



# Effects of the October 2013 Government Shutdown on National Park Service Visitor Spending in Gateway Communities

Natural Resource Report NPS/EQD/NRSS/NRR—2014/761



**Acknowledgements:** The authors would like to thank Butch Street of the NPS Visitor Use Statistics Office and Tara Riggs of the NPS Commercial Services Office for their assistance with this report.

**ON THE COVER**

The Roosevelt Arch during the October 2013 Federal Government Shutdown  
Photograph courtesy of Jim Peaco, Yellowstone National Park, NPS Photo

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# **Effects of the October 2013 Government Shutdown on National Park Service Visitor Spending in Gateway Communities**

Natural Resource Report NPS/EQD/NRSS/NRR—2014/761

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Fort Collins, Colorado

February 2014

U.S. Department of the Interior  
National Park Service  
Natural Resource Stewardship and Science  
Fort Collins, Colorado

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Please cite this publication as:

Koontz, L., and B. Meldrum. 2014. Effects of the October 2013 government shutdown on National Park Service visitor spending in gateway communities. Natural Resource Report NPS/EQD/NRSS/NRR—2014/761. National Park Service, Fort Collins, Colorado.

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## Executive Summary

The sixteen-day government shutdown of October 1-16, 2013 had significant effects on National Park Service (NPS) visitation levels for the month and the resulting spending effects in gateway communities across the country. Estimates derived from the NPS Social Science Program's 2012 visitor spending effects model and the NPS Visitor Use Statistics Office were used to provide an early glimpse into the effects on NPS recreation visitation and spending in the local gateway communities during the month of the shutdown. Data are compared to previous October NPS visitation levels as well as the spending associated with parks opened with state funding before the shutdown ended on October 17, 2013. Spending effects resulting from October 2013 NPS visitation compared to average NPS October visitation include the following:

- A 7.88 million decline in overall NPS October visitation resulting in a loss of \$414 million NPS visitor spending within gateway communities across the country;
- Gateway communities near forty five parks experienced a loss of more than \$2 million in NPS related October visitor spending;
- Five states experienced a decline of over \$20 million in NPS October visitor spending; and
- Each dollar of funding for the 14 parks opened with state funding before the end of the shutdown generated an estimated \$10 in visitor spending.

## Introduction

National parks serve as important economic engines for the surrounding local communities. In 2012, visitors to National Park Service (NPS) lands spent \$14.7 billion in local gateway regions (defined as communities within 60 miles of a park); this spending generated \$26.8 billion in economic activity (output) and supported 243 thousand jobs nationwide (Cullinane Thomas et al., 2014). Many national parks are located in rural settings where gateway communities are highly dependent on NPS visitation. During the October 2013 federal government shutdown caused by a lapse in appropriations, the National Park Service (NPS) closed all 401 national park units. All park grounds, visitor centers, in-park hotels, campgrounds, and park roads (except for thru ways) were closed starting on October 1, 2013. The purpose of this report is to present a pragmatic preliminary approach to estimating the effects of the shutdown on NPS visitation in local gateway communities. Estimates derived from the NPS Social Science Program's Visitor Spending Effects report and the NPS Visitor Use Statistics Office were used to determine the effects on NPS visitation and visitor spending within the gateway communities during the month of the shutdown compared to previous October NPS visitation levels. Additionally, visitor use and spending effects were estimated for parks opened with state funding before the shutdown ended on October 17, 2013.

In reading this summary, it is important to note that primary data were not collected for this report. As a result, it is not known how people intending to visit NPS or other federal lands near gateway communities may have modified their travel plans during and after the shutdown. Therefore, estimating the overall total change in visitation and spending impacts to NPS gateway communities associated with the government shutdown is beyond the scope of this analysis. This summary focuses on the more immediate changes in visitor spending associated with October NPS visitation in the gateway regions and does not estimate job, labor income, or output impacts which are typically considered longer term effects. This report has been peer reviewed by internal agency specialists and independent academic experts.

## Methods

The NPS Visitor Use Statistics (<https://irma.nps.gov/Stats/>) provides park-level recreation visitation estimates on a monthly and annual basis. These estimates are subject to a number of influences. For example, several high visitation parks in the East were closed or had large visitation declines during October 2012 exclusively due to effects of Hurricane Sandy. To account for visitation fluctuations due to extreme weather events, special park events, or other influences, an average of October visitation estimates from the previous three years (2010-2012) was used as an estimate of the recent average October visitation levels for this analysis. This baseline time period captures recent economic conditions that influence park visitation and is considered to be representative of conditions absent a government shutdown.

Estimates from the most currently available annual NPS Visitor Spending Effects report for the year 2012 (Cullinane Thomas et al., 2014) were used to analyze changes in local and non-local visitor spending. Spending averages covered all trip expenses within roughly 60 miles of the park; these averages excluded most en-route expenses on longer trips, airfares, and purchases made at home in preparation for the trip including durable goods and equipment. Spending averages vary from park to park based on the type of park. The Consumer Price Index inflation calculator (Bureau of Labor Statistics, 2013) was used to adjust the 2012 spending estimates to 2013 dollars.



The newly constructed Kings Canyon National Park Entrance Station during the October 2013 Federal Government Shutdown  
Photograph courtesy of Dana Dierkes, Sequoia and Kings Canyon National Parks, NPS Photo

## Results

Average October NPS visitation represents approximately 8% of annual NPS visitation. Between 2003 and 2012, overall NPS October visitation was relatively consistent ranging from a high of 24.1 million visitors in 2011 to a low of 22 million visitors in 2005. An average of 23.6 million people visited NPS lands during the three-year October average (2010-2012). NPS 2013 October visitation estimates totaled 15,752,124 reported visitors which represents a decline of 33.3% (or 7.88 million visits) compared to the three-year NPS October average. It is possible that part of the decline in October 2013 visitor spending was not “lost” to gateway communities, but was simply shifted in time or to substitute, non-NPS sites. This study accounts for this potential substitution to the extent that trips were rescheduled during October 17-31, 2013. The evaluation of potential substitution further out in time was beyond the scope of this study. Additionally, other factors besides the shutdown could have affected October 2013 visitation levels. For example, the September 2013 floods in Colorado closed two primary access roads to Rocky Mountain NP throughout October.

### **Gateway Communities with the Greatest Changes in NPS Visitor Spending**

During October 2013, overall NPS visitation declined by over 7.88 million visitors compared to the three-year average October visitation resulting in a loss of \$414 million in NPS related visitor spending in gateway communities across the country. Table 1 displays the forty five parks that experienced a decline of greater than \$2 million in NPS related visitor spending in October 2013 as compared to the three-year NPS October average. The greatest loss in October 2013 NPS visitor spending and visitation occurred in the gateway communities in the states of Tennessee and North Carolina near Great Smoky Mountains NP (Table 1).

Typically past visitor surveys conducted by the NPS Visitor Services Project (VSP) can provide useful information about how much visitors spent within the park boundaries or how many visitors were from international destinations. However, most of these surveys were conducted during peak summer visitation and are not representative of the October time frame. One recent NPS VSP survey was conducted for Great Smoky Mountains NP during October 5-11, 2008 (Papadogiannaki, 2009). Approximately 91% of visitors traveled to the park from outside the local area and international visitors represented 2% of total visitation to the park during the survey period. This suggests an estimated 300,000 nonlocal Great Smoky Mountain visitors including 6,600 international visitors could have been affected during October 2013.

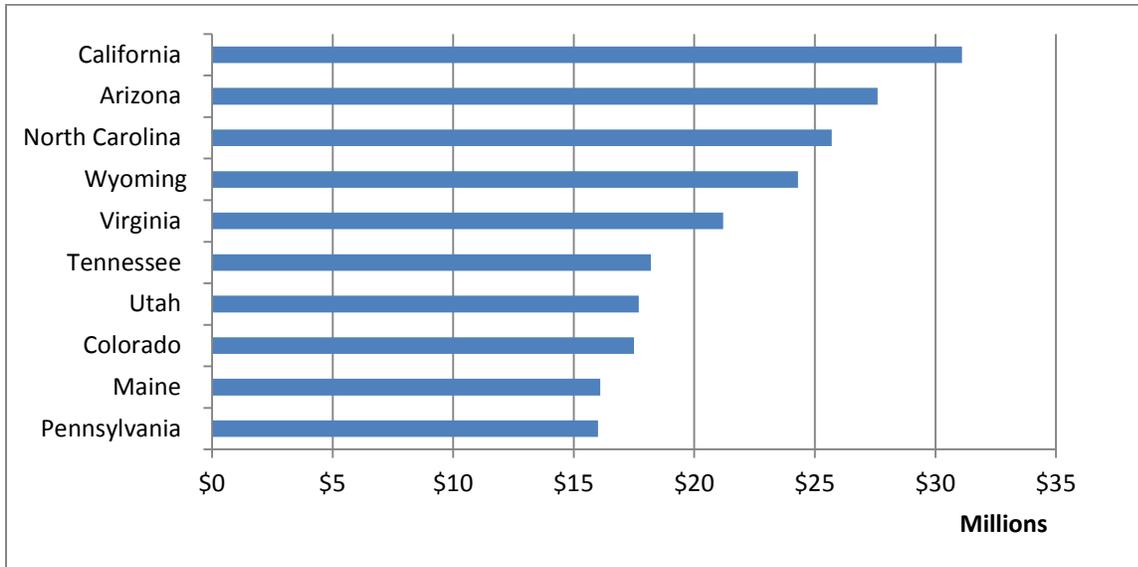
**Table 1. Parks That Experienced a Decline Over \$2 Million in NPS Related Visitor Spending in October 2013 Compared to Average October Visitation**

Park	October Average (2010-2012)		October 2013		Average-2013 Difference		
	Visits	Visitor Spending (\$ Millions)	Visits	Visitor Spending (\$ Millions)	Visits	Percent change in visits	Visitor Spending (\$ Millions)
Great Smoky Mountains NP	1,176,720	\$91.4	847,616	\$65.8	-329,104	-28%	-\$25.6
Grand Canyon NP	361,395	\$37.6	197,742	\$20.6	-163,653	-45%	-\$17.0
Acadia NP	287,508	\$24.1	94,904	\$8.0	-192,604	-67%	-\$16.2
Yellowstone NP	180,525	\$21.3	47,560	\$5.6	-132,965	-74%	-\$15.7
Grand Teton NP	152,130	\$25.9	68,984	\$11.7	-83,146	-55%	-\$14.2
Rocky Mountain NP	243,444	\$15.0	66,275	\$4.1	-177,169	-73%	-\$10.9
Cuyahoga Valley NP	228,937	\$13.8	78,947	\$4.8	-149,990	-66%	-\$9.0
Shenandoah NP	251,887	\$16.1	112,754	\$7.2	-139,133	-55%	-\$8.9
Lake Mead NRA	472,987	\$19.3	267,253	\$10.9	-205,734	-43%	-\$8.4
Salem Maritime NHS	219,608	\$12.0	73,330	\$4.0	-146,278	-67%	-\$8.0
Independence NHP	301,928	\$16.5	166,039	\$9.1	-135,889	-45%	-\$7.4
Yosemite NP	346,502	\$34.6	279,526	\$27.9	-66,976	-19%	-\$6.7
Golden Gate NRA	1,226,396	\$28.9	967,119	\$22.8	-259,277	-21%	-\$6.1
Kennesaw Mountain NBP	193,855	\$10.6	92,764	\$5.1	-101,091	-52%	-\$5.5
World War II Valor in the Pacific NM	141,695	\$7.7	61,628	\$3.4	-80,067	-57%	-\$4.4
Chattahoochee River NRA	231,269	\$9.3	123,740	\$5.0	-107,529	-46%	-\$4.3
Boston NHP	232,639	\$12.7	156,466	\$8.5	-76,173	-33%	-\$4.2
Haleakala NP	89,054	\$5.3	19,875	\$1.2	-69,179	-78%	-\$4.1
Indiana Dunes NL	175,481	\$7.2	78,671	\$3.2	-96,810	-55%	-\$3.9
Arches NP	92,989	\$10.2	57,446	\$6.3	-35,543	-38%	-\$3.9
Bryce Canyon NP	112,215	\$9.0	66,747	\$5.3	-45,468	-41%	-\$3.6
Chickamauga & Chattanooga NMP	99,188	\$6.0	39,791	\$2.4	-59,397	-60%	-\$3.6
Glen Canyon NRA	129,227	\$7.3	69,532	\$3.9	-59,695	-46%	-\$3.4
Olympic NP	177,431	\$14.0	134,726	\$10.6	-42,705	-24%	-\$3.4
Assateague Island NS	131,502	\$5.3	54,727	\$2.2	-76,775	-58%	-\$3.1
Zion NP	262,109	\$13.7	203,056	\$10.6	-59,053	-23%	-\$3.1
Mesa Verde NP	39,496	\$3.8	9,002	\$0.9	-30,494	-77%	-\$3.0
Hawaii Volcanoes NP	107,591	\$8.3	69,872	\$5.4	-37,719	-35%	-\$2.9
Sleeping Bear Dunes NL	86,499	\$8.7	57,445	\$5.8	-29,054	-34%	-\$2.9
Minute Man NHP	115,445	\$6.3	62,653	\$3.4	-52,792	-46%	-\$2.9
Sequoia NP	69,342	\$4.9	28,702	\$2.0	-40,640	-59%	-\$2.9
Theodore Roosevelt NP	77,161	\$4.6	31,036	\$1.8	-46,125	-60%	-\$2.7
Everglades NP	67,680	\$6.2	38,034	\$3.5	-29,646	-44%	-\$2.7
Glacier NP	58,213	\$4.7	25,965	\$2.1	-32,248	-55%	-\$2.6
Delaware Water Gap NRA	423,063	\$13.5	343,373	\$11.0	-79,690	-19%	-\$2.5
Gettysburg NMP	112,246	\$6.7	70,939	\$4.2	-41,307	-37%	-\$2.5
Cumberland Gap NHP	100,668	\$6.0	59,966	\$3.6	-40,702	-40%	-\$2.4
Joshua Tree NP	108,147	\$4.9	54,688	\$2.5	-53,459	-49%	-\$2.4
Cape Hatteras NS	134,892	\$8.0	94,729	\$5.6	-40,163	-30%	-\$2.4
Point Reyes NS	170,322	\$7.0	113,352	\$4.7	-56,970	-33%	-\$2.3
Valley Forge NHP	122,509	\$6.7	80,169	\$4.4	-42,340	-35%	-\$2.3
Manassas NBP	52,328	\$2.9	10,296	\$0.6	-42,032	-80%	-\$2.3
Cabrillo NM	58,233	\$3.2	18,188	\$1.0	-40,045	-69%	-\$2.2
Muir Woods NM	72,523	\$4.0	32,610	\$1.8	-39,913	-55%	-\$2.2
Statue of Liberty NM	212,226	\$11.6	174664	\$9.5	-37,562	-18%	-\$2.1

Note - Excludes Parkways and National Memorials due to varying access issues during the shutdown.

Figure 1 displays the ten states with gateway communities that experienced the highest declines in NPS related visitor spending in October 2013 as compared to the three-year NPS October average. Gateway communities in California, Arizona, North Carolina, Wyoming, and Virginia experienced a decline of over \$20 million in NPS related visitor spending in October 2013 compared to the three-year NPS October average visitation levels. Mississippi was the only state where NPS visitor spending increased (by \$380,000) during October 2013 compared to the October average.

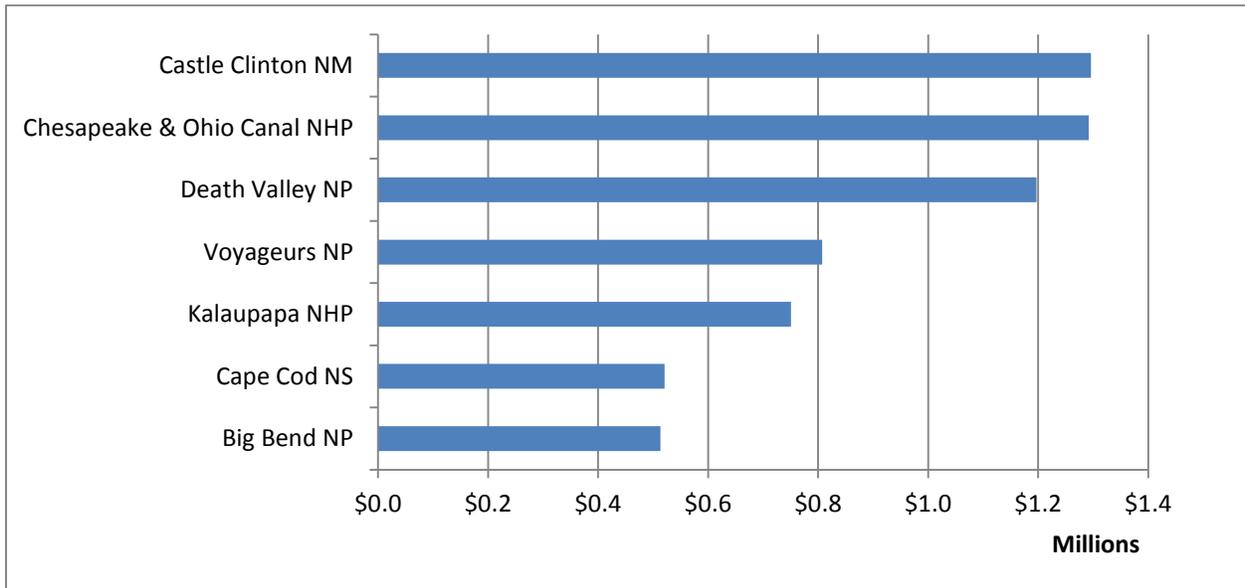
**Figure 1. Ten States with Gateway Communities that Experienced the Highest Declines in NPS Related Visitor Spending in October 2013 Compared to Average October Visitation.**



Note – Excludes District of Columbia parks due to varying access issues during the shutdown.

While most parks reported a decline in visitation during October 2013, twenty three parks reported an increase in visitation. Figure 2 displays the parks that experienced an increase of over \$500,000 in NPS related visitor spending in October 2013 as compared to the three-year NPS October average. According to data compiled by the NPS Public Use Statistics Office, most of these parks included a public road or waterway; therefore these parks were not completely closed during the October 1-16, 2013 period of the shutdown. Castle Clinton was closed in October 2012 due to Hurricane Sandy which had a downward effect on the overall three year average visitation estimate.

**Figure 2. Parks that experienced an Increase Over \$500,000 in NPS Related Visitor Spending in October 2013 Compared to Average October Visitation.**



Note - Excludes Parkways and National Memorials due to varying access issues during the shutdown. Castle Clinton was closed in October 2012 due to Hurricane Sandy which had a downward effect on the overall three year average visitation estimate.



Teton Park Road just south of the Moose Entrance Station during the October 2013 Federal Government Shutdown  
 Photograph courtesy of Gary Pollock, Grand Teton National Park, NPS Photo

## State Funded Openings during the Shutdown

During the shutdown, the NPS entered into agreements with the state governments of Utah, Arizona, Colorado, New York, South Dakota, and Tennessee to re-open and temporarily operate 14 park units, while the remaining 387 national park units remained closed for the duration of the sixteen-day shutdown. Under the terms of the agreements, each state donated funds to the NPS for the sole purpose of enabling NPS employees to re-open and manage the parks. Park level visitation estimates are available on a monthly basis; therefore, it is not known if visitors returned to the parks in greater numbers immediately after the state funded opening or if there was a lag in returning as trips were rescheduled for later in the month. October 2013 monthly visitor estimates were used to determine an average daily visitation level and the associated spending from the date each park reopened through the end of October (Table 2). The first agreement signed was with the State of Utah for funding the opening of all eight national parks in the state including Glen Canyon National Recreation Area (located in Utah and Arizona) at the daily cost of \$166,572 for the six-day period of October 11-16, 2013. As shown in Table 2, approximately 25,600 people visited a national park in Utah each day during the state funded time period generating \$1.67 million in NPS related visitor spending.

**Table 2. Daily Costs and Estimated Daily Park Visitation Effects During the State Funded Period**

Park	State Providing Funding	Daily Cost to State (\$000's)	Average Daily Visitation*	Average Daily Visitor Spending (\$000's)
Arches NP	UT		2,736	\$300.4
Bryce Canyon NP	UT		3,178	\$253.6
Canyonlands NP	UT		1,643	\$92.8
Capitol Reef NP	UT		2,721	\$183.0
Cedar Breaks NM	UT		1,889	\$113.5
Glen Canyon NRA	UT		3,311	\$187.2
Natural Bridges NM	UT		261	\$15.3
Rainbow Bridge NM	UT		159	\$8.7
Zion NP	UT		9,669	\$504.3
<b>Utah total</b>		<b>\$166.6</b>	<b>25,566</b>	<b>\$1,658.8</b>
Grand Canyon NP	AZ	\$93.0	9,887	\$1,029.3
Rocky Mountain NP	CO	\$40.3	3,314	\$204.2
Statue of Liberty NM	NY	\$61.6	9,193	\$501.9
Mount Rushmore NMEM	SD	\$15.2	3,405	\$185.9
Great Smoky Mountains NP	TN	\$60.1	27,342	\$2,123.9

\*Note: Daily visitation averages were estimated by dividing the October 2013 visitation estimates by the number of days each park was open in October 2013.

The total costs to the states and estimated total visitation effects during the state funded period are provided in Table 3. The State of Utah paid a total of \$999,432 to the NPS to open the Utah parks for the six-day period. During which approximately 153,400 people visited a national park in Utah generating \$9.95 million in NPS related visitor spending. According to internal NPS records, approximately 16% of visitor spending in national parks in Utah occurred inside the park boundaries. Based on this estimate, of the \$9.95 million in visitor spending during the state funded period, approximately \$1.59 million was spent within the national parks in Utah and the remaining \$8.36 million was spent in the gateway regions surrounding the parks. As shown in Table 3, the amount of visitor spending by each park more than offset the total cost paid by the state to keep the parks open during the remainder of the shutdown and eliminated the uncertainty of lost NPS visitor spending to local gateway businesses. Overall, each dollar funded by the six states was estimated to have generated an additional \$10 in visitor spending.

**Table 3. Total State Costs and Estimated Total Park Visitation Effects During the State Funded Period**

Park	State providing funding	Days funded by State	Total cost to State (\$000's)	Total visits	Visitor Spending (\$000's)
Arches NP	UT	6		16,413	\$1,802.3
Bryce Canyon NP	UT	6		19,071	\$1,521.7
Canyonlands NP	UT	6		9,859	\$556.8
Capitol Reef NP	UT	6		16,325	\$1,098.1
Cedar Breaks NM	UT	6		11,331	\$680.9
Glen Canyon NRA	UT	6		19,866	\$1,123.5
Natural Bridges NM	UT	6		1,564	\$91.6
Rainbow Bridge NM	UT	6		952	\$52.0
Zion NP	UT	6		58,016	\$3,026.0
<b>Utah total</b>			<b>\$999.4</b>	<b>153,398</b>	<b>\$9,952.8</b>
Grand Canyon NP	AZ	5	\$465.0	49,436	\$5,146.5
Rocky Mountain NP	CO	5	\$201.5	16,569	\$1,021.0
Statue of Liberty NM	NY	4	\$246.4	36,771	\$2,007.7
Mount Rushmore NMEM	SD	3	\$45.6	10,216	\$557.8
Great Smoky Mountains NP	TN	1	\$60.1	27,342	\$2,123.9

## Conclusions and Caveats

The sixteen-day government shutdown from October 1-16, 2013 had significant effects on NPS October 2013 visitation levels and the resulting NPS visitor spending in gateway communities across the country. It is not known how people intending to visit NPS or other federal lands near gateway communities modified their travel plans during and after the shutdown or how cancelled NPS visitation affected the broader travel industry, as domestic and international visitors modified travel plans across the nation. Visitors may have deferred their visits, visited other recreation areas, chosen other recreation activities, or purchased other non-travel related goods and services. Additionally, the publicity of the NPS closings may have triggered others that were not originally intending to visit a park in October to make a trip once the shutdown ended. Therefore, the estimates in this summary are only associated with changes in October visitation to NPS park units, not the overall change in visitation to gateway communities.

Estimated changes in October 2013 NPS visitation as compared to the three-year NPS October average were associated with the following:

- An 7.88 million decline in overall NPS October visitation resulting in a loss of \$414 million NPS visitor spending within gateway communities across the country;
- Gateway communities near forty five parks experienced a loss of more than \$2 million in NPS related October visitor spending;
- Five states experienced a decline of over \$20 million in NPS October visitor spending;
- Each dollar of funding for the 14 parks opened with state funding before the end of the shutdown generated an estimated \$10 in visitor spending; and
- Impacts on jobs and local income were not calculated due to their long-term nature. However, income losses to employees of businesses supported by park visitation were likely.

It is possible that would-be visitors during the shutdown postponed their visits rather than cancel them. This study accounts for this potential substitution to the extent that trips were rescheduled during October 17-31, 2013. The evaluation of potential substitution further out in time was beyond the scope of this study. While future investigations into this change are possible, additional factors affecting visitation to park units could confound an understanding of the longer term impacts caused by the shutdown.

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NPS 999/123597, February 2014

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