Research to Support Visitor Management at Alcatraz Island:
A Replication and Extension

—Study Completion Report—

Robert Manning
William Valliere
Carena Van Riper
Laura Anderson

Park Studies Laboratory
Rubenstein School of Environment and Natural Resources
University of Vermont

Contents

I. Introduction

Introduction

As the name suggests, the national park system contains natural and cultural resources of national, and increasingly, international significance. Units of the national park system contain natural, historical, and cultural resources of great importance to the nation and, in many cases, to the international community. Given the significance of this resource base, public demand to see and experience these areas is not surprising. Data on visitation to the national park system dramatically support this premise. Annual visits are now counted in the hundreds of millions.

The popularity of the national park system presents a substantial challenge with regard to the quality of the visitor experience. Too many visitors may cause crowding and other social impacts which degrade the quality of the visitor experience. How many visitors can ultimately be accommodated in a park or related area? How much crowding and other impacts should be allowed? These and related questions are commonly referred to as carrying capacity (Manning 2007; Manning 1999; Stankey and Manning 1986; Shelby and Heberlein 1986; Graefe *et al.* 1984).

Alcatraz Island is a quintessential example of the issues described above. This unit of the national park system contains highly significant natural and cultural resources. As part of Golden Gate National Recreation Area, this site draws several hundred thousand visits annually, and this may result in crowding, congestion, and other social impacts.

Study Objectives

This study was designed to replicate and extend a study done at Alcatraz Island in 1998 and related monitoring conducted in 2005. With changes to the route of the cellhouse audio tour, park staff felt it was important to determine if findings from this previous research still adequately represented visitors' experiences. Additionally, several new questions were added based on input from the park staff. The purpose of the study was to help support application of Visitor Experience and Resource Protection (VERP), the framework used by the National Park Service to analyze and manage carrying capacity. Specific study objectives were as follows:

1. Measure baseline characteristics of visitors and visitor use patterns, including type of visitor, length of stay, residence, and socio-demographic characteristics, and compare these characteristics to those measured in the 1998 visitor study.

2. Determine if indicators and standards of quality identified in the 1998 visitor study still represent's visitors' opinions. Indicators of quality are measurable, manageable variables that help define the quality of the visitor experience. Standards of quality represent the minimum acceptable condition of indicator variables. Data were gathered from visitors to help managers identify indicators and standards of quality for the visitor experience at Alcatraz Island. Where appropriate, a visual approach using simulated photography was used to measure crowding-related standards of quality.

3. Explore the acceptability of alternative visitor management practices, including management practices that were not a part of the 1998 study. The National Park Service's Visitor Experience and Resource Protection carrying capacity framework (VERP) requires that management actions be undertaken to ensure that standards of quality are not violated. A

study of visitor attitudes toward potential management actions was conducted to ensure that

management actions implemented are as acceptable as possible to visitors.

Study Report

This report describes study methods and findings. Chapter 2 outlines the research methods used to accomplish the study objectives outlined above. Chapter 3 describes findings from a survey of visitors to Alcatraz Island.   Chapter 4 presents study conclusions and recommendations.

Chapter II.

Study Methods

A survey of a representative sample of visitors to Alcatraz Island was conducted in the summer of 2007. The survey questionnaire was designed in conjunction with park staff and is shown in Appendix A. The questionnaire had three major sections.

One section of the questionnaire focused on indicators and standards of the quality of the visitor experience on Alcatraz Island. Indicators of quality were addressed through a series of open- and close-ended questions. These questions probed respondents on park conditions which added to or detracted from the quality of the visitor experience. Standards of quality were addressed through a series of questions about the maximum acceptable number of visitors in the prison cellhouse. These questions were based on exploring the personal and social norms of Alcatraz Island visitors.

This study employed a visual approach to measuring crowding norms in the prison cellhouse. Since visitor use of this area is relatively high, the number of visitors in Michigan Avenue, a portion of the cellhouse, was used as an appropriate indicator of quality. The visual approach was used because it was felt that it was not feasible for visitors to remember or to think in terms of the actual number of persons or groups encountered in the cellhouse. Research conduced elsewhere suggests that visitors tend to substantially underestimate encounters when use levels are relatively high (Shelby and Colvin 1982; Manning 1999). A series of six photographs depicting a range of use levels in Michigan Avenue were developed and used for this portion of the questionnaire. These photographs are shown in Appendix B.

A second section of the questionnaire focused on measuring visitor attitudes toward management issues and alternative management practices. These management issues and

practices were identified in consultation with park staff. Visitor attitudes were measured through

a series of close-ended questions.

A third section of the questionnaire focused on selected characteristics of visitors and

visitor use patterns. These questions were included to check for socio-demographic changes in

the visitor population as compared to a previous survey conducted in 1998.

The visitor survey was administered on 10 days between July 8, 2007 and August 8, 2007

as shown in Table 2-1. On each sampling day, a trained interviewer approached randomly

selected visitors who were preparing to depart from Alcatraz Island and requested their

participation in the survey. Visitors were given a copy of the questionnaire and asked to complete

it as they returned to San Francisco on the ferry. The questionnaire was printed in two languages

— English and Spanish. A total of 453 visitors completed and returned questionnaires.

Table 2-1		
	Frequency	Percent
07/08/07	41	9.1
07/10/07	54	12.2
07/14/07	51	11.5
07/16/07	38	8.6
07/22/07	44	10.0
07/23/07	39	8.8
08/01/07	51	11.5
08/04/07	49	11.1
08/06/07	43	9.7
08/08/07	43	9.7

Chapter III.

Study Findings

Introduction

This chapter presents study findings from the 2007 visitor survey and shows comparisons with the 1998 visitor survey and 2005 monitoring for comparable questions. The chapter is divided into three major sections corresponding to the three sections of the questionnaire: use and user characteristics, indicators and standards of quality, and management issues and practices. Each of these sections of the chapter presents descriptive findings followed by an analysis of response patterns based on selected user characteristics.

Use and User Characteristics

Respondents were asked to report the number of people in their group (Table 3-1). The majority of respondents (71.9%) stated they were in groups of four or fewer people. Nearly one-third of respondents (32.4%) were visiting Alcatraz Island with just one other person. A small percentage of respondents (4.1%) reported visiting Alcatraz Island with a group of 10 or more people. On average, groups from the 2007 survey were slightly smaller than groups from the 1998 survey (4.56 vs. 5.28).

Table 3-1. Size of Group.		
Size of Group	2007 Percent	1998 Percent
1	2.5	2.8
2	29.9	38.7
3	14.6	16.7
4	24.9	18.8
5	12.6	7.8
6	5.0	5.1
7	2.3	1.6
8	3.4	1.5
9	0.7	0.5
10 or more	4.1	6.7

1998 Mean = 5.28
2007 Mean = 4.56

Table 3-2 shows group age distributions from the 2007 survey. No comparable question

was asked in the 1998 survey.

Table 3-2 Size of Group by Age	
Number in group	2007 Percent
Number of individuals age 0-12 in group	
0	67.3
1	17.2
2	11.3
3	3.3
4	0.4
5	0.2
8	0.2
Mean	0.54
Median	0.00
Number of individuals age 13-17 in group	
0	69.5
1	17.9
2	8.8
3	1.3
4	0.9
5	0.4
15	0.2
17	0.2

29	0.2
44	0.2
46	0.2
Mean	0.79
Median	0.00
Number of individuals age 18-34 in group	
0	58.3
1	14.1
2	19.4
3	3.3
4	2.6
5	0.9
6	0.7
15	0.2
20	0.2
25	0.2
Mean	0.95
Median	0.00
Number of individuals age 35-54 in group	
0	36.0
1	15.5
2	39.5
3	4.0
4	3.1
5	0.7
6	0.4
7	0.2
18	0.2
20	0.4
Mean	1.39
Median	1.0
Number of individuals age 55-64 in group	
0	80.6
1	11.0
2	6.0
3	0.9
4	0.9
5	0.2
6	0.2
38	0.2
Mean	0.40
Median	0.00
Number of individuals age 65 and over in group	

0	89.2
1	6.6
2	3.3
3	0.2
4	0.2
44	0.2
45	0.2
Mean	0.34
Median	0.00

Respondents were asked about the amount of time they spent on Alcatraz Island (Table 3-3). The mean length of visit in 2007 was 2.40 hours while in 1998 it was 2.03 hours, and the median length of visit was 2.30 hours in 2007 and 2.00 in 1998. Nearly three quarters of respondents (73.7%) in 2007 spent between two and three hours visiting Alcatraz Island, while 13.0% of the respondents stayed for one to two hours.

Table 3-3 Length of stay		
	2007 Percent	**1998 Percent**
Less than 1 hour	0.0	2.3
1 hour to less than 2 hours	13.0	25.0
2 hours to 3 hours	73.7	69.5
More than 3 hours to 4 hours	2.6	2.7
More than 4 hours	2.6	0.5
Mean	2.40 hours	2.03 hours
Median	2.30 hours	2.00 hours

Respondents were asked to indicate the type of group they were with (Table 3-4). Almost all Alcatraz Island visitors surveyed (93.4%) came with a group of family, friends or family and friends. These results are similar to results from the 1998 survey.

Table 3-4. Type of Group	
	Percent
Alone	1.4
Family	74.8
Friends	13.4
Friends and Family	5.2
Other	5.2

Table 3-5 shows that nearly one in five respondents (18.8%) indicated that their personal group was a part of a larger, organized group. This finding differs from findings in 1998 when a small number of visitors (3.7%) came to the park with an organized group or club and only 0.5 percent were with a school or youth group.

Table 3-5. Organized groups	
	Percent
Commercial guided tour group	4.9
Organized group or club	1.3
School and/or youth group	1.3
Other	11.3

* Out of 453 respondents

Respondents were asked whether they live in the United States (Table 3-6). Just over three-quarters of Alcatraz Island visitors (75.2%) are residents of the United States, as compared to 70.8% in 1998.

Table 3-6. United States Residents		
Residence	**2007**	**1998**
United States Residents	75.2	70.8
International Residents	24.8	29.2

A follow-up question asked United States residents to report their state of residence. Table 3-7 shows the percentage of visitors from each of the forty-six states reported by at least one respondent. More than one-quarter of Alcatraz Island visitors from the United States (29.7%) are residents of the states of California and Florida. Each of the remaining states was identified by fewer than ten percent of visitors as their place of residence. Comparisons with data from 1998 are also shown in Table 3-7.

Table 3-7. Visitors' state of residence		
Residence	**2007**	**1998**
California	29.7	26.5
Florida	29.7	4.8
Texas	5.6	4.5
New York	5.3	4.3
Massachusetts	5.3	2.4
Pennsylvania	4.0	4.6
Ohio	3.7	4.1
Arizona	3.1	3.0
Illinois	3.1	4.3
Nevada	2.5	0.9
Utah	2.5	0.9
Virginia	2.5	1.3
New Jersey	2.2	0.0
Louisiana	1.9	0.9
Montana	1.9	0.7
Georgia	1.5	1.5
North Carolina	1.5	2.0
Wisconsin	1.5	1.3
Indiana	1.2	0.6
Maryland	1.2	2.0
Michigan	1.2	2.2
Colorado	0.9	1.1
Kansas	0.9	0.9
Oregon	0.9	1.1
Connecticut	0.6	0.9
Iowa	0.6	0.6
Idaho	0.6	1.7
Kentucky	0.6	1.3
Mississippi	0.6	0.4
Oklahoma	0.6	0.4
Tennessee	0.6	2.2
Arkansas	0.3	0.0
Washington DC	0.3	0.6
Hawaii	0.3	0.7
Maine	0.3	0.0
Minnesota	0.3	1.7
Montana	0.3	0.7
New Hampshire	0.3	1.3
New Mexico	0.3	0.2
South Carolina	0.3	0.4
Washington	0.3	2.6

A second follow-up question asked international visitors to report their country of residence. Table 3-8 reports the percentage of international visitors from each of the countries reported by at least one respondent. More international visitors to Alcatraz Island come from the United Kingdom (26.2%) and Canada (26.2%) than from any other country.   Each of the remaining countries was identified by fewer than ten percent of visitors as their place of residence. Comparisons with data from 1998 are also shown in Table 3-7.

Table 3-8. Visitors' country of residence		
Residence	2007	1998
Canada	26.2	9.6
Great Britain	26.2	35.1
Netherlands	6.5	5.9
Australia	5.6	5.9
Denmark	4.7	0.5
Sweden	4.7	4.3
Ireland	3.7	4.8
Norway	2.8	0.5
New Zealand	2.8	2.7
Switzerland	1.9	0.5
Spain	1.9	0.0
Italy	1.9	3.2
Mexico	1.9	2.1
Belgium	0.9	0.5
Brazil	0.9	0.5
China	0.9	0.5
Germany	0.9	10.1
France	0.9	1.6
Hungary	0.9	1.1
Israel	0.9	0.5
Jordan	0.9	0.0
Japan	0.9	2.1
Malaysia	0.9	0.0

Respondents were asked to indicate the language that their group preferred to use for speaking and reading (Table 3-9). The vast majority of Alcatraz Island visitors (94.4%) indicated English as the language they preferred to speak and read (95.2%). Less than two percent of

respondents preferred to speak or read any other language. Data from a similar question from the
1998 survey are presented for comparison. However, comparisons should be made with caution
since the 1998 question format was different. No comparable data about preferred language to
read are available from the 1998 survey.

Table 3-9. Visitors' preferred languages		
Speaking language	**2007**	**1998**
English	94.4	82.1
Dutch	1.6	-
French	1.1	2.0
Spanish	0.2	2.2
Italian	0.2	-
Japanese	0.2	1.7
Korean	0.2	-
Laotian	0.2	-
Mandarin	0.2	-
Norwegian	0.2	-
Portuguese	0.2	-
Swedish	0.2	-
German	-	4.7
Chinese	-	0.8
Reading language		
English	95.2	-
Spanish	1.4	-
Dutch	1.1	-
French	0.9	-
German	0.2	-
Hindi	0.2	-
Japanese	0.2	-
Mandarin	0.2	-
Norwegian	0.2	-
Swedish	0.2	-

Respondents were asked if anyone in their group had a physical condition that made it
difficult to access or participate in activities or services at Alcatraz (Table 3-10). Approximately
one in nine respondents reported that a member of their group had a physical condition that

limited their access to activities or services at Alcatraz Island. No comparable questions were

asked in the 1998 survey.

Table 3-10. Limiting physical condition among group members		
Response	**Frequency**	**Percent**
Yes	52	11.9
No	384	88.1

A follow up question asked which activities or services the group member had difficulty

accessing or participating in (Table 3-11). Just over one-third of those groups with a member who

had a limiting physical condition reported difficulty accessing park buildings, while 17.3%

indicated that a member of their group had difficulty accessing exhibits or audio-visual programs.

A relatively small percentage (7.7%) of respondents indicated that someone in their group had

difficulty accessing interpretive or educational programs or activities. No comparable question

was asked in the 1998 survey.

Table 3-11. Services that persons with limiting physical conditions had difficulty accessing or participating in	
Response	**Percent**
None	30.8
Park buildings	34.6
Exhibits or audio-visual programs	17.3
Interpretive or educational programs or activities	7.7
Other	32.7

*Out of 52 individuals with limiting physical conditions

Respondents whose groups had a member with a limiting physical conditions were also

asked what specific problems the person(s) had during their visit to Alcatraz (Table 3-12).

Approximately three quarters of the respondents who had a member of their group who had a

limiting physical condition indicated that the limiting condition was mobility related.

Table 3-12. Specific problems that persons with limiting physical conditions had during visit	
Response	**Percent**
Hearing (difficulty hearing ranger programs, audio-visual exhibits or programs, or reservation desk staff, even with hearing aid)	3.8
Visual (difficulty in seeing exhibits, directional signs, visual aids that are part of programs, even with prescribed glasses or due to blindness)	1.9
Mobility (difficulty in accessing facilities, services, or programs, even with walking aid and/or wheelchairs)	73.1
Other	3.8

*Out of 52 individuals with limiting physical conditions

Respondents whose groups had a member with a limiting physical condition were also asked how well their special need was met (Table 3-13). Nearly two-thirds indicated that the need was met well, while 28.6% indicated that it was met satisfactorily. Only 7.1% indicated that the need was not met.

Table 3-13. How well special need was met		
Response	**Frequency**	**Percent**
Met well	27	64.3
Met satisfactorily	12	28.6
Not met	3	7.1

Respondents were asked if they had visited Alcatraz Island before (Table 3-14). The majority of 2007 respondents (76.0%) said they were visiting the park for the first time. This percentage is down significantly from 1998 when 85.8% of respondents indicated that they were visiting Alcatraz Island for the first time.

Table 3-14. Previous visits to Alcatraz		
Response	**2007**	**1998**
Yes	24.0	14.2
No	76.0	85.8

A follow up question asked those people who had visited Alcatraz Island before how many previous visits they had made (Table 3-15). About three quarters of the repeat visitors (75.5%)

had made only one previous trip to Alcatraz Island. Less than one in ten of the repeat visitors had

been to Aclatraz Island on more than two previous occasions (9.8%). The mean number of

previous visits (1.5) has remained stable when compared to results from the 1998 survey.

Table 3-15. Number of previous visits to Alcatraz		
Number of visits	**2007**	**1998**
1	75.7	67.9
2	14.6	19.3
3	3.9	7.3
4	4.9	3.7
5	0.0	1.8
16	1.0	0.0

2007 Mean = 1.5
1998 Mean = 1.5

Respondents were asked what means of transportation they used to get to the pier in San

Francisco to board the ferry to Alcatraz (Table 3-16). Nearly a quarter of respondents (23.3%)

indicated that they walked to the pier, while about one in five respondents (21.9%) indicated that

they drove a personal vehicle/were dropped off at the pier and 11.1% drove a rental car. An

additional 18.7% took a public bus or cable car, while 14.4% took a taxi. Only 7.7% took a tour

bus and 2.9% used other forms of transportation.

Table 3-16. How respondent got to ferry pier		
Method	**Frequency**	**Percent**
Drove personal vehicle/was dropped off	97	21.9
Drove rental vehicle	49	11.1
Took a public bus/cable car	83	18.7
Took a tour bus	34	7.7
Took a taxi	64	14.4
Walked	103	23.3
Other	13	2.9

Respondents were asked how they learned about Alcatraz Island and how they obtained

information about how to visit (Table 3-17). More than one-third indicated that they used an

internet web site other than National Park Service site, while about one quarter of respondents

indicated that they used the National Park Service web site (26.0%), some other sources (23.8%), or learned about Alcatraz from a movie (21.2%). Nearly one in five respondents (18.1%) indicated that they used a travel/tourism guidebook to learn about Alcatraz Island.

Table 3-17. How respondent learned about Alcatraz Island		
Information source	**Frequency**	**Percent**
National Park Service web site	118	26.0
National Park Service printed information	5	1.1
Travel/tourism guidebook	82	18.1
Travel agent	14	3.1
Internet web site other than National Park Service site	165	36.4
Movie about Alcatraz	96	21.2
Other	108	23.8

*Out of 453 respondents

Alcatraz Island visitors were asked to indicate the activities they had participated in during their trip (Table 3-18). Nearly all visitors (92.3%) took the cellhouse audio tour and a vast majority of Alcatraz Island visitors (80.1%) looked at exhibits. Other activities that Alcatraz Island visitors frequently participated in were watching sea bird activity (58.3%), reading the self-guided brochure (54.1%), and shopping in the bookstore and giftshops (85.9%). Nearly half of the respondents said they watched the orientation video (47.7%).   A substantially smaller percentage of visitors took a guided tour (13.7%) and walked on some of the Island's trails (other than the main trail to the cellhouse) (35.3%). Compared to 1998, substantially fewer visitors took a guided tour and walked on trails, but substantially more visitors used the bookstore/gift shops.

Table 3-18. Visitor activities		
Response	**2007***	**1998**
Took the prison cellhouse audiotour	92.3	93.1
Took a guided tour	13.7	36.5
Watched the orientation video	47.7	45.8
Read the self-guiding brochure	54.1	65.8
Talked with a guest author	17.4	21.5
Looked at the exhibits	80.1	87.7
Walked on some of the Island's trails (other than the main trail to the cellhouse)	35.3	48.9
Watched some of the sea bird activity	58.3	68.4
Visited the bookstores/gift shops	85.9	60.7

*Out of 453 visitors

Respondents were asked where they purchased their ticket to visit Alcatraz Island (Table 3-19). The official internet website was the most common method used to obtain tickets for Alcatraz Island. Over two-thirds of Alcatraz Island visitors (68.4%) purchased tickets through the official internet website and about one in ten visitors (10.8%) purchased tickets from the Alcatraz Cruises ticket booth. Less than 10 percent of Alcatraz Island visitors bought their tickets from any other source. These findings are quite different from the 1998 results. The official internet website was not an outlet for tickets at that time. A majority of respondents in 1998 bought their tickets from Blue and Gold phone sales (38.1%), or from the Blue and Gold ticket booth (22.6%). With the advances in internet commerce, the method used by most visitors has changed dramatically.

Table 3-19. How visitors obtained tickets	2007	1998
Method	**2007**	**1998**
Alcatraz (Blue and Gold) Cruises phone sales	6.8	38.1
Alcatraz (Blue and Gold) Cruises ticket booth	10.8	22.6
Commercial package tour	4.8	10.0
Independent street sales	0.3	3.9
Hotel concierge	1.5	11.4
Official internet website	68.4	-
Other	7.5	14.0

A follow-up question asked visitors how much they paid for their tickets to visit Alcatraz Island (Table 3-20). On average, visitors paid nearly $25.00 for their tickets to Alcatraz Island - the mean ticket price is $24.50 in 2007. Ticket price has increased significantly from a mean value in 1998 of $16.38. Less than 10 percent of visitors (6.8%) indicated they paid $20.00 or less for their tickets to Alcatraz Island. Nine our of ten visitors (93.2%) reported paying more than $20.00 for their tickets, as compared to only 15.6% in 1998.

Table 3-20. Cost of Ticket to Alcatraz Island	2007	1998
Cost of Ticket	**2007**	**1998**
$10 or Less	0.3	8.4
$11 to $20	6.5	76.0
More than $20	93.2	15.6

2007 Mean = $24.50
1998 Mean = $16.38

Respondents were asked about several socio-demographic variables including age, ethnicity and race. On average, respondents were 40 years old, with a median age of 42 (Table 3-21). The vast majority of respondents (93.1%) were not Hispanic or Latino (Table 3-22). A similar percentage of respondents (90.4%) were indicated they were white (Table 3-23).

Table 3-21. Age of respondents		
Age group	**Frequency**	**Percent**
0 – 12 years	4	0.8
13 – 17 years	19	4.3
18 – 34 years	142	31.3
35 – 54 years	214	47.3
55 – 64 years	55	12.2
65 years and over	18	4.1

Mean = 40 years
Median = 42 years

Table 3-22. Ethnicity of respondent (Hispanic or Latino?)		
Response	**Frequency**	**Percent**
Yes	31	6.9
No	422	93.1

Table 3-23. Race of respondent		
Response	**Frequency**	**Percent**
American Indian or Alaska Native	7	1.6
Asian	21	4.7
Black or African American	10	2.3
Native Hawaiian or other Pacific Islander	5	1.0
White	409	90.4

Indicators and Standards of Quality

A series of questions was used to explore indicators and standards of quality for the visitor experience at Alcatraz Island. Three open-ended questions were asked to help determine what added to or detracted from the quality of visitors' trip to Alcatraz Island. The first question in the series asked respondents what they enjoyed most about their trip to Alcatraz Island (Table 3-24). The cellhouse audio tour was reported by nearly two-thirds of respondents (61.8%) as the item they enjoyed most. Seeing the prison cells/dining area (8.8%) and learning about Alcatraz (8.6%) were the only other items selected by more than 5 percent of respondents. A wide variety of other items were identified by smaller numbers of respondents. These findings are very similar to 1998.

Table 3-24. Item respondents enjoyed most about their trip to Alcatraz				
Item	2007 Percent (Responses)	2007 Percent (Cases)	1998 Percent (Responses)	1998 Percent (Cases)
Audio tour	58.9	61.8	58.1	75.0
Seeing prison cells/dining area	8.4	8.8	3.6	4.7
Learning about Alcatraz history	8.2	8.6	7.5	9.6
Guided tour/ranger talk	4.0	4.2	3.6	4.7
Park staff	2.9	3.0	3.8	4.9
Views	2.6	2.8	5.2	6.7
Learning about escape attempts	2.2	2.3	1.5	1.9
Everything	1.8	1.9	3.4	4.4
Other	1.8	1.9	3.6	4.7
Experiencing prison firsthand	1.1	1.2	-	-
Ferry ride	1.1	1.2	1.6	2.0
Setting own pace/not being rushed	0.9	0.9	-	-
Films/video	0.7	0.7	2.6	3.3
Weather	0.4	0.5	0.5	0.6
Birds/nature	0.4	0.5	0.3	0.4
Meeting ex-inmate, author	-	-	2.3	2.9
Freedom of movement	-	-	1.0	1.3
Open to the public	-	-	0.5	0.6
Authenticity of are	-	-	0.4	0.5
Walking around the island	-	-	0.4	0.5
Lack of crowds	-	-	0.1	0.1
Preservation of buildings	-	-	0.1	0.1

The second question in the series asked respondents what they liked least about their trip to Alcatraz Island (Table 3-25). The largest percent of Alcatraz Island visitors (18.9%) reported that there was nothing unenjoyable about their trip. Complaints mentioned most often included bird droppings (15.1%), and smell (10.7%). All other items were mentioned by less than 10 percent of visitors. The most frequently mentioned items have changed substantially since 1998, and included weather (13.4%) and steep hills (11.6%)

Table 3-25. Item respondents did not enjoy about their trip to Alcatraz				
Item	2007 Percent (Responses)	2007 Percent (Cases)	1998 Percent (Responses)	1998 Percent (Cases)
Nothing/everything great	15.2	18.9	7.6	8.4
Birds/droppings	12.1	15.1	4.5	4.9
Smell	8.6	10.7	2.2	2.5
Steep hills	7.7	9.6	10.5	11.6
Weather	6.8	8.5	12.2	13.4
Crowds	5.1	6.3	7.1	7.9
Other	4.6	5.8	14.9	16.4
Waiting in line	3.3	4.1	4.9	5.4
Too much walking	2.6	3.3	1.6	1.8
Schedule issues (tour length, waits until next film/ferry)	2.6	3.3	0.9	1.0
Unfriendly staff	1.3	1.6		
Lack of food/water/beverages	1.1	1.4	2.7	3.0
Sore feet/knees	0.9	1.1	-	-
Wanted more information/tour content	0.9	1.1	-	-
Scarcity of tickets	0.7	0.8	1.0	1.1
Technical problems with audio tour	0.7	0.8	-	-
Not enough places to sit	0.7	0.8	-	-
Flies	0.7	0.8	-	-
Lack of restoration/ preservation of buildings	0.4	0.5	3.7	4.1
Lack of early Alcatraz history	0.4	0.5	-	-
Not enough restrooms	0.4	0.5	-	-
Restrooms not clean	0.4	0.3	7.6	8.4
Closed areas	-	-	11.6	12.8
Not enough time	-	-	2.1	2.3
Cellhouse audio tour	-	-	1.8	2.0

Item	2007 Percent (Responses)	2007 Percent (Cases)	1998 Percent (Responses)	1998 Percent (Cases)
Lack of information on history	-	-	1.8	2.0
Hard to hear guide	-	-	0.7	0.8
Fees too high/include other tour	-	-	0.6	0.7

The third question in the series asked respondents what suggestions they would make to park managers to improve the way visitors experience Alcatraz Island (Table 3-26). Nearly a quarter of respondents (24.2%) indicated that Alcatraz Island is great as it is and should not be changed. Other improvements that were highly diverse and difficult to categorize were mentioned by 17.1 percent of respondents. Nearly 10 percent of respondents wanted to see more areas open to visitors (9.1%). Substantially smaller percentages of visitors provided suggestions in 2007 than in 1998.

Table 3-26. Respondents' suggestions of what the NPS can do to improve Alcatraz				
Suggestion	2007 Percent (Responses)	2007 Percent (Cases)	1998 Percent (Responses)	1998 Percent (Cases)
No suggestions/everything good	15.9	24.2	10.7	12.5
Other	11.3	17.1	14.5	16.9
Open more areas to visitors	6.0	9.1	16.8	19.6
Improve cleanliness	5.1	7.7	-	-
More guides/tours	3.3	5.0	3.8	4.4
More trams/ Provide transportation up hill/around island	2.9	4.4	3.4	3.9
Limit/spread out visitors	2.9	4.4	2.7	3.2
Food/beverage service/drinking water	2.6	4.0	6.4	7.5
Expand/improve audio tour	2.4	3.7	-	-
More information/education	2.2	3.4	10.7	12.5
Clean/improve/increase restrooms	1.8	2.7	9.1	10.7
Restore/preserve more property/buildings	1.5	2.3	8.8	10.3
Improve maintenance	1.3	2.0	1.8	2.1
Get rid of birds/sanctuary	1.3	2.0	-	-

Item	2007 Percent (Responses)	2007 Percent (Cases)	1998 Percent (Responses)	1998 Percent (Cases)
Make tours more interactive	1.3	2.0	-	-
Lower ticket/gift shop prices	0.9	1.3	-	-
More videos	0.9	1.3	-	-
Better customer service	0.7	1.0	-	-
Improve flow of tour	0.4	0.7	-	-
More benches	0.4	0.7	2.3	2.7
Maintain set schedules	0.4	0.7	-	-
Stagger entry times	-	-	2.1	2.5
Increase frequency of ferries	-	-	1.5	1.8
Loudspeaker for guides	-	-	1.1	1.2
Allow cell door to close	-	-	1.1	1.2
Longer video tour	-	-	1.1	1.2
Clean up bird droppings	-	-	0.8	0.9
Provide shelter by dock	-	-	0.6	0.7
Make announcements about departing ferries	-	-	0.5	0.5
Enhance accessibility	-	-	0.3	0.4

Alcatraz Island visitors were asked to evaluate how problematic a series of eight potential mangement issues were for the park (Table 3-27). Respondents were asked to rate each potential management issue as "not a problem", a "small problem", or a "big problem". A "don't know/no opinion" option was also provided. For the purposes of this report, the percentages of respondents reporting "small problem" or "big problem" were combined, and issues were ranked in importance as shown in Table 3-27.

Item	Not a problem	Small problem	Big problem	Don't know/no opinion	2007 Rank	1998 Rank
Table 3-27. Respondents' views of problem issues on Alcatraz Island						
The number of visitors on the Island	63.0	30.2	3.5	3.3	4	2
The number of visitors on the ferry	77.6	18.0	2.8	1.6	5	5
The number of visitors on the tour of the prison cellhouse	47.0	41.2	8.8	3.0	2	1
The number of visitors in bookstores/gift shops	78.4	12.4	1.6	7.5	6	4
Visitors making too much noise	85.2	10.4	1.6	2.8	7	3
Visitors not following rules and regulations	88.3	6.1	1.2	4.4	8	6
Birds on walkways	61.7	25.0	11.7	1.6	3	-
Bird droppings on walkways	35.8	37.0	25.4	1.8	1	-

Bird droppings on walkways and the number of visitors on the tour of the prison cellhouse were perceived by respondents as the two most problematic issues. The majority of Alcatraz Island visitors (62.4%) consider bird droppings on walkways to be a problem and 50.0 percent considered the number of visitors on the tour of the prison cellhouse to be a problem. Birds on walkways was considered a problem by 36.7 percent of visitors. Crowding on the island and on the ferry were considered problems by 33.7 and 20.8 percent of visitors, respectively, while the number of visitors in the bookstore/gift shop is considered a problem by 14.0 percent of visitors. The behavioral issue of greatest concern with Alcatraz Island visitors is the amount of noise visitors make – 12.0 percent of respondents indicated visitors making too much noise is a problem. Only a small percentage of respondents (7.3%) perceive visitors not following rules and regulations to be a problem.

The relative importance of these items was quite similar between 2007 and 1998 except that visitor-caused noise was reported as a bigger problem in 2007.

Respondents were presented with a series of questions about their standards of quality with respect to the number of visitors on Michigan Avenue in the prison cellhouse. First, respondents were asked whether they visited the prison cellhouse during their trip to Alcatraz Island (Table 3-28). Virtually all respondents (99.5%) said they visited the prison cellhouse during their trip. The percentages were exactly the same in both the 2007 and 1998 surveys.

Table 3-28. Respondents who visited cellhouse		
Response	**2007**	**1998**
Yes	99.5	99.5
No	0.5	0.5

Respondents who had visited the prison cellhouse were shown a series of six photographs depicting a range of visitor use on Michigan Avenue in the prison cellhouse. The levels of use depicted in the photographs ranged from 10 to 70 people. Respondents were asked to rate the acceptability of each photograph on a scale from -4 ("Very Unacceptable") to +4 ("Very Acceptable"). Table 3-29 reports the mean acceptability rating for each photograph for both the 1998 and 2007 suveys. The mean acceptability rating ranged from -3.00 for the photograph depicting 70 people on Michigan Avenue, to 3.54 for the photograph depicting a use level of 10 people in the 2007 survey. Mean acceptability ratings for each photograph were very similar across the two surveys. No significant differences were observed.

Table 3-29. Mean and Median Acceptability of Use Levels		
Use Level	**Mean Acceptability Rating 2007**	**Mean Acceptability Rating 1998**
Photo 1 - 10 People	3.54	3.24
Photo 2 - 22 People	3.35	3.11
Photo 3 - 34 People	2.40	2.31
Photo 4 - 46 People	-0.01	-0.20
Photo 5 - 58 People	-1.89	-2.09
Photo 6 - 70 People	-3.00	-3.04

Figure 3-1 presents the social norm curve derived from the mean acceptability ratings for each photograph. As the norm curve illustrates, Alcatraz Island visitors consider a use level of approximately 45 people to be the threshold of acceptability - use levels of less than 45 people are, on average, considered acceptable, and use levels of greater than 45 people are, on average, considered unacceptable.   There is virtually no difference between the 1998 and 2007 surveys in the threshold of acceptability. Alcatraz Island visitors in 1998 considered a use level of approximately 44 people to be the threshold of acceptability.
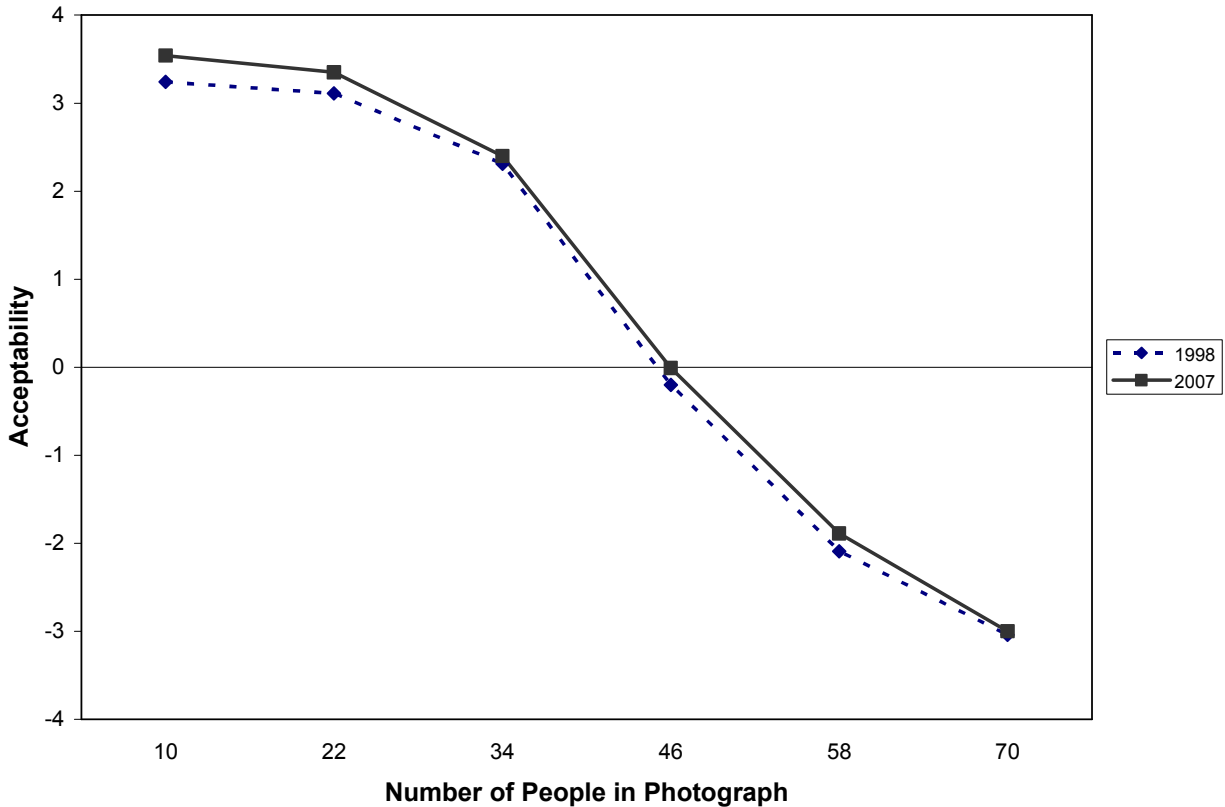
Figure 3-1. Social Norm Curve

The next questions in the series asked respondents to select the photograph that showed the level of use they would prefer to experience on Michigan Avenue in the prison cellhouse, the number of visitors they typically saw, and the highest level of use the NPS should allow (Table 3-30). Respondents were given an option to indicate the NPS should not restrict the number of visitors allowed in the prison cellhouse.

The number of visitors preferred by respondents averaged 25.4. The maximum number of visitors respondents reported the NPS should allow averaged 44.0. However, this number is underestimated to some degree because 20 respondents indicated that none of the photographs showed a use level high enough to limit use in the cellhouse, and 11 respondents reported that the NPS should not limit use of the cellhouse. Finally, the number of visitors typically seen by

respondents averaged 38.2. This figure compares to 41.7 in the 2005 monitoring survey and 40.7 in the 1998 survey. These values did not differ significantly from 1998 survey values.

Table 3-30. Standards of quality for different evaluative dimensions			
Evaluative dimension	**2007**	**2005**	**1998**
Preference	25.4	-	25.1
Management action	44.0	-	43.9
Typically seen	38.2	41.7	40.7

Respondents were asked to indicate, on a scale from 1 ("Not at all crowded") to 9 ("Extremely crowded"), how crowded they felt in various locations during their trip to Alcatraz Island (Table 3-31). Respondents identified the prison cellhouse as the most crowded location during their trip to Alcatraz Island. The majority of visitors (76.4%) said they felt at least somewhat crowded in the prison cellhouse and 27.8 percent reported feeling moderately to extremely crowded there. Almost two-thirds of Alcatraz Island visitors (62.0%) felt at least somewhat crowded on the ferry, and in the theater and exhibit area (62.5%). About half of the respondents felt somewhat to moderately crowded in the bookstore and gift shops (58.6%).

Alcatraz Island visitors felt least crowded walking on the roads and trails - a majority of respondents (53.5%) said they did not feel crowded at all walking on the roads and trails. Overall, almost one-third of respondents (32.5%) indicated that they did not feel crowded at all during their trip to Alcatraz Island, and less than 5 percent of Alcatraz Island visitors reported feeling extremely crowded in any location during their visit. These results are quite similar, to results from the same questions in the 1998 survey. Perceived crowding levels of visitors on Alcatraz Island had increased to a statistically significant degree between 1998 and 2005. However, perceived crowding is a "subjective" variable and is not as good a potential indicator of quality as PAOT in the prison cellhouse.

Location	Not at all crowded		Somewhat crowded			Moderately crowded		Extremely crowded		2007 Mean	2005 Mean	1998 Mean
	1	2	3	4	5	6	7	8	9			
	%	%	%	%	%	%	%	%	%			
In the prison cellhouse	11.1	12.5	17.2	25.0	6.4	15.1	9.4	2.4	0.9	4.0	4.6	4.2
Walking on the Island's roads and trails	24.9	28.6	17.8	14.1	7.7	4.9	1.4	0.5	0.0	2.7	3.3	2.7
In the bookstores/gift shops	18.4	23.0	22.2	14.6	8.4	7.4	3.6	1.7	0.7	3.2	4.2	3.5
On the ferry	18.9	19.1	19.6	12.3	8.3	10.8	6.4	3.8	0.9	3.5	5.0	3.6
In the theater/exhibit area	19.3	18.2	21.9	13.9	6.0	11.6	4.3	3.1	1.7	3.5	4.3	3.4
Overall crowding	13.8	18.7	23.7	16.9	11.7	8.9	5.6	0.7	0.0	3.5	4.3	3.5

Table 3-31. Respondents' perception of crowding in various locations

Management Issues and Practices

Alcatraz Island visitors were asked to indicate the extent to which they agreed with a series of statements related to the management of Alcatraz Island. The statements were organized into three categories that included visitor use of Alcatraz Island (Table 3-32), education and interpretation of Alcatraz Island (Table 3-33), and quality of the visitor experience on Alcatraz Island (Table 3-34). Respondents were asked to state whether they "strongly agree", "agree", "disagree", or "strongly disagree" with each statement. An "uncertain/have no opinion" option was also provided.

The statements in Table 3-32 were related to the number of people and groups on Alcatraz Island. Very few Alcatraz Island visitors (15.0%) agree that the NPS allows too many visitors on the Island. However, more than half of all visitors (53.3%) agree that the NPS should limit the number of people on Alcatraz Island to prevent crowding, even if it makes it harder to get a ticket to visit the Island. Respondents demonstrated concern over the size and number of large groups on Alcatraz Island – 53.5 percent of visitors agree there should be a limit on the size of groups allowed on the Island, and 55.2 percent agree that the number of large groups of visitors should be limited. On average, these responses did not differ from responses to the same questions in 1998.

Table 3-32. Agreement or disagreement with statements about visitor use of Alcatraz Island							
Item	**Strongly agree**	**Agree**	**Uncertain/ no opinion**	**Disagree**	**Strongly disagree**	**2007 Mean**	**1998 Mean**
	1	2	3	4	5		
	%	%	%	%	%		
The National Park Service allows too many visitors on Alcatraz Island	1.6	13.4	30.3	44.2	10.4	3.34	3.29
The number of visitors on Alcatraz Island should be limited to avoid crowding, even if that means it would be harder for me to get a ticket to visit the Island	7.7	45.6	16.4	25.0	5.4	2.62	2.71
There should be a limit on the size of groups allowed to visit Alcatraz Island	9.1	44.4	22.6	18.4	5.6	2.56	2.57
The number of large groups of visitors to Alcatraz Island should be limited	11.4	43.8	25.9	14.9	4.0	2.45	2.47

Respondents indicated that the NPS's education programs about Alcatraz Island and the area are successful (Table 3-33). Only a small percentage of visitors agreed that they had to wait too long on Alcatraz Island for the audio tour of the prison cell house (6.8%) or that the tour of the prison cell house took too long (6.6%). The overwhelming majority of Alcatraz Island visitors agree they learned a lot about Alcatraz Island during their visit (93.0%) and that the NPS does a good job with its visitor education program (89.9%). The vast majority of visitors indicated that they enjoyed the interpretive/educational exhibits as they entered the prison cellhouse. A similar percentage of visitors (88.6%) found the directional signs on Alcatraz Island to be satisfactory. Educational staff were generally perceived as being responsive to visitors – 48.1%% of Alcatraz Island visitors agree they were able to ask questions they had and get answers during their visit.

There is just one aspect of the educational program on Alcatraz Island the majority of visitors would like to see improved – 57.9 percent of respondents agree that they would have liked to learn more about the role of Alcatraz Island as a famous federal prison. Slightly less than half of all visitors (41.8%) agree they would have liked to learn more about the role of Alcatraz Island in military defense. Nearly half of Alcatraz Island visitors agree they would like to have learned more about the role of Alcatraz Island as a site of Native American protest (45.3%). About one-third of visitors wanted to learn more about Alcatraz as habitat for sea birds, colonial nesting birds, and marine life (27.5%), and navigation in San Francisco Bay (38.4%), and other places to visit within Golden Gate National Recreation Area (33.3%). There were few substantive differences in these findings compared to 1998.

Table 3-33. Agreement or disagreement with statements about education and interpretation of Alcatraz Island

Item	Strongly agree	Agree	Uncertain/ no opinion	Disagree	Strongly disagree	2007 Mean	1998 Mean
	1	2	3	4	5		
	%	%	%	%	%		
I had to wait too long on Alcatraz Island for the audio tour of the prison cell house	1.7	5.1	8.7	46.0	38.5	3.86	-
I found the tour of the prison cell house to be too long	1.5	5.1	6.8	46.7	40.0	3.91	-
I feel I learned a lot about Alcatraz Island on my visit	50.0	43.0	2.9	2.4	1.7	1.52	1.65
The National Park Service does a good job with its visitor education program at Alcatraz Island	41.7	48.2	8.2	0.5	1.4	1.61	1.74
I enjoyed the interpretive/educational exhibits as I entered the prison cellhouse	37.2	51.0	10.6	0.5	0.7	1.65	-
I found the directional signs on Alcatraz Island to be satisfactory	36.4	52.2	6.1	4.1	1.2	1.69	-

Item	Strongly agree	Agree	Uncertain/ no opinion	Disagree	Strongly disagree	2007 Mean	1998 Mean
I found the directional signs in the prison cellhouse to be satisfactory	34.1	54.1	6.3	4.4	1.0	1.71	-
I was able to ask questions I had and get answers during my visit to Alcatraz Island	18.9	29.2	38.6	10.8	2.5	2.31	2.23
I would like to have learned more about the role of Alcatraz Island in military defense	11.4	30.4	30.9	22.9	4.4	2.59	2.74
I would like to have learned more about the role of Alcatraz Island as a famous federal prison	12.4	33.3	29.1	21.1	4.1	2.52	2.44
I would like to have learned more about the role of Alcatraz Island as a site of American Indian protest	16.2	29.1	25.7	22.8	6.3	2.55	2.94
I would like to have learned more about the role of Alcatraz Island as habitat for sea birds/colonial nesting birds and marine life	6.0	21.5	26.1	32.6	13.8	3.03	2.97
I would like to have learned more about the role of Alcatraz Island in navigation in San Francisco Bay	5.8	32.6	28.3	26.4	7.0	2.77	2.85
I would like to have learned more about other places to visit within Golden Gate National Recreation Area	7.2	26.1	31.6	27.3	7.7	2.82	2.85

Respondents indicated that the facilities on Alcatraz Island are adequate and well maintained. More than three quarters of Alcatraz Island visitors (79.3%) agree the NPS does a good job of protecting historic structures on the Island, and an overwhelming majority (94.0%) agree they felt safe from potential hazards during their visit to Alcatraz Island. One area of concern for respondents is the number of areas closed to visitors – 65.1 percent of respondents

agree they would like to have seen more of the areas on Alcatraz Island that were closed to visitors. Most visitors indicated that there were enough restrooms on Alcatraz Island (62.1%), the restrooms were well located (65.5%), and were clean (63.6%).

The vast majority of visitors (87.1%) agree they enjoyed the ferry ride out to Alcatraz Island and 66.2 percent agreed that if the ferry to Alcatraz Island also went to other sites around San Francisco Bay, they would probably use the service. Over three-quarters (83.6%) agree the NPS is doing a good job of protecting wildlife on the Island. Nearly three quarters of all visitors (70.9%) agree they had the information they needed to dress properly for their trip to Alcatraz Island.

Nearly three quarters of all visitors (71.5%) agree the items for sale on Alcatraz Island are interesting and educational.. Respondents were also much more likely to agree (52.2%) the price of items for sale on Alcatraz Island were reasonable than they were to disagree (14.9%).

For the most part, Alcatraz Island visitors are satisfied with the cost of tickets and the way in which they are sold to the public. About three-quarters of visitors (75.2%) agree the cost of tickets to visit Alcatraz Island was reasonable. The majority of visitors agree tickets to Alcatraz Island are sold to the public in an efficient way (77.1%), and in a fair and equitable way (75.5%). Nearly two-thirds of all Alcatraz Island visitors (66.1%) do not agree that it is difficult to get tickets to visit Alcatraz Island, compared with 19.1 percent of visitors who agree with this statement.

Several statements were related to visitors' general satisfaction with their visit to Alcatraz Island. An overwhelming majority of visitors (88.0%) agree they spent enough time on Alcatraz Island to do most of the things they wanted to do, and 87.7 percent of visitors agree they got their money's worth on their visit. Nearly all respondents agree they enjoyed their visit to Alcatraz

Island (96.9%) and that they would recommend visiting Alcatraz Island to their family and friends

(96.4%). The majority of visitors approve of the overall job the NPS is doing on Alcatraz Island –

88.6 percent of visitors agree the NPS is doing a good job of managing Alcatraz Island. Once

again, there were relatively few substantive differences in findings between 2007 and 1998.

Table 3-34. Agreement or disagreement with statements about the quality of the visitor experience on Alcatraz Island							
Item	Strongly agree	Agree	Uncertain/ no opinion	Disagree	Strongly disagree	2007 Mean	1998 Mean
	1	2	3	4	5		
	%	%	%	%	%		
The National Park Service does a good job of protecting the historic structures on Alcatraz Island	20.4	58.9	12.5	5.3	2.9	1.98	2.20
The National Park Service does a good job of protecting the wildlife on Alcatraz Island	26.8	56.8	15.5	1.0	0.0	1.79	1.97
I felt safe from potential hazards during my visit to Alcatraz Island	34.7	59.3	4.6	1.0	0.5	1.62	1.69
I had the information I needed to dress properly for my visit to Alcatraz Island	22.8	48.1	14.4	12.5	2.2	2.08	2.52
I would like to have seen more of the areas on Alcatraz Island that were closed to visitors	31.6	33.5	15.9	15.0	1.9	2.06	1.85
I felt I spent enough time on Alcatraz Island to do most of the things I wanted to do	26.0	62.0	6.0	5.8	0.2	1.81	2.06
I found there to be enough restrooms on Alcatraz Island	11.7	50.4	15.3	17.4	5.3	2.41	-
I found the restrooms on Alcatraz Island to be well located	11.7	53.8	23.2	10.5	0.7	2.22	-
I found the restrooms on Alcatraz Island to be clean	12.4	51.2	26.7	7.5	2.2	2.23	-
I found items for sale on Alcatraz Island to be interesting and educational	14.9	56.6	24.1	3.6	0.7	2.07	2.44

Item	Strongly agree	Agree	Uncertain/ no opinion	Disagree	Strongly disagree	2007 Mean	1998 Mean
I found items for sale on Alcatraz Island to be reasonably priced	8.9	43.3	32.9	12.7	2.2	2.41	2.64
I thought the cost of tickets to visit Alcatraz Island was reasonable	12.5	62.7	9.4	12.0	3.4	2.18	2.27
I think that tickets to Alcatraz Island are sold to the public in an efficient way	15.5	61.6	14.0	6.3	2.7	2.06	2.35
I think that tickets to Alcatraz Island are sold to the public in a fair and equitable way	14.5	61.0	17.9	4.8	1.7	2.06	2.29
I found it difficult to get tickets to visit Alcatraz Island	7.7	11.4	14.8	43.3	22.8	3.41	3.26
I feel I got my money's worth on my visit to Alcatraz Island	29.7	58.0	7.5	4.1	0.7	1.77	1.92
I enjoyed my visit to Alcatraz Island	54.6	42.3	2.6	0.2	0.2	1.41	1.52
I would recommend visiting Alcatraz Island to my family and friends	53.4	43.0	2.6	0.5	0.5	1.43	1.53
I enjoyed the ferry ride out to Alcatraz Island	40.9	46.4	9.9	2.6	0.2	1.65	1.73
If the ferry to Alcatraz Island also went to other sites around San Francisco Bay (e.g., Angel Island, Sausalito), I would probably use this service	25.7	40.5	19.8	12.3	1.7	2.07	-
I think the National Park Service is doing a good job of managing Alcatraz Island	34.9	53.7	9.2	2.0	0.2	1.65	1.83

Respondents were asked to indicate how important they thought it was that food and beverage service be provided on Alcatraz Island (Table 3-35). The majority of visitors (59.5%) indicated it was not important that food and beverage service be provided on Alcatraz Island, and nearly one-third of visitors (30.1%) indicated it was very unimportant. These percentages have changed little since 1998.

Table 3-35. Importance of food and beverage service on Alcatraz Island		
Method	**2007**	**1998**
Very important	7.6	6.6
Important	11.1	12.6
Neither important nor unimportant	21.8	16.8
Unimportant	29.4	28.9
Very Unimportant	30.1	35.2

Respondents were also asked whether they left Alcatraz Island earlier than they would have liked to because food and beverage service is not available (Table 3-36). Very few visitors (11.9%) said they left Alcatraz Island earlier then they would have liked - the vast majority of visitors (88.1%) did not leave early because of a lack of food and beverage service. These percentages are virtually unchanged since 1998.

Table 3-36. Did respondent leave early because of food & beverage		
Response	**2007**	**1998**
Yes	11.9	11.4
No	88.1	88.6

Visitors were asked how satisfactory Pier 33 was as a point of embarkation to get to Alcatraz Island (Table 3-37). Three factors were explored. In general, visitors found Pier 33 to be satisfactory or very satisfactory. The vast majority of visitors (94.4%) indicated that the ease of finding Pier 33 was satisfactory. A similar percentage of visitors also found the ease of getting to Pier 33 (93.9%) satisfactory, while 83.0% found the amenities at the site satisfactory.

Table 3-37. Satisfaction with Pier 33 site					
Item	Very unsatisfactory	unsatisfactory	satisfactory	Very satisfactory	Mean
	1	2	3	4	
	%	%	%	%	
Ease of finding this site	2.0	3.6	39.8	54.6	3.5
Ease of getting to this site	1.0	5.1	44.8	49.1	3.4
Amenities at this site (e.g., restrooms, food service)	4.2	12.8	54.6	28.4	3.1

Visitors were asked about tradeoffs between crowding and access to Alcatraz Island (Table 3-38). Respondents were first asked to rate on a scale from 1 ("Very Important") to 5 ("Very Unimportant") how important it is to be able to 1) visit Alcatraz Island without it being too crowded and 2) be able to get a ticket to visit Alcatraz Island when wanted even if it means it will be crowded. The strong majority of visitors indicated that it was important to be able to visit Alcatraz Island without it being too crowded even if it was harder to get a ticket (74.3%). Only a slim majority of visitors indicated that it was unimportant to be able to get a ticket to visit the Island when wanted even if the Island were crowded (50.7%).

Item	Very important	Important	Neither important nor unimportant	Unimportant	Very unimportant	2007 Mean	1998 Mean
	1	2	3	4	5		
	%	%	%	%	%		
Visiting Alcatraz Island without it being too crowded, even if it's harder to get a ticket	22.3	52.0	16.0	8.5	1.3	2.15	1.76
Getting a ticket when you want, even if it means Alcatraz Island will be more crowded when you visit	4.7	25.2	19.5	39.7	11.0	3.27	1.82

Table 3-38. Importance of crowding and availability of tickets to visit Alcatraz Island

Next, respondents were asked to allocate 10 "points of importance" between the two management issues of crowding and availability of tickets (Table 3-39). Respondents were told that the more points they assigned to an issue, the more important the issue was. Respondents were also told the total number of points assigned to the two issues must equal 10. Alcatraz Island visitors tend to consider crowding to be somewhat more important than the availability of tickets - the mean number of points of importance given to crowding is 6.2, compared with 3.8 points for the availability of tickets. These averages differ slightly from the survey conducted in 1998. Based on these data, lack of crowding has become slightly more important (6.2 vs. 5.4), while availability of tickets has become slightly less important (3.8 vs. 4.6).

Points of importance		2007 Lack of crowding	2007 Availability of tickets	1998 Lack of crowding	1998 Availability of tickets
0	%	0.5	4.0	1.0	1.0
1	%	0.8	2.7	1.1	1.1
2	%	2.7	18.7	3.5	7.1
3	%	4.3	24.4	6.8	16.2
4	%	7.2	15.0	10.7	21.0
5	%	19.3	19.3	30.4	30.4
6	%	14.7	7.5	21.0	10.7
7	%	24.3	4.5	16.2	6.8
8	%	0.3	2.7	7.1	3.5
9	%	18.7	0.8	1.1	1.1
10	%	2.9	0.5	1.0	1.0
Mean		6.2	3.8	5.4	4.6

Table 3-39. Points of importance awarded to two issues on Alcatraz Island

V. Conclusions and Recommendations

This final chapter summarizes the study and presents a series of conclusions and recommendations based on study findings. The principal objectives of the study were 1) measure baseline characteristics of visitors and visitor use patterns, 2) identify indicators and standards of quality for the visitor experience, and 3) measure visitor attitudes toward alternative management issues and practices. The principal study method was a survey of approximately 453 visitors to Alcatraz Island during the summer of 2007.

A summary of principal study findings from the visitor survey are as follows:

1. Visitors to Alcatraz Island are characterized by the following baseline information:

    A. Most visitors come in small family groups and group size has dropped slightly from 1998.

B. Most visitors (75.2%) are from the United States, with 46 states and Washington D.C. represented among the sample. This increased slightly from 1998. A plurality of visitors are from California and Florida.

C. A sizable minority of visitors (24.8%) are from outside the United States, with 30 countries represented among the sample. A plurality of international visitors are from the United Kingdom.

D. The vast majority of visitors report that English is the language they prefer for speaking (94.4%) and reading (95.2%).

E. Just over 10% of visitors reported they had a physical condition that made it difficult for them to access or participate in activities or services at Alcatraz. However, less than 10% of those reporting such a physical condition felt that their special needs were not met.

F. Visitors averaged 40 years of age.

G. The vast majority of visitors were not Hispanic or Latino (93.7%) and were white (90.4%).

2. Visitor use of Alcatraz Island is characterized by the following baseline information:

A. Visitors stay on Alcatraz Island an average of about two and a half hours, and this has increased from about two hours in 1998.

B. The vast majority of visitors (76%) are visiting Alcatraz Island for the first time, and this has decreased from 1998.

C. Nearly all visitors (92.3%) took the audio tour of the prison cellhouse, and this has not changed since 1998.

D. Most visitors (68.4%) purchased their ticket to visit Alcatraz from the official internet web site and this has changed dramatically from 1998 when most visitors purchased their ticket from the Blue and Gold Ferry Company.

E. Average ticket price reported by visitors rose from $16.38 in 1998 to $24.50 in 2007.

3. The number of visitors in the prison cellhouse is especially important in defining the quality of the visitor experience on Alcatraz Island. The majority of respondents (61.8%) reported that the audio tour of the cellhouse was the element of their experience that they enjoyed the most (though this declined from 75% in 1998). Moreover, the number of visitors on the tour of the cellhouse was rated by respondents as the second most problematic of eight potential issues on the Island; 50% of respondents reported that this was either a "big problem" or a "small problem."

4. Using a series of six photographs showing a range of visitors in Michigan Avenue, respondents answered a series of questions evaluating the maximum number of people that could be accommodated at any one time. Respondents reported that the maximum number of people at any one time that could be accommodated in Michigan Avenue ranged from 25.4 (the maximum number "preferred") to 44 (the maximum number that "the National Park Service should allow"), to 45 (the maximum number "acceptable"). These numbers are virtually identical to those reported in 1998.

5. Using the same series of photographs, respondents reported seeing an average of 38.2 people in Michigan Avenue, slightly fewer than in 1998.

6. Respondents reported being "somewhat crowded" in the prison cellhouse, and this was the highest level of crowding reported among six locations. A similar pattern of findings was reported in 1998.

7. Most respondents (53.3%) agreed that the number of visitors to Alcatraz Island should be limited to avoid crowding (unchanged from 1998). However, only 15% of respondents agreed that there are now too many visitors on the Island (down slightly from 1998). Visitors reported that both availability of tickets to visit the Island and lack of crowding are important issues, with lack of crowding slightly more important, with lack of crowding becoming slightly more important in 2007.

8. Most visitors (53.5%) agreed that the size of groups visiting the Island should be limited and that the number of large groups should be limited (55.2% agreed), though these figures have dropped slightly since 1998.

9. The vast majority of respondents (75.2%) agreed that the cost of tickets to visit the Island is reasonable and that tickets are sold in a fair and equitable manner (75.5%), and these figures are virtually unchanged from 1998.

10. Overall, the vast majority of visitors enjoyed their visit and think the National Park Service is doing a good job. Nearly all respondents (89.9%) agreed that the National Park Service does a good job with its visitor education program, and that they learned a lot about Alcatraz Island on their visit (93% agreed). Large majorities of respondents also agreed that the National Park Service does a good job of protecting historic structures on the Island (79.3%) and protecting wildlife (83.6%). Almost all respondents (90.9%) agreed that they enjoyed their visit, they got their money's worth on their visit (87.7%), they would recommend visiting Alcatraz Island to family and

friends (96.4%), and the National Park Service is doing a good job of managing

Alcatraz Island (88.6%). All of these figures were similar to those reported in 1998.

These study findings lead to several major conclusions and recommendations that are focused on the study objectives. First, the number of people at one time in Michigan Avenue is a good indicator of quality of the visitor experience on Alcatraz Island. Nearly all visitors take the prison cellhouse tour and feel that it is the highlight of their visit. However, there are indications that visitors are concerned with growing use levels in the cellhouse. Visitors rated crowding in the prison cellhouse as the second most problematic of several visitor-related issues, visitor perceptions of current use levels in the cellhouse are approaching the maximum number of people judged acceptable, and the cellhouse is judged to be "somewhat crowded" and the most crowded of several locations on the Island. Thus, the number of people in Michigan Avenue is important in defining the quality of the visitor experience, is approaching the threshold of acceptability, and is manageable, all of which suggest it is an important indicator of quality.

Second, study data can be helpful in formulating a standard of quality for the maximum number of people at one time in Michigan Avenue. As noted above, alternative standards of quality range from 25 to 45, depending on the type of question asked, and that this range of standards has remained consistent over the two primary visitor surveys. It is recommended that the high end of this range be used in setting a standard of quality. This recommendation is based on several considerations. First, the low end of the range is associated with visitor "preferences." Given, the high demand to visit Alcatraz Island, it is probably unrealistic to greatly restrict public use to achieve a very low lever of crowding. Second, the upper end of the range is associated with the

level of use that visitors feel the National Park Service "should allow." This question explicitly informed respondents of the potential tradeoffs involved with this issue – that some people would have to be restricted from visiting the cellhouse to maintain maximum use levels. Thus, this question might be interpreted as the most "realistic" evaluation of maximum acceptable use levels as it asks respondents to implicitly address this tradeoff. Third, these standards of quality are slightly underestimated as some respondents (between 11 and 20, depending upon the question) reported that all of the photographs were acceptable or that the National Park Service should not limit use at any point represented in the photographs. Fourth, current use levels are perceived by respondents to be about 39 people at one time in Michigan Avenue, and visitors report being "somewhat crowded." This suggests that use levels could be at least a little higher without causing high levels of crowding. Fifth, while most respondents agreed that use of Alcatraz Island should be limited to avoid crowding, most do not agree or are uncertain that the National Park Service currently allows too many visitors on Alcatraz Island. Sixth, visitors feel that issues of crowding and public access are both important for Alcatraz Island, emphasizing that the tradeoffs between these issues, and the management consideration that should be given to both. Seventh, most visitors to Alcatraz Island are first time visitors, and this may be their only realistic opportunity to visit the Island. This also suggests that management decisions about crowding be mad in light of strong public demand to visit Alcatraz Island. Finally, overall visitor enjoyment of Alcatraz Island is very high despite some degree of crowding in the prison cellhouse. This suggests that management decisions about the appropriate maximum use level of Alcatraz Island should not be made exclusively on the basis of crowding in the prison cellhouse.

Third, once a standard of quality has been set for the maximum number of people at one time in Michigan Avenue, this indicator of quality should be monitored to ensure that the standard of quality has not been violated. This might be accomplished in three ways. First, a computer simulation model can be used to estimate the maximum number of visitors to Alcatraz Island as was done in the 1998 study. Second, periodic surveys of visitors can be conducted as was done in 2005. These surveys should use the photographs of use levels in Michigan Avenue developed in this study, and ask visitors to indicate which photograph looks most like the use level they typically saw in Michigan Avenue. Third, direct counts of the number of people at one time in Michigan Avenue could be conducted by park staff.

Fourth, it should be understood and emphasized that there is an approximately two-to-one ratio between the number of people actually present in Michigan Avenue and the number of people shown in the study photographs as illustrated in the 1998 study using computer simulation modeling of visitor use patterns. Thus, if a standard of quality of a maximum of 45 people at one time is set based on analysis and interpretation of the photo-related data, this means that the actual number of people in Michigan Avenue should not exceed 90. The methods used to monitor this indicator of quality should correspond to the way in which the standard of quality is derived and expressed, or the appropriate ratio-based adjustment should be applied.

Fifth, management action should be taken if and when monitoring suggests that the standard of quality for the maximum number of people at one time in Michigan Avenue is violated. Management alternatives include limiting the number of visitors to Alcatraz Island, limiting the number of Alcatraz Island visitors who are allowed to take

the audio tour of the prison cellhouse, and more carefully scheduling the arrival of

visitors to the Island.

Literature Cited

Graefe, A.R., J.J. Vaske, and F.R. Kuss. 1984. Social carrying capacity: An integration and synthesis of twenty years of research. <u>Leisure Sciences</u> 6(4):395-431.

Graefe, A.R., F.R. Kuss, and J.J. Vaske. 1990. <u>Visitor Impact Management: The Planning Framework</u>. Washington, D.C.: National Parks and Conservation Association.

Hof, M., J. Hammett, M. Rees, J. Belnap, N. Poe, D. Lime, and R. Manning. 1994. Getting a handle on visitor carrying capacity: A pilot project at Arches National park. <u>Park Science</u>. 14(1):11-13.

Lime, D.W., R.E. Manning, M.E. Lewis, and W.A. Freimund. 1994. <u>Indicators and standards of quality for the visitor experience at Arches National Park: Phase II research</u>. University of Minnesota Cooperative Park Studies Unit, St. Paul. 351 p.

Manning, R.E. 2007. <u>Parks and carrying capacity: Commons without tragedy</u>. Washington, D.C.: Island Press.

Manning, R.E. 1999. <u>Studies in outdoor recreation: 2nd Edition</u>. Corvallis, OR: Oregon State University Press.

Manning, R.E., D.W. Lime, R.F. McMonagle, and P. Nordin. 1993. <u>Indicators and standards of quality for the visitor experience at Arches National Park: Phase I research</u>. University of Minnesota Cooperative Park Studies Unit, St. Paul. 54 pp.

Manning, R., D. Lime, M. Hof, and W. Freimund. 1995. The Visitor Experience and Resource protection (VERP) process: The application of carrying capacity to Arches National Park. <u>The George Wright Forum</u> 12(3):41-55.

Manning, R.E., D. Lime, and M. Hof. 1996a. Social carrying capacity of natural areas. Theory and application in the national parks. <u>Natural Areas Journal</u>. 16(2):118-127.

Manning, R.E., D. Lime, Freimund, and D. Pitt. 1996b. Crowding norms at frontcountry sites: A visual approach to setting standards of quality. <u>Leisure Sciences</u>. 18(1):39-59.

National Park Service. 1997. <u>VERP</u>: <u>Visitor Experience and Resource Protection (VERP) Framework—A Handbook for Planners and Managers</u>. Denver, Colorado: Denver Service Center.

National Park Service. 1995. <u>The Visitor Experience and Resource Protection implementation plan: Arches National Park</u>. U.S. Department of the Interior, National Park Service, Denver Service Center, Denver, Colorado.

Shelby, B. and T.A. Heberlein. 1986. <u>Carrying capacity in recreation settings</u>. Corvallis, OR: Oregon State University Press.

Shelby, B., G. Stankey, and B. Shindler. (Eds.) 1992. <u>Defining wilderness quality: The role of standards in wilderness management — a workshop proceedings</u>. USDA Forest Service General Technical Report PMW-GTR-305, 114 pages.

Stankey, G.H. and R.E. Manning. 1986. Carrying Capacity of Recreation Settings. <u>The President's Commission on Americans Outdoors: A Literature Review</u>. Washington, D.C.: U.S. Government Printing Office, pp. 47-57.

Stankey, G.H., D.N. Cole, R.C. Lucas, M.E. Peterson, S.S. Frissell, and R.F. Washburne. 1985. <u>The Limits of Acceptable Change (LAC) System for wilderness planning</u>. USDA Forest Service General Technical Report INT-176.

Donnelly, M.P., J. Vaske, and B. Shelby, 1992. Establishing management standards: Selected examples of the normative approach. In B. Shelby, G. Stankey, & B. Shindler (Eds.), <u>Defining wilderness quality: The role of standards in wilderness management— A workshop proceedings</u>. USDA Forest Service General Technical Report PNW-305.

Jackson, J. 1965. Structural characteristics of norms. In I.D. Steiner & M.F. Fishbein (Eds.) <u>Current studies in social psychology</u>. New York: Holt, Rinehart, Winston, Inc.

Patterson, M.E. and W.E. Hammitt. 1990. Backcountry encounter norms, actual reported encounters, and their relationship to wilderness solitude. <u>Journal of Leisure Research</u> 22(3):259-275.

Shelby, B. and R. Colvin. 1982. Encounter measures in carrying capacity research: Actual, reported, and diary contacts. <u>Journal of Leisure Research</u>. 14(4):350-360.

Shelby, B. and J.J. Vaske. 1991. Using normative data to develop evaluative standards for resource management: A comment on three recent papers. <u>Journal of Leisure Research</u>. 23(2):173-187.

Shelby, B. 1981. Encounter norms in backcountry settings: Studies of three rivers. <u>Journal of Leisure Research</u>. 13:129-138.

Shelby, B., J.J. Vaske, and R. Harris. 1988. User standards for ecological impacts at wilderness campsites. <u>Journal of Leisure Research</u>. 20(3):245-256.

Shelby, B. and D. Whittaker. 1990. <u>Recreation values and instream flow needs on the Delores River</u>. Paper presented at the Third Conference on Society and Resource Management. College Station, Texas.

Vaske, J.J., A.R. Graefe, B. Shelby, and T. Heberlein. 1986. Backcountry encounter norms: theory, method, and empirical evidence. <u>Journal of Leisure Research</u>. 18(3):137-153.

Vaske, J.J., and M.P. Donnelly. 1988. Normative evaluations of wildlife management. Paper presented at the Annual Congress of the National Recreation and Park Association, Indianapolis, IN.

Whittaker, D. and B. Shelby. 1988. Types of norms for recreation impacts: Extending the social norm concept. <u>Journal of Leisure Research</u>. 20(4):261-273.

Williams, D.R., J.W. Roggenbuck, and S.P. Bange. 1991. The effect of norm-encounter compatibility on crowding perceptions, experience and behavior in river recreation settings. <u>Journal of Leisure Research</u>. 23:154-172.

Appendix A

2007 Study Questionnaire

ALCATRAZ ISLAND
VISITOR SURVEY

Dear Alcatraz Visitor:

Thank you for taking the time to complete this questionnaire. Your responses to these questions are important in helping us manage Alcatraz Island. Alcatraz Island faces many difficult issues, and your opinions about these issues are important to the National Park Service. *For example, the demand to visit often exceeds the number of tickets that are available.* A number of questions ask your opinions about how many visitors can be accommodated on the Island without resulting in levels of crowding that would be unacceptable to you. I appreciate your thoughtful answers to these questions.

Sincerely,

Brian O'Neil
Superintendent

NUMBER: _____

TIME: _____

DATE: _____

INTERVIEWER: _____

1.   How long did you spend on Alcatraz Island today? (List partial hours as 1/4, 1/2, 3/4.)

Number of hours: _____

2   a. On this visit, what kind of personal group (not guided tour/school/other organized group) were you with? (Please circle only one.)

1 Alone
2 Family
3 Friends
4 Friends and Family
5 Other (please specify: _____)

b. Please indicate the number of people in your personal group in each of the following age categories.

0 – 12 years: _____
13 – 17 years: _____
18 – 34 years: _____
35 – 54 years: _____
55 – 64 years: _____
65 year and over: _____

2.   c. On this visit, were you and your personal group part of any larger, organized group? (Circle all that apply.)

3.

1   Commercial guided tour group
2   Organized group or club
3   School and/or youth group
4   Other (Please specify.) _____

3   a. Do you live in the United States? (Circle one number.)

1   Yes
2   No

b. If yes, what is your zip code?

Zip code: _____

c. If no, in which country do you live?

Country: _____

4.   When visiting a site such as Alcatraz, what **one** language do you and your personal group prefer to use for the following?

Speaking: _____

Reading: _____

5.   a. Does anyone in your group have a physical condition that made it difficult to access or participate in activities or services at Alcatraz?

_____ Yes   _____ No ➔ **Go on to Question 6**

b. If YES, what activities or services did the person(s) have difficulty accessing or participating in? Please check (√) **all** that apply.

_____ None ➔ **Go on to Question 6**

_____ Park buildings

_____ Exhibits or audio-visual programs

_____ Interpretive or educational programs or activities

_____ Other (Please specify:_____)

c. Because of the physical condition, what specific problems did the person(s) have during this visit to Alcatraz? Please check (√) all that apply.

_____ Hearing (difficulty hearing ranger programs, audio-visual exhibits or programs, or reservation desk staff, even with hearing aid)

_____ Visual (difficulty in seeing exhibits, directional signs, visual aids that are part of programs, even with prescribed glasses or due to blindness)

_____ Mobility (difficulty in accessing facilities, services, or programs, even with walking aid and/or wheelchairs)

_____ Other (Please describe: _____)

d. How well was this special need met? (Circle one number.)

1   Met well
2   Met satisfactorily
3   Not met

6.   a. Have you visited Alcatraz Island before today? (Circle one number.)

             1   Yes
             2   No

          b. If yes, approximately how many times have you visited before today?

          Number of prior visits: _____

7.   On this trip today, how did you get to the pier in San Francisco to board the ferry to Alcatraz? (Circle one number.)

             1   Drove personal vehicle/was dropped off
             2   Drove rental vehicle
             3   Took a public bus/cable car
             4   Took a tour bus
             5   Took a taxi
             6   Walked
             7   Other (Please specify:_____)

8.   How did you learn about Alcatraz Island and obtain information about how to visit? (Circle <u>all</u> numbers that apply.)

             1   National Park Service web site
             2   National Park Service printed information
             3   Travel/tourism guidebook
             4   Travel agent
             5   Internet web site other than National Park Service site
             6   Movie about Alcatraz
             7   Other (Please specify: _____)

9.   We would like to know what added to or detracted from the quality of your visit to Alcatraz Island.

          a. What did you enjoy most about your visit?

          _____

          _____

b. What did you enjoy least about your visit?

_____

_____

c. If you could ask the National Park Service to improve some things about the way visitors
    experience Alcatraz Island, what would you ask managers to do?

_____

_____

10.   How much of a problem do you think the following issues are at Alcatraz Island?
      (Circle one number for each issue.)

	Not a Problem	Small Problem	Big Problem	Don't Know/ No Opinion
a. The number of visitors on the Island	1	2	3	DK
b. The number of visitors on the ferry	1	2	3	DK
c. The number of visitors on the tour of the prison cellhouse	1	2	3	DK
d. The number of visitors in the bookstores/gift shops	1	2	3	DK
e. Visitors making too much noise	1	2	3	DK
f. Visitors not following rules and regulations	1	2	3	DK
g. Birds on walkways	1	2	3	DK
h. Bird droppings on walkways	1	2	3	DK

11.   a. Did you visit the prison cellhouse today? (Circle one number.)

1   Yes
2   No (Skip to Question 12.)

b. We would like to know how many people you think could visit the prison cellhouse at any one time without feeling too crowded. To help judge this, a series of photographs of the cellhouse is shown on the fold out enclosure included with this questionnaire.   These photographs show different numbers of visitors in the prison cellhouse.

Please rate each photograph by indicating how acceptable you find each one based on the number of visitors shown. A rating of "-4" means the number of visitors is "very unacceptable", and a rating of "+4" means the number of visitors is "very acceptable". (Circle one number for each photograph.)

	Very Unacceptable							Very Acceptable
Photo 1…	-4	-3	-2	-1	0	1	2	3	4
Photo 2…	-4	-3	-2	-1	0	1	2	3	4
Photo 3…	-4	-3	-2	-1	0	1	2	3	4
Photo 4…	-4	-3	-2	-1	0	1	2	3	4
Photo 5…	-4	-3	-2	-1	0	1	2	3	4
Photo 6…	-4	-3	-2	-1	0	1	2	3	4

c. Which photograph shows the level of use that you would prefer to experience in the cellhouse?

Photo number: _____

d. Which photograph shows the highest level of use that <u>the National Park Service should allow</u> in the cellhouse? In other words, at what point should visitors be restricted from touring the cellhouse? If use should not be restricted at any point represented in the photographs, or not restricted at all, you may indicate that by checking one of the boxes below.

Photo number: _____

OR

❒ None of the photographs show a level of use high enough to restrict the number of visitors touring the cellhouse

OR

❒ The number of visitors in the cellhouse should not be restricted.

e. Which photograph looks most like the number of visitors you <u>typically</u> <u>saw</u> on your tour of the cellhouse today?

Photo number: _____

12. Please indicate how crowded you felt in the following locations today.   (Circle one number for each location you visited.)

	Not at all Crowded		Slightly Crowded			Moderately Crowded		Extremely Crowded	
a. In the prison cellhouse	1	2	3	4	5	6	7	8	9
b. Walking on the Island's roads and trails	1	2	3	4	5	6	7	8	9
c. In the bookstores/gift shops	1	2	3	4	5	6	7	8	9
d. On the ferry	1	2	3	4	5	6	7	8	9
e. In the theater/exhibit area	1	2	3	4	5	6	7	8	9
f. How crowded did you feel <u>overall</u> on your visit to Alcatraz Island today?	1	2	3	4	5	6	7	8	9

4.   13.   Please indicate which of the following activities you participated in today. (Check all that apply.)

_____   Took the prison cellhouse audiotour

_____   Took a guided tour

_____   Watched the orientation video

_____   Read the self-guiding brochure

_____   Talked with a guest author

_____   Looked at the exhibits

_____   Walked on some of the Island's trails
            (other than the main trail to the cellhouse)

_____   Watched some of the sea bird activity

_____   Visited the bookstores/gift shops

14.   We would like to know what you think about issues related to visitor use of Alcatraz Island. Please indicate the extent to which you agree or disagree with each of the following statements. (Circle one number for each statement.)

	Strongly Agree	Agree	Uncertain/ No Opinion	Disagree	Strongly Disagree
a. The National Park Service allows too many visitors on Alcatraz Island	1	2	3	4	5
b. The number of visitors on Alcatraz Island should be limited to avoid crowding, even if that means it would be harder for me to get a ticket to visit the Island	1	2	3	4	5
c. There should be a limit on the size of groups allowed to visit Alcatraz Island	1	2	3	4	5
d. The number of large groups of visitors to Alcatraz Island should be limited	1	2	3	4	5

15. We would like to know what you think about issues related to education and interpretation of Alcatraz Island. Please indicate the extent to which you agree or disagree with each of the following statements. (Circle one number for each statement.)

	Strongly Agree	Agree	Uncertain/ No Opinion	Disagree	Strongly Disagree
a. I had to wait too long on Alcatraz Island for the audio tour of the prison cell house	1	2	3	4	5
b. I found the tour of the prison cellhouse to be too long	1	2	3	4	5
c. I feel I learned a lot about Alcatraz Island on my visit	1	2	3	4	5
d. The National Park Service does a good job with its visitor education program at Alcatraz Island	1	2	3	4	5
e. I enjoyed the interpretive/ educational exhibits as I entered the prison cellhouse	1	2	3	4	5
f. I found the directional signs on Alcatraz Island to be satisfactory	1	2	3	4	5
g. I found the directional signs in the prison cellhouse to be satisfactory	1	2	3	4	5
h. I was able to ask questions I had and get answers during my visit to Alcatraz Island	1	2	3	4	5
i. I would like to have learned more about the role of Alcatraz Island in military defense	1	2	3	4	5
j. I would like to have learned more about the role of Alcatraz Island as a famous federal prison	1	2	3	4	5
k. I would like to have learned more about the role of Alcatraz Island as a site of American Indian protest	1	2	3	4	5
	Strongly Agree	Agree	Uncertain/ No Opinion	Disagree	Strongly Disagree

l. I would like to have learned more about the role of Alcatraz Island as habitat for sea birds/colonial nesting birds and marine life	1	2	3	4	5
m. I would like to have learned more about the role of Alcatraz Island in navigation in San Francisco Bay	1	2	3	4	5
n. I would like to have learned more about other places to visit within Golden Gate National Recreation Area	1	2	3	4	5

16.   We would like to know what you think about issues related to the quality of the visitor experience on Alcatraz Island. Please indicate the extent to which you agree or disagree with each of the following statements. (Circle one number for each statement.)

	Strongly Agree	Agree	Uncertain/ No Opinion	Disagree	Strongly Disagree
a. The National Park Service does a good job of protecting the historic structures on Alcatraz Island	1	2	3	4	5
b. The National Park Service does a good job of protecting the wildlife on Alcatraz Island	1	2	3	4	5
c. I felt safe from potential hazards during my visit to Alcatraz Island	1	2	3	4	5
d. I had the information I needed to dress properly for my visit to Alcatraz Island	1	2	3	4	5
e. I would like to have seen more of the areas on Alcatraz Island that were closed to visitors	1	2	3	4	5
f. I felt I spent enough time on Alcatraz Island to do most of the things I wanted to do	1	2	3	4	5
g. I found there to be enough restrooms on Alcatraz Island	1	2	3	4	5

	Strongly Agree	Agree	Uncertain/ No Opinion	Disagree	Strongly Disagree
h. I found the restrooms on Alcatraz Island to be well located	1	2	3	4	5
i. I found the restrooms on Alcatraz Island to be clean	1	2	3	4	5
j. I found items for sale on Alcatraz Island to be interesting and educational	1	2	3	4	5
k. I found items for sale on Alcatraz Island to be reasonably priced	1	2	3	4	5
l. I thought the cost of tickets to visit Alcatraz Island was reasonable	1	2	3	4	5
m. I think that tickets to Alcatraz Island are sold to the public in an efficient way	1	2	3	4	5
n. I think that tickets to Alcatraz Island are sold to the public in a fair and equitable way	1	2	3	4	5
o. I found it difficult to get tickets to visit Alcatraz Island	1	2	3	4	5
p. I feel I got my money's worth on my visit to Alcatraz Island	1	2	3	4	5
q. I enjoyed my visit to Alcatraz Island	1	2	3	4	5
r. I would recommend visiting Alcatraz Island to my family and friends	1	2	3	4	5
s. I enjoyed the ferry ride out to Alcatraz Island	1	2	3	4	5

	Strongly Agree	Agree	Uncertain/ No Opinion	Disagree	Strongly Disagree
t. If the ferry to Alcatraz Island also went to other sites around San Francisco Bay (e.g., Angel Island, Sausalito), I would probably use this service	1	2	3	4	5
u. I think the National Park Service is doing a good job of managing Alcatraz Island	1	2	3	4	5

17.   Two issues that might be important to visitors to Alcatraz Island are crowding and availability of tickets to visit. The more tickets that are made available, the more likely you could get a ticket when you wanted it. But it also means that more people would be on Alcatraz at any one time. But if the number of people allowed on the island is reduced, then tickets will not be as available and you would be less likely get a ticket when you wanted it. We would like to know how you feel about these issues.

a. Please rate the importance of these two issues as they apply to Alcatraz Island. (Circle one number for each item.)

	Very Important	Important	Neither Important nor Unimportant	Unimportant	Very Unimportant
1. Visiting Alcatraz Island without it being too crowded, even if it's harder to get a ticket	1	2	3	4	5
2. Getting a ticket when you want, even if it means Alcatraz Island will be more crowded when you visit.	1	2	3	4	5

b. Please assume you have 10 "points of importance" to divide among these two issues. Please indicate the number of "points" you would give to each issue. The more points you give to an issue, the more important you feel that issue is compared to the other issue. The total number of points you give to these two issues must equal 10.

Points given to crowding (ability to visit Alcatraz Island without it being crowded) _____

Points given to availability of tickets (ability to get a ticket when wanted) _____

Total points =   10

18.   a. How did you obtain your ticket to visit Alcatraz Island? (Circle one number.)

       1   Alcatraz Cruises phone sales
       2   Alcatraz Cruises ticket booth
       3   Commercial package tour
       4   Independent street sales
       5   Hotel concierge
       6   Official internet website
       7   Other (Please specify:_____)

     b. How much did your ticket cost (the ticket of the person completing the questionnaire)?

     $_____

19.   The ferry to Alcatraz Island leaves San Francisco from Pier 33 on the Embarcadero.
     How satisfactory did you find this site based on the following factors? (Circle one number for each
     factor.)

	Very Unsatisfactory	Unsatisfactory	Satisfactory	Very Satisfactory	Not Applicable
1. Ease of finding this site	-2	-1	1	2	NA
2. Ease of getting to this site	-2	-1	1	2	NA
3. Amenities at this site (e.g., restrooms, food service)	-2	-1	1	2	NA

20.   Food and beverage service is not provided on Alcatraz Island. Providing this service would be a
     convenience to visitors, but would require refuse and garbage removal and might impact the
     Island's wildlife such as birds and mice.

     a. Given these considerations, how important do you think it is that food and beverage service be
       provided on Alcatraz Island? (Circle one number.)

       1   Very Important
       2   Important
       3   Neither important nor unimportant
       4   Unimportant
       5   Very Unimportant

b. Did you leave Alcatraz Island earlier than you would have liked because food and beverage service is not available? (Circle one number.)

1   Yes
2   No

21.   a. In what year where you born?

Year born: _____

b. Are you Hispanic or Latino? (Circle one number.)

1   Yes
2   No

c. What is your race? (Circle all numbers that apply.)

1   American Indian or Alaska Native
2   Asian
3   Black or African American
4   Native Hawaiian or other Pacific Islander
5   White

Thank you for your help with this study! Please return this completed questionnaire to the employee who gave it to you.

Appendix B

Study Photographs