



# Springfield Armory National Historic Site Visitor Study

*Summer 2013*

Natural Resource Report NPS/NRSS/EQD/NRR—2014/797



**ON THE COVER**

Park Ranger Jennifer Zazo working a group of young people who are participating in the Junior Ranger program  
Photograph courtesy of Springfield Armory National Historic Site

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# **Springfield Armory National Historic Site Visitor Study**

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Natural Resource Report NPS/NRSS/EQD/NRR—2014/797

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## Executive Summary

This visitor study report profiles a systematic random sample of Springfield Armory National Historic Site (NHS) visitors during July 15–August 8, 2013. A total of 350 questionnaires were distributed to visitor groups. Of those, 228 questionnaires were returned, resulting in a 65.1% response rate.

<b>Group size and type</b>	Forty percent of visitor groups consisted of two people and 34% were in groups of three or four. Sixty-five percent of visitor groups consisted of family groups and 16% were alone. Nineteen percent of visitor groups had a member who identified with or belonged to an interest group.
<b>State or country of residence</b>	United States visitors were from 34 states and comprised 96% of total visitation during the survey period, with 21% from Massachusetts and 12% from New York. Twenty-two percent of visitor groups were residents of the greater Springfield area (within 100 miles of the park). There were too few international visitors to provide reliable data.
<b>Frequency of visits</b>	Eighty-four percent of visitors were visiting the park for the first time, while 10% had visited two or three times.
<b>Age, ethnicity, race, educational level, and income level</b>	Forty-one percent of visitors were ages 36-60 years, 25% were 61 years or older, and 20% were ages 15 years or younger. Four percent were Hispanic or Latino. Ninety-three percent of visitors were White, 3% were Asian, and 3% were of more than one race. Thirty-eight percent of respondents had completed a graduate degree and 32% had a bachelor's degree. Twenty-two percent of respondents reported a household income of \$50,000-\$74,999, 17% had an income of 75,000-\$99,999, and 17% had an income of \$100,000-\$149,999.
<b>Awareness of park prior to visit</b>	Fifty-nine percent of visitor groups were aware that the National Park Service manages Springfield Armory NHS.
<b>Information sources</b>	Most visitor groups (84%) obtained information about the park prior to their visit through the park website (56%), friends/relatives/word of mouth (37%), travel guides/tour books (14%), and maps/brochures (14%). Most visitors (94%) received the information they needed. Seventy-one percent of visitor groups prefer to use the park website to obtain information for a future visit.
<b>Park website</b>	Fifty-four percent of visitor groups obtained information from the park website to plan their visit to the park. Ninety-seven percent of visitor groups found the information they needed on the park website. Ninety-two percent of visitor groups rated the quality of information provided on the park website as "very good" or "good."
<b>Park as destination</b>	During the on-site interview, 46% of visitor groups said the park was one of several destinations, and for 40%, the park was their primary destination.
<b>Primary reason for visiting the area</b>	For 33% of visitor groups, visiting the park was the primary reason non-resident group members visited the area.
<b>Reasons for visiting the park</b>	The most common reasons for visiting the park were view indoor museum exhibits (78%), interest in gun history (66%), and see the largest historic US military small arms collection (57%).

## Executive Summary (continued)

<b>Services used in nearby communities</b>	Thirty-nine percent of visitor groups needed support services on this trip, of which, 97% were able to obtain needed support services.
<b>Transportation</b>	Eighty-four percent of visitor groups used a private vehicle to travel between overnight accommodations or home and the park, while 13% used a rented vehicle. Ninety-seven percent of visitor groups used one vehicle to arrive at the park.
<b>Directional signs</b>	Of the visitor groups who used directional signs to guide them to the park 49% found interstate highway signs adequate, 46% found signs in local communities adequate, and 65% found signs in the park/adjacent college adequate.
<b>Overnight stays</b>	Fifty-two percent of visitor groups stayed overnight in the greater Springfield area (within 100 miles of the park), of which 59% stayed one or two nights, 21% stayed three or four nights, and 20% stayed five or more nights. Seventy-three percent of visitor groups stayed in lodges, rented condos/homes, cabins, B&Bs, while 17% stayed in residences of friends or relatives.
<b>Length of visit</b>	Fifty-two percent of visitor groups spent two hours in the park, while 34% spent three or more hours. The average length of stay was 2.2 hours. One percent of visitor groups visited the park on more than one day.
<b>Local attractions visited</b>	The most common local attractions visited were Dr. Seuss National Memorial (27%), Basketball Hall of Fame (25%), and Springfield museums (23%).
<b>Activities on this visit</b>	The most common activities on this visit were viewing museum exhibits (99%), watching park videos/films (78%), and shopping in park bookstore (59%). The most common activity that was the primary reason for visiting the park was viewing museum exhibits (88%).
<b>Ranger-led talks/programs</b>	Nineteen percent of visitor groups participated in ranger-led talks/programs. The most common reason that prevented visitor groups from participating in ranger-led talks/programs were the visitor did not have time for this activity (49%) and they were not aware of talks/programs (39%).
<b>Information services and facilities</b>	The information services and facilities most often used by visitor groups were the museum exhibits (96%), restrooms (72%), videos/films (70%), and assistance from park staff (70%).
<b>Protecting park resources and attributes</b>	The highest combined proportions of “extremely important” and “very important” ratings of protecting park resources and attributes included museum and archival collections (99%), historic landscapes and buildings (91%), and repair/maintenance of buildings (90%).
<b>Interaction with park employees/volunteers</b>	Ninety-six percent of visitor groups obtained information from a NPS uniformed employee or volunteer. Ninety-eight percent of visitor groups rated the quality of information provided as “very good” or “good.” Ninety-seven percent rated the helpfulness of the employee/ volunteer as “very good” or “good.” Ninety-eight percent rated the courteousness of the employee/volunteer as “very good” or “good.”

**Executive Summary (continued)**

<b>Expenditures</b>	The average visitor group expenditure (inside and outside the park within 100 miles of the park) was \$294. The median group expenditure (50% of groups spent more and 50% of groups spent less) was \$108. The average total expenditure per person (per capita) was \$134.
<b>Income forgone to make this trip</b>	Ten percent of respondents had forgone income to make this trip.
<b>Methods of learning about the park</b>	Ninety-seven percent of visitor groups were interested in learning about the park through indoor museum exhibits (79%), films, movies, videos (74%), and ranger-guided walks/talks (60%).
<b>Overall quality</b>	Most visitor groups (95%) rated the overall quality of facilities, services, and recreational opportunities at Springfield Armory NHS as “very good” or “good.” One percent of visitor groups rated the overall quality as “poor.” No visitor groups rated the overall quality as “very poor.”

For more information about the Visitor Services Project, please contact the Park Studies Unit at the University of Idaho at (208) 885-2585 or the following website <http://www.psu.uidaho.edu>.

## **Acknowledgements**

We thank Marc Manni for compiling the report and overseeing the fieldwork, the staff and volunteers of Springfield Armory NHS for assisting with the survey, and Matthew Strawn and Brian Quigley for data processing.

## **About the Authors**

Marc Manni is the Research Team Supervisor for the Visitor Services Project. Yen Le, Ph.D., is Director of the Visitor Services Project, Park Studies Unit, Department of Conservation Social Sciences, at the University of Idaho.

## Introduction

This report describes the results of a visitor study at Springfield Armory NHS in Springfield, Massachusetts, conducted July 15–August 8, 2013 by the National Park Service (NPS) Visitor Services Project (VSP), part of the Park Studies Unit (PSU) at the University of Idaho.

Springfield Armory National Historic Site commemorates the critical role Springfield Armory played in the nation's military and industrial history. First created as a military storage depot by the fledgling U.S. Army in 1777, Springfield Armory was authorized by Congress and President George Washington in 1794 to manufacture small arms for the nation's defense. The armory was the federal center for the development and manufacture of U.S. military small arms from 1794 until its deactivation in 1968. The Springfield Armory was designated a national historic landmark in 1960 and was administratively listed in the National Register of Historic Places in 1966. The park was authorized in 1974 by P.L. 93-486 and became established as an NPS unit in 1978.

From the time the first muskets were hand-crafted until the high-precision machinery was powered down for the last time in 1968, Springfield Armory profoundly affected the lives of soldiers and civilians alike. Armory weapons influenced battlefield tactics and wartime strategy from the War of 1812 through the Vietnam Conflict. Some Springfield Armory small arms are still carried by our soldiers today in testament to their superior design and workmanship. Armory inventions and industrial processes, brought into the private sector in the 19th and 20th centuries, revolutionized the manufacture of consumer products and provided one of the catalysts for American industrialization. Springfield Armory's reputation attracted highly skilled workers and was a major reason for the rapid growth of the City of Springfield and the surrounding area. So many advanced technology industries were founded in the region around the armory that the area was dubbed "The Precision Corridor."

Today, the National Park Service manages a 20-acre portion of the 55-acre national historic site. The remaining 35-acre portion is owned by the Commonwealth of Massachusetts and functions as Springfield Technical Community College. The National Park Service and Springfield Technical Community College work together as legislated partners to manage the site as a whole. The partnership between a federal NPS unit and a state college makes for a very dynamic and bustling urban park and is one of the great strengths of the site. The site is home to the Benton Small Arms Collection, one of the world's largest historic firearm collections. This collection, along with historic structures and landscapes, form the core of the cultural and natural resources preserved and interpreted for public benefit. (Springfield Armory Foundation Document, February 2014)

## Organization of the Report

This report is organized into three sections.

### Section 1: **Methods**

This section discusses the procedures, limitations, and special conditions that may affect the study results.

### Section 2: **Results**

This section provides a summary for each question in the questionnaire and includes visitor comments to open-ended questions. The presentation of the results of this study does not follow the order of questions in the questionnaire.

### Section 3: **Appendices**

Appendix 1. *The Questionnaire*. A copy of the questionnaire distributed to visitor groups.

Appendix 2. *Additional Analysis*. A list of sample questions for cross-references and cross comparisons. Comparisons can be analyzed within a park or between parks. Results of additional analyses are not included in this report.

Appendix 3. *Decision rules for Checking Non-response Bias*. An explanation of how the non-response bias was determined.

## Presentation of the Results

Results are represented in the form of graphs (see Example 1), scatter plots, pie charts, tables, and text.

### Key

1. The figure title describes the graph's information.

2. Listed above the graph, the "N" shows the number of individuals or visitor groups responding to the question. If "N" is less than 30, "**CAUTION!**" is shown on the graph to indicate the results may be unreliable.

\* appears when the total percentages do not equal 100 due to rounding.

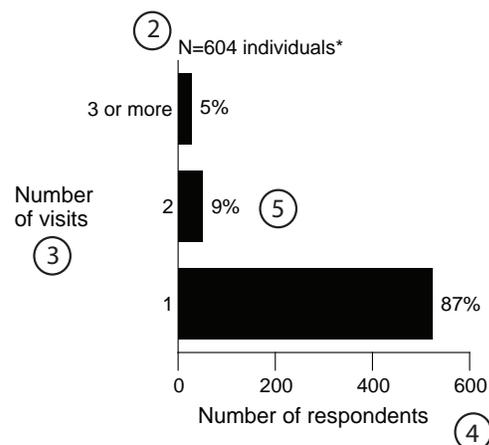
\*\* appears when total percentages do not equal 100 because visitors could select more than one answer choice.

3. Vertical information describes the response categories.

4. Horizontal information shows the number or proportion of responses in each category.

5. In most graphs, percentages provide additional information.

### Example 1



① **Figure 14.** Number of visits to the park in past 12 months

## Methods

### Survey Design and Procedures

#### ***Sample size and sampling plan***

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All VSP questionnaires follow design principles outlined in Don A. Dillman's book *Mail and Internet Surveys: The Tailored Design Method* (2007). Using this method, the sample size was calculated based on the park's visitation statistics of previous years.

Brief interviews were conducted with a systematic, random sample of visitor groups that arrived at the museum during July 15–August 8, 2013. Visitors were surveyed between the hours of 9 a.m. and 5 p.m. During this survey, 359 visitor groups were contacted and 350 of these groups (97.5%) accepted questionnaires. (The average acceptance rate for 277 VSP visitor studies conducted from 1988 through 2012 is 91.3%.) Questionnaires were completed and returned by 228 respondents, resulting in a 65.1% response rate for this study. (The average response rate for the 277 VSP visitor studies is 71.6%.)

#### ***Questionnaire design***

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The Springfield Armory NHS questionnaire was developed through conference calls between the park and VSP staff to design and prioritize questions. Some of the questions were comparable with VSP studies conducted at other parks while others were customized for Springfield Armory NHS. Many questions ask respondents to choose answers from a list of responses, often with an open-ended option, while others are completely open-ended.

No pilot study was conducted to test the Springfield Armory NHS questionnaire. However, all questions followed Office Management and Budget (OMB) guidelines and/or were used in previous surveys; thus, the clarity and consistency of the survey instrument have been tested and supported.

## ***Survey procedure***

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Visitor groups were greeted, briefly introduced to the purpose of the study, and asked to participate. If visitors agreed, they were asked which member (at least 16 years old) had the next birthday. The individual with the next birthday was selected to complete the questionnaire for the group. An interview, lasting approximately two minutes, was conducted with that person to determine group size, group type, the age of the member completing the questionnaire, and how this visit to the park fit into their group's travel plans. These individuals were asked their names, addresses, and telephone numbers or email addresses in order to mail them a reminder/thank-you postcard and follow-ups. Participants were asked to complete the survey after their visit, and return it using the Business Reply Mail envelope provided.

Two weeks following each survey round, a reminder/thank-you postcard was mailed to all participants who provided a valid mailing address (see Table 1). Replacement questionnaires were mailed to participants who had not returned their questionnaires four weeks after each survey round. Seven weeks after each survey round, a second replacement questionnaire was mailed to participants who had not returned their questionnaires.

The survey dates were extended until all questionnaires were passed out, resulting in two rounds of replacement mailings.

Table 1. Follow-up mailing distribution

<b>Round 1</b> (July 15-21)	<b>Date mailed</b>	<b>U.S.</b>	<b>International</b>	<b>Total</b>
Postcards	August 5, 2013	129	6	135
1 <sup>st</sup> replacement	August 19, 2013	66	5	71
2 <sup>nd</sup> replacement	September 9, 2013	52	0	52
<b>Round 2</b> (July 22–August 8)	<b>Date mailed</b>	<b>U.S.</b>	<b>International</b>	<b>Total</b>
Postcards	August 23, 2013	193	9	202
1 <sup>st</sup> replacement	September 9, 2013	105	6	111
2 <sup>nd</sup> replacement	September 27, 2013	99	0	99

## ***Data analysis***

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Visitor responses were entered twice and double-key validation was performed on numeric and short text responses. The remaining checkbox (bubble) variables were read by optical mark recognition (OMR) software. Responses to open-ended questions were categorized and summarized prior to data analysis.

Numeric data were processed and statistics were calculated using Statistical Analysis Software® (SAS) and IBM SPSS Statistics.

## ***Limitations***

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

1. This was a self-administered survey. Respondents completed the questionnaire after their visit, which may have resulted in poor recall. Thus, it is not possible to know whether visitor responses reflected actual behavior.
2. The data reflect visitor use patterns at the selected sites during the study period of July 15–August 8, 2013. The results present a ‘snapshot in time’ and 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. When the sample size is less than 30, the word “**CAUTION!**” is included in the graph, figure, table, or text.
4. Occasionally, there may be inconsistencies in the results. Inconsistencies arise from missing data or incorrect answers (due to misunderstood directions, carelessness, or poor recall of information). Therefore, refer to both the percentage and N (number of individuals or visitor groups) when interpreting the results.

## ***Special conditions***

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The weather during the survey period ranged from cool, overcast, and rain to hot, humid and sunny with temperatures from 70F to 90F.

No special events occurred in the area that would have affected the type and amount of visitation to the park.

### **Checking non-response bias**

Five variables were used to check non-response bias: participant age, group size, group type, park as destination, and proximity from participant's homes to the Springfield, MA. Respondents and non-respondents were not significantly different except for respondent age and proximity from participant's home to the park (see Table 2 - Table 5). Respondents at younger age ranges (especially 45 and younger) and visitors who live in within 100 miles radius of Springfield, MA may be underrepresented in the results. See Appendix 3 for more details of the non-response bias checking procedures.

Table 2. Comparison of respondents and non-respondents by average age and group size

<b>Variable</b>	<b>Respondents</b>	<b>Non-respondents</b>	<b>p-value (t-test)</b>
Age (years)	52.46 (N=228)	45.71 (N=121)	<0.001
Group size	2.67 (N=217)	2.72 (N=116)	0.764

Table 3. Comparison of respondents and non-respondents by group type

<b>Group type</b>	<b>Respondents</b>	<b>Non-respondents</b>	<b>p-value (chi-square)</b>
Alone	37 (16%)	18 (15%)	0.594
Family	146 (65%)	81 (68%)	
Friends	29 (13%)	17 (14%)	
Family and friends	12 (5%)	3 (3%)	

Table 4. Comparison of respondents and non-respondents by primary destination

<b>Destination</b>	<b>Respondents</b>	<b>Non-respondents</b>	<b>p-value (chi-square)</b>
Park as primary destination	89 (39%)	51 (42%)	0.839
Park as one of several destinations	108 (48%)	54 (44%)	
Unplanned visit	30 (13%)	17 (14%)	

Table 5. Comparison of respondents and non-respondents by distance from home to park

<b>Destination</b>	<b>Respondents</b>	<b>Non-respondents</b>	<b>p-value (chi-square)</b>
100 miles or less	82 (37%)	49 (43%)	0.004
101-200 miles	23 (10%)	3 (3%)	
201-300 miles	15 (7%)	4 (4%)	
301 or more	99 (44%)	47 (42%)	
International visitors	5 (2%)	10 (9%)	

## Results

### Group and Visitor Characteristics

#### Visitor group size

**Question 23b**

On this visit, how many people were in your personal group, including yourself?

**Results**

- 40% of visitor groups consisted of two people (see Figure 1).
- 34% were in groups of three or four.

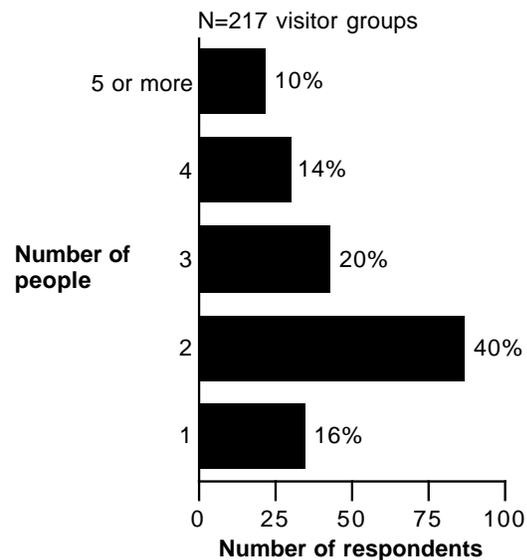


Figure 1. Visitor group size

#### Visitor group type

**Question 23a**

On this visit, which type of personal group (not guided tour/school/other organized group) were you with?

**Results**

- 65% of visitor groups consisted of family groups (see Figure 2).
- 16% were alone.
- 13% were with friends.
- “Other” group type (1%) was:

Business associates

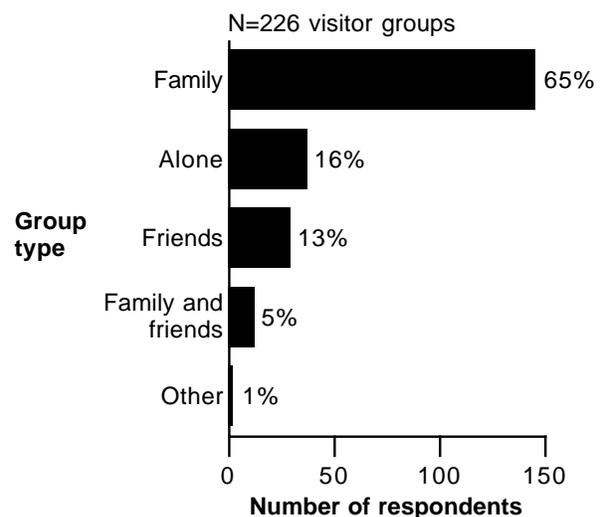


Figure 2. Visitor group type

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

### Visitors with organized groups

**Question 22a**

On this visit, was your personal group with a commercial bus/guided tour group?

**Results**

- No visitor groups were with a commercial bus/guided tour group (see Figure 3).

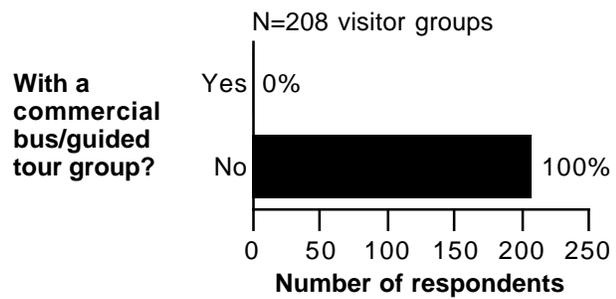


Figure 3. Visitors with a commercial bus/guided tour group

**Question 22b**

On this visit, was your personal group with a school/educational group?

**Results**

- 2% of visitor groups were with a school/educational group (see Figure 4).

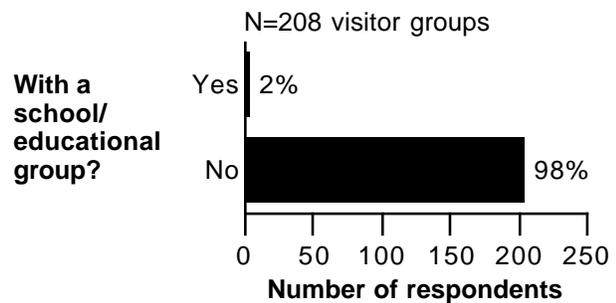


Figure 4. Visitors with a school/educational group

**Question 22c**

On this visit, was your personal group with an “other” organized group (scouts, work, church, etc.)?

**Results**

- 1% of visitor groups were with an “other” organized group (see Figure 5).

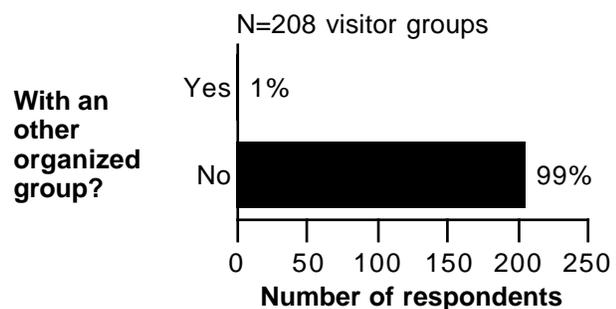


Figure 5. Visitors with an “other” organized group

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

**Question 22d**

If you were with one of these organized groups, how many people, including yourself, were in this group?

Results – Interpret results with **CAUTION!**

- Not enough visitor groups responded to this question to provide reliable results (see Figure 6).

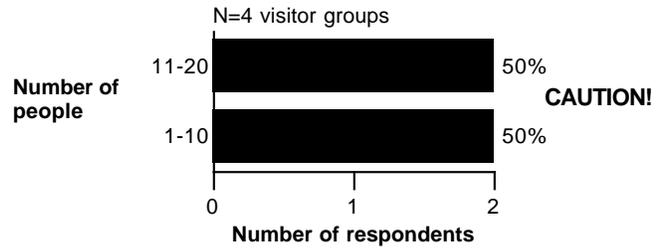


Figure 6. Organized group size

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

**Visitors identifying with or belonging to special interest groups**

**Question 21a**

Does anyone in your personal group identify with or belong to an interest group that led you to visit Springfield Armory NHS on this visit?

**Results**

- 19% of visitor groups identified with or belonged to an interest group that led them to visit the park (see Figure 7).

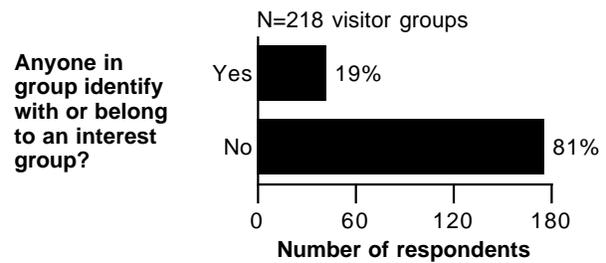


Figure 7. Visitor groups that identified with or belonged to an interest group

**Question 21b**

If YES, what interest group is it?

**Results**

- 40 visitor groups listed interest groups they identified with or belonged to that led them to visit the park (see Table 6).

Table 6. Visitor groups that identified with or belonged to an interest group (N=51 comments; some visitor groups made more than one comment)

Service	Number of times mentioned
National Rifle Association	19
US military (active duty, retired, veteran)	12
Boy Scouts of America	2
Aberdeen Proving Ground Museum Ordinance Association/Foundation	1
American Legion	1
Civil War collector	1
Civil War interest	1
Civil War reenactment group	1
Civil War Reenactors and Historic Preservation Professionals	1
Civil War trust	1
Garand Collector's Association	1
Lakeland Rifle and Pistol Club	1
Law enforcement	1
Michigan antique arms collector	1
National Park Service VIP	1
National Park Stamp group	1
National Park Traveler's Club	1
NPS and Association of Partners for Public Lands	1
South Berwick, ME Rod and Gun Club	1
US Cavalry Association	1
US Rifleman's Association	1

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

**United States visitors by state of residence**

**Question 24b**

For your personal group on this visit, what is each member’s state of residence?

Note: Response was limited to seven members from each visitor group.

**Results**

- U.S. visitors were from 34 states and comprised 96% of total visitation to the park during the survey period.
- 21% of U.S. visitors came from Massachusetts (see Table 7 and Figure 8).
- 12% came from New York.
- 8% were from Pennsylvania.
- Smaller proportions came from 31 other states.

Table 7. United States visitors by state of residence

State	Number of visitors	Percent of U.S. visitors N= 529 individuals*	Percent of total visitors N= 552 individuals
Massachusetts	111	21	20
New York	61	12	11
Pennsylvania	42	8	8
Connecticut	34	6	6
California	32	6	6
Texas	29	5	5
Florida	20	4	4
Virginia	20	4	4
Ohio	18	3	3
Maryland	16	3	3
Michigan	13	2	2
New Jersey	13	2	2
New Hampshire	12	2	2
Illinois	11	2	2
North Carolina	9	2	2
Washington	9	2	2
Wisconsin	8	2	1
17 other states	71	13	13

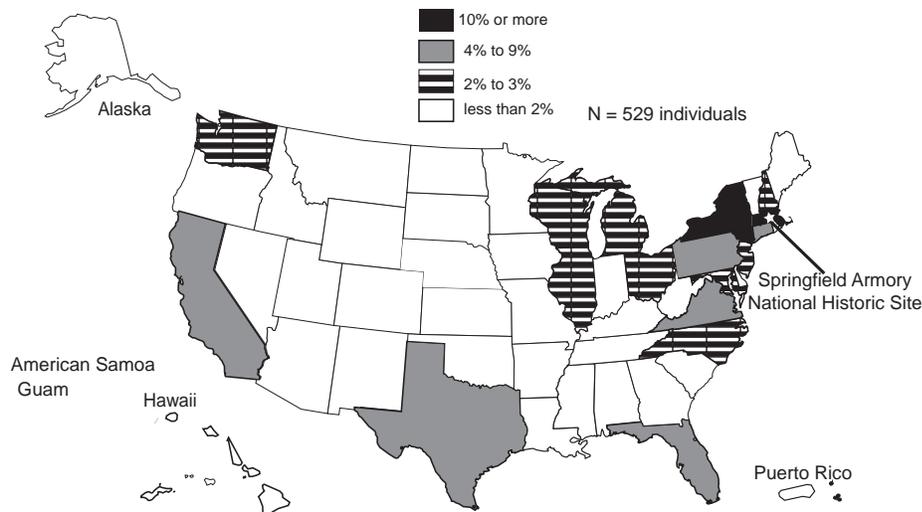


Figure 8. United States visitors by state of residence

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

**Visitors from Massachusetts and adjacent states by county of residence**

Note: Response was limited to seven members from each visitor group.

Table 8. Visitors from Massachusetts and adjacent states by county of residence

Results

- Visitors from Massachusetts and adjacent states were from 40 counties and comprised 41% of the total U.S. visitation to the park during the survey period.
- 31% came from Hampden County, MA (see Table 8).
- 11% came from Hartford County, CT.
- Small proportions of visitors came from 38 other counties in Massachusetts and adjacent states.

County, State	Number of visitors N=228 individuals	Percent*
Hampden, MA	70	31
Hartford, CT	25	11
Albany, NY	8	4
Hampshire, MA	8	4
Middlesex, MA	8	4
Hillsborough, NH	7	3
Norfolk, MA	7	3
Suffolk, NY	7	3
Oneida, NY	6	3
Onondaga, NY	6	3
Worcester, MA	6	3
Fairfield, CT	5	2
Penobscot, ME	5	2
Rensselaer, NY	5	2
Erie, NY	4	2
Essex, MA	4	2
Saratoga, NY	4	2
23 other counties in MA and adjacent states	43	19

**Residents of the greater Springfield area**

Question 4a

Was every member in your personal group a resident of the greater Springfield area (within 100 miles of the park)?

Results

- For 22% of visitor groups, all members were residents of the greater Springfield area (see Figure 9).

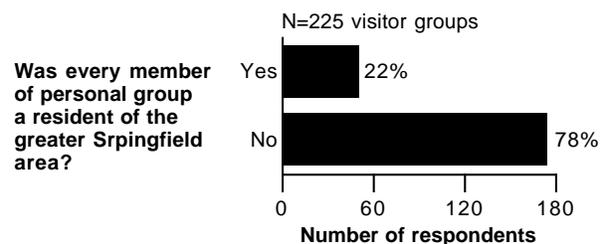


Figure 9. Visitor groups that were comprised of residents of the greater Springfield area

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

**International visitors by country of residence**

**Question 24b**

For your personal group on this visit, what is each member’s country of residence?

Note: Response was limited to seven members from each visitor group.

**Results – Interpret with CAUTION!**

- Not enough visitors responded to this question to provide reliable results (see Table 9).

Table 9. International visitors by country of residence

Country	Number of visitors	Percent of international visitors N=23 individuals*	Percent of total visitors N=552 individuals
Canada	6	26	1
Netherlands	5	22	1
United Kingdom	4	17	1
China	3	13	1
Belgium	2	9	<1
Brunei	1	4	<1
Israel	1	4	<1
Spain	1	4	<1

**Number of visits to park in lifetime**

**Question 24c**

For your personal group on this visit, how many times has each member visited Springfield Armory NHS in their lifetime (including this visit)?

Note: Response was limited to seven members from each visitor group.

**Results**

- 84% of visitors were visiting the park for the first time (see Figure 10).
- 10% visited two or three times.

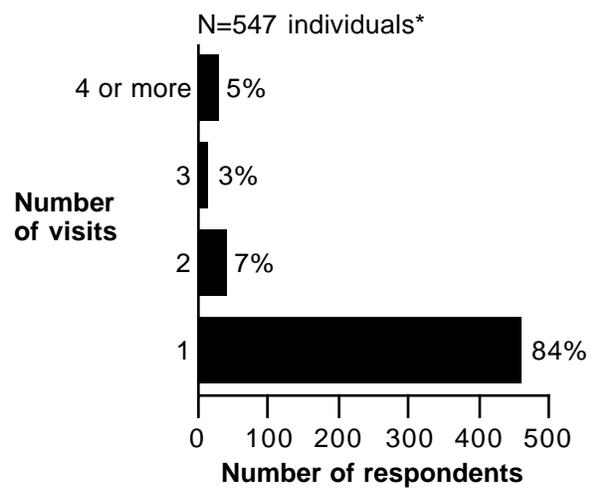


Figure 10. Number of visits to park in lifetime

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

## Visitor age

### Question 24a

For your personal group on this visit, what is each member's current age?

Note: Response was limited to seven members from each visitor group.

### Results

- Visitor ages ranged from 2 to 88 years.
- 41% of visitors were 36 to 60 years old (see Figure 11).
- 25% were 61 years or older.
- 20% were 15 years or younger.

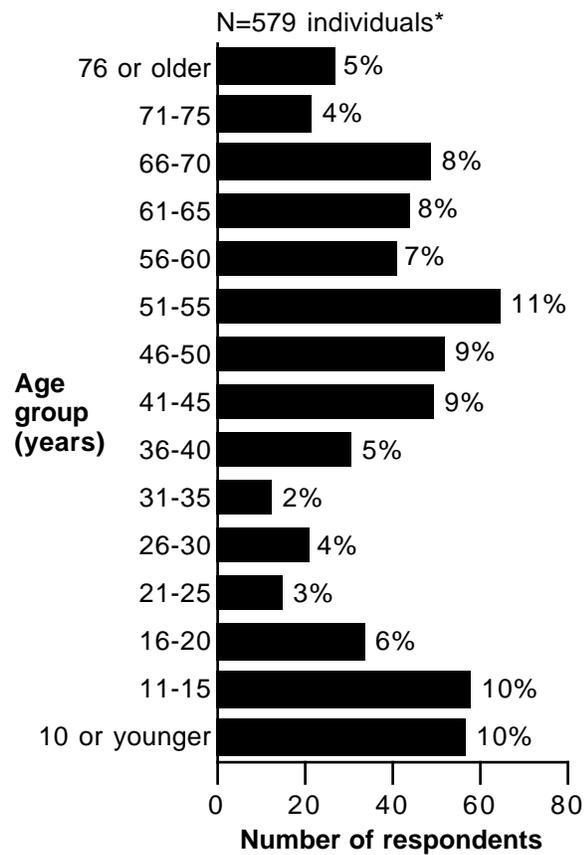


Figure 11. Visitor age

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

### Visitors of Hispanic or Latino ethnicity

**Question 27a**

Are members of your personal group Hispanic or Latino?

Note: Response was limited to seven members from each visitor group.

**Results**

- 4% of visitors were Hispanic or Latino (see Figure 12).

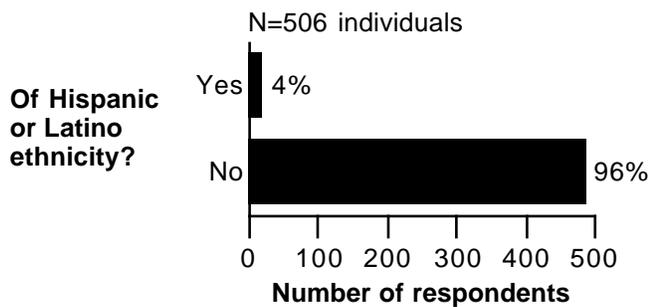


Figure 12. Visitors of Hispanic or Latino ethnicity

### Visitor race

**Question 27b**

What is the race of each member of your personal group?

Note: Response was limited to seven members from each visitor group.

**Results**

- 93% of visitors were White (see Figure 13).
- 3% were Asian.
- 3% were of more than one race.

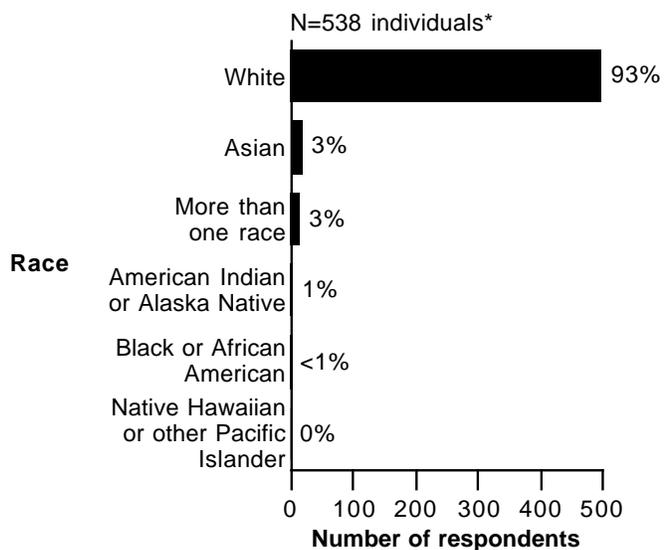


Figure 13. Visitor race

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

### Respondent household income

**Question 26a**

For you only, which category best represents your annual household income?

**Results**

- 22% of respondents reported a household income of \$50,000-\$74,999 (see Figure 14).
- 17% had an income of 75,000-\$99,999.
- 17% had an income of \$100,000-\$149,999.

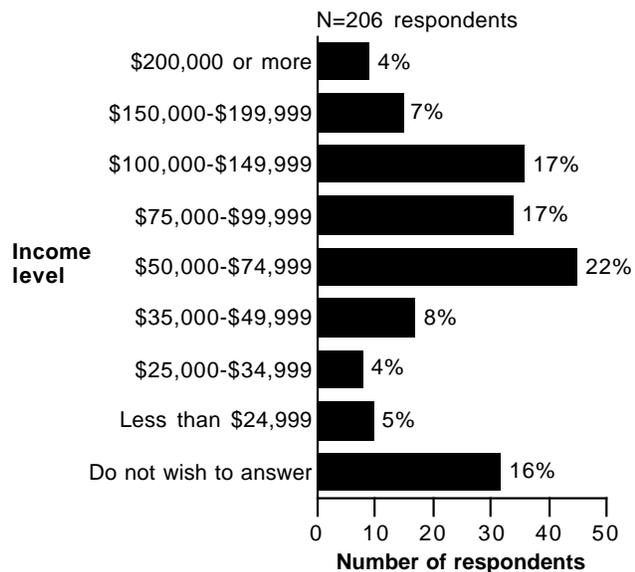


Figure 14. Respondent household income

### Respondent household size

**Question 26b**

How many people are in your household?

**Results**

- 51% of respondents had one or two people in their household (see Figure 15).
- 39% had three or four people.

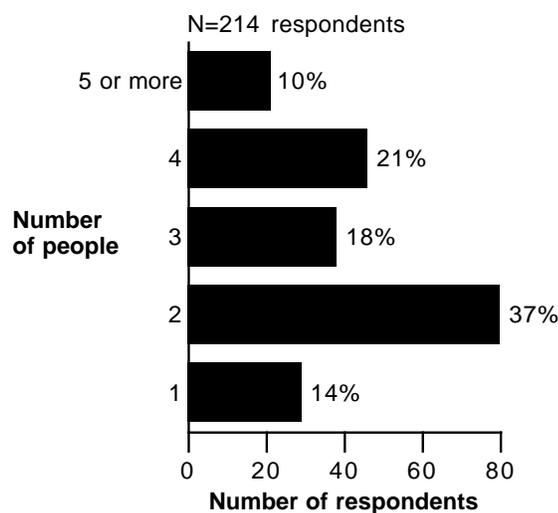


Figure 15. Number of people in respondent household

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

**Respondent level of education**

**Question 25**

For you only, what is the highest level of education you have completed?

**Results**

- 38% of respondents had a graduate degree (see Figure 16).
- 32% had a bachelor's degree.
- 19% had some college.

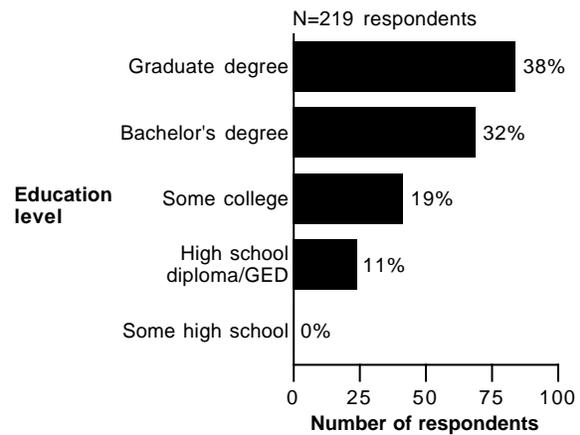


Figure 16. Respondent level of education

**Awareness of park management**

**Question 2**

Prior to this visit, was anyone in your personal group aware that Springfield Armory NHS is managed by the National Park Service?

**Results**

- 59% of visitor groups were aware that the National Park Service manages Springfield Armory NHS (see Figure 17).

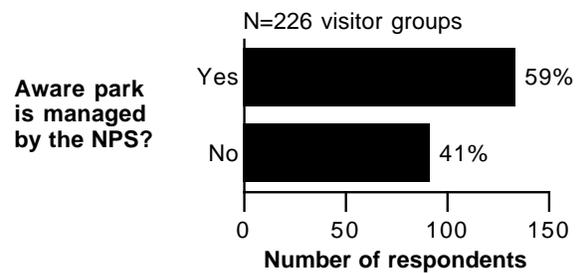


Figure 17. Visitor groups that were aware that the National Park Service manages Springfield Armory NHS

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

## Trip/Visit Characteristics and Preferences

### Information sources prior to visit

#### Question 1a

Prior to this visit, how did your personal group obtain information about Springfield Armory NHS?

#### Results

- 84% of visitor groups obtained information about Springfield Armory NHS prior to their visit (see Figure 18).
- As shown in Figure 19, among those visitor groups that obtained information about Springfield Armory NHS prior to their visit, the most common sources used were:

56% Springfield Armory NHS website  
37% Friends/relatives/word of mouth

- Other websites (9%) used to obtain information prior to visit were:

google.com  
maps.google.com  
nps.gov  
parkstamps.org  
springfield-ma.gov  
tripadvisor.com  
wikipedia.com  
yelp.com  
Mass Tourism

- “Other” sources (12%) were:

History books - Bople's History  
iPad app - national park  
Live locally  
Museum in Cody, WY  
National Park Passport book  
NPS booklet (less traveled parks)  
Previous knowledge  
Research on trapdoor rifles, carbines, and cartridges  
Road signs  
Smith and Wesson suggestion  
Westover AFB event  
Work at STCC

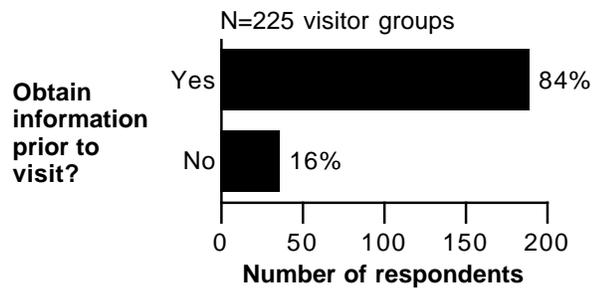


Figure 18. Visitor groups that obtained information prior to visit

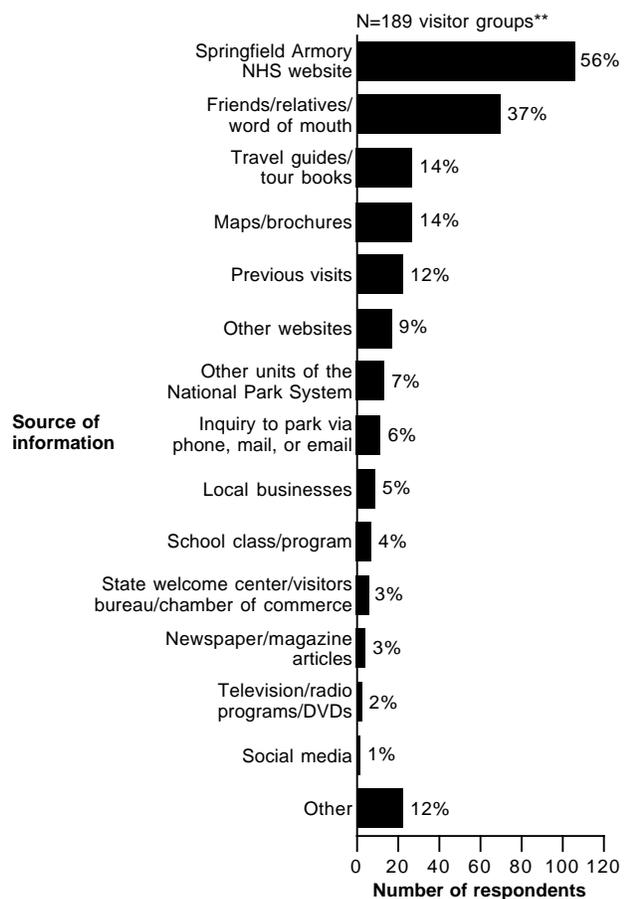


Figure 19. Sources of information used by visitor groups prior to visit

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

**Question 1c**

From the sources you used prior to this visit, did your personal group receive the type of information about the park that you needed?

**Results**

- 94% of visitor groups received needed information prior to their visit (see Figure 20).

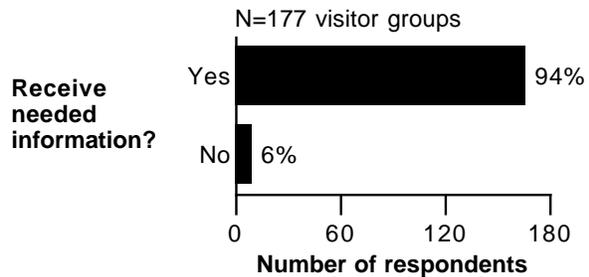


Figure 20. Visitor groups that received needed information prior to their visit

**Question 1d**

If NO, what type of park information did your personal group need that was not available? (Open-ended)

**Results – Interpret results with CAUTION!**

- 9 visitor groups listed information they needed but was not available (see Table 10).

Table 10. Needed information that was not available (N=9 comments) – **CAUTION**

Needed information
A better description of what was available to see
Driving directions - confused by college we had to drive around
Hours of operation
I didn't know much about what was in the museum or what was available for kids
I think museum should be much better marked, including off I-91. This sign itself would serve as advertising. Immediate grounds, i.e. to find park, lot should be better marked.
No signage on local highways
Park brochure
Signs directing to the parking lot and entrance could be better
We thought that 10 person vault visits were still available

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

**Use of park website to plan trip**

**Question 10a**

Did your personal group obtain information from the park website (<http://www.nps.gov/spar>) to plan this trip to Springfield Armory NHS?

**Results**

- 54% of visitor groups obtained information from the park website to plan their visit to Springfield Armory NHS (see Figure 21).

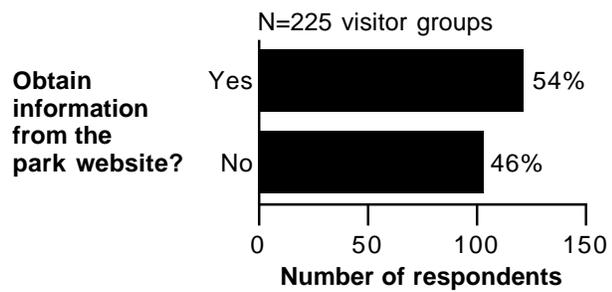


Figure 21. Visitor groups that obtained information from the park website to plan their visit to Springfield Armory NHS

**Question 10b**

Overall, how would your personal group rate the quality of information provided on the park website?

**Results**

- 92% of visitor groups rated quality of information provided on the park website as “very good” or “good” (see Figure 22).
- 1% rated the quality as “poor.”
- No visitor groups rated the quality as “very poor.”

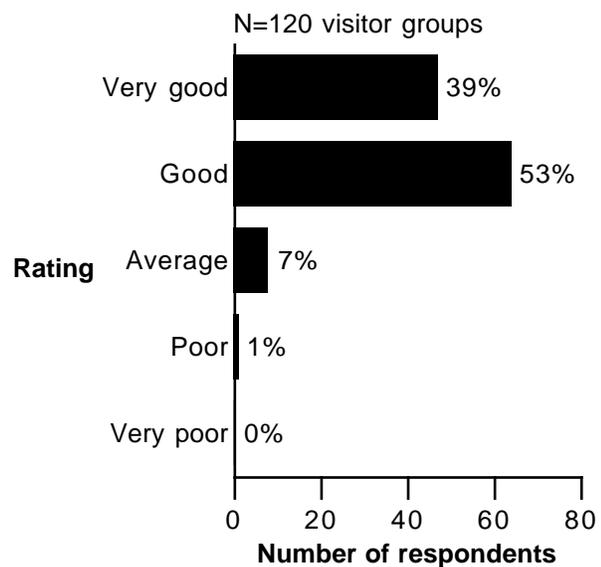


Figure 22. Quality of information provided on the park website

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

**Question 10c**

Did your personal group find the information that you needed on the park website?

**Results**

- 97% of visitor groups found the information they needed on the park website (see Figure 23).

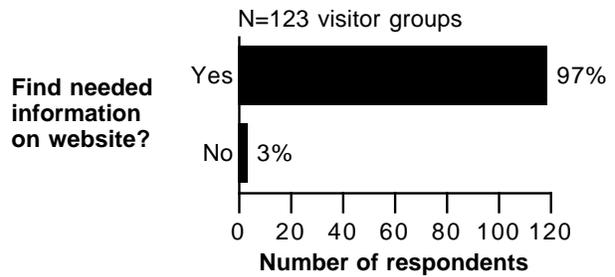


Figure 23. Visitor groups that received needed information prior to their visit

**Question 10d**

If NO, what type of information did your personal group need that was not available on the park website? (Open-ended)

**Results – Interpret results with CAUTION!**

- 7 visitor groups listed information they needed but was not available (see Table 11).

Table 11. Needed information that was not available on the park website (N=7 comments) – **CAUTION**

Needed information
I'm not sure the hours were posted. I was looking for specific exhibits, didn't see any listed.
Individual site information is terrific. Overall set up of website is poor - old version was much better.
More clear direction for entry is useful. Was on foot and walked much further when an entry gate was there.
Specific guidance after leaving the freeway to the visitor center
Used wiki information. Didn't know there were outdoor exhibits or a walking tour.
Vault visits
Wheelchair availability

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

**Information sources for future visit**

**Question 1b**

If you were to visit Springfield Armory NHS in the future, how would your personal group prefer to obtain information about the park?

**Results**

- As shown in Figure 24, visitor groups' most preferred sources of information for a future visit were:
  - 71% Springfield Armory NHS website
  - 24% Previous visits
  - 21% Travel guides/tour books
  - 21% Friends/relatives/word of mouth
- “Other” websites (6%) were:
  - google.com
  - parkstamps.org
  - tripadvisor.com
  - yelp.com
  - Mass Tourism

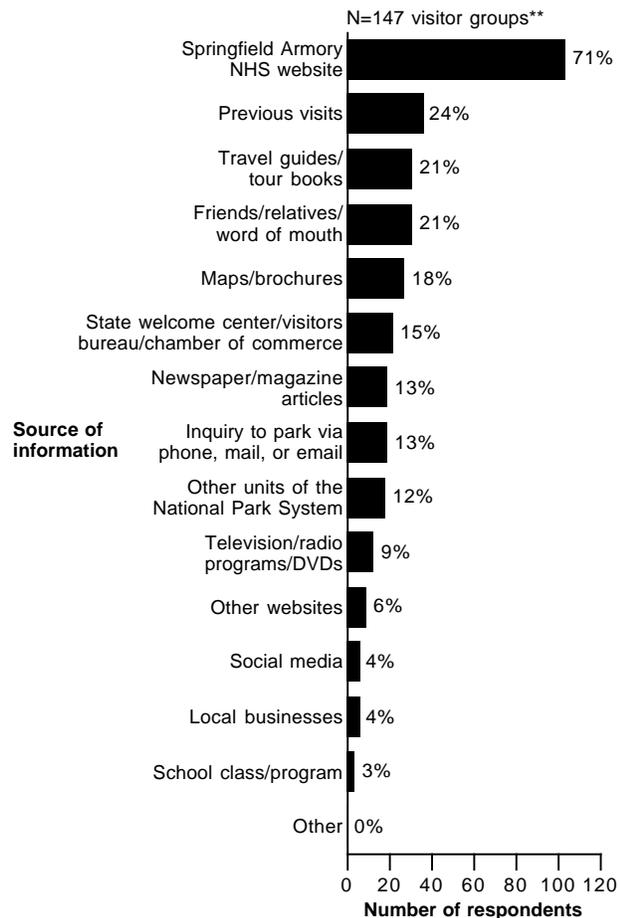


Figure 24. Sources of information to use for a future visit

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

**Park as destination**

**Question from on-site interview**

A two-minute interview was conducted with each individual selected to complete the questionnaire. During the interview, the question was asked: “How did this visit to Springfield Armory NHS fit into your personal group’s travel plans?”

**Results**

- 46% of visitor groups said Springfield Armory NHS was one of several destinations (see Figure 25).
- 40% said the park was their primary destination.

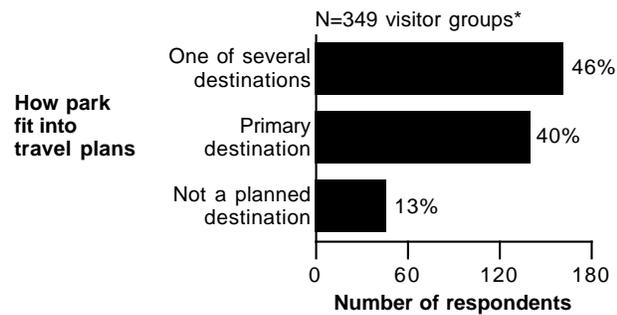


Figure 25. How visit to park fit into visitor groups’ travel plans

**Primary reason nonresident group members visited the park area**

**Question 4b**

Was visiting Springfield Armory NHS the primary reason nonresident members of your personal group came to the area (within 100 miles of the park)?

**Results**

- For 33% of visitor groups, visiting the park was the primary reason non-resident group members visited the area (see Figure 26).

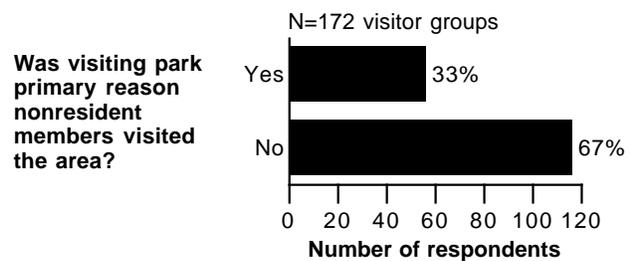


Figure 26. Primary reason nonresident members visited the area (within 100 miles of the park)

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

### Reasons for visiting the Springfield Armory NHS

**Question 3**

On this visit, what were your personal group’s reasons for visiting Springfield Armory NHS?

**Results**

- As shown in Figure 27, the reasons for visiting the park were:

- 78% View indoor museum exhibits
- 66% Interest in gun history
- 57% See the largest historic US military small arms collection

- “Other” reasons (24%) are shown in Table 12.

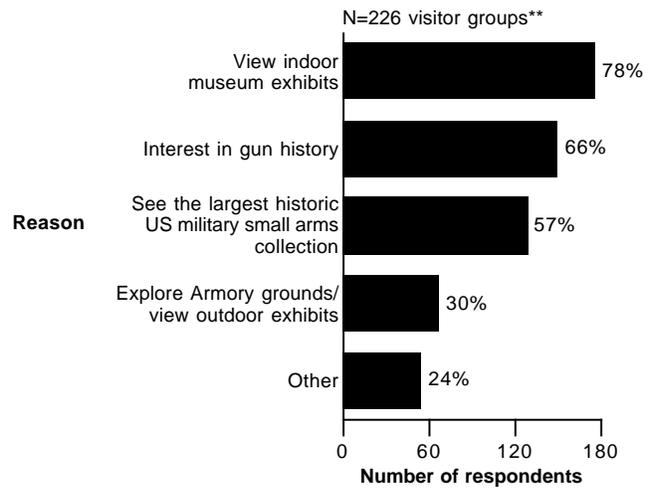


Figure 27. Primary reason for visiting the Springfield Armory NHS

Table 12. Other reasons for visiting Springfield Armory NHS (N=55 comments; one visitor group made more than one comment)

Site	Number of times mentioned
Visit a unit of the NPS	13
Obtain stamp in National Park Passport booklet	6
History	4
Obtain a National Park pass	4
Civil War history	3
Complete Junior Ranger program	3
Education	3
History of armory	3
Manufacturing history	3
Was in the area	2
American history	1
Buy birthday present for husband	1
Children were enrolled in summer program at STCC	1
Combined with Boston History tour	1
Donated items to the Armory	1
Follow up to a family vacation to Williamsburg, VA	1
History of industrial revolution	1
Military veteran	1
Prepare for a school trip	1
Proximity to our home	1
Visiting from Texas	1

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

### Alternate plans to visiting Springfield Armory NHS

#### Question 7a

For you only, if you had been unable to visit Springfield Armory NHS on this trip, would you have visited at another time?

#### Results

- 82% of respondents would likely visit Springfield Armory NHS at another time if they had been unable to visit on this trip (see Figure 28).

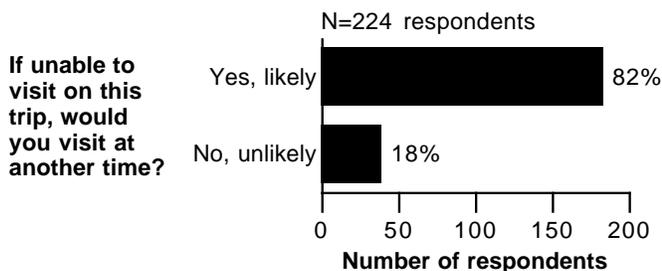


Figure 28. Respondents who would likely visit Springfield Armory NHS at another time if they had been unable to visit on this trip

#### Question 7b

If NO, what would you have done with the time spent on this trip?

#### Results

- 56% of respondents were not sure or would not have done any of the options listed (see Figure 29).
- 41% would have gone somewhere else.
- 3% would have gone to work at their regular job.
- 0% would have vacationed at home.

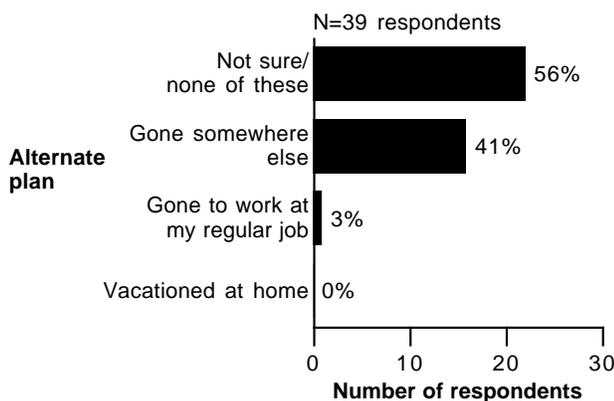


Figure 29. Alternate plans to visiting Springfield Armory NHS

#### Question 7b

What is the distance from home to the alternate site?

#### Results

- No visitors responded to this question.

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

**Question 7b**

What is the location of the alternate site?

Results – Interpret results with **CAUTION!**

- Not enough visitors responded to this question to provide reliable results (see Table 13).

Table 13. Alternate site  
(N=9 comments) – **CAUTION**

<b>Needed information</b>	<b>Number of times mentioned</b>
Another NHS	1
Appalachian Trail, MA	1
Boston, MA	1
Hall of Fames	1
Hildine (Lincoln)	1
Monson, MA	1
New Orleans, LA	1
Saratoga, NY	1
Western US	1

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

### Support services used in the greater Springfield area

**Question 14a**

On this visit to Springfield Armory NHS, was your personal group able to find the services you needed, such as information, gas, food, and lodging, in the greater Springfield area (within 100 miles of the park)?

**Results**

- 39% of visitor groups needed support services on this visit (see Figure 30).
- 97% of visitor groups were able to obtain needed support services on this visit (see Figure 31).

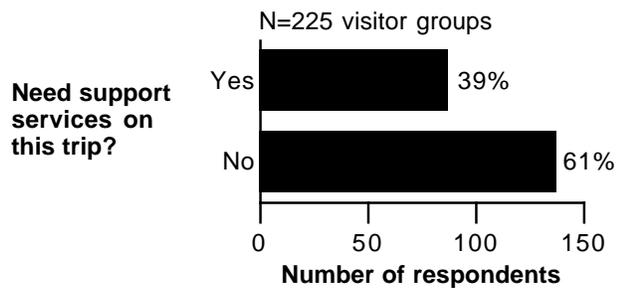


Figure 30. Visitor groups that needed support services on this visit

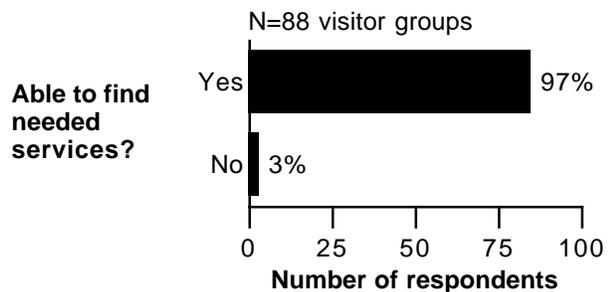


Figure 31. Visitor groups that were able to obtain needed support services in the greater Springfield area

**Question 14b**

If NO, what needed services were not available? (Open-ended)

**Results – Interpret results with CAUTION!**

- 2 visitor groups listed needed services that were not available (see Table 14).

Table 14. Needed services that were not available (N=2 comments) – **CAUTION!**

Needed service	Comment
Food places	Hard to find, local Burger King was filthy, slummy, and slow
Signage	To find park and visitor center

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

## Transportation

### Question 5a

On this visit, which forms of transportation did your personal group use to travel between your overnight accommodations or home and Springfield Armory NHS?

#### Results

- 84% of visitor groups used a private vehicle to travel between their overnight accommodations or home and the Springfield Armory NHS (see Figure 32).
- 13% used a rented vehicle.
- No “other” method of transportation (<1%) was specified.

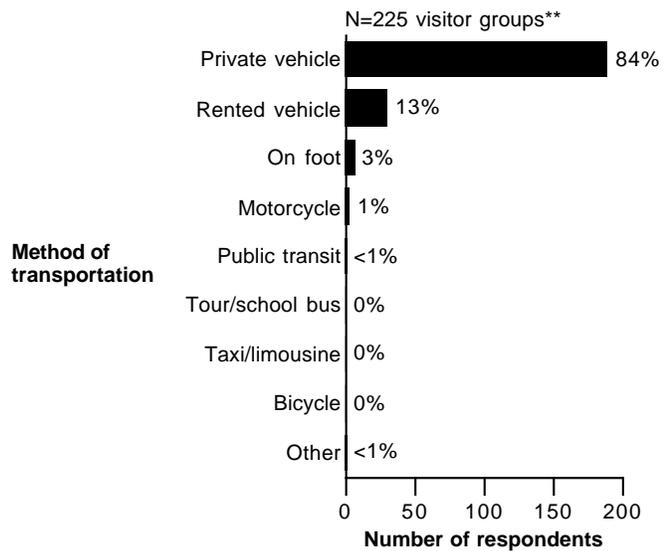


Figure 32. Method of transportation

## Number of vehicles

### Question 5b

On this visit, how many vehicles did your personal group use to arrive at the park?

#### Results

- 97% of visitor groups used one vehicle to arrive at the park (see Figure 33).

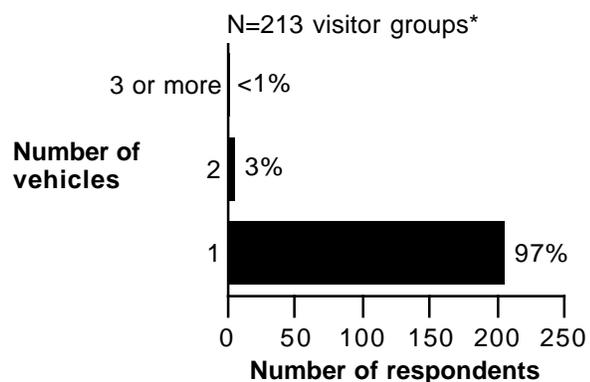


Figure 33. Number of vehicles used to arrive at the park

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

### ***Adequacy of park directional signs***

#### **Questions 9a-9c**

On this visit, were the signs directing your personal group to and around Springfield Armory NHS adequate?

#### **Results**

- Table 15 shows visitor groups' ratings of the adequacy of park directional signs to and around Springfield Armory NHS.

Table 15. Adequacy of park directional signs

<b>Signs</b>	<b>N</b>	<b>Adequate? (%)*</b>		
		Yes	No	Did not use
Interstate highway signs	217	49	16	35
Signs in local communities	219	46	22	32
Signs in park/adjacent college campus	222	65	20	15

#### **Question 9d**

If you answered NO for any of the above, please explain. (Open-ended)

#### **Results**

- Table 16 -Table 18 list visitor groups' reasons for the inadequacies of park directional signs to and around Springfield Armory NHS.

Table 16. Reasons why interstate highway signs were inadequate (N=35 comments; one visitor group made more than one comment)

<b>Reason</b>	<b>Number of times mentioned</b>
Did not see any signs	21
Detour made it difficult to find park	2
Did not see any on I-91	2
Not enough signs	2
Only saw one sign	2
Directions unclear	1
Got lost	1
Signs too far apart	1
Signs too small	1
Signs were insufficient	1
"This exit" does not say how to get there	1

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

Table 17. Reasons why signs in local communities were inadequate (N=48 comments; some visitor groups made more than one comment)

<b>Reason</b>	<b>Number of times mentioned</b>
Did not see any signs	14
Detour made it difficult to find park	7
Signs too small	7
Not enough signs	4
Entrance was difficult to find	3
Did not see any signs	2
Not prominently located	2
Got lost	2
Hard to find	1
Museum could use a bigger sign	1
Need better signage from exit to park	1
None on State Street	1
Signs on gate confusing	1
Signs were confusing	1
Signs worn out	1

Table 18. Reasons why signs in park/adjacent college campus were inadequate (N=43 comments)

<b>Reason</b>	<b>Number of times mentioned</b>
Not clear which way to go from entrance	7
Did not see any signs	6
Had difficulty locating building once on campus	5
Entrance to campus was not marked well	4
Not very well marked	3
Signs too small	2
A little confusing to find the actual museum building because of "event parking" signs	1
Almost parked in college parking - far from the armory	1
Bigger sign needed in parking lot and on building	1
Didn't realize there was a closer parking area	1
Got lost	1
Minimal signs	1
Missed turn, sign hard to see	1
Need more signs. Had to ask STCC police for directions.	1
Need signs at turns, etc.	1
Seeing sign from street helped us around the campus	1
Signage at STCC is very poor	1
Signs were hard to see	1
The sign is after you go left, had to ask a person	1
These signs could be improved	1
Watched for brown NPS signs but did not see until we got to park (via GPS)	1
We were going in circles	1

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

## Overnight stays

### Question 6a

On this trip, did your personal group stay overnight away from home in the greater Springfield area (within 100 miles of the park)?

#### Results

- 52% of visitor groups stayed overnight away from home in the greater Springfield area (see Figure 34).

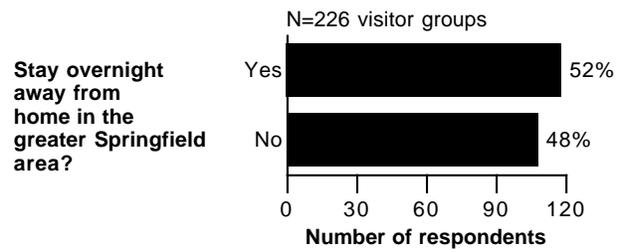


Figure 34. Visitor groups that stayed overnight away from home in the greater Springfield area (within 100 miles of the park)

### Question 6b

If YES, please list the number of nights your personal group stayed in the greater Springfield area (within 100 miles of the park).

#### Results

- 59% of visitor groups stayed one or two nights outside the park in the greater Springfield area (see Figure 35).
- 21% stayed three or four nights.
- 20% stayed five or more nights.

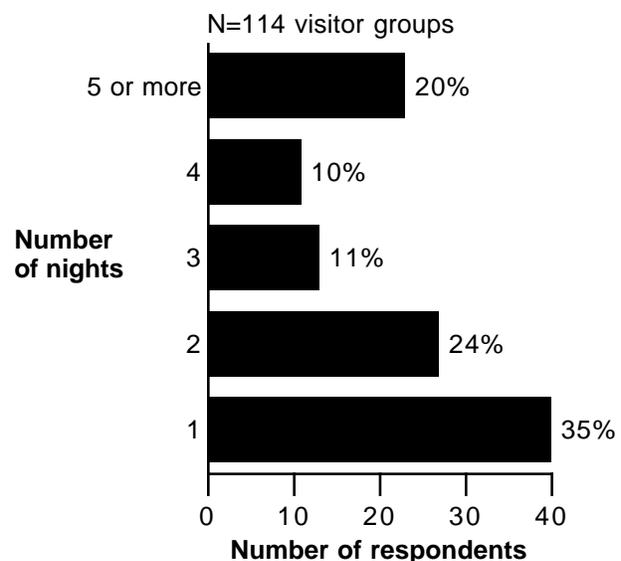


Figure 35. Number of nights spent outside the park in the greater Springfield area (within 100 miles of the park)

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

**Accommodations used in the area outside the park**

**Question 6c**

In which type(s) of accommodations did your personal group spend the night(s) in the greater Springfield area?

**Results**

- As shown in Figure 36, among those visitor groups that stayed overnight outside the park in the greater Springfield area, the most common types of accommodations were:

73% Lodge, motel, rented condo/home, or bed & breakfast

17% Residence of friends or relatives

- “Other” types of accommodations (4%) were:

- Car camping
- Family camp
- Military lodging USAF
- Silverleaf Resorts
- Timeshare

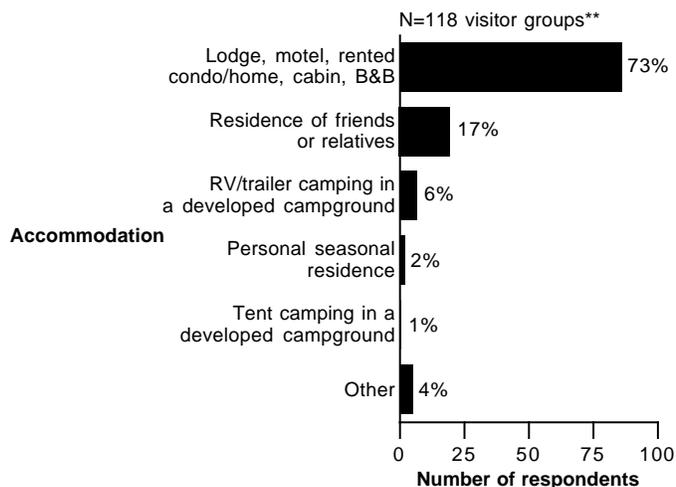


Figure 36. Accommodations used outside the park in the greater Springfield area (within 100 miles of the park)

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

**Length of visit**

**Question 15a**

On this visit, how much time in total did your personal group spend visiting Springfield Armory NHS?

**Results**

- 52% of visitor groups spent two hours visiting the park (see Figure 37).
- 34% spent three or more hours.
- The average length of visit was 2.2 hours.

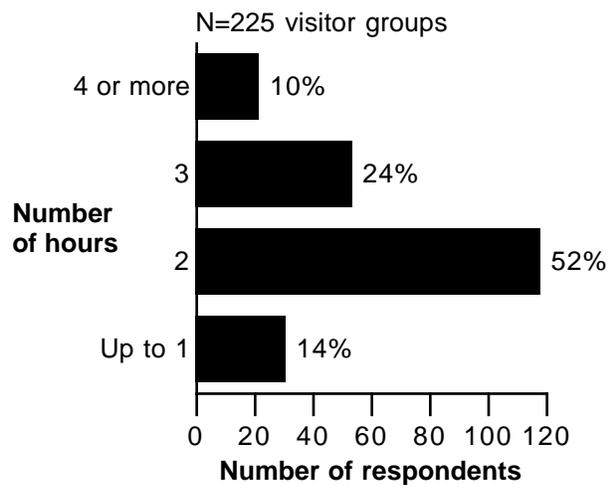


Figure 37. Number of hours spent in the park

**Visit the park on more than one day**

**Question 15b**

On this visit, did your personal group visit the park on more than one day?

**Results**

- 1% of visitor groups visited the park on more than one day (see Figure 38).

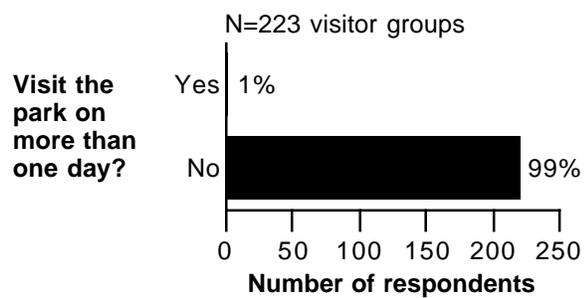


Figure 38. Visitor groups that visited the park on more than one day

**Question 15c**

If YES, on how many days did you visit the park?

Results – Interpret results with **CAUTION!**

- Two visitor groups visited the park on two days.

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

**Local and regional attractions visited**

**Question 8**

Which other local and regional attractions did your personal group visit on this trip to Springfield Armory NHS?

**Results**

- As shown in Figure 39, the local and regional attractions most commonly visited were:

- 27% Dr. Seuss National Memorial
- 25% Basketball Hall of Fame
- 23% Springfield museums

- “Other” local and regional attractions (48%) are shown in Table 19.

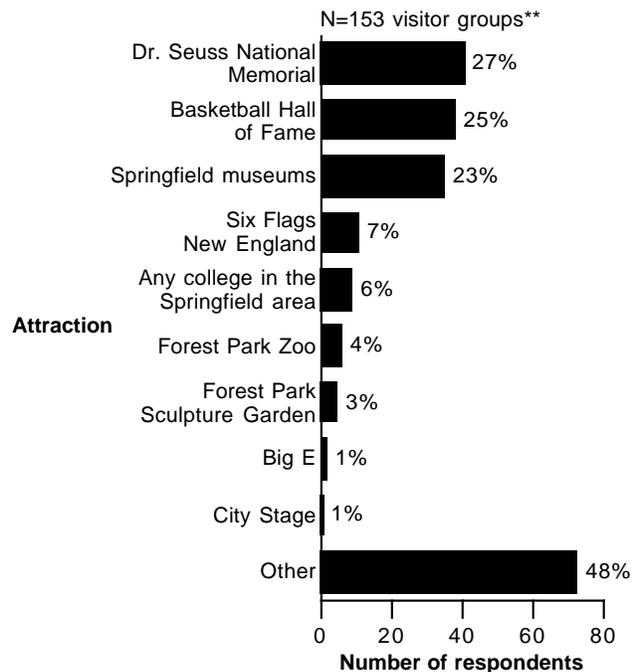


Figure 39. Local and regional attractions visited

Table 19. Other local and regional attractions (N=60 comments; some visitor groups made more than one comment)

Attraction	Number of times mentioned
Old Sturbridge Village	4
Boston Freedom Trail	2
Hancock Shaker Village	2
Mark Twain House	2
Norman Rockwell Museum	2
Sturbridge Village	2
Westover AFB	2
Acadia National Park	1
Areas in Berkshires	1
Arrowhead	1
Berkshires	1
Boston	1
Boston Red Sox game	1
Coast Guard Academy	1
Deerfield	1
Deerfield Valley Zipline Canopy Tours	1

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

Table 19. Other local and regional attractions (continued)

Attraction	Number of times mentioned
Dinosaur footprints near Holyoke	1
Forest Park picnic area	1
Harry Truman	1
HW Baseball Park (Fisher Cats AA Team)	1
John Adams home	1
Loomis Chaffee School, Hartford, CT	1
Lupa Zoo	1
Manchester	1
Mass Museum of Contemporary Art	1
Mineral and gem show at the Big E grounds	1
Mini golf and lunch while traveling through Massachusetts	1
Minute Man NHP	1
Natural Bridge State Park	1
Norman Rockwell	1
Old Deerfield	1
Old District	1
Other NPS in New York or Massachusetts	1
Other state and national parks	1
Quabbin Reservoir	1
Red Rose Pizza	1
Restaurants	1
Rockwell Museum	1
Russian supermarket	1
S&W Museum	1
Samuel Colt, Hartford, CT	1
Shelburne Falls	1
Shriner's Hospital	1
Springfield town center	1
Storrowtown Village	1
Stow House	1
Student Prince restaurant	1
The Mount	1
Trustees of reservation properties	1
Volleyball Hall of Fame	1
Yankee Candle	1

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

**Activities on this visit**

**Question 11a**

On this visit, in which activities did your personal group participate within Springfield Armory NHS?

**Results**

- As shown in Figure 40, the most common activities in which visitor groups participated on this visit were:

- 99% Viewing museum exhibits
- 78% Watching park videos/films
- 59% Shopping in park bookstore

- “Other” activities (11%) are shown in Table 20.

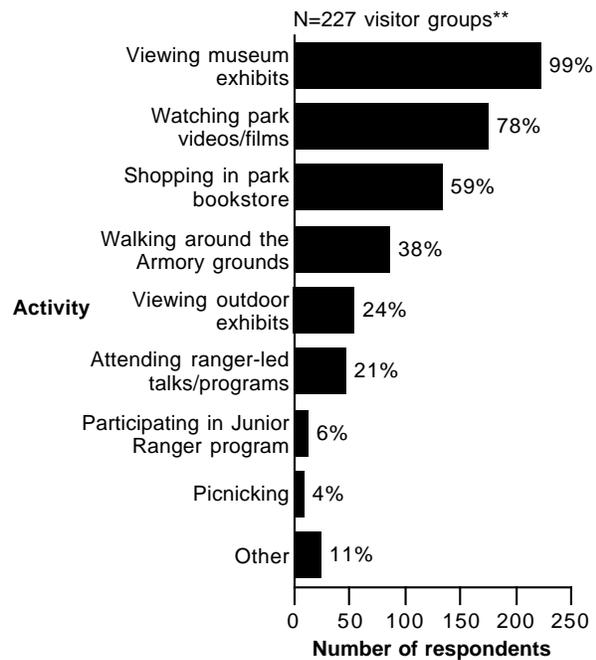


Figure 40. Activities on this visit

Table 20. Other activities on this visit (N=25 comments) – **CAUTION!**

Aspect	Number of times mentioned
Talk with park ranger	8
Obtain National Park Passport book stamp	5
Gun history	3
Obtain National Park pass	2
Show relatives US history	2
Architecture	1
Armory history	1
Donated items to the Armory	1
Good place to meet of historical interest	1
Scavenger hunt	1

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

**Activity that was primary reason for visit**

**Question 11b**

Which one of the above activities was the primary reason your personal group visited Springfield Armory NHS on this visit?

**Results**

- As shown in Figure 41, the most common activity that was the primary reason for the visiting the park was:

88% Viewing museum exhibits

- “Other” activities (7%) were:

- Architecture
- Armory history
- Donated items to the Armory
- Good place to meet of historical interest
- Gun history
- Obtain National Park pass
- Obtain National Park Passport book stamp
- Show relatives US history
- Talk with park ranger

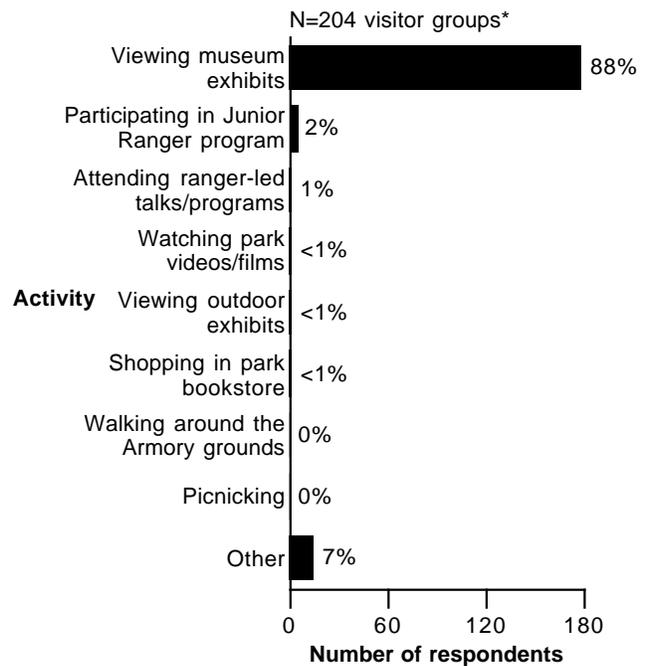


Figure 41. Activity that was primary reason for visiting the park

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

## Ranger-led talks/programs

### Question 17a

On this visit to Springfield Armory NHS, did anyone in your personal group participate in any of the ranger-led talks/programs?

#### Results

- 19% of visitor groups participated in ranger-led talks/programs (see Figure 42).

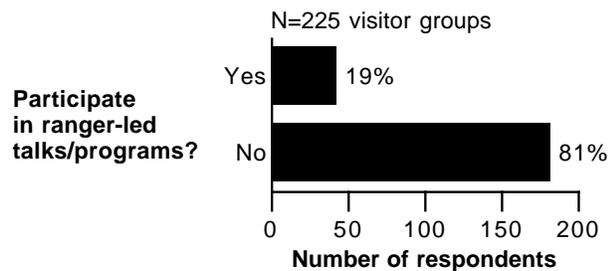


Figure 42. Visitor groups that attended ranger-led talks/programs

### Question 17b

If NO, what prevented your personal group from participating in ranger-led talks/programs?

#### Results

- As shown in Figure 43, the most common reason that prevented visitor groups from participating in ranger-led talks/programs were:

49% Did not have time for this activity  
39% Not aware of talks/programs

- “Other” reasons (5%) were:

Enjoyed exhibits  
He was new and not very knowledgeable  
Helpful ranger could have offered up scheduled tours as a possibility  
None available  
Only at park to donate articles  
Only at park to obtain National Park pass  
Time of program  
Too many people in our group; they were all over the building  
We have done this in the past

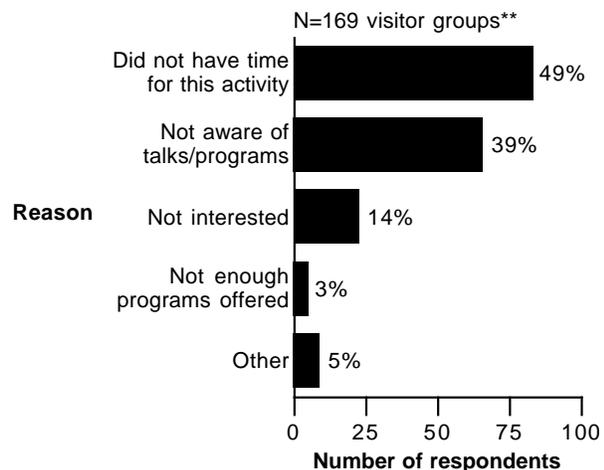


Figure 43. Reasons why visitor groups didn't participate in ranger-led talks/programs

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

## Ratings of Services, Facilities, Attributes, Resources, and Elements

### Information services and facilities used

**Question 16a**

Please indicate all the information services and facilities that your personal group used during this visit to Springfield Armory NHS.

**Results**

- As shown in Figure 44, the most common information services and facilities used by visitor groups were:

- 96% Museum exhibits
- 72% Restrooms
- 70% Videos/films
- 70% Assistance from park staff

- The least used service/facility was:

- 4% Picnic tables

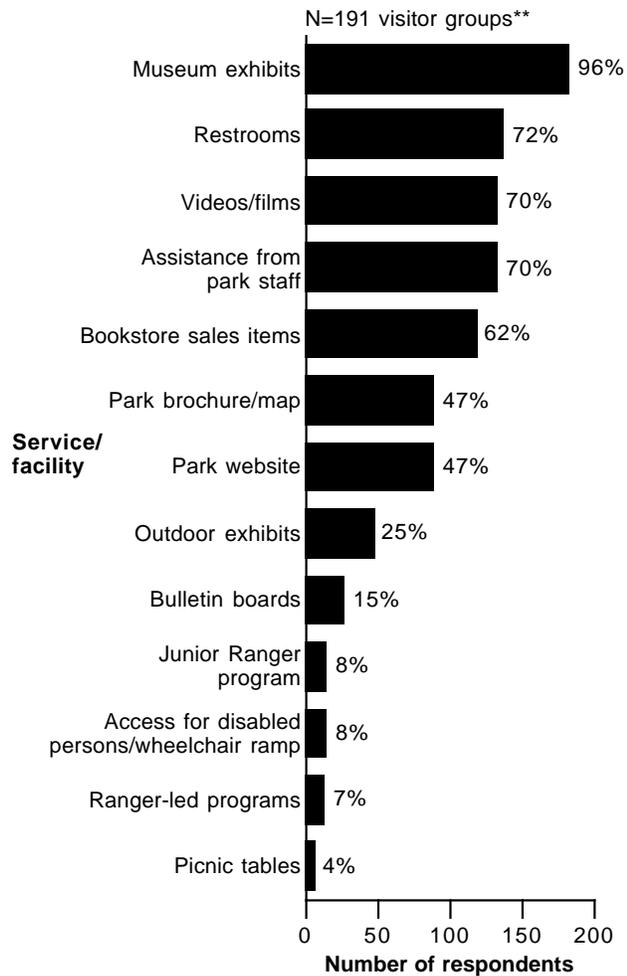


Figure 44. Information services and facilities used

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

### Importance ratings of information services and facilities

**Question 16b**

For only those services and facilities that your personal group used, please rate their importance to your visit from 1-5.

- 1=Not at all important
- 2=Slightly important
- 3=Moderately important
- 4=Very important
- 5=Extremely important

**Results**

- Figure 45 shows the combined proportions of “extremely important” and “very important” ratings of information services and facilities that were rated by 30 or more visitor groups.
- Table 21 shows the importance ratings of each service and facility.
- The services and facilities receiving the highest combined proportions of “extremely important” and “very important” ratings were:
  - 99% Museum exhibits
  - 86% Park website
  - 85% Assistance from park staff
- The services/facilities receiving the highest “not at all important” rating that were rated by 30 or more visitor groups were:
  - 1% Bookstore sales items
  - 1% Restrooms

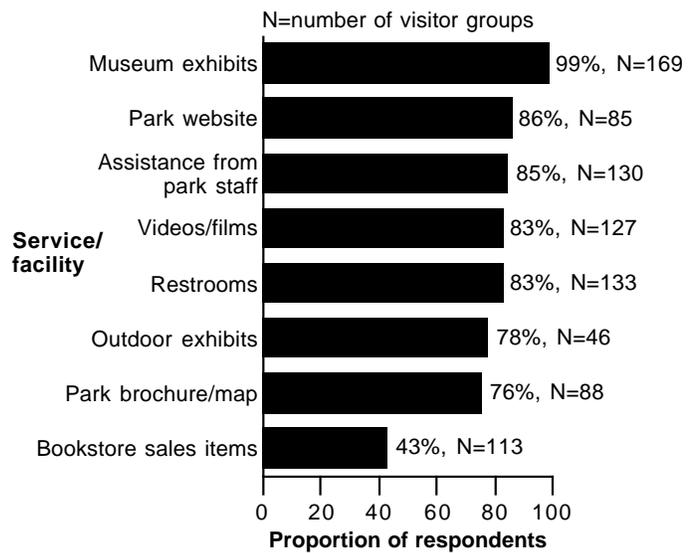


Figure 45. Combined proportions of “extremely important” and “very important” ratings of information services and facilities

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

Table 21. Importance ratings of information services and facilities  
(N=number of visitor groups)

Service/facility	N	Rating (%)*				
		Not at all important	Slightly important	Moderately important	Very important	Extremely important
Access for disabled persons/wheelchair ramp – <b>CAUTION!</b>	15	0	13	13	27	47
Assistance from park staff	130	0	2	13	50	35
Bookstore sales items (selection, price, etc.)	113	1	12	43	28	15
Bulletin boards – <b>CAUTION!</b>	26	4	15	42	15	23
Junior Ranger program – <b>CAUTION!</b>	15	0	0	13	40	47
Museum exhibits	169	0	0	1	18	81
Outdoor exhibits	46	0	7	15	24	54
Park brochure/map	88	0	3	20	34	42
Park website used before or during visit	85	0	1	13	40	46
Picnic tables– <b>CAUTION!</b>	7	0	14	57	14	14
Ranger-led programs – <b>CAUTION!</b>	14	0	0	7	43	50
Restrooms	133	1	2	14	38	45
Videos/films	127	0	1	16	39	44

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

### Quality ratings of information services and facilities

**Question 16c**

For only those services and facilities that your personal group used, please rate their quality from 1-5.

- 1=Very poor
- 2=Poor
- 3=Average
- 4=Good
- 5=Very good

**Results**

- Figure 46 shows the combined proportions of “very good” and “good” ratings of information services and facilities that were rated by 30 or more visitor groups.
- The services and facilities receiving the highest combined proportions of “very good” and “good” ratings were:
  - 99% Assistance from park staff
  - 96% Museum exhibits
  - 94% Videos/films
- Table 22 shows the quality ratings of each service and facility.
- The services/facilities receiving the highest “very poor” rating that were rated by 30 or more visitor groups were:
  - 1% Assistance from park staff
  - 1% Park brochure/map

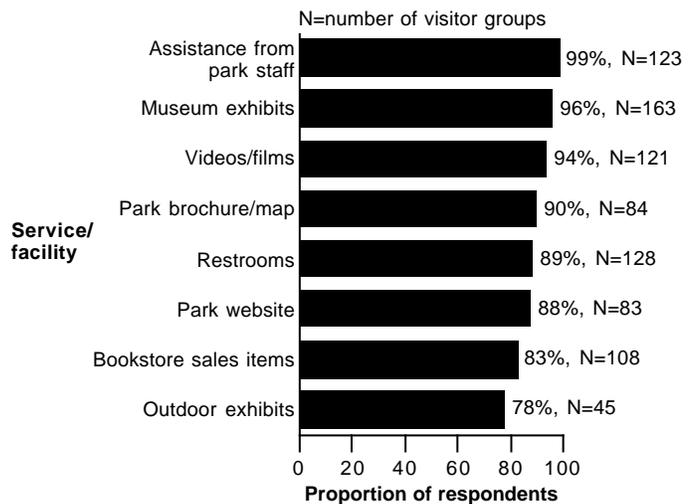


Figure 46. Combined proportions of “very good” and “good” ratings of information services and facilities

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

Table 22. Quality ratings of information services and facilities  
(N=number of visitor groups)

Service/facility	N	Rating (%)*				
		Very poor	Poor	Average	Good	Very good
Access for disabled persons/wheelchair ramp – <b>CAUTION!</b>	13	0	0	38	8	54
Assistance from park staff	123	1	0	0	9	90
Bookstore sales items (selection, price, etc.)	108	0	2	16	43	40
Bulletin boards – <b>CAUTION!</b>	24	0	0	38	38	25
Junior Ranger program – <b>CAUTION!</b>	15	0	0	20	13	67
Museum exhibits	163	0	1	3	20	76
Outdoor exhibits	45	0	4	18	29	49
Park brochure/map	84	1	0	10	36	54
Park website used before or during visit	83	0	1	11	49	39
Picnic tables – <b>CAUTION!</b>	7	0	0	29	29	43
Ranger-led programs – <b>CAUTION!</b>	14	0	0	7	14	79
Restrooms	128	0	1	10	38	51
Videos/films	121	0	1	5	28	66

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

**Mean scores of importance and quality ratings of information services and facilities**

- Figure 47 and Figure 48 show the mean scores of importance and quality ratings of information services and facilities that were rated by 30 or more visitor groups.
- All information services and facilities were rated above average in importance and quality.

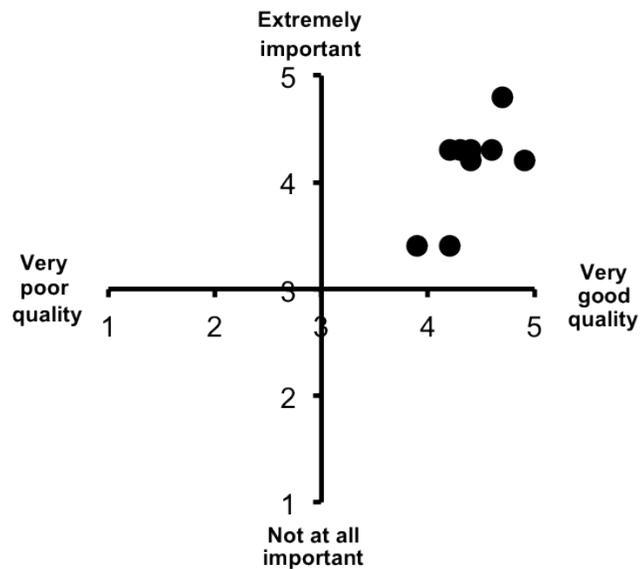


Figure 47. Mean scores of importance and quality ratings of information services and facilities

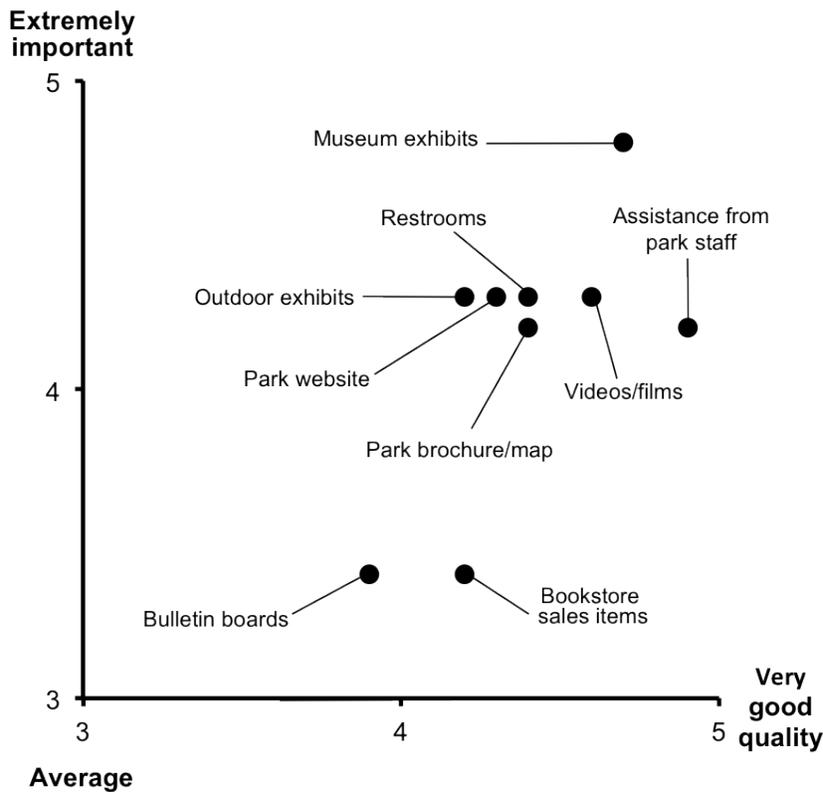


Figure 48. Detail of Figure 47

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

### Importance of protecting park attributes, resources, and experiences

**Question 13**

It is the National Park Service’s responsibility to protect Springfield Armory NHS’s natural, scenic, and cultural resources while at the same time providing for public enjoyment. How important is protection of the following resources/attributes in the park to your personal group?

- 1=Not at all important
- 2=Slightly important
- 3=Moderately important
- 4=Very important
- 5=Extremely important

**Results**

- As shown in Figure 49, the highest combined proportions of “extremely important” and “very important” ratings of protecting park resources and attributes included:

- 99% Museum and archival collections
- 91% Historic landscapes and buildings
- 90% Repair/maintenance of buildings

- The resources and attributes receiving the highest “not at all important” rating was:

8% Natural quiet/sounds of nature

- Table 23 shows the importance ratings of park resources and attributes.

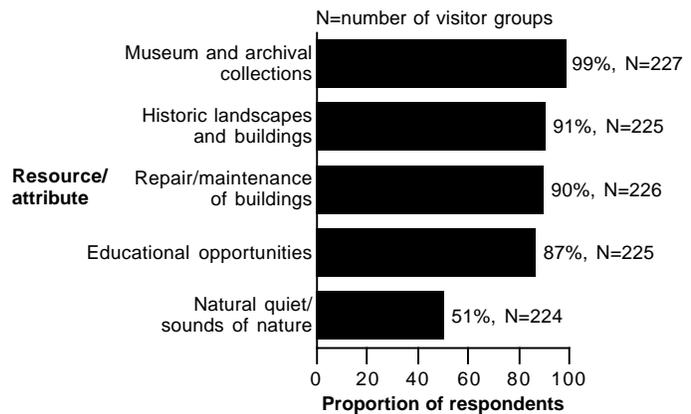


Figure 49. Combined proportions of “extremely important” and “very important” ratings of protecting park resources and attributes

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

Table 23. Visitor rating of importance of protecting park resources and attributes (N=number of visitors groups)

Resource/attribute	N	Rating (%)*				
		Not at all important	Slightly important	Moderately important	Very important	Extremely important
Educational opportunities	225	<1	2	11	42	45
Historic landscapes and buildings	225	0	<1	9	35	56
Museum and archival collections	227	0	0	1	22	77
Natural quiet/sounds of nature	224	8	11	30	27	24
Repair/maintenance of buildings	226	0	2	8	39	51

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

**Interaction with park employees/volunteers**

**Question 12ab**

During this visit to Springfield Armory NHS, did your personal group obtain information from a National Park Service uniformed employee or volunteer?

**Results**

- 96% of visitor groups obtained information from a NPS uniformed employee or volunteer (see Figure 50).

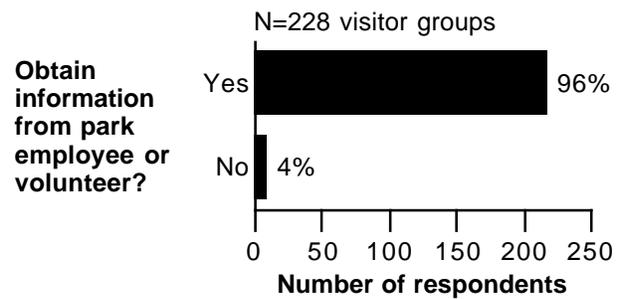


Figure 50. Visitor groups that obtained information from a NPS uniformed employee or volunteer

**Question 12b**

If YES, using the scale below, please rate the quality of your interaction with the uniformed employee/volunteer.

**Results**

- Table 24 shows visitor groups' ratings of their interactions with NPS uniformed employees or volunteers.

Table 24. Ratings of interactions with NPS uniformed employees or volunteers (N=number of visitors)

Element	N	Rating (%)*				
		Very poor	Poor	Average	Good	Very good
Helpfulness	216	1	0	2	11	86
Courteousness	216	<1	0	1	6	92
Quality of information provided	216	1	<1	1	12	86

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

## Expenditures

### Total expenditures inside and outside the park

#### Question 20

For your personal group, please estimate all expenditures for the items listed below for this visit to Springfield Armory NHS and the surrounding area (within 100 miles of the park).

#### Results

- 47% of visitor groups spent \$1-\$200 (see Figure 51).
- 35% spent \$201 or more.
- 18% spent no money.
- The average visitor group expenditure was \$294.
- The median group expenditure (50% of groups spent more and 50% of groups spent less) was \$108.
- The average total expenditure per person (per capita) was \$134.
- As shown in Figure 52, the largest proportions of total expenditures inside and outside the park were:

- 36% Lodge, hotel, motel, cabin, B&B, etc.
- 22% Restaurants and bars
- 12% All other expenditures

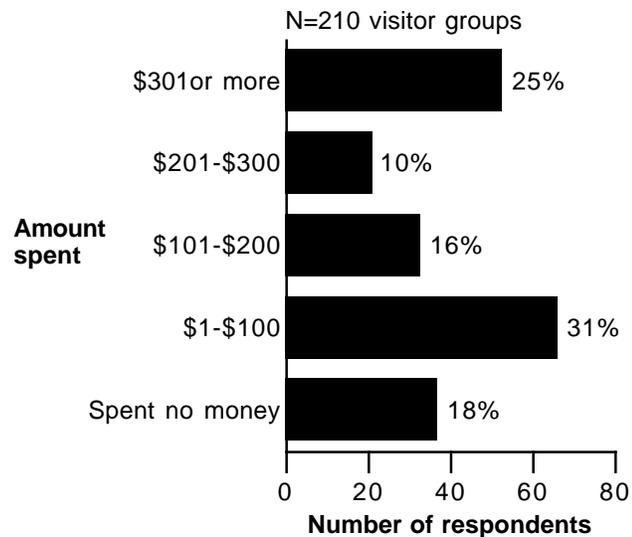


Figure 51. Total expenditures inside and outside the park

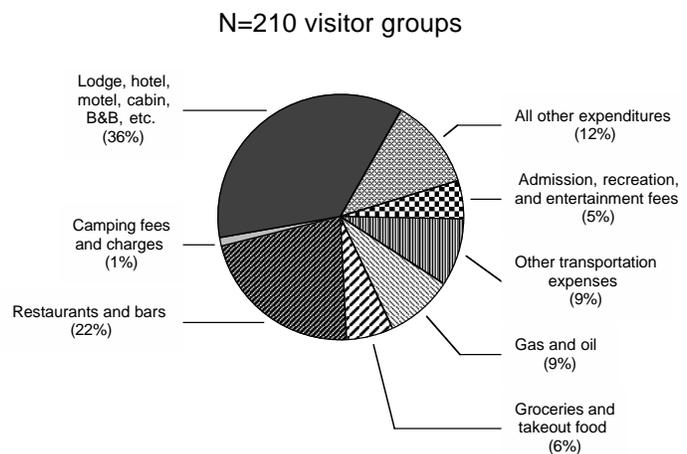


Figure 52. Proportions of total expenditures inside and outside the park

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

### Number of adults covered by expenditures

**Question 20c**

How many adults (18 years or older) do these expenses cover?

**Results**

- 54% of visitor groups had two adults covered by expenditures (see Figure 53).
- 26% had one adult covered by expenditures.
- 20% had three or more adults covered by expenditures.

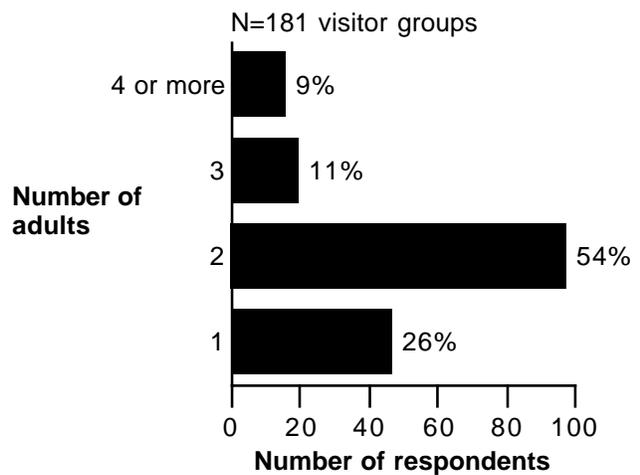


Figure 53. Number of adults covered by expenditures

### Number of children covered by expenditures

**Question 20c**

How many children (under 18 years) do these expenses cover?

**Results**

- 62% of visitor groups had no children covered by expenditures (see Figure 54).
- 30% had one or two children covered by expenditures.
- 9% had three or four children covered by expenditures.

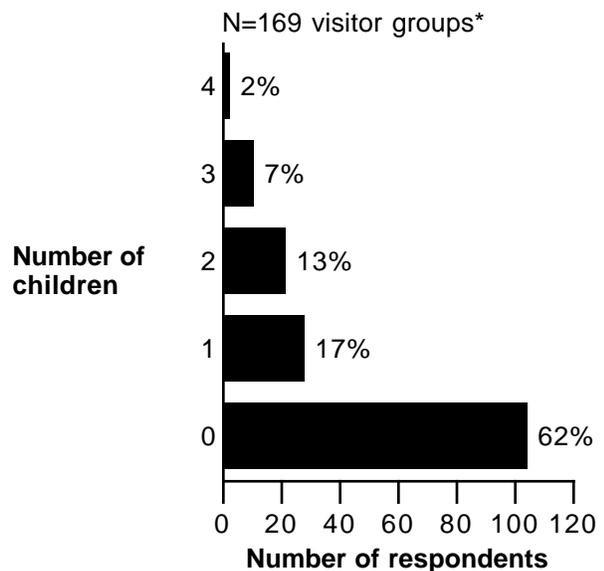


Figure 54. Number of children covered by expenditures

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

### Expenditures inside the park

**Question 20a**

Please list your personal group’s total expenditures inside Springfield Armory NHS.

Note: “All other expenditures” was the only spending category inside the park.

**Results**

- 46% of visitor groups spent \$1-\$50 on “all other expenditures” (books, postcards, donations, souvenirs, etc.) inside the park (see Figure 55).
- 45% spent no money.
- The average visitor group expenditure inside the park was \$20.
- The median group expenditure (50% of groups spent more and 50% of groups spent less) was \$8.
- The average total expenditure per person (per capita) was \$16.

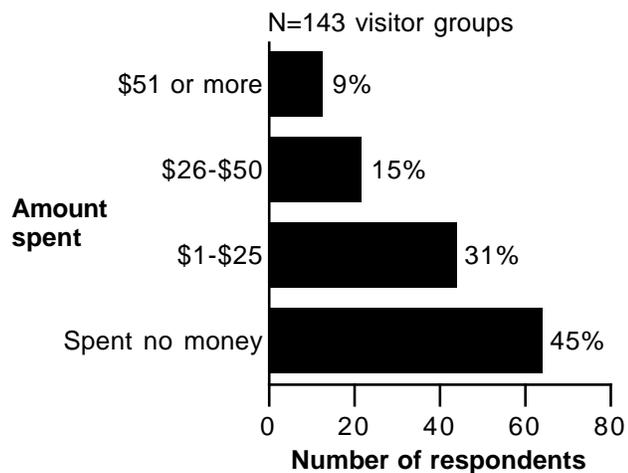


Figure 55. Expenditures inside the park

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

### Expenditures outside the park

#### Question 20b

Please list your personal group's total expenditures in the surrounding area outside the park (within 100 miles of the park).

#### Results

- 44% of visitor groups spent \$1-\$200 (see Figure 56).
- 38% spent \$201 or more.
- 19% spent no money.
- The average visitor group expenditure outside the park was \$306.
- The median group expenditure (50% of groups spent more and 50% of groups spent less) was \$108.
- The average total expenditure per person (per capita) was \$156.
- As shown in Figure 57, the largest proportions of total expenditures outside the park were:

- 38% Lodge, hotel, motel, cabin, B&B, etc.
- 23% Restaurants and bars
- 10% Other transportation expenses
- 10% Gas and oil

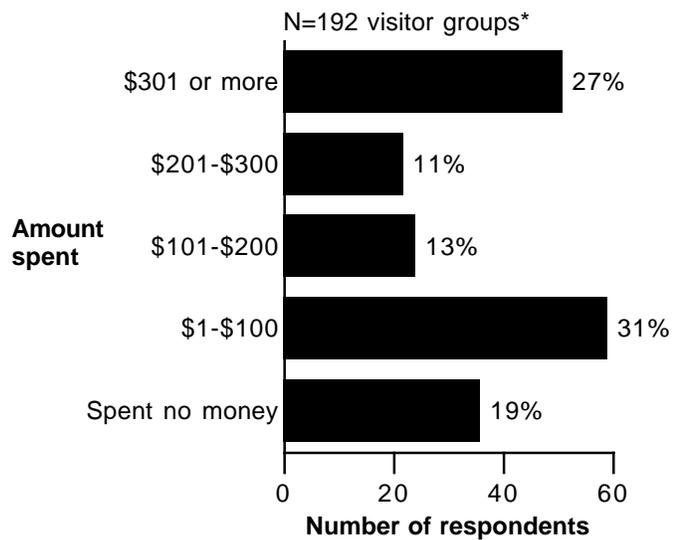


Figure 56. Total expenditures outside the park

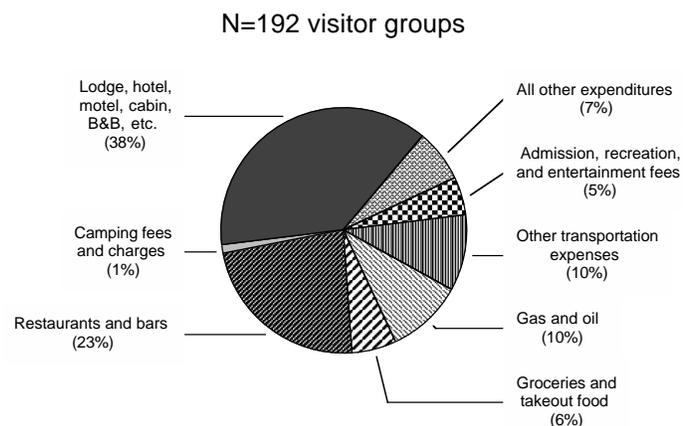


Figure 57. Proportions of total expenditures outside the park

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

Lodge, hotel, motel, cabin, B&B, etc.

- 43% of visitor groups spent no money on lodging outside the park (see Figure 58).
- 32% spent \$1-\$200.
- 26% spent \$201 or more.

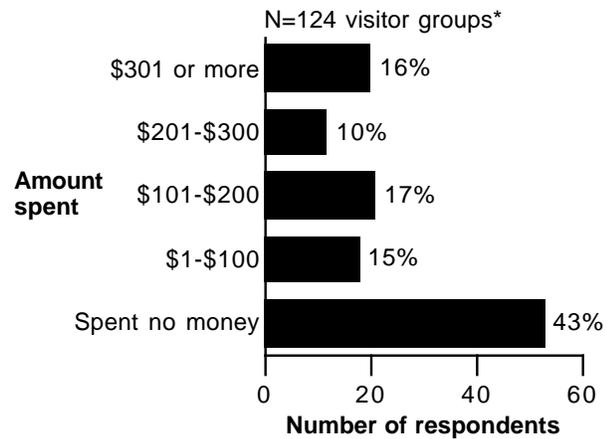


Figure 58. Expenditures for lodging outside the park

Camping fees and charges

- 90% of visitor groups spent no money on camping fees and charges outside the park (see Figure 59).
- 7% spent \$1-\$50.

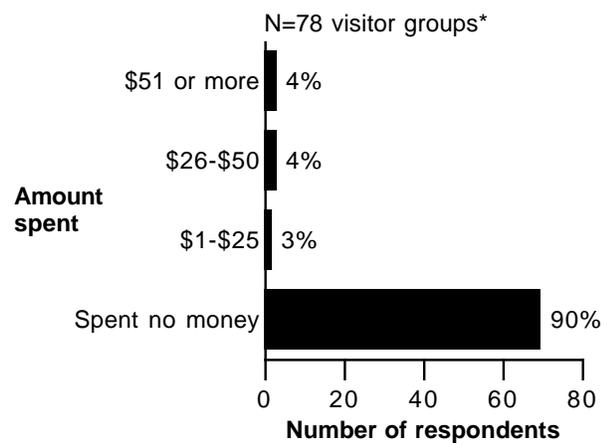


Figure 59. Expenditures for camping fees and charges outside the park

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

Restaurants and bars

- 53% of visitor groups spent \$1-\$100 on restaurants and bars outside the park (see Figure 60).
- 27% spent no money.
- \$20 spent \$101 or more.

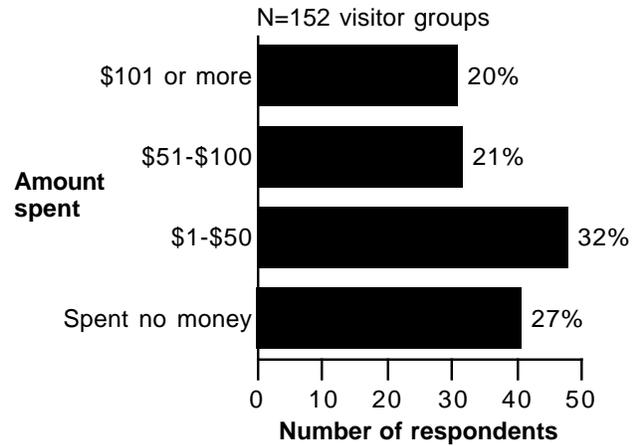


Figure 60. Expenditures for restaurants and bars outside the park

Groceries and takeout food

- 58% of visitor groups spent no money on groceries and takeout food outside the park (see Figure 61).
- 34% spent \$1-\$100.
- \$7 spent \$101 or more.

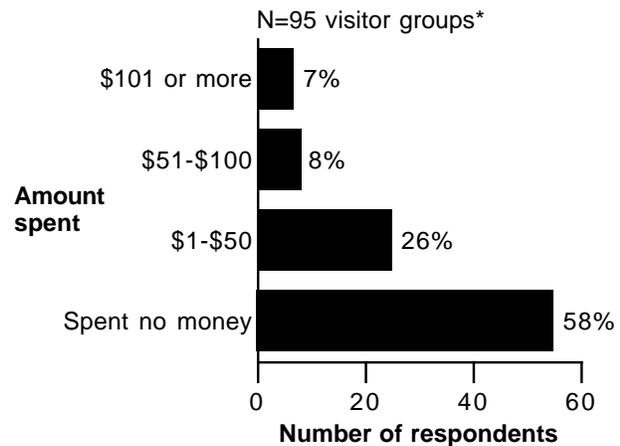


Figure 61. Expenditures for groceries and takeout food outside the park

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

Gas and oil (auto, RV, boat, etc.)

- 68% of visitor groups spent \$1-\$100 on gas and oil outside the park (see Figure 62).
- 29% spent no money.

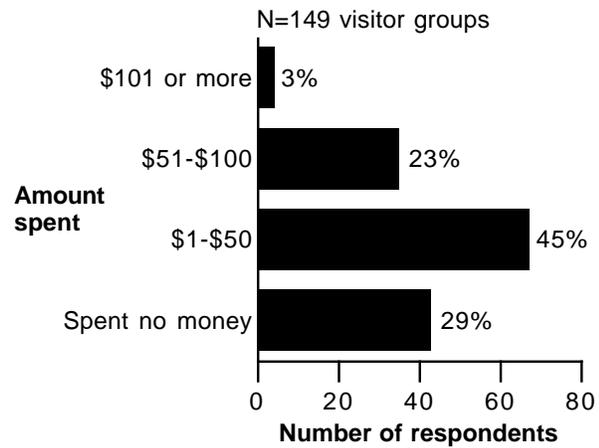


Figure 62. Expenditures for gas and oil outside the park

Other transportation (rental cars, taxis, auto repairs, but NOT airfare)

- 73% of visitor groups spent no money on other transportation outside the park (see Figure 63).
- 19% spent \$1-\$200.

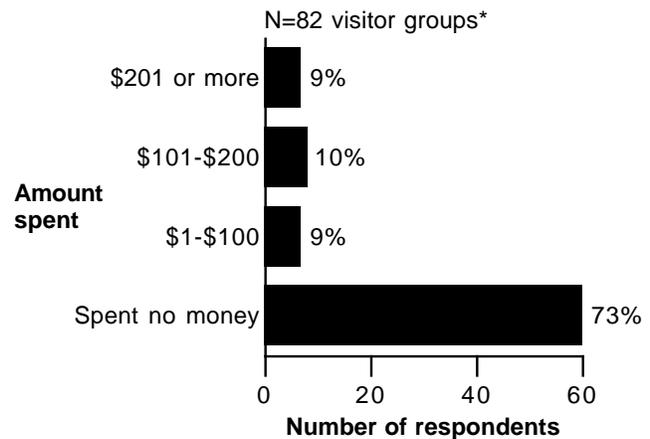


Figure 63. Expenditures for other transportation outside the park

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

Admission, recreation, and entertainment fees

- 57% of visitor groups spent no money on admission, recreation, and entertainment fees outside the park (see Figure 64).
- 38% spent \$1-\$100.

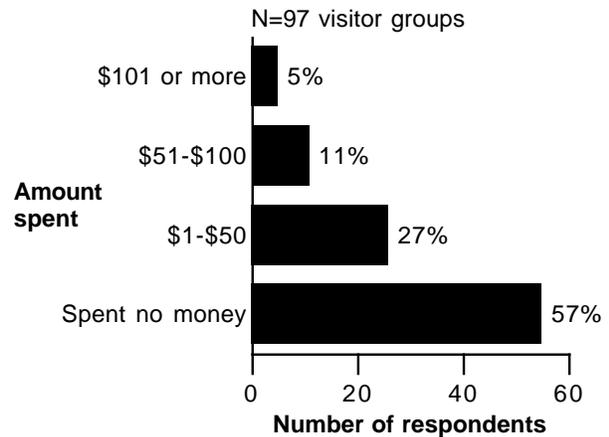


Figure 64. Expenditures for admission, recreation, and entertainment fees outside the park

All other expenditures (souvenirs, books, postcards, sporting goods, clothing, donations, etc.)

- 50% of visitor groups spent \$1-\$100 on all other purchases outside the park (see Figure 65).
- 45% spent no money.

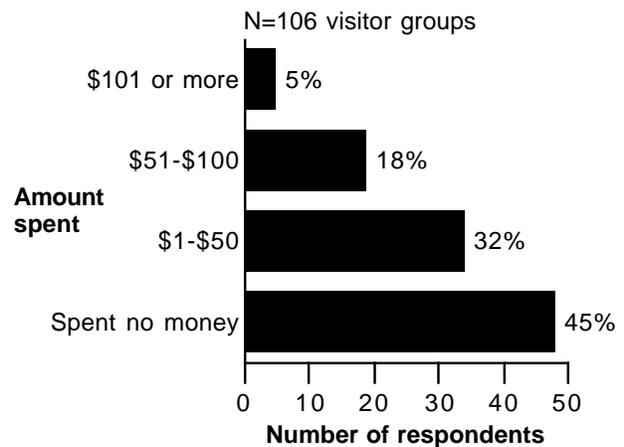


Figure 65. Expenditures for all other purchases outside the park

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

***Income forgone to make this trip***

**Question 26c**

How much income did your household forgo to make this trip (due to taking unpaid time off from work)?

**Results**

- 10% of respondents had forgone income to make this trip (see Figure 66).
- The amount of income forgone is shown in Figure 67. Interpret results with **CAUTION!**

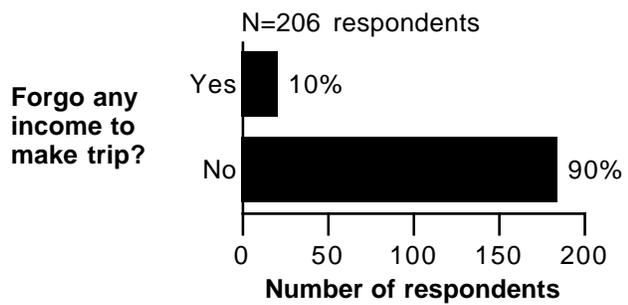


Figure 66. Respondents that had forgone income to make this trip

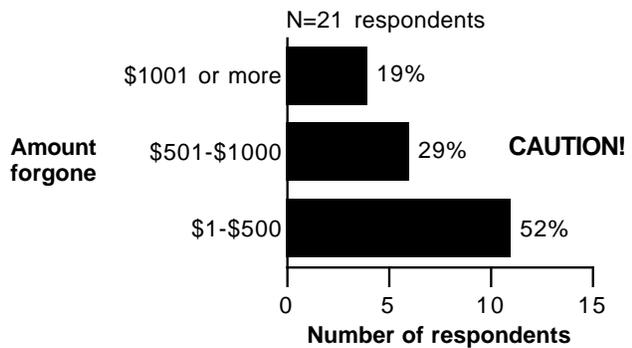


Figure 67. Income forgone to make this trip

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

## Preferences for Future Visits

### *Preferred methods to learn about the park*

#### Question 18

If you were to visit Springfield Armory NHS in the future, how would your personal group prefer to learn about the park’s cultural and natural history?

#### Results

- 97% of visitor groups were interested in learning about the cultural and natural history of Springfield Armory NHS on a future visit (see Figure 68).

- As shown in Figure 69, among those visitor groups that were interested in learning about the park, the most common methods to learn were:

79% Indoor museum exhibits  
 74% Films, movies, videos  
 60% Ranger-guided walks/talks

- “Other” method (<1%) was:

Audio phones

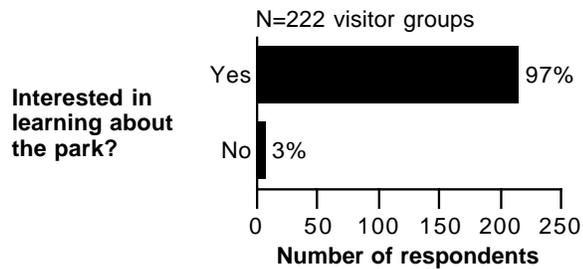


Figure 68. Visitor groups that were interested in learning about the cultural and natural history of Springfield Armory NHS on a future visit

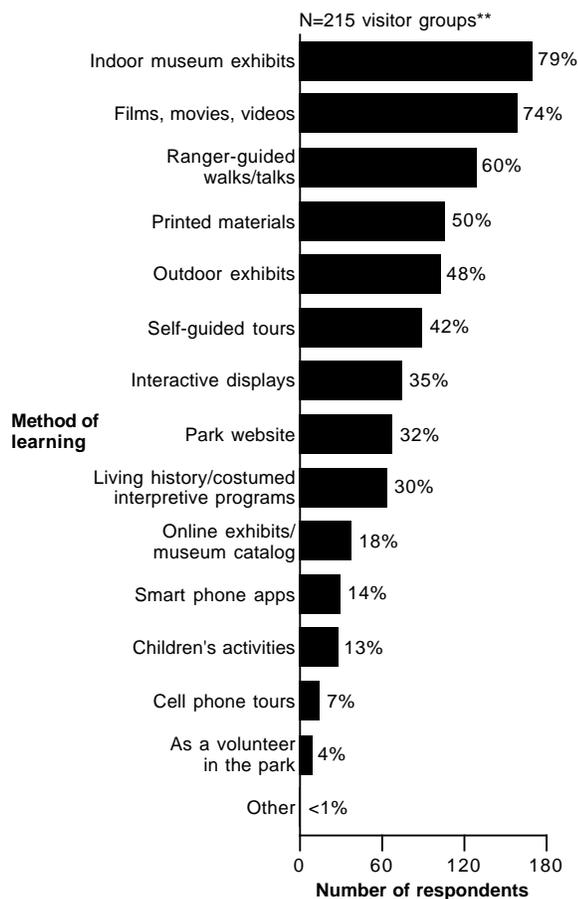


Figure 69. Preferred methods for learning about the cultural and natural history of Springfield Armory NHS on a future visit

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

## Overall Quality

### Question 30

Overall, how would you rate the quality of the facilities, services, and recreational opportunities provided to your personal group at Springfield Armory NHS during this visit?

### Results

- 95% of visitor groups rated the overall quality of facilities, services, and recreational opportunities as “very good” or “good” (see Figure 70).
- 1% of visitor groups rated the quality as “poor.”
- No visitor groups rated the quality as “very poor.”

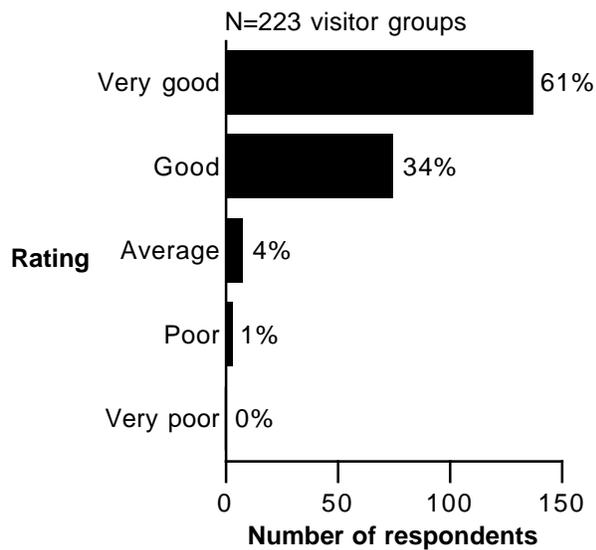


Figure 70. Overall quality rating of facilities, services, and recreational opportunities

\*total percentages do not equal 100 due to rounding

\*\*total percentages do not equal 100 because visitors could select more than one answer

## Visitor Comment Summaries

### *Significant work performed by Springfield Armory*

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#### Question 19

What significant work did Springfield Armory do that made it important to the United States? (Open-ended)

#### Results

- 86% of visitor groups (N=196) responded to this question (see Table 25).

Table 25. Significant work performed by Springfield Armory (N=196 comments)

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#### Comment

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174 years of amazing work

200 years of high quality manufacture of arms for US Army

A manufacturing facility that produced quality weapons

Advanced small arms production

Advanced the concept of mass production. Made high quality weapons for the military.

America's first arsenal

Armed the military

Armed US military without profit to private contractors

Arms supply for most of our history

Assisted in defending our country in a large way

Building and certifying arms for the military

Caused Daniel Shay's Rebellion of farmers at the time of the Articles of Confederation 1-1787

Commissioned by our first President, Washington, and provided arms to defend our country. Also innovation, productivity based on American know how and ambition.

Contributions to US history, events, way of life

Designed, manufactured, tested, recorded, stored. Protect our history and the importance of firearms etc.

Designed and built guns

Designed and manufactured guns

Designed and produced arms for much of the nation's history

Designed and manufactured key weapons for our nation's armed forces.

Developed rifles

Developed, manufactured, and supplied weapons for our most important historical events

Developed, tested, and produced firearms that protected the citizens of the US

Development and manufacture of weapons for US military

Development of firearms

Domestically produced firearms for the US military

Equipped and armed our military forces

Fine weapons, high quality, and high numbers for war

Firearms manufacture and research

---

Table 25. Significant work performed by Springfield Armory (continued)

<b>Comment</b>
Firearms, manufacturing
First armory
First national armory, advances in technology, in production methodology, and weapons manufacturing to support our troops
First US armory
Freedom
Furnished arms for WW II. My mother, aunt, and grandmother worked nights at the armory for the war effort.
Gun manufacture during wartime
Gun production
Gun production 1794-1968
Guns
Guns for all wars
Home of the Garand rifle
Industrial development
Industrial innovation
Industrialized production of weapons
Interchangeable parts, high volume production
Invented mass production of guns
Invented, developed, and produced armament for US troops
Invention and production of many war changing weapon systems
It armed our country
It built the guns our military needed for the war
It helped support our independence and our development as a country
It made history and revolution in guns in general
It made the US independent of foreign governments for arms. Allowed our soldiers to have superior arms than the enemy.
It made the weapons. Having moved to the south, there are a lot of weapon enthusiasts who would be interested.
It made weapons for our soldiers and provided jobs
It produced high quality military firearms for almost two centuries
It was a major supplier of weapons that helped keep our country safe and free
It was a place of innovation in the manufacture and design of small arms
It was designed by George Washington as one of two federal armories in the US (with Harpers Ferry). It was the longest running armory in the US.
It was the center of gun manufacturing/storage for the US military from early 1800's until post World War II
It was the first federal firearms manufacturing facility in the US. The manufacturing, research, and development were vital to the country.
It was the first national armory in the US and was started by Washington
It was the sole source for developing small arms in WWII and after

Table 25. Significant work performed by Springfield Armory (continued)

<b>Comment</b>
It's production and experimentation of firearms drove the arsenal of American freedom
It's where American military firearms have been manufactured, improved, stored, and guarded to ensure America has the most advanced and safe firearms for our military to use against our enemies. Peace through superior firepower.
Its role in the industrial revolution. Interchangeable parts. Also, innovative thinking for the manufacturing process.
Keeping the US in the lead of weapon technology
Kept US independent of foreign arms, and fostered developments in small arms
Made, stored, and supplied arms to protect our freedom
Made and stored weapons for the US military. Research and development of tooling machinery.
Made guns
Made guns
Made guns for major historical wars
Made guns for the US military and research and development of new weapons
Made the firearms that secured a free society
Made the Garand rifle
Made US a world power. Set in motion industrial era for US. Manufactured arms for military. First to design rifles/mass production.
Made weapons, developed weapons technology
Made weapons, research and development
Main supplier of arms for nearly 200 years
Maintained a serialized record of weapons with custodial records as well
Maintained buildings, weapons, equipment, and info about past
Major gun supplier for War of 1812, assembly line production for interchangeable parts
Major source of weapon development and manufacture
Make weapons
Making firearms
Manufacture and design/perfect guns
Manufacture and innovation of weapons systems
Manufacture and storage of firearms
Manufacture of military weapons
Manufacture of rifles for Revolutionary War till after WW II
Manufactured all weapons for US military until Vietnam War era
Manufactured and improved firearms for the army/navy
Manufactured arms to preserve liberty
Manufactured military arms
Manufactured quality weapons that were essential and which are still in use
Manufactured weapons as well as made industrial improvements and technology developments that improved the speed of production, interchangeable parts, etc. that made it possible for them to keep up with the military's demand in times of war
Manufactured weapons used by military in every war in our nation's history
Manufactured weapons used for the defense of the country

Table 25. Significant work performed by Springfield Armory (continued)

<b>Comment</b>
Manufactured latest technology small arms for armed forces
Manufacturing and inventing military weapons
Manufacturing and supplying of arms
Manufacturing arms and development. Providing troops with arms.
Manufacturing of firearms and jobs
Manufacturing of small arms from 1795 to 1968 as well as the manufacturing techniques that allowed the US to become the industrial giant
Manufacturing weapons for WW II
Northern armory for military
One of two armories, innovation in mass production and testing of firearms
One of only two federal armories in the US. Produced landmark weaponry during US conflicts.
Preservation of such an important historical site with immeasurable military significance
Primary/sole US production of firearms. Major fabrication/mechanical innovations.
Produce weapons
Produced arms
Produced arms for over 170 years
Produced arms for the government and was the sister location to Harpers Ferry
Produced arms to protect our country. Innovative technology for its time.
Produced arms, with manufacturing focusing on quality. Many other contributions.
Produced firearms used to defend our country and other countries
Produced quality arms in great numbers to ensure our freedom
Produced small arms for US since 1795, sometimes as the sole provider
Produced weapons
Produced weapons for our military for so many years
Produced weapons to support our troops (the best ever)
Production of arms
Production of quality arms, improvement of manufacturing process
Protection of the freedom we enjoy by providing defensive weapons of superior quality
Provide Civil War era employment
Provide firearms for the Union army during the Civil War and beyond
Provided air weapons during wartime
Provided and manufactured guns for the military
Provided armaments in good quality and quantity
Provided arms for our troops until the 1960's
Provided arms for the military
Provided arms for the US and northern states in the late 1700's and for the Union in the Civil War, World War I, World War II, and Korea
Provided arms used to secure our liberty
Provided arms, advancement in manufacturing techniques, research and development and ballistics
Provided astounding number of weapons for numerous wars. Site where innovation for better weapons and machinery to make them took place.

Table 25. Significant work performed by Springfield Armory (continued)

<b>Comment</b>
Provided our military arms; sufficient for achieving world dominance. Back-to-back world champs.
Provided place to store/make ammunition and guns for war efforts. Provided jobs.
Provided quality arms and technology when needed
Provided weapons for soldiers fighting in the war
Provided/stored the arms needed to defend our nation
Providing arms for many years, encouraged innovation in machinery design for higher productivity
Providing arms for the armed services
Research and development and manufacture of guns for military (mostly) through the ages
Research and development of arms used in major wars
Research and development of firearms, manufacturing of firearms
Springfield Armory was the primary builder of military rifles from 1777 to 1968. They also began building weapons with interchangeable parts and used an assembly line to build them.
Standardized weapons for country defense
Supplied arms for the US armed forces vital for the war efforts
Supplied arms for US military
Supplied guns for wartime, designed, manufactured, and tested guns
Supplied guns needed to support our troops
Supplied our armed forces its small arms
Supplied weaponry for several wars
Supplied weapons during wartime. Helped North win Civil War.
Supplied weapons for it's defense
Supplied weapons for military
Supplied weapons for war
Supplied weapons to our armed forces for a large portion of our history
Supplied weapons to US for 163 years
Supply our defense with weapons
Supply weapons to military to protect our country
Technological advances in firearms (and production for the US government) and technological advances in mass production and standardization that were important to the industrial revolution
The armory developed and produced weapons for the US military from the 1790's until 1967
The armory has served a pivotal role in national defense, from the Revolutionary War through World War II. The 1903 and M1 were game changers.
The armory made weapons for use in wars by the US services. The big mistake was McNamara privatizing weapon manufacturing.
The armory preserves the history of Springfield, US weaponry, culture, and technology
The development and manufacture of firearms as well as technology development, and innovations
The manufacture of firearms. The development of assembly standardization.
The manufacturing impact on helping us be a technological leader. Not only touching the firearm industry, but all manufacturing.
The Springfield Armory made weapons for the US military
The Springfield Armory researched, tested, developed, and manufactured firearms for the US military

Table 25. Significant work performed by Springfield Armory (continued)

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<b>Comment</b>
The Springfield Armory was the first, and thus oldest, arms manufactory in the US, encompassing multiple wars and many arms innovations
They armed the nation
They led the way in innovative design which allowed for mass production
They made guns for the army
They produced guns for the army that made us win the war
To choose only one I would say building arms during WW II. Please invest/expand the Springfield Armory site.
To learn about the different guns they used at the beginning of the war
Touchstone for precision machining that provided arms necessary for the military and influenced future manufacturing
Until 1974, the armory was responsible for selecting and testing US military's small weapons
Ushered in industrial age
Weapon experiments
Weapons development
Weapons development and research
Weapons development, manufacture, and quality control
Won the war
WW II
You are kidding - right?
You mean besides arming a nation?

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## ***Planning for the future***

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### **Question 28**

If you were a manager planning for the future of Springfield Armory NHS, what would your personal group propose? (Open-ended)

### **Results**

- 61% of visitor groups (N=138) responded to this question.
- Table 26 shows a summary of visitor comments. The transcribed open-ended comments can be found in the Visitor Comments section.

Table 26. Planning for the future  
(N=220 comments; some visitor groups made more than one comment)

<b>Comment</b>	<b>Number of times mentioned</b>
<b>PERSONNEL (1%)</b>	
More ranger visibility/interaction	2
Other comment	1
<b>INTERPRETIVE SERVICES (63%)</b>	
Display more of weapons collection	11
Expand/improve manufacturing/machinery exhibits	10
Guided tours	7
Hands-on deactivated/pretend firearms	6
Firearm demonstrations/seminars	5
More information/stories about the people	5
More interactive/hands-on displays	5
More living history/reenactments	5
Expand/improve outdoor exhibits	4
More exhibits	4
Rotate exhibits	4
Guided tours of historic buildings	3
Guided tours of upstairs weapons collection	3
Improve film	3
Live demonstrations	3
More weapons history	3
Update/improve museum exhibits	3
Add/publicize ranger-led talks	2
Keep a lot of artifacts on display	2
More kids activities	2
More local school involvement	2
More special events	2
View exhibits	2
Other comments	42

Table 26. Planning for the future (continued)

<b>Comment</b>	<b>Number of times mentioned</b>
<b>FACILITIES/MAINTENANCE (5%)</b>	
Better signage	6
Ensure proper maintenance	2
Other comments	3
<b>POLICY/MANAGEMENT (15%)</b>	
More advertising/publicity	6
Open more of building to public	5
Charge an entry fee	2
Ensure future funding	2
More public/private partnerships/collaboration	2
Other comments	17
<b>RESOURCE MANAGEMENT (8%)</b>	
Restore/conserve additional buildings	10
Preservation	4
Maintain authentic history	2
Restore to working armory	2
<b>CONCESSIONS (1%)</b>	
Comments	3
<b>GENERAL (6%)</b>	
Fine as is	9
Allocate more time for visit	2
Other comments	2

**Additional comments****Question 29**

Is there anything else your personal group would like to tell us about your visit to Springfield Armory NHS?  
(Open-ended)

**Results**

- 50% of visitor groups (N=114) responded to this question.
- Table 27 shows a summary of visitor comments. The transcribed open-ended comments can be found in the Visitor Comments section.

Table 27. Additional comments  
(N=189 comments; some visitor groups made more than one comment)

<b>Comment</b>	<b>Number of times mentioned</b>
<b>PERSONNEL (12%)</b>	
Rangers/staff were friendly	6
Rangers/staff were helpful	5
Rangers/staff were knowledgeable/informative	4
Rangers were courteous	2
Rangers were wonderful	2
Other comments	3
<b>INTERPRETIVE SERVICES (29%)</b>	
Display more of weapon collection/open more floors	7
Broaden exhibits/information beyond weapons	6
Exhibits great/wonderful	6
Film was good/informative	4
Enjoyed the history	3
Unaware of outdoor exhibits	3
Appreciate arms collection	2
Junior Ranger program was challenging	2
More exhibits	2
Other comments	19
<b>FACILITIES/MAINTENANCE (9%)</b>	
Need better directional signs	4
Grounds beautiful	3
Great facility	2
Park is well maintained	2
Other comments	6
<b>POLICY/MANAGEMENT (8%)</b>	
Appreciate preservation/restoration	7
Other comments	8

Table 27. Additional comments (continued)

<b>Comment</b>	<b>Number of times mentioned</b>
<b>GENERAL (43%)</b>	
Enjoyed visit	17
Interesting	9
Loved it	7
Great visit	6
Informative	5
Will return	4
Thank you	3
Wish we had more time	3
Impressive	2
Wonderful	2
Other comments	23

## Visitor Comments

This section contains visitor responses to open-ended questions.

### Question 28

If you were a manager planning for the future of Springfield Armory NHS, what would your personal group propose? (Open-ended)

- A change to exhibits, have seen the same many times
- A working armament
- Add some gunfire simulation games
- Add to the collection as much as possible
- Allow hands-on the weapons. Shooting seminar to allow limited use of older models.
- Allow people to view the collection of guns that is kept away upstairs. All people should see the whole collection.
- American history preservation and displays of various weapons including some more manufacturing displays
- An enjoyment of history and growth in this region
- Artifacts like beds and clothes worn at the bunkers on display
- Audio phones; the individual video stations need sound
- Better films, guided tours of grounds and museum
- Better instruction from, ranger, more interactive
- Better quality t-shirts with armory logo on it
- Better signage at entrance tour of quarters
- Better signage in museum area of Springfield. Better map available on website.
- Better signs on the campus. Prior to arrival, we did not know it was on the STCC grounds. Maybe add some vending machines for snacks.
- Better video presentation
- Charge a minimal admission. The purpose would be to cover presentation, maintenance of buildings, weapons, and security of facility.
- Charge an entry fee. It is worth it. That increases the perceived value to the public.
- Conservation of remaining buildings and pieces. Live demonstrations of old gun-making practices.
- Continue as you are
- Continue program of various concerts
- Continue to improve exhibits
- Continue with the history of the armory. Continue what you are doing now.
- Definitely needs greater promotion. In my opinion, there is little awareness by the general public of the history surrounding Springfield Armory National Historic Site.
- Display use of the museum's collections
- Expand exhibits on manufacturing and the workers operating the armory for 174 years
- Expand exhibits to the grounds outside the armory building (with marked paths, signage, etc.) that were included in the armory complex
- Expand links to historic events
- Expansion to include more of the stored collection, live demos on stages of mass production, period demonstrations
- Formal talks, better information on grounds outdoors
- Further attempts to preserve historic integrity

- Guided tour
- Guided tours of the storage area. They were provided previously for a fee.
- Guided tours should always be available, even at 4 pm (1 hr before closing time)
- Guided tours would be beneficial. Exhibits showing more of the manufacturing equipment and facilities would be interesting.
- Hands-on deactivated firearms for feel/weight/etc.
- Hands-on weaponry display for kids allowing touch
- Have a replica on hand to give a tactile feel to the exhibits (some thing to hold in your hands)
- Having only visited once and only for one hour, I am not sure, but I would guess keeping the armory relevant to the current times and community. To that end, perhaps fostering ties to the local community and sponsoring events for all ages that addresses a relevant part of the armory in today's world. As most Americans, we often forget what's in our own history and it doesn't have the glitziness/public relations of Vegas.
- How the research and development and manufacturing might that the armory led, affected the troops and the wars we fought
- I would allocate more time to walk the grounds
- I would arrange for a demonstration of shooting one of the firearms by a trained ranger
- I would like to rotate the exhibits so that we could see different things on return visits. I would also like limited private tours for collections that are not on display. Like items on upper floors.
- I would like to see some more exhibits that change from time to time
- I would propose a living history program of Daniel Shay's Rebellion
- I would propose repairing and opening to the public the spiral staircase in the armory tower. Also perhaps have stories from soldiers who used the guns and stories from women who worked in the armory.
- I wouldn't change anything
- I'd open up more exhibits, there isn't enough. I know that there is more on other floors.
- If there are ranger-led discussions - better publicity. Restore or upgrade additional buildings.
- Improve the condition of the outer buildings to include tours of the former living quarters, etc.
- Improve the outdoor parade ground trees, landscaping
- Increase museum exhibits
- Increase the number of exhibits. Offer special tours of the archives.
- Increase the portion of the buildings that you can see. Ensure buildings receive adequate maintenance to prevent deterioration of historic structures.
- Interactive displays and educational opportunities for schools
- Keep it how it was
- Keep it interactive. Keep it family oriented. Keep a lot of artifacts on display.
- Keep it up, going, and funded
- Keeping it clean and well maintained with lots of staff
- Longer hours
- Maintain the authentic history
- Make it easier to find, advertise in gun magazines
- Make it exactly as is and change nothing
- Make more of the facilities available for the tours. Display more of the collection.
- Make sure its not affected by federal cuts
- Making the equipment produce firearms for sale

- Many blank walls. Add human-interest information like lives of the workers, working conditions, and skills learned. Show more historic photos of guns in action or being used, too many empty walls. Highlight science and math.
- Money no object? Wouldn't mind seeing a more expensive treatment of 19th century industrialization with more interactive/participatory exhibits/activities. Location not really conducive to serious growth.
- More about production machinery and waterpower
- More advertising to attract specific groups. Provide internship opportunities. Talks in the community.
- More advertising, a lot of events, and reenactments
- More enveloping displays. The video was very interesting and informative. The displays seemed sterile - the musket organ was somber and larger than life. Very impressive.
- More examples of firearm manufacturing machinery
- More exhibits, special feature exhibits that showcase different periods of weaponry, countries, events etc. Open other floors, tours of general's house. More ranger talks.
- More exhibits. The ranger told me about the collection in the climate-controlled room. It would be nice to see some of those.
- More firearms on display
- More funding to use available building to expand use of this history and to make this experience complete
- More interactive displays
- More interactive/hands-on displays
- More kid's activities and more history surrounding the weapons
- More of the inventory on display or tours upstairs
- More outside site/signs/information
- More park ranger visibility and activity to promote learning about guns and the armory
- More publicity. It is not a well known historic site. Even locals forget about it or have never been. Maybe more school trips for local children.
- More time and a more thorough exploration of the arms and periods of production
- More videos on how items were made
- More visibility of exhibits, rehabilitation of other historic buildings on site
- More visibility. Signage to show the way. Information about the rest of the grounds. Interpretative signs. More restoration, e.g. more funding)
- My husband suggested giving people the opportunity to shoot a gun; possibly with a donation to fundraise for the park
- N/a
- N/a
- N/a
- Need better signage for coming to the site
- New/updated video introduction, digital kiosks, hands-on replicas of famous weapons visitors can inspect/study/hold
- No changes
- None
- Nothing to add
- Offer guided tours of the upstairs portion of the armory and tours of the historic buildings outside
- Open 2nd floor to show more exhibits. There are lots of relics in storage.
- Open up more of the building to the public
- Opening the rest of the collection. For years I wanted to see the best part of the collection.

- Opening up the upstairs exhibits for public display (since only 10% is on display downstairs)
- Partnering or increasing partnering with the adjacent college that owns the rest of the armory site to encourage interest/knowledge of students in the significance of the site
- Preservation of the buildings and exhibits. Continue use of the video for education, use pamphlets. Keep doing what's being done.
- Preserving important history
- Propose that the manufacturing history (from 1700's to 1900's) be stressed more
- Put the entire collection of firearms on display
- Reach out to schools, camps, reenactments, team up with quadrangle museums; more visible signage and entryway. People need to know it's free.
- Renovating and opening the superintendent's house
- Research
- Restoration of other buildings, field officers quarters
- Restoring the outbuildings and creating a living museum, allowing people to view living conditions, etc.
- See some cannons in action. See them used/fired. Have some models that the kids can touch and try (pretend ones).
- Show more information on manufacturing process
- Show the impact of the weapons developed here on various wars and battles. Develop the early manufacturing exhibits. Show the economic impact of the armory, e.g. the larger historical context in the area and country.
- Show what films are available, e.g. Shay's Rebellion, Arms History, Women in the Armory
- Some of the signs in cases were a little hard to match with the exhibit items and the angle of view was poor; could use some rearrangement and improved labeling. Many of the outbuildings need extensive restoration. Are public-private collaborations possible as are used in the Presidio in San Francisco? We have friends who rent and live in National Park Service buildings and their non-profit company rents space in another building.
- Strongly recommend finding a way to market the armory's merchandise. Start with asking online retailer Midway Arms to host an Armory museum shop.
- Tactile exhibits and perhaps a shooting range
- Taking apart and assembling a weapon. Simulated demo of weapon firing of different types. Film with maybe a smell-o-rama (scent of powder) to insert at certain stages of video.
- Team up with other tourist attractions/history museum, science museum, Basket Ball Hall of Fame for publicity and marketing purposes
- Temporary exhibits. Its fun to see something new. Special events that bring local people on a regular basis.
- That there be a little bit more kid's activities
- The way it runs is great
- There should be more information on the people and machinery
- To enjoy and learn about the armory
- To get some history about the guns and weapons used in the different wars
- To invest in upkeep, expand grounds to include other historic buildings on school site and restore, and promote importance of the armory
- To maintain the armory for the education for future generations
- To make a shorter survey
- To observe the museum
- Tour guides
- Update interior furnishings

- Update museum exhibits, better define museum area within the armory site (i.e. separate entrance from campus)
- Upgrade and renovate the facility
- Variety of costumed/interpretive programs. Information/signage about outside exhibits (map) provided inside by ranger.
- View exhibits, film, tour with a ranger, have question and answer session
- We are not planning future visits
- Where is the documentation? A copy of the original document assigning Springfield as the first northern armory. Copies of orders from Congress or President for arms needed for war of 1812.
- While there is some representation in the collection from allied (and enemy) nations, there is nothing from Canada. Please put the Inglis Hi-Power pistol on display.
- Would like to fire muskets

**Question 29**

Is there anything else your personal group would like to tell us about your visit to Springfield Armory NHS? (Open-ended)

- A fantastic experience for history junkies. We enjoyed the historic texture of the building especially the entryway with hoist tackle and pulleys.
- Amazed
- Arrived at 4 pm and didn't have enough time to watch the display videos
- As gun collectors, we very much appreciate and marvel at the museum's collection and presentation
- Beautiful site, wonderful collection and exhibits, would like to have been able to see more of the Water shops than just from the road
- Being a history buff, I was very glad to have the opportunity to visit the Springfield Armory
- Bill was very informative and the exhibits wonderful
- Enjoyable. Avid reader of books related to the Revolutionary War.
- Enjoyed everything but want to see more
- Enjoyed it very much. Concerts have been fabulous.
- Enjoyed the visit
- Everyone we interacted with was very nice and eager to share their wealth of information
- Excellent exhibits in the museum. The staff was very knowledgeable and friendly.
- Fascinating
- Found it to be very interesting
- Not sure. I was there several times with my dad when the armory was still active. If he were alive today he would be thrilled to see this site.
- Great job, don't ever let them close you
- Great place to visit
- Great time had by all
- Great visit - great facility. Staff was fantastic, friendly, and informative.
- Great visit
- Had a great time there. History info fantastic, rangers very helpful.
- I didn't know about outdoor exhibits, souvenirs were disappointing (odd sizes, small mugs, posters displayed not available). Bookstore had limited selection. Quality of souvenirs was lacking.
- I enjoyed my visit, and will return again if I am near the area in the future
- I found it incredibly interesting
- I had no clue there are exhibits outside
- I liked the exhibit and the rifles that formed a large cube
- I live in Monson and have always enjoyed visiting the museum. Brought grandkids this time. I am related to Clinton Bostock who built the Blanchard Lathe model and the flintlock exhibit. Also many people in my family worked at the armory.
- I love weapons and everything about military. So thank you very much.
- I think that the NPS has done a great job preserving the feel of the site in its working relationship with the college. Should be a model of development in more historic areas.
- I was happy that the museum and grounds were very clean and well maintained
- I was very pleased to visit. It was interesting and informative. I would like to go again if I ever come this way again someday.
- I would like to see Jefferson Davis's personal gun moved to the museum of the Confederacy in Richmond, Virginia

- I would like to see more firearm exhibits. The armory is a multi-story building; maybe use the other floors for more weapons. I've visited many state and national parks and historic sites. I always thought that Springfield Armory was just a storage facility for weapons. I did not realize the monumental importance of Springfield Armory in weapons development and our nation's history. Please display more weapons and thank you for keeping the US history visible.
- If my dad were still alive, he would have enjoyed the artillery displays because he possessed a great interest in weaponry
- It was amazing - the extensive collection of arms
- It was fun
- It was very interesting. We all had a wonderful time. Very impressive.
- It would serve the public if you could make more money so you could afford more exhibits. Disappointed in outdoor exhibits.
- Joanna was very nice to my grandsons. This is the first time I've seen an employee at the armory that proactive (with the Junior Ranger program), was it because the survey was going on today?
- Keep up the good work
- Loved it a lot
- Loved it
- Loved it
- More exhibits - maybe short time informative information
- More hands-on exhibits similar to the flintlock
- My 10-year-old grandkids (twin girls) know nothing about firearms. The Junior Ranger program needs to adjust for that in program and displays. Types of guns, etc. were confusing to them. No one in our group has had any experience with firearms. It was interesting to learn about them but it was very frustrating to the 10-year-old girls to not be able to do all of the Junior Ranger stuff without any help. They have about 40 badges and in most cases do all the work themselves with no adult help - that is what they want. If they do it themselves they then know and understand the park and information. This is their choice not parental mandate. We, parents and grandparents, had to help them find some of the weapon information and we even had some challenges. Understand, I am not complaining in any way about the park. You asked what we thought would make it better so that is why the comments. We love the park system! Joan and I have visited 317 of the 401 park units. We always see the film, visit the museum displays, and read the park unigrid. About 25% of the time we will do a ranger program. That usually depends on schedule and how much time we have allowed for that park visit. If our grandkids are with us we do whatever else is necessary for the Junior Ranger program.
- My father and I love the Springfield Armory. It is a great place to go with your dad.
- N/a
- N/a
- Need to put in new exhibits with different guns
- Neighborhood around the armory is a little rough. Might deter some visitors.
- No
- None of the colonels' houses on the grounds should be open to visitors. Also the upstairs, which holds 80% of the collection, should be displayed.
- Once on the college campus, there weren't enough signs to find the museum parking area
- Park rangers were very pleasant and helpful
- Pretend you are visiting for the first time. Drive your car down the freeway off ramp, and see if you can find Springfield Armory National Historic Site. Keep in mind that it says 'S Field Armory' on the front door of a college.
- Provide vault visitation so that my son can see the weapons I saw at his age, e.g. M2 .50 cal.  
#1,000,000

- Ranger with first name Rich exceptionally courteous
- Really enjoyed it
- Some exhibits were empty and wondered where items were. A few empty displays had raised the question. Overall, it is a great pleasure to visit such an important collection and site.
- Thank you NPS for the restoration of the armory and bringing in weapons manufactured in the USA
- Thank you for having it cool inside on such a hot day
- Thank you for taking such good care
- Thank you
- The armory has a vast collection yet, so little is on display, this is a shame. Museum has so much potential. Ranger Susan Bachman was a wonderful guide and host.
- The glass on the displays needs to be washed
- The grounds were beautiful
- The history is cool
- The national armory museums should form a coop with the NRA that represents those with an appreciation for guns and their historical context. We did not see the videos, but the museum understated the importance of the various guns on the Civil War, the Indian Wars, and World War II. Excellent ranger. This museum has great potential. Sadly, I couldn't spend all day there. It could be broadened to include testimonials of various combat veterans, artwork, and links to the broader historical context. The museum should be an apologist for weapons technology that has helped us survive as a nation. I love Longfellow, but a pacifist poem in a weapons museum?
- The picnic area was an unexpected bonus and the grounds beautiful
- The ranger was extremely helpful and courteous
- The service was great, the park ranger was friendly and helpful
- The site did not overwhelm us with importance. We have visited about 160 sites to date and this one left us a little disappointed. Is this site really needing NPS status or would a city museum better (less federal money spent) serve the purpose of displaying these artifacts?
- There is more to your history than guns. The focus is too narrow. The story is the people, women, wagoners, visitors, managers; how it impacted the growth of Springfield; who left here and went on to other deeds. So much potential here and so little history shared. I have to give you a low rating for the items you don't have rather than a good rating for what you have because it is too narrow.
- There needs to be people giving tours. I would be willing to give tours on weekends for free.
- They have a good child interaction area. Didn't see many women in the display. Were they an influential force? Not sure. Well done. The video was very well done.
- This remains a valuable piece of American history that truly needs to be preserved for future generations
- This was an excellent NHS Facility. I enjoyed immensely.
- This was an unplanned visit, but we were impressed. I will go again.
- Thoroughly enjoyed our visit! The film was excellent and well done for providing information that made our visit awesome. We've encouraged other attending GeoBerkshire to seek out and visit.
- Though weapons, per se, are of little interest to me, manufacturing, machinery, machining, interchangeable parts, methods of manufacturing, assembly, industrial design, and similar industrial and architectural history are of great interest to me, as well as the movement of materials. There is almost zero information about how things were delivered to the site, moved from the other site by the river to this one, or ultimately shipped out of the armory to wherever. The material had to go. This is interesting to many people and should be addressed, for example, I could figure out that there was a central boiler plant that was coal fired. I could not figure out from the displays how that coal was delivered to that plant. This is a big hole in the story of the armory. At one level I'd say the museum is too much about weapons as such, and not enough about the armory. How it worked, who worked there, and so on. I mentioned the boiler plant - how

many men worked there? I have noted rails in the pavement on the STCC campus; clearly there was some level of rail service. How? Where was the connection to the real world rail system? That coal came, I'd assume, in hopper cars, not horse drawn wagons (I hope!). How did they get there? What about all the wood for the gunstocks? Iron, steel, and brass? I note the survey is theoretically anonymous but I don't mind your knowing the source.

- Very enjoyable
- Very friendly staff
- Very informative and was pleased to see arms that I personally used in the army
- Very interesting
- Very interesting and informative visit. Wished we had time to attend concert on the green.
- Very interesting and informative
- Very interesting to learn the history
- Very interesting, as always
- Very nice - can't wait to bring husband back. He's always wanted to visit.
- Very personable staff, well kept facility
- We did not realize the National Historic Site existed, until we saw signs on highway when we drove through Springfield on our way to Maine for the weekend. I then looked at your website and we decided to make time to stop on our way home; and we loved it. Wish you had more exhibits on the buildings, machinery, and life at the armory. That part of its history is just as important as the weapons. Was very glad to see the machinery on display. Fascinating!
- We enjoyed it very much
- We enjoyed our visit and are great supporters of the National Park Service
- We enjoyed our visit, thank you
- We enjoyed the facility tremendously
- We enjoyed the visit more than expected; a very interesting place
- We found the armory very informative
- We have heard there is a quite a large quantity of items not on display. We would love to see the rest of the collection.
- We love the armory
- We loved it. The ranger was wonderful.
- We really didn't know what to expect and were thrilled by what we saw. We are on a journey of three months relocating back to our home in WA. Seeing this was a national park was our driving factor. Outside buildings could use some upgrade. We are on a cross-country trip.
- We really enjoyed our visit and have recommended the Springfield Armory to relatives and friends
- We really enjoyed the exhibits, movie and knowledgeable park rangers. So glad you are keeping our American History alive! I do not understand the need for this category/ethnic group to receive special attention for this survey. I'm really glad this survey is all in English without Spanish as well.
- We thought the exhibits were great! Also, the Junior Ranger program was challenging but great. Our kids commented on liking doing the badge activities rather than just viewing the exhibits. We had a little uncertainty as we got closer (on campus) using the signs to direct us to the park.
- We were in area for work, which finished early. Good facility preservation but sad that more people do not understand mechanical items and have a bias against firearms.
- We were surprised and enjoyed it so much, more interpretation about the Waterworks and the uses of the entire area would add context. RV users need good info about parking and such. Don't forget us. Part of a 5-month motorhome trip on east coast.
- We wish we were aware of outside exhibits
- We wouldn't have stopped there if it hadn't been for our passport book. We find all sorts of small historic sites that way.

- Well preserved. More people from outside the northeast should know about it.
- Wonderful
- Would like better signs to park at and find the museum. Perhaps with distance markings.
- Would like to have seen a larger display on the machine shop
- Would like to see second floor opened so I could see the extensive collection. I have asked many times.
- Would've been neat if there were more of the racks full of weapons. Currently limited photo opportunities indoors. Overall, great exhibits, very educational.
- Your staff was very helpful, and the video was very informative. My group really enjoyed everything.

## **Appendix 1: The Questionnaire**





U.S. Department of the Interior  
National Park Service  
Social Science Program  
Visitor Services Project



# Springfield Armory National Historic Site Visitor Study



**United States Department of the Interior**  
NATIONAL PARK SERVICE  
Springfield Armory National Historic Site  
One Armory Square, Suite 2  
Springfield, MA 01105-1299



IN REPLY REFER TO:

Summer 2013

Dear Visitor:

Thank you for participating in this important study. Our goal is to learn about the expectations, opinions, and interests of visitors to Springfield Armory National Historic Site. This information will assist us in our efforts to better manage this park and to serve you.

This questionnaire is only being given to a select number of visitors, so your participation is very important. It should only take about 20 minutes after your visit to complete.

When your visit is over, please complete this questionnaire. Seal it in the postage-paid envelope provided and drop it in any U.S. mailbox.

If you have any questions, please contact Lena Le, Director Visitor Services Project, Park Studies Unit, College of Natural Resources, University of Idaho, 875 Perimeter Drive MS1139, Moscow, Idaho 83844-1139, 208-885-2585 (phone), lenale@uidaho.edu (email).

We appreciate your help.

Sincerely,

James Woolsey  
Superintendent

### DIRECTIONS

At the end of your visit:

1. Please have the selected individual (at least 16 years old) complete this questionnaire.
  2. Answer the questions carefully since each question is different.
  3. For questions that use circles (○), please mark your answer by filling in the circle with **black or blue ink**. Please do not use pencil.
- Like this: ● Not like this: ☒ ☓ ☉
4. Seal it in the postage-paid envelope provided.
  5. Drop it in a U.S. mailbox.

**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. This information will be used by the National Park Service as authorized by 16 U.S.C. 1a-7. We will use this information to evaluate visitor services managed by Springfield Armory National Historic Site. Your response is voluntary. Your name and contact information have been requested for follow-up mailing purposes only. When analysis of the questionnaire is completed, all name and address files will be destroyed and will in no way be connected with the results of this survey. A Federal agency may not conduct or sponsor, and you are not required to respond to, a collection of information unless it displays a currently valid OMB Control Number.

We estimate that it will take about 20 minutes to complete this. You may send comments concerning the burden estimates or any aspect of this information collection to: Lena Le, Director Visitor Services Project, Park Studies Unit, College of Natural Resources, University of Idaho, 875 Perimeter Drive MS1139, Moscow, Idaho 83844-1139, 208-885-2585 (phone), lenale@uidaho.edu (email).

### Your Visit To Springfield Armory National Historic Site

**NOTE:** In this questionnaire, your **personal group** is defined as anyone with whom you are visiting the park, such as a spouse, family, friends, etc. This does not include the larger group that you might be traveling with, such as a school, church, scout, or tour group.

1. a) Prior to this visit, how did your personal group obtain information about Springfield Armory National Historic Site (NHS)? Please mark (●) **all** that apply in column (a).  
 Did not obtain information prior to visit → **Go to part (b) of this question**  
 b) If you were to visit Springfield Armory NHS in the future, how would your personal group prefer to obtain information about the park? Please mark (●) **all** that apply in column (b).

a) This visit	b) Future visit	Source of information
<input type="radio"/>	<input type="radio"/>	Friends/relatives/word of mouth
<input type="radio"/>	<input type="radio"/>	Inquiry to park via phone, mail, or email
<input type="radio"/>	<input type="radio"/>	Springfield Armory NHS website: <a href="http://www.nps.gov/spar">www.nps.gov/spar</a>
<input type="radio"/>	<input type="radio"/>	Other websites — Which one(s)? _____
<input type="radio"/>	<input type="radio"/>	Local businesses (hotels, motels, restaurants, etc.)
<input type="radio"/>	<input type="radio"/>	Maps/brochures
<input type="radio"/>	<input type="radio"/>	Newspaper/magazine articles
<input type="radio"/>	<input type="radio"/>	Other units of the National Park System (NPS)
<input type="radio"/>	<input type="radio"/>	Previous visits
<input type="radio"/>	<input type="radio"/>	School class/program
<input type="radio"/>	<input type="radio"/>	Social media (such as Facebook, Twitter, etc.)
<input type="radio"/>	<input type="radio"/>	State welcome center/visitors bureau/chamber of commerce
<input type="radio"/>	<input type="radio"/>	Television/radio programs/DVDs
<input type="radio"/>	<input type="radio"/>	Travel guides/tour books (AAA, Fodors, hiking, walking, etc.)
<input type="radio"/>	<input type="radio"/>	Other, this visit (Specify) _____
n/a	<input type="radio"/>	Other, future visit (Specify) _____

- c) From the sources you used prior to this visit, did your personal group receive the type of information about the park that you needed?

No  Yes → **Go to Question 2**

- d) If NO, what type of park information did your personal group need that was not available? Please be specific.

\_\_\_\_\_

\_\_\_\_\_

2. Prior to this visit was anyone in your personal group aware that Springfield Armory NHS is managed by the National Park Service?

Yes  No

3. On this visit, what were your personal group's reasons for visiting Springfield Armory NHS? Please mark (●) **all** that apply.

- View indoor museum exhibits
- Explore Armory grounds/view outdoor exhibits
- Interest in gun history
- See the largest historic US military small arms collection
- Other (Please specify) \_\_\_\_\_

4. a) Was every member in your personal group a resident of the greater Springfield area (within 100 miles of the park)?

No  Yes → **Go to Question 5**

- b) Was visiting Springfield Armory NHS the primary reason nonresident members of your personal group came to the area (within 100 miles of the park)?

No  Yes

5. a) On this visit, which forms of transportation did your personal group use to travel between your overnight accommodations or home and Springfield Armory NHS? Please mark (●) **all** that apply.

- Private vehicle (car, SUV, pickup, RV, etc.)  Motorcycle
- Rental vehicle  Public transit (bus, etc.)
- Bicycle  Taxi/limousine
- On foot  Tour/school bus
- Other (Please specify) \_\_\_\_\_

- b) On this visit, how many vehicles did your personal group use to arrive at the park? If you did not arrive by vehicle please write "0".

\_\_\_\_\_ Number of vehicles

6. a) On this trip, did your personal group stay overnight away from home in the greater Springfield area (within 100 miles of the park)?

Yes  No → **Go to Question 7**

- b) If YES, please list the number of nights your personal group stayed in the greater Springfield area (within 100 miles of the park).

Number of nights in greater Springfield area (within 100 miles of the park) \_\_\_\_\_

- c) In which type(s) of accommodations did your personal group spend the night(s) in the greater Springfield area? Please mark (●) **all** that apply.

**Accommodation used** \_\_\_\_\_ c) **Outside park**

- Lodge, motel, rented condo/home, cabin, B&B
- Personal seasonal residence
- Residence of friends or relatives
- RV/trailer camping in a developed campground
- Tent camping in a developed campground
- Other (Please specify) \_\_\_\_\_

7. a) For you only, if you had been unable to visit Springfield Armory NHS on this trip, would you have visited at another time?

No, unlikely  Yes, likely → **Go to Question 8**

- b) If NO, what would you have done with the time you spent on this trip? Please mark (●) **one**.

- Gone somewhere else → Distance from home \_\_\_\_\_ miles
- OR -  
Location \_\_\_\_\_ (Place, city, & state)
- Vacated at home
- Gone to work at my regular job
- Not sure/none of these

8. Which other local and regional attractions did your personal group visit on this trip to Springfield Armory NHS?

- Any college in the Springfield area     Forest Park Sculpture Garden  
 Basketball Hall of Fame     Forest Park Zoo  
 Big E (Eastern States Exposition)     Six Flags New England  
 City Stage     Springfield museums  
 Dr. Seuss National Memorial  
 Other (Please specify) \_\_\_\_\_

9. On this visit, were the signs directing your personal group to and around Springfield Armory NHS adequate? Please mark (●) **one** answer for each of the following.

- a) Interstate highway signs     Yes     No     Did not use  
 b) Signs in local communities     Yes     No     Did not use  
 c) Signs in park/adjacent college campus     Yes     No     Did not use

d) If you answered NO for any of the above, please explain.

Interstate \_\_\_\_\_

In local communities \_\_\_\_\_

In the park or on Springfield Technical Community College portion of the Historic

Site \_\_\_\_\_

10. a) Did your personal group obtain information from the park website (<http://www.nps.gov/spar>) to plan this trip to Springfield Armory NHS?

- Yes     No → **Go to Question 11**

b) Overall, how would your personal group rate the quality of information provided on the park website? Please mark (●) **one**.

- Very poor    Poor    Average    Good    Very good

c) Did your personal group find the information that you needed on the park website?

- No     Yes → **Go to Question 11**

d) If NO, what type of information did your personal group need that was not available on the park website? Please be specific.

\_\_\_\_\_

\_\_\_\_\_

11. a) On this visit, in which activities did your personal group participate within Springfield Armory NHS? Please mark (●) **all** that apply in column (a).

a) This visit	Activity
<input type="radio"/>	Attending ranger-led talks/programs
<input type="radio"/>	Participating in Junior Ranger program
<input type="radio"/>	Picnicking
<input type="radio"/>	Shopping in park bookstore (at visitor center)
<input type="radio"/>	Viewing museum exhibits
<input type="radio"/>	Viewing outdoor exhibits
<input type="radio"/>	Walking around the Armory grounds
<input type="radio"/>	Watching park videos/films
<input type="radio"/>	Other (Please specify) _____

b) Which one of the above activities was the **primary** reason your personal group visited Springfield Armory NHS on this visit? Please list only **one** response.

\_\_\_\_\_

12. a) During this visit to Springfield Armory NHS, did your personal group obtain information from a National Park Service uniformed employee or volunteer?

- Yes     No → **Go to Question 13**

b) If YES, using the scale below, please rate the quality of your interaction with the uniformed employee/volunteer. Please mark (●) **one** response for each item.

	Very poor	Poor	Average	Good	Very good
Helpfulness	<input type="radio"/>				
Courteousness	<input type="radio"/>				
Quality of information provided	<input type="radio"/>				

13. It is the National Park Service's responsibility to protect Springfield Armory NHS's natural, scenic, and cultural resources while at the same time providing for public enjoyment. How important is protection of the following resources/attributes in the park to your personal group? Please mark (●) **one** answer for each resource/attribute.

Resource/attribute	Not at all important	Slightly important	Moderately important	Very important	Extremely important
Educational opportunities	<input type="radio"/>				
Historic landscapes and buildings	<input type="radio"/>				
Museum and archival collections	<input type="radio"/>				
Natural quiet/sounds of nature	<input type="radio"/>				
Repair/maintenance of buildings	<input type="radio"/>				

14. a) On this visit to Springfield Armory NHS, was your personal group able to find the services you needed, such as information, gas, food, and lodging, in the greater Springfield area (within 100 miles of the park)? Please mark (●) **one** answer.

- Did not need support services → **Go to Question 15**
- No  Yes → **Go to Question 15**

b) If NO, what needed services were not available?

Service (List) \_\_\_\_\_ Comments (Please be specific) \_\_\_\_\_

15. a) On this visit, how much time in **total** did your personal group spend visiting Springfield Armory NHS? Please list partial hours as 1/4, 1/2, 3/4.

\_\_\_\_\_ Number of hours, if **less than 24 hours**

b) On this visit, did your personal group visit the park on more than one day?

- Yes  No → **Go to Question 16**

c) If YES, on how many days did you visit the park? \_\_\_\_\_ Number of days

16. a) Please mark (●) **all** the information services and facilities that your personal group **used** at Springfield Armory NHS during this visit.

b) For only those services and facilities that your personal group **used**, please rate their importance to your visit from 1-5.

c) For only those services and facilities that your personal group **used**, please rate their quality from 1-5.

- b) **If used, how important?**  
 1=Not at all important  
 2=Slightly important  
 3=Moderately important  
 4=Very important  
 5=Extremely important
- c) **If used, what quality?**  
 1=Very poor  
 2=Poor  
 3=Average  
 4=Good  
 5=Very good

a) **Information services/facilities used**

Mark (●)

- Access for disabled persons/wheelchair ramp \_\_\_\_\_
- Assistance from park staff \_\_\_\_\_
- Bookstore sales items (selection, price, etc.) \_\_\_\_\_
- Bulletin boards \_\_\_\_\_
- Junior Ranger program \_\_\_\_\_
- Museum exhibits \_\_\_\_\_
- Outdoor exhibits \_\_\_\_\_
- Park brochure/map \_\_\_\_\_
- Park website: [www.nps.gov/spar](http://www.nps.gov/spar) used before or during visit \_\_\_\_\_
- Picnic tables \_\_\_\_\_
- Ranger-led programs \_\_\_\_\_
- Restrooms \_\_\_\_\_
- Videos/films \_\_\_\_\_

17. a) On this visit to Springfield Armory NHS, did anyone in your personal group participate in any of the ranger-led talks/programs?

No  Yes → **Go to Question 18**

b) If NO, what prevented your personal group from participating in ranger-led talks/programs? Please mark (●) **all** that apply.

Did not have time for this activity

Not aware of any ranger-led talks/programs offered at park

Not enough programs offered

Not interested

Other (Please specify) \_\_\_\_\_

18. If you were to visit Springfield Armory NHS in the future, how would your personal group prefer to learn about the park's cultural and natural history? Please mark (●) **all** that apply.

Not interested in learning about the park → **Go to Question 19**

Films, movies, videos  As a volunteer in the park

Indoor museum exhibits  Cell phone tours

Outdoor exhibits  Children's activities

Online exhibits/museum catalog  Interactive displays

Park website: [www.nps.gov/spar](http://www.nps.gov/spar)  Self-guided tours

Ranger-guided walks/talks  Smart phone apps

Living history/costumed interpretive programs

Printed materials (brochures, books, maps, etc.)

Other (Please specify) \_\_\_\_\_

19. What significant work did Springfield Armory do that made it important to the United States?

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20. For your personal group, please estimate all expenditures for the items listed below for this visit to Springfield Armory NHS and the surrounding area (within 100 miles of the park). **Please write "0" if no money was spent in a particular category.**

a) Please list your personal group's total expenditures inside Springfield Armory NHS.

b) Please list your personal group's total expenditures in the **surrounding area** outside the park (within 100 miles of the park).

**NOTE:** Surrounding area residents should only include expenditures that were **just for this trip** to Springfield Armory NHS.

**EXPENDITURES**

a) Inside park b) Outside park

Spent no money (●)  → Go to (b)  → Go to (c)

Lodge, hotel, motel, cabin, B&B, etc. n/a  \$ \_\_\_\_\_

Camping fees and charges n/a  \$ \_\_\_\_\_

Restaurants and bars n/a  \$ \_\_\_\_\_

Groceries and takeout food n/a  \$ \_\_\_\_\_

Gas and oil (auto, RV, boat, etc.) n/a  \$ \_\_\_\_\_

Other transportation expenses (rental cars, taxis, auto repairs, but NOT airfare) n/a  \$ \_\_\_\_\_

Admission, recreation, entertainment, guide fees n/a  \$ \_\_\_\_\_

All other expenditures (books, postcards, donations, souvenirs, etc.) \$ \_\_\_\_\_  \$ \_\_\_\_\_

c) How many people do the above expenses cover? Please write "0" if no children were covered by the expenditures.

\_\_\_\_\_ Adults (18 years or over) \_\_\_\_\_ Children (under 18 years)

21. a) Does anyone in your personal group identify with or belong to an interest group that led you to visit Springfield Armory NHS on this visit?

Yes  No → **Go to Question 22**

b) If YES, what interest group is it?

---

22. On this visit, was your personal group part of the following types of organized groups? Please mark (●) **one** for **each**.

- a) Commercial bus/guided tour group     Yes     No
  - b) School/educational group     Yes     No
  - c) Other (scouts, work, church, etc.)     Yes     No
- d) If you were with one of these organized groups, how many people, including yourself, were in this group?  
 \_\_\_\_\_ Number of people in organized group

23. a) On this visit, which type of personal group (not guided tour/school/other organized group) were you with? Please mark (●) **one**.

- Alone     Friends
- Family     Family and friends
- Other (Please specify) \_\_\_\_\_

b) On this visit, how many people were in your personal group, including yourself?  
 \_\_\_\_\_ Number of people in personal group

24. For your personal group on this visit, please provide the following. If you do not know the answer, leave blank.

- a) Current age \_\_\_\_\_
- b) U.S. ZIP code \_\_\_\_\_
- c) Number of visits to Springfield Armory NHS (including this visit) \_\_\_\_\_
- other than U.S. Lifetime to date \_\_\_\_\_

	a) Current age	b) U.S. ZIP code	c) Number of visits to Springfield Armory NHS (including this visit)
Yourself	_____	_____	_____
Member #2	_____	_____	_____
Member #3	_____	_____	_____
Member #4	_____	_____	_____
Member #5	_____	_____	_____
Member #6	_____	_____	_____
Member #7	_____	_____	_____

25. For you only, what is the highest level of education you have completed? Please mark (●) **one**.

- Some high school     Bachelor's degree
- High school diploma/GED     Graduate degree
- Some college

26. a) For you only, which category best represents your annual **household** income? Please mark (●) **one**.

- Less than \$24,999     \$50,000-\$74,999     \$150,000-\$199,999
- \$25,000-\$34,999     \$75,000-\$99,999     \$200,000 or more
- \$35,000-\$49,999     \$100,000-\$149,999     Do not wish to answer

b) How many people are in your household? \_\_\_\_\_ Number of people

c) How much income did your household forgo to make this trip (due to taking unpaid time off from work)? Please mark (●) "None" or specify the amount forgone.

- None    **OR**    Amount forgone \$ \_\_\_\_\_

27. a) Are members of your personal group Hispanic or Latino? Please mark (●) **one** for each group member.

	Yourself #2	Member #3	Member #4	Member #5	Member #6	Member #7
--	-------------	-----------	-----------	-----------	-----------	-----------

- Yes, Hispanic or Latino
- No, not Hispanic or Latino

b) What is the race of each member of your personal group? Please mark (●) **one** or **more** for each group member.

	Yourself	Member #2	Member #3	Member #4	Member #5	Member #6	Member #7
American Indian or Alaska Native	<input type="radio"/>						
Asian	<input type="radio"/>						
Black or African American	<input type="radio"/>						
Native Hawaiian or other Pacific Islander	<input type="radio"/>						
White	<input type="radio"/>						

28. If you were a manager planning for the future of Springfield Armory NHS, what would your personal group propose?

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29. Is there anything else your personal group would like to tell us about your visit to Springfield Armory NHS?

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30. Overall, how would you rate the quality of the facilities, services, and recreational opportunities provided to your personal group at Springfield Armory NHS during this visit? Please mark (●) **one**.

Very poor	Poor	Average	Good	Very good
<input type="radio"/>				

Thank you for your help! Please seal the questionnaire in the postage-paid envelope provided and drop it in any U.S. mailbox.

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## Appendix 2: Additional Analysis

The Visitor Services Project (VSP) offers the opportunity to learn from VSP visitor study data through additional analysis. Two-way and three-way cross tabulations can be made with any questions.

Below are some examples of the types of cross tabulations that can be requested. To make a request, please use the contact information below, and include your name, address and phone number in the request.

1. What proportion of family groups with children attend interpretive programs?
2. Is there a correlation between visitors' ages and their preferred sources of information about the park?
3. Are highly satisfied visitors more likely to return for a future visit?
4. How many international visitors participate in hiking?
5. What ages of visitors would use the park website as a source of information on a future visit?
6. Is there a correlation between visitor groups' rating of the overall quality of their park experience and their ratings of individual services and facilities?
7. Do larger visitor groups (e.g., four or more) participate in different activities than smaller groups?
8. Do frequent visitors rate the overall quality of their park experiences differently than less frequent visitors?

The VSP database website (<http://vsp.uidaho.edu>) allows data searches for comparisons of data from one or more parks.

For more information please contact:

Visitor Services Project  
Park Studies Unit  
College of Natural Resources  
University of Idaho  
875 Perimeter Drive MS 1139  
Moscow, ID 83843-1139

Phone: 208-885-2585  
Fax: 208-885-4261  
Email: [lenale@uidaho.edu](mailto:lenale@uidaho.edu)  
Website: <http://www.psu.uidaho.edu>



## Appendix 3: Decision Rules for Checking Non-response Bias

There are several methods for checking non-response bias. However, the most common way is to use some demographic indicators to compare between respondents and non-respondents (Dey 1997; Salant and Dillman 1994; Dillman and Carley-Baxter 2000; Dillman, 2007; Stoop 2004). In this study, group type, group size, age of the group member (at least 16 years old) completing the survey, whether the park was the primary reason for being in the area, and proximity from participants' homes to Springfield, MA were five variables that were used to check for non-response bias.

Two independent-sample T-tests were used to test the differences between respondents and non-respondents. The p-values represent the significance levels of these tests. If the p-value is greater than 0.05, the two groups are judged to be insignificantly different.

Chi-square tests were used to detect the difference in the group types, whether the park is the primary reason for being in the area, and respondent's place of residence. The hypotheses were there would be no significant difference between respondents and non-respondents in terms of whom they travelled with, why they were in the area, or where they came from. If the p-value is greater than 0.05, the differences are judged to be insignificant.

The hypotheses for checking non-response bias are: Respondents and non-respondents are not significantly difference in terms of:

1. Average age
2. Number of people they were travelling with in a personal group
3. Type of group which they were travelling with
4. Primary reason for travelling to the area
5. Proximity from participants' homes to Springfield, MA

As shown in Table 2 - Table 5, respondents and non-respondents were not significantly different except for average age and proximity from participants' homes to Springfield, MA. The p-values for these two variables were less than 0.05, indicating significant difference between respondents and non-respondents. The results indicated younger survey participants (less than 45 years of age) and visitors who live in within 100 miles of Springfield, MA may be underrepresented in the results.

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