



**National Park Service
U.S. Department of the Interior**

Visitor Services Project



Outer Banks Group Parks Visitor Study

Wright Brothers National Memorial Visitors

Summer 2002

Report 136c





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Visitor Services Project Report 136c

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Visitor Services Project Wright Brothers National Memorial Report Summary

- This report describes the results of a visitor study at Wright Brothers National Memorial (NMEM) during July 12-18, 2002. A total of 299 questionnaires were distributed to visitors. Visitors returned 224 questionnaires for a 74.9% response rate.
- This report profiles Wright Brothers NMEM visitors. A separate Outer Banks Group parks appendix contains visitors' comments about their visit. This report and the appendix include summaries of those comments.
- Twenty-two percent of visitor groups were groups of two, 22% were in groups of four and another 22% were in groups of six to ten. Most visitors (73%) were family groups. Forty percent of visitors were aged 36-55 years and 29% were aged 15 or younger.
- United States visitors were from Pennsylvania (17%), North Carolina (14%), Virginia (14%), 31 other states and Washington, D.C. There were not enough international visitors to provide reliable data.
- Most visitors (73%) reported that this was their first visit to Wright Brothers NMEM. On this visit, the most common activities were visiting historic sites (90%), walking (64%) and swimming/sunbathing (64%). On past visits, the most common activities were visiting historic sites (93%), swimming/sunbathing (77%), and walking (61%).
- The most used sources of information in planning their visit to the Outer Banks Group parks were friends/relatives/word of mouth (39%), travel guides/tour books (38%), and previous visits (36%).
- The three most important reasons for visiting Wright Brothers NMEM were historical significance, educational reason (teaching/research), and interest in flight/reverence for flight pioneers.
- Visitors were asked how selected factors affected their park experience. The factor that most "detracted from" the visitors' experience was for litter (31%). Airplane overflights (12%) was the factor that most "added to" visitors' experience.
- When asked about crowding, the largest proportion of visitors said that they felt "not at all crowded." Fifty-two percent of groups felt "somewhat crowded" or "crowded." Most visitor groups (65%) felt crowded in the afternoon. Forty-nine percent of visitor groups reported that crowding had "no effect" on their park experience, while 45% said it detracted from their visit.
- With regard to use, importance and quality of services and facilities, it is important to note the number of visitor groups that responded to each question (N=). The most used services and facilities by 194 visitor groups at Wright Brothers were the visitor center (94%) and Wright Brothers Monument and trails (81%). The services and facilities receiving highest "very important" and "important" ratings were First Flight Airstrip (97%, N=89), First Flight Boulder and 1903 Flight Path (94%, N=145), and Wright Brothers Monument and trails (92%, N=151). The services and facilities receiving highest "very good" and "good" quality ratings were ranger-led programs (95%, N=60), First Flight Airstrip (94%, N=85), First Flight Boulder and 1903 Flight Path (94%, N=138) and park brochure/map (91%, N=134).
- Most visitor groups (89%) rated the overall quality of visitor services at Wright Brother NMEM as "very good" or "good." No visitor groups rated the overall quality of visitor services as "very poor."

For more information about the Visitor Services Project, please contact the University of Idaho Park Studies Unit; phone (208) 885-7863 or visit the following web site: http://www.psu.uidaho.edu
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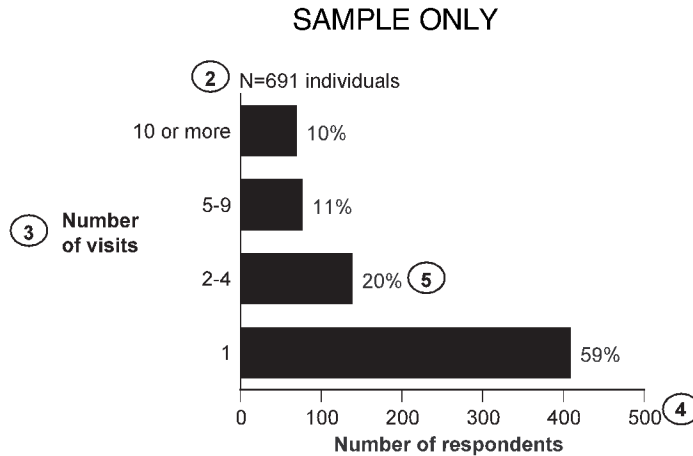
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INTRODUCTION

This report describes the results of a study of visitors at Wright Brothers National Memorial, also referred to as "Wright Brothers NMEM." This visitor study was conducted July 12-18, 2002 at the Outer Banks Group parks by the National Park Service (NPS) Visitor Services Project (VSP), part of the Park Studies Unit at the University of Idaho.

The report is organized into four sections. The **Methods** section discusses the procedures and limitations of the study. The **Results** section provides summary information for each question in the questionnaire and includes a summary of visitor comments. An **Additional Analysis** section is included to help managers request additional analyses. The final section includes a copy of the **Questionnaire**. The separate appendix includes comment summaries and visitors' unedited comments.

Most of this report's graphs resemble the example below. The large numbers refer to explanations following the graph.



① **Figure 4: Number of visits**

- 1: The figure title describes the graph's information.
- 2: Listed above the graph, the 'N' shows the number of visitors responding and a description of the chart's information. Interpret data with an 'N' of less than 30 with **CAUTION!** as the results may be unreliable.
- 3: Vertical information describes categories.
- 4: Horizontal information shows the number or proportions in each category.
- 5: In most graphs, percentages provide additional information.

METHODS

Questionnaire design and administration

The questionnaire for this visitor study was designed using a standard format that has been developed in previous Visitor Services Project studies. Some of the questions were comparable with VSP studies conducted at other parks. Other questions were customized for Outer Banks Group park questionnaire.

Interviews were conducted with, and questionnaires were distributed to, a sample of visitors who arrived at Wright Brothers NMEM during the period from July 12-18, 2002. Visitors were sampled as they arrived at Wright Brothers NMEM temporary visitor center.

Visitor groups were greeted, briefly introduced to the purpose of the study, and asked to participate. If visitors agreed, an interview, lasting approximately two minutes, was used to determine group size, group type, and the age of the adult who would complete the questionnaire. These individuals were then given a questionnaire and asked for their names, addresses and telephone numbers in order to mail them a reminder-thank you postcard. Visitor groups were asked to complete the questionnaire during or after their visit and then return it by mail.

Two weeks following the survey, a reminder-thank you postcard was mailed to all participants. Replacement questionnaires were mailed to participants who had not returned their questionnaires four weeks after the survey. Seven weeks after the survey, second replacement questionnaires were mailed to visitors who still had not returned their questionnaires.

Data analysis

Returned questionnaires were coded and the information was entered into a computer using a standard statistical software package—Statistical Analysis System (SAS). Frequency distributions and cross-tabulations were calculated for the coded data, and responses to open-ended questions were categorized and summarized.

This study collected information on both visitor groups and individual group members. Thus, the sample size ("N"), varies from figure to figure. For example, while Figure 1 shows information for 218 visitor groups, Figure 4 presents data for 894 individuals. A note above each graph specifies the information illustrated.

**Sample size,
missing data
and reporting
errors**

Occasionally, a respondent may not have answered all of the questions, or may have answered some incorrectly. Unanswered questions result in missing data and cause the number in the sample to vary from figure to figure. For example, although Wright Brothers NMEM visitors returned 224 questionnaires, Figure 1 shows data for only 218 respondents.

Questions answered incorrectly due to carelessness, misunderstanding directions, and so forth turn up in the data as reporting errors. These create small data inconsistencies.

Like all surveys, this study has limitations that should be considered when interpreting the results.

Limitations

1. It is not possible to know whether visitor responses reflect actual behavior. This disadvantage applies to all such studies and is reduced by having visitors fill out the questionnaire soon after they visit the park.
2. The data reflect visitor use patterns of visitors to the selected sites during the study period of July 12–18, 2002. The results do not necessarily apply to visitors during other times of the year.
3. Caution is advised when interpreting any data with a sample size of less than 30, as the results may be unreliable. Whenever the sample size is less than 30, the word "**CAUTION!**" is included in the graph, figure or table.

Weather conditions during the visitor study were typical of July in the Wright Brothers NMEM area, with warm to hot, sunny days, and an occasional thunderstorm/rain shower. The Wright Brothers NMEM visitor center was closed for repairs during the survey period and a temporary visitor center and bookstore were operating out of modular buildings.

**Special
conditions**

RESULTS

Visitors contacted

At Wright Brothers NMEM, 327 visitor groups were contacted, 299 of these groups (91%) accepted questionnaires. Questionnaires were completed and returned by 224 visitor groups, resulting in a 74.9% response rate for this study.

Table 1 compares age and group size information collected from the total sample of visitors who participated, with age and group size of visitors who actually returned questionnaires. Based on the variables of respondent age and visitor group size, non-response bias was judged to be insignificant.

Table 1: Comparison of total sample and actual respondents

Variable	Total sample		Actual respondents	
	N	Avg.	N	Avg.
Age of respondents	299	45.8	215	46.1
Group size	299	5.3	218	5.8

Demographics

Figure 1 shows visitor group sizes, which ranged from one person to 91 people. Twenty-two percent of visitor groups consisted of two people, and another 33% consisted of three or four people.

Seventy-three percent of visitor groups were made up of family members and 13% were people traveling with family and friends (see Figure 2). "Other" groups included those traveling with "spouse." No visitor groups were traveling with a guided tour group (see Figure 3).

Forty percent of the visitors were in the 36-55 age group, and 29% of visitors were aged 15 years or younger, as shown in Figure 4.

Visitor groups were asked how many times each member in the group had visited Wright Brothers NMEM including this visit. Most visitors (73%) reported that this was their first visit to Wright Brothers NMEM, as shown in Figure 5.

There were not enough international visitors to provide reliable data (see Table 2). The largest proportions of United States visitors were from Pennsylvania (17%), North Carolina (14%) and Virginia (14%). Smaller proportions of U.S. visitors came from another 31 states and Washington, D.C. (see Map 1 and Table 3).

Demographics (continued)

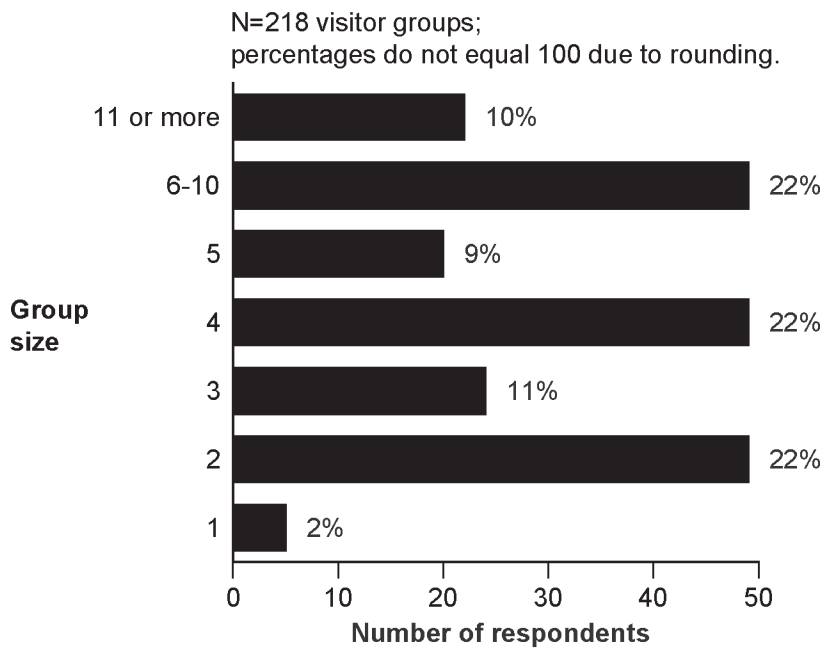
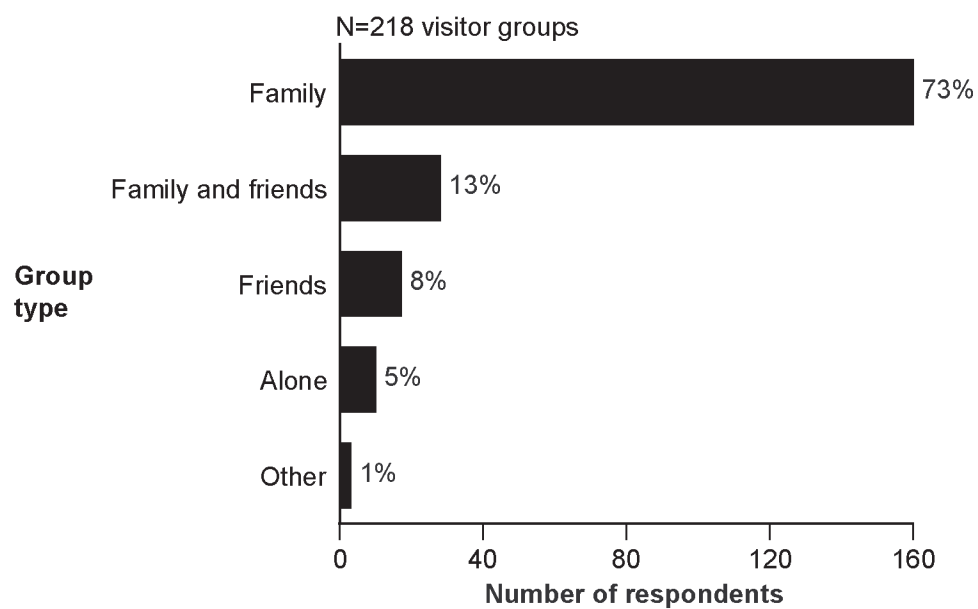
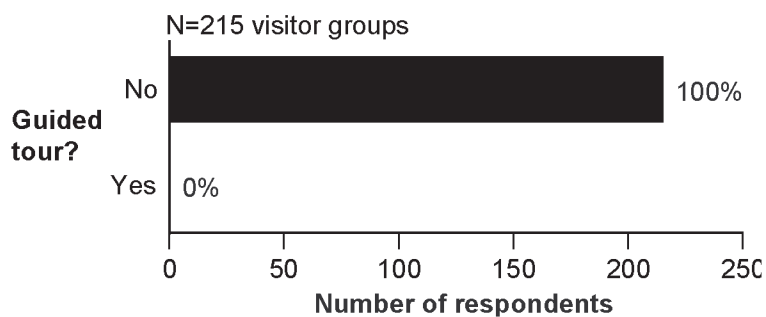


Figure 1: Visitor group sizes

**Figure 2: Visitor group types****Figure 3: Visitors with guided tour group**

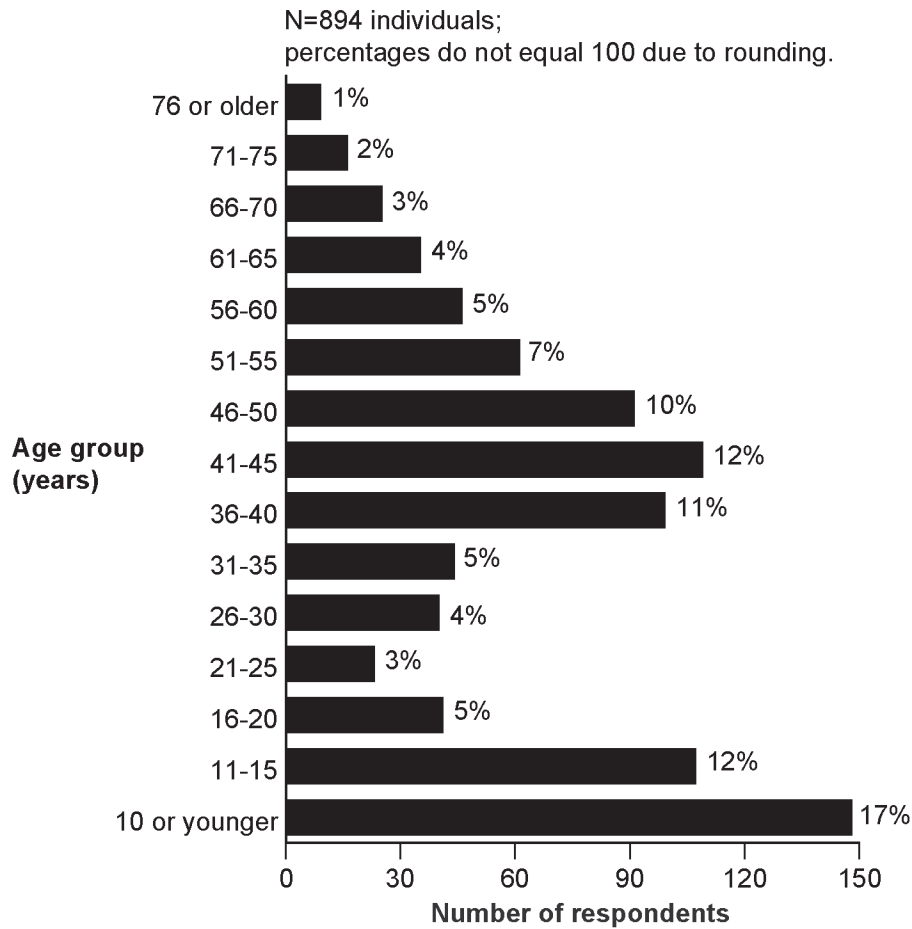
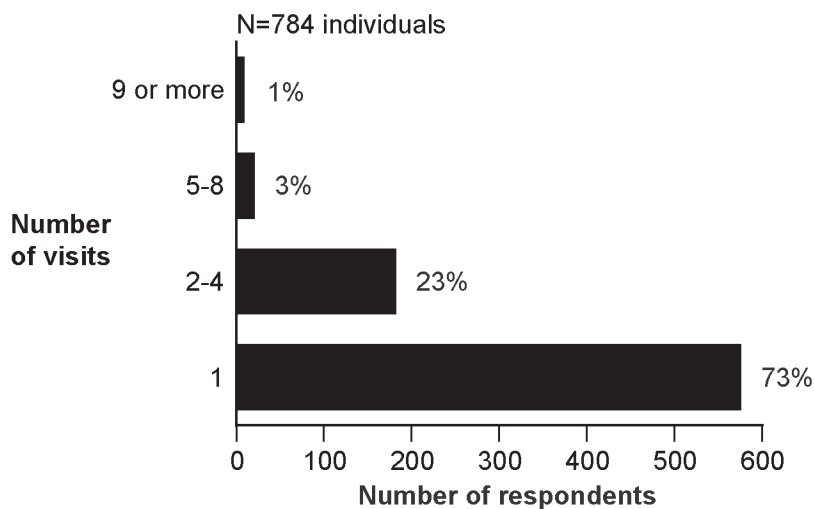
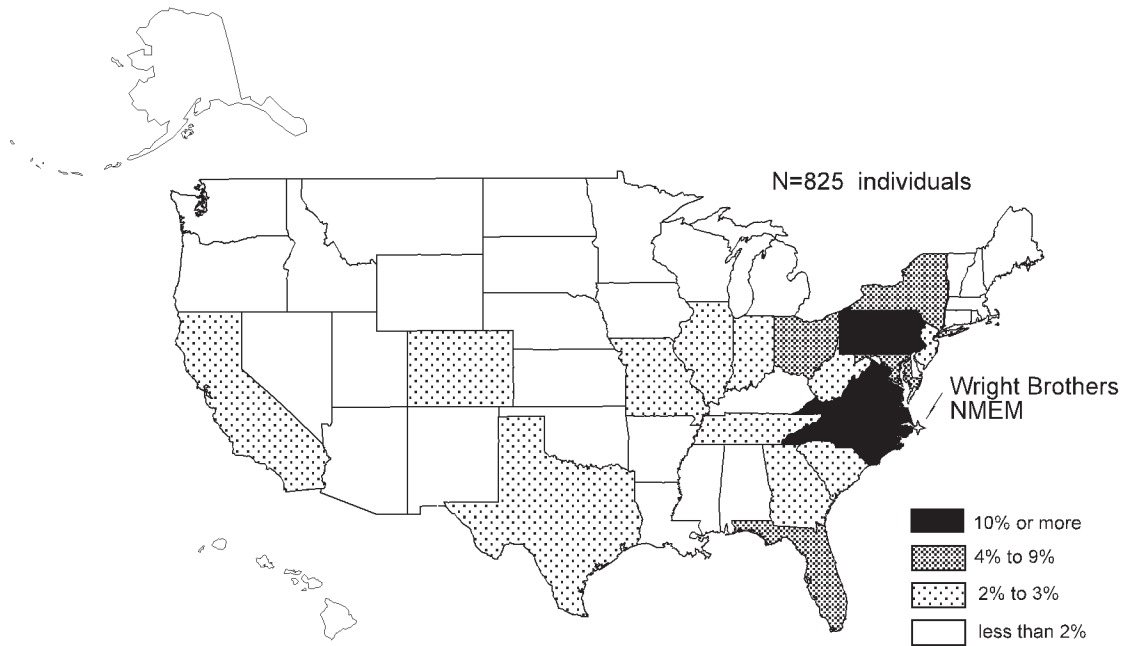
**Figure 4: Visitor ages****Figure 5: Number of visits to Wright Brothers NMEM**

Table 2: International visitors by country of residence

percentages do not equal 100 due to rounding.

CAUTION!

Country	Number of individuals	Percent of international visitors N=19 individuals	Percent of total visitors N=844 individuals
Canada	8	42	1
Germany	4	21	1
France	3	16	<1
Scotland	2	11	<1
Hungary	1	5	<1
Israel	1	5	<1



Map 1: Proportion of United States visitors by state of residence

Table 3: United States visitors by state of residence

State	Number of individuals	Percent of U.S. visitors N=825 individuals	Percent of total visitors N=844 individuals
Pennsylvania	142	17	17
North Carolina	112	14	13
Virginia	112	14	13
New York	57	7	7
Maryland	53	6	6
Ohio	44	5	5
Florida	33	4	4
New Jersey	23	3	3
South Carolina	19	2	2
Georgia	18	2	2
California	17	2	2
Washington, D.C.	17	2	2
Illinois	16	2	2
West Virginia	16	2	2
Colorado	15	2	2
Texas	15	2	2
Indiana	13	2	2
Tennessee	13	2	2
Missouri	12	2	1
Delaware	10	1	1
Michigan	9	1	1
Oregon	8	1	1
Maine	6	1	1
Kansas	5	1	1
11 other states	40	5	5

Length of visit

Visitor groups were asked to list how many hours they spent at Wright Brothers NMEM on each day of the week during this visit (see Table 4). The most common length of visit was two hours; few visitor groups spent four hours or more.

Table 4: Length of visit at Wright Brothers NMEM

Length of stay (hours)	Number of times mentioned
Sunday	N=26
4 hours	2
3 hours	7
2 hours	13
1 hour	4
Monday	N=22
4 hours	1
3 hours	10
2 hours	10
1 hour	1
Tuesday	N=31
4 hours or more	3
3 hours	7
2 hours	14
1 hour	7
Wednesday	N=43
4 hours or more	4
3 hours	10
2 hours	21
1 hour	8
Thursday	N=26
4 hours	2
3 hours	2
2 hours	12
1 hour	10
Friday	N=23
4 hours	0
3 hours	5
2 hours	11
1 hour	7
Saturday	N=28
4 hours or more	8
3 hours	4
2 hours	11
1 hour	5

Visitor groups were asked to indicate the sources from which they had received information about Wright Brothers prior to their visit. Sixteen percent of visitor groups received no information prior to their visit. The most common sources of information were friends, relatives or word of mouth (39%), travel guides/tour books (38%) and previous visits (36%), as shown in Figure 6. The least used sources of information were videos/television/radio programs, telephone/email or written inquiry to park and Fort Raleigh NHS homepage (each 3%). "Other" sources of information used by visitor groups included being a local resident, North Carolina Tourism Guide, National Parks Passport, hawk study, visiting national parks regularly, Torpedo Alley, and World Book Encyclopedia.

Sources of information

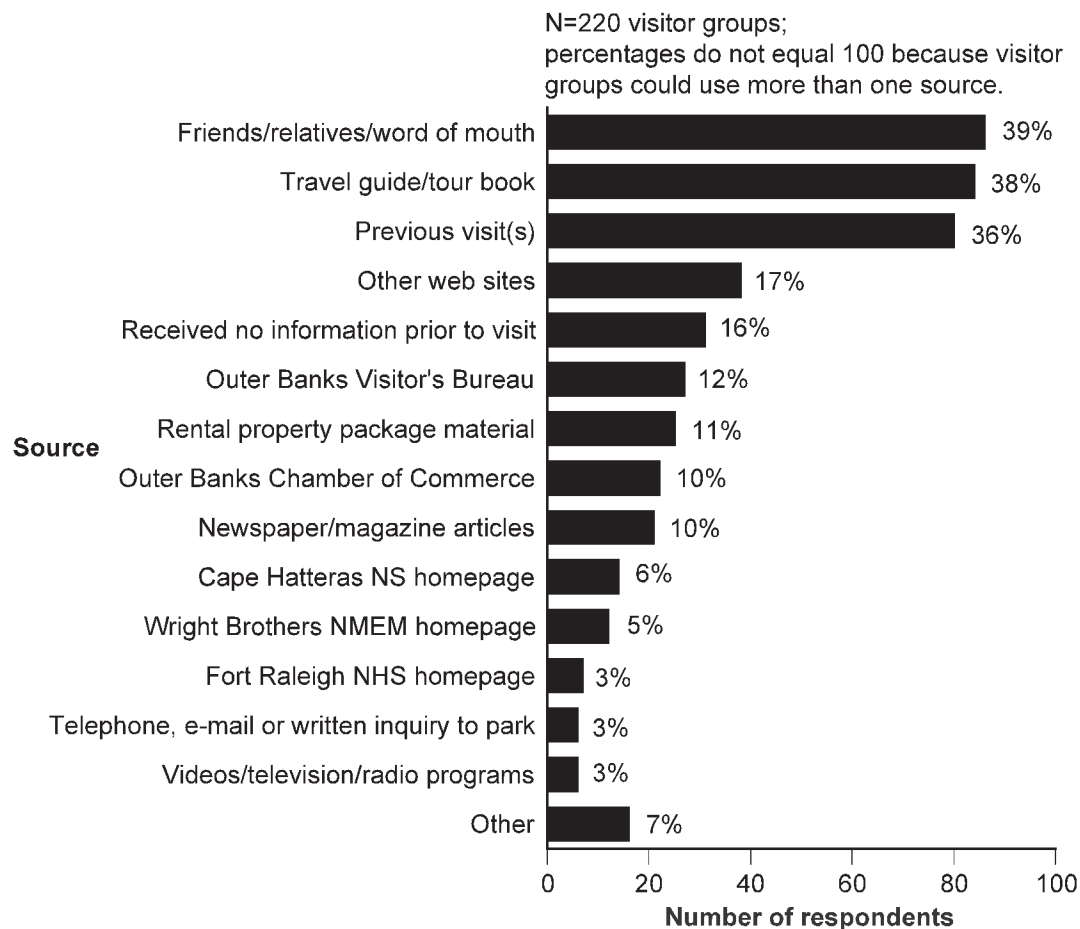


Figure 6: Sources of information used by visitors prior to arriving

Importance of visiting Outer Banks Group parks in decision to visit the Outer Banks

Visitors were asked, "Prior to your trip, how important a role did visiting the National Park Service Outer Banks parks have in your decision to visit the Outer Banks?" Among Wright Brothers NMEM visitors, visiting Wright Brothers NMEM played the most important role in deciding to visit the Outer Banks for 38% of visitors, who rated it as "extremely" to "very" important, as shown in Table 5. The park playing the least important role was Fort Raleigh NHS, for which 33% of the visitors said it was "somewhat" to "not" important in their decision to visit the Outer Banks.

Table 5: Importance of visiting Outer Banks Group parks in decision to visit the Outer Banks

percentages may not equal 100 due to rounding.

Park	Extremely important	Very important	Moderately important	Somewhat important	Not important	Don't know/did not visit
Cape Hatteras NS N=208	17%	12%	23%	13%	16%	19%
Ft. Raleigh NHS N=196	2%	5%	18%	11%	22%	42%
Wright Brothers NMEM N=216	19%	19%	30%	13%	16%	2%

Visitor groups were asked to list the activities that they participated in at one or more Outer Banks Group parks on this visit. The most common activities were visiting historic sites (90%), walking (64%), swimming/sunbathing (64%) and photography (54%), as shown in Figure 7. The least common activity was boat fishing (3%). "Other" activities included visiting Jockey's Ridge, family reunion, shopping and visiting dunes.

On past visits, the most common activities were visiting historic sites (93%), swimming/sunbathing (77%) walking (61%) and photography (50%), as shown in Figure 8. The least common activity on past visits was surfing (5%). "Other" activities on past visits included Jockey's Ridge and looking at retirement homes.

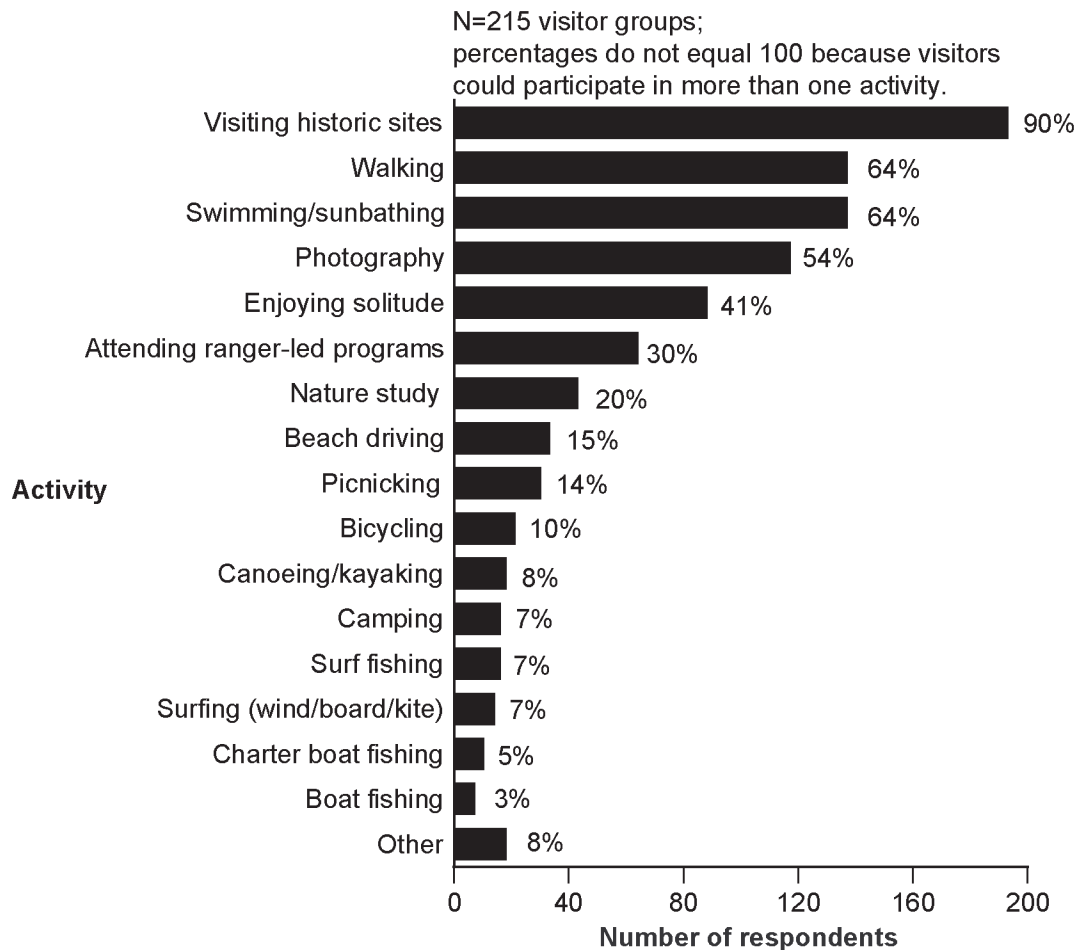


Figure 7: Visitor activities on this visit

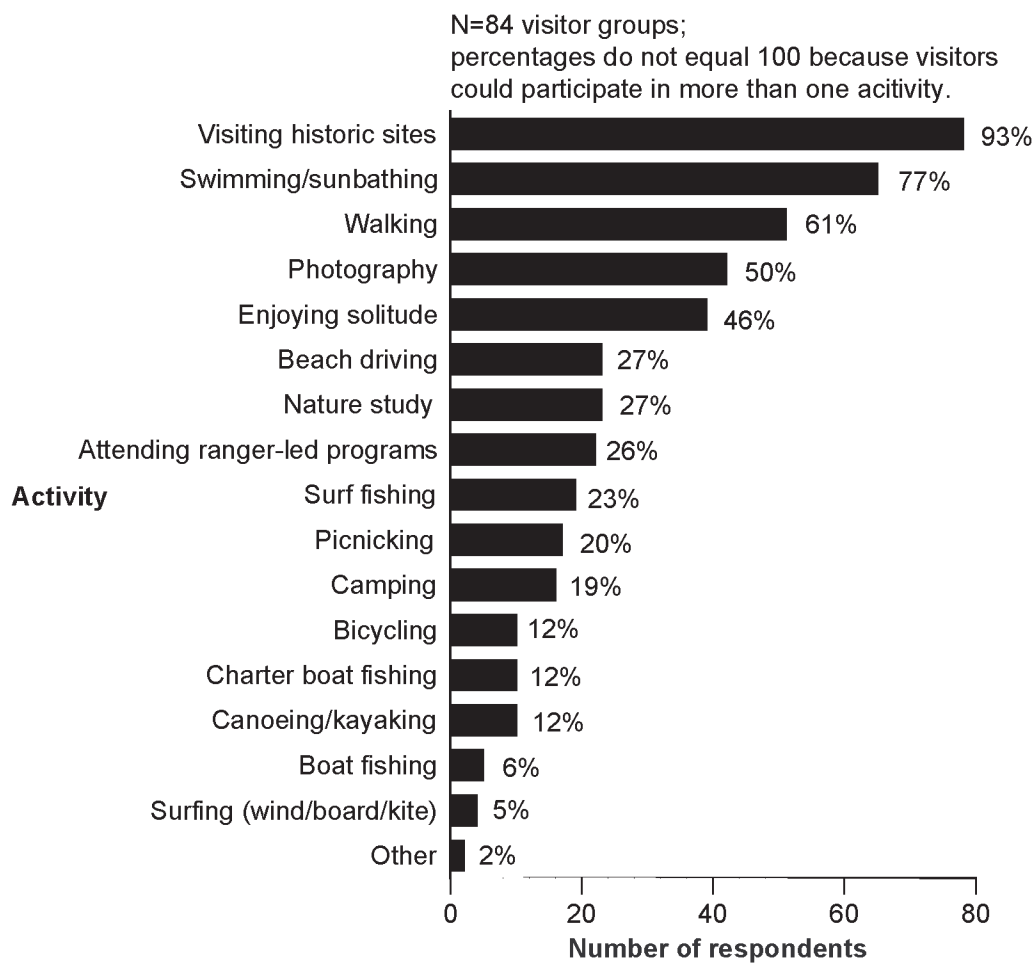


Figure 8: Visitor activities past visit(s)

Visitors were asked to list the three most important reasons for visiting Wright Brothers NMEM which included: historical significance, educational purpose, and interest in flight/reverence for flight pioneers, as shown in Tables 6-8.

**Reasons for
visiting Wright
Brothers NMEM**

**Table 6: Most important reason for visiting Wright
Brothers NMEM**

N=211 comments

Comment	Number of times mentioned
Historical significance	106
Educational purpose (to teach/research)	16
Interest in flight/reverence for flight pioneers	16
Memorial/monument	12
General interest/to see it	9
For the children/grandchildren	8
To show family/friends	7
Live/visit nearby	5
Sightseeing	4
First time visited/seeing different area	3
Visit flight path	3
Enjoy the park	2
To see reproduction of Wright Brothers' plane	2
Information	2
Location	2
Other comments	14

Table 7: Second most important reason for visiting Wright Brothers NMEM

N=112 comments

Comment	Number of times mentioned
Historical significance	21
Educational purpose (to teach/research)	13
For the children/grandchildren	7
Interest in flight/reverence for flight pioneers	7
General interest/to see it	6
Live/visit nearby	5
Museum/artifacts	5
Memorial/monument	5
First time visiting/seeing different area	4
Easy access	2
Exploration/investigation	2
To show family/friends	2
To see reproduction of Wright Brothers airplane	2
Nice facilities	2
Information	2
Photography	2
Location	2
Beauty of the area/scenery	2
Inspiration/atmosphere/emotionally moving	2
Walking/hiking	2
Other comments	17

Table 8: Third most important reason for visiting Wright Brothers NMEM

N=68 comments

Comment	Number of times mentioned
Historical significance	10
Educational purpose (to teach/research)	5
For the children/grandchildren	5
Sightseeing	4
General interest/to see it	3
First time visiting/seeing different area	3
Live/visit nearby	3
Reputation/recommendation	3
Interest in flight/reverence for flight pioneers	3
Inexpensive/free	3
Beauty of the area/scenery	3
To show family/friends	2
Memorial/monument	2
To get National Parks Passport stamp	2
Walking/hiking	2
Other comments	15

Visitor groups were asked to note the park services and facilities they used during this visit to Wright Brothers NMEM. As shown in Figure 9, the services and facilities that were most commonly used by visitors were the visitor center (94%), Wright Brothers Monument and trails (81%), parking lots (80%), park brochure/map and First Flight boulder (each 77%). The least used services or facilities were access for disabled persons (5%), and picnic areas (2%). NOTE: visitors may have misinterpreted what was meant by "First Flight airstrip," which is the paved airstrip still used by small planes today.

Visitor services and facilities: use, importance and quality

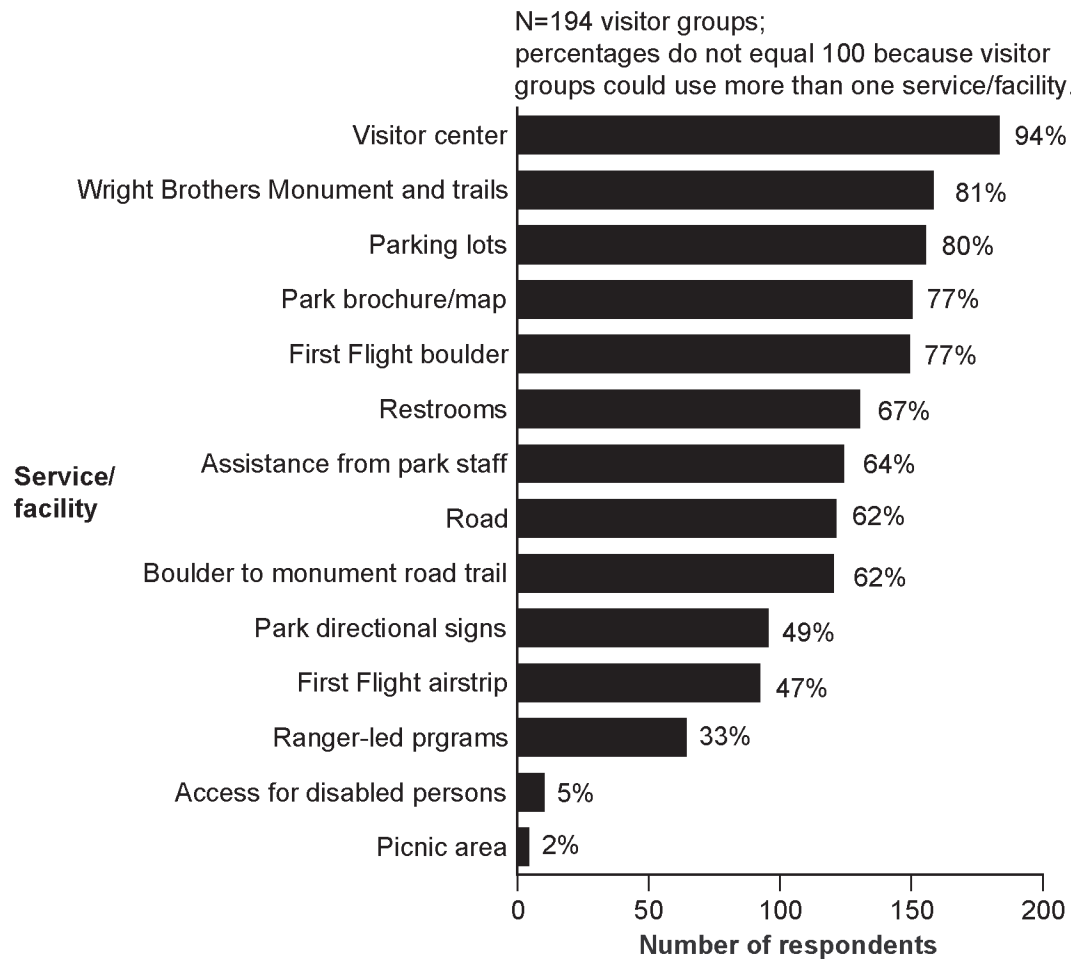


Figure 9: Services and facilities used at Wright Brothers NMEM

Visitor groups that visited Wright Brothers NMEM were asked to rate the importance and quality of each of the services and facilities they used. The following five-point scales were used in the questionnaire.

IMPORTANCE 5=extremely important 4=very important 3=moderately important 2=somewhat important 1=not important	QUALITY 5=very good 4=good 3=average 2=poor 1=very poor
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The average importance and quality ratings for each service and facility were determined based on ratings provided by visitors who used each service and facility. Figures 10 and 11 show the average importance and quality ratings for each of the park services and facilities. All services and facilities were rated above average in importance and quality. NOTE: picnic area and access for disabled persons were not rated by enough visitors to provide reliable information.

Table 9 compares the importance ratings for selected services and facilities. The services and facilities that received the highest proportion of “extremely important” and “very important” ratings were First Flight Airstrip (97%), First Flight Boulder and 1903 Flight Path (94%) and Wright Brothers Monument and trails (92%). Those services and facilities receiving the highest proportion of “not important” ratings included park brochure/map, visitor center, assistance from park staff, and First Flight Boulder and 1903 Flight Path (each 1%).

Table 10 compares the quality ratings for selected services and facilities. The services and facilities that received the highest proportion of “very good” and “good” ratings were ranger-led programs (95%), First Flight Airstrip (94%) and First Flight Boulder and 1903 Flight Path (94%). The facilities receiving the highest proportion of “very poor” ratings were the visitor center (9%) and restrooms (3%).

Figure 12 combines the “very good” and “good” quality ratings and compares those ratings for all of the services and facilities.

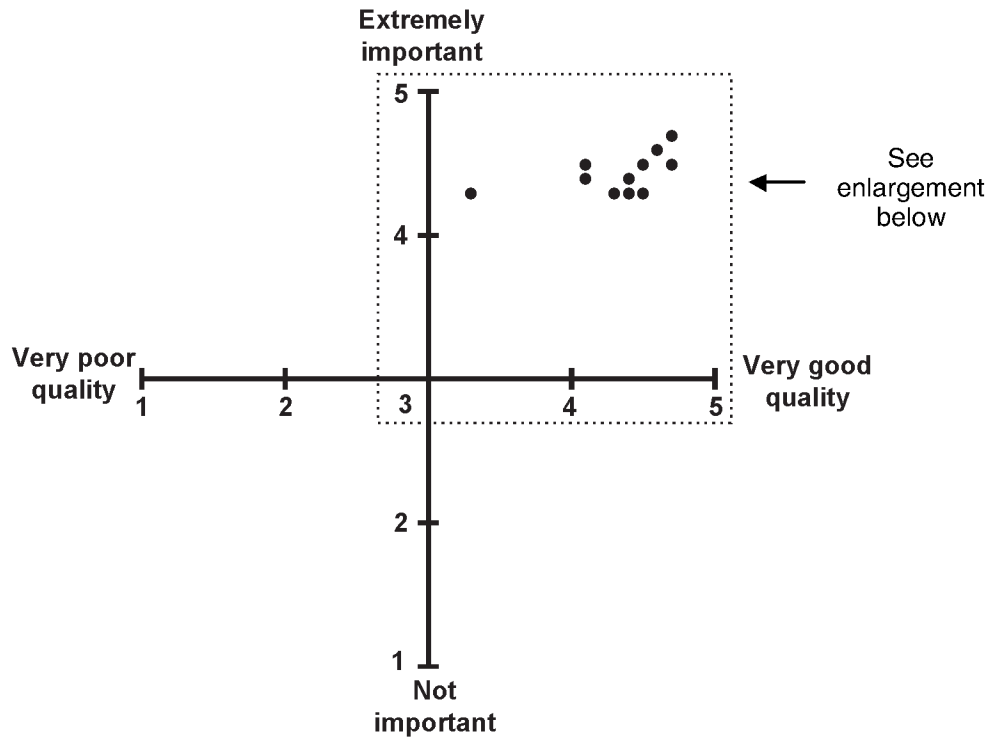


Figure 10: Average rating of visitor services and facilities' importance and quality at Wright Brothers NMEM

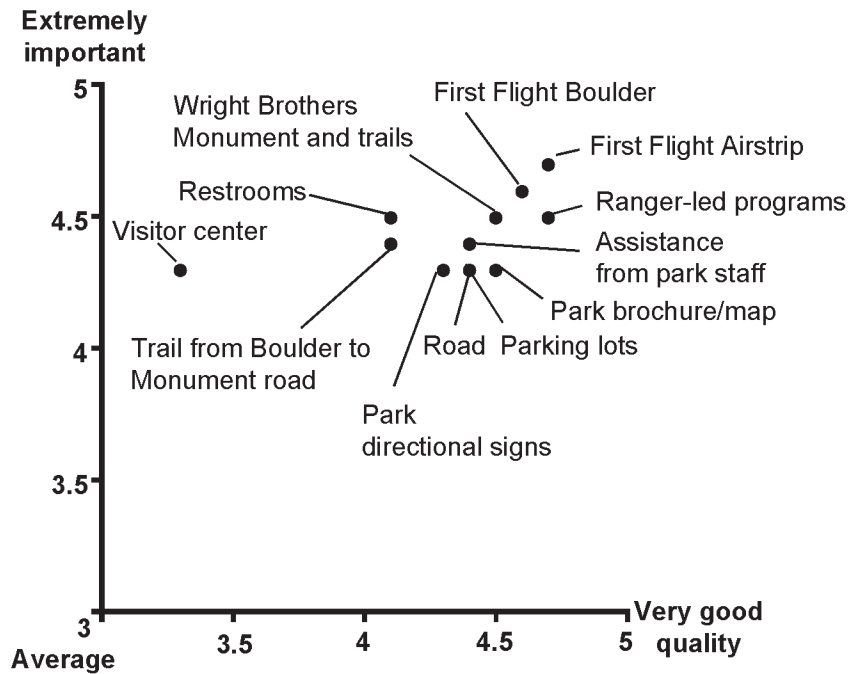


Figure 11: Detail of Figure 10

**Table 9: Importance of visitor services and facilities
at Wright Brothers NMEM**

N=number of visitor groups who rated each service/facility;
percentages may not equal 100 due to rounding.

Visitor service/facility		Extremely important	Very important	Moderately important	Somewhat important	Not important
Park brochure/map	N=143	50%	35%	13%	2%	1%
Visitor center	N=175	55%	26%	15%	2%	1%
Assistance from park staff	N=118	54%	31%	13%	1%	1%
First Flight Boulder/ 1903 Flight Path	N=145	63%	31%	6%	0%	1%
Trail from Boulder to Monument road	N=116	54%	32%	11%	3%	0%
Wright Brothers Monument and trails	N=151	64%	28%	7%	1%	0%
Ranger-led programs	N=64	66%	23%	9%	2%	0%
Restrooms	N=126	65%	25%	9%	2%	0%
Access for disabled persons CAUTION!	N=8	88%	0%	0%	0%	13%
Picnic area CAUTION!	N=2	50%	0%	50%	0%	0%
Park directional signs	N=92	54%	23%	21%	2%	0%
Road	N=116	50%	32%	15%	3%	0%
Parking lots	N=151	54%	27%	16%	3%	0%
First Flight Airstrip	N=89	67%	30%	2%	0%	0%

Table 10: Quality of visitor services and facilities at Wright Brothers NMEM

N=number of visitor groups who rated each service/facility;
percentages may not equal 100 due to rounding.

Visitor service/facility		Very good	Good	Average	Poor	Very poor
Park brochure/map	N=134	60%	31%	7%	1%	1%
Visitor center	N=161	24%	21%	28%	19%	9%
Assistance from park staff	N=113	65%	20%	9%	4%	2%
First Flight Boulder/ 1903 Flight Path	N=138	64%	30%	6%	0%	1%
Trail from Boulder to Monument road	N=109	44%	34%	15%	6%	2%
Wright Brothers Monument and trails	N=144	60%	29%	9%	1%	1%
Ranger-led programs	N=60	77%	18%	2%	2%	2%
Restrooms	N=118	45%	34%	14%	5%	3%
Access for disabled persons CAUTION!	N=8	13%	25%	50%	13%	0%
Picnic area CAUTION!	N=3	33%	33%	0%	0%	33%
Park directional signs	N=86	51%	33%	10%	5%	1%
Road	N=109	53%	37%	8%	1%	1%
Parking lots	N=144	55%	32%	10%	2%	1%
First Flight Airstrip	N=85	74%	20%	5%	0%	1%

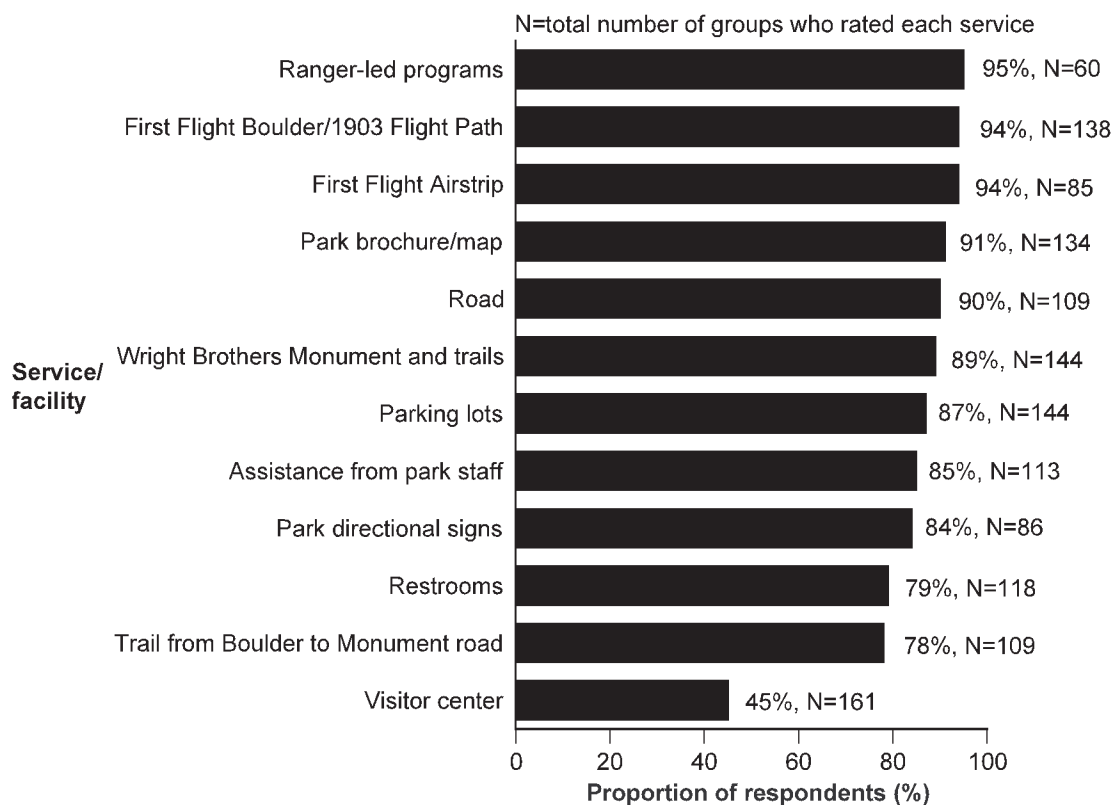


Figure 12: Combined proportions of “very good” and “good” quality ratings for visitor services and facilities at Wright Brothers NMEM

Visitors were asked: “Did you and your group have adequate access to park staff during this visit to Wright Brothers NMEM?” As shown in Figure 13, most visitor groups (87%) felt that they had adequate access to park staff, while 7% did not have adequate access to park staff during this visit and 7% were “not sure.”

Opinions about access to park staff

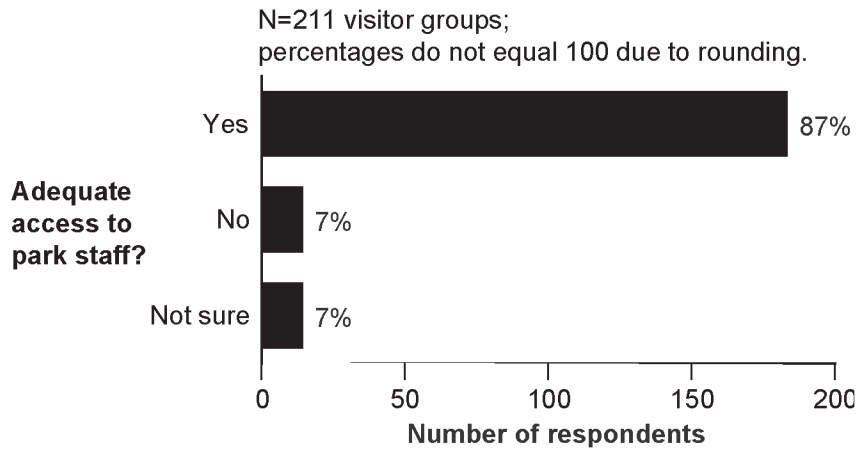


Figure 13: Access to park staff at Wright Brothers NMEM

**Comparison of
current programs/
activities with
those on past
visit(s)**

Visitors were asked several questions about comparing their experience on this visit with past visits. Visitor groups were asked, "In the past, have you visited one or more of the Outer Bank Group parks?" As shown in Figure 14, most visitor groups (62%) had not visited any of the Outer Bank Group parks in the past, while 38% had visited.

Visitor groups who had visited one or more of the Outer Banks Group parks were then asked, "How do park programs/activities on this visit compare with what you have experienced in the past?" Table 11 lists the similarities/differences between their experience on this visit to Wright Brothers NMEM and experiences on past visits.

Finally, visitor groups were asked to indicate whether these similarities/differences had any impact on their visit. Forty-five percent of visitor groups indicated "no effect," 32% said they "detracted from," and another 23% felt the similarities/differences "added to" their experience on this visit (see Figure 15).

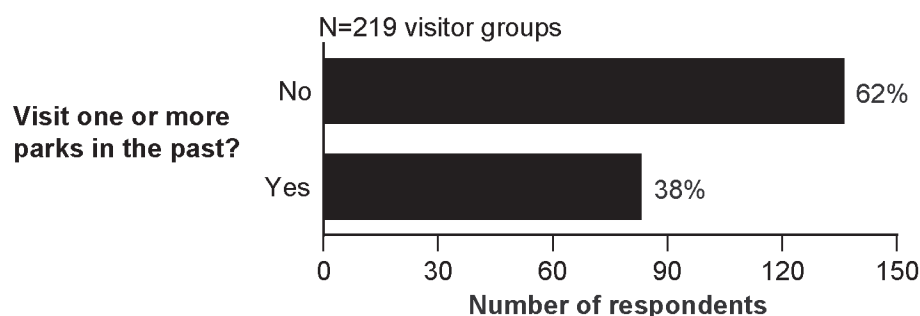


Figure 14: Visits to one or more of Outer Bank Group parks in the past

Table 11: Differences in programs/activities on this visit vs. previous visits

N=39 comments

Comment	Number of times mentioned
None/no change/similar	11
Wright Brothers museum not open	7
Lighthouse/location of lighthouse/access to lighthouse	5
Airplane exhibit closed	2
New ranger program	2
All improving	2
Other comments	10

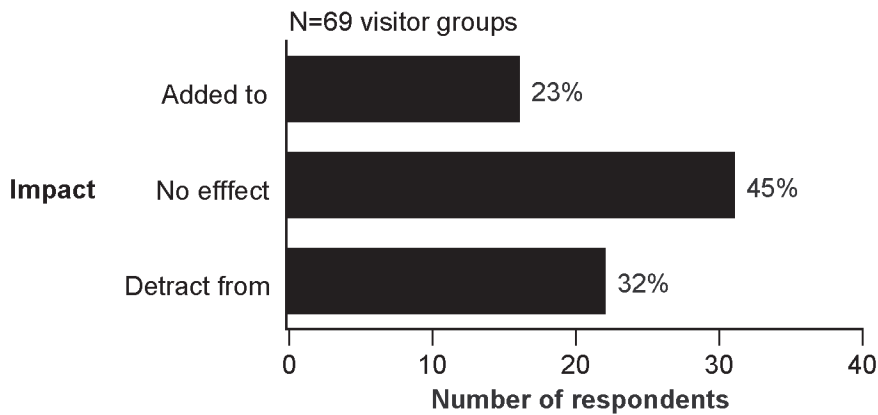


Figure 15: Impact of similarities/differences on this visit

Importance of selected park attributes

Visitors were asked to rate the importance of selected attributes in planning for the preservation of the Outer Banks Group parks for future generations. Table 12 compares the ratings of the attributes by the visitors of all three parks. The attributes that received the highest proportion of "extremely important" and "very important" ratings were preserving historic sites (95%), educational opportunities (90%) and natural open space (66%). Those attributes receiving the highest proportion of "not important" ratings included wildlife viewing (28%) and solitude (26%).

Table 12: Importance of attributes in planning for the preservation of the park for future generations

N=number of visitor groups who rated each attribute; percentages may not equal 100 due to rounding.

Attribute		Extremely important	Very important	Moderately important	Somewhat important	Not important	Don't know
Scenic views	N=215	40%	24%	27%	6%	3%	<1%
Wildlife viewing	N=204	7%	9%	23%	21%	28%	12%
Recreational opportunities	N=206	12%	22%	19%	16%	23%	8%
Natural quiet/sounds of nature	N=206	13%	21%	27%	14%	17%	7%
Night sky/stargazing	N=205	13%	15%	17%	13%	23%	20%
Solitude	N=203	12%	13%	21%	17%	26%	10%
Educational opportunities	N=214	72%	18%	8%	<1%	0%	2%
Preserving historic sites	N=219	79%	16%	3%	0%	0%	2%
Natural open space	N=210	37%	29%	18%	7%	7%	3%

Table 13 compares the effect of selected factors on visitor experience. The factor that most often had "no effect" on visitor experience was airplane overflights (39%). The factors receiving the highest proportion of "added to" ratings included airplane overflights (12%), fires on beach (6%), and vehicles on beach (5%). The factors that received the highest proportion of "detracted from" ratings were litter (31%) and dogs off leash (14%).

Selected factors' effect on visitor experience

Table 13: Selected factors' effect on visitor experience		N=number of visitor groups who rated each factor; percentages may not equal 100 due to rounding.			
Factor		Added to	No effect	Detracted from	Did not experience
RV electric generators	N=209	0%	14%	4%	82%
Airplane overflights	N=206	12%	39%	4%	46%
Fires on beach	N=207	6%	19%	2%	72%
Dogs off leash	N=210	1%	18%	14%	67%
Visitors drinking alcohol	N=208	1%	20%	10%	69%
Litter	N=210	<1%	11%	31%	57%
Vehicles on beach	N=209	5%	28%	7%	61%

Opinions about crowding

Visitor groups were asked to rate how crowded they felt during this visit to the Outer Banks Group parks. As shown in Figure 16, the greatest proportion of visitor groups (42%) felt "somewhat crowded", and 35% felt "not at all crowded." Twenty-three percent felt "crowded" or "very crowded."

Visitor groups were then asked where they felt crowded. The places listed by fifty visitor groups are shown in Table 14.

Figure 17 compares the impact crowding had on visitors' park experience. Most visitor groups (49%) said crowding had "no effect," and 45% said crowding had "detracted from" their park experience.

The visitor groups who responded that crowding had "detracted from" their experience were then asked what time of day they experienced crowding. Most (67%) responded that they felt most crowded in the afternoon (see Figure 18).

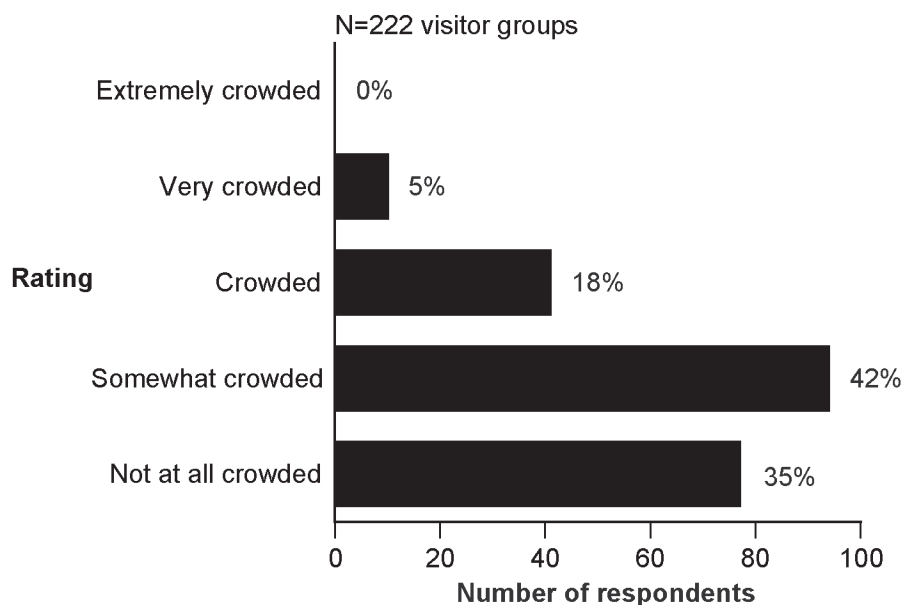
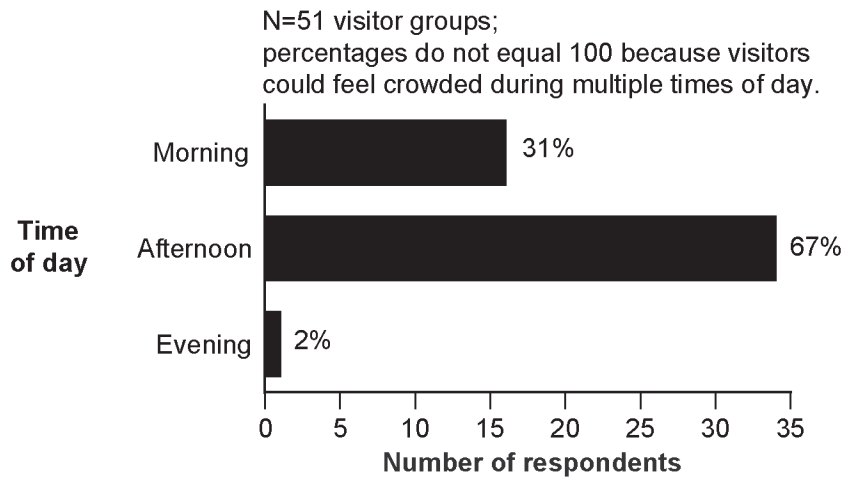
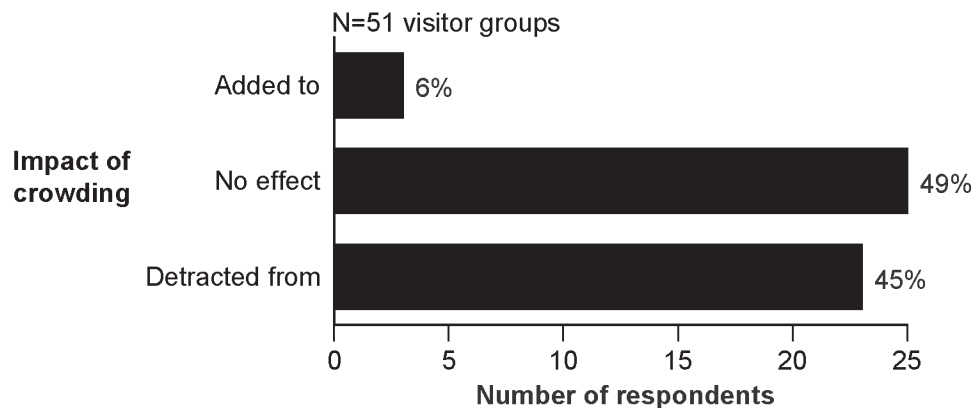


Figure 16: Opinions about crowding

Table 14: Places where visitors felt crowded

N=123 comments;
visitor groups may have made more than one comment.

Place	Number of times mentioned
Wright Brothers visitor center/museum/gift shop	30
Lighthouses	25
Wright Brothers Monument	17
Beaches	17
Ferry terminal	10
"Lost Colony" play	8
Roads	7
Wright Brothers ranger talks	3
Parking lots	2
Aquarium	2
Other comments	2

**Figure 17: Time of day visitors felt crowded****Figure 18: Impact of crowding**

Opinions about safety

Visitor groups were asked if they felt prepared for common safety situations they encountered at the Outer Banks Group parks. Most (91%) visitors responded that they were prepared for the common safety situations that they encountered, as shown in Figure 19.

Visitor groups who were unprepared were then asked how they would have prepared for a safer visit. Comments included "would have brought/drank more water," "learn more about tidal currents," "insect repellent" and "snacks."

Visitor groups were asked what common safety situations they encountered in the parks. Common visitor group responses included "sun," "heat" and "cactus," (see Table 15).

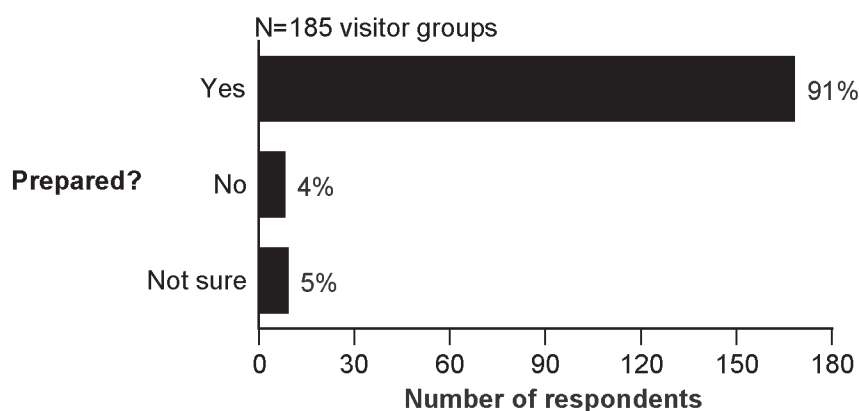


Figure 19: Visitor preparedness for common safety situations

Table 15: Common safety situations encountered at Wright Brothers NMEM

Comment	Number of times mentioned
First safety situation N=69	
Sun	51
Heat	10
Cactus	2
Rain	2
Other comments	4
Second safety situation N=36	
Heat	23
Sun	4
Cactus	2
Winds	2
Other comments	5
Third safety situation N=6	
Sun	3
Heat	2
Other comment	1

Visitor groups were asked "Overall, how would you rate the quality of the visitor services provided to you and your group at the Outer Banks Group parks during this visit?" Most visitor groups (89%) rated the overall quality as "very good" or "good." No groups rated the overall quality as "very poor," as shown in Figure 20.

Overall quality

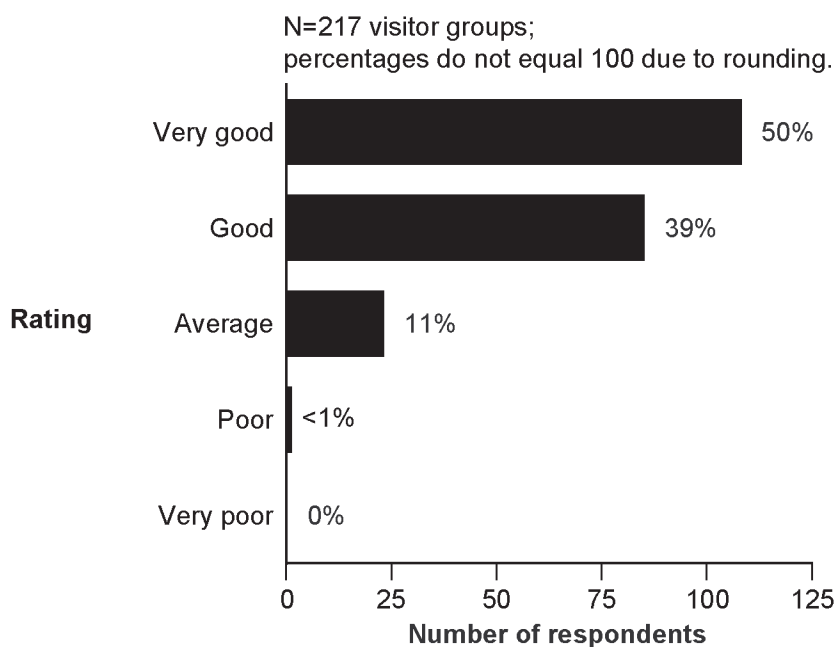


Figure 20: Overall quality of visitor services on this visit

What visitors liked most

Visitor groups were asked, "What did you like most about your visit to the Outer Bank Group parks?" Eighty-four percent of visitor groups (187 groups) responded to this question. A summary of their responses is listed below in Table 16 and complete copies of visitor responses are contained in the appendix.

Table 16: What visitors liked most

N=256 comments;
some visitors made more than one comment.

Comment	Number of times mentioned
PERSONNEL	
Rangers friendly/helpful/knowledgeable	10
Other comment	1
INTERPRETIVE SERVICES	
History/historical sites	33
Rangers/rangers' presentations	23
Informative/educational	19
"Lost Colony" play	6
Junior Ranger Program	5
Movie	2
FACILITIES & MAINTENANCE	
Cleanliness	23
Lighthouses	18
Wright Brothers NMEM	16
Flight path	9
Cape Hatteras NS	9
Well managed/maintained	4
Trails	3
Other comments	6
POLICY	
Naturalness	4
Other comments	7
RESOURCE MANAGEMENT	
Beaches/dunes	17
Quiet/solitude	6
Vast space	4
Other comments	3
GENERAL IMPRESSIONS	
Beauty/scenery	22
Ferry	2
Other comment	4

Visitor groups were asked, "What did you like least about your visit to the Outer Bank Group parks?" Sixty-six percent of visitor groups (148 groups) responded to this question. A summary of their responses is listed below in Table 17 and complete copies of visitor responses are contained in the appendix.

What visitors liked least

Table 17: What visitors liked least

N=146 comments;
some visitors made more than one comment.

Comment	Number of times mentioned
PERSONNEL	
Not enough staff available to answer questions	4
Comment	1
INTERPRETIVE SERVICES	
Absence of replicas	4
Could not see displays/exhibits	4
Not enough artifacts	3
Not enough historical information	3
Nothing to see from the road	2
Other comments	3
FACILITIES & MAINTENANCE	
Wright Brothers Visitor Center under construction	38
Cape Hatteras Lighthouse closed	14
Lack of parking	4
No water fountains	3
Confusing road signage	3
Ocracoke hard to find	3
Lack of shaded area to rest	3
Litter	2
Other comments	8
POLICY	
Too crowded	7
Too much traffic	4
Paying fees to see the Monument	2
Other comments	5
GENERAL IMPRESSIONS	
Bad weather/heat	10
Walk to top of memorial	5
Insect/cactus/sand spurs	4
Other visitors' bad attitude	3
Wait at ferry terminal	2
Other comments	2

Planning for the future

Visitor groups were asked, "If you were a manager planning for the future of Outer Banks Group parks, what would you propose? Please refer to the park by name." Forty-nine percent of visitor groups (110 groups) responded to this question. A summary of their responses is listed below in Table 18 and complete copies of visitor responses are contained in the appendix.

Table 18: Planning for the future

N=107 comments;
some visitors made more than one comment.

Comment	Number of times mentioned
PERSONNEL	
Comment	1
INTERPRETIVE SERVICES	
Need more artifacts/replicas on display	8
Need better gift items at bookstore/sales areas	5
More children's activities	4
Educational programs should be continued	4
Add a video shows scientific facts about history	2
More personal information on the "brothers"	2
Other comments	5
FACILITIES & MAINTENANCE	
Need adequate water supply/more drinking fountains	7
Plant more trees or put up more sun shelters	7
Better signage	4
Add full hook-up campground	4
Add more bathhouses/restrooms	4
Need more shaded picnic areas	3
Add more parking	3
Need better access to the Monument for disabled persons	3
Add small store/concession stand	3
Upgrade bathroom facilities	2
Increase distance between campsites	2
Other comments	5
POLICY	
No more commercial development in park	5
Do not charge fee for seeing the Monument	4
Leave the park as natural as possible	4
Keep park open longer hours	3
Allow visitors to climb lighthouse	2
Other comments	4
GENERAL IMPRESSIONS	
Excellent job, do not change anything	7

Thirty-one percent of visitor groups (70 groups) wrote additional comments about their visit to the Outer Banks Group parks. A summary of their responses is listed below in Table 19 and complete copies of visitor responses are contained in the appendix.

Additional comments

Table 19: Additional comments

N=101 comments;
some visitors made more than one comment.

Comment	Number of times mentioned
PERSONNEL	
Helpful and friendly staff/rangers	16
Other comments	2
INTERPRETIVE SERVICES	
Very informative/educational	5
Very disappointed--unable to visit visitor center	5
Provide more historical information	2
Other comments	3
FACILITIES & MAINTENANCE	
Very well-kept facilities/park	13
Continue to protect/maintain all lighthouses	2
Disappointed that lighthouse was closed	2
Better access for elderly/disabled	2
Other comments	3
POLICY	
Keep fee low	2
RESOURCE MANAGEMENT	
Restrict all commercial development in park	4
Other comments	2
GENERAL IMPRESSIONS	
Enjoyed visit	15
Will be back	7
Love the Outer Banks	4
Our favorite place for family vacation	3
Local people are friendly and hospitable	2
Beautiful	2
Wish we had more time	2
Other comments	3

Wright Brothers NMEM Visitor Study Additional Analysis VSP Report 136c

The Visitor Services Project (VSP) staff offers the opportunity to learn more from VSP visitor study data.

Additional Analysis

Additional analysis can be done using the park's VSP visitor study data that was collected and entered into the computer. Two-way and three-way cross tabulations can be made of any of the characteristics listed below. Be as specific as possible-you may select a single program/service/facility instead of all that were listed in the questionnaire. Include your name, address and phone number in the request.

- | | | |
|--|--|---|
| • Sources of information prior to visit | • Quality Wright Brothers NMEM services and facilities | • Hours spent on days of week |
| • Importance Wright Brothers NMEM had in decision to visit the Outer Banks | • Adequate access to park staff | • Crowded? |
| • Activities on this trip | • Group type | • Time of day crowded |
| • Activities on past trips | • Group size | • Effects of crowding |
| • Three most important reasons for visiting Wright Brothers NMEM | • Guided tour group | • Past visits to Outer Banks Group parks? |
| • Importance of attributes in planning for park preservation | • Age | • Impact of differences/similarities |
| • Factors' effect on visitor experience | • Zip code/state of residence | • Feel prepared for common safety situations? |
| • Use Wright Brothers NMEM services and facilities | • Country of residence (other than U.S.) | • Common safety situations encountered at parks |
| • Importance Wright Brothers NMEM services and facilities | • Number of visits Wright Brothers NMEM | • Overall quality of services |

Phone/send requests to:

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College of Natural Resources
P.O. Box 441139
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Moscow, Idaho 83844-1139

Phone: 208-885-7863
FAX: 208-885-4261
Email: littlej@uidaho.edu

QUESTIONNAIRE

Visitor Services Project Publications

Reports 1-6 (pilot studies) are available from the University of Idaho Park Studies Unit. All other VSP reports listed are available from the parks where the studies were conducted or from the UI CPSU. All studies were conducted in summer unless otherwise noted.

1982

1. Mapping interpretive services: A pilot study at Grand Teton National Park.

1983

2. Mapping interpretive services: Identifying barriers to adoption and diffusion of the method.
3. Mapping interpretive services: A follow-up study at Yellowstone National Park and Mt Rushmore National Memorial.
4. Mapping visitor populations: A pilot study at Yellowstone National Park.

1985

5. North Cascades National Park Service Complex
6. Crater Lake National Park

1986

7. Gettysburg National Military Park
8. Independence National Historical Park
9. Valley Forge National Historical Park

1987

10. Colonial National Historical Park (summer & fall)
11. Grand Teton National Park
12. Harpers Ferry National Historical Park
13. Mesa Verde National Park
14. Shenandoah National Park
15. Yellowstone National Park
16. Independence National Historical Park: Four Seasons Study

1988

17. Glen Canyon National Recreational Area
18. Denali National Park and Preserve
19. Bryce Canyon National Park
20. Craters of the Moon National Monument

1989

21. Everglades National Park (winter)
22. Statue of Liberty National Monument
23. The White House Tours, President's Park (summer)
24. Lincoln Home National Historical Site
25. Yellowstone National Park
26. Delaware Water Gap National Recreation Area
27. Muir Woods National Monument

1990

28. Canyonlands National Park (spring)
29. White Sands National Monument
30. National Monuments, Washington, D.C.
31. Kenai Fjords National Park
32. Gateway National Recreation Area
33. Petersburg National Battlefield
34. Death Valley National Monument
35. Glacier National Park
36. Scott's Bluff National Monument
37. John Day Fossil Beds National Monument

1991

38. Jean Lafitte National Historical Park (spring)
39. Joshua Tree National Monument (spring)
40. The White House Tours, President's Park (spring)
41. Natchez Trace Parkway (spring)
42. Stehekin-North Cascades NP/Lake Chelan National Recreation Area
43. City of Rocks National Reserve
44. The White House Tours, President's Park (fall)

1992

45. Big Bend National Park (spring)
46. Frederick Douglass National Historic Site (spring)
47. Glen Echo Park (spring)
48. Bent's Old Fort National Historic Site
49. Jefferson National Expansion Memorial
50. Zion National Park
51. New River Gorge National River
52. Klondike Gold Rush National Historical Park (AK)
53. Arlington House-The Robert E. Lee Memorial

1993

54. Belle Haven Park/Dyke Marsh Wildlife Preserve (spring)
55. Santa Monica Mountains National Recreation Area (spring)
56. Whitman Mission National Historic Site
57. Sitka National Historical Park
58. Indiana Dunes National Lakeshore (summer)
59. Redwood National Park
60. Channel Islands National Park
61. Pecos National Historical Park
62. Canyon de Chelly National Monument
63. Bryce Canyon National Park (fall)

1994

64. Death Valley National Monument Backcountry (winter)

Visitor Services Project Publications (continued)

1994 (continued)

- 65. San Antonio Missions National Historical Park (spring)
- 66. Anchorage Alaska Public Lands Information Center
- 67. Wolf Trap Farm Park for the Performing Arts
- 68. Nez Perce National Historical Park
- 69. Edison National Historic Site
- 70. San Juan Island National Historical Park
- 71. Canaveral National Seashore
- 72. Indiana Dunes National Lakeshore (fall)
- 73. Gettysburg National Military Park (fall)

1995

- 74. Grand Teton National Park (winter)
- 75. Yellowstone National Park (winter)
- 76. Bandelier National Monument
- 77. Wrangell-St. Elias National Park & Preserve
- 78. Adams National Historic Site
- 79. Devils Tower National Monument
- 80. Manassas National Battlefield Park
- 81. Booker T. Washington National Monument
- 82. San Francisco Maritime National Historical Park
- 83. Dry Tortugas National Park

1996

- 84. Everglades National Park (spring)
- 85. Chiricahua National Monument (spring)
- 86. Fort Bowie National Historic Site (spring)
- 87. Great Falls Park, Virginia (spring)
- 88. Great Smoky Mountains National Park
- 89. Chamizal National Memorial
- 90. Death Valley National Park (fall)
- 91. Prince William Forest Park (fall)

1997

- 92. Great Smoky Mountains National Park (summer & fall)
- 93. Virgin Islands National Park (winter)
- 94. Mojave National Preserve (spring)
- 95. Martin Luther King, Jr., National Historic Site (spring)
- 96. Lincoln Boyhood Home National Memorial
- 97. Grand Teton National Park
- 98. Bryce Canyon National Park
- 99. Voyageurs National Park
- 100. Lowell National Historical Park

1998

- 101. Jean Lafitte National Historical Park & Preserve (spring)
- 102. Chattahoochee River National Recreation Area (spring)

- 103. Cumberland Island National Seashore (spring)
- 104. Iwo Jima/Netherlands Carillon Memorials
- 105. National Monuments & Memorials, Washington, D.C.
- 106. Klondike Gold Rush National Historical Park (AK)
- 107. Whiskeytown National Recreation Area
- 108. Acadia National Park

1999

- 109. Big Cypress National Preserve (winter)
- 110. San Juan National Historic Site (Puerto Rico)
- 111. Saint Croix National Scenic Riverway
- 112. Rock Creek Park
- 113. New Bedford Whaling National Historical Park
- 114. Glacier Bay National Park & Preserve
- 115. Kenai Fjords National Park & Preserve
- 116. Lassen Volcanic National Park
- 117. Cumberland Gap National Historic Park (fall)

2000

- 118. Haleakala National Park (spring)
- 119. White House Tour and White House Visitor Center (spring)
- 120. USS Arizona Memorial
- 121. Olympic National Park
- 122. Eisenhower National Historic Site
- 123. Badlands National Park
- 124. Mount Rainier National Park

2001

- 125. Biscayne National Park (spring)
- 126. Colonial National Historical Park (Jamestown)
- 127. Shenandoah National Park
- 128. Pictured Rocks National Lakeshore
- 129. Crater Lake National Park
- 130. Valley Forge National Historical Park

2002

- 131. Everglades National Park (spring)
- 132. Dry Tortugas National Park
- 133. Pinnacles National Monument
- 134. Great Sand Dunes National Monument and Preserve
- 135. Pipestone National Monument
- 136. Outer Banks Group (Cape Hatteras National Seashore, Fort Raleigh National Historic Site and Wright Brothers National Memorial)

For more information about the Visitor Services Project, please contact the University of Idaho Park Studies Unit; phone (208) 885-7863 or go to website: <http://www.psu.uidaho.edu>

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