



# Boston Harbor Islands National Recreation Area Visitor Study

## Summer 2012

Natural Resource Report NPS/NRSS/EQD/NRR—2013/700



**ON THE COVER**

Map of Boston Harbor Islands National Recreation Area

Map image courtesy of Boston Harbor Islands National Recreation Area

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*Summer 2012*

Natural Resource Report NPS/NRSS/EQD/NRR—2013/700

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## Executive Summary

This report describes the results of two studies conducted at Boston Harbor Islands National Recreation Area, (also referred to as Boston Harbor Islands national park area) during July 22 – September 19, 2012. These studies represent the first phase of a comprehensive study of visitors to the park.

The objectives of the first study, a counting methods study, were 1) to investigate different methods that would provide accurate estimates of Boston Harbor Islands national park area visitation statistics; 2) to investigate and provide the park with multipliers for different counting methods and establish visitation baselines; and 3) to make recommendations on counting methods for the park. Table 1 summarizes the findings of the counting methods study. (This table is also presented as Table 12 on page 24).

Total visitation to Boston Harbor Islands national park area is equal to the sum of visitation to all sites. The unit of analysis is number of visits. This is not the same as the number of visitors, as one person may visit multiple sites on one day or camp overnight for multiple days.

The park used electronic pedestrian counters and pneumatic vehicle counters to estimate visitation at sites throughout the park. Counters may miss some visitors or count them more than once due to technical or environmental factors. Observational studies were conducted to confirm the accuracy of counters. For each counter, a multiplier was computed to adjust the counter number so that it accurately reflected the observed number of visitors. Table 1 shows the multiplier for each site. (See page 5 for a discussion of multipliers and how to account for error margins).

The objectives of the second study, a self-reporting customer satisfaction survey, were 1) to provide a profile of visitors to Boston Harbor Islands national park area; and 2) to evaluate their perceptions of current recreation opportunities, quality of information provided, and satisfaction with customer services. Table 2 summarizes the visitor characteristics collected during the customer satisfaction study.

Table 1. Multiplier for daily visitation to each park site

| Site                                                                                                                           | Multiplier                                                                                                                   |
|--------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Webb Memorial State Park                                                                                                       | Number on pedestrian counter x 1.3                                                                                           |
| Nut Island                                                                                                                     | Number on vehicle counter x 2.8                                                                                              |
| Long Island                                                                                                                    | Number of tour participants                                                                                                  |
| Deer Island                                                                                                                    | Number of visitors to Webb Memorial State Park x 1.25                                                                        |
| Spectacle Island                                                                                                               | Number on pedestrian counter x 1.9 - 10                                                                                      |
| Georges Island                                                                                                                 | Number on pedestrian counter x 0.87 + charter boat pier counter                                                              |
| Peddocks Island                                                                                                                | <i>More observations needed to estimate multiplier</i>                                                                       |
| Grape Island                                                                                                                   | Number on pedestrian counter                                                                                                 |
| Lovells Island                                                                                                                 | Number on pedestrian counter                                                                                                 |
| Bumpkin Island                                                                                                                 | Number of visitors to Grape Island                                                                                           |
| Thompson Island                                                                                                                | Number as recorded by cooperating partner                                                                                    |
| Outer Islands (Green, Calf, Little Calf, Little Brewster, Outer Brewster, Middle Brewster, Graves, Shag Rocks, Great Brewster) | <i>No count obtained</i>                                                                                                     |
| Hingham Harbor Islands (Langlee, Ragged, Sarah, Button, and Slate)                                                             | <i>Logbook installed at Langlee. Observational study needed to compute proportion of visitors using logbook (multiplier)</i> |
| Other islands (Raccoon, Rainsford, Sheep, Snake)                                                                               | <i>No count obtained</i>                                                                                                     |
| Pavilion                                                                                                                       | Number of visitors counted by rangers (8am to 6pm) x 10.2                                                                    |
| Worlds End                                                                                                                     | <i>No count obtained</i>                                                                                                     |

Table 2. Summary of visitor characteristics

---

|                                          |                                                                                                                                                                                                                                                                                                              |
|------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Group size and type</b>               | Forty percent of visitors were in groups of two, and 32% were in groups of three or four. Forty-four percent of visitor groups consisted of family groups. Fifty-nine percent of groups did not include children.                                                                                            |
| <b>State or country of residence</b>     | United States visitors were from 40 states and comprised 92% of total visitation during the survey period, with 79% from Massachusetts. International visitors were from 25 countries and comprised 8% of total visitation, with 28% from Canada.                                                            |
| <b>Frequency of visits</b>               | Sixty-four percent of visitors were visiting for the first time.                                                                                                                                                                                                                                             |
| <b>Gender, age, education</b>            | Fifty-seven percent of visitors were female. Less than one percent of visitors were ages 15 years or younger, 40% were 31-50 years old, 13% were 66 or older. Forty-nine percent of visitors had a graduate degree.                                                                                          |
| <b>Race, ethnicity</b>                   | Five percent of visitors were Hispanic/Latino. Ninety-three percent were White. Three percent were Black or African American, and 3% were Asian.                                                                                                                                                             |
| <b>Awareness of park prior to visit</b>  | Thirty-nine percent of visitors were aware that Boston Harbor Islands is part of the national park system; 22% were aware that Boston Harbor Islands national park area consists of 34 islands and peninsulas.                                                                                               |
| <b>Information prior to visit</b>        | Sixty-one percent of visitors obtained information about the park prior to their visit; for 51% the source of information was living in the local area. Sixty-two percent would use the park website prior to a future visit.                                                                                |
| <b>Sites visited</b>                     | The most visited site in the park was Georges Island with 81% of visitors, followed by Spectacle Island with 51% of visitors.                                                                                                                                                                                |
| <b>Activities</b>                        | The most common activities were walking/hiking trails and beaches (72%), sightseeing (55%), and touring historical/natural sites (55%). On a future visit, thirty-two percent of visitors were interested in walking/hiking trails and beaches, and 23% were interested in touring historical/natural sites. |
| <b>Information received during visit</b> | The information most commonly received by visitors was about the ferry and other means to access Boston Harbor Islands (28%), and visitor opportunities and activities (27%).                                                                                                                                |
| <b>Overall quality</b>                   | Most visitor groups (95%) rated the overall quality of facilities, services, and recreational opportunities at Boston Harbor Islands national park area as “very good” or “good”. One percent of groups rated the overall quality as “poor.”                                                                 |

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## **Acknowledgements**

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## **About the Author**

Yen Le, Ph.D., is Director of the Visitor Services Project at the University of Idaho.

# Introduction

Boston Harbor Islands National Recreation Area (NRA) is a unique unit of the National Park System. The National Park Service (NPS) does not own any of the islands within the park; rather the NPS administers the islands in partnership with various federal, state, municipal, and nonprofit agencies. The park is often referred to as Boston Harbor national park area. Management of the park is coordinated through the Boston Harbor Islands Partnership, a federal operating committee. Three islands have direct ferry service from Boston. Park managers provide programs and visitor services on some islands, and four islands served by smaller public vessels offer camping. Most islands can be accessed via private boats, and four peninsulas in the park have road access. The public ferries generally operate between Memorial Day and Labor Day, the main operating season of the park.

The park's multiple management partners, geological features, and spatial diversity complicate obtaining an accurate count of park visitors. Currently, there is no scientifically based system in place to estimate the number of visitors. This study includes two main objectives: (1) establish a counting method that would provide accurate visitation statistics to Boston Harbor Islands national park area; and (2) collect data to complement existing information about visitor demographics and visitor satisfaction with the park's current facilities and services.

## Definition of a visitor

In this project, a visitor is defined as anyone who utilizes Boston Harbor Islands national park area resources for recreational purposes. This definition includes anyone who sets foot on any of the 34 islands, peninsulas, or the information pavilion in downtown Boston, for recreational purposes. This definition excludes non-recreational visitors such as NPS and park partners' employees, concessionaires and other contracted workers, and long-term residents of the islands.

## Organization of the Report

This report includes two parts and three appendices.

### Part 1: Visitor Statistics

This section discusses methods used to count visitors and the results for sites throughout the park. Formulas for adjusting visitor counts to estimate actual visitation are reported. Total visitation can be calculated on an Excel spreadsheet using these formulas or through a web-based application (which is not included in the current task agreement).

### Part 2: Visitor Study

This section discusses the methodology and results of the visitor survey.

Appendix 1: The questionnaire. A copy of the questionnaire distributed to visitors.

Appendix 2: The self-registration logbook. A sample page from the self-registration logbooks used to collect data on some islands.

Appendix 3: Island profiles. A map of each island, instructions on how to access the island, and instructions on where to locate the counters.



## Part 1: Visitor Statistics



Map 1: Boston Harbor Islands national park area

## Counting methods

Given the complexity of the Boston Harbor Islands national park area layout and its multiple access points, a single counting method would not have provided an accurate count of visitors (see Map 1). We proposed the use of various counting methods for different areas of the park. There are three categories of methods for counting visitors (Hollenhorst, Whisman, and Ewert, 1992):

1. Direct counting is actual observation of visitors as they enter a site. For this study, survey technicians with hand-held counters were assigned to count vehicles and pedestrians.
2. Indirect counting produces counts using electronic or mechanical devices. Pedestrian counters (Diamond Trail Counter TTC-4420) and traffic counters (Diamond Traffic Tally 77), both manufactured by Diamond Traffic Products, were installed and monitored at entrance points to count visitors in vehicles and on foot.
3. Self-counting, or self-registration, relies on voluntary participation. Logbooks were placed at sites without vehicular access, and those that lacked docks.

In addition, at some areas we proposed counting visitors by proxy—using visitor counts from one area to estimate the number of visitors at a similar area.

It should be noted that although we counted visitors, the unit we are measuring is a “visit.” That is, an individual visitor could be counted at multiple sites on a single day, and each time they were counted is a visit. We have not tried to propose methods for counting or estimating the number of unique visitors to the park.

Counting methods used for each grouping of sites are described below.

**Group 1: Islands and peninsulas accessible by road.** This group includes Deer Island, Long Island, Nut Island, Webb Memorial State Park, and Worlds End. Each of these locations has road access from the mainland.

**Proposed method:** Vehicle traffic counters were installed on all roads immediately before park entrances except for Long Island. The Visitor Services Project (VSP) provided a sampling schedule for in-person observation of each traffic counter so that a people per vehicle ratio could be calculated. The NPS was responsible for purchasing, installing and maintaining the road counters. The VSP provided assistance in selecting appropriate locations.

**Group 2: Islands with public ferry access.** This group includes Spectacle, Georges, Lovells, Peddocks, Bumpkin, Grape, Little Brewster, and Thompson Islands. (Gallops Island has a dock, but is closed to visitors due to asbestos-containing materials in the soil.)

**Proposed method:** Electronic pedestrian counters were installed on all docks. The NPS was responsible for purchasing, installing, and maintaining the counters. The VSP provided assistance in selecting appropriate locations. A sampling schedule was established for survey technicians to count the number of visitors at 30-minute intervals, and the numbers recorded by electronic counters were recorded using the same interval for comparison purposes. The two data sets (number counted by the survey technician and number recorded by the electronic counter) were used to determine the error rate of the electronic pedestrian counter and calculate a multiplier to reduce the error rate to within five percentage points.

**Group 3: Outer islands.** This group includes the islands without docks situated farthest off shore: Green, Calf, Little Calf, Outer Brewster, Middle Brewster, and Great Brewster.

**Proposed method:** Given the remote location, an observational study to estimate visitation could be challenging. The PSU proposed two possible methods (1) measuring visitation statistics via proxy; or (2) measuring visitation using a self-registration log book. Measuring via proxy involved modeling of the outer islands' visitation statistics based on statistics of other islands with electronic counters. Observations were conducted simultaneously at both locations to determine if they followed similar patterns of visitation. The

second method required installation of self-registration logbooks. An observational study was needed to determine the percentage of park users that registered in the logbooks.

**Group 4: Hingham Harbor Islands.** This includes the in-shore islands, Langlee, Ragged, Sarah, and Button, without docks but more easily accessed by personal watercraft.

**Proposed method:** These islands do not have public docks and are often used by local residents, especially in summer. Since there is no controlled access to this group of islands, visitation statistics were obtained by indirect observation. Methods similar to those applied to the outer islands group were applied to Hingham Harbor Islands.

**Group 5: Other Islands.** This group includes all other islands not accounted for in the groups already discussed, including Raccoon, Slate, Sheep, Rainsford, and Snake. With the exception of Rainsford and Snake Islands, these islands are small and unable to support any substantial public access. The counting method was based on a sampling plan. The estimated number of visits to this group of islands was used as modification to total park visitation.

**Group 6: Boston Harbor Islands Pavilion.** The Boston Harbor Islands Pavilion is located on Rose Kennedy Greenway in downtown Boston. It is an open area with multiple access points. The facilities at the Pavilion include maps of downtown Boston and the Harbor Islands, a ranger station, a gift shop, and outdoor exhibits. Rangers stationed at the Pavilion manually count the number of visitors they contact. This counting system does not include visitors who come to the Pavilion after hours nor those who may have used services on the other side of the Pavilion that the rangers can't observe.

**Proposed method:** An observer was placed on each side of the Pavilion. Each observer kept an independent record of number of people observed. These visitor numbers were correlated with the number recorded by the rangers to determine the estimated average number of visits. Observers were also present after the ranger station was closed to observe the number of people who used the Pavilion facilities, in order to estimate the number of visits to the site.

### Accounting for sources of error with electronic pedestrian counters

Visitor statistics data obtained by electronic pedestrian counters are subject to several sources of error:

- Equipment errors such as beam failure and battery failure.
- Environmental factors such as objects blocking the counter beam, light conditions that may interfere with the counter beam, and saltwater corrosion as well as presence of sand, dust and mud that could affect how the counter functions.
- Equipment limitations, for example when two or more visitors walking side-by-side break the counter's beam at the same time and are counted as one.
- Missed counts when park users do not pass the counter's location, and over-counts when the same park users pass the counter multiple times during the same visit.
- Park staff, concessioners, and contractors passing the counter, often more than two times/day.

Due to these potential sources of error, the numbers counted by electronic pedestrian counters are often incorrect. (The counter manufacturer estimates the average error margin to be around 25%.) The most common method to account for these errors is to conduct in-person observational studies in order to compare actual counts to the number reported by electronic counters. Because of the differences in environmental and locational factors, each site will likely have a different error rate and need to be observed separately.

The differences between actual counts and numbers recorded on electronic counters can be categorized in one of the following relationships:

1. Linear regression model, in which  

$$\text{actual count} = \text{number on the counter} \times \text{coefficient} + \text{or} - \text{a constant number}$$

2. Additive model, in which  
actual count = number on the counter + or – a constant number
3. The differences follow a completely random pattern

If differences occur between the actual count and numbers recorded by electronic counters, the counting errors can be corrected by calculating a “multiplier.” The multiplier is a coefficient that the electronic count is multiplied by to obtain an estimate of the actual count. In most cases the multiplier will help to reduce the error rate to within an acceptable rate of 5%.

The electronic count also may need to be adjusted by a “constant,” if a significant number of people who are not visitors, for example staff, walk by the counter each day. If a relationship between the actual count and numbers recorded by the electronic counter cannot be detected (scenario 4) then the using the counter is an unreliable method, as the margin of error cannot be determined.

Indirect counting methods, such as electronic counters, are not as accurate as direct observation, but they are much more cost effective. The results of observational studies in 2012 showed that while several sites had very large margins of error using electronic pedestrian counters (Georges, Peddocks, and Spectacle Islands), the margins of error follow a predictable pattern. Based on the statistical modeling of the patterns, we were able to calculate a multiplier for each site to reduce the margin of error to an acceptable range of within 5%. The results show that using electronic counters will provide results with an acceptable margin of error in a cost-effective manner.

### **Estimating the number of visitors in vehicles**

Because vehicles arriving at the park may have multiple occupants and vehicle counters only count the number of vehicles, the number of visitors arriving at the park by vehicle must be estimated by applying a “people-per-vehicle” multiplier to the number of vehicles counted. An observational study is required to estimate the people-per-vehicle multiplier. A technician manually counts the number of people in each vehicle. An average number of people per vehicle over the observation period is then calculated and used as the multiplier. Visitation is estimated by:

Daily visitation = vehicle count on counter x people-per-vehicle multiplier.

### **Explanation of results**

The results of this section are presented in both graphs and tables. The graph is designed to provide some visual prognosis when applicable. Tables present the results of statistical tests, which may vary depending on the counting method applied.

#### For sites with pedestrian counters

We used a regression model to predict actual visitation based on the number counted by the electronic pedestrian counters. The numbers counted by technicians are generally more reliable and thus considered as the “actual counts.” Actual visitation is considered a function of the number counted by the electronic counters, in which the errors are accounted for and reduced to an acceptable 95% confidence interval.

Each visitation estimate begins with a graph that depicts the relationship between the actual count and the number recorded by the electronic counter. Figure 1 shows a sample graph. Each of the dots represents a data point and the line going through origin represents the regression model. The graph shows how the data points are scattered around the regression line, visually indicating how well the regression model fits.

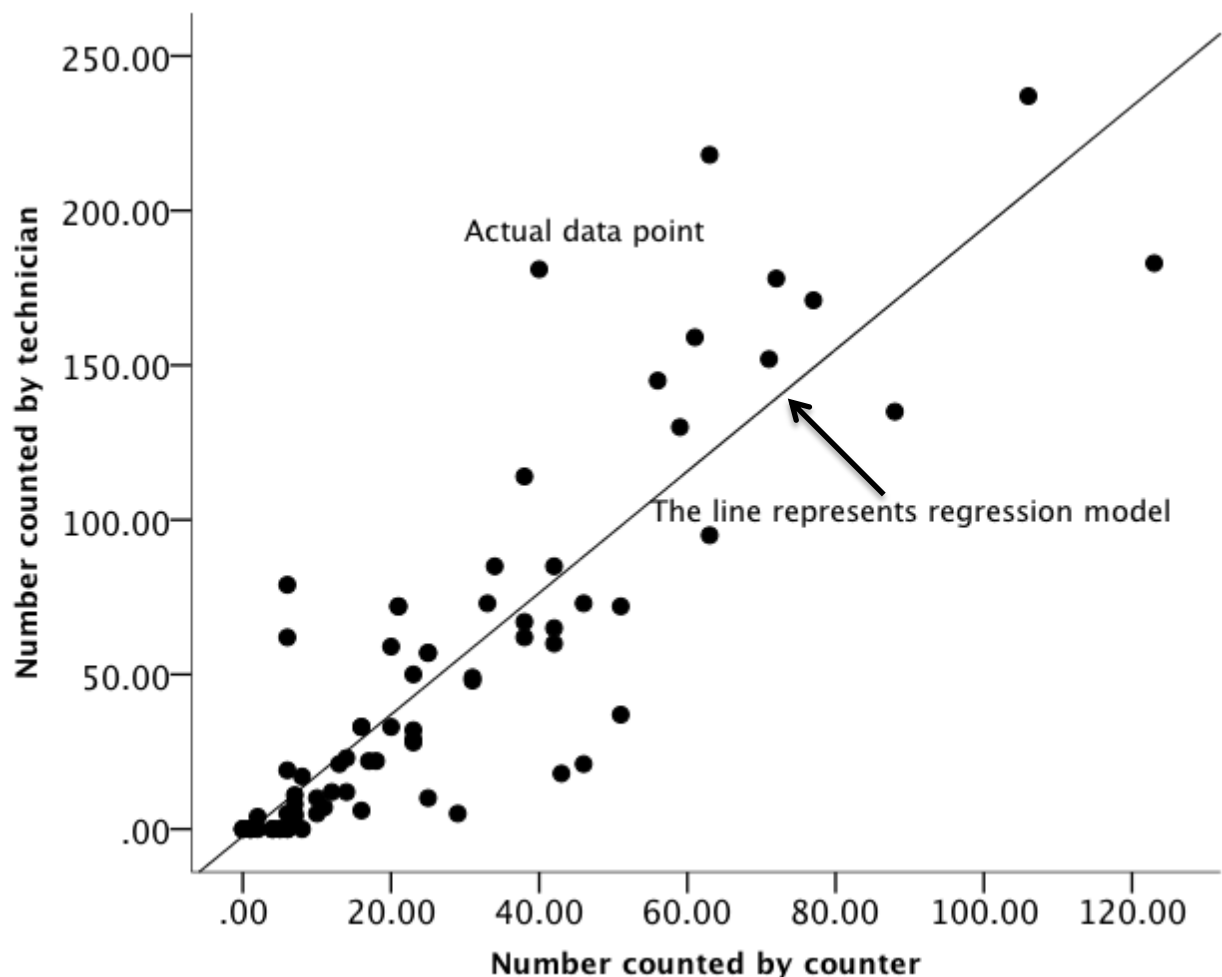


Figure 1: Sample Graph

Next are tables showing if linear regression was an appropriate model using R-square as the criterion. R-square is the coefficient of determination. It provides a measure of how well the observed outcomes are replicated by the model. R-square indicates the strength of the relationship between the two variables, i.e., actual counts and the number counted by the electronic counter. The higher the R-square, the stronger the model. A minimum acceptable R-square value for the relationship is 70%. If R-square is less than 70%, or insignificant, the model is not a good fit and additional observations may be needed.

The tables also show the slope of the regression line, also called the multiplier. The p-value presents the significance level of the multiplier. If the p-value is less than 0.05, the test result is “significant,” meaning the multiplier accurately represents the relationship between the actual count by a survey technician and the number counted by the electronic counter.

Table 3 shows an example of the statistical test results.

- The value of R-square is 80% indicating a linear regression model is a good fit
- A p-value less than 0.05 for the slope value indicating it is a good estimate
- The value of the slope (multiplier) is 1.5 indicating that the electronic counter undercounted visitors, and the actual visitation is 1.5 times the number counted by the counter.

Table 3: Example table

| Parameter          | Value | p-value |
|--------------------|-------|---------|
| R-square           | 80%   |         |
| Slope (multiplier) | 1.5   | 0.000   |

The full regression equation for actual visitation based on counts from electronic counters is written as:

$$\text{Actual visitation} = \text{Slope (multiplier)} \times \text{number counted by electronic counter} + \text{error}$$

The error, after calculation through the regression model, is within + or - 5% of actual visitation.

#### For sites with vehicle counters

For sites where vehicle counters were used, the calculation involved two separate steps. The first step was to compare the numbers recorded by the vehicle counters and numbers reported by technicians. The vehicle counters, which count vehicles only when there is physical contact between a vehicle and a pneumatic counting tube, generally have greater accuracy than pedestrian counters which use an infrared sensor. Differences between the actual count and the number recorded by the vehicle counter may occur if vehicles can enter a site through entrances without counting tubes.

The more important step in the calculation was to determine the people-per-vehicle multiplier, which the vehicle counter does not provide. Visitation is equal to the number of vehicles counted times the people-per-vehicle multiplier.

No linear regression models were estimated for electronic vehicle counters because the number of sampling dates (observations) by technicians was small so linear regression was inappropriate statistically.

## Results

### **Group 1: Islands and peninsulas accessible by road**

---

#### **Method**

This group includes Deer Island, Long Island, Nut Island, Webb Memorial State Park, and Worlds End. For these areas with vehicle access, the most practical method was to install a vehicle counter. In addition, an observational study was designed to determine the people-per-vehicle multiplier so that the number of visits to each island or peninsula could be calculated. The observational study also helped determine the percentage of visitors who arrived at the island or peninsula by other means of transportation which the vehicle counter may not have been able to detect, such as bicycles, or on foot.

Vehicle counters were installed on Webb Memorial State Park, Nut Island, and Worlds End (see discussion below for details about timing of installations). Observational studies were conducted from July 30<sup>th</sup> to August 19<sup>th</sup>. Survey technicians were instructed to record the number of vehicles, types of vehicles, and number of people in each vehicle. The number of vehicles recorded on the vehicle counter was also logged at 30-minute intervals.

#### **Results**

##### Webb Memorial State Park

Several problems that arose after the vehicle counter was installed made it an impractical method to estimate visitation statistics. A large number of “walk-ins” from the nearby neighborhood were not detected by the vehicle counter and thus were not counted. For this reason, instead of the vehicle

counter, a pedestrian counter was installed at the trailhead. The results presented thus reflect the counting data from the pedestrian counter.

Figure 2 shows the electronic pedestrian counter counts and corresponding actual counts. Table 4 shows the results of the linear regression model between the actual count and number recorded on the electronic counter. The R-square of 87.2% indicates a strong linear correlation between the number recorded by the electronic counter and the actual count. The multiplier value is significant ( $p < 0.05$ ) and indicates that the counter undercounted the actual number of visitors, as some visitors may have entered without having crossed the counter beam. The actual number of visitors is 1.3 times the number of counted visitors.

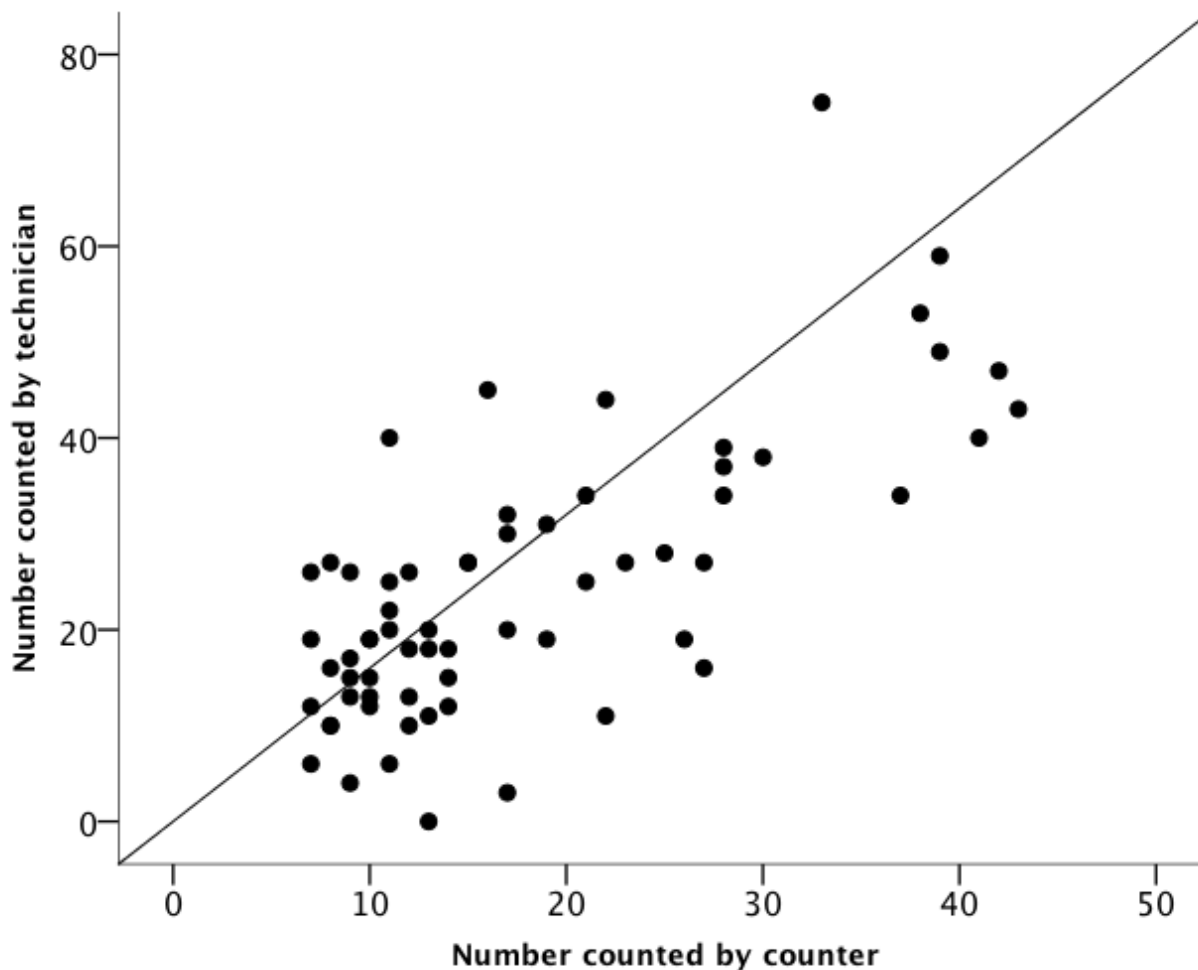


Figure 2. Electronic counts versus technician counts for number of visitors at Webb Memorial State Park.

Table 4. Regression result for Webb Memorial State Park

| Parameter          | Value | p-value |
|--------------------|-------|---------|
| R-square value     | 87.2% |         |
| Slope (multiplier) | 1.3   | 0.000   |

|                                                                                   |
|-----------------------------------------------------------------------------------|
| Daily visitation to Webb Memorial State Park = number on pedestrian counter x 1.3 |
|-----------------------------------------------------------------------------------|

*Conclusions/recommendations:* An electronic pedestrian counter is a good method for estimating the number of pedestrians entering Webb Memorial State Park. Pedestrian counter numbers should be multiplied by 1.3 to obtain the actual number of visits. A vehicle counter and observational study is needed to estimate the number of visitors arriving by vehicle.

### Nut Island

A vehicle counter was installed on Nut Island on May 11<sup>th</sup> and was removed on November 11<sup>th</sup> in preparation for winter snow plowing. During this period the counter appeared to be in good working condition.

An observational study was conducted on Nut Island on August 8<sup>th</sup>, 9<sup>th</sup> and 12<sup>th</sup>. A survey technician recorded the number of vehicles, types of vehicles, and number of people in each vehicle. The number of vehicles recorded by the counter was also recorded by the survey technician. During the study period, survey technicians noted that many vehicles accessed the island from another entry point and were not counted by the counter.

Because there were only three observational sampling days, a linear regression model could not be estimated.

The results show (Table 5):

- The survey technician counted 272 vehicles to the island whereas the vehicle counter recorded 138 vehicles. Thus only 50% of traffic was counted by the counter.
- A total of 384 visitors visited the island in 272 vehicles resulting in a people-per-vehicle multiplier of 1.4.

Table 5. Vehicles counted by counter, observed number of vehicles, and observed passengers per vehicle, Nut Island.

| Day                    | Vehicles counted by counter | Number of vehicles observed | Number of people observed |
|------------------------|-----------------------------|-----------------------------|---------------------------|
| August 8 <sup>th</sup> | 43                          | 67                          | 87                        |
| August 9 <sup>th</sup> | 43                          | 85                          | 104                       |
| August 12              | 52                          | 120                         | 193                       |
| Total                  | 138                         | 272                         | 384                       |

Because only 50% of vehicles entering the area were counted by the vehicle counter, the number of vehicles needs to be doubled for an accurate count. Mathematically, this is equivalent to doubling the people-per-vehicle multiplier to obtain an accurate count of visits to Nut Island.

|                                                                      |
|----------------------------------------------------------------------|
| Daily visitation to Nut Island = number of vehicles on counter x 2.8 |
|----------------------------------------------------------------------|

*Conclusions/recommendations:* Multiplying the vehicle counter number by 2.8 people-per-vehicle produces a reasonable estimate of visits to Nut Island. Accuracy of the estimate may be improved by conducting additional observations to see how the number of vehicles missed by the counter varies as well as the number of people per vehicle.

### Worlds End

A pedestrian counter and a vehicle counter were installed at Worlds End on May 11<sup>th</sup>. Both counters were checked multiple times during the season. On July 11 the pedestrian counter was found saturated with sand and water; the pedestrian counter was replaced on August 4<sup>th</sup>, and remained in working condition throughout the remainder of the sampling period. The vehicle counter appeared to be in good working condition throughout the season.

An observational study was conducted at Worlds End on August 6<sup>th</sup> and 7<sup>th</sup>. The observation protocol was the same as was applied at Nut Island with an overall objective to establish a people-per-vehicle multiplier. Unfortunately the survey technician did not follow correct procedures. The data collected at Worlds End were invalid; therefore, an appropriate multiplier could not be calculated.

*Conclusions/recommendations:* Technician error during the observational study produced invalid results. Additional observation periods are recommended to establish a people-per-vehicle multiplier.

#### Long Island

Long Island visitors only approach the island with a ranger-led tour. The facility is within a secured area and is not accessible to the general public without a reservation. An observational study is not needed. Daily visitation is the number of people on the tour.

|                                                               |
|---------------------------------------------------------------|
| Daily visitation to Long Island = number of tour participants |
|---------------------------------------------------------------|

*Conclusions/recommendations:* Continue counting the number of people on ranger-led tours, which is equal to daily visitation to Long Island.

#### Deer Island

Deer Island is accessible by road. Under normal circumstances, the best method to count visitors would be to install a vehicle counter on the island. However, due to vandalism in the area, the property manager was concerned about the security of equipment. As a result, visitation to Deer Island was measured by proxy. We did not install a vehicle counter on Deer Island but instead assigned a survey technician to count visitors during the same period as when counting was being done at Webb Memorial State Park.

Figure 3 shows a strong correlation between Deer Island and Webb Memorial State Park visitation. Table 6 confirms the correlation with an R-square of 69.2%. Overall visitation on Deer Island is equal to 1.25 times the visitation to Webb Memorial State Park.

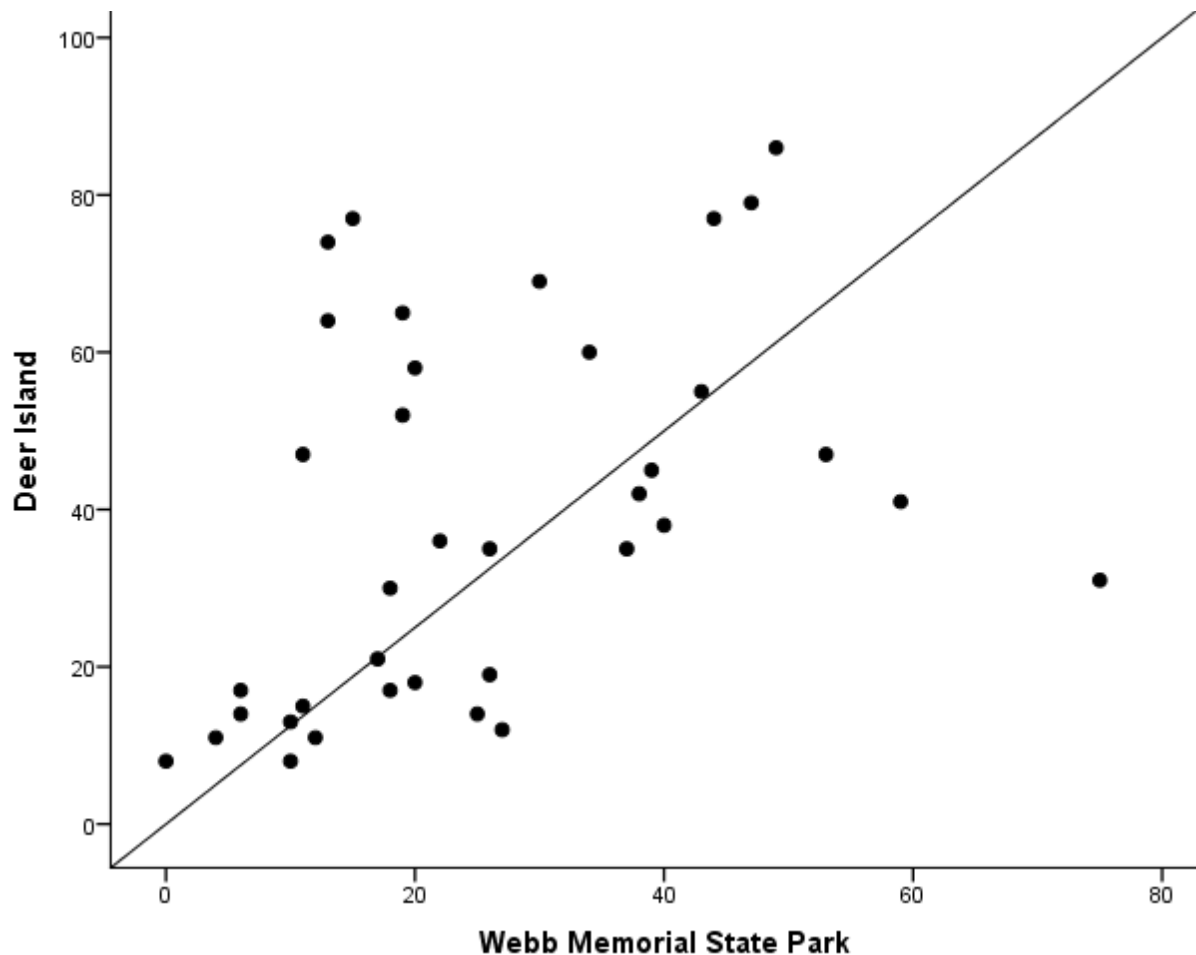


Figure 3. Correlation between Deer Island and Webb Memorial State Park visitation

Table 6. Correlation between Deer Island and Webb Memorial State Park visitation.

| Parameter          | Value | p-value |
|--------------------|-------|---------|
| R-square value     | 69.2% |         |
| Slope (multiplier) | 1.25  | 0.000   |

|                                                                                 |
|---------------------------------------------------------------------------------|
| Daily visitation to Deer Island = Visitation to Webb Memorial State Park x 1.25 |
|---------------------------------------------------------------------------------|

*Conclusions/recommendations:* Visitation to Deer Island and Webb Island State Park are sufficiently correlated so that visitation to Deer Island can be estimated by multiplying visitation to Webb Island State Park by 1.25. It is unknown if the multiplier of 1.25 will remain constant in other years without an observational study in those years. A more accurate estimate of visitation to Deer Island could be obtained by installing a vehicle counter there to count vehicles and undertaking an observational study to determine the people-per-vehicle multiplier.

## Group 2: Islands with public ferry access

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### Method

This group includes Bumpkin, Georges, Grape, Little Brewster, Lovells, Peddocks, Spectacle, and Thompson Islands. (Gallops Island is closed to visitors due to asbestos-containing materials in the soil). The majority of visitors to these islands arrive by public ferry, and a small portion arrive by water taxi or private boat/kayak. While some may moor private watercraft offshore and wade to the islands, the main access points are docks. Thus the most practical method to measure visitation to these islands is to place electronic pedestrian counters at the dock areas. Observational studies were conducted on these islands to determine the effectiveness of the counters.

Electronic pedestrian counters were installed at the dock areas on Bumpkin, Grape, Lovells, Peddocks, Spectacle, and Georges Islands to count pedestrians as they accessed the islands. Survey technicians were scheduled to manually count pedestrians on Lovells Island from July 31<sup>st</sup> to August 18<sup>th</sup>, Georges Island from July 30<sup>th</sup> to August 5<sup>th</sup>, Peddocks Island from July 30<sup>th</sup> to August 5<sup>th</sup>, Spectacle Island from August 4<sup>th</sup> to 7<sup>th</sup>, and Grape Island from August 6<sup>th</sup> to 15<sup>th</sup>. Observations may not have occurred on consecutive days and timeframes were adjusted according to ferry schedules.

Survey technicians were instructed to count the number of visitors during 30-minute intervals by using a hand-held manual counter. The technicians also used a second manual counter to count staff that crossed the pedestrian counter beam during the observation period. The data were recorded in a survey log at 30-minute intervals. Each record in the survey log is considered one data point.

### Results

#### Spectacle Island

An electronic pedestrian counter was installed on May 4<sup>th</sup>, 2012 to count visitors as they exited the ferry onto the island. The counter was checked on July 9<sup>th</sup>, August 3<sup>rd</sup> and October 2<sup>nd</sup>. On August 3<sup>rd</sup> a beam failure was detected and the counter was reset. The counter appeared to be in good working condition throughout the remainder of the season. Manual counts of pedestrians were conducted August 4<sup>th</sup> to 7<sup>th</sup>.

Figure 4 shows the number of pedestrians recorded during each 30-minute interval on the technician's hand-held counter and the number recorded on the electronic pedestrian counter at Spectacle Island. Note that as the number of visitors in a 30-minute interval gets larger, the differences between the electronic and manual count get larger. This may be because the electronic beam did not detect multiple people walking side by side.

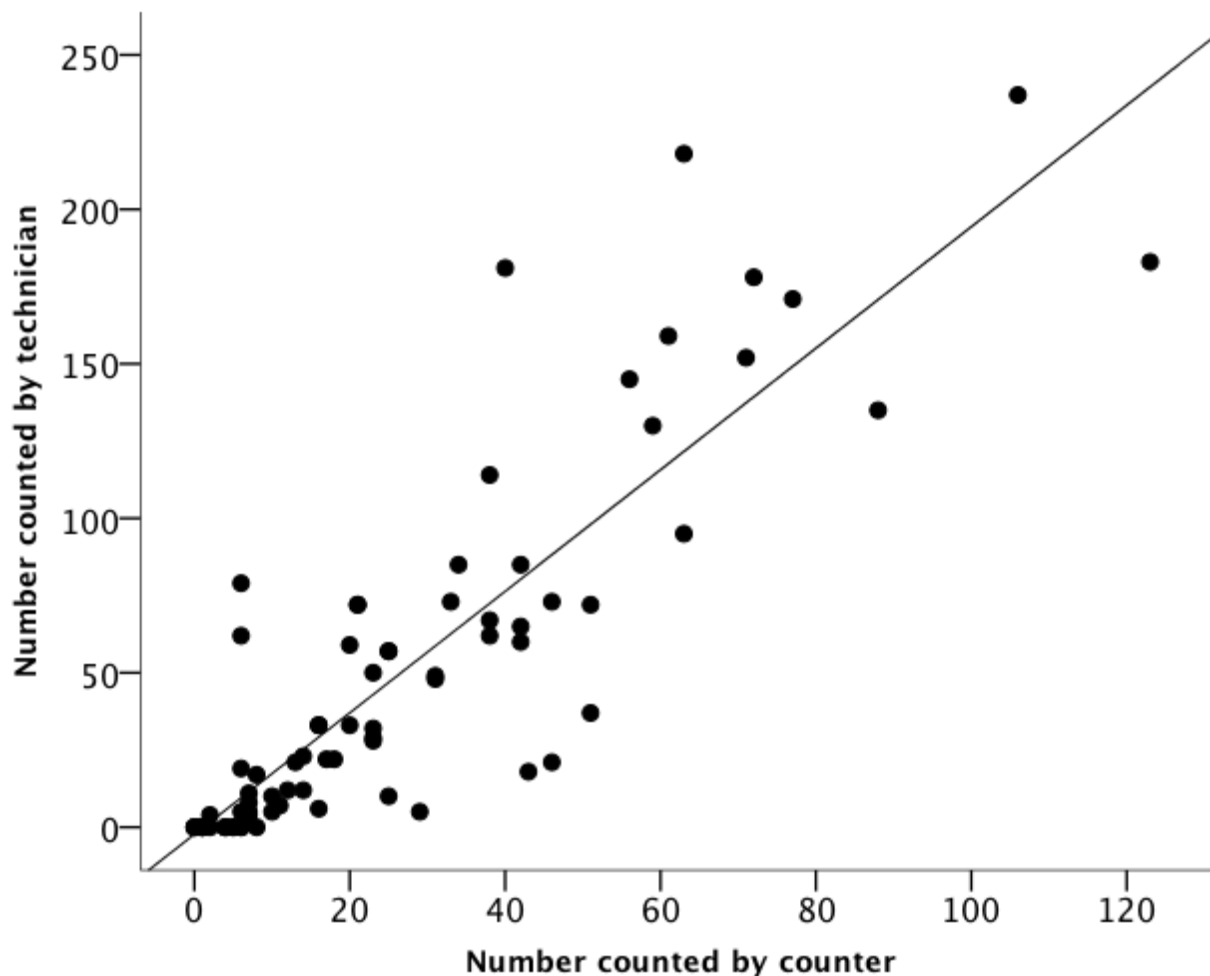


Figure 4. Electronic counts versus technician counts for number of visitors at Spectacle Island.

The R-square of 85.5% indicates a strong linear correlation between the number recorded by the electronic counter and the actual count (Table 7). The multiplier value is significant ( $p < 0.05$ ) and indicates that the counter undercounted the actual number of visitors. The electronic counter beam may not have been able to tell when pedestrians walking side-by-side passed through the beam. The actual number of visitors is 1.9 times the number of counted visitors.

Table 7. Regression result for Spectacle Island

| Parameter          | Value | p-value |
|--------------------|-------|---------|
| R-square value     | 85.5% |         |
| Slope (multiplier) | 1.9   | 0.000   |

The manual counts also indicated that on average 10 staff members per day crossed the counter beam. Thus the number of visits to Spectacle Island is calculated as follows:

|                                                                                                       |
|-------------------------------------------------------------------------------------------------------|
| $\text{Daily visitation to Spectacle Island} = (\text{number on pedestrian counter} \times 1.9) - 10$ |
|-------------------------------------------------------------------------------------------------------|

*Conclusions/recommendations:* An electronic pedestrian counter is a good method for estimating the number of pedestrians entering Spectacle Island. If the pedestrian counter can be relocated so that the likelihood of multiple people entering the electronic beam at one time is reduced, the multiplier may be able to be reduced after an additional observational study.

Georges Island

An electronic pedestrian counter was installed on April 27<sup>th</sup>, 2012 on the “finger” pier and was used to count visitors arriving by public ferry. It was checked on May 4<sup>th</sup> and again on June 5<sup>th</sup> and appeared to be in good working condition. A second pedestrian counter was installed on August 3<sup>rd</sup> at the top of the gangway on the “charter boat” pier and was used to count visitors arriving by other transportation. The final tally of both pedestrian counters was completed on October 12, 2012 for the 2012 visiting season.

An observational study was conducted on Georges Island on July 30<sup>th</sup>, 31<sup>st</sup>, and August 4<sup>th</sup> and 5<sup>th</sup>. Due to lack of staffing the observation focused on visitors arriving by public ferry. Technicians used two hand-held counters: one to count staff and one to count visitors.

Figure 5 shows the number of pedestrians recorded during each 30-minute interval on the technician’s hand-held counter and the number recorded on the electronic pedestrian counter at Georges Island.

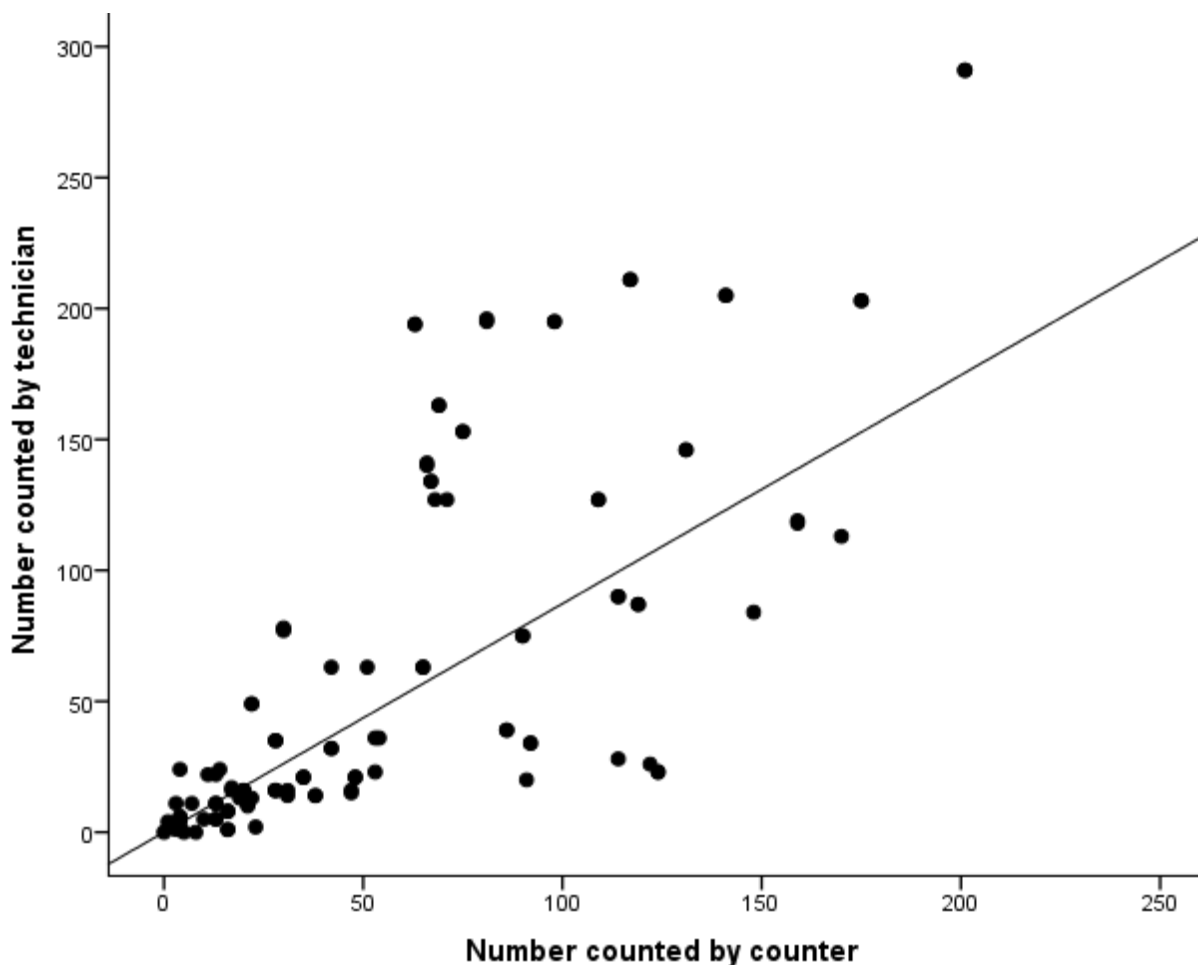


Figure 5. Electronic counts versus technician counts for number of visitors at Georges Island.

The R-square of 76.2% indicates a relatively strong linear correlation between the number recorded by the electronic counter and the actual count (Table 8). It is not the strongest model, but is the most practical to implement without using more complex procedures. The multiplier value is significant ( $p < 0.05$ ) and indicates that the counter over-counted the actual number of visitors by about 13%. The actual number of visitors is 0.87 times the number of counted visitors.

Table 8. Regression result for Georges Island

| Parameter          | Value | p-value |
|--------------------|-------|---------|
| R-square value     | 76.2% |         |
| Slope (multiplier) | 0.873 | 0.000   |

Few staff members were counted during the Georges Island observational study; therefore, a staff factor is not included in the visitation equation. Because no observational study was done at the charter boat pier, the number of visitors recorded on that electronic pedestrian counter is assumed to be accurate.

Daily visitation to Georges Island = (Number on pedestrian counter x 0.87) + charter boat pier counter

*Conclusions/recommendations:* Using two electronic pedestrian counters is a good method for estimating the number of pedestrians entering Georges Island. An additional observational study of the counter at the charter boat pier to confirm its counts would improve the accuracy of the model.

#### Peddocks Island

A pedestrian counter was installed on Peddocks Island on May 4<sup>th</sup> 2012. On June 15<sup>th</sup> a sumac branch was detected blocking the beam causing a failure to read, and the counter was reset. Another failure to read was detected on August 21<sup>st</sup> because a bench had been installed in front of the counter. The problem was remedied and the counter appeared to be in good working condition as of a final check on Oct 12<sup>th</sup>, 2012.

An observational study was conducted on Peddocks Island on July 29<sup>th</sup>, 30<sup>th</sup>, 31<sup>st</sup>, and August 5<sup>th</sup>. The observation protocols followed the same procedures as on Spectacle Island and Georges Island with the technician using two hand-held counters to count visitors and staff and checking the number on the electronic counter every 30 minutes.

Figure 6 shows the number of pedestrians recorded during each 30-minute interval on the technician's hand-held counter and the number recorded on the electronic pedestrian counter at Peddocks Island.

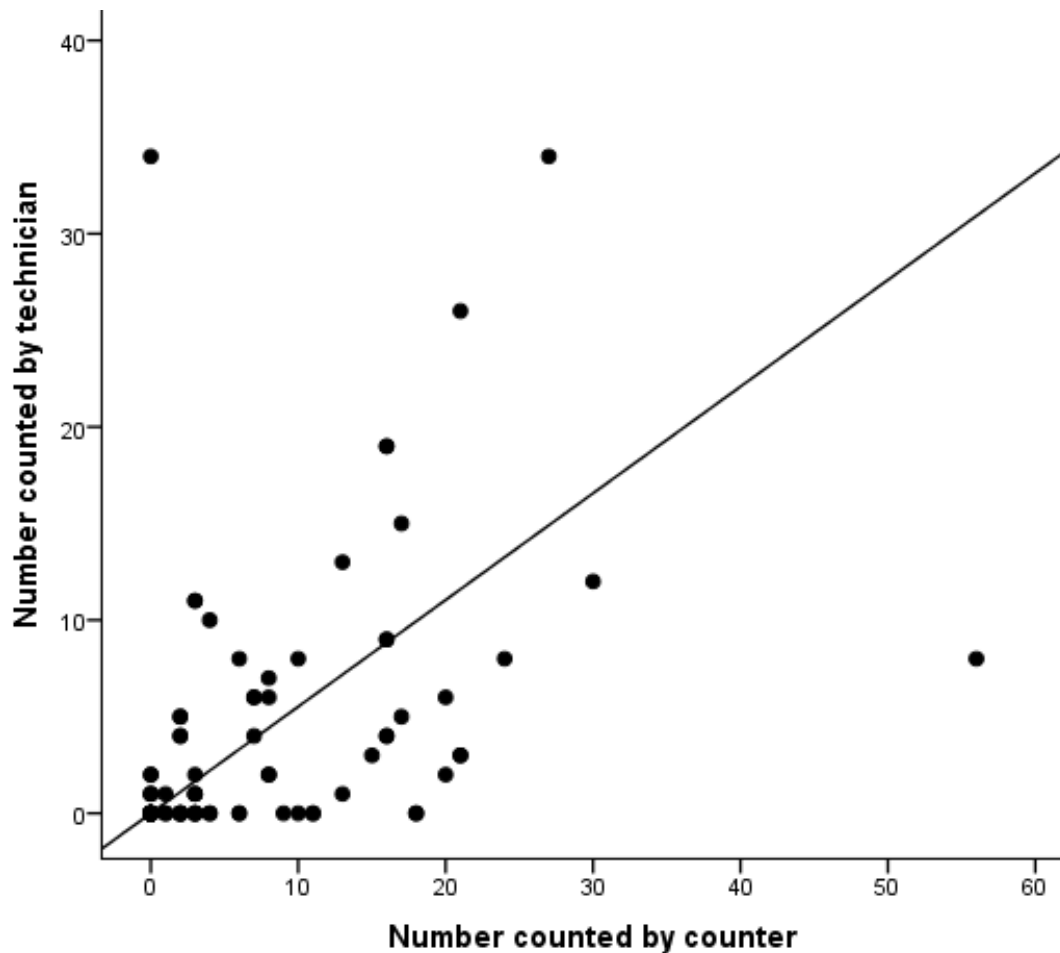


Figure 6. Electronic counts versus technician counts for number of visitors at Peddocks Island.

The R-square of 18.1% indicates a very weak linear correlation between the number recorded by the electronic counter and actual visitation (Table 9). A linear model is not an appropriate approach to determine visitation on Peddocks Island. It is not clear why linear correlation does not exist. Electronic counter malfunction, technician error, or both are possible explanations.

Table 9. Regression result for Peddocks Island

| Parameter          | Value | p-value |
|--------------------|-------|---------|
| R-square value     | 18.1% |         |
| Slope (multiplier) | 1.75  | 0.045   |

*Conclusions/recommendations:* Very little correlation existed between electronic counter and actual visitor numbers. Additional checks on the proper functioning of the electronic counter is recommended, before conducting an additional observational study to confirm visitor numbers.

### Grape and Lovells Islands

A pedestrian counter was installed on Grape Island on June 15<sup>th</sup> 2012. The counter was checked on October 12<sup>th</sup> and appeared to be in good working condition. On Lovells Island the counter was installed on April 27<sup>th</sup> and checked on October 12<sup>th</sup> and appeared to be in good working condition.

Observational studies were conducted on Lovells Island July 30<sup>th</sup>, 31<sup>st</sup>, August 4<sup>th</sup>, and 18<sup>th</sup> and on Grape Island August 6<sup>th</sup>, 11<sup>th</sup>, 12<sup>th</sup>, 14<sup>th</sup> and 15<sup>th</sup>. Due to logistical difficulties, observations were conducted within a 4-hour day block on a number of survey days. Park staff indicated that Grape Island and Lovells Island have similar visitation patterns; therefore, the analysis was conducted on a dataset combining both islands' counts.

Figure 7 shows the number of pedestrians recorded during each 30-minute interval on the technician's handheld counters and the number recorded on the electronic pedestrian counters at Grape Island and Lovells Island. Both islands had numerous time intervals where either the electronic counter or handheld counter, or both, recorded no (0) visitors. For 45 out of 119 observations (38%), both counts were zero. For 43 out of 119 observations (36%) either the electronic or handheld count was zero. These results indicate that linear regression is not an appropriate model for estimating visitation.

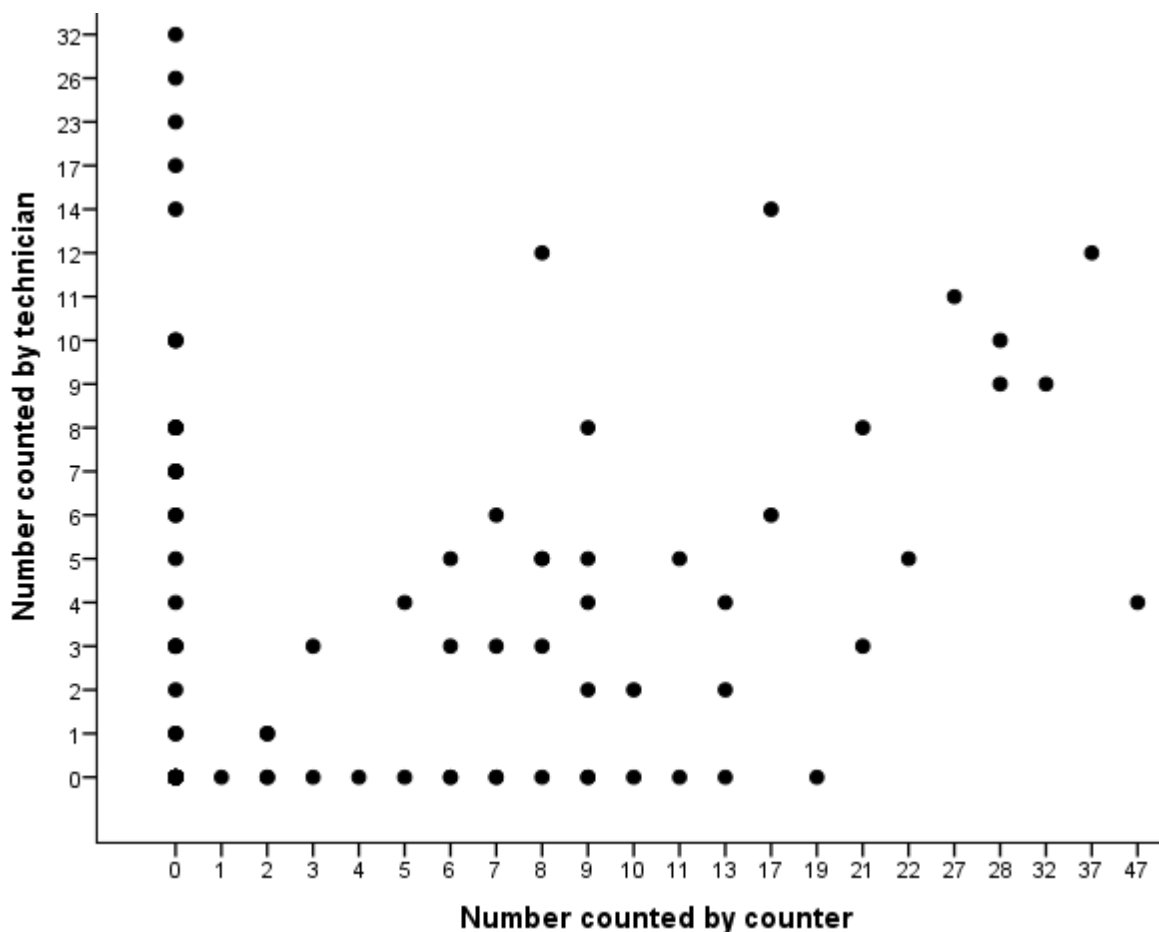


Figure 7. Electronic counts versus technician counts for number of visitors at Grape and Lovells Islands.

Instead we examined the frequency and distribution of the differences between the technician's count and the number recorded by the counter (Figure 8). With some outliers where the differences were greater than 20, the differences tend to center around 0. The mean (average) difference was also close to 0 (-1.36) and the median (50% of observations below and 50% of observations above) is also 0. All these statistics indicate the actual count and the number recorded by counter were not significantly different

from each other. Therefore, the number recorded on the pedestrian counters at Grape Island and Lovells Island is equal to actual visitation.

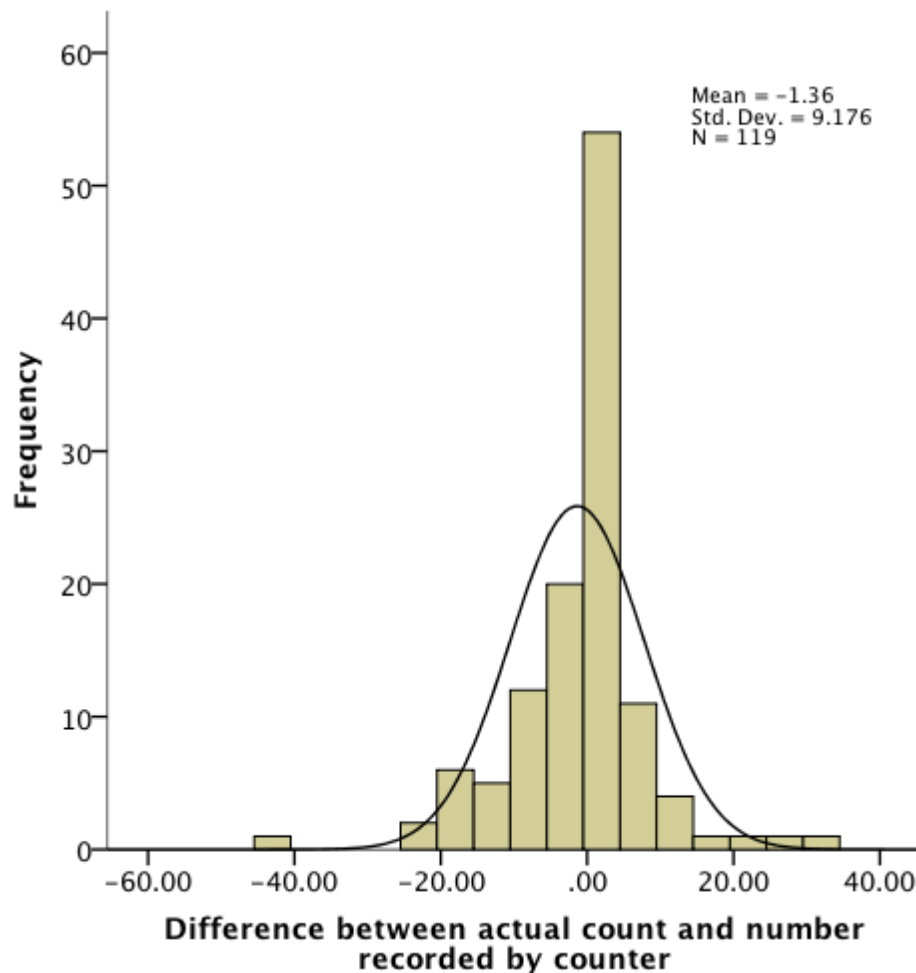


Figure 8. Differences between technician's (actual) count and number recorded by electronic counter.

Daily visitation to Grape Island or Lovells Island = number on pedestrian counter

*Conclusions/recommendations:* Electronic pedestrian counters are a good method for estimating the number of pedestrians entering Grape Island and Lovells Island. Electronic counters accurately record actual numbers of visitors without having to use a multiplier.

#### Bumpkin Island

Anecdotal observation from park staff suggested that Bumpkin Island visitation is similar to Grape Island visitation. This hypothesis is confirmed by survey data with a similar percentage of visitors reporting visiting Bumpkin (12%) and Grape (11%) as shown in Table 25 (page 43).

Daily visitation to Bumpkin Island = Number of visitors to Grape Island

*Conclusions/recommendations:* Visitation numbers to Grape Island can serve as a proxy for visitation numbers to Bumpkin Island.

Thompson Island

The Thompson Island Outward Bound Education Center is located on Thompson Island. The majority of visitors to Thompson Island are participants of the programs at the education center, or other special events. Access to the island is limited and well accounted for. An observational study was not conducted. Visitation to Thompson Island will be reported by a cooperating partner.

|                                                                                |
|--------------------------------------------------------------------------------|
| Daily visitation to Thompson Island = number of program and event participants |
|--------------------------------------------------------------------------------|

**Group 3: Outer Islands**

This group includes the islands of Green, Calf, Little Calf, Little Brewster, Great Brewster, Middle Brewster and Outer Brewster Islands, The Graves, and Shag Rocks. Boston Light is located on Little Brewster. There is also a dock on Little Brewster. A self-registration logbook was installed on Calf Island but was either taken by a visitor or destroyed by weather; therefore no data was collected there. Of all the outer islands, Little Brewster has the highest visitation. The proposed method was to install either a counter or a self-registration logbook on Little Brewster and conduct an observational study to determine the effectiveness of the self-registration log. However, no counting mechanisms were installed there because access to the island is highly regulated by the USCG Lighthouse Keeper. No activity regarding attendance tracking methods or observational study was conducted for this island group during the 2012 survey season.

*Conclusions/recommendations:* No data were collected in 2012. In the future, install either an electronic pedestrian counter near the dock at Little Brewster or place a self-registration logbook there. Conduct an observational study to confirm visitation numbers.

**Group 4: Hingham Harbor Islands**

This group includes Button, Langlee, Ragged, Sarah, and Slate Islands. These islands are easily accessible from Hingham Harbor via private watercraft, and are favorite destinations of local residents during summer months. The islands are small in size and have similar visitation patterns. The proposed method was to use a logbook with a self-registration system at Langlee Island. The statistics would be used to estimate visitation at other sites in the same group.

A self-registration logbook was installed on Langlee on June 15<sup>th</sup>. From June 17<sup>th</sup> to September 1<sup>st</sup>, there were 61 registrations in the logbook. Data gathered from the logbook indicated that:

- The total number of visitors reported visiting the island was 273, 52% of whom were under 18 years old. On average the island received 3.5 visitors a day.
- 76% of visitor groups were family or friends groups, 15% visited the island alone, 2% were with a club or organized group, and 7% were with another type of group, such as co-workers
- 65% arrived at the island by paddle/row boat/kayak, 32% used motorized boats, 2% sailed, and 2% used other types of transportation such as a floatplane
- The length of visit on the island varied from 30 minutes to 30 hours (camped overnight on the island). The average length of visit was 3.88 hours

*Conclusions/recommendations:* The level of details reported in the self-registration logbook show that self-registration would be an effective method for attendance tracking. This result, however, only reflects statistics of those visitors who made entries in the self-registration logbook. Since an observational study was not conducted, visitation to the Hingham Harbor Islands group cannot be estimated. An observational study to assess the proportion of visitors using the self-registration system is recommended.

## Group 5: Other Islands

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This group includes Raccoon, Rainsford, Sheep, and Snake Islands. These islands are not as popular as the group of island with docks, and they are not serviced by public ferries. They are somewhat less accessible and thus are more likely to be frequented by locals with private watercraft. The proposed method was to install a self-registration logbook on one of the islands and observe the self-registration rate. The alternative method was to conduct a parallel observational study to determine the ratio of visitation to these islands compared to more popular destination such as Georges Island. Neither of these methods was implemented during the 2012 survey season; therefore, no data are available.

*Conclusions/recommendations:* No visitation data were collected at these other islands. Implementation of either self-registration or a parallel observational study at more popular islands is recommended.

## Group 6: Boston Harbor Islands Pavilion

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Placing counters at the Boston Harbor Islands Pavilion was not practical due to the multiple access points and the high risk of vandalism to the equipment. The best solution was to use manual counters to count the number of visitors to the site. However, because park rangers have other duties, their observations may not be the most accurate. Visitation when rangers were off duty also would not be counted.

To estimate visitors to the Pavilion, observations were conducted on August 1<sup>st</sup>, 2<sup>nd</sup>, 11<sup>th</sup>, 12<sup>th</sup>. Two independent observers were placed on different sides of the Pavilion where they could observe traffic in the entire area. The two observers were placed on two shifts from 8 a.m. to 3 p.m. and from 3 p.m. to 10 p.m. Observers kept their own records of visitors to the Pavilion at 30-minute intervals. The observers also recorded the number reported on the ranger's counter at the same interval for cross checking. The total visitation to the site was calculated as the adjusted number from the rangers' counters with an additional percentage for the evening hours.

A statistical independent sample t-test was conducted to compare the visitation estimates of the two independent observers. The results show the two observers were consistent in their total counts of visitors to the Pavilion (mean difference=1.59 visitors,  $t=0.156$ ,  $df=78$ ,  $p=0.876$ ). The t-test indicated that the two observers' counts were nearly identical in terms of the number of visitors that they observed. This test established that the data collected by observers were reliable and can be used to estimate visitation statistics at the Pavilion.

Figure 9 shows the number of visitors recorded by the ranger during each 30-minute interval between 8am and 6pm and the number recorded by the independent observer. The R-square of 77.9% indicates a strong linear correlation between the number recorded by rangers and the number recorded by the observer (Table 10). The multiplier of 8.5 is significant ( $p<0.05$ ) and indicates that rangers undercount the actual number of visitors. The number of visitors to the Pavilion each day between 8am and 6pm is estimated by multiplying the rangers' visitor counts by 8.5.

Daily visitation to Pavilion 8am – 6pm = number of visitors counted by rangers x 8.5

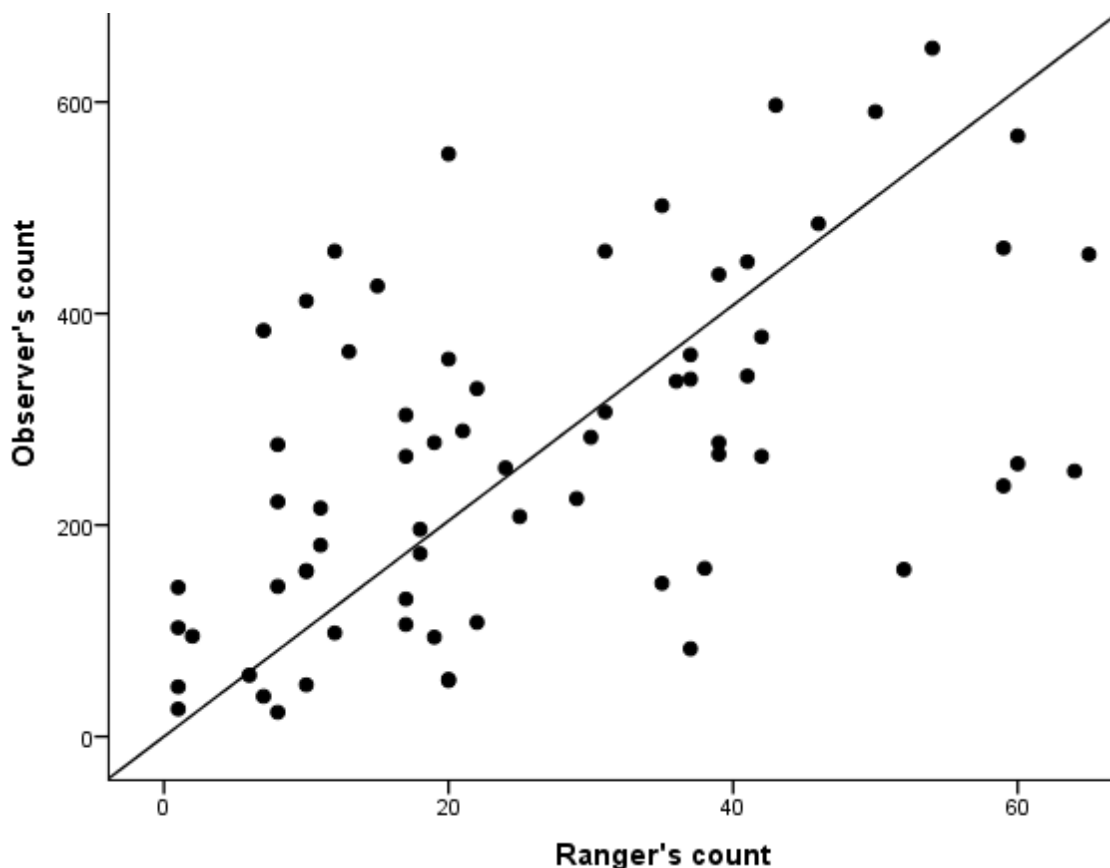


Figure 9. Ranger counts versus independent observer counts for number of visitors at Pavilion, 8am to 6pm

Table 10. Linear regression model between ranger's count and observer's count at the Pavilion, 8am to 6pm.

| Parameter          | value | p-value |
|--------------------|-------|---------|
| R-square value     | 77.9% |         |
| Slope (multiplier) | 8.5   | 0.000   |

Visitation to the Pavilion between 6pm and 10pm must be accounted for in addition to the visitation between 8am and 6pm to get total daily visitation.

Visitor counts by observers between 6 p.m. and 10 p.m., when the ranger station was closed, showed an average addition of 20% more visitors than occurred between 8am and 6pm (Table 11). Visitation may occur after 10 p.m., as the outdoor exhibits and sitting area continue to be utilized, however visitation slowed down in the evening hours and a conservative approach should be applied to account for unfavorable weather conditions. Thus, the amount of additional visitation after the ranger station is closed is calculated to be an additional 20% of day use:

Visits to Pavilion from 6pm to 10pm = number of visitors between 8am and 6pm \* 0.20.

Table 11. Additional count after 6 p.m.

| Date           | Count between 8 a.m. and 6 p.m. | Count between 6 a.m. and 10 p.m. | Percent increase |
|----------------|---------------------------------|----------------------------------|------------------|
| 08/01          | 2829                            | 416                              | 15%              |
| 08/02          | 4201                            | 956                              | 23%              |
| 08/11          | 7179                            | 1489                             | 21%              |
| 08/12          | 5706                            | 1282                             | 22%              |
| <b>Average</b> |                                 |                                  | 20%              |

Combining the two visitation equations mathematically leads to the following estimate for total daily visitation:

$$\begin{aligned} \text{Daily visitation to the Pavilion 8am to 10pm} &= (\text{Ranger visitor count between 8am and 6pm} * 0.85) * 1.20 \\ &= \text{Ranger visitor count between 8am and 6pm} * 10.2 \end{aligned}$$

|                                                                                             |
|---------------------------------------------------------------------------------------------|
| Daily visitation to Pavilion 8 a.m. to 10 p.m. = total count by rangers (8am to 6pm) x 10.2 |
|---------------------------------------------------------------------------------------------|

*Conclusions/recommendations:* Ranger counts at the Pavilion underestimate the actual number of visitors. The actual number of visitors per day, including during times when rangers are not on duty, can be estimated by multiplying the ranger counts by 10.2.

## Total visitation to Boston Harbor Islands national park area

Total visitation to Boston Harbor Islands national park area is equal to the sum of visitation to all sites. The unit of analysis is number of visits. This does not equal number of visitors, as one person may visit multiple sites on one day or camp overnight for multiple days. Table 12 shows the multiplier for each site.

Table 12. Multiplier for daily visitation to each park site

| Site                                                                                                                           | Multiplier                                                                                                                   |
|--------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Webb Memorial State Park                                                                                                       | Number on pedestrian counter x 1.3                                                                                           |
| Nut Island                                                                                                                     | Number on vehicle counter x 2.8                                                                                              |
| Long Island                                                                                                                    | Number of tour participants                                                                                                  |
| Deer Island                                                                                                                    | Number of visitors to Webb Memorial State Park x 1.25                                                                        |
| Spectacle Island                                                                                                               | Number on pedestrian counter x 1.9 - 10                                                                                      |
| Georges Island                                                                                                                 | Number on pedestrian counter x 0.87 + charter boat pier counter                                                              |
| Pedlocks Island                                                                                                                | <i>More observations needed to estimate multiplier</i>                                                                       |
| Grape Island                                                                                                                   | Number on pedestrian counter                                                                                                 |
| Lovells Island                                                                                                                 | Number on pedestrian counter                                                                                                 |
| Bumpkin Island                                                                                                                 | Number of visitors to Grape Island                                                                                           |
| Thompson Island                                                                                                                | Number as recorded by cooperating partner                                                                                    |
| Outer Islands (Green, Calf, Little Calf, Little Brewster, Outer Brewster, Middle Brewster, Graves, Shag Rocks, Great Brewster) | <i>No count obtained</i>                                                                                                     |
| Hingham Harbor Islands (Langlee, Ragged, Sarah, Button, and Slate)                                                             | <i>Logbook installed at Langlee. Observational study needed to compute proportion of visitors using logbook (multiplier)</i> |
| Other islands (Raccoon, Rainsford, Sheep, Snake)                                                                               | <i>No count obtained</i>                                                                                                     |
| Pavilion                                                                                                                       | Number of visitors counted by rangers (8am to 6pm) x 10.2                                                                    |
| Worlds End                                                                                                                     | <i>No count obtained</i>                                                                                                     |

## Overall recommendations for visitor counting

1. To reduce the margin of error for visitor estimates, check electronic pedestrian counters and vehicle counters at beginning of the season and frequently during the season to be sure they are working properly.
2. Record any technical problems with counters or environmental problems in the area around the counters, including the duration of the problem, so their effects on visitor counts can be factored into estimates.
3. Conduct at least one observational study of each counter during the season to determine if under/over count multipliers are accurate and remain stable.
4. Observational studies have not been conducted at some locations including Worlds End, Outer Islands, Hingham Harbor Islands, and other islands. Counters, self-registration logbooks, or proxies are appropriate counting methods for these locations. If the proxy method is used (i.e., modeling the visitation statistics using data from another island) the observations need to be taken at the same time on both islands. If the self-registration logbook method is used, an observation study is needed to determine the percentage of visitors that use the logbook.
5. Record counter counts daily, or as often as practical, so that numbers for each day are recorded accurately and significant problems are caught early.
6. Consider an online reporting system in which count data obtained by survey technicians, electronic counters, and self-registration devices are immediately recorded and stored in a database to facilitate analysis and retrieval.



## Part 2: Visitor Survey

### Survey design and procedures

Park Studies Unit (PSU) questionnaires follow design principles outlined in Don A. Dillman's book *Mail and Internet Surveys: The Tailored Design Method* (2007). The Boston Harbor Islands national park area questionnaire was developed through conference calls between the park and the PSU staff to design and prioritize questions. Previous visitor studies also provided some guidance for the questionnaire development (Manning, 2005). Some of the questions were comparable with PSU studies conducted at other parks while others were customized for Boston Harbor Islands national park area.

No pilot study was conducted to test the Boston Harbor Islands national park area 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.

The survey was conducted between July 22<sup>st</sup> and September 19<sup>th</sup>. Visitors were approached at various park locations and were asked if they would be willing to participate in the survey. Visitors who were willing to participate were instructed to complete a questionnaire and return it to the drop-box on the island or mail it using a postage-paid, pre-addressed envelope. Table 13 shows the ten distribution sites, and for each site, the number of visitors contacted, the number of questionnaires distributed and the number of questionnaires returned. Overall, the acceptance rate for the questionnaire was 63%, and the response rate was 37% (Table 14). The original sampling plan was to target every 5<sup>th</sup> visitor. However, due to the high refusal rate this approach became impractical. The survey approach was thus changed in that the survey technician approached the next available candidate. All individuals approached were asked three questions:

- 1) What is your age?
- 2) What is your zip code (or name of country if international)?
- 3) Is this your first time visiting [site name]?

The survey technicians recorded this information in a survey log. The information was used to calculate non-response bias.

Table 13. Questionnaire distribution

| Site                   | Number of visitors contacted |      | Number of visitors who accepted a questionnaire |      | Number of returned questionnaires |      |
|------------------------|------------------------------|------|-------------------------------------------------|------|-----------------------------------|------|
|                        | N                            | %    | N                                               | %    | N                                 | %    |
| Deer Island            | 19                           | 1%   | 2                                               | <1%  | 0                                 | <1%  |
| Georges Island         | 415                          | 27%  | 298                                             | 31%  | 128                               | 36%  |
| Grape Island           | 11                           | 1%   | 10                                              | 1%   | 5                                 | 1%   |
| Little Brewster Island | 39                           | 3%   | 39                                              | 3%   | 29                                | 8%   |
| Lovells Island         | 20                           | 1%   | 17                                              | 2%   | 11                                | 3%   |
| Pavilion               | 478                          | 32%  | 241                                             | 25%  | 54                                | 15%  |
| Peddocks Island        | 38                           | 3%   | 29                                              | 3%   | 9                                 | 3%   |
| Spectacle Island       | 329                          | 22%  | 198                                             | 21%  | 74                                | 21%  |
| Webb Memorial          | 98                           | 6%   | 67                                              | 7%   | 31                                | 9%   |
| Worlds End             | 68                           | 4%   | 59                                              | 6%   | 18                                | 5%   |
| Total                  | 1515                         | 100% | 960                                             | 100% | 359                               | 100% |

Table 14. Acceptance rates and response rates

| Site                   | Number of visitors contacted | Number of visitors that accepted questionnaires | Acceptance rate                            | Response rate                              |
|------------------------|------------------------------|-------------------------------------------------|--------------------------------------------|--------------------------------------------|
|                        |                              |                                                 | % of visitors that accepted questionnaires | % of visitors that returned questionnaires |
| Deer Island            | 19                           | 2                                               | 10%                                        | 0%                                         |
| Georges Island         | 415                          | 298                                             | 72%                                        | 43%                                        |
| Grape Island           | 11                           | 10                                              | 90%                                        | 50%                                        |
| Little Brewster Island | 39                           | 39                                              | 100%                                       | 74%                                        |
| Lovells Island         | 20                           | 17                                              | 85%                                        | 65%                                        |
| Pavilion               | 478                          | 241                                             | 50%                                        | 22%                                        |
| Peddocks Island        | 38                           | 29                                              | 76%                                        | 31%                                        |
| Spectacle Island       | 329                          | 198                                             | 60%                                        | 37%                                        |
| Webb Memorial          | 98                           | 67                                              | 68%                                        | 46%                                        |
| Worlds End             | 68                           | 59                                              | 87%                                        | 31%                                        |
| Total                  | 1515                         | 960                                             | 63%                                        | 37%                                        |

The results of the non-response bias check are shown in Tables 15–17. The p-value for each question is not significant ( $p > 0.05$ ), indicating that respondents are not significantly different from non-respondents for these three characteristics. Thus, we conclude that non-response bias does not exist in our sample.

Table 15. Comparison between respondent and non-respondent: place of residence

| Residence              | Respondent | Nonrespondent | Total           |
|------------------------|------------|---------------|-----------------|
| Massachusetts          | 249 (73%)  | 674 (72%)     | 923 (72%)       |
| Other U.S. states      | 69 (20%)   | 180 (19%)     | 249 (20%)       |
| International visitors | 24 (7%)    | 80 (9%)       | 104 (8%)        |
| Chi-square test        |            |               | p-value = 0.652 |

Table 16. Comparison between respondent and non-respondent: first time vs. repeat visitors

| Visitor         | Respondent | Nonrespondent | Total           |
|-----------------|------------|---------------|-----------------|
| First time      | 217 (64%)  | 605 (62%)     | 822 (62%)       |
| Repeat          | 124 (36%)  | 372 (38%)     | 496 (38%)       |
| Chi-square test |            |               | p-value = 0.310 |

Table 17. Comparison between respondent and non-respondent: place of residence: gender

| Gender          | Respondent | Nonrespondent | Total           |
|-----------------|------------|---------------|-----------------|
| Male            | 148 (43%)  | 513 (48%)     | 661 (47%)       |
| Female          | 195 (57%)  | 556 (52%)     | 751 (53%)       |
| Chi-square test |            |               | p-value = 0.067 |

Like other 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 22 – September 19, 2012. 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 arising 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.

## Group and Visitor Characteristics

### Visitor group type

#### Question 14a

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

#### Results

- 44% of visitors were in family groups (see Figure 10).
- 29% were with friends.

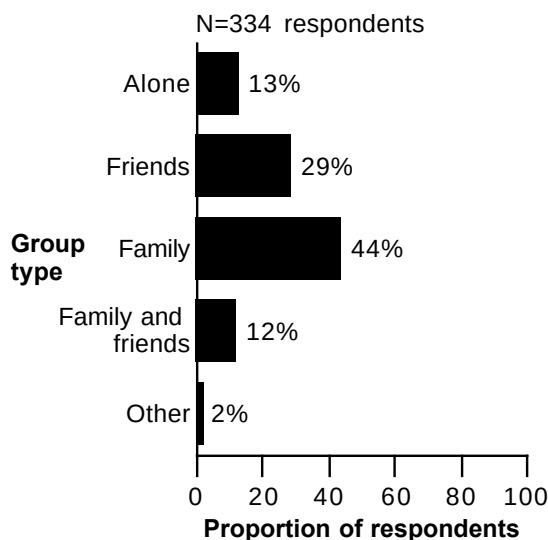


Figure 10. Visitor group type

### Visitor group size

#### Question 14b

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

#### Results

- 40% of visitor groups consisted of two people (see Table 18).
- 32% were in groups of three or four.

Table 18. Group size (N=296)

| Number in group | Frequency | Percent |
|-----------------|-----------|---------|
| 1               | 26        | 9%      |
| 2               | 117       | 40%     |
| 3               | 47        | 16%     |
| 4               | 47        | 16%     |
| 5               | 17        | 6%      |
| 6               | 7         | 2%      |
| 7               | 5         | 2%      |
| 8               | 6         | 2%      |
| 10              | 3         | 1%      |
| 12              | 3         | 1%      |
| 13              | 2         | 1%      |
| 14              | 4         | 1%      |
| 15              | 1         | 0.3%    |
| 19              | 1         | 0.3%    |
| 20              | 1         | 0.3%    |
| 25              | 5         | 2%      |

## Number of people in personal group under 18 years

### Question 14b

On this visit, how many people in your personal group were under 18 years old?

#### Results

- 59% of visitors' personal groups had persons under 18 in their group (see Table 19).
- 25% had one or two persons under 18 in their group.

Table 19. Number of people under 18 in personal group

| Number of persons under 18 | Frequency | Percent |
|----------------------------|-----------|---------|
| 0                          | 105       | 59%     |
| 1                          | 20        | 11%     |
| 2                          | 25        | 14%     |
| 3                          | 8         | 5%      |
| 4                          | 9         | 5%      |
| 5                          | 2         | 1%      |
| 6                          | 2         | 1%      |
| 10                         | 1         | 1%      |
| 11                         | 1         | 1%      |
| 12                         | 2         | 1%      |
| 15                         | 2         | 1%      |

## Visitors with organized groups

### Question 13a

What type of organized group were you with (guided tour, school, scouts, etc.)?

#### Results

5% of visitors were with an organized group (Figure 11).

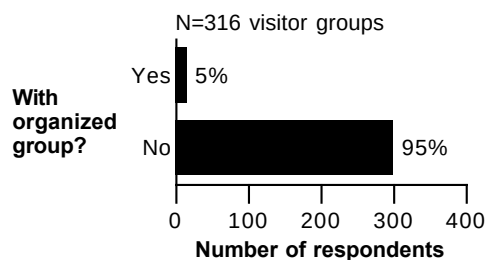


Figure 11. Visitors with an organized group

### Question 13b

If you were with an organized group, how many people, including yourself, were in this group?

#### Results – Interpret with **CAUTION!**

Not enough visitor groups responded to this question to provide reliable results (Figure 12).

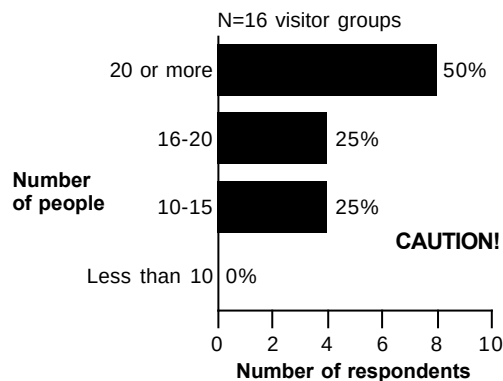


Figure 12. Organized group size

## Visitor age

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### Question 15

What is your age?

#### Results

- Visitor ages ranged from 10 to 87 years (see Table 20).
- 40% of visitors were 31-50 years old.
- <1% were 15 years or younger.
- 13% were 66 years or older.

Table 20. Visitor age (N=357)

| Age | Frequency | Percent | Age | Frequency | Percent |
|-----|-----------|---------|-----|-----------|---------|
| 10  | 1         | 0.28    | 51  | 3         | 0.84    |
| 14  | 1         | 0.28    | 52  | 10        | 2.80    |
| 18  | 4         | 1.12    | 53  | 8         | 2.24    |
| 20  | 4         | 1.12    | 54  | 8         | 2.24    |
| 21  | 1         | 0.28    | 55  | 6         | 1.68    |
| 22  | 1         | 0.28    | 56  | 8         | 2.24    |
| 23  | 7         | 1.96    | 57  | 7         | 1.96    |
| 24  | 3         | 0.84    | 58  | 4         | 1.12    |
| 25  | 8         | 2.24    | 59  | 5         | 1.40    |
| 26  | 8         | 2.24    | 60  | 6         | 1.68    |
| 27  | 7         | 1.96    | 61  | 12        | 3.36    |
| 28  | 10        | 2.80    | 62  | 6         | 1.68    |
| 29  | 7         | 1.96    | 63  | 6         | 1.68    |
| 30  | 8         | 2.24    | 64  | 6         | 1.68    |
| 31  | 6         | 1.68    | 65  | 12        | 3.36    |
| 32  | 7         | 1.96    | 66  | 7         | 1.96    |
| 33  | 4         | 1.12    | 67  | 9         | 2.52    |
| 34  | 8         | 2.24    | 68  | 6         | 1.68    |
| 35  | 4         | 1.12    | 69  | 2         | 0.56    |
| 36  | 3         | 0.84    | 70  | 4         | 1.12    |
| 37  | 9         | 2.52    | 71  | 1         | 0.28    |
| 38  | 7         | 1.96    | 72  | 1         | 0.28    |
| 39  | 3         | 0.84    | 73  | 3         | 0.84    |
| 40  | 3         | 0.84    | 74  | 1         | 0.28    |
| 41  | 9         | 2.52    | 75  | 2         | 0.56    |
| 42  | 5         | 1.40    | 76  | 2         | 0.56    |
| 43  | 9         | 2.52    | 77  | 1         | 0.28    |
| 44  | 9         | 2.52    | 78  | 1         | 0.28    |
| 45  | 7         | 1.96    | 79  | 2         | 0.56    |
| 46  | 7         | 1.96    | 81  | 2         | 0.56    |
| 47  | 10        | 2.80    | 87  | 1         | 0.28    |
| 48  | 9         | 2.52    |     |           |         |
| 49  | 8         | 2.24    |     |           |         |
| 50  | 8         | 2.24    |     |           |         |

## State or country of residence

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### Question 16a and 16b

What is your U.S. zip code or country of origin?

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

#### Results

- U.S. visitors were from 40 states and comprised 92% of total visitation to the park during the survey period (see Table 21).
- 79% of U.S. visitors came from Massachusetts.
- International visitors were from 25 countries and comprised 8% of total visitation to the park during the survey period (see Table 22).
- 28% of international visitors came from Canada.

Table 21. United States visitors by state of residence

| State          | Frequency<br>(n=1172) | Percent of<br>U.S. visitors | Percent of<br>total visitation |
|----------------|-----------------------|-----------------------------|--------------------------------|
| Massachusetts  | 923                   | 78.8                        | 72.3                           |
| New Hampshire  | 28                    | 2.4                         | 2.2                            |
| New York       | 25                    | 2.1                         | 2.0                            |
| California     | 21                    | 1.8                         | 1.6                            |
| New Jersey     | 19                    | 1.6                         | 1.5                            |
| Pennsylvania   | 17                    | 1.5                         | 1.3                            |
| Illinois       | 14                    | 1.2                         | 1.1                            |
| Texas          | 13                    | 1.1                         | 1.0                            |
| Connecticut    | 12                    | 1.0                         | 0.9                            |
| Rhode Island   | 12                    | 1.0                         | 0.9                            |
| Georgia        | 7                     | 0.6                         | 0.5                            |
| Maryland       | 7                     | 0.6                         | 0.5                            |
| Florida        | 6                     | 0.5                         | 0.5                            |
| Virginia       | 6                     | 0.5                         | 0.5                            |
| Washington DC  | 6                     | 0.5                         | 0.5                            |
| Colorado       | 5                     | 0.4                         | 0.4                            |
| Ohio           | 5                     | 0.4                         | 0.4                            |
| North Carolina | 4                     | 0.3                         | 0.3                            |
| Vermont        | 4                     | 0.3                         | 0.3                            |
| Alabama        | 3                     | 0.3                         | 0.2                            |
| Kentucky       | 3                     | 0.3                         | 0.2                            |
| Maine          | 3                     | 0.3                         | 0.2                            |
| Michigan       | 3                     | 0.3                         | 0.2                            |
| Arizona        | 2                     | 0.2                         | 0.2                            |

Table 21. United States visitors by state of residence, continued

| <b>State</b>  | <b>Frequency<br/>(n=1172)</b> | <b>Percent of<br/>U.S. visitors</b> | <b>Percent of<br/>total visitation</b> |
|---------------|-------------------------------|-------------------------------------|----------------------------------------|
| Indiana       | 2                             | 0.2                                 | 0.2                                    |
| Kansas        | 2                             | 0.2                                 | 0.2                                    |
| Minnesota     | 2                             | 0.2                                 | 0.2                                    |
| Missouri      | 2                             | 0.2                                 | 0.2                                    |
| Nebraska      | 2                             | 0.2                                 | 0.2                                    |
| Oregon        | 2                             | 0.2                                 | 0.2                                    |
| Tennessee     | 2                             | 0.2                                 | 0.2                                    |
| West Virginia | 2                             | 0.2                                 | 0.2                                    |
| Alaska        | 1                             | 0.1                                 | 0.1                                    |
| Iowa          | 1                             | 0.1                                 | 0.1                                    |
| Montana       | 1                             | 0.1                                 | 0.1                                    |
| New Mexico    | 1                             | 0.1                                 | 0.1                                    |
| Oklahoma      | 1                             | 0.1                                 | 0.1                                    |
| South Dakota  | 1                             | 0.1                                 | 0.1                                    |
| Utah          | 1                             | 0.1                                 | 0.1                                    |
| Wisconsin     | 1                             | 0.1                                 | 0.1                                    |

Table 22. International visitors by country of residence

| Country         | Frequency<br>(n=104) | Percent among<br>international visitors | Percent of<br>total |
|-----------------|----------------------|-----------------------------------------|---------------------|
| Canada          | 29                   | 27.9                                    | 2.3                 |
| United Kingdom  | 14                   | 13.5                                    | 1.1                 |
| France          | 7                    | 6.7                                     | 0.5                 |
| Australia       | 6                    | 5.8                                     | 0.5                 |
| Ireland         | 6                    | 5.8                                     | 0.5                 |
| Spain           | 6                    | 5.8                                     | 0.5                 |
| China           | 5                    | 4.8                                     | 0.4                 |
| Germany         | 5                    | 4.8                                     | 0.4                 |
| Russia          | 3                    | 2.9                                     | 0.2                 |
| Switzerland     | 3                    | 2.9                                     | 0.2                 |
| Columbia        | 2                    | 1.9                                     | 0.2                 |
| South Africa    | 2                    | 1.9                                     | 0.2                 |
| The Netherlands | 2                    | 1.9                                     | 0.2                 |
| Taiwan          | 2                    | 1.9                                     | 0.2                 |
| Portugal        | 2                    | 1.9                                     | 0.2                 |
| Argentina       | 1                    | 1.0                                     | 0.1                 |
| Belgium         | 1                    | 1.0                                     | 0.1                 |
| Czech           | 1                    | 1.0                                     | 0.1                 |
| Egypt           | 1                    | 1.0                                     | 0.1                 |
| Hong Kong       | 1                    | 1.0                                     | 0.1                 |
| India           | 1                    | 1.0                                     | 0.1                 |
| Italy           | 1                    | 1.0                                     | 0.1                 |
| Korea           | 1                    | 1.0                                     | 0.1                 |
| New Zealand     | 1                    | 1.0                                     | 0.1                 |
| Ukraine         | 1                    | 1.0                                     | 0.1                 |

### Visitors of Hispanic or Latino ethnicity

#### Question 19a

Are you Hispanic or Latino?

Results

- 5% of visitors were Hispanic or Latino (see Figure 13).

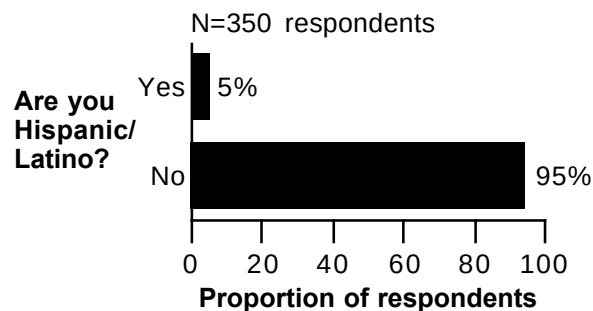


Figure 13. Visitors who were Hispanic or Latino

## Visitor race

### Question 19b

What is your race?

#### Results

- 93% of visitors were White (see Figure 14).
- 3% were Black or African American
- 3% were Asian

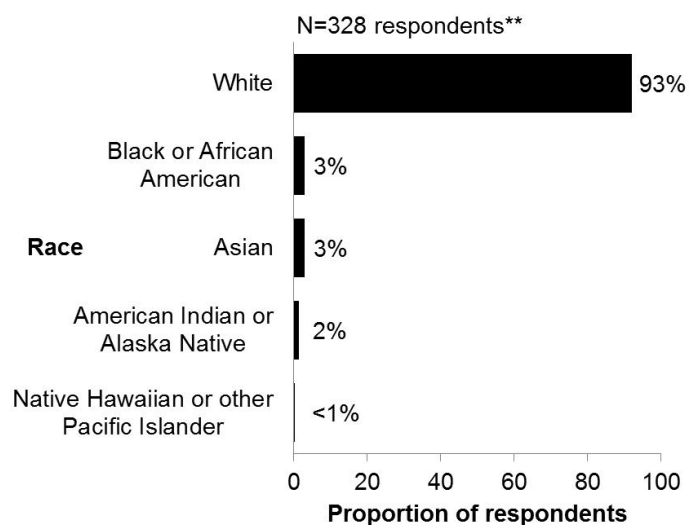


Figure 14. Visitor race

## Level of education

### Question 19b

What is the highest level of education you have completed?

#### Results

- 49% of visitors had a graduate degree (see Figure 15).
- 34% had a bachelor's degree.

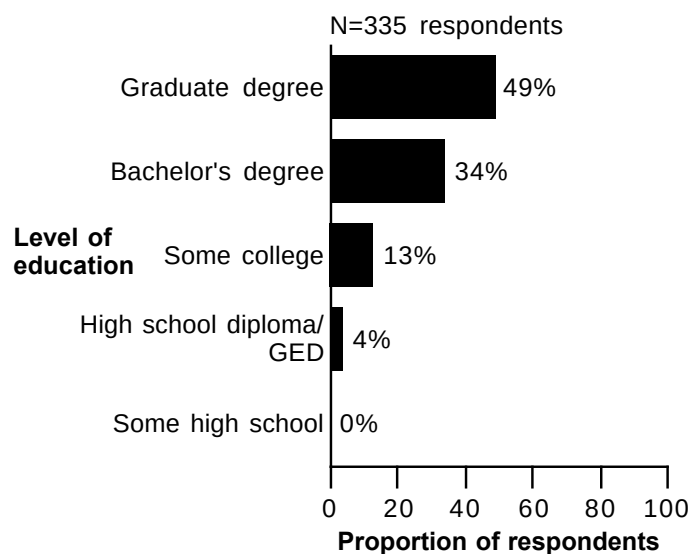


Figure 15. Level of education

## Awareness of park management

### Question 4

Prior to receiving this questionnaire, were you aware that the Boston Harbor Islands is part of the National Park System?

#### Results

- 39% of visitors were aware that Boston Harbor Islands is part of the National Park System (see Figure 16).

**Aware that park is a part of the National Park System?**

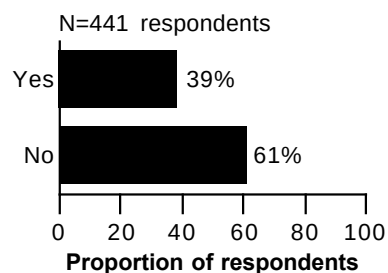


Figure 16. Visitors who were aware that Boston Harbor Islands is part of the National Park System

## Awareness of park area

### Question 5

Prior to receiving this questionnaire, were you aware that Boston Harbor Islands national park area consists of 34 islands and peninsulas?

#### Results

- 22% of visitors were aware that Boston Harbor Islands national park area consists of 34 islands and peninsulas (see Figure 17).

**Aware that the area consists of 34 islands and peninsulas?**

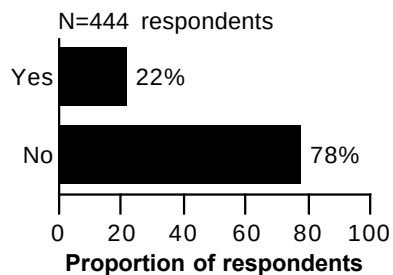


Figure 17. Visitors who were aware that that Boston Harbor Islands national park area consists of 34 islands and peninsulas

## Importance ratings of reasons for visiting

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### Question 2a

Below are some reasons people visit Boston Harbor Islands national park area. Please rate each reason's importance to you, from 1-5.

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

### Results

Table 23 shows a factor analysis of reasons for visiting Boston Harbor Islands national park area. The reasons for visiting are organized into six groups, or components. The numbers presented in Table 23 indicate the strength of the relationship among variables within a component. (An Eigenvalue equal to 6 indicates 6 possible factors, or grouping of variables). An empty cell indicates that the reason for visit does not fit within the component.

The following list shows (as in Table 23) which reasons for visiting fit within each component,

- Change of pace:
  - get some fresh air;
  - experience tranquility;
  - get some exercise;
  - get away from life's usual demands
- Personal development:
  - develop your skills and abilities;
  - learn what you are capable of;
  - help take care of the park/help with park programs
- Experience Boston and the harbor:
  - learn more about Boston/New England history;
  - learn more about nature; experience new and different things;
  - go for a boat ride;
  - see views of Boston from water
- Family experience:
  - do something with family;
  - bring family closer together
- Socializing and networking:
  - be with friends;
  - be with others who enjoy same things
- Explore new social experiences:
  - people-watching;
  - talk to new and varied people
- Other reasons for visiting included: "talking to rangers", "cheaper than hotels", "fishing", and "photography."

Table 23. Factor analysis of reasons for visiting Boston Harbor Islands national park area

| Reason for visiting                                | Component      |                      |                                  |                   |                            |                                |
|----------------------------------------------------|----------------|----------------------|----------------------------------|-------------------|----------------------------|--------------------------------|
|                                                    | Change of pace | Personal development | Experience Boston and the harbor | Family experience | Socializing and networking | Explore new social experiences |
| Get some fresh air                                 | .854           |                      |                                  |                   |                            |                                |
| Experience tranquility                             | .749           |                      |                                  |                   |                            |                                |
| Get some exercise                                  | .703           |                      |                                  |                   |                            |                                |
| Get away from life's usual demands                 | .662           |                      |                                  |                   |                            |                                |
| Develop your skills and abilities                  |                | .870                 |                                  |                   |                            |                                |
| Learn what you are capable of                      |                | .834                 |                                  |                   |                            |                                |
| Help take care of the park/help with park programs |                | .435                 |                                  |                   |                            |                                |
| Learn more about Boston/New England history        |                |                      | .751                             |                   |                            |                                |
| Learn more about nature                            |                |                      | .661                             |                   |                            |                                |
| Experience new and different things                |                |                      | .644                             |                   |                            |                                |
| Go for a boat ride                                 |                |                      | .633                             |                   |                            |                                |
| See views of Boston from water                     |                |                      | .512                             |                   |                            |                                |
| Do something with family                           |                |                      |                                  | .924              |                            |                                |
| Bring family closer together                       |                |                      |                                  | .894              |                            |                                |
| Be with friends                                    |                |                      |                                  |                   | .829                       |                                |
| Be with others who enjoy same things               |                |                      |                                  |                   | .824                       |                                |
| People-watching                                    |                |                      |                                  |                   |                            | .839                           |
| Talk to new and varied people                      |                |                      |                                  |                   |                            | .505                           |

Extraction Method: Principal Component Analysis.  
 Rotation Method: Equamax with Kaiser Normalization.  
 a. Rotation converged in 7 iterations.

## Quality of recreation opportunities

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### Question 2b

Visitors were asked to rate how well recreation opportunities were provided at Boston Harbor Islands national park area, on a 5-point scale:

- 1= No opportunity
- 2= Poor opportunity
- 3= Good opportunity
- 4= Very good opportunity
- 5= Excellent opportunity

### Results

Table 24 shows that:

- Opportunities for changing pace, experiencing Boston and the harbor, and family experience were rated as “very good” or “excellent”
- Opportunities for “socializing and networking” were rated as “very good”
- Opportunities to “explore new social experience” were rated as “good” and “very good”
- Opportunities for “personal development” were rated as “average”

Overall visitors perceived that Boston Harbor Islands national park area provided very good opportunities for an escape from the city setting to relax and de-stress, for spending time with family, and for exploring the cultural and natural environment of Boston and the Harbor.

Opportunities for personal development, a component that includes developing one’s skills and learning about one’s capabilities, was rated below average. This may be because the park environment does not present challenging conditions, or is not challenging enough to test or exceed visitors’ capabilities.

Table 24. Visitor ratings of recreation opportunities provided

| Opportunity                      | Mean   | N   | Std.<br>Deviation | Minimum | Maximum |
|----------------------------------|--------|-----|-------------------|---------|---------|
| Change of pace                   | 4.3147 | 290 | .77078            | 1.00    | 5.00    |
| Personal development             | 2.8513 | 260 | 1.15270           | 1.00    | 5.00    |
| Experience Boston and the harbor | 4.2381 | 291 | .68172            | 1.00    | 5.00    |
| Family experience                | 4.2204 | 279 | .94297            | 1.00    | 5.00    |
| Socializing and networking       | 4.0735 | 272 | .98049            | 1.00    | 5.00    |
| Explore new social experience    | 3.2741 | 270 | 1.01425           | 1.00    | 5.00    |

## Information sources prior to visit

### Questions 1a and 1b

- a) Prior to this visit, how did you obtain information about Boston Harbor Islands national park area?  
 b) If you were to visit Boston Harbor Islands national park area in the future, how would you prefer to obtain information about the park?

### Results

- a) Prior to this visit
- As shown in Figure 18, the most common sources used by visitors to obtain information about Boston Harbor Islands national park area prior to their visit were:

51% Live in local area  
 48% Previous visits  
 44% Friends/relatives/word of mouth  
 39% Park website (www.nps.gov/boha)

- b) Prior to a future visit
- As shown in Figure 18, the most common sources preferred by visitors to obtain information about Boston Harbor Islands national park area for a future visit were:

62% Park website (www.nps.gov/boha)  
 49% Partnership website  
 39% Previous visits

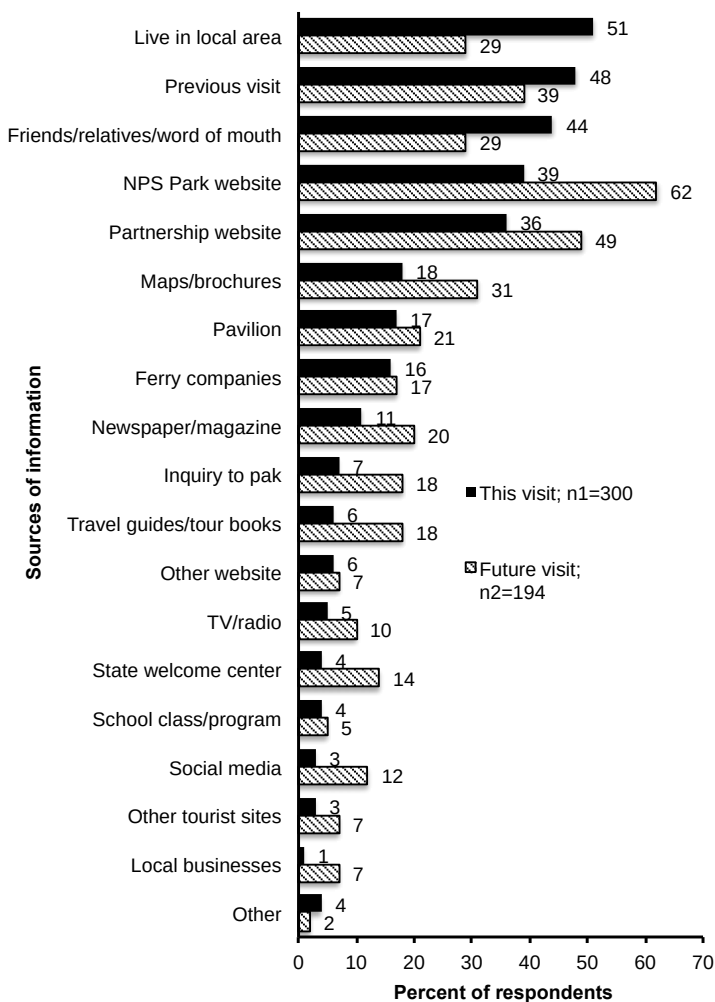


Figure 18. Sources of information

- 61% of visitors obtained information about the park prior to their visit (see Figure 19)

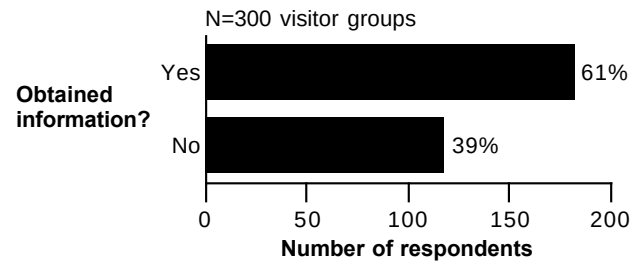


Figure 19. Visitors who obtained information about the park prior to their visit

## Islands visited on this and past trips

### Question 6

- Please list each Boston Harbor island you have visited at any time, including on this trip.
- Of those islands you have visited, please indicate if you visited them on this trip.
- For each island you have visited, please indicate how many times you have visited it, including on this trip.

### Results

- Table 25 shows the islands/peninsulas visited in Boston Harbor national park area during this visit. The most visited site was Georges Island with 81% of visitors, followed by Spectacle Island, visited by 51% of park visitors.  
Note: the Pavilion was not listed by visitors as a place they visited. However, 241 surveys were distributed at Pavilion, of which 54 were returned. It is possible that the visitors did not perceive the Pavilion as a site because it is not an island or peninsula.
- Table 26 shows the number of times that visitors visited each island.  
Note: 44% of all visitors visited Boston Harbor (any island) for the first time in their lifetime and 56% were repeat visitors.
- Table 27 shows the number of sites visited. 70% of visitors visited one island.

Table 25. Sites visited

| Islands/Peninsulas<br><i>without</i> public ferry<br>access<br>(alphabetical order) |           |                             | Islands/Peninsulas<br><i>with</i> public ferry<br>access<br>(alphabetical order) |           |                             |
|-------------------------------------------------------------------------------------|-----------|-----------------------------|----------------------------------------------------------------------------------|-----------|-----------------------------|
|                                                                                     | Frequency | Percentage<br>(total N=270) |                                                                                  | Frequency | Percentage<br>(total N=270) |
| Brewster (unspecified)                                                              | 6         | 2.2%                        | Georges                                                                          | 219       | 81.1%                       |
| Bumpkin                                                                             | 33        | 12.2%                       | Grape                                                                            | 30        | 11.1%                       |
| Button                                                                              | 3         | 1.1%                        | Little Brewster                                                                  | 43        | 15.9%                       |
| Calf                                                                                | 2         | 0.7%                        | Lovells                                                                          | 41        | 15.2%                       |
| Castle*                                                                             | 4         | 1.5%                        | Peddocks                                                                         | 48        | 17.8%                       |
| Deer                                                                                | 18        | 6.7%                        | Spectacle                                                                        | 137       | 50.7%                       |
| Gallops                                                                             | 4         | 1.5%                        | Thompson                                                                         | 24        | 8.9%                        |
| Great Brewster                                                                      | 6         | 2.2%                        |                                                                                  |           |                             |
| Langlee                                                                             | 3         | 1.1%                        |                                                                                  |           |                             |
| Long                                                                                | 11        | 4.1%                        |                                                                                  |           |                             |
| Moon                                                                                | 4         | 1.5%                        |                                                                                  |           |                             |
| Nut                                                                                 | 13        | 4.8%                        |                                                                                  |           |                             |
| Ragged                                                                              | 2         | 0.7%                        |                                                                                  |           |                             |
| Rainsford                                                                           | 7         | 2.6%                        |                                                                                  |           |                             |
| Sarah                                                                               | 2         | 0.7%                        |                                                                                  |           |                             |
| Sheep                                                                               | 2         | 0.7%                        |                                                                                  |           |                             |
| Slate                                                                               | 7         | 2.6%                        |                                                                                  |           |                             |
| Snake                                                                               | 2         | 0.7%                        |                                                                                  |           |                             |
| The Graves                                                                          | 1         | 0.4%                        |                                                                                  |           |                             |
| Webb Memorial                                                                       | 34        | 12.6%                       |                                                                                  |           |                             |
| Worlds End                                                                          | 56        | 20.7%                       |                                                                                  |           |                             |

\* Location as reported by visitors; actual location is unverifiable

Table 26. Number of visits to each island, lifetime

| Island/Peninsula<br>(alphabetical order) | Number of times visited in lifetime |           |            |             | More than 20<br>times |
|------------------------------------------|-------------------------------------|-----------|------------|-------------|-----------------------|
|                                          | First time                          | 2-5 times | 6-10 times | 11-20 times |                       |
| Brewster (n=6)                           | 2                                   | 1         | 1          | 1           | 0                     |
| Bumpkin (n=31)                           | 13                                  | 12        | 5          | 1           | 0                     |
| Button (n=3)                             | 1                                   | 2         | 0          | 0           | 0                     |
| Calf (n=1)                               | 1                                   |           |            |             | 0                     |
| Castle (n=4)*                            | 2                                   | 1         | 1          | 0           | 0                     |
| Deer (n=18)                              | 7                                   | 9         | 1          | 0           | 1                     |
| Gallops (=7)                             | 2                                   | 3         | 0          | 1           | 1                     |
| Georges (n=221)                          | 103                                 | 93        | 17         | 5           | 3                     |
| Grape (n=32)                             | 32                                  | 16        | 13         | 2           | 1                     |
| Great Brewster (n=6)                     | 5                                   | 0         | 0          | 0           | 1                     |
| Langlee (n=3)                            | 1                                   | 1         | 0          | 1           | 0                     |
| Little Brewster (n=43)                   | 39                                  | 3         | 0          | 0           | 1                     |
| Long (n=13)                              | 3                                   | 7         | 1          | 0           | 0                     |
| Lovells (n=47)                           | 19                                  | 20        | 5          | 2           | 1                     |
| Moon (n=4)                               | 0                                   | 4         | 0          | 0           | 0                     |
| Nut (n=13)                               | 3                                   | 5         | 2          | 1           | 2                     |
| Peddocks (n=47)                          | 30                                  | 11        | 3          | 2           | 1                     |
| Plum (n=1)*                              | 0                                   | 0         | 0          | 0           | 1                     |
| Raccoon (n=1)                            | 0                                   | 0         | 0          | 0           | 1                     |
| Ragged (n=1)                             | 0                                   | 0         | 0          | 0           | 1                     |
| Rainsford (n=7)                          | 6                                   | 0         | 1          | 0           | 0                     |
| Sarah (n=2)                              | 2                                   | 0         | 0          | 0           | 0                     |
| Sheep (n=2)                              | 0                                   | 1         | 1          | 0           | 0                     |
| Slate (n=4)                              | 3                                   | 1         | 0          | 0           | 0                     |
| Snake (n=1)                              | 1                                   | 0         | 0          | 0           | 0                     |
| Spectacle (n=136)                        | 87                                  | 35        | 10         | 2           | 2                     |
| The Graves (n=1)                         | 1                                   | 0         | 0          | 0           | 0                     |
| Thompson (n=32)                          | 11                                  | 18        | 3          | 0           | 0                     |
| Webb Memorial (n=23)                     | 5                                   | 3         | 4          | 3           | 9                     |
| Worlds End (n=49)                        | 18                                  | 16        | 7          | 5           | 3                     |

\* Location as reported by visitors; actual location is unverifiable

Table 27. Number of sites visited

| Number of sites<br>visited | Frequency | Percentage |
|----------------------------|-----------|------------|
| 1                          | 189       | 70%        |
| 2                          | 68        | 25%        |
| 3                          | 13        | 5%         |

## Activities on this visit

### Question 9a

On this visit, in which activities did you participate within Boston Harbor Islands national park area?

#### Results

- As shown in Figure 20, the most common activities in which visitors participated on this visit were:

72% Walking/hiking trails and beaches  
55% Sightseeing  
55% Touring historical/natural sites

- “Other” activities (16%) were:

Beach  
Being on sea  
Berklee Music/Harpoon  
Boat trips to islands/lighthouse  
Boating  
Collecting sea glass  
Concert  
Dance/Tai chi  
Dog walking  
enjoying the beaches  
Exercise  
Exploring Fort Warren  
Ham radio on-air event  
Jazz concert on Georges  
Kayaking  
Lunch at summer shack  
Movie at Georges  
Napping  
Native American festival  
Photography  
Relaxation  
Spending time with family  
Spending time with friends  
Talking to the ranger  
The first lighthouse in America  
To explore a new place and learn its history  
The Trustees of Reservations (TTOR) Young Ecologists  
Visiting light house(s)  
Volunteer  
Watching airplanes  
Watching boaters

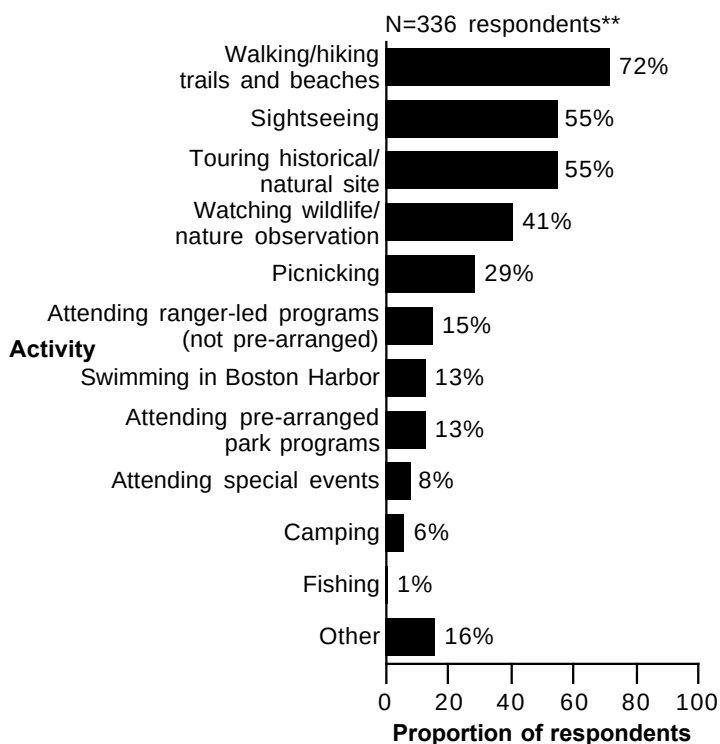


Figure 20. Activities on this visit

\*\*Total percentage does not equal 100 because respondents can check more than one answer choice.

## Primary reason for visit

### Question 9b

Which one of the above activities was the primary reason you visited Boston Harbor Islands national park area on this visit?

### Results

- As shown in Figure 21, the most common primary reasons for visiting were:

32% Walking/hiking trails and beaches  
23% Touring historical/ natural sites

- “Other” activities (12%) were:

Being on sea  
Boat rides  
Boating  
Concert  
Dance/Tai chi  
Enjoying the beaches  
Exercise  
Explore a new place and learn its history  
Exploring Fort Warren  
Family time  
Spending time with friends  
Ham radio on-air event  
Jazz concert on Georges  
Kayaking  
Relaxation  
The Trustees of Reservations (TTOR) Young Ecologists  
See the first lighthouse in America  
Visit lighthouses

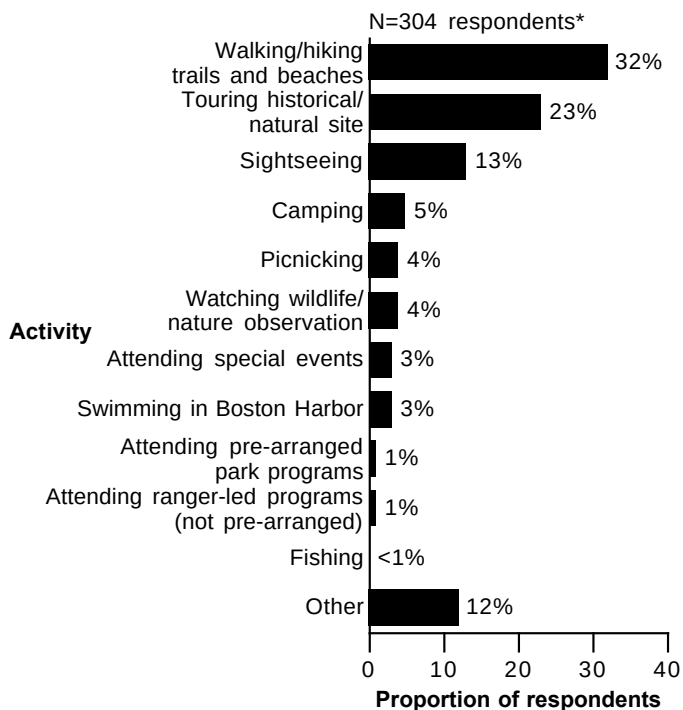


Figure 21. Primary reason for visit

## Visits to Harbor Park Pavilion

### Question 3

Have you visited the information pavilion, known as the Harbor Park Pavilion, on the Rose Kennedy Greenway?

#### Results

- 52% of visitors had never visited the Pavilion (see Figure 22).
- 28% visited the Pavilion on this visit.

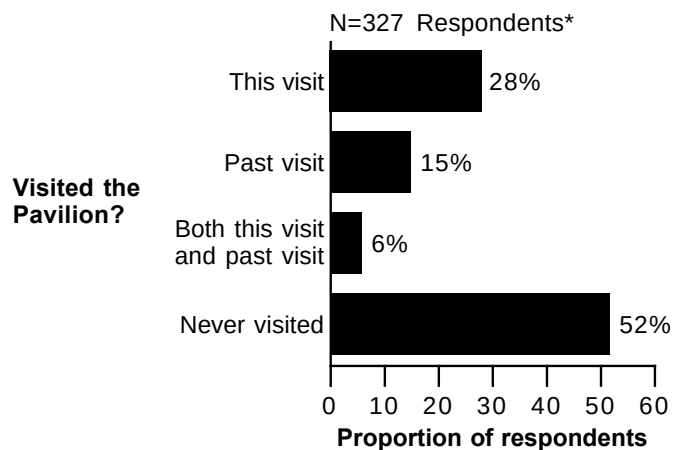


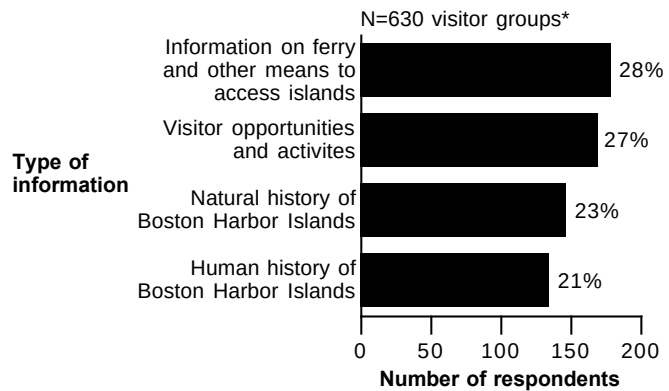
Figure 22. Visitors to the Harbor Park Pavilion

## Information received during visit

### Question 10

As part of managing the Boston Harbor Islands national park area, information and education are provided to visitors via exhibits, signage, printed materials, publications, and programs.

- a) Please mark each type of information that you received during this visit to Boston Harbor Islands national park area.



### Results

- 28% of visitors received information on ferry and other means to access Boston Harbor Islands (Figure 23).
- 27% received information on visitor opportunities and activities.
- 23% received information on natural history of Boston Harbor Islands.
- 21% received information on human history of Boston Harbor Islands.

Figure 23. Information received during this visit

## Amount of information received during this visit

### Question 10b

As part of managing the Boston Harbor Islands national park area, information and education are provided to visitors via exhibits, signage, printed materials, publications, and programs.

b) For each type of information received, please rate the amount, from 1 - 3.

### Results

- Table 28 shows how visitors rated the amount of information they received.

Table 28. Visitors' ratings of the amount of information received during visit

| Type of information                                                  | Number of respondents | Amount of information (% rated) |             |          |
|----------------------------------------------------------------------|-----------------------|---------------------------------|-------------|----------|
|                                                                      |                       | Not enough                      | About right | Too much |
| Visitor opportunities and activities                                 | 212                   | 9%                              | 89%         | 1%       |
| Information on ferry and other means to access Boston Harbor Islands | 221                   | 13%                             | 85%         | 2%       |
| Natural history of Boston Harbor Islands                             | 201                   | 19%                             | 78%         | 2%       |
| Human history of Boston Harbor Islands                               | 188                   | 21%                             | 78%         | 2%       |

## Quality of information received during this visit

### Question 10c

As part of managing the Boston Harbor Islands national park area, information and education are provided to visitors via exhibits, signage, printed materials, publications, and programs.

c) For each type of information received, please rate the quality, from 1 - 5.

### Results

- Table 29 shows how visitors rated the quality of the information they received.

Table 29. Visitors' ratings of the quality of information received during visit

| Type of information                                                  | Number of respondents | Quality of information |      |         |      |           |
|----------------------------------------------------------------------|-----------------------|------------------------|------|---------|------|-----------|
|                                                                      |                       | Very poor              | Poor | Average | Good | Very good |
| Visitor opportunities and activities                                 | 197                   | 3%                     | 3%   | 20%     | 46%  | 28%       |
| Information on ferry and other means to access Boston Harbor islands | 202                   | 3%                     | 6%   | 19%     | 43%  | 29%       |
| Natural history of Boston Harbor Islands                             | 185                   | 4%                     | 3%   | 22%     | 43%  | 28%       |
| Human history of Boston Harbor Islands                               | 172                   | 5%                     | 2%   | 18%     | 44%  | 31%       |

## Satisfaction with visitor services

### Questions 11a and 11b

- a) On this visit to Boston Harbor Islands national park area, please indicate how satisfied you were with the following services.
- b) For any service that was not satisfactory, please explain the problem.

### Results

- Table 30 shows how visitors rated their satisfaction with services during their visit to Boston Harbor Islands national park area. Table 31 shows visitors' reasons for dissatisfaction with services.

Table 30. Visitors' satisfaction ratings of services

| Service                    | Number of respondents | Satisfaction rating (%) |          |          |      |            |
|----------------------------|-----------------------|-------------------------|----------|----------|------|------------|
|                            |                       | Not at all              | Slightly | Somewhat | Very | Completely |
| Ferry/water transportation | 242                   | 2%                      | 3%       | 9%       | 50%  | 36%        |
| Food service               | 99                    | 11%                     | 13%      | 32%      | 29%  | 14%        |
| Bookstores/ retail         | 45                    | 11%                     | 13%      | 20%      | 38%  | 18%        |
| Ranger-led programs        | 87                    | 3%                      | 1%       | 10%      | 46%  | 39%        |
| Information services       | 207                   | 3%                      | 3%       | 18%      | 52%  | 24%        |
| Special events/ programs   | 52                    | 0%                      | 2%       | 23%      | 44%  | 31%        |
| Boston Light Tour          | 40                    | 0%                      | 0%       | 8%       | 18%  | 75%        |
| Spectacle Marina           | 40                    | 0%                      | 5%       | 3%       | 65%  | 28%        |
| Boat moorings              | 30                    | 3%                      | 0%       | 7%       | 57%  | 33%        |
| Visitor centers/ exhibits  | 191                   | 2%                      | 3%       | 16%      | 53%  | 27%        |
| Campsites                  | 22                    | 0%                      | 5%       | 9%       | 50%  | 36%        |
| Picnic areas               | 129                   | 1%                      | 3%       | 15%      | 50%  | 31%        |

Table 31. Reasons for dissatisfaction with services  
(N=73 comments)

| Comment                                                                                   | Number of times mentioned |
|-------------------------------------------------------------------------------------------|---------------------------|
| Goose droppings                                                                           | 5                         |
| Ferry off schedule                                                                        | 4                         |
| More shady picnic areas                                                                   | 3                         |
| Want more information                                                                     | 3                         |
| Food was not good                                                                         | 3                         |
| Limited food selection                                                                    | 3                         |
| Snack bar closed                                                                          | 2                         |
| Actual ferry ride was terrific                                                            | 1                         |
| Automated ticket machines are confusing                                                   | 1                         |
| Better access to information brochures                                                    | 1                         |
| Bird poop                                                                                 | 1                         |
| Boat was noisy                                                                            | 1                         |
| Bulletin board contained no information on upcoming/ongoing events on islands             | 1                         |
| Can't find information                                                                    | 1                         |
| Canadian geese                                                                            | 1                         |
| Did not travel to any of the islands                                                      | 1                         |
| Didn't know that it was not possible to see more than one site in a day                   | 1                         |
| Family using video seating as picnic area                                                 | 1                         |
| Fee to visit World's End seemed excessive given the lack of amenities (or even maps)      | 1                         |
| Ferry driver hit dock at Long Wharf so hard that people fell - quite jarring - no apology | 1                         |
| Ferry service was not often enough                                                        | 1                         |
| Ferry should not be on a holiday schedule on a busy Saturday                              | 1                         |
| Food and drinks overpriced                                                                | 1                         |
| Gift shop door was open, but clerk said shop was closed                                   | 1                         |
| Haven't visited yet                                                                       | 1                         |
| I was not accompanied by any guide, because of that I did not know much at all            | 1                         |
| It would have been nice to have a 20 minute film with history of the island               | 1                         |
| Lack of vegan or food allergy preparations.                                               | 1                         |
| Lacked information                                                                        | 1                         |
| Lacked information about ferry                                                            | 1                         |
| Lines and only one order taker                                                            | 1                         |
| Loud music at Georges                                                                     | 1                         |
| Misinformed about food on Georges after 3:15 on a Friday                                  | 1                         |
| More charismatic and involved park rangers                                                | 1                         |
| More shaded camping areas                                                                 | 1                         |
| Most of these services do not exist on Webb                                               | 1                         |
| Need daily activity signboards at Greenway Pavilion                                       | 1                         |
| Need gluten-free food options. Also, ran out of fries very early in the day               | 1                         |
| Need healthier food                                                                       | 1                         |

Table 32. Reasons for dissatisfaction with services, continued

| <b>Comment</b>                                                                     | <b>Number of times mentioned</b> |
|------------------------------------------------------------------------------------|----------------------------------|
| Need more trash cans                                                               | 1                                |
| No beef burgers                                                                    | 1                                |
| No beer or wine at food service.                                                   | 1                                |
| No ferries                                                                         | 1                                |
| No food on Georges after 3:15 on a Friday - we were misinformed                    | 1                                |
| No one had any idea what ferry schedule was because of maintenance issue           | 1                                |
| No problems                                                                        | 1                                |
| No services available on this day at Webb Park                                     | 1                                |
| No water at Lovells although the website says there is.                            | 1                                |
| Picnic areas on spectacle island lacked shade structures/pavilions                 | 1                                |
| Picnic table in campsite nearly rotten                                             | 1                                |
| Picnic tables were wet                                                             | 1                                |
| Poor attitude of employees                                                         | 1                                |
| Poor chicken wrap                                                                  | 1                                |
| Poor food service                                                                  | 1                                |
| Problem with credit card payments                                                  | 1                                |
| Quality and quantity of food was marginal                                          | 1                                |
| Rat infestation a problem                                                          | 1                                |
| Seagulls stalking for food                                                         | 1                                |
| Seating at Spectacle Island                                                        | 1                                |
| Songs about alcohol and guns in Berklee concert inappropriate for a family concert | 1                                |
| Summer shack, missing many item on menu, also rude!                                | 1                                |
| There was confusion about the inter-island ferry schedule                          | 1                                |
| Wanted to leave at 1:30 but ferry was sold out                                     | 1                                |
| Warren Fort brochure was hard to follow no north/south marking                     | 1                                |
| Wish they still barbecued on Spectacle                                             | 1                                |
| Would be nice to map of islands                                                    | 1                                |
| Would have liked a guided tour of the island                                       | 1                                |
| Would like to have Native American food to purchase                                | 1                                |

## Overall quality

### Question 12

Overall, how would you rate the quality of the facilities, services, and recreational opportunities provided to you at Boston Harbor Islands national park area 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 24).
- Less than 1% of visitor groups rated the quality as “very poor” or “poor.”

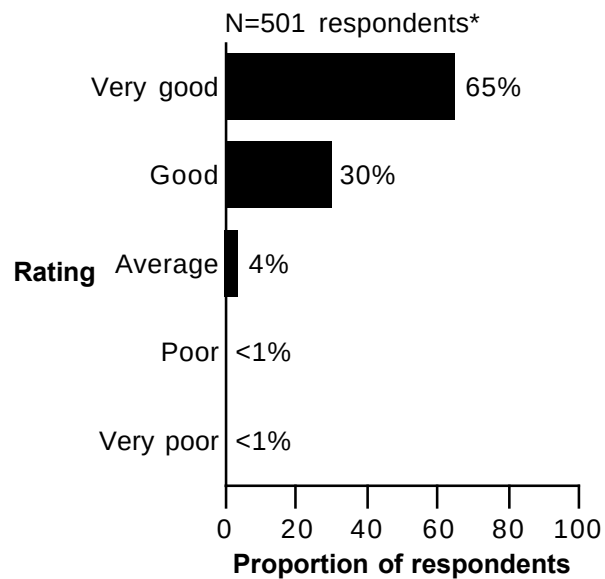


Figure 24. Overall quality rating of facilities, services, and recreational opportunities

## Visitor Comment Summaries

### What visitors liked most

#### Question 7

What did you like most about your visit to Boston Harbor Islands national park area? (Open-ended)

#### Results

- 88% of visitor groups (N=315) responded to this question.
- Table 33 shows a summary of visitor comments. The transcribed open-ended comments can be found in the Visitor Comments section.

Table 33. What visitors liked most  
(N=609 comments; some visitor groups made more than one comment.)

| Comment                             | Number of times mentioned |
|-------------------------------------|---------------------------|
| <b>PERSONNEL (&lt;1%)</b>           |                           |
| Friendly staff                      | 7                         |
| Informative staff                   | 3                         |
| Park staff                          | 2                         |
| Other comments                      | 5                         |
| <b>INTERPRETIVE SERVICES (6%)</b>   |                           |
| Learning about history              | 18                        |
| Guided tour                         | 6                         |
| History tour                        | 3                         |
| Information displays                | 2                         |
| Ranger talk                         | 2                         |
| Other comments                      | 7                         |
| <b>FACILITIES/MAINTENANCE (11%)</b> |                           |
| Cleanliness                         | 13                        |
| Trails                              | 9                         |
| The lighthouse                      | 7                         |
| The fort                            | 6                         |
| Well-maintained park                | 6                         |
| Fort Warren                         | 3                         |
| Visitor Center                      | 3                         |
| Boston Light                        | 2                         |
| Historic sites                      | 2                         |
| Museums                             | 2                         |
| Other comments                      | 11                        |
| <b>POLICY/MANAGEMENT (4%)</b>       |                           |
| Accessibility                       | 10                        |
| Not developed                       | 5                         |
| Affordable                          | 3                         |
| Environmentally friendly            | 2                         |
| Other comments                      | 6                         |

Table 33. What visitors liked most (continued)

| <b>Comment</b>                      | <b>Number of times mentioned</b> |
|-------------------------------------|----------------------------------|
| <b>RESOURCE MANAGEMENT (&lt;1%)</b> |                                  |
| Comment                             | 1                                |
| <b>CONCESSIONS (&lt;1%)</b>         |                                  |
| Comments                            | 5                                |
| <b>GENERAL (75%)</b>                |                                  |
| Scenery                             | 80                               |
| Boat ride to island                 | 39                               |
| Beauty                              | 27                               |
| History                             | 17                               |
| Peace                               | 17                               |
| Tranquility                         | 17                               |
| Fresh air                           | 16                               |
| Water                               | 16                               |
| Escaping the city                   | 13                               |
| Nature                              | 12                               |
| Proximity to city                   | 11                               |
| Quiet                               | 11                               |
| Relaxing                            | 10                               |
| Walking                             | 7                                |
| Beach                               | 6                                |
| Everything                          | 6                                |
| History of the islands              | 6                                |
| Being outdoors                      | 5                                |
| Spending time with family           | 5                                |
| Spending time with friends          | 5                                |
| Swimming                            | 5                                |
| Learning                            | 5                                |
| Breeze                              | 4                                |
| Camping                             | 4                                |
| The islands                         | 4                                |
| Visiting the fort                   | 4                                |
| Activities                          | 3                                |
| Birding                             | 3                                |
| Exercise                            | 3                                |
| Exploring                           | 3                                |
| Hiking                              | 3                                |
| Open space                          | 3                                |
| Visiting the lighthouse             | 3                                |
| Alone time                          | 2                                |
| Beach combing                       | 2                                |
| Bumpkin                             | 2                                |
| Calm                                | 2                                |
| Enjoying nature                     | 2                                |
| Exploring the islands               | 2                                |
| Fun                                 | 2                                |
| Interesting history                 | 2                                |
| Kayaking                            | 2                                |

Table 33. What visitors liked most (continued)

| <b>Comment</b>              | <b>Number of times<br/>mentioned</b> |
|-----------------------------|--------------------------------------|
| Music                       | 2                                    |
| Ocean air                   | 2                                    |
| Spending time in the harbor | 2                                    |
| Sun                         | 2                                    |
| Views of Boston             | 2                                    |
| Other comments              | 53                                   |

## What visitors liked least

### Question 8

What did your personal group like most about your visit to Boston Harbor Islands national park area? (Open-ended)

### Results

- 68% of visitor groups (N=243) responded to this question.
- Table 34 shows a summary of visitor comments. The transcribed open-ended comments can be found in the Visitor Comments section.

Table 34. What visitors liked least  
(N=274 comments; some visitor groups made more than one comment.)

| Comment                              | Number of times mentioned |
|--------------------------------------|---------------------------|
| <b>PERSONNEL (&lt;1%)</b>            |                           |
| Comment                              | 1                         |
| <b>INTERPRETIVE SERVICES (5%)</b>    |                           |
| Lack of information about park       | 4                         |
| Lack of available tour guides        | 2                         |
| Other comments                       | 10                        |
| <b>FACILITIES/MAINTENANCE (11%)</b>  |                           |
| Dog waste                            | 7                         |
| Goose waste                          | 7                         |
| Litter                               | 4                         |
| Lack of trash cans                   | 5                         |
| Lack of bathrooms                    | 4                         |
| Other comments                       | 4                         |
| <b>POLICY/MANAGEMENT (5%)</b>        |                           |
| Development                          | 2                         |
| Expensive boat tickets               | 2                         |
| Need more recycling                  | 2                         |
| People disregarding park rules       | 2                         |
| Other comments                       | 4                         |
| <b>CONCESSIONS (11%)</b>             |                           |
| Lack of food options                 | 6                         |
| Food                                 | 5                         |
| No food service available            | 5                         |
| Lack of healthy food options         | 4                         |
| Long lines at food service locations | 3                         |
| Expensive food                       | 2                         |
| Other comments                       | 4                         |
| <b>RESOURCE MANAGEMENT (4%)</b>      |                           |
| Insects                              | 4                         |
| Geese                                | 3                         |
| Rats                                 | 2                         |
| Other comments                       | 3                         |

Table 34. What visitors liked least (continued)

| <b>Comment</b>               | <b>Number of times<br/>mentioned</b> |
|------------------------------|--------------------------------------|
| <b>GENERAL (64%)</b>         |                                      |
| Nothing to dislike           | 62                                   |
| Unpredictable ferry schedule | 13                                   |
| Crowded                      | 7                                    |
| Ferry service                | 6                                    |
| Needed more time             | 6                                    |
| Music                        | 4                                    |
| No shade                     | 4                                    |
| Noise                        | 4                                    |
| Heat                         | 3                                    |
| Lack of drinking water       | 3                                    |
| Lack of parking              | 3                                    |
| Airplane noise               | 2                                    |
| No bikes                     | 2                                    |
| No shade on Spectacle Island | 2                                    |
| Rain                         | 2                                    |
| Rocky beach                  | 2                                    |
| Unavailable ferry service    | 2                                    |
| Waiting for the ferry        | 2                                    |
| Weather                      | 2                                    |
| Other comments               | 57                                   |

## Additional comments

### Question 20

Is there anything else you would like to tell us about your visit to Boston Harbor Islands national park area? (Open-ended)

### Results

- 44% of visitor groups (N=157) responded to this question.
- Table 35 shows a summary of visitor comments. The transcribed open-ended comments can be found in the Visitor Comments section.

Table 35. Additional comments

(N= 216 comments; some visitor groups made more than one comment.)

| Comment                             | Number of times mentioned |
|-------------------------------------|---------------------------|
| <b>PERSONNEL (14%)</b>              |                           |
| Helpful park staff                  | 9                         |
| Friendly park staff                 | 8                         |
| Excellent park staff                | 4                         |
| Other comments                      | 9                         |
| <b>INTERPRETIVE SERVICES (2%)</b>   |                           |
| Improve maps                        | 3                         |
| Enjoyed tour                        | 2                         |
| <b>FACILITIES/MAINTENANCE (11%)</b> |                           |
| Liked the pavilion                  | 5                         |
| Webb Park well-maintained           | 4                         |
| Bathrooms are clean                 | 2                         |
| Park was clean                      | 2                         |
| Well-maintained park                | 2                         |
| Other comments                      | 9                         |
| <b>POLICY/MANAGEMENT (8%)</b>       |                           |
| Do more marketing                   | 4                         |
| Other comments                      | 13                        |
| <b>RESOURCE MANAGEMENT (%)</b>      |                           |
| Comments                            | 2                         |
| <b>CONCESSIONS (&lt;1%)</b>         |                           |
| Comments                            | 5                         |
| <b>GENERAL (62%)</b>                |                           |
| Enjoyed visit                       | 43                        |
| Keep it up/great job                | 15                        |
| Thank you                           | 12                        |
| Will return                         | 8                         |
| Love Webb Park                      | 5                         |
| Ferry system was unsatisfactory     | 3                         |
| Love the islands                    | 3                         |
| Need more ferries                   | 3                         |
| Love World's End                    | 2                         |
| Other comments                      | 39                        |

## Visitor Comments

**This section contains visitor responses to open-ended questions.**

### Question 7

What did you like most about your visit to Boston Harbor Islands national park area? (Open-ended)

- Ability to explore
- Air, Water
- Areas NOT developed
- Beach combing, fresh air, place for a picnic, the boat ride - ferry, our 16 foot boat or kayak, seeing the nature, learning the history. The island activities.
- Beach combing.
- Beach so close to the city
- Beach!
- Beaches, historical sites, peace/tranquility
- Beautiful and on the water
- Beautiful day, Island was great.
- Beautiful day!
- Beautiful scenery, accessibility, affordable
- Beautiful scenery, quiet, facts/historical information, views of Boston
- Beautiful views of the harbor.
- Beautiful views, few dogs (and they on leash), well maintained, interesting history
- Beautiful, convenient, clean, well maintained
- Beautiful, nice escape from city
- Beautiful.
- Beauty
- Beauty - landscapes - views - solitude
- Beauty and ranger information (Elliot Higger)
- Beauty and social boat trips. Human history/ Medical history Islands
- Beauty and well-organized
- Beauty of islands. Boat rides were fun.
- Being able to swim on Lovells Island.
- Being away from the city but in nature
- Being in nature with friends.
- Being on an island and exploring via land and water
- Being on the water and enjoying the quiet
- Being out in the river
- Being out on water, views. Fishing historical tours.
- Being with my friends, quiet time, salt air, listening to drinking of seafood. Letting our imagination run away with us. We discovered - and photography of the glass
- Boat ride
- Boat ride
- Boat ride
- Boat ride - nice island visit
- Boat ride and experience to see what goes on in the Harbor on islands and history and view

- Boat ride out, views of other islands, informational displays
- Boat ride, beautiful views
- Boat ride, views, space, and information displays
- Boat ride.
- Boat trip, views, tranquility, green project information
- Boats, sea glass, water
- Brewsta Island - lighthouse
- Buildings
- Bumpkin is magical.
- Bumpkin water front campsite.
- Calm
- Camping amongst history and rocks
- Camping out
- Checking off part of my bucket list. Feeling original, getting away and learning.
- Clean, ecological, environmentally friendly
- Clean, relaxing, quiet
- Clean!
- Clean. Cool historic sites.
- Cleanliness, fresh air, meeting friends and neighbors
- Cleanliness, peacefulness, nature watching
- Climbing the light/going beyond my vertigo
- Climbing the lighthouse, meeting lighthouse keeper, the staff
- Convenience to home, beauty of islands
- Cool breeze
- Cool fort, interesting historical tour, beautiful boat ride, fun way to spend a beautiful sunny day
- Day was beautiful and our expectations were surpassed
- Different to urban environment, opportunity to see new things and natural environment.
- Discovering and learning that they exist, history
- Easily accessible
- Easy to do on a Sunday - little aggravation with traffic, the natural better harbor area
- Educational
- Enjoying open areas, peaceful, and well kept!
- Enjoying the nature so close to Boston.
- Enjoying the view of the harbor, relaxing with my fiancé in nature, watching the educational videos
- Everything including food at summer shack
- Everything, it's real nice
- Everything; kids love it
- Everything.
- Exploring Fort Warren and the ferry
- Exploring Fort Warren.
- Exploring the Fort. Views of the ocean and Boston.
- Exploring the islands
- Family time, boat ride
- Fascinating history on both islands, wonderful ranger talk on George

- Ferry
- Ferry ride, exploring fort and island
- Festival - Harpoon and Jazz
- Fort
- Fort Warren and Beach
- Fresh
- Fresh air and exercise
- Fresh air, a nice walk.
- Fresh air, access to water, lawn game rental.
- Fresh air. Being on the boat, on the ocean.
- Friendly guides, clean, reasonable cost, real pleasure
- Friendly informative staff, committed to recycling & protection/care for natural habitat, views, pleasant boat ride, views on every side
- Fun boat ride, great views
- Fun of being in nature while being so close to Boston
- Fun to take boat, trails, swimming
- Geology, cleanliness, natural surroundings, birding, ocean
- Get to know some history, kindness of all people/rangers.
- Getting away from the city
- Getting away from the city
- Getting into the lighthouse, the cat (LOL)
- Getting out on the water and getting a different view of Boston, learning more history
- Getting out, moving, 4 seeing different views
- Go ranger led walks
- Going up the Lighthouse and seeing all around Boston Harbor
- Great
- Great atmosphere for family outing, plus good history
- Great history and views
- Great I went kayaking, what I get out to do
- Great scenery, easy for kids to access.
- Great scenery, peaceful
- Great views
- Hiking on paths, trails.
- Historical references
- History tour, boat trip and relaxing in the sun enjoying the view of Boston
- History, activities, fresh air, boat ride
- History, alone time, and beautiful scenery
- History, being with family
- History, boat, no traffic.
- History, chance to climb lighthouse
- History, trails, hiking, view
- History!
- How close it is to the city but how peaceful it is. How when you're in the harbor, how close the north and south shrug out each other
- I enjoyed learning about history, being outdoors, and being able to climb all over the fort

- I just visited with Georges and Peddocks Islands 7 days ago with family. I'm impressed with 23-year-old man ranger who led our tour and also with new visitors center. I'm excited about new facilities to be finished at Peddocks Island.
- I love Boston harbor Islands lighthouse tour! Great rangers
- I love the wilderness of Lovells and the lovely spot to swim
- I loved being on the water. I thought the Visitor's Center and staff on Georges were terrific.
- It is beautiful!
- it is easy to get out here and enjoy
- It is far from noise of the city, vacation like, nature, relaxing
- It was an escape from the city while also learning about history
- It was peaceful
- It was very scenic and had fun activities
- It's a fluid, calm place, great views, nature.
- It's a great way to get a bunch of people together
- It's fun at the top of the lighthouse
- It's very clean, nice views, less ticks and peaceful.
- Its peaceful and beautiful
- Kayaking to the island
- Laid back atmosphere, history and nature combination, ease of access from city, friendliness of rangers, free lawn games on Peddocks
- Landscape and preservation of the environment
- Learned a lot about the history; great hike
- Learning about Boston Harbor history and being with a great friend.
- Learning about Boston Light
- Learning about Boston's history, seeing new vistas and places of interest
- Learning about Civil War history
- Learning about the history of the island
- Learning and little history and enjoying the harbor
- Learning more about Islands.
- Learning more American history
- Lighthouse visit and ranger stories
- Location
- Lots of nature to observe, fresh air, nice walk
- Love the kayaking programs
- Love the true islands, great opportunity to escape the city.
- Lovely views and benches, boat ride through harbor, visitor center was informative
- Low cost quality family outing.
- Matthew and Barbara.
- Music. Beer. Great views.
- N/A
- Natural beauty and beach
- Natural beauty and history
- Natural beauty and sea views
- Nature
- Nature plus history

- Nature, water tour, peace
- Nearness of location.
- Never got to go in
- Nice place to relax
- Nice to be outside in the quiet relaxed environment.
- Non-commercial.
- Ocean air and views. Rustic camping. Boston cityscape.
- Ocean Tranquility Temp
- Offered beach exercise and tranquility at the same time
- Opportunity for exercise. Fresh air, with nice views
- Opportunity to visit Boston Light
- Outdoors
- Outdoors- nice weather-family.
- Overall experience as an educational and historical sightseeing trip.
- Overnight camping
- Park guides knowledgeable and proud to speak about the harbor and the islands
- Park is well maintained.
- Park ranger talks
- Paths and scenery
- Peace and tranquility and free water
- Peaceful setting, near city
- Peaceful settings
- Peaceful, not congested
- Peacefulness and being close to nature, particularly water.
- Peddocks Island, scenery and games/picnic area
- Place to walk/exercise near water/view of Boston and close to home
- Pleasant change from busy downtown.
- Pleasant scenery, friendly people
- Pretty, fun
- Pretty.
- Privacy, Camping, swimming, boat ride
- Proximity to Boston. Mix of history and beauty
- Proximity to city
- Quiet and sea breeze!
- Quiet space to escape the city and get fresh air
- Quiet, historical
- Quiet, peaceful water views
- Quiet, scenic, well-maintained
- Ranger
- Relaxing
- Relaxing around the islands exploring, relaxing by the water and the boat ride
- Relaxing, on water, exploring
- Ride to the Island. View from north Drumlin.
- Scenery

- Scenery
- Scenery was beautiful and the opportunity to learn more about the area
- Scenery, boat ride, exploring the fort
- Scenery, historical sites
- Scenery, history
- Scenery.
- Scenic; war history
- Sea - National Park service
- Seeing fort
- Seeing Fort Andrews
- Seeing great views and finding cool rocks and getting historical information
- Sense of good government/management; Regard for families, "pursuit of happiness" Good people in good government
- Sense of history, easy access
- Sight seeing
- Sights
- Simple, tranquility, outdoors, with people and things that matter most.
- So much to see- sunshine.
- Spectacular views/get away
- Spending the day in the harbor and enjoying the natural beauty of the island
- Swimming and tranquility
- Taking the kids
- The ability to enjoy nature and be close to Boston
- The access to the lens
- The area, sites
- The beauty of a natural and national treasure
- The beauty of landscape.
- The beauty, views, and tranquility
- The boat ride over, the history of the fort. The island itself.
- The boat ride, the views, the walk, the fresh air
- The boat ride, history and you get away from the city
- The boat ride. The harbor views.
- The boat ride and views.
- The breeze, the beautiful view and the boat ride.
- The feeling
- The feeling like I'm in a part of history and the nature of each place - birds, etc.
- The fort
- The fort
- The fort and the rivers
- The fort was pretty neat.
- The Fresnel lens, lighthouse, and other structures on the island, rocky beach with tide pools, cormorants, history, and water views.
- The history
- The history of Fort Warren
- The history of the island

- The history of the islands
- The history, scenery and the tour guides information
- The lighthouse
- The lighthouse and walk on the beach
- The mini museum at Georges - very informative. The pavilion – impressive.
- The natural beauty of the island
- The nature/tranquility.
- The new renovations and the Rose Kennedy Greenway
- The overall experience including boat rides
- The Park Ranger tour of the fort
- The peace and tranquility of nature, the views
- The people were great. Great public service employee- sun water- the islands.
- The preservation of history
- The scenery and fresh air, seeing the lighthouse, and learning more about it and the harbor
- The sea views, the tranquility
- The serenity. I was going back in time in the middle of the metropolis.
- The sunset was fantastic
- The total experience, boat ride, walks, tour, music on Spectacle Island.
- The view and fresh air
- The view and the boat ride
- The view is so amazing!
- The views from the boat and island were spectacular
- The wild scenery, trails
- Time with friends and lovers.
- Tour guides, museums or artifacts, history
- Trails, views, peace and quiet, ranger-led tour, open space, very informative staff, boat ride
- Tranquility
- Tranquility
- Tranquility and cleanliness
- Tranquility, fresh air, views
- Tranquility, nature
- Tranquility. Unspoiled nature
- Unblemished nature micro.
- Uniqueness and preservation of the Boston Light site
- Varied types of islands, with and without benches, trails
- Very beautiful, friendly staff, easy to get to from Boston.
- Very clean, peaceful
- Very scenic and family friendly
- View
- View of Boston
- View of Boston. Beach.
- View, quiet, cool breeze, nature
- Viewing ocean boat ride scenery
- Views of Boston.

- Views of Boston/walking trails
- Views, exploring, boat ride
- Views, great walking trail, clean, nice bathroom, nice picnic tables.
- Views/boat race
- Visiting the fort, getting to walk around inside and learning the history.
- Walk around.
- Walking the beach
- Walking trail, scenery was nice
- Walking trails, scenery
- Walking, birds, and view of Boston
- Watching marine activity
- Water
- Water, air
- Water, New adventure, history
- Webb Park is beautiful. Getting away from it all and loved the little yellow boat from Hingham
- Well kept but not commercialized
- Whale watching
- Wildlife and views

**Question 8**

What did you like least about your visit to Boston Harbor Islands national park area? (Open-ended)

- 1. That it took so long to open Spectacle Island. 2. That Gallops has been closed for so long.
- A minor quip: I wish there were more trash bins and food options (restaurant).
- Access to boat schedules
- Aircraft noise
- All the friendly bathroom reminders, at least 40 times
- All was good!
- Bad dog owners who don't pick up after their dogs.
- Bathroom (toilet), Not much to do need birds/animals
- Beach hurts bare feet
- Bird poop in picnic areas.
- Bloody mosquitoes!! (I know that they can't be helped)
- Boat schedules are unpredictable
- Broken ferry service, high cost of food
- Buildings not numbered on Peddocks.
- Bunker Hill
- Busy boats
- Cafe was closed.
- Chaotic ferry schedule (not good for connections, today ferry is completely off the schedule)
- Confusing, accessibility
- Could have spent more time if I had more information.
- Couldn't keep my group of 13 together
- Crowds
- Deer ticks!
- Delay purchasing ferry ticket
- Difficult to make a reservation to camp
- Dog feces
- Dog feces on pathways
- Dog poop.
- Dog's shit
- Dogs
- Enjoyed anything
- Everything was fine.
- Expensive parking in Boston. Too much fried food at snack bar.
- Ferries are never on schedule!!
- Ferries breaking down (on this trip and the one before)
- Ferry comes and goes 1-hour apart. Half or 45 minute intervals would be more convenient, but I understand cost issues that go with it.
- Ferry schedule
- Ferry schedule is awful. One boat per 2-3 hours is way too little frequency.
- Ferry schedule not smooth. Missed shuttle from Georges by <1 minute. They should have held it for incoming ferry.
- Ferry schedule was not convenient

- Ferry schedule was off
- Food
- Food and options, refreshment
- Food out of choices also wait in line and wait for food - then wait for mustard to get filled up
- French fries
- Geese.
- Geese/geese poop
- Generally I like everything
- Getting to the islands
- Goose poo
- Goose poop
- Goose Poop
- Goose poop at Georges Island
- Goose poop/ expensive hot dogs.
- Great overall experience.
- Heat
- Heat and not enough ferries to Quincy. Boat back to shore was late.
- History removed
- How come I can buy a 6 PM ticket to go TO the island but the latest return is 4:30?
- How crowded Georges felt
- How long it takes to get to the different islands via the ferry service although the service is better to spec this year
- How loud it is now - music/loud speakers
- Humidity, bee's nest under picnic table, lack of trash cans
- Hunting for parking
- I couldn't find water to re-fill water bottles. 12:30 civil war performance/game not on time.
- I disliked the spotty ferry service. It hindered my ability to explore the islands.
- I do not have a least. I enjoyed my visit
- I don't have any complaints!
- I enjoyed everything - even the field trip that was there the same time I was
- I got spooked out in the belly of Fort Warren.
- I like it all, what a special place
- I liked everything!
- I was not accompanied by any guide
- I wish there were bikes on the island... and frozen yogurt.
- I worry about the availability of restrooms (both on the boats and on the islands)
- I would like to see recycling done in a concerted way
- It rained so we were stuck in the visitors center for a little while.
- It seemed silly that the meeting place for the tour was so far from the boat
- It went by too fast
- Kayaking across a shipping channel
- Lack of bathrooms
- Lack of ferries. Need more please.
- Lack of information on Peddocks Island. What a great island. I want to know more about it though.
- Lack of potable water available.

- Lack of restrooms
- Lack of storage space/locker
- Lack of vegan food options on Georges
- Large numbers of loud school kids.
- Liked everything
- Liked it all.
- Littering and dog poop
- Long line at Summer Shack. I miss having other food options on Georges. Georges needs ice cream.
- Long lines for chowder
- Longer walk would have been even better if possible
- Loud tour groups on the island at the same time
- Matthew, when he wouldn't come out of the bathroom.
- More guided tour availability.
- More interpretive information about the fort and the rooms/ buildings.
- More signage on tours.
- Music at pavilion of Georges Island.
- My dad forgot to bring the cookies
- N/A
- N/A
- N/A
- N/A
- N/A
- N/A
- N/A
- N/A
- N/A
- N/A
- N/A
- N/A
- No boat docks
- No complaints
- No complaints.
- No ferries!
- No fired fish. But that is OK
- No food service
- NO FOOD! On Georges @ 3:15
- No fresh water available
- No hot coffee available at the "new" snack bar at Georges Island.
- No objection to any element
- No people were here
- No recycling or trash facilities
- No shade on Spectacle.
- No tarter sauce at summer shack
- No trash cans
- No trash bins

- None
- None
- None
- None- all good!
- None!
- Not able to ride bikes on islands
- Not being able to experience the lighthouse keepers house maybe a private lunch or dinner for an additional cost to share stories.
- Not enough free food.
- Not enough picnic spots on the island with views of Boston
- Not enough shade on Spectacle Island
- Not enough shade; ferry service
- Not enough time
- Not enough time.
- Not knowing if there would be spaces available on kayaking trip - can't sign up ahead of time
- Not much, too late.
- Not too much shadow
- Nothing
- Nothing
- Nothing
- Nothing
- Nothing
- Nothing
- Nothing
- Nothing
- Nothing
- Nothing
- Nothing
- Nothing
- Nothing
- Nothing
- Nothing
- Nothing
- Nothing
- Nothing
- Nothing
- Nothing
- Nothing
- Nothing
- Nothing - love the free drinking fountains!
- Nothing at all
- Nothing negative
- Nothing negative to say here. Visit to Spectacle Island was wonderful.
- Nothing to complain about
- Nothing- fun day!
- Nothing- it's an excellent facility, has adequate amenities (water fountains, seating, bathrooms, etc.)
- Nothing, everything was perfect
- Nothing.
- Nothing.

- Nothing. Note kids like to climb anchor in picnic area, some climb up, but are afraid to climb down. Beneath them is the edge of a granite slab. They could be injured if they fall. Suggest reducing size of slab
- On the lighthouse tour it would have been cool to circle the boat around Graves Light to get a closer view
- Party boat blasting music late at night.
- Peddocks was a disappointment as all builds boarded up Hike was fair but could use more highlighted areas of interest
- People not cleaning up after their dogs and not having their dogs on a leash
- People not obeying the posted national park rules, i.e. watched a lady covertly taking a bunch of sea glass from Spectacle Island
- Plane noise, boat noise, rats on Lovells
- Price of boat trip
- Quality of the beach (too rocky)
- Rabbits hanging in trees on Lovells.
- Rats, Lovell has many, many rats
- Rocks!
- Satisfied
- School group of kids, oh well!
- Seagulls
- Seasick on ride
- Seating at Spectacle Island.
- Self-guided trail, each site could be numbered to help improve the visit
- Small, developed.
- Snack bar was not open on Georges Island
- Some islands are more crowded/ irritating than others. Why is there music blasting from Georges when there wasn't this morning?
- Some limitations on availability of items listed on menu e.g. clam chowder, fried clams i.e. at summer shack
- Sometimes limited parking
- Spectacle Island being entirely artificial
- Summer shack needs mike to call ready orders
- That I felt compelled to and actually had to inform MANY people that they couldn't walk through the natural habitat, cutting through reconstructed areas myself and why - where was the staff? Too many honking boats.
- The air conditioning in the cabin of the ferry on a cold and rainy day. Warmer to sit in the cold rain.
- The difficulty of getting to the smaller islands
- The ferry system's a little confusing (which one is which and where they take off from Long Wharf).
- The food quality
- The heat
- The music
- The park
- The rain kept people inside on the boat trip
- The ride was noisy
- The river at the concession stands poorly seen
- The rocky trail in one spot near water

- The self guided tour brochures were missing
- The skunks
- The song about alcohol the girl sang at the Barklee concert - not a family song to be sung around children and gun song
- The weather!
- There are 34 islands. You need to pay attention to the little ones as well
- This survey
- Thunder and lightning storms while camping
- Time flew by so fast.
- Too close to city, airplane noise
- Too many people on Georges Island. Georges Island rather noisy with recorded music and lots of people. Not a restful environment.
- Too many people on the boat
- Too many power boats
- Traffic to get to boat
- Trash in water
- Trash washed up on shoreline
- Very difficult getting information
- Very little shade available. Boat tickets were expensive. Ferry was 40 minutes late on return trip.
- View
- Waiting for a ferry - should have had tickets in advance
- Waiting for ferry in hot sun, people taking sea glass, cigarette butts, and the geese were also annoying at times
- Waiting time at food and drink store
- Waking up at 7:30am on Sunday morning! Sat through it
- Wasps, lack of healthy food options, and cash only.
- We had some older people in our party who parked at the aquarium, walked all the way to the pavilion. They had to walk back. You should have people pick up tickets but be able to meet closer to where the boat leaves.
- We needed more time
- We saw others return from a golf cart tour. Would have also enjoyed such a tour, but were not made aware of its existence.
- When too many people on boat and islands
- Wish I could have it all to myself
- Wish it was easier to get around within islands
- World's End was a disappointment; there was none of the scenic beauty I've come to expect. I can travel to similar coastal areas for free elsewhere on the north/south shore
- Would have liked lunch in island.
- Would like healthier food choices (on Spectacle)
- Would like more info at each park about the whole Harbor Island system.
- Would like visitor centers on more of the islands with refreshment stand

**Question 20**

Is there anything else you would like to tell us about your visit to Boston Harbor Islands national park area? (Open-ended)

- A nice day trip!
- A perfect day
- A pleasant surprise!
- Add more ferries!
- All affiliated organizations were highly competent, professional, helpful, and knowledgeable. Friendly too!
- At top of Spectacle the water thermos should be switched out, not removed and brought back. Without shelter it is way too hot. Consider prohibiting sale of plastic drinking bottles, minimally water bottles. Educate public that fountains are available to refill bottles. Reduce plastic!
- Awesome.
- Beautiful natural resources
- Boat was 30 minutes late
- Boston Light tour - Rangers and CG Auxiliary personnel were excellent.
- Both women park rangers at the Harbor Park Pavilion late in the afternoon on Wednesday, September 19th gave my husband and I excellent information and tips on visiting the islands - they were fantastic! We went on.
- Cheap fare, so close to home and kayaking is free, since I don't have my own as of yet
- Confusion about the ferries and Boston Harbor tours. Same company but different management systems. Did not know where to get the ferry ticket. Have the same harbor tours presented services easier.
- Crew and leaders were very helpful especially with wheelchair I use
- Didn't know worlds end was part of Boston Harbor Islands.
- Difficult finding meeting location
- Doing great job
- Even though the weather wasn't the best the best the tour was great. The rangers were all friendly and informative.
- Everyone we met was exceptional.
- Ferry service was awful
- For the gender question, you should have transgender/ other as gender option.
- Georges Island was beautiful! The grounds care was excellent!
- Get out the word to younger people. (20's - 30's, Allston, Brighton)
- Glad ferry was available, Peddocks needs more information services, great job (Spectacle Marina). I suggest more marketing to get the word out - suggest camping areas/center area (like at Spectacle) on Peddocks. More info on the island people's history i.e. WWII and POWs islands - it's a great story!
- Glad I did it
- Great destination, park ranges are friendly and helpful. I love the Harbor islands!
- Great experience
- Great experience. Keep camping rustic but add more sites.
- Great job
- Great job on Spectacle island
- Great park
- Great place

- Great tour!
- Great!
- Hidden gem - Lived in Boston for years wish I'd visited sooner. Hope to see more islands next summer.
- I am looking forward to next summer 2013, to visit the park
- I did not visit but took information from the pavilion
- I had a very nice time, everyone there was very friendly and helpful
- I love everything about the experience especially the fun boat rides. I would add that your snack bar on Georges Island should offer hot coffee which it does not.
- I Love Mary Hoppe- she told me how awesome the islands are. This survey is too long.
- I love the Harbor Islands and think they are slowly becoming more loved by others
- I love Webb Park and World's End. I do feel I am in one with nature at both parts.
- I love Webb Park for walking!
- I really enjoyed my visit. I plan to return and find time to include more islands.
- I really love how the expressway I-93 was renovated and designed. It's been a big improvement for the city of Boston
- I recommend vending machines for snacks and drinks to provide consumers a choice for purchase
- I walk at Webb Park everyday. Best park in area! Suggestion: Why not offer ranger-led kayaking programs? PS I am a travel writer for Webb? AAA journeys in Connecticut.
- I wish there was still music/dancing available during the summer
- I'd like to see more law enforcement rangers to enforce preservation of park's natural resources. Overall an amazing place to visit. We had a great time. Exactly what we needed.
- I'm a fan of National Park Service
- Ice cream/ frozen yogurt would be a moneymaker!
- In general, we have had great service from park rangers. People who really like their job and like to share their knowledge.
- Increase taxi frequency from island to island would be nice
- It is a beautiful/peaceful place to visit and I feel fortunate that I live so close to Webb Park.
- It is a joy to walk the islands. They are for the most part clean! Thank you!
- It is all. P.S. I wish I'll help.
- It was delightful
- It was fun
- It was great. The employees are superb!
- It would have been helpful to know that the ferry from Long Wharf can sell out (reach capacity) and that tickets are available for pre purchase online.
- It's a great place- but underutilized
- It's a gym with an awesome history. Keep it up!
- It's a wonderful resource for our area. I think the Park Service does a beautiful job on this site and so many others.
- Keep islands open in September
- Keep it up! Nice food court. Hope you get more funding to continue renovations. Enjoyed it, thanks.
- Keep up the good work - Rangers were friendly and helpful.
- Keep up the good work.
- Keep up the good works. Lots of good improvements.
- Keep up the great work!

- Lights should be powered by solar energy or very least sensors. Area at Webb (on point) map of islands and names seen in view. Let people know what they're looking at: bird identification, tree identification, salt marsh, etc. More work to get rid of invasives. Stop adding benches! You're destroying the natural habitat.
- Love it! We come back every year!
- Love it. Better food service aspect and their bathrooms need back window covered.
- Love the islands!
- Love the park
- Love the upkeep at Webb - They are always trying to improve the park. Bathrooms always clean as well.
- Love them - you guys have done a great job promoting, just get more ferries
- Love!!
- Loved it
- Loved it, can't wait to come back.
- Loved it, will definitely return.
- Loved it!
- Loved the pavilion in Boston. Very well done and informative - did not know it was there - should be advertised at Boat Terminal
- Lovely spot, thanks very much
- Marie at Harbor Park Pavilion was outstanding!!! She is a real credit to the NPS. Our Boston Harbor Islands experience ranks #2 of all NPS visits (Rank #1 = Presidio, San Francisco, CA). Fantastic! Best part of our visit to Boston.
- More info in the trail map.
- More visible signs directing to Worlds End please. Was difficult to find coming from Hull.
- Moving the meeting area to nearer the boat is much easier for senior citizens and the current distance may discourage some of them
- My visit to Spectacle Island was beyond expectation. Keep up the excellent work. Nice to see my tax dollars at work this way.
- Need to have greeters to welcome you
- Nice Job! Thank you!
- Nice park
- Nice pavilion! Well done! Keep up the good work
- Nice people
- No, if you read this beautiful. Wow what an amazing smile you have.
- Park areas are maintained very well
- Park rangers very helpful; lovely having chairs on porch
- Please keep up the good work
- Please keep up the great work you do!
- Please put boat docks back
- Put some rat terriers (or cats) for rats on Lovells. Tell people about the problem. Charge a no-show fee if people don't cancel their reservations
- Ranger Alisa Scott was very helpful
- Rangers/staff not outwardly friendly or engaging
- Really beautiful city
- Replace burned out section in fort
- Seriously, what's with those ferry times? Nice pavilion though! Oh, and don't you think the color map in this survey is a waste of ink and money? It's not like I can keep it.

- Six of our group are/were African refugees
- Still lots to learn about and explore. Researched areas to bring grandchildren when they visit in august.
- Talked to Ranger Alisa on boat ride, she was great! Great restrooms. To be able to escape - not be bothered, shut phones off is priceless! This island is my mental security.
- Thank you
- Thank you, keep up the good work
- Thank you!
- Thank you! DCR and NPS have done a great job making the islands accessible and fun!
- Thanks
- Thanks
- Thanks for great work! Please protect wild/natural space
- Thanks for the opportunity
- The facilities are terrific
- The park gets better every year. The rangers put much effort into keeping it neat.
- The staff was VERY friendly, especially Suzanne and the Kisners
- They are a true gift to the community! Thank you! Bathrooms are spotless
- This survey was intense.
- Very clean
- Very enjoyable
- Very enjoyable, learned much. Thank you.
- Very enjoyable!
- Very excellent staff, customer service
- Very fun and informative
- Very good
- Very impressed!
- Very much appreciated the quality of Boston Harbor Islands National Park - a real pleasure!
- Very, very nice.
- Views are spectacular. Given the number of visitors, Georges Island should have more seating (away from food services location).
- We are so lucky to have all these protected islands for us to enjoy. Also to have ferry/boat as frequently as we do.
- We did not make it to the islands themselves on this trip, but on our next trip we hope to. The pavilion area (new, I believe) is very nice.
- We enjoyed our visit and everyone we spoke to was always polite and friendly
- We had a very enjoyable day. Thank you.
- We liked it!
- We love the new Harbor Park Pavilion
- We spend as much time as possible exploring and finding new places to see, explore, etc. I feel the islands are being promoted but it's difficult to find precise information on how to get anywhere except two islands. Can't get to 34 of them as advertised. No maps or historical information to learn and explore.
- We visit every time we vacation in Boston - a must!
- We will return
- We would have liked information on our campsites amenities. This info was scattered over three web sites, and never quite accurate.

- We would like o season camping and also the option of staying in a yurt
- We'll be back!
- Webb Park in North Weymouth is a gem. More and more people are using it daily. I think additional kiosks with a map of the Boston Harbor Islands and information on trees and fauna at the park would be of great interest. Also, a book so visitors could record bird and wildlife sightings
- Webb Park is maintained very nicely - enjoying walking there with dog and family almost daily
- Webb Park is well maintained and we enjoy it immensely. Most people walking dogs have them leashed. A few do not - is there some way to prevent/penalize this...
- Webb Park looks spectacular! Have been walking there for 20 years. \*\*Dog owners need to pick up!
- Website should have easily accessible ferry prices.
- When the chapel on Peddocks is restored, it would be a great location for weddings including ferry service! Also would love to see a resident island artist at Peddocks creating furniture from the lumber/trees washed up on the beach.
- Where are the trashcans?
- Wish there was more sand on Spectacle Beach. And that the beach was cleaned on a daily basis
- Worlds end is a breathtaking reservation!
- Yes, for a few years I taught at Courageous Sailing to support kids programs and adult sailing. I tried to encourage close relations between CSC and the area yacht clubs that would provide destination and refuge to new sailors while at the same time providing YC's with more potential members. This would stimulate YC membership, boating industry and showcase the islands. (Added from question 11) Add moorings and launch service - encourage cruising and small boat (e.g. Courageous sailing day sailors)
- Yes, keep it clean and limit expenses. Let this be self-financing and don't make it a burden on taxpayers
- You have a good program, an area groomed and so beautiful that deserve greater disclosure about that!  
You should let me host events here. Peddocks needs larger, readable tour maps.

# Appendix 1: The Questionnaire



**United States Department of the Interior**  
NATIONAL PARK SERVICE  
Boston Harbor Islands National Recreation Area  
408 Atlantic Avenue, Suite 225  
Boston MA 02110

**INSTRUCTIONS:**  
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: ○

**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 at Boston Harbor Islands National Park area. Your response is voluntary. A Federal agency may not conduct or sponsor and you are not required to respond to, collection of information unless it displays a currently valid OMB Control Number. We estimate that it will take about 8-10 minutes to complete the survey associated with this collection of information. You may send comments concerning the burden estimates or any aspect of this information collection to Lena Le, NPS Visitor Services Project, College of Natural Resources, University of Idaho, P.O. Box 441139, Moscow, ID, 83844-1139; email: lenale@uidaho.edu.

OMB No. 1040-1024-0224  
Expiration Date: 2015



Summer 2012  
Dear Visitor,  
Thank you for participating in this study. We want to learn about the expectations, opinions, and interests of visitors to Boston Harbor Islands National Park area.

In reply to:

Summer 2012

Dear Visitor,

Thank you for participating in this study. We want to learn about the expectations, opinions, and interests of visitors to Boston Harbor Islands National Park area.

This questionnaire is only being given to a select number of visitors, so your participation is very important. It should only take about 8-10 minutes to complete.

When your visit is over, please complete this questionnaire, fold it, and place it in the drop box provided.

Results of this study will be available to the public in 2013 and will be posted on the Internet at [www.nps.gov/boha](http://www.nps.gov/boha) and [www.psu.uidaho.edu](http://www.psu.uidaho.edu).

If you have any questions, please contact Lena Le, NPS Visitor Services Project, College of Natural Resources, University of Idaho, P.O. Box 441139, Moscow, ID, 83844-1139; email: [lenale@uidaho.edu](mailto:lenale@uidaho.edu).

We appreciate your help.

Sincerely,



Bruce Jacobson  
Superintendent

Date: \_\_\_\_\_ Location: \_\_\_\_\_

13. a) What type of organized group were you with (guided tour, school, scouts, etc.)?  
☐ None ☐ OR Specify type of group \_\_\_\_\_  
 b) Please list the number of people in the organized group. \_\_\_\_\_
14. a) On this visit, what kind of personal group (not guided tour/school/other organized group) were you with? Please mark (●) **one**.  
☐ Alone ☐ Friends ☐ Family and friends  
☐ Family ☐ Other (Please specify) \_\_\_\_\_  
 b) On this visit, how many people were in your **personal group**, including yourself?  
 Total number of people \_\_\_\_\_ Number of people under 18 years in personal group \_\_\_\_\_
15. What is your age? \_\_\_\_\_
16. a) What is your U.S. ZIP code? \_\_\_\_\_  
 b) If you are not from the U.S., please specify name of country \_\_\_\_\_
17. What is your gender? ☐ Male ☐ Female
18. 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
19. a) Are you Hispanic or Latino? ☐ Yes ☐ No  
 b) What is your race? Please mark (●) **one or more**.  
☐ American Indian or Alaska Native ☐ Native Hawaiian or other Pacific Islander  
☐ Asian ☐ Black or African American ☐ White
20. Is there anything else you would like to tell us about your visit to Boston Harbor Islands national park area?  
 \_\_\_\_\_  
 \_\_\_\_\_

1. a) Prior to this visit, how did you obtain information about Boston Harbor Islands national park area? Please mark (●) all that apply in column (a)

☐ Did not obtain information prior to visit → Go to part b

- b) If you were to visit Boston Harbor Islands national park area in the future, how would you 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"/> | Previous visits                                                                                                         |
| <input type="radio"/> | <input type="radio"/> | Live in the local area                                                                                                  |
| <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"/> | Boston Harbor Islands NPS website: <a href="http://www.nps.gov/boha">www.nps.gov/boha</a>                               |
| <input type="radio"/> | <input type="radio"/> | Boston Harbor Islands Partnership website: <a href="http://www.bostonharborislands.org">www.bostonharborislands.org</a> |
| <input type="radio"/> | <input type="radio"/> | Other websites — Which one(s)? _____                                                                                    |
| <input type="radio"/> | <input type="radio"/> | Ferry companies                                                                                                         |
| <input type="radio"/> | <input type="radio"/> | Harbor Park Pavilion (information pavilion on Rose Kennedy Greenway)                                                    |
| <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 tourist sites (not National Park Service)                                                                         |
| <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 (such as AAA, etc.)                                                                            |
| <input type="radio"/> | <input type="radio"/> | Other, this visit (Specify) _____                                                                                       |
| <input type="radio"/> | <input type="radio"/> | Other, future visit (Specify) _____                                                                                     |

Page 2

11. a) On this visit to Boston Harbor Islands national park area, please indicate how satisfied you were with the following services. Please mark one (●) for each service.

| Service                    | Did not use           | Not at all satisfied  | Slightly satisfied    | Somewhat satisfied    | Very satisfied        | Completely satisfied  |
|----------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Ferry/water transportation | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Food service               | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Bookstores/retail          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Ranger-led programs        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Information services       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Special events/programs    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Boston Light Tour          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Spectacle Manna            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Boat moorings              | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Visitor centers/exhibits   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Campsites                  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Picnic areas               | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

b) For any service that was not satisfactory, please explain the problem.

12. Overall, how would you rate the quality of the facilities, services, and recreational opportunities provided to you at Boston Harbor Islands national park area during this visit? Please mark (●) one.

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

Page 7

2. a) Below are some reasons people visit Boston Harbor Islands national park area. Please rate each reason's importance to you, from 1-5.  
b) Next, please rate how well the park provided opportunities to fulfill each reason, from 1-5.
- | Reason for visit                                   | a) How important?<br>1=Not at all important<br>2=Slightly important<br>3=Moderately important<br>4=Very important<br>5=Extremely important | b) Opportunity?<br>1=No opportunity<br>2=Poor opportunity<br>3=Good opportunity<br>4=Very good opportunity<br>5=Excellent opportunity |
|----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Do something with family                           | _____                                                                                                                                      | _____                                                                                                                                 |
| People-watching                                    | _____                                                                                                                                      | _____                                                                                                                                 |
| Bring family closer together                       | _____                                                                                                                                      | _____                                                                                                                                 |
| Experience new and different things                | _____                                                                                                                                      | _____                                                                                                                                 |
| Learn more about nature                            | _____                                                                                                                                      | _____                                                                                                                                 |
| Learn more about Boston/New England history        | _____                                                                                                                                      | _____                                                                                                                                 |
| Get away from life's usual demands                 | _____                                                                                                                                      | _____                                                                                                                                 |
| Be with others who enjoy same things               | _____                                                                                                                                      | _____                                                                                                                                 |
| Talk to new and varied people                      | _____                                                                                                                                      | _____                                                                                                                                 |
| Be with friends                                    | _____                                                                                                                                      | _____                                                                                                                                 |
| Experience tranquility                             | _____                                                                                                                                      | _____                                                                                                                                 |
| Learn what you are capable of                      | _____                                                                                                                                      | _____                                                                                                                                 |
| Develop your skills and abilities                  | _____                                                                                                                                      | _____                                                                                                                                 |
| Get some fresh air                                 | _____                                                                                                                                      | _____                                                                                                                                 |
| Get some exercise                                  | _____                                                                                                                                      | _____                                                                                                                                 |
| Go for a boat ride                                 | _____                                                                                                                                      | _____                                                                                                                                 |
| See views of Boston from water                     | _____                                                                                                                                      | _____                                                                                                                                 |
| Help take care of the park/help with park programs | _____                                                                                                                                      | _____                                                                                                                                 |
| Other (Please specify below)                       | _____                                                                                                                                      | _____                                                                                                                                 |
3. Have you visited the information pavilion, known as the Harbor Park Pavilion, on the Rose Kennedy Greenway? Please mark (●) all that apply.  
O Yes, on **this** visit O Yes, on **past** visits O No, have never visited

Page 3

9. a) On this visit, in which activities did you participate within Boston Harbor Islands national park area? Please mark (●) all that apply.
- |                                                                           |                                      |
|---------------------------------------------------------------------------|--------------------------------------|
| <input type="checkbox"/> Attending pre-arranged park programs             | <input type="checkbox"/> Camping     |
| <input type="checkbox"/> Swimming in Boston Harbor                        | <input type="checkbox"/> Fishing     |
| <input type="checkbox"/> Touring historical/natural sites                 | <input type="checkbox"/> Picnicking  |
| <input type="checkbox"/> Walking/hiking trails and beaches                | <input type="checkbox"/> Sightseeing |
| <input type="checkbox"/> Attending ranger-led programs (not pre-arranged) |                                      |
| <input type="checkbox"/> Attending special events (Specify)               |                                      |
| <input type="checkbox"/> Watching wildlife/nature observation             |                                      |
| <input type="checkbox"/> Other (Specify)                                  |                                      |
- b) Which **one** of the above activities was the primary reason you visited Boston Harbor Islands national park area on this visit? Please list only **one**.
10. As part of managing the Boston Harbor Islands national park area, information and education are provided to visitors via exhibits, signage, printed materials, publications, and programs.
- a) Please mark (●) each type of information that you received during this visit to Boston Harbor Islands national park area.
- b) For each type of information received, please rate the **amount**, from 1 - 3.
- c) For each type of information received, please rate the **quality**, from 1 - 5.
- | a) Received information?                                                                    | Type of information | b) Amount of information<br>1= Not enough<br>2= About right<br>3= Too much | c) Quality of information<br>1=Very poor<br>2= Poor<br>3= Average<br>4= Good<br>5= Very good |
|---------------------------------------------------------------------------------------------|---------------------|----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| <input type="checkbox"/> Visitor opportunities & activities                                 | _____               | _____                                                                      | _____                                                                                        |
| <input type="checkbox"/> Information on ferry & other means to access Boston Harbor Islands | _____               | _____                                                                      | _____                                                                                        |
| <input type="checkbox"/> Natural history of Boston Harbor Islands                           | _____               | _____                                                                      | _____                                                                                        |
| <input type="checkbox"/> Human history of Boston Harbor Islands                             | _____               | _____                                                                      | _____                                                                                        |

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## Appendix 2: Sample self-registration logbook page

Date \_\_\_\_\_

Number of people in your group

\_\_\_\_\_ 18 years and older \_\_\_\_\_ under 18 years

Type of boat

☐ sail      ☐ paddle/row      ☐ motor

Type of group

☐ alone      ☐ friends/family      ☐ club      ☐ other \_\_\_\_\_

Length of stay \_\_\_\_\_ hours

Comments or Suggestions

---

---

---



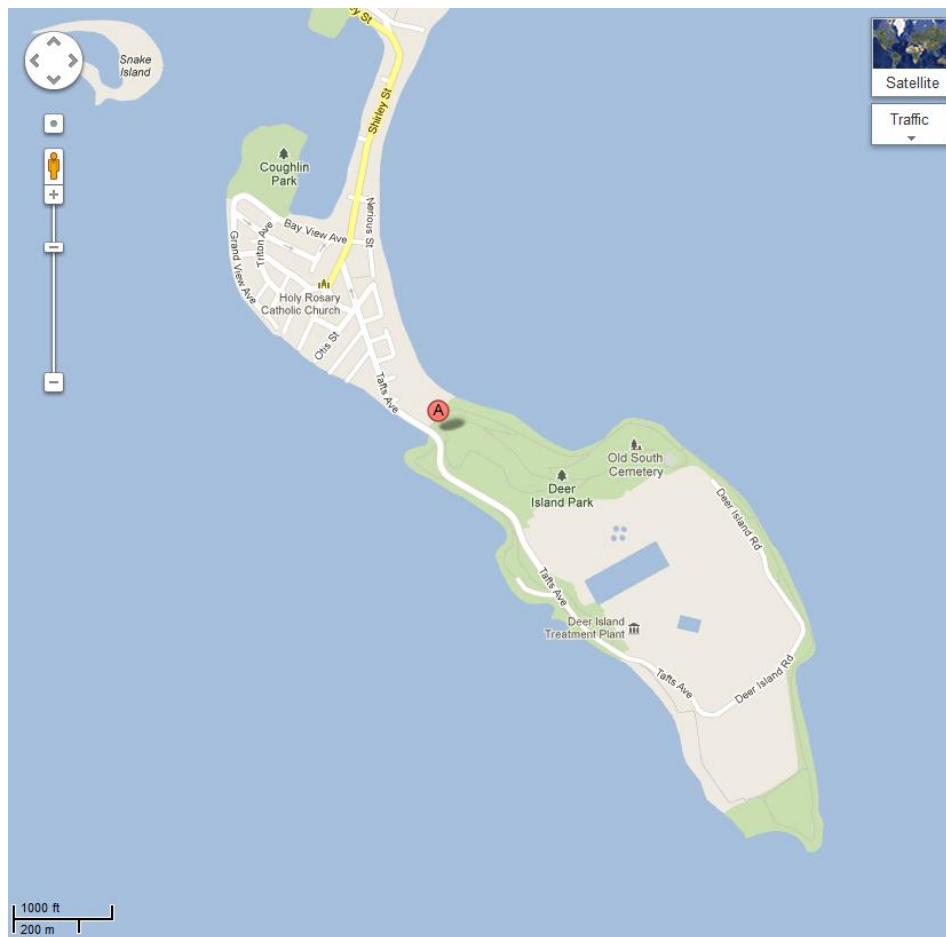




## Appendix 3: Island profiles

This section provides a map of each island, instructions on how to access the island, and instructions on where to locate the counters, as provided to the survey technicians.

### Deer Island Profile



#### Driving instructions from Boston area

1. Enter I-90 East toward Boston Logan Airport, then follow signs for MA-Rte 1A North toward Revere. Continue for 3.5 miles.
2. Turn right onto Boardman Street and follow for 1 mile.
3. At the traffic circle, take the second exit to Saratoga Street, and merge onto Main Street. Continue on Main Street, approximately  $\frac{3}{4}$  miles.
4. Turn right onto Pleasant Street, which shortly becomes Washington Street. Continue on Washington Street for 1.5 miles.
5. Turn right onto Shirley Street, and follow for about 1 mile.
6. Turn left at the Roman Catholic Church on Tafts Ave, and follow until entrance of park.
7. You may park at the first Deer Island parking lot on the left. (If you continue down the driveway to the main entrance to the MWRA wastewater facilities, you will be turned away.)

## Deer Island Profile



### Locating the Counter

There are no counters on Deer Island. While stationed at Deer Island, you will hand count everyone entering the park.

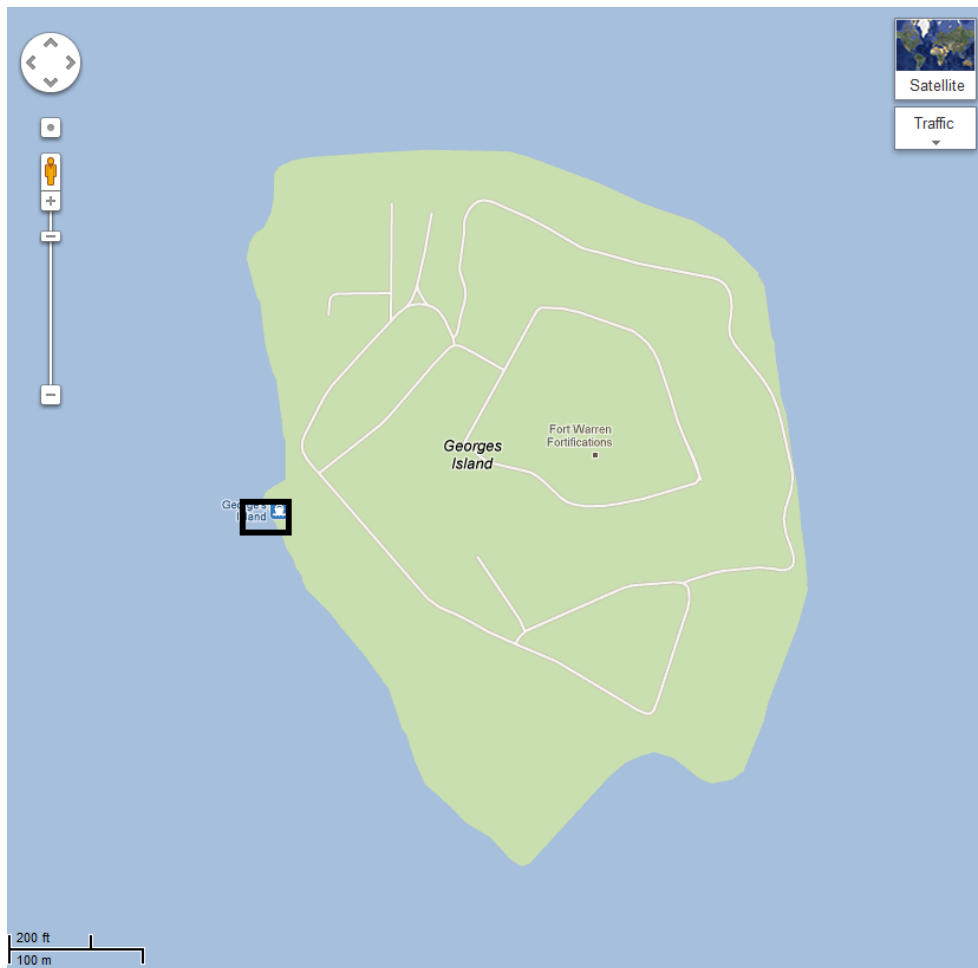
### **Best Place to Observe (Purple Arrow)**

It's best to sit where you can observe ALL foot traffic entering the park. There is a small hillside on the left and right immediately after entering the island by foot from the parking lot. Find a comfortable seat on either side.

**Sun Exposure:** High

**Seating Accommodations:** None

## Georges Island Profile



### Access Instructions

Survey technicians will use regular public ferry service for access to Georges Island on weekend days and one of the two departure locations for landing craft transit on weekdays (see separate boat departure information sheet).

## Georges Island Profile



### Locating the Counter

#### ***Pedestrian Counter (Yellow Star)***

The pedestrian counter is situated at the top of the wooden section of the pier, just past a slight right-hand bend. You will have to walk around the pier fencing to view the counter screen. NOTE: A new pier section is opening before the end of July. It is very possible a second counter will be added to the pier. Location and any changes to the observation protocol will follow.

#### ***Best Place to Observe (Purple Arrow)***

TWO people will count people at Georges Island. Both Visitor Survey Technicians should continue walking up the wooden pier and onto the island. Then, the first technician will turn left and walk toward the northwest beach—no more than 20 yards. The second technician should turn right and walk about 20 yards toward the main door to the visitor center. The two technicians should more or less face each other. Each technician will independently count all arriving visitors (clicker 1) and staff (clicker 2).

**Sun Exposure:** High

**Seating Accommodations:** None

## Grape Island Profile



### Access Instructions

Boat access to Grape Island will leave from one of the two departure locations for Landing Craft transit, or from the Hingham Shipyard (see separate boat departure information sheet).

## Grape Island Profile



### Locating the Counter

#### ***Pedestrian Counter (Yellow Star)***

The pedestrian counter is situated just before the last kink in the wooden section of the pier—just before the main beach begins. You will have to lean over the pier fencing to view the counter screen.

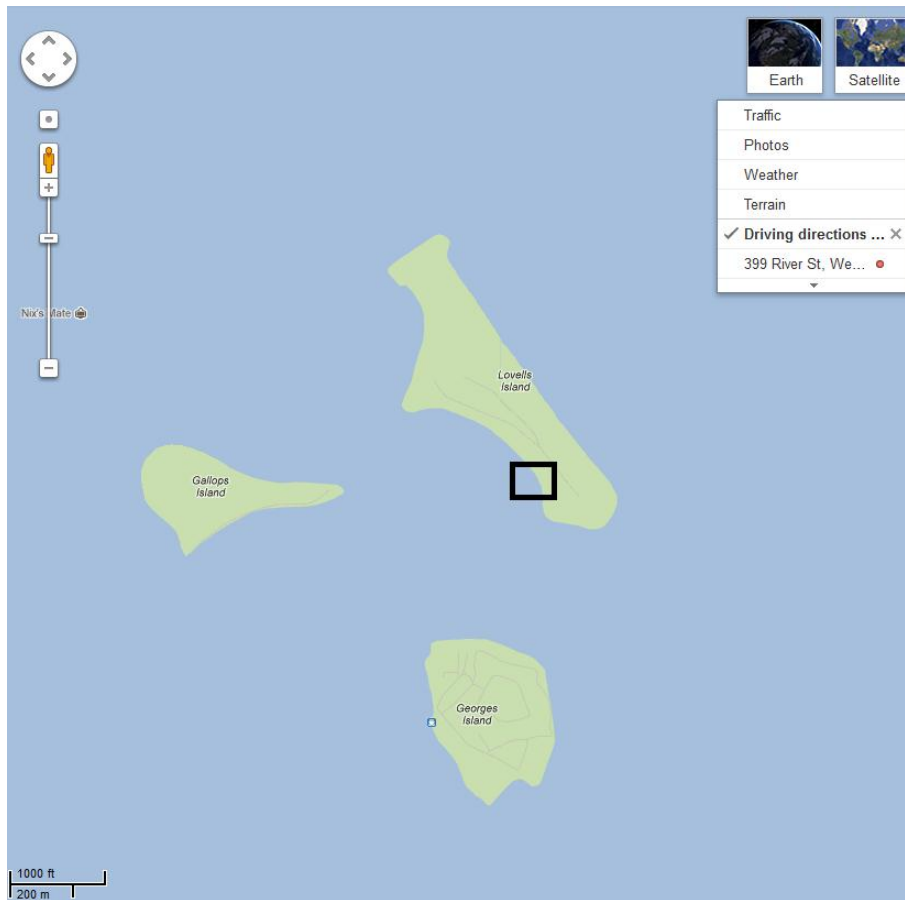
#### ***Best Place to Observe (Purple Arrow)***

Continue walking along the pier on to the island; walk onto the grass and look to your forward-left for picnic tables and a general shaded seating area. You should sit at one of the picnic tables FACING the main trail, so you can have a 180-degree view covering the main island trail (left), the access trail (ahead), and the pier (right). Make sure you are out of the way of rangers who may conduct tours in the vicinity—do not sit underneath the grape arbor.

**Sun Exposure:** Medium

**Seating Accommodations:** Plenty

## Lovells Island Profile



### Access Instructions

Boat service for access to Lovells Island will be from one of the two departure locations for Landing Craft transit (see separate boat departure information sheet).

## Lovells Island Profile



### Locating the Counter

#### ***Pedestrian Counter (Yellow Star)***

The pedestrian counter is situated almost at the toe of the wooden pier—just before the first sand dune system on the right. You will have to walk all the way around the pier fencing and back over the dune's informal trail to access the counter.

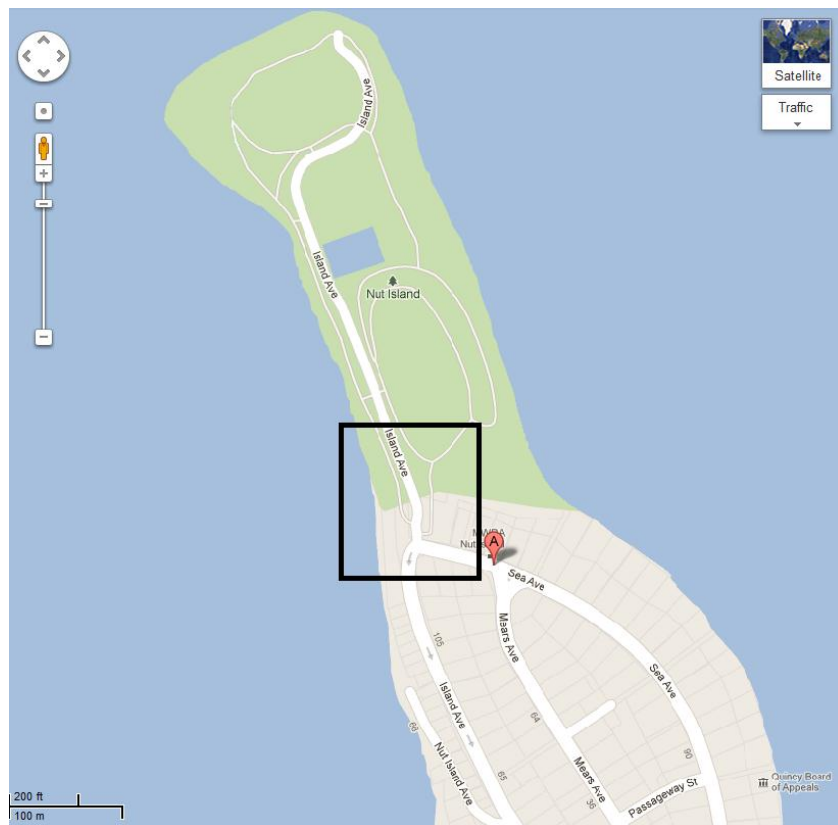
#### ***Best Place to Observe (Purple Arrow)***

If you continue walking on the pier on to the island, you will see a pavilion on the left side of the main trail. You should sit underneath the pavilion **FACING** the main trail, so you can have a 180-degree view covering the main island trail (left), the access trail (ahead), and the pier (right). Make sure you are out of the way of rangers who may conduct tours in the vicinity.

**Sun Exposure:** Medium

**Seating Accommodations:** Plenty

## Nut Island Profile



### Driving Instructions

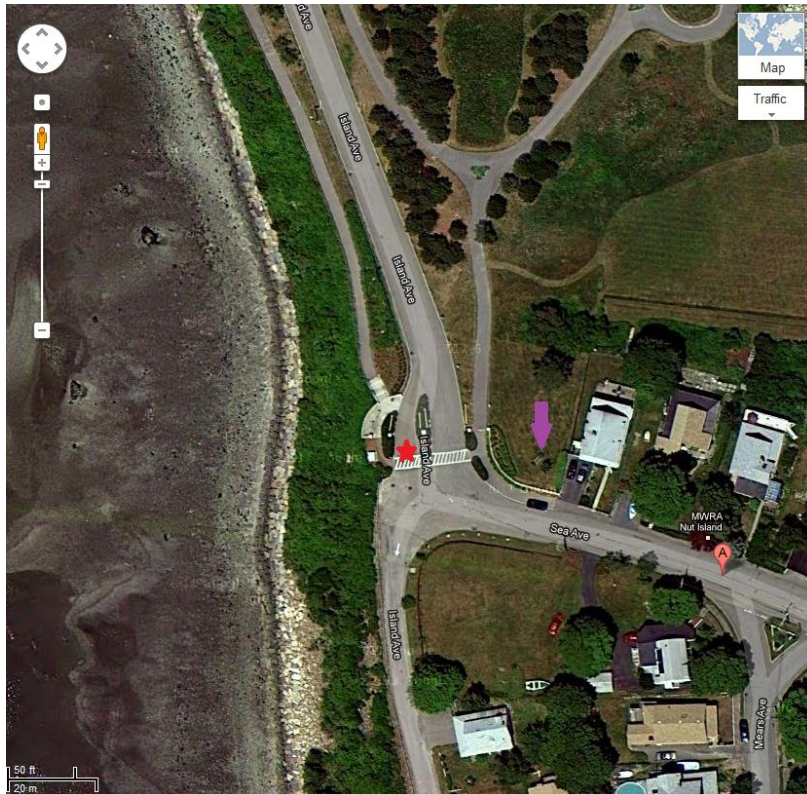
#### ***Driving instructions from Boston area***

1. Exit I-93 South onto MA-Rte 3A South toward Quincy.
2. Almost immediately after merging onto MA-Rte 3A South, stay left on the bridge overpass toward Quincy Shore Drive.
3. Turn left onto Quincy Shore Drive. Continue to drive on Quincy Shore Drive for approximately 3.5 miles. The road will parallel the beach for much of the stretch.
4. Turn left onto Sea Street. Follow Sea Street through a residential neighborhood for about 3 miles.
5. You can either park at the end of the street before turning in to Nut Island. Or you can turn right and park in the parking lot, approx 200 yards further.

#### ***Driving Instructions from Norwood area***

1. Exit I-93 North onto MA-Route 3A South toward Quincy. Follow signs to stay on MA-Rte 3A South through Quincy and into North Weymouth.
2. Then exit onto Burgin Parkway toward Quincy Center. Continue on Burgin Parkway through Quincy Center, and toward the water, approximately 1 mile.
3. Make a slight right onto Granite Street, then a quick left onto Hancock Street. The road then changes to Coddington Street. After about 0.5 miles, the road becomes Sea Street.
4. Follow Sea Street through a residential neighborhood for about 3 miles.
5. You can either park at the end of the street before turning in to Nut Island. Or you can turn right and park in the parking lot, approx 200 yards further.

## Nut Island Profile



### Locating the Counter

#### ***Vehicle Counter (Red Star)***

The roadtube is located on the exit side of the main entrance to Nut Island. The actual device is located within a stand of evergreen shrubs, and is attached by a plastic-covered chain.

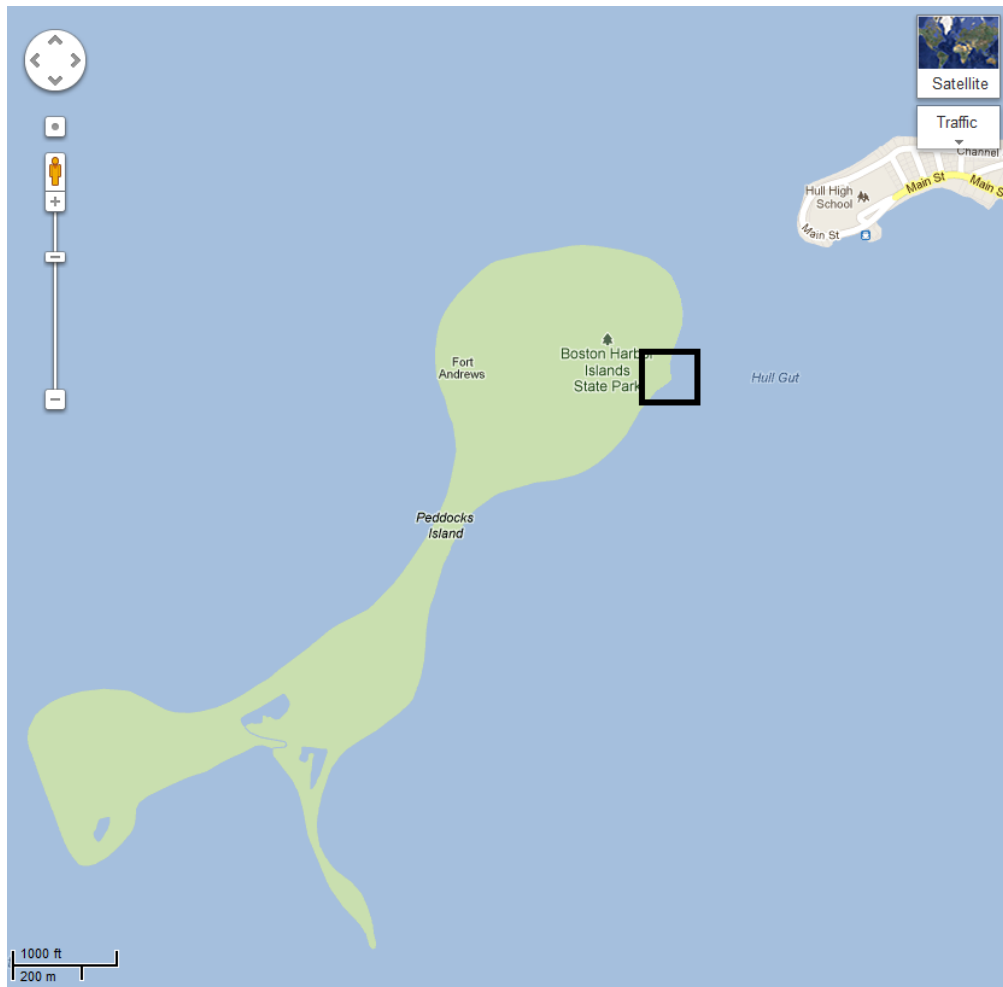
#### ***Best Place to Observe (Purple Arrow)***

It's best to sit where you can observe ALL foot and vehicular traffic entering the park. There is a park bench situated at the east edge of the entrance near a small stand of shrubs.

**Sun Exposure:** High

**Seating Accommodations:** Minimum

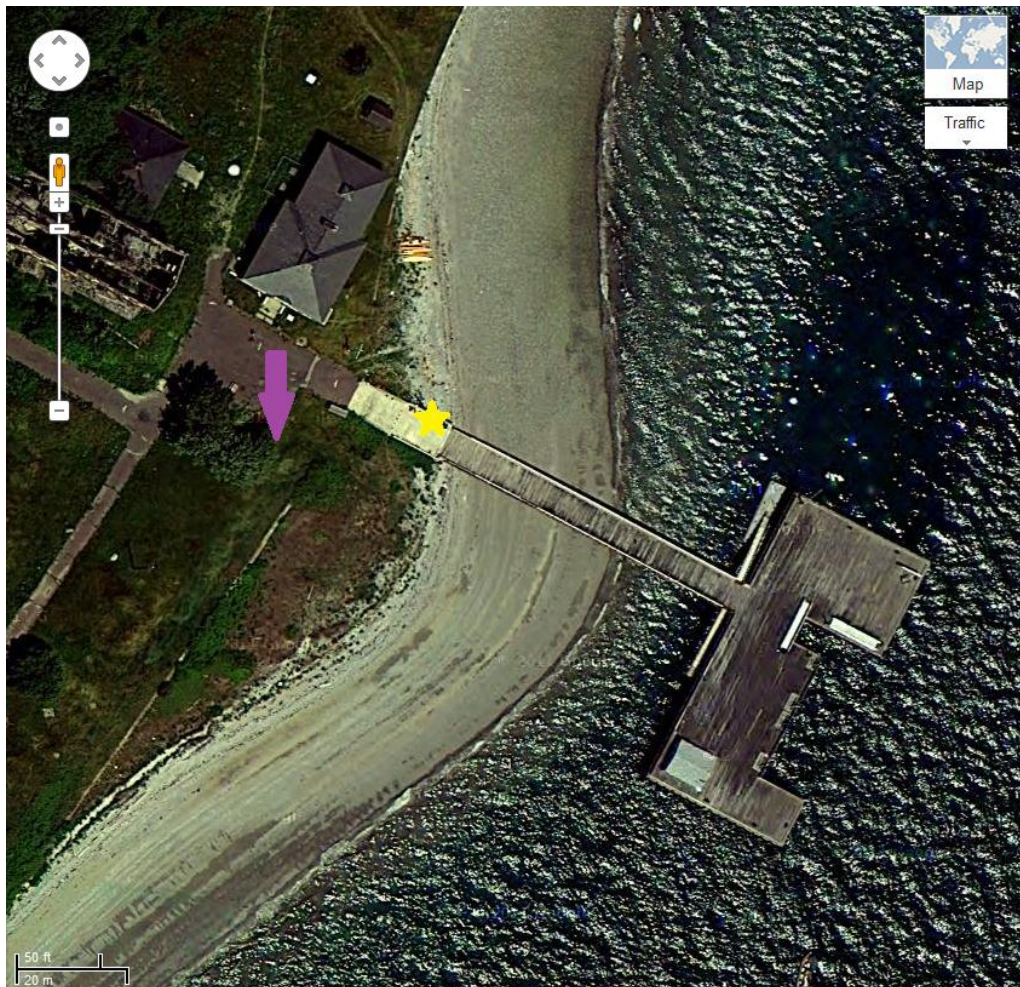
## Peddock's Island Profile



### Access Instructions

Boat service for access to Peddock's Island will either be UMass Landing Craft via Fox Point at the UMASS-Boston campus in South Boston, or via the Boston Waterbus Landing Craft out of Courthouse Dock (see separate Boat access directions).

## Peddock's Island Profile



### Locating the Counter

#### ***Pedestrian Counter (Yellow Star)***

The pedestrian counter is situated just before the toe of the wooden pier on the right. You will have to walk all the way around the pier fencing and over the beach to access the counter.

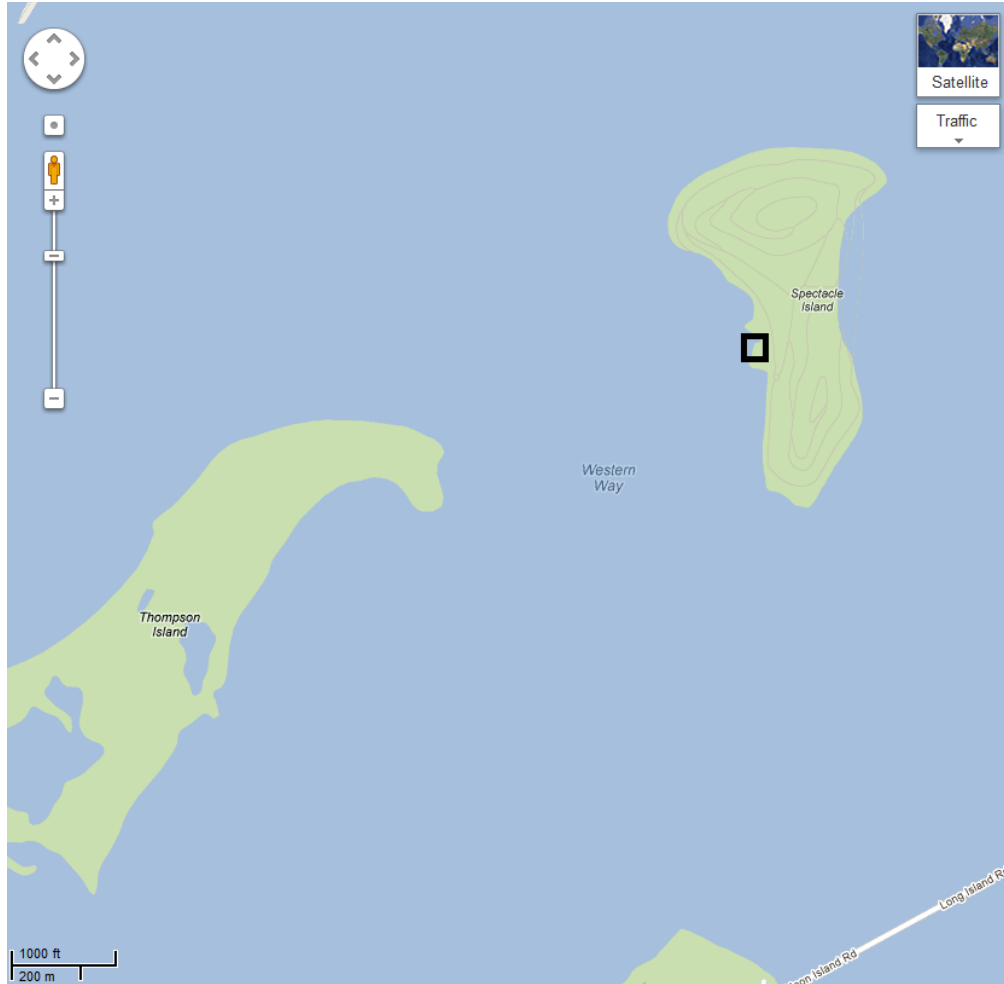
#### ***Best Place to Observe (Purple Arrow)***

If you continue walking on the pier on to the island, you will see a small stand of trees on the left side of the main trail. You should sit underneath the trees FACING the guard house/ranger station, so you can have a 180-degree view covering the main island trail (left), the access trail (ahead), and the pier (right). Make sure you are out of the way of rangers who may conduct tours in the vicinity.

**Sun Exposure:** Medium

**Seating Accommodations:** Medium

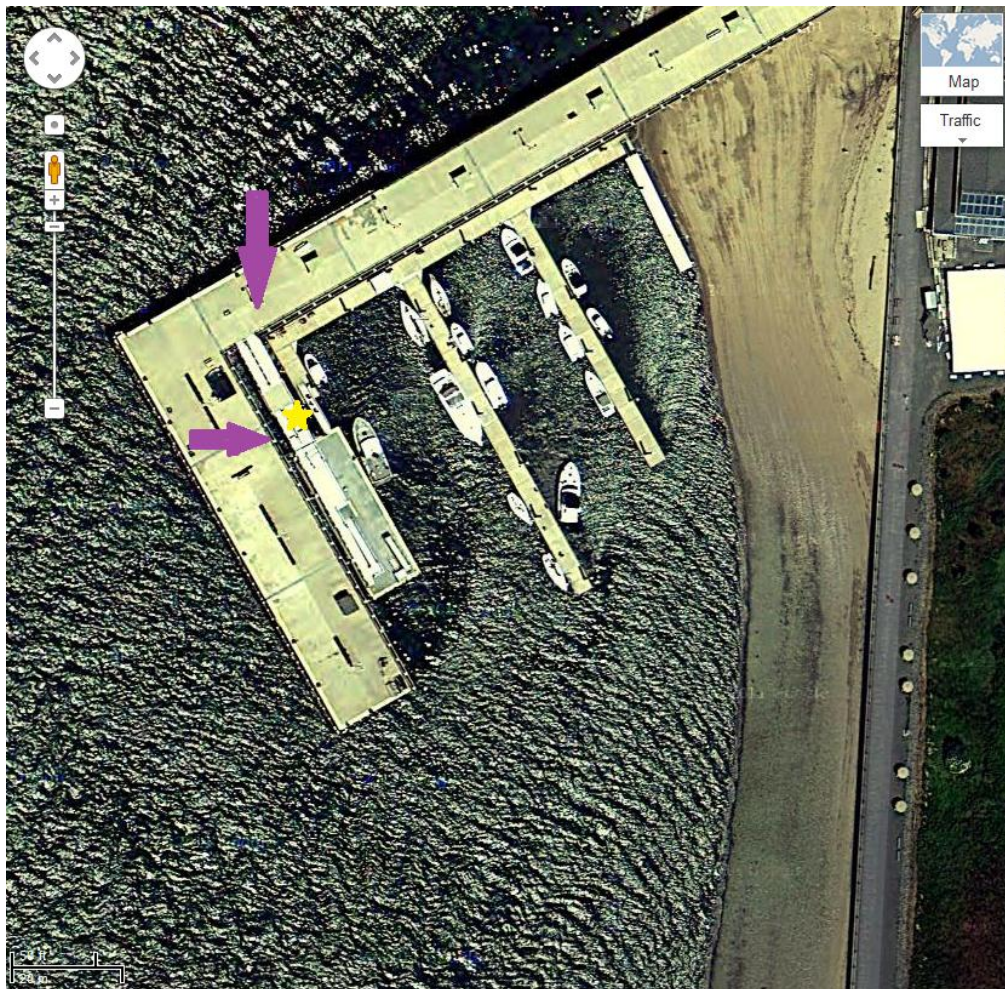
## Spectacle Island Profile



### Access Instructions

Survey technicians will use regular public ferry service for access to Spectacle Island on weekend days, and either the UMass Landing Craft or the Boston Waterbus Landing Craft out of Courthouse Dock on weekdays (see separate Boat access directions).

## Spectacle Island Profile



### Locating the Counter

#### ***Pedestrian Counter (Yellow Star)***

The pedestrian counter is situated in the flat, middle segment of the right-most metal floating pier system. You will have to lean over the pier fencing to view the counter screen.

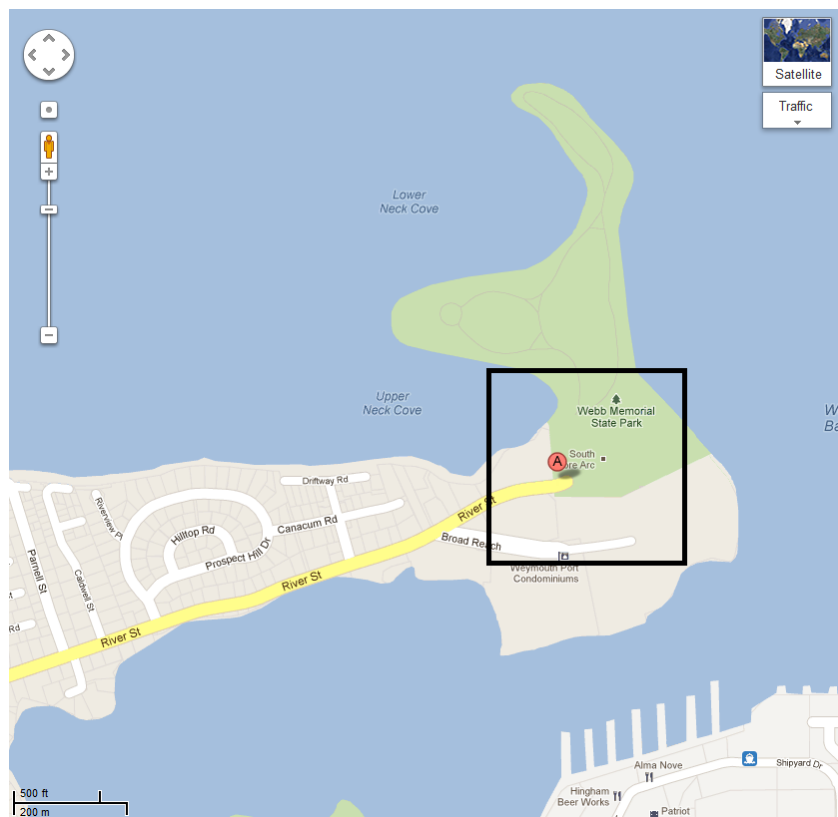
#### ***Best Place to Observe (Purple Arrow)***

TWO people will count people at Spectacle Island. Both Visitor Survey Technicians should continue walking up the floating ramp and onto the concrete fixed pier. Then, the first technician will turn left and loop back toward the storage sheds on the concrete fixed pier. The first technician should stand between the two sheds and look down onto the floating pier system. The second technician should turn right and walk about 20 yards down the pier (toward the picnic tables). The second technician should stand out of the traffic flow, looking down the dock toward the island. Each technician will independently count all arriving visitors (clicker 1) and staff (clicker 2).

**Sun Exposure:** High

**Seating Accommodations:** Minimal

## Webb Memorial Park Island Profile



### Driving Instructions from Boston area

1. Exit I-93 South onto MA-Rte 3A South toward Quincy. Follow signs to stay on MA-Rte 3A South through Quincy and into North Weymouth.
2. After approx 2.5 miles, enter traffic circle and take second exit onto MA-Rte 3A South /Washington Street toward Hingham.
3. After 1.7 miles, turn left onto Neck Street. Continue for one-half mile.
4. Follow the road around a sharp right bend; street will become River Street.
5. Continue past the entrance to the condo high-rise on the right and enter one-way loop to access Webb Memorial parking lot.

### Driving Instructions from Norwood area

1. Exit I-93 South onto Burgin Parkway toward Quincy Center. Merge onto Burgin Parkway and follow for approximately 1 mile, then merge with MA-Rte 3A South toward Quincy. After approx 1.5 miles, enter traffic circle and take second exit onto MA-Rte 3A South /Washington Street toward Hingham.
2. After 1.7 miles, turn left onto Neck Street. Continue for one-half mile.
3. Follow the road around a sharp right bend; street will become River Street.
4. Continue past the entrance to the condo high-rise on the right and enter one-way loop to access Webb Memorial parking lot.

## Webb Memorial Park Island Profile



### Locating the Counters

#### ***Vehicle Counter (Red Star)***

You will pass over the vehicle counter roadtube shortly after entering the one-way loop and parking area at Webb Memorial Park. The actual device is underneath an evergreen, and is attached by a bright red plastic-covered chain.

#### ***Pedestrian Counter (Yellow Star)***

Walk northeast along the secondary trail that leads, generally, toward the restrooms. When the trail splits, continue walking northeast toward a wide grassy area and the eastern route of the main trail. Merge with the eastbound main trail. The pedestrian counter is attached to the underside of a wayside post located on the right side of the eastbound main trail.

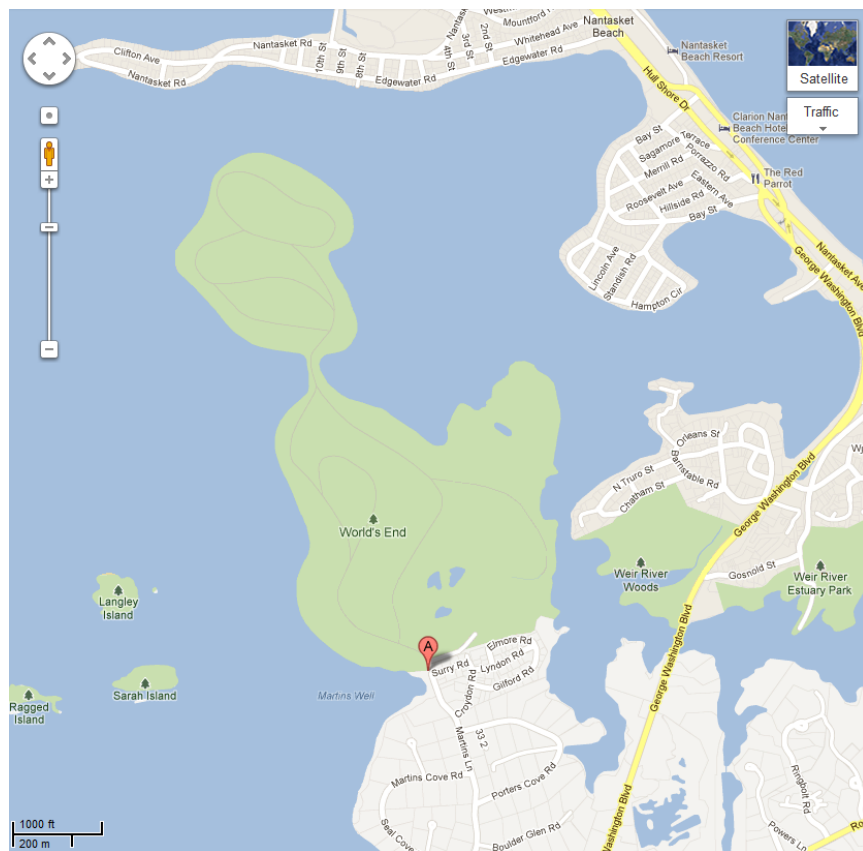
#### ***Best Place to Observe (Purple Arrow)***

It's best to sit where you can observe ALL foot traffic entering the park. There is a park bench situated on the north edge of the one-way loop where the main trail takes off. There is also lots of shade on the hill in the center of the loop.

**Sun Exposure:** Medium

**Seating Accommodations:** Minimum

## Worlds End Island Profile



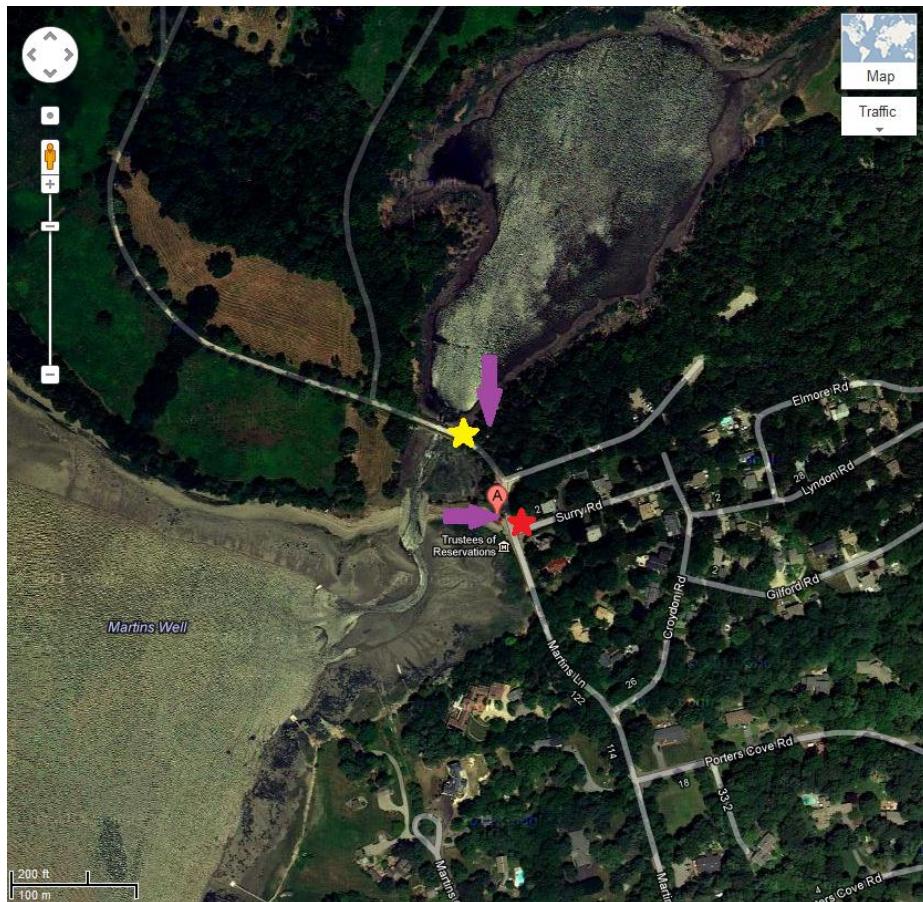
### Driving Instructions from Boston area

1. Follow signs to stay on MA-Rte 3A South through Quincy and into North Weymouth.
2. After approx 2.5 miles, enter traffic circle and take second exit onto MA-Rte 3A South /Washington Street toward Hingham.
3. After 4 more miles, enter a second traffic circle and take second exit to Summer Street. Continue for one-half mile.
4. Turn left onto Martins Lane at the stoplight. The road is not very wide, and it will appear as if you're driving through a private, residential neighborhood. The island entrance will be at the very end of the road.

### Driving Instructions from Norwood area

1. Exit I-93 South onto Burgin Parkway toward Quincy Center. Merge onto Burgin Parkway and follow for approximately 1 mile, then merge with MA-Rte 3A South.
2. After approx 1.5 miles, enter traffic circle and take second exit onto MA-Rte 3A South /Washington Street toward Hingham.
3. After 4 more miles, enter a second traffic circle and take second exit to Summer Street. Continue for one-half mile.
4. Turn left onto Martins Lane at the stoplight. The road is not very wide, and it will appear as if you're driving through a private, residential neighborhood. The island entrance will be at the very end of the road.

## Worlds End Island Profile



### Locating the Counter

#### ***Vehicle Counter (Red Star)***

The roadtube lies across the main entrance to the island just before the paving ends. The vehicle counter is located on the right side of the main road, behind the stone fence post.

#### ***Pedestrian Counter (Yellow Star)***

Walking northbound, the pedestrian counter is attached to the right side of the bridge crossing Damde Meaddowes.

#### ***Best Place to Observe (Purple Arrow)***

For the vehicle counter, it is advised you sit with the TTOR staff at the ranger station, which is situated on the left side of the parking lot shortly after the island entrance. For the pedestrian counter, there is a small hillside on the right side of the trail immediately before the footbridge that would allow you to sit away from foot traffic and provide some shade.

**Sun Exposure:** Low

**Seating Accommodations:** None

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The Department of the Interior protects and manages the nation's natural resources and cultural heritage; provides scientific and other information about those resources; and honors its special responsibilities to American Indians, Alaska Natives, and affiliated Island Communities.

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U.S. Department of the Interior**



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