

USING SURVEY RESEARCH

to analyze regional economic impacts
from a change in park management



A CASE STUDY AT FORT SUMTER NATIONAL MONUMENT

By Benjamin Sigman and Naomi Kleckner

The Organic Act of 1916 charges the National Park Service with the primary responsibility of preserving park resources and values unimpaired for the enjoyment of future generations. Fulfillment of this conservation mandate requires managers to acknowledge that parks are components of larger environments, influenced by activity outside park boundaries. Park Service management policy directs park managers to address the effects of external activities on park programs, resources, and values. Furthermore, NPS policy instructs managers to consider the impact that their park management decisions will have outside park boundaries. In striving to uphold these goals of NPS policy, park managers rely on strategic planning, program coordination, scientific information, communication, and other tools. Management policy affirms that managers will use all available authorities to protect park resources and values, emphasizing the importance of understanding the complicated union between a park and its locality:

Strategies and actions beyond park boundaries have become increasingly necessary as the National Park Service strives to fulfill its mandate.... Recognizing that parks are integral parts of larger regional environments, the Service will work cooperatively with others to ... protect park resources and values and ... address mutual interests ... such as compatible economic development and resource and environmental protection. *(Department of the Interior, National Park Service, Management Policies 2001, Section 1.5 External Threats and Opportunities)*

Survey research may be employed to augment economic input-output analysis and better understand the regional effects of management alternatives. In cases where positing the initial effects of a change in management is difficult, survey work can help park managers to better understand the implications of their deci-

sions. For example, if managers are unsure what visitor reactions to modifications in management will be, careful survey research can provide qualitative and quantitative estimates of the change. This article describes an analysis of the new commercial services plan at Fort Sumter National Monument (hereafter, the fort) in Charleston, South Carolina. It is a strong case study in the use of survey research to assess regional economic effects attributable to complicated management changes with direct effects on area attractions.

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Case study: Fort Sumter National Monument

For over 40 years, the National Park Service has sought a facility in historic Charleston that would provide permanent tour boat access to Fort Sumter National Monument. Under the previous commercial services plan, a concessioner provided access to Fort Sumter from two departure points, the City Marina in Charleston and Patriots Point in Mount Pleasant (fig. 1). The National Park Service had no control of the lease, operation, or management of the tour embarkation points used by the Fort Sumter concessioner. The Charleston peninsula tour boat facility at the City Marina

on the Ashley River was inadequate, even on average use days. Parking was limited; the site lacked an NPS visitor contact station, NPS presence, and rest rooms. A second tour boat dock provided in 1985 at Patriots Point in Mount Pleasant had adequate parking and rest rooms but did not have a visitor facility with NPS interpretative services. Additionally, both locations lacked adequate handicapped access. (Fort Sumter tour boat facility webpage, <http://www.nps.gov/fosu/dockside/index.htm>.)

After two failed attempts to develop a suitable dock site and visitor center in historic Charleston in the late 1970s and early 1980s, the National Park Service entered into an agreement to develop a site on the eastern side of the Charleston peninsula. In 1986, the Park Service purchased this riverside site, and the master plan was amended with a cooperative proposal for the National Park Service to co-develop this site. The Fort Sumter project was viewed as a perfect match with the City of Charleston, which was seeking a site for a state aquarium. This site offered enough space for the integration of the NPS facility and the envisioned South Carolina Aquarium, an IMAX theater, and a restaurant. In addition, a parking garage was constructed across from the NPS site. Fountain Plaza (i.e., South

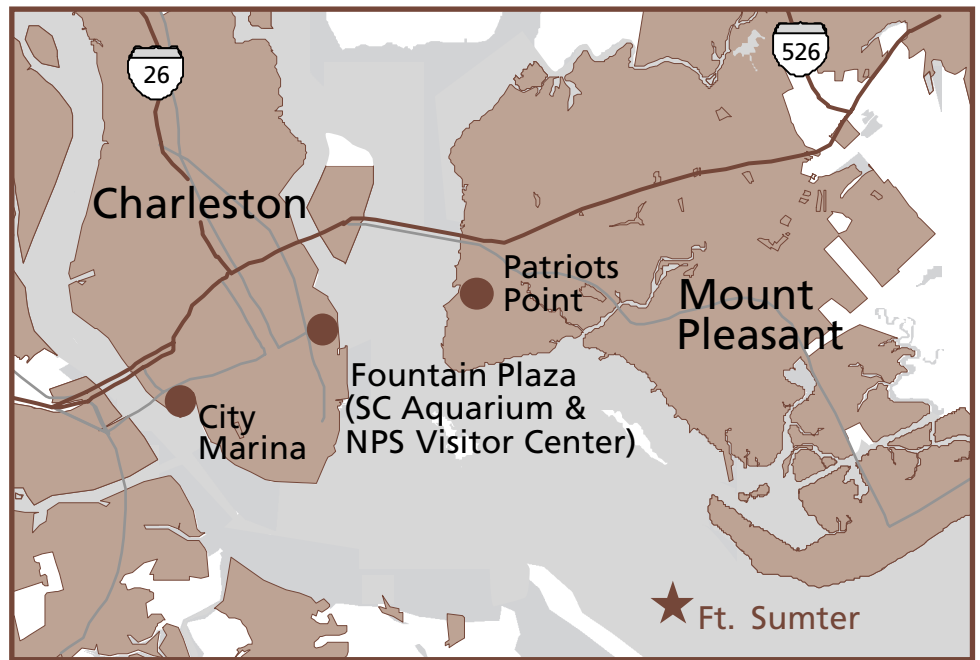


Figure 1. Map showing location of new and former departure points and visitor services facilities for Fort Sumter National Monument, South Carolina.

Carolina Aquarium and IMAX theater) and the parking garage opened in 1999. The NPS facility opened to the public in August 2001 (fig. 2), and a formal opening and dedication was held in November. In addition to a museum, which is free to the public, the new facility provides docking space for the concessioner ferries that facilitates access to the fort; offers shade shelters, landscaped areas, and rest rooms; and creates a significant NPS presence in Charleston.

The opening of the NPS facility and its boat launch called for a new commercial services plan. Under the new plan, the National Park Service would consolidate the ferry operations providing transport to the fort. The new boat dock on the Charleston peninsula would become the sole departure point from which the public would access the fort.



Figure 2. The new Fort Sumter visitor center and boat dock began public operation in August 2001.

Concerns surrounding the management change

From November 1999 to January 2000, Fort Sumter National Monument made its commercial services plan available for public comment. Several interested parties raised concerns, including the Patriots Point Development Authority (the Authority). The Authority believed that discontinuing the departure point at Patriots Point would negatively affect the town of Mount Pleasant, Patriots Point Naval and Maritime Museum, and the national monument.

In response to comments received from the Authority and other stakeholders, Fort Sumter Superintendent John Tucker commissioned a study assessing the potential regional economic impacts of the new management plan. Specifically, Superintendent Tucker intended to estimate the impact on the Mount Pleasant economy from changing Fort Sumter's departure points; the financial impact on Patriots Point Naval and Maritime Museum; and estimate the change in fort visitation. In addition, Superintendent Tucker hoped to learn whether fort visitors would take advantage of a proposed water taxi service from Mount Pleasant to downtown Charleston and whether fort visitors would benefit from the option to spend more time at the fort.

The analysis

Assessing the potential impacts of the change in Fort Sumter commercial services faced several analytic challenges. First, limited information existed to assess the relationship between fort visitation and visitation at Patriots Point and the South Carolina Aquarium. Originally, both the National Park Service and Patriots Point saw mutual benefits to the Fort Sumter departure point at Patriots Point. The two attractions have similar appeal to a subset of Charleston area visitors, and Patriots Point had space capable of accommodating a limited docking facility. The Patriots Point Naval and Maritime Museum, like Fort Sumter National Monument, is focused on American military history, offering tours of a World War II aircraft carrier, destroyer, and other exhibits. It was assumed that visitors planned to visit both the fort and Patriots Point on the same trip or that sharing a site generated incidental visits among visitors planning to see only one of the two attractions. These assumptions were supported by visitation data that showed similar trends over time for both attractions. The National Park Service was not

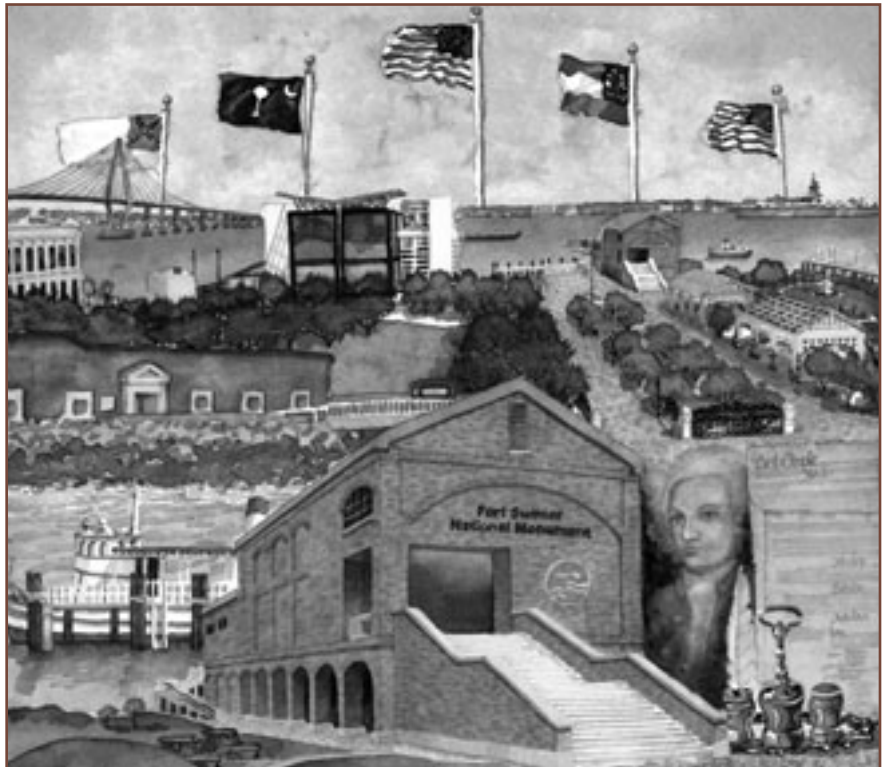


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sure to what degree Patriots Point would be affected by the management change and whether this type of relationship might be created between the fort and the South Carolina Aquarium.

Furthermore, limited information was available to characterize how fort visitors, especially those departing from Patriots Point, contributed to the economic trends of the Charleston area. Mount Pleasant had seen strong economic growth and development in tourist services, especially overnight accommodations, in recent years. Without primary research, the National Park Service was uncertain of the extent to which the Fort Sumter boat launch at Patriots Point had helped support tourism growth in Mount Pleasant. Also unclear was the extent to which fort visitors would alter their selection and use of tourist services (e.g., location of lodgings) in response to offering a departure point only from the City of Charleston.

To complete this assignment, we developed three distinct surveys and administered them to fort visitors, Charleston area visitors, and Charleston area residents using a self-administered intercept approach (i.e., respondents complete questionnaires on-site).¹ The effort to survey Fort Sumter visitors took place on the boats returning from the fort, while Charleston area visitors and residents were interviewed outside of the recently opened aquarium. Collectively, the survey results established a profile of Fort Sumter's role in the region's tourism and economy, defined the existing

¹ The survey effort was exempt from Office of Management and Budget survey instrument review due to the litigant nature of the research.

patterns in visitation, and projected the potential changes due to the Fort Sumter visitor center opening.

The survey of Fort Sumter visitors asked respondents about the details of their Charleston visit. The first section of the survey gathered information on reasons for visiting the area and how a fort visit fit into their plans for the day and overall Charleston area visit. The second section addressed satisfaction with the fort experience, followed by a section that gave respondents the opportunity to choose between two carefully developed management alternatives (table 1). With each alternative, respondents considered attributes of the fort experience, such as the value of park ranger presence, interpretive displays, admission to exhibits, seating while waiting for the tour boat, parking, boat departure times, and departure location. The choice required respondents to collectively consider the trade-offs among eight attributes pertaining to the two management alternatives. The survey also asked which factors were the most important in making their decision. Finally, the survey asked visitors about the logistics of their visit, focusing on party size, length of stay, lodging location, important attributes of accommodations (e.g., location, price, amenities), as well as demographic and socioeconomic information.

Charleston area visitors and residents interviewed at the South Carolina Aquarium answered similar questions about the details of their visit to the aquarium, activities planned for the day (and for area visitors, overall plans for their trip to Charleston). The surveys asked respondents about their familiarity and interest

in Fort Sumter National Monument (e.g., plans to visit the fort), interest in the new visitor center, and how they might have combined their visit to the aquarium with a visit to the fort under the future commercial services plan. Area visitors also answered the same set of questions about their trip logistics (e.g., lodging questions); both area visitors and residents answered the demographic and socioeconomic questions.

The three surveys were carefully developed with input from Superintendent Tucker and several peer-reviewers and then pre-tested. The administration of surveys to fort visitors took place over three days in June 2000, resulting in approximately 580 collected surveys. One month later, a two-day survey took place at the aquarium, with nearly 500 surveys collected. The scientific approach to survey design provided reliable data defining baseline trends in Fort Sumter visitation, future trends in Fort Sumter visitation, and the regional economic impacts associated with a change in management practice.

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Findings

The data suggested minimal impacts on the Mount Pleasant economy as a result of consolidating the two departure points. The analysis used questions about lodging choice (i.e., lodging attributes such as cost,

Table 1. Potential management options for Fort Sumter from the survey of Fort Sumter visitors.

“[Below] are two options for boat departure points to Fort Sumter, Option A and Option B. The differences between the two options are described for each. Considering all of these factors which option do you prefer?”

		Option A	Option B
A	Amount of time spent at the Fort.	Stay at the fort for one hour.	Option to stay at the fort longer than one hour.
B	Park rangers available to answer questions and give historical talks.	Available only at the fort.	Available while waiting for the boat, on the boat, and at the fort.
C	Displays and exhibits about Fort Sumter while waiting for the boat.	At Patriots Point: displays about Civil War on outside building wall. City Marina: no exhibits.	National park museum about Fort Sumter at departure site. Also, displays in nearby park along walkways.
D	Admission to the exhibits.	At Patriots Point: free admission to displays. City Marina: no exhibits.	Free admission to museum.
E	Seating while waiting for the boat.	At Patriots Point: seating in shaded open air food service area. City Marina: no sheltered area.	Seating in air conditioned museum and shaded outside seating.
F	Parking near the departure point.	Free parking in a lot at Patriots Point. Street parking near the City Marina.	Paid parking in garages across the street from the departure point.
G	Number of times per day that a boat leaves for the fort.	3 times per day (one boat every 2 1/2 hours) from each departure point.	On average 6 times per day (about one every hour).
H	Fort Sumter departure point location(s).	Two departure points-Patriots Point (in Mount Pleasant) and the City Marina (in Charleston).	One departure point-beside the South Carolina Aquarium in Charleston.



location, and proximity to attractions) as an indicator of how area visitors might change their use of services supporting area tourism and, consequently, of the magnitude of regional economic effects. Responses to these questions showed no statistical difference in the lodging choice of Fort Sumter visitors and aquarium visitors (who did not plan to visit the fort). Lodging choice was driven by the cost of the room and the ease of getting to a *variety* of attractions in the Charleston area. Consequently, no evidence suggested that Charleston area visitors would alter their use of tourism services based upon Fort Sumter's new departure site. The town of Mount Pleasant should experience little, if any, change in hotel revenues (and hotel spin-off revenues) due to the new Fort Sumter departure site.

The survey research did confirm that the Patriots Point Naval and Maritime Museum will experience some loss in gross revenues on account of the new

commercial services plan. Research indicated that Patriots Point may see a reduction between two and twelve percent of its annual gross revenues as a result of the change in the Fort Sumter departure point to downtown Charleston. The upper bound of the estimated change in total revenues is roughly equal to what the Authority had presented as a lower-bound esti-

"Patriots Point may see a reduction ... of its annual gross revenues as a result of the change in the Fort Sumter departure point to downtown Charleston."

mate of lost revenue in their position paper.

An important finding of the survey research was that the new visitor center would significantly increase fort visitation. The new visitor center increases the exposure of Fort Sumter National Monument to Charleston area visitors, resulting in a significant increase in visitation. This gain in visitation will more than offset the loss in visitors who preferred the former departure options. Specifically, we estimate that consolidation of Fort Sumter departure points will lead to a net increase in Fort visitation of 16,000 to 25,000 visits per year (recently the fort has supported approximately 240,000 visits annually). We also estimate that the national monument will serve approximately 29,000 additional visitors per year who are interested in seeing the visitor center but do not have the time to visit the fort.

Additionally, the survey revealed information regarding visitor preferences. For example, the research determined that one-third of visitors to Fort Sumter want to spend more time at the fort. Such information supports the management change and informs future boat scheduling options. The survey also investigated the feasibility of a water taxi, running between

Mt. Pleasant and downtown Charleston. Approximately one-third of fort and aquarium visitors, stated they would "definitely" or "most likely" use a taxi service. These results suggested that Patriots Point's revenue loss could be significantly offset by offering a commercial water taxi service between Patriots Point and Fountain Plaza. The tourist traffic using a water taxi would also increase Patriots Point's visibility to Charleston area visitors who did not plan on visiting it.

Finally, survey research provided useful and specific information on the visitors themselves. A strong understanding of Fort Sumter visitor gender, race, age, educational attainment, employment, income, and home residence was obtained. This information will help Fort Sumter managers to make educated decisions on issues affecting the entire visiting population.

Conclusion

The regional economic analysis of a change in management at Fort Sumter National Monument proved to be a successful exercise in using survey research to gain information important to park management. A significant amount of information on visitation, future trends in visitation, and the regional economic impacts associated with the change in management practice was collected. This analysis was an essential first step in understanding how Charleston area visitors and residents would react to management change at Fort Sumter. Without the information provided by this survey effort, the ramifications of the change in management could not have been quantified before the implementation of the new commercial services plan. In addition, the completion of the analysis cleared the path for further analyses that may include input-output modeling or an examination of the changes in social welfare associated with the consolidation of departure points at Fort Sumter National Monument.

In the future, an analysis of visitation data collected after the implementation of the new commercial services plan will allow for verification of the survey's accuracy. Tracking visitation trends under the new commercial services plan will allow researchers to compare visitors' actual behavior to their stated responses to management changes. Examination of the projected effects versus actual effects will allow for methods used in this survey effort to be further refined for future use. 

About the Author

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