitors were personally willing to pay an additional \$116 per day on average to visit this wildlife refuge (Fig. 23).

Results for nonlocal visitors (those living  $>50$  miles from this wildlife refuge; 70%) are as follows:

- On average, nonlocals accounted for 95% of expenditures.
- Top trip expenditures by nonlocals were for lodging and food/drink (Fig. 22).
- The average amount paid by nonlocals to visit this wildlife refuge was \$87 per person per day (Fig. 22).
- Nonlocal visitors were personally willing to pay an additional \$174 per day on average to visit this wildlife refuge (Fig. 23).
- Nonlocal visitors spent an average of 3 days in the local community during this visit.



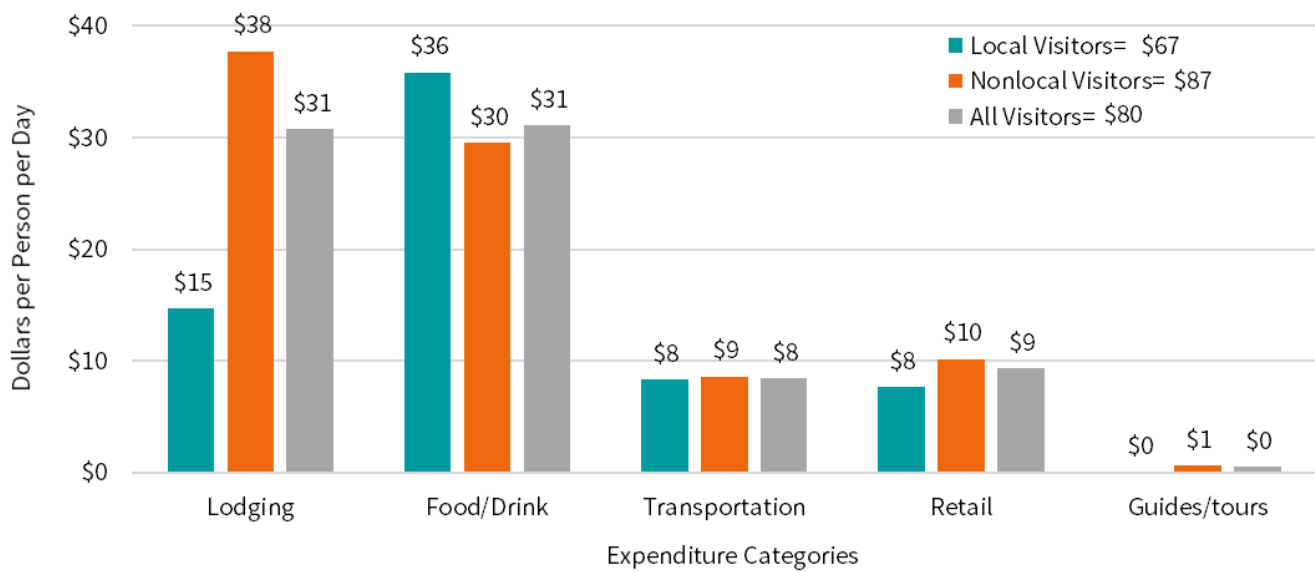


Fig. 22: Individual daily expenditures in the local community for local, nonlocal, and all visitors. Expenditures were reported by respondents on a per group basis; the total expenditures were divided by the number of people in the group who shared trip expenditures and the number of days spent in the local community. The number of people sharing trip expenditures was often smaller than the total group size.

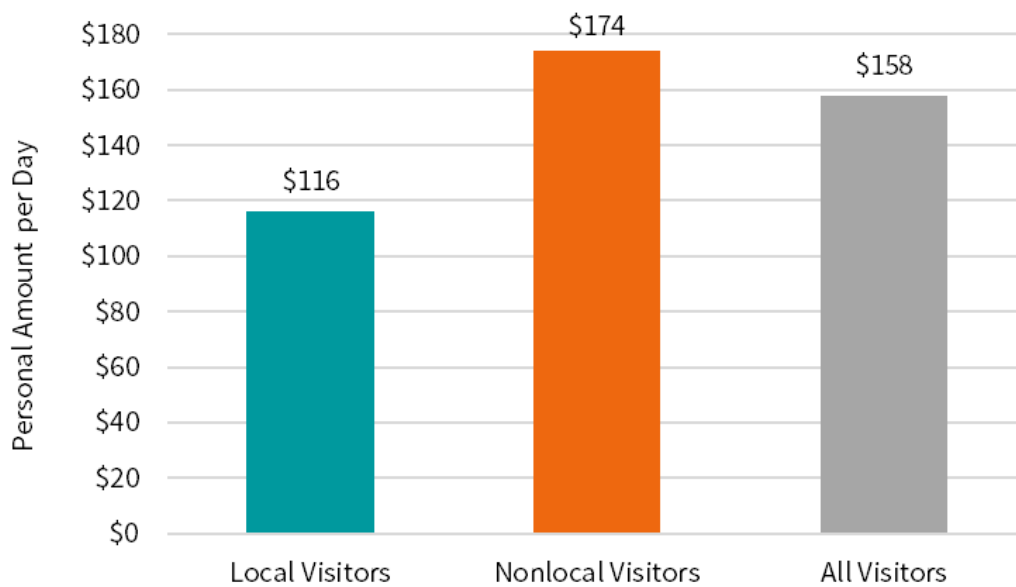


Fig. 23: Total personal willingness to pay per day above and beyond most recent trip expenses if costs were to increase for local, nonlocal, and all visitors. Due to the fixed-response question format, estimates of willingness to pay may underestimate the amount visitors would actually pay. Responses 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 skill-building (63%), highlighting unique local culture (53%), and engaging youth (44%) (Fig. 24).
- The top two factors likely to increase visitors' future participation in their primary recreation activity were more infrastructure (29%) and recreation equipment available for rent (19%) (Fig. 25).
- The top two factors likely to decrease visitors' future participation in their primary recreation activity were less regulations on hunting (37%) and more people participating in their primary activity (27%) (Fig. 25).

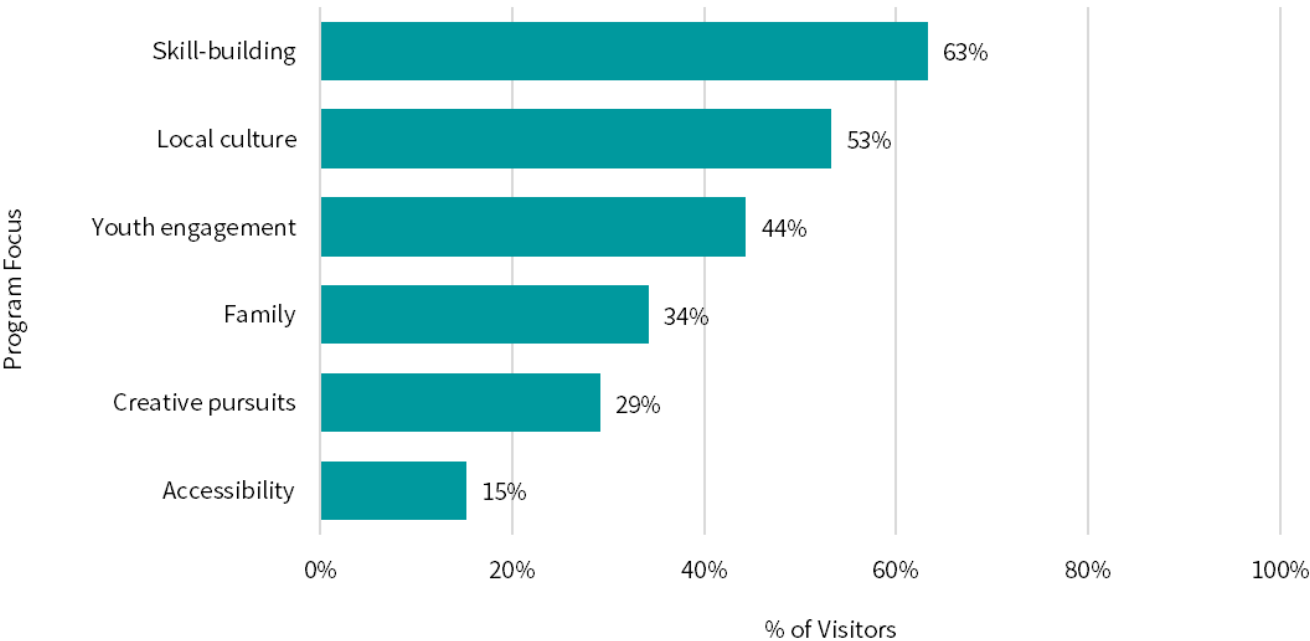


Fig. 24: Types of programs that would encourage visitors to return to this refuge.

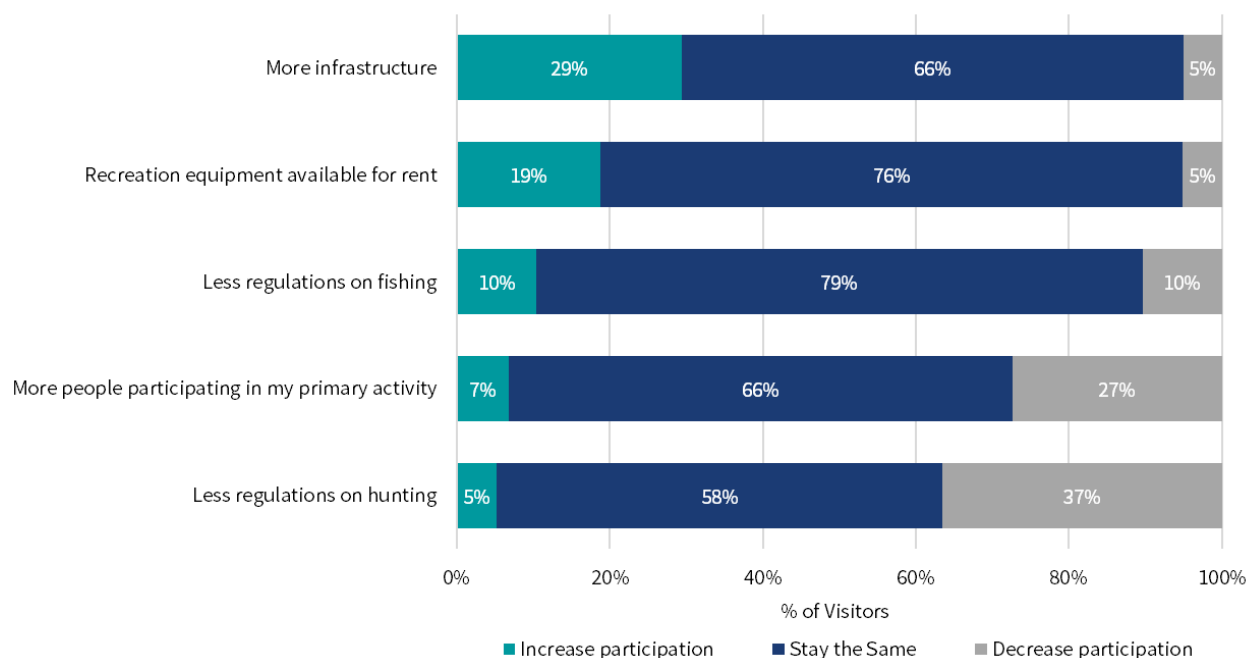


Fig. 25: Changes in visitors’ participation in their primary activity if the listed recreation factors were to change.

## 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:

- pedestrian paths (43%), a bike-share program (19%), and bus or tram that provides a guided tour (8%) (Fig. 26).

## 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. 27):

- The top two resource changes likely to increase visitors’ future participation in their primary recreation activity were a greater diversity of species (58%) and an improvement in the quality of wildlife habitat other than wetlands (52%).
- The top two resource changes likely to decrease visitors’ future participation in their primary recreation activity were less water available for recreation (34%) and more acreage open to hunting and fishing (29%).

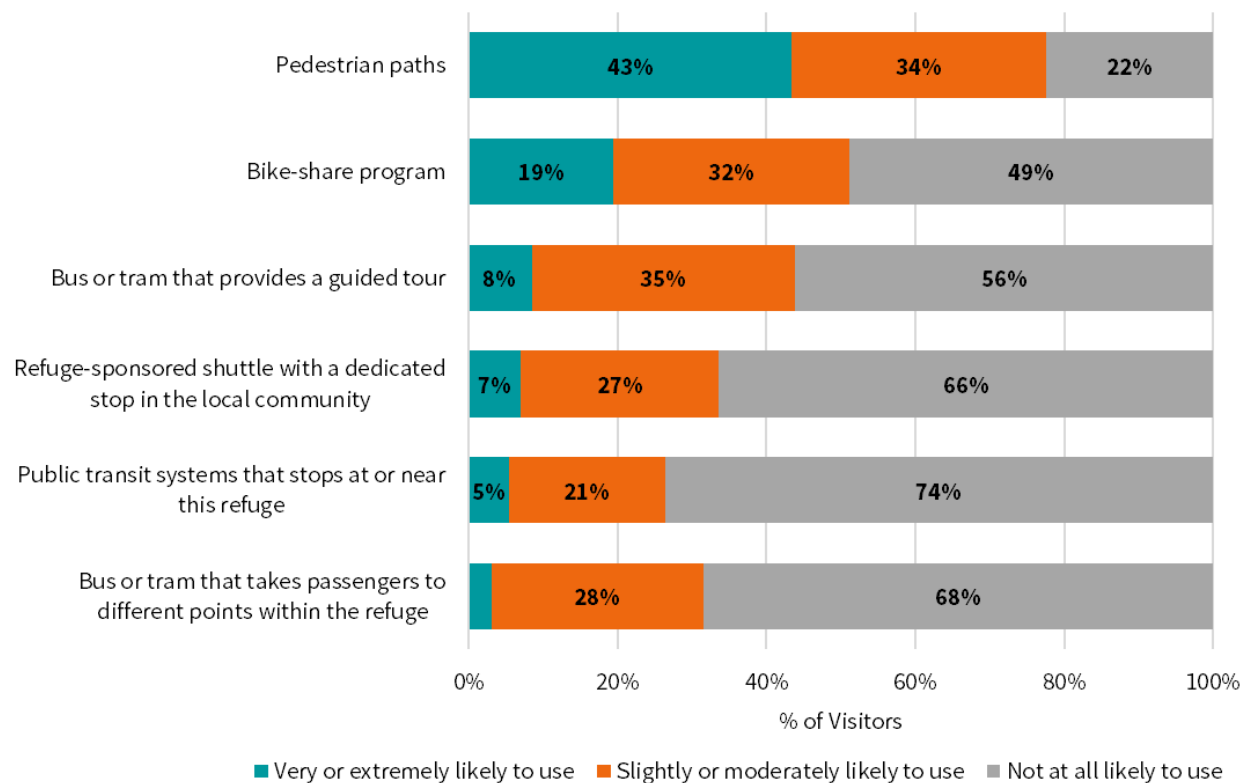


Fig. 26: Visitors' likelihood of using alternative transportation options if offered at this refuge.

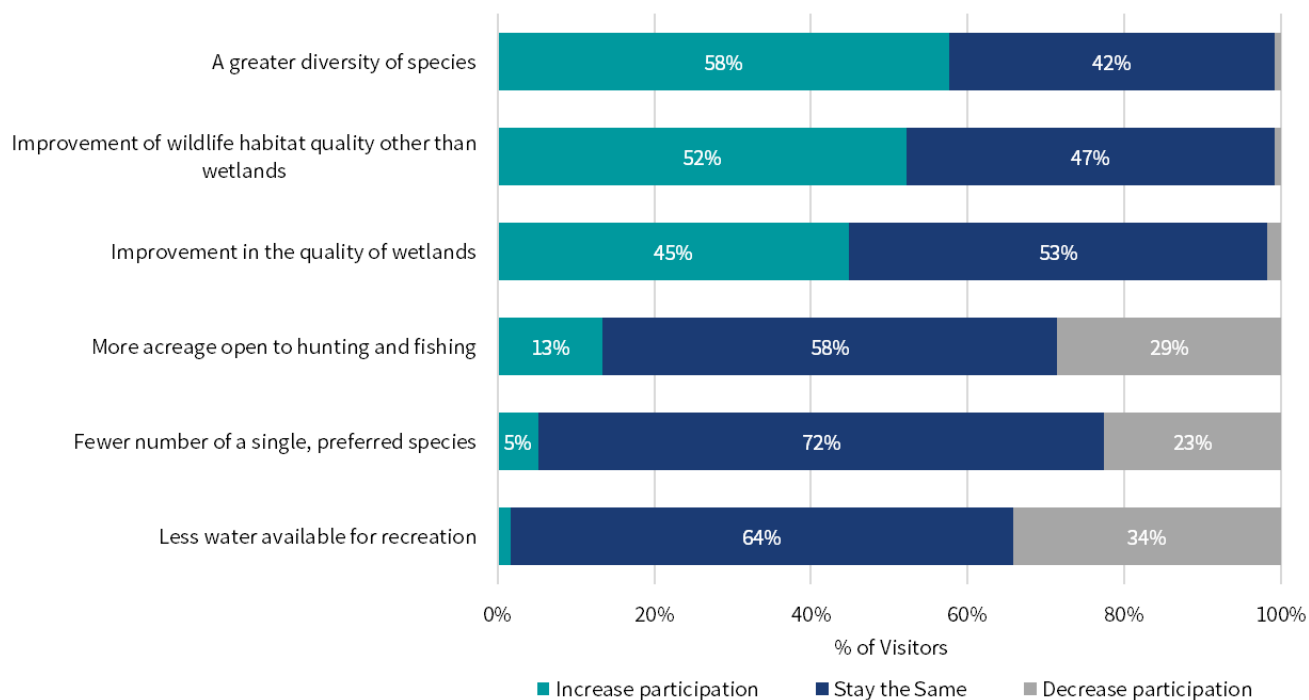


Fig. 27: Changes in visitors' participation in their primary activity if the listed resources were to change.

## Conclusion

These individual refuge results provide a summary of trip characteristics and experiences of a sample of visitors to Canaan Valley 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"/> 66% Wildlife observation            | <input type="checkbox"/> 89% Hiking/Walking                           | <input type="checkbox"/> 12% Volunteering                                                     |
| <input type="checkbox"/> 39% Bird watching                   | <input type="checkbox"/> 18% Jogging/Running/Exercising               | <input type="checkbox"/> 16% Environmental education program (classroom visits, labs)         |
| <input type="checkbox"/> 34% Photography                     | <input type="checkbox"/> 15% Bicycling                                |                                                                                               |
| <input type="checkbox"/> 5% Big game hunting                 | <input type="checkbox"/> 10% Auto tour route/Driving                  | <input type="checkbox"/> 23% Interpretative program (bird walks, staff/volunteer-led talks)   |
| <input type="checkbox"/> 3% Upland/Small game hunting        | <input type="checkbox"/> 0% Motorized boating                         |                                                                                               |
| <input type="checkbox"/> 2% Waterfowl/Migratory bird hunting | <input type="checkbox"/> 5% Nonmotorized boating (canoeing, kayaking) | <input type="checkbox"/> 11% Refuge special event ( <i>specify</i> )<br><u>See Appendix C</u> |
| <input type="checkbox"/> 8% Freshwater fishing               | <input type="checkbox"/> 18% Foraging (berries, nuts, other)          | <input type="checkbox"/> 18% Other ( <i>specify</i> )<br><u>See Appendix C</u>                |
| <input type="checkbox"/> 1% Saltwater fishing                | <input type="checkbox"/> 8% 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.)

☐ 39% It was the primary purpose or sole destination of my trip.

☐ 42% It was one of many equally important reasons or destinations for my trip.

☐ 19% 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.)

3 number of people 18 years and older      1 number of people under 18 years

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

☐ 69% No / Not Applicable

☐ 31% Yes → If yes, what did you do there? (*Mark all that apply.*)

☐ 66% Asked information of employees/volunteers

☐ 17% Looked at list of recent bird/wildlife sightings

☐ 39% Attended a talk/video/presentation

☐ 49% Stopped to use the facilities (for example, got water, used restroom)

☐ 59% Viewed the exhibits

☐ 2% Picked up/purchased a license, permit, or pass

☐ 0% Rented/borrowed equipment (for example, binoculars, fishing rod, snowshoes)

☐ 56% Visited the gift shop or bookstore

☐ 20% Other (*specify*) See Appendix C

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)?

☐ 30% Yes

☐ 70% 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: 5 hour(s)

If you spent one day or more in the local area, enter the number of days: 3 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: 4 hours

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

☐ 49% Spring  
(March-May)

☐ 70% Summer  
(June-August)

☐ 50% Fall  
(September-November)

☐ 66% Winter  
(December-February)

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

...this refuge (including this visit?) 13 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? 15 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"/> 43% | Facebook  | <input type="checkbox"/> 3% | Snapchat | <input type="checkbox"/> 1%  | Personal blog (for example, Tumblr, Wordpress)     |
| <input type="checkbox"/> 0%  | Flickr    | <input type="checkbox"/> 2% | Twitter  | <input type="checkbox"/> 4%  | Travel-related website (for example, Trip Advisor) |
| <input type="checkbox"/> 16% | Instagram | <input type="checkbox"/> 0% | Vimeo    | <input type="checkbox"/> 4%  | Other ( <i>specify</i> ) <u>See Appendix C</u>     |
| <input type="checkbox"/> 1%  | Pinterest | <input type="checkbox"/> 3% | YouTube  | <input type="checkbox"/> 43% | 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"/> 1%                              | <input type="checkbox"/> 4%  | <input type="checkbox"/> 8%  | <input type="checkbox"/> 24% | <input type="checkbox"/> 64% | <input type="checkbox"/> 19% |
| Word of mouth (for example, a friend or relative)      | <input type="checkbox"/> 5%                              | <input type="checkbox"/> 6%  | <input type="checkbox"/> 18% | <input type="checkbox"/> 40% | <input type="checkbox"/> 31% | <input type="checkbox"/> 39% |
| People in the local community near the refuge          | <input type="checkbox"/> 4%                              | <input type="checkbox"/> 12% | <input type="checkbox"/> 12% | <input type="checkbox"/> 43% | <input type="checkbox"/> 29% | <input type="checkbox"/> 36% |
| Refuge employees or volunteers                         | <input type="checkbox"/> 6%                              | <input type="checkbox"/> 6%  | <input type="checkbox"/> 14% | <input type="checkbox"/> 30% | <input type="checkbox"/> 44% | <input type="checkbox"/> 38% |
| Printed map or atlas                                   | <input type="checkbox"/> 2%                              | <input type="checkbox"/> 5%  | <input type="checkbox"/> 25% | <input type="checkbox"/> 34% | <input type="checkbox"/> 33% | <input type="checkbox"/> 28% |
| Web-based map (for example, Google Maps, Waze)         | <input type="checkbox"/> 11%                             | <input type="checkbox"/> 13% | <input type="checkbox"/> 18% | <input type="checkbox"/> 30% | <input type="checkbox"/> 28% | <input type="checkbox"/> 52% |
| Refuge website                                         | <input type="checkbox"/> 17%                             | <input type="checkbox"/> 9%  | <input type="checkbox"/> 28% | <input type="checkbox"/> 30% | <input type="checkbox"/> 15% | <input type="checkbox"/> 63% |
| Travel website (for example, TripAdvisor)              | <input type="checkbox"/> 46%                             | <input type="checkbox"/> 21% | <input type="checkbox"/> 21% | <input type="checkbox"/> 4%  | <input type="checkbox"/> 8%  | <input type="checkbox"/> 81% |
| Other website ( <i>specify</i> ) <u>See Appendix C</u> | <input type="checkbox"/> 22%                             | <input type="checkbox"/> 0%  | <input type="checkbox"/> 33% | <input type="checkbox"/> 0%  | <input type="checkbox"/> 44% | <input type="checkbox"/> 91% |
| Social media (for example, Facebook, Instagram)        | <input type="checkbox"/> 22%                             | <input type="checkbox"/> 8%  | <input type="checkbox"/> 33% | <input type="checkbox"/> 28% | <input type="checkbox"/> 8%  | <input type="checkbox"/> 71% |
| Recreation club or organization                        | <input type="checkbox"/> 37%                             | <input type="checkbox"/> 4%  | <input type="checkbox"/> 19% | <input type="checkbox"/> 19% | <input type="checkbox"/> 22% | <input type="checkbox"/> 78% |
| Refuge printed information (for example, brochure)     | <input type="checkbox"/> 2%                              | <input type="checkbox"/> 4%  | <input type="checkbox"/> 15% | <input type="checkbox"/> 48% | <input type="checkbox"/> 31% | <input type="checkbox"/> 35% |
| Kiosks/displays/exhibits at the refuge                 | <input type="checkbox"/> 8%                              | <input type="checkbox"/> 5%  | <input type="checkbox"/> 10% | <input type="checkbox"/> 41% | <input type="checkbox"/> 36% | <input type="checkbox"/> 28% |
| Travel guidebook or other book                         | <input type="checkbox"/> 33%                             | <input type="checkbox"/> 15% | <input type="checkbox"/> 11% | <input type="checkbox"/> 26% | <input type="checkbox"/> 15% | <input type="checkbox"/> 79% |
| Tourist information or welcome center                  | <input type="checkbox"/> 17%                             | <input type="checkbox"/> 11% | <input type="checkbox"/> 15% | <input type="checkbox"/> 26% | <input type="checkbox"/> 32% | <input type="checkbox"/> 63% |
| 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"/> 0%  | <input type="checkbox"/> 60% | <input type="checkbox"/> 93% |

### 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<br><i>Circle one for each item.</i> |                    |                      |                |                     | Transportation-Related Features                                                       | Satisfaction<br><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 |
| 9%                                             | 15%                | 45%                  | 23%            | 8%                  | Surface conditions of refuge roads                                                    | 0%                                               | 1%                 | 13%                  | 51%            | 35%                 | NA             |
| 16%                                            | 22%                | 39%                  | 17%            | 5%                  | Surface conditions of parking areas                                                   | 1%                                               | 1%                 | 10%                  | 50%            | 39%                 | NA             |
| 8%                                             | 10%                | 39%                  | 34%            | 9%                  | Condition of bridges on roadways                                                      | 0%                                               | 1%                 | 12%                  | 52%            | 35%                 | NA             |
| 3%                                             | 9%                 | 22%                  | 47%            | 18%                 | Condition of trails and boardwalks                                                    | 0%                                               | 1%                 | 13%                  | 48%            | 38%                 | NA             |
| 54%                                            | 11%                | 12%                  | 18%            | 5%                  | Condition of boat launches                                                            | 0%                                               | 0%                 | 23%                  | 45%            | 32%                 | NA             |
| 9%                                             | 21%                | 39%                  | 20%            | 11%                 | Number of places for parking                                                          | 1%                                               | 0%                 | 16%                  | 42%            | 42%                 | NA             |
| 20%                                            | 17%                | 28%                  | 24%            | 10%                 | Number of places to pull over on refuge roads                                         | 0%                                               | 5%                 | 30%                  | 39%            | 26%                 | NA             |
| 4%                                             | 14%                | 26%                  | 35%            | 20%                 | Safety of driving conditions on refuge roads                                          | 0%                                               | 0%                 | 11%                  | 50%            | 39%                 | NA             |
| 4%                                             | 14%                | 24%                  | 38%            | 20%                 | Safety of refuge road entrances/exits                                                 | 0%                                               | 0%                 | 9%                   | 55%            | 35%                 | NA             |
| 6%                                             | 11%                | 19%                  | 34%            | 30%                 | Safety of roads/trails for nonmotorized users<br>(for example, bicyclists and hikers) | 0%                                               | 1%                 | 11%                  | 55%            | 33%                 | NA             |
| 5%                                             | 13%                | 32%                  | 27%            | 22%                 | Signs on highways directing you to this refuge                                        | 1%                                               | 7%                 | 27%                  | 37%            | 28%                 | NA             |
| 5%                                             | 11%                | 26%                  | 37%            | 21%                 | Signs directing you around refuge roads                                               | 1%                                               | 9%                 | 26%                  | 37%            | 27%                 | NA             |
| 2%                                             | 7%                 | 15%                  | 38%            | 38%                 | Signs directing you on trails                                                         | 3%                                               | 7%                 | 18%                  | 41%            | 31%                 | NA             |
| 15%                                            | 23%                | 27%                  | 20%            | 14%                 | Access for people with physical disabilities or<br>who have difficulty walking        | 1%                                               | 12%                | 31%                  | 32%            | 23%                 | 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                           | 89%                                   | 42%                                     |
| Private/rental vehicle with a trailer (for boat, camper, or other) | 2%                                    | 1%                                      |
| Recreational vehicle (RV)                                          | 1%                                    | 0%                                      |
| Refuge shuttle bus/tram                                            | 1%                                    | 0%                                      |
| Tour bus/van                                                       | 1%                                    | 0%                                      |
| Public transportation                                              | 2%                                    | 0%                                      |
| Motorcycle                                                         | 1%                                    | 0%                                      |
| Bicycle                                                            | 7%                                    | 5%                                      |
| Foot (for example, walking/hiking)                                 | 19%                                   | 61%                                     |
| Boat                                                               | 0%                                    | 2%                                      |
| Other ( <i>specify</i> ): <u>See Appendix C</u>                    | 3%                                    | 8%                                      |
| Other ( <i>specify</i> ): <u>See Appendix C</u>                    | 0%                                    | 1%                                      |

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) | 68%               | 17%             | 12%               | 3%          | 0%               |
| Bus or tram that provides a guided tour of the refuge with information about this refuge and its resources  | 56%               | 21%             | 15%               | 7%          | 2%               |
| Refuge-sponsored shuttle with a dedicated stop in the local community for picking up people at set times    | 66%               | 16%             | 11%               | 6%          | 1%               |
| Public transit system that stops at or near this refuge                                                     | 74%               | 12%             | 9%                | 4%          | 2%               |
| Bike-share program that offers bicycles for rent on or near this refuge                                     | 49%               | 10%             | 22%               | 13%         | 6%               |
| Pedestrian paths for access to this refuge from the local community                                         | 22%               | 11%             | 23%               | 22%         | 21%              |

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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<br>local area/communities<br>& at this refuge<br>(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<br>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?

3 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"/> 6% \$0  | <input type="checkbox"/> 10% \$30 | <input type="checkbox"/> 18% \$100 | <input type="checkbox"/> 4% \$250  |
| <input type="checkbox"/> 1% \$5  | <input type="checkbox"/> 6% \$45  | <input type="checkbox"/> 4% \$125  | <input type="checkbox"/> 7% \$350  |
| <input type="checkbox"/> 6% \$10 | <input type="checkbox"/> 2% \$60  | <input type="checkbox"/> 3% \$150  | <input type="checkbox"/> 10% \$500 |
| <input type="checkbox"/> 6% \$20 | <input type="checkbox"/> 2% \$75  | <input type="checkbox"/> 9% \$200  | <input type="checkbox"/> 7% \$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<br><i>Circle one for each item.</i> |                    |                      |                |                     | Refuge Services, Facilities, and Opportunities     | Satisfaction<br><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 |
| 5%                                             | 4%                 | 17%                  | 46%            | 28%                 | Convenient hours/days of operation for this refuge | 1%                                               | 1%                 | 9%                   | 58%            | 32%                 | NA             |
| 22%                                            | 18%                | 26%                  | 26%            | 9%                  | Availability of employees or volunteers            | 2%                                               | 2%                 | 14%                  | 48%            | 34%                 | NA             |
| 19%                                            | 15%                | 18%                  | 32%            | 16%                 | Courteous and welcoming employees or volunteers    | 1%                                               | 1%                 | 5%                   | 39%            | 54%                 | NA             |
| 4%                                             | 10%                | 32%                  | 35%            | 18%                 | Signs with rules/regulations for this refuge       | 0%                                               | 2%                 | 18%                  | 50%            | 31%                 | NA             |
| 12%                                            | 12%                | 27%                  | 32%            | 17%                 | Visitor center                                     | 1%                                               | 1%                 | 15%                  | 39%            | 44%                 | NA             |
| 12%                                            | 9%                 | 23%                  | 30%            | 27%                 | Well-maintained restrooms                          | 0%                                               | 1%                 | 11%                  | 42%            | 46%                 | NA             |
| 12%                                            | 15%                | 32%                  | 29%            | 12%                 | Recreational structures (decks, blinds, platforms) | 0%                                               | 1%                 | 24%                  | 44%            | 31%                 | NA             |
| 10%                                            | 16%                | 26%                  | 23%            | 25%                 | Bird-watching opportunities                        | 0%                                               | 2%                 | 16%                  | 47%            | 35%                 | NA             |
| 4%                                             | 12%                | 25%                  | 36%            | 23%                 | Opportunities to observe wildlife other than birds | 0%                                               | 3%                 | 15%                  | 50%            | 32%                 | NA             |
| 10%                                            | 9%                 | 25%                  | 32%            | 25%                 | Opportunities to photograph wildlife and scenery   | 0%                                               | 1%                 | 7%                   | 58%            | 34%                 | NA             |
| 11%                                            | 13%                | 32%                  | 28%            | 16%                 | Environmental education opportunities              | 1%                                               | 1%                 | 22%                  | 48%            | 27%                 | NA             |
| 68%                                            | 8%                 | 9%                   | 8%             | 6%                  | Hunting opportunities                              | 13%                                              | 3%                 | 29%                  | 42%            | 13%                 | NA             |
| 46%                                            | 10%                | 18%                  | 17%            | 10%                 | Fishing opportunities                              | 9%                                               | 16%                | 21%                  | 35%            | 19%                 | NA             |
| 3%                                             | 0%                 | 13%                  | 23%            | 62%                 | Trail hiking opportunities                         | 0%                                               | 1%                 | 7%                   | 40%            | 52%                 | NA             |
| 17%                                            | 8%                 | 32%                  | 23%            | 20%                 | Bicycling opportunities                            | 0%                                               | 8%                 | 22%                  | 33%            | 37%                 | NA             |
| 25%                                            | 11%                | 19%                  | 27%            | 18%                 | Water trail opportunities for canoeing or kayaking | 0%                                               | 11%                | 29%                  | 31%            | 29%                 | NA             |
| 37%                                            | 18%                | 16%                  | 17%            | 12%                 | Volunteer opportunities                            | 2%                                               | 0%                 | 18%                  | 41%            | 39%                 | NA             |
| 11%                                            | 8%                 | 23%                  | 25%            | 33%                 | Wilderness experience opportunities                | 0%                                               | 2%                 | 23%                  | 31%            | 44%                 | 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%                | 0%       | 12%     | 36%   | 52%            |
| I felt safe during my visit to this refuge.                                                                  | 0%                | 0%       | 2%      | 38%   | 61%            |
| Crime <u>is</u> a problem at this refuge.                                                                    | 74%               | 15%      | 5%      | 3%    | 3%             |
| I feel comfortable being in nature.                                                                          | 0%                | 0%       | 2%      | 18%   | 80%            |
| I do <u>not</u> like being in nature by myself.                                                              | 66%               | 20%      | 9%      | 4%    | 2%             |
| People closest to me enjoy participating in nature-based recreation.                                         | 2%                | 3%       | 5%      | 30%   | 61%            |
| Generally, people who look like me are treated differently when they participate in nature-based recreation. | 70%               | 14%      | 14%     | 2%    | 1%             |

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. | 1%                   | 2%                 | 9%                   | 61%            | 27%                 |
| The quality of the overall experience when visiting this refuge.               | 1%                   | 2%                 | 5%                   | 56%            | 37%                 |

## 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                           | 34%                                              | 64%           | 2%       |
| More acreage open to hunting and fishing                                                   | 29%                                              | 58%           | 13%      |
| More infrastructure (for example, bathrooms, observation decks)                            | 5%                                               | 66%           | 29%      |
| Recreation equipment available for rent (for example, fishing rods, binoculars, snowshoes) | 5%                                               | 76%           | 19%      |
| Less regulations on fishing                                                                | 10%                                              | 79%           | 10%      |
| Less regulations on hunting                                                                | 37%                                              | 58%           | 5%       |
| A greater diversity of species                                                             | 1%                                               | 42%           | 58%      |
| Fewer numbers of a single, preferred species                                               | 23%                                              | 72%           | 5%       |
| More people participating in my primary activity                                           | 27%                                              | 66%           | 7%       |
| An improvement in the quality of wetlands                                                  | 2%                                               | 53%           | 45%      |
| An improvement in the quality of wildlife habitat other than wetlands                      | 1%                                               | 47%           | 52%      |

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

76% Yes      9% No      15% 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.*)

34% 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:

44% Programs that engage youth

29% Programs that focus on creative pursuits (for example, art, writing, meditation)

34% Programs that focus on family/multiple-generations

15% Programs that support people with accessibility concerns (for example, difficulty walking, in a wheelchair)

63% Programs that teach skills to visitors

16% Other (*specify*) See Appendix C

53% 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?  Male  Female

2. In what year were you born?  (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="text" value="0%"/> |   |   | <input type="text" value="6%"/> |    |    |    | <input type="text" value="36%"/> |    |    |    | <input type="text" value="58%"/>  |    |    |     |

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

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

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

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

|                                                     |                                                      |                                                        |
|-----------------------------------------------------|------------------------------------------------------|--------------------------------------------------------|
| <input type="text" value="1%"/> Less than \$10,000  | <input type="text" value="11%"/> \$35,000 - \$49,999 | <input type="text" value="24%"/> \$100,000 - \$149,999 |
| <input type="text" value="3%"/> \$10,000 - \$24,999 | <input type="text" value="10%"/> \$50,000 - \$74,999 | <input type="text" value="18%"/> \$150,000 - \$199,999 |
| <input type="text" value="2%"/> \$25,000 - \$34,999 | <input type="text" value="13%"/> \$75,000 - \$99,999 | <input type="text" value="17%"/> \$200,000 or more     |

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

|                                                     |                                                     |                                                                        |
|-----------------------------------------------------|-----------------------------------------------------|------------------------------------------------------------------------|
| <input type="text" value="43%"/> Employed full-time | <input type="text" value="2%"/> Unemployed          | <input type="text" value="29%"/> Retired                               |
| <input type="text" value="9%"/> Employed part-time  | <input type="text" value="3%"/> Homemaker/caregiver | <input type="text" value="0%"/> Disabled/unable to work                |
| <input type="text" value="10%"/> Self-employed      | <input type="text" value="2%"/> Student             | <input type="text" value="1%"/> 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 |
|--------------------------------------------------|-----------|
| Children's program                               | 1         |
| Geology                                          | 1         |
| Master Naturalist training program               | 4         |
| New Year's Day hike                              | 2         |
| Night sounds, Master Naturalist class, bird walk | 1         |
| Snowshoe hike with Chip Chase                    | 1         |
| Story time                                       | 1         |
| Tree planting                                    | 1         |
| Volunteer recognition event                      | 1         |

| Other Activity                                    | Frequency |
|---------------------------------------------------|-----------|
| Beaver trapping                                   | 1         |
| Camping at nearby campground Canaan Valley Resort | 1         |
| Cross country skiing                              | 14        |
| Dog walking                                       | 2         |
| If snow, cross country skiing snow-shoeing        | 1         |
| Mountain climbing                                 | 1         |
| Plant viewing, botanizing                         | 1         |
| Use of building/facilities                        | 1         |
| Visit museum                                      | 1         |
| Wild plant appreciation                           | 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         |
| Bicycling               | 4         |
| Bird watching           | 11        |
| Camping                 | 1         |
| Cross country skiing    | 13        |
| Environmental education | 5         |
| Exercising              | 1         |
| Fishing                 | 1         |
| Foraging                | 1         |
| Hiking                  | 52        |
| Hunting                 | 2         |
| Interpretation          | 6         |
| Nonmotorized boating    | 1         |
| Photography             | 4         |
| Running                 | 3         |
| Sightseeing             | 3         |
| Special event           | 3         |
| Trapping                | 1         |
| Use facilities          | 1         |
| Wildlife observation    | 7         |

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 |
|------------------------------------|-----------|
| Children's story and activity time | 1         |
| Delivered mail                     | 1         |
| Fishing for trout                  | 1         |
| Meet for interpretive program      | 1         |
| Picked up free info pamphlets      | 1         |
| Volunteered                        | 2         |
| Weeded in the natural garden       | 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 |
|----------------------------|-----------|
| eBird                      | 2         |
| Friends newsletter         | 1         |
| Google Photos              | 1         |
| LinkedIn                   | 1         |
| Strava                     | 1         |

## Survey Section 2

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

| Other Websites              | Frequency |
|-----------------------------|-----------|
| AllTrails                   | 1         |
| Nature center Canaan Valley | 1         |
| OCSJ.com                    | 1         |
| Whitegrass.com              | 5         |

| Other Information Sources        | Frequency |
|----------------------------------|-----------|
| Bushwhackers.com                 | 1         |
| Strava, trail forks, MTB Project | 1         |
| White Grass employee             | 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 |
|---------------------------------|-----------|
| Bought the 2019 calendar        | 1         |
| Cross country ski trail use fee | 4         |
| Ice cream                       | 1         |
| Local artwork                   | 1         |
| Ski fees                        | 1         |
| Skiing                          | 1         |
| Skiing lift tickets             | 3         |

## 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           | 5         |
| General environmental education | 1         |
| Local history programs          | 1         |
| Nature-related programs         | 4         |
| Other                           | 1         |
| Volunteering                    | 1         |

## Survey Section 7

Question 7: “Which of the following best describes your current employment situation?”

| Other Employment            | Frequency |
|-----------------------------|-----------|
| Semi-retired, self-employed | 1         |

### 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=23)

A-frame road - confusing sign. Don't realize how far the trail head is. It needs to read "A-frame road 10 miles to refuge entrance" or something similar.

Access to wildlife refuge areas should not be made too easy. They are, after all, wildlife refuge areas. There is much snow in the one commented on herein, and one should not expect the access to be easy in the winter months.

Better signs that match the maps.

During the winter they did not plow the road, making access very difficult. I had to use snow shoes to get there.

I am old but able bodied. I wish I could direct people that are restricted to wheelchairs to see this and other WVA wildlife areas.

I love the refuge. However, it needs to do a better job of trail maintenance as well as building connecting trails to surrounding public lands. More bicycle trails are very much needed. Our local economy is completely dependent on recreation and we need the refuge to build more trails, including bike trails, to support that. Thank you.

I would like to see a more detailed trail map.

In bad weather, if roads are safe, we will visit.

It was a lovely site; we were happy to have found it. Thank you.

Money is needed to maintain trails. Trails making loops and connecting with other public lands' trails need to be one of the priorities.

More biking trails, more fishing access trails.

Need to open up more roads & trails!

Not that I would consider it a transportation-related feature, but I feel that there is total over-kill on signs designating wildlife refuge lands, almost to the point of ridiculousness in several places near where I live.

Please note I was driving by on the way to another place and happened to see wildlife area/boardwalk in Canaan, WV.

Posted trail maps were difficult to determine the length of trails.

Signage is great, roads/parking excellent.

Staff helpful.

The map for the trails is extremely hard to understand.

This refuge is great. Our main complaint in the area is that hunters are not respectful of other people's area usage and present a risk to hikers, bikers, and other area users.

Unclear when access gates to hunting/fishing areas would be locked/unlocked - afraid of being locked in while at trailhead parking areas.

Very nice parking lot, recently blacktopped. It's great.

We were there in winter for a short hike/walk with small kids. The outing was perfect for that occasion. We did not really require much by way of parking space or physical infrastructure (good road surface or well-developed paths).

Well managed refuge and the person in charge was a very knowledgeable and interesting host.

## 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=33)

All great.

Believe refuge should be open to the public every day of the week.

Give the land back to private individuals for profit making opportunities and creation of viable employment.

Great staff at center!!!

I am opposed to the strict no off-trail access for visitors other than hunters!

I do not agree with logging in the refuge, I also think people should be allowed to have designated walking paths not just for hunters. Thank you.

I enjoy how quiet the area tends to be. If I have my dog and family, or if I'm running by myself, I really enjoy how peaceful the park is.

I just dropped by, did not see any services, just walked around on refuge boardwalk and looked at signs/views.

I love that this refuge is made available for cross country skiing in the winter. I would really like it if the other parts of the refuge were made more available for hiking (and wildlife viewing) at other times of the year.

I love this refuge, and really like how it is being managed. Chip Chase, who led our snowshoe hike, is a valuable resource, full of knowledge and fun to listen to. Keep up the great work!

I'm excited to learn that a new visitor's center is to be built!

It is ridiculous that an agreement cannot be made to allow refuge staff to use cash registers and help serve the public. They do it all over the western states and Alaska.

Need to open the refuge to more bicycle riding on trails. This would bring in more visitors and money to the local area.

Signage on rules and regulations isn't always very clear or present in areas it should be.

Small facility. Lot of information here n/a.

The decking and signage were well-maintained here.

The visitor center is in a different location. Due to experiences for wildlife observation, kayaking, fishing, cycling, hiking and simply being inspired by the majesty of the area, we bought a home near here.

The volunteer at the visitor's center was extremely helpful and guided us through the exhibit, provided information about trails that would be suitable for our toddler, and in general provided exceptional service. I was so impressed.

There are very few places for fishing access. With a valid fishing permit, you should be able to go off trail to fish.

There is a parking area at the top of the mountain accessed by Freeland Rd. - Forest Rd. 80 on Canaan Valley NWR land that we use to access Dolly Sods. A few years ago, it was posted no overnight parking. This limited camping access to this area of Dolly Sods. I wish we were allowed overnight parking there.

This is a great facility.

Visited during federal government shutdown, so expectations were low. Was very glad the area was even open for hiking! Volunteers handing out survey forms were helpful.

Visitor's center is closed on weekends, should be open on Saturdays at least.

Visitor's center staff were very friendly and knowledgeable.

Volunteers are great, employees are also great! Namely Jackie Britt is cool!!

Volunteers at visitor's center were very helpful.

We came for the cross-country skiing, so can't speak much to the refuge itself for other seasons but would like to explore more. We enjoy visiting the many public lands in Tucker County.

We didn't find anything really, except a parking lot and signboard with hiking information. Perhaps there was more in another part of the refuge that we didn't know about?

We would have visited the visitor's center, except the government was shut down.

Will bike and canoe next visit.

Would like food and drinks for sale should we be hungry and want to stay longer, like vending machines.

Your people took my info at the White Grass parking lot, I was going skiing there.

## End of Survey

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### General Comments (n=29)

Canaan Valley is the most beautiful place. The refuge areas make it accessible to visitors as well as locals. Private property is not generally accepting of visitors. Because of being able to use the refuge, state parks and national forest here, I changed my job location and my home. I am here for the wildlife that the area offers.

Canaan Valley Refuge is awesome.

Continue to enlarge refuge while still allowing hunting and fishing.

Don't pander to the NRA!!

I live next to this refuge, so I use it primarily for taking my dog for walks, enjoying the wildlife, views, and the peacefulness.

I love having the open space of this (and other) wildlife refuges. Keep them natural and accessible!

I visit this refuge at least 2 times per year. Sometimes 5 times per year. I love Canaan Valley and the refuge is a great place to deer hunt and hike.

I would like to see bear hunting, especially with dogs banned.

I'm so very glad your land was preserved as a National Wildlife Refuge rather than made the lake for a hydroelectric power dam. A wonderful, unique place!

In general, I ask you to preserve all wild or semi-wild places. We don't need more programs or facilities - we need only more wilderness. Thank you for your efforts to preserve our wild places :)

It was very nice and provided information about wildlife for our kids as we were driving through the area.

Keep up the good work you're doing great!!!!!!

On the way back from the refuge a large black bear crossed the road in front of us. The nature trail I was on was surrounded by wild blueberries, I could not help but think, what if I encountered the bear while hiking. It was two hours before I saw another human.

Thank you for the work you do!

Thank you! Please protect our public lands. This is our national heritage.

Thanks for doing this, I hope it helps – [name].

Thanks for the opportunity to complete the survey.

The Canaan Valley Wildlife Refuge is managed for hunting, but hiking is either discouraged, or not allowed. I appreciate that cross country skiing is allowed, but I would like to see the refuge available to hikers all year - I understand that hiking can have negative impacts on wildlife, ecosystems, etc., but those would be the same as hunting (which is simply hiking while carrying a gun, isn't it?).

The two ladies that conducted the interview were very professional and knowledgeable. I enjoyed discussing the refuge with them. They seemed genuinely interested in what we had to say.

There are some areas of the refuge that are open to rifle hunting too close to residential areas. There needs to be given consideration to proximity of houses and not just wildlife management targets. Make these areas bow only or bow/shotgun/muzzleloader only. It seems like native brook trout are a forgotten species on the refuge. I would love to see habitat improvement projects for trout on the refuge. I wish fishing would be given the same emphasis as hunting on the refuge. There are very few places you can access fish without going off trail and breaking the law. Engaging fisher people would be a great opportunity to attract more visitors, volunteers and work on some trout habitat. It would be great to see the refuge work with individual landowners on foot access trails from neighborhoods to trailheads. This would cut down on people having to drive and increase usage. Also stop with the hidden cameras - it's a waste of taxpayer money and turns people off to the refuge.

This refuge has amazing diversity of species, and beautiful landscapes! It's a wonderful recreation spot near our home!!

Too bad our current administration could care less about the preservation of our natural resources!

Took my 8-year-old granddaughter to the wildlife refuge at Canaan Valley while at our family's time share at Land of Canaan. I had seen information at the nearby grocery store and my great-niece was friends with one of the rangers. My granddaughter enjoyed the children's activities that day, and spent time looking at and reading information on the display. Very enjoyable experience!

Visiting Canaan Valley NWR is always a positive experience. I live nearby and utilize the refuge on a regular basis.

We are thankful for public land opportunities, whether federal or state. This refuge keeps Canaan Valley from being crowded and overbuilt, at least to some degree.

We own a vacation-house in Canaan Valley adjacent to the state park boundaries. We have owned it since 1986 and use it at least monthly. This puts us in a unique position relative to the wildlife area and the services you have surveyed. Thank you for doing this.

We really enjoyed our visit and look forward to coming again. We spend quite a bit of time at state and national parks and were really impressed by the maintenance of the refuge and the parks we visited while in the area - the boardwalks were all well-maintained which made it easy to bring our two-year-old out on nature walks. I really appreciated the refuge visitor's center's openness in teaching the history of the environmental toll that has been taken on the area. I hope the refuge continues to be properly funded to continue its conservation efforts and wonderful facilities.

We were visiting from outside the States. The visit on this occasion was intended as an outing for the kids to burn some energy and for the adults to get some fresh air. The skiing conditions on that particular day were not good and a short hike/walk was a great way to avoid cabin fever.

Would like to see more animals relative to area.