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## Report

### Economic Impacts of Obama Administration Natural National Monuments

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April 6, 2016

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## Executive Summary

The Antiquities Act of 1906 authorizes protection of public lands through national monument designation. At the time this report was written, President Obama had designated 17 new national monuments and two monument expansions.<sup>1</sup> This preservation of public lands benefits local economies and small businesses as they attract visitors to these often-rural areas. Monument visitors spend money on entrance fees, lodging, meals, and other retail items from local businesses during their trip—providing an economic boost to local communities. These economic benefits to rural communities are an important component when considering the total value of public land protection.

This study quantifies the economic impacts associated with visitation to national monuments designated by an Obama Administration executive order.<sup>2</sup> For the purposes of this study, Obama-designated national monuments are categorized by type. The first category of national monuments is comprised of historical resources such as decommissioned forts and historical houses (e.g., Harriet Tubman Underground Railroad National Monument). The second category of national monuments includes unique and pristine natural or cultural resources (e.g., Chimney Rock National Monument). This study evaluates national monuments protecting natural or cultural resources.<sup>3</sup>

National monuments strengthen local and regional economies by attracting a substantial number of visitors each year from outside the local region, many of whom spend multiple days in the area spending money at local businesses and contributing to the local economy. Monument-related visitor expenditures are especially important in rural areas where local economies and small businesses may be particularly reliant on income derived from tourism and outdoor recreation.

BBC estimated direct spending by visitors to the national monuments examined for this study and used well-known economic modeling techniques involving IMPLAN multipliers to calculate the secondary (induced and indirect) economic benefits. Economic benefits are expressed in the labor income and economic output supported by out-of-region visitor spending. Economic output is generally synonymous with economic activity or consumption.

As shown in Figure 1 on the following page, the combined natural and cultural national monuments have a total economic impact of \$156 million per year on the local economies surrounding the monuments, including direct and secondary impacts. These estimates are based on an average of 3.9 million non-local visitors per year between 2011 and 2015.

Figure 2 on the following page presents labor income impacts associated with non-local visitor spending. Economic activity generated by national monument visitation contributes \$58 million in labor income per year in the local communities surrounding the national monuments.

The economic impacts discussed in this report benefit all residents, workers, and business owners in the local communities surrounding the national monuments. Small businesses are uniquely positioned to derive economic benefit from the travel, tourism and outdoor recreation preserved by national monument designation, as they account for the majority of all firms and employment in the leisure and hospitality industry. National monuments bring tourism dollars into their places of business and help attract talented employees, and the majority of small business owners support continued protection of public lands.

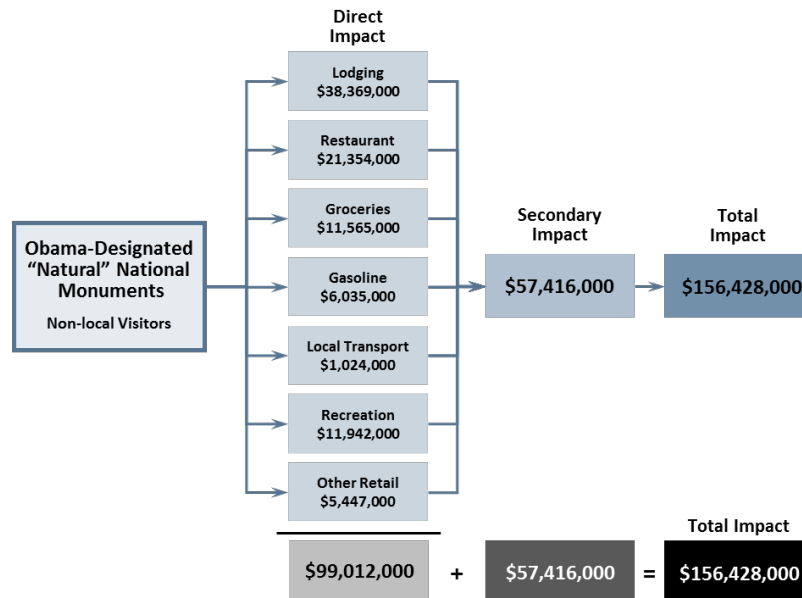
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<sup>1</sup> Since the initial draft of this report, President Obama also designated the California Desert National Monuments (Mojave Trails, Sand to Snow and Castle Mountains). They are not included in the analysis.

<sup>2</sup> During Obama's presidency, Congress also designated two new national monuments; those are not considered in this study.

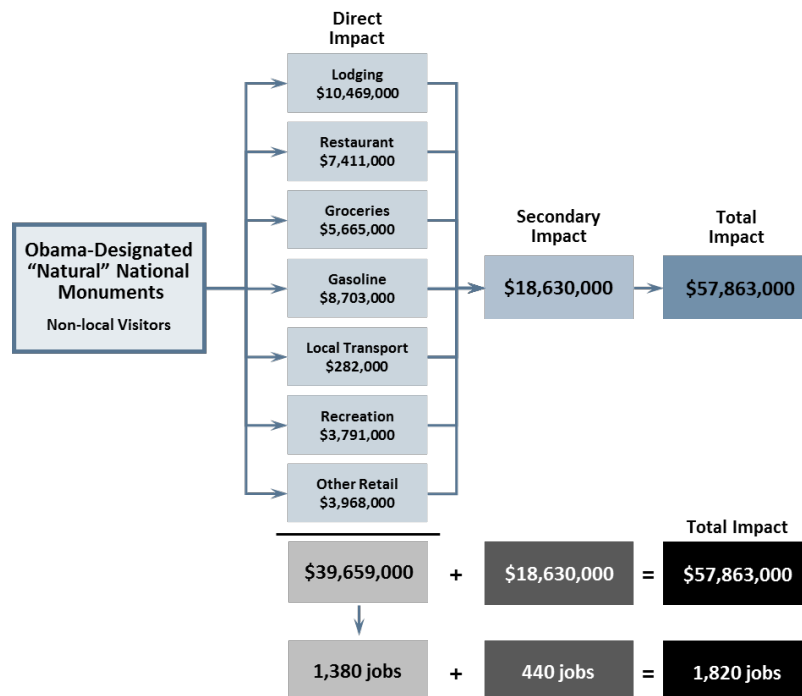
<sup>3</sup> Rational for this exclusion is discussed on page 3.

**Figure 1.**  
**Annual Economic Impact of National Monuments**



Note: Direct Expenditures reported net of taxes (sales, lodging and excise).  
Source: BBC Research & Consulting, 2016. Based on IMPLAN Regional Input-Output Modeling System.

**Figure 2.**  
**Annual Labor Income and Employment Impacts of National Monuments**



Source: BBC Research & Consulting, 2016. Based on IMPLAN Regional Input-Output Modeling System.

# Background and Methodology

## Report Organization

This report is organized into five sections:

- **Background and methodology** describes the national monuments included in the study and the methodology for quantifying economic impact;
- **Location of impacts and small businesses** provides a general description of where economic impacts occur and discusses small business impacts;
- **Visitation and local spending** provides a characterization and quantification of national monument visitation and visitor spending;
- **Spending flow model** provides a description of the spending flow model used to calculate economic impacts;
- **Total economic impacts from non-local visitation** quantifies the total economic output and labor income;
- **Monument designation and economic impact** discusses the effect of monument designation on future visitation.

## Background

As discussed previously, President Obama designated or expanded 19 national monuments: eight that protect historical resources and 11 that protect natural or cultural resources.<sup>4</sup> This report evaluates the economic impact of the monuments protecting natural or cultural resources.

The vast majority of historical national monuments are still in development and are offering only limited programs or limited visitor hours. As such, visitation data for those monuments are unavailable and/or do not provide an accurate account of full monument visitation. An economic valuation at this stage for historical monuments is likely to significantly understate the long term economic importance of those monuments. As a result, BBC excluded the historic national monuments from the analysis.<sup>5</sup>

The Obama-designated natural or cultural national monuments included in this study are briefly described on the following pages. Pacific Remote Islands Marine National Monument is excluded as it offers no opportunities for visitation.

**Berryessa Snow Mountain National Monument, California (2015).** Located north of Sacramento, the Berryessa Snow Mountain National Monument covers 330,780 acres of diverse terrain, topography, and habitats. This diversity supports ecosystems home to bald eagles, black bears, river otters, elk, deer, mountain lions, and more. In addition to the natural attractions, the monument also has a rich cultural history and has cultural sites ranging from Native American petroglyphs to a restored 1860s homestead cabin. Visitors can enjoy all the monument has to offer by hiking, camping, backpacking, biking, hunting, fishing, and horseback riding.

**Basin and Range National Monument, Nevada (2015).** Basin and Range National Monument is one of the most remote, undisturbed places in the lower 48 states. There are archaeological and cultural sites from Native Americans and opportunities to camp, hike, mountain bike, horseback ride, and otherwise explore this unique landscape.

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<sup>4</sup> On Feb. 12, after this analysis was complete, President Obama designated the Mojave Trails National Monument, Sand to Snow National Monument, and Castle Mountains National Monument.

<sup>5</sup> Historical national monuments, which are excluded from this analysis, include Waco Mammoth, Honouliuli, Pullman, Harriet Tubman Underground Railroad, Charles Young Buffalo Soldiers, César E. Chávez, Fort Monroe and First State.



**Browns Canyon, Colorado (2015).** Browns Canyon includes approximately 22,000 acres of unique geological formations, granite cliffs, subalpine and riparian ecosystems, and wildlife habitat. The canyon provides important habitat for black bears, big horn sheep, elk, deer, eagles, falcons, bats and more. This area is one of the most popular destinations in the nation for whitewater rafting, but provides a wide variety of other year-round recreational opportunities.

**San Gabriel Mountains, California (2014).** The San Gabriel Mountains National Monument protects 342,177 acres of national forests and is open for hiking, camping, picnicking, cross-country skiing, fishing, and hunting close to metro Los Angeles. The monument area is also home to two large scientific and research locations—the Mount Wilson Observatory and the San Dimes Experimental Forest.

**Organ Mountains-Desert Peaks, New Mexico (2014).** This monument protects geological, paleontological, and archaeological resources in the Mesilla Valley in southern New Mexico. The volcanic landscape with cinder cones, lava flows, and craters contains approximately 240 archaeological sites such as petroglyphs and pictographs. Recreational opportunities for visitors include camping, climbing, hiking, mountain biking, and horseback riding.

**Río Grande del Norte, New Mexico (2013).** The Río Grande del Norte monument protects a portion of the Taos Plateau volcanic field. There are three significant volcanic peaks and large natural springs within the bounds of the monument. In addition to the geological formations, there are diverse ecosystems that provide habitat for many large mammals including elk, mule deer and big horn sheep. Predators such as cougars, bobcats and black bears also live within the monument. Visitors can engage in a variety of recreational opportunities, including rafting through the Rio Grande Gorge, camping, fishing, hunting and hiking.

**San Juan Islands, Washington (2013).** The San Juan Islands National Monument is an archipelago of over 450 islands, rocks and pinnacles in Washington's Puget Sounds. The monument is ideal for wildlife viewing, fishing, kayaking and camping. The monument also protects archeological sites of both native Coast Salish and early settlers.

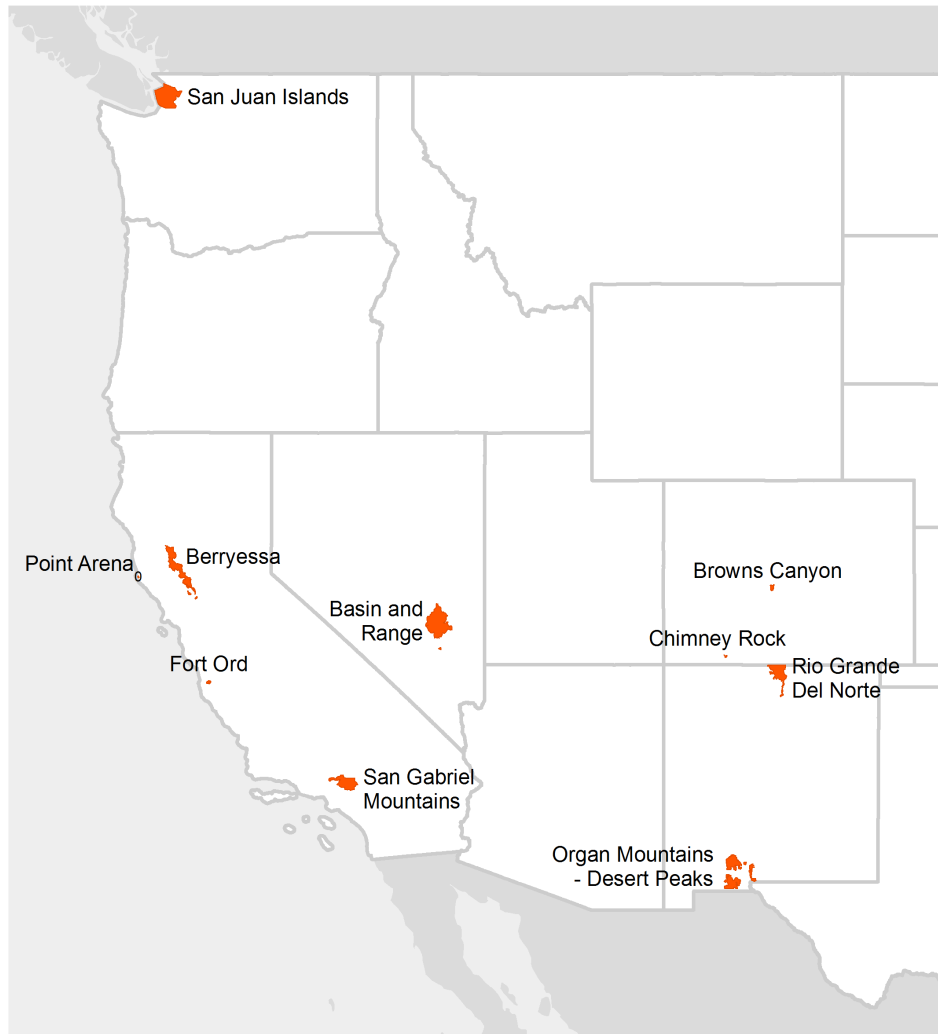
**Chimney Rock, Colorado (2012).** The Chimney Rock National Monument is a 4,726 acre site that includes the archeological remains of an Ancient Puebloan community. Between C.E. 900 and 1150 approximately 2,000 inhabitants lived within the settlement. Today, visitors can explore many of the excavated sites and petroglyphs.

**Fort Ord, California (2012).** Fort Ord was a United States Army post from 1917 to 1994. The site was originally used as a field-artillery target range, but became a fort in 1940. This fort served as a basic training facility during World War II then as a staging area for units departing for the Korean War and other proxy engagements during the Cold War. Today, the former military site offers historical and cultural sites. However BBC included it as a “natural” national monument as it has nearly 14,700 acres and 86 miles of trails open for hikers, bikers, horseback riders and birders.

**Point Arena-Stornetta, California (2014).** Point Arena-Stornetta is a 1,665 acre expansion of the existing California Coastal National Monument. Not far from San Francisco, this protected coastline includes unique coastal bluffs, sand dunes and the Garcia River estuary. These lands offer opportunities for wildlife viewing and birding, and hiking and biking.

Figure 3 on the following page presents a map of the Obama-designated natural and cultural national monuments within the United States.

**Figure 3.**  
**Location of Obama-Designated Natural and Cultural National Monuments.**



Source: BBC Research & Consulting, 2016.

## Methodology

Critical factors influencing economic impact include the number of visitors and the amount and pattern of their expenditures. This analysis distinguishes between non-local visitation (new money to the local economy) and local visitation.<sup>6</sup> Non-local visitation and spending is considered a basic economic contribution and serves as the foundation for local economic stimulation.

The national monuments included in this study are currently managed by one of two federal agencies—the U.S. Forest Service (USFS), and/or the Bureau of Land Management (BLM).

The most recent visitation data available for the Obama-designated national monuments are provided by the BLM Recreation Management Information System (RMIS) and the USFS National Visitor Use Monitoring Program (NVUM). The different agencies track and report visitation data slightly differently, but both report visitation by primary activity.

For many of the newly-designated national monuments, visitation data were not available exclusively at the monument level but data were instead reported at the forest or field office level (for USFS and BLM

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<sup>6</sup> Local visitors are defined as those that travel less than 60 miles.

managed lands, respectively). In these cases, BBC allocated a proportion of the overall forest or field office visitation to the national monument based on a combined evaluation of total land area, distribution of recreation opportunities, previous national monument visitation studies, local knowledge and interviews with land management staff.

BBC calculated the economic benefits of the national monuments based on estimates of visitation and direct spending. BBC estimated direct spending by visitors and utilized IMPLAN Regional Input-Output Modeling System software multipliers calculated for similar monument analyses to calculate secondary (induced and indirect) economic impacts. Economic impacts are expressed in terms of labor income and economic output supported by non-local visitation and non-local visitor spending.

Since this analysis focuses on newly designated national monuments, a comparison of pre-designation and post-designation visitation is not feasible. Therefore the economic impacts shown in this report reflect current visitation—and current economic activity—that is preserved by the monument designation. National monument designation often has the potential to increase visitation due to increased public awareness and recreational offerings. Therefore, these results likely represent a lower bound estimate of potential future economic impacts. If visitation increases in the future, then economic activity would also increase.

## Location of Economic Impacts

This study reports aggregated economic impacts to the local communities immediately surrounding each national monument—typically a one- to three-county area. Regional economic relationships are based on proximity, transportation and location of production and consumption of goods and services. Economists define this as a “functioning economic unit.”

The economic impact model employed for this study focuses on collective impact to these local study areas. Results are reported as aggregated effects throughout the country but the economic impacts—both direct and secondary—occur within the local communities and small businesses surrounding each monument.

## Impacts to Small Businesses

### Impact of Protected Lands on Small Businesses

Protected public lands strengthen surrounding communities by drawing in tourists that benefit the economy and small businesses. Small business owners are uniquely positioned to experience economic impact from non-local visitation to protected lands and local communities, as they account for 99 percent of all business establishments in states containing Obama Administration-designated national monuments.<sup>7</sup>

Small businesses (those with fewer than 100 employees) employ 58 percent of all workers in the United States, but in the leisure and hospitality industries—one of the primary beneficiaries of non-local visitation spending—small businesses employ more than three-quarters (78 percent) of all workers. As such, small business owners and their employees are uniquely positioned to derive economic benefit from the travel, tourism and outdoor recreation preserved by national monument designation.

*“There is no downside to preserving these lands and future lands like Berryessa. You protect beautiful natural lands/historical landmarks and bring an untapped resource in tourists who would normally not travel to that area. Income that would have never reached that area otherwise is now accessible.”*

— Rose Langensiepen owner of Above All Consulting Inc. in Sacramento, CA near Berryessa Snow Mountain National Monument

<sup>7</sup> This estimate is based on the number of establishments, not revenue generated. Bureau of Labor Statistics, Quarterly Census of Employment and Wages, Q1 2015.



According to recent research and scientific polling by Small Business Majority, small business owners are widely supportive of the protection of public lands, as they are acutely aware of the economic benefit they provide:

- Small business owners believe protecting public lands would positively impact small business opportunities, local job growth, state economies and more. Sixty-five percent of owners believe designating new national parks and monuments would enhance local jobs and the economy, 57 percent say it would impact small business opportunities tied to public lands and 52 percent agree it would help their state attract and retain new business and entrepreneurs.<sup>8</sup>
- A vast majority of small business owners agree public lands drawing visitors positively impact local businesses, and they do not support private development of these lands if it would limit the public's enjoyment of them. A sweeping 90 percent believe public spaces that draw tourists can boost business for local restaurants, hotels, grocery stores and more; 63 percent believe allowing more private companies to develop such lands would limit the public's enjoyment of them.<sup>9</sup>
- Small business owners in western states support designating additional public lands as national monuments. Seventy-five percent of owners in Arizona, Nevada and New Mexico support designating more public lands as national monuments, which would ensure protection of these regions.<sup>10</sup> In Colorado, 66 percent supported a proposal to establish a national monument at Browns Canyon and the Arkansas River Valley (now Browns Canyon National Monument, designated by President Obama).<sup>11</sup>
- Outdoor recreation opportunities also contribute to local communities' ability to attract and retain entrepreneurs. Half of entrepreneurs do business in their state because of opportunities related to public lands. Additionally, 48 percent agree access to parks, public lands and other outdoor opportunities is a large part of the reason they live and do business in their state, and 4 in 10 agree their state's national parks, forests, monuments and wildlife habitats aren't just essential to its culture and quality of life, but reasons to do business there.<sup>12</sup>

It is beyond the scope of this study (and the data available) to quantify the precise impact of national monument designation on nearby small businesses. However, it's clear that small business owners and employees greatly benefit from non-local visitation to national monuments and that they continue to support the preservation of public lands.

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<sup>8</sup> Small Business Majority. Economic Report: A Small Business Voice for Public Lands in the West. April 16, 2015.

<sup>9</sup> Ibid.

<sup>10</sup> Small Business Majority. Opinion Poll: Arizona/Nevada/New Mexico Small Business Owners Believe Protecting Public Lands is Good for Business and Support 'All-of-the-Above' Energy Policy. June/ July 2012.

<sup>11</sup> Small Business Majority. Opinion Poll: Colorado Small Business Owners Believe Protecting Public Lands is Good for Business and Support 'All-of-the-Above' Energy Policy. May, 15, 2012.

<sup>12</sup> Small Business Majority. Economic Report: A Small Business Voice for Public Lands in the West. April 16, 2015.

## Visitation and Local Spending

### Annual Visitation and Local Spending

Based on BLM and USFS visitation data between 2011 and 2015, BBC estimates about 3.9 million visits to the Obama-designated natural and cultural national monuments annually.

The San Gabriel Mountains National Monument is by far the most visited newly designated “natural” monument, followed by Berryessa Snow Mountain, Rio Grande del Norte and Browns Canyon. The least visited national monuments are Basin and Range and the new addition of Point Arena-Stornetta to California Coastal National Monument.

Figure 4 displays the total collective visitation to the Obama-designated national monuments by activity type. The most common activities are hiking and biking, followed by nature-related activities such as viewing natural features, wildlife or historic sites.

**Figure 4.**  
**National Monument Visitation by Primary Activity**

Activity Type	Total Visitation	Percent
Cross-country skiing	5,462	0%
Hunting	68,383	2%
Fishing	168,575	4%
Nature-related	476,104	12%
OHV-use	198,267	5%
Driving	108,186	3%
Picnicking/Developed camping	269,935	7%
Primitive Camping/backpacking	16,106	0%
Hiking/biking	1,443,483	37%
Other	1,117,501	29%
<b>Total</b>	<b>3,872,001</b>	<b>100%</b>

Note: Nature related activities include viewing natural features, wildlife or historic sites; relaxing; resort use; nature center activities and nature study.  
Source: BLM and USFS 2011-2015

*“In just one year our community is clearly seeing the benefits of the [Brown’s Canyon] monument designation. According to the Chaffee County Visitors Bureau, during the year following the designation, economic data shows that county lodging tax revenue increased by nearly 9.5 percent, correlated to an influx of visitors to the county. As a business owner and as someone who worked hard for the Brown’s Canyon designation, I congratulate those who are now celebrating the new monuments in California. We should all be proud of our accomplishments as a community that came together to get the Brown’s designation, and I am encouraged to see the President permanently protect key wildlife corridors in a diverse elevation range with the Castle Mountains, Mojave Trails and Sand to Snow National Monuments in California.”*

— Joel Benson, owner of Buena Vista Roastery in Buena Vista, CO near the Browns Canyon National Monument

Critical components of the visitor spending profile include the trip purpose, visitor origin, length of stay and a visitor’s primary activity. The trip purpose—specifically whether the trip to the national monument is the primary purpose of the trip or whether it is secondary—is important because secondary trips cannot be attributed to the national monument since the trip would have originated without it. As such, non-primary visitors are excluded from the economic impact calculation.

Another critical component of the visitor spending profile is the makeup of local vs. non-local visitors and day visitors vs. overnight visitors, as the length of time spent in the area and visitor origin affects the amount spent in the local economy. For the purposes of this study, “non-local” means the visitor traveled at least 60 miles to visit the national monument.

BBC used most the recent USFS NVUM study,<sup>13</sup> to identify the proportion of visits by activity type that were local, non-local, day and overnight trips. The data indicate that that 8 percent of all visits to an Obama-designated national monument are non-local day users and 20 percent are non-local overnight visitors (Figure 5). Day use by local residents represents 49 percent of visitation, and overnight stays by local residents account for 7 percent. For 16 percent of visitors, the national monument was not the primary reason for their visit to the area.

**Figure 5.**  
**Estimated Visitation New “Natural”**  
**National Monuments**

Visitor Type	Visitation	Percent of Visitation
<b>Non-Primary Visitors</b>	624,829	16%
<b>Non-Local Visitors</b>		
Day visits	325,595	8%
Overnight visits	780,654	20%
<b>Local Visitors</b>		
Day visits	1,880,391	49%
Overnight visits	260,532	7%
<b>Total</b>	<b>3,872,001</b>	<b>100%</b>

Source: BLM and USFS 2011-2015

*“I’ve been involved with the Rio Grande monument campaign for a few years on a volunteer basis. Now that it has been designated, we have seen a small increase in business. The vast majority of our guide business happens on forest service or BLM land. The thought of losing access to those is very troubling as it would certainly put us out of business.”*

— Nick Streit, owner of Taos Fly Fishing Shop in Taos, NM near the Río Grande del Norte National Monument

In addition to the visitor distinctions, primary activity types influence spending patterns (e.g., hunters may purchase different goods and services than hikers). Hence, it is useful to estimate visitor spending by activity. Average daily visitor expenditures by activity type were estimated in a 2010 joint USFS–Oregon State University study of NVUM data. In that study, visitors were surveyed and asked to estimate their party’s total expenditures per day during their stay. They also indicated the primary activity of the visiting party.<sup>14</sup>

The study team tabulated visitation data by activity type, fit that information to the distribution of local/non-local and day/overnight by activity, and used the spending patterns by activity described in the 2010 USFS NVUM study (adjusted for inflation to 2015 dollars) to arrive at estimated spending by activity and by market segment (local or non-local, day or overnight). The study does not include a spending profile for non-primary visitors as their expenditures are likely to be driven by the trip’s primary purpose instead of the national monument portion of the trip.

Figure 6 on the following page presents the spending profile by activity type on a per person basis, not per party. The overnight spending values represent total spending associated with the trip, not on a per day basis. Non-local visitors spend more than their local counterparts and overnight visitors spend more than day visitors, primarily due to lodging and dining.

<sup>13</sup> Stynes, Daniel J. and White, Eric M. “Updated Spending Profiles of National Forest Visitors by Activity.” USDA Forest Service Pacific Northwest Research Station and Oregon State University Joint Venture, November 2010.

<sup>14</sup> Stynes and White, 2010.

**Figure 6.**  
**Spending Profiles by Activity Type, per Person (2015 dollars)**

Activity Type	Non-Local		Local	
	Day	Overnight	Day	Overnight
Hunting	\$ 53	\$ 223	\$ 37	\$ 143
Fishing	29	159	22	74
Nature-related	30	202	19	94
OHV-use	50	133	32	67
Driving for pleasure	26	265	18	152
Picnicking / Developed camping	21	82	9	63
Primitive camping or backpacking	n/a	62	n/a	58
Hiking/biking	24	218	13	69
Other	28	127	18	80

Source: Stynes, Daniel J. and White, Eric M. "Updated Spending Profiles of National Forest Visitors by Activity." USDA Forest Service Pacific Northwest Research Station and Oregon State University Joint Venture, November 2010. BBC Research & Consulting, 2016.

Using these estimates, the national monument visitor spending profile is estimated to be about \$180 million, shown in Figure 7. Because the economic model focuses on “new” money entering the area that can be reasonably attributed to the new natural national monuments, the analysis considers only non-local visitor expenditures and excludes both local and non-primary expenditures.

Expenditures made by non-local visitors whose primary trip purpose was to visit one of the national monuments total \$129 million. Local visitors spend about \$51 million on primary trips to the national monuments.

**Figure 7.**  
**Estimated Annual Direct Visitor Expenditures by Activity**

Activity Type	Non-Local		Local		Total
	Day	Overnight	Day	Overnight	
Cross-country skiing	\$17,784	\$216,036	\$60,742	\$12,524	<b>\$307,085</b>
Hunting	\$364,525	\$3,810,942	\$1,379,784	\$683,153	<b>\$6,238,404</b>
Fishing	\$630,563	\$5,619,287	\$2,064,366	\$499,794	<b>\$8,814,010</b>
Nature-related	\$1,424,712	\$15,359,291	\$3,594,160	\$890,445	<b>\$21,268,609</b>
OHV-use	\$696,445	\$5,530,828	\$3,907,533	\$664,736	<b>\$10,799,542</b>
Driving	\$280,159	\$2,581,949	\$967,662	\$164,835	<b>\$3,994,604</b>
Picnicking/Developed camping	\$166,435	\$10,151,690	\$48,328	\$6,683,598	<b>\$17,050,051</b>
Primitive Camping/backpacking	\$0	\$526,595	\$0	\$278,053	<b>\$804,648</b>
Hiking/biking	\$2,768,936	\$40,862,846	\$11,384,698	\$1,993,634	<b>\$57,010,114</b>
Other	\$2,778,139	\$35,369,830	\$8,508,547	\$7,126,366	<b>\$53,782,882</b>
Total	\$9,127,699	\$120,029,294	\$31,915,820	\$18,997,137	<b>\$180,069,949</b>
<b>Utilized in IMPLAN Analysis</b>	<b>\$9,127,699</b>	<b>\$120,029,294</b>	<b>N/A</b>	<b>N/A</b>	<b>\$129,156,993</b>

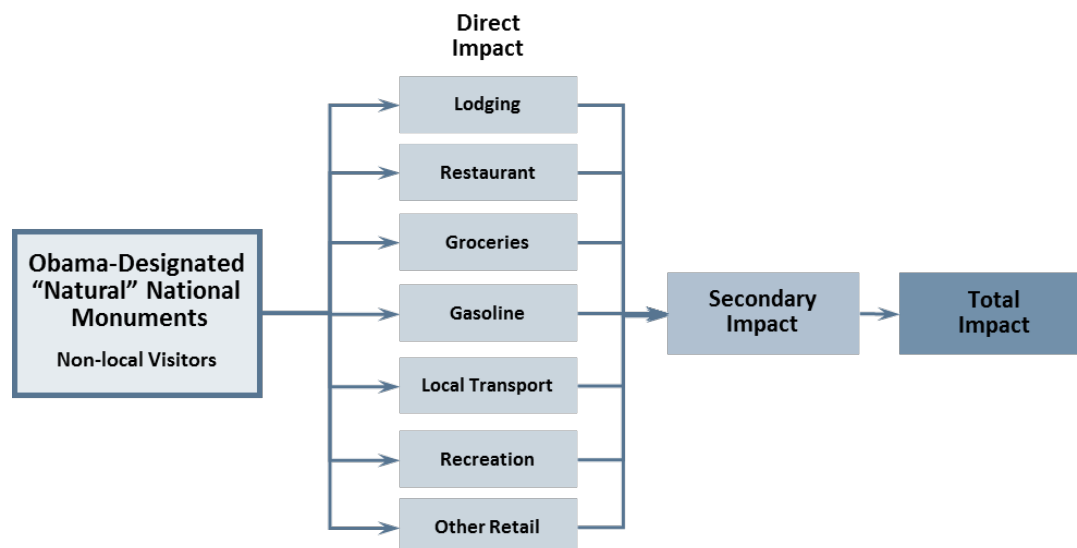
Note: Dollar values adjusted for inflation and expressed in 2015 dollars.  
Source: BBC Research & Consulting, 2016, from FY2011-2015 RMIS, 2010 NVUM data.

## Spending Flow Model

The direct impact, discussed in the previous section, only represents a portion of the total impact of the national monuments on the local economy. Spending generated by the visitor expenditures circulates in the local economy, as businesses where visitors spend their money purchase intermediate goods and services from other businesses and as workers spend a portion of their earnings on local goods and services. This recirculation of money in the economy is termed a “secondary impact.” The direct and secondary economic impacts produced by the national monument visitors also support certain levels of labor income, described later in this analysis.

For the purposes of this analysis, BBC aggregated the data from all the studied national monuments, but these impacts would occur primarily within the local communities.

**Figure 8.**  
**Spending Flow Model**



Source: BBC Research & Consulting, based on IMPLAN Regional Input-Output Modeling System, 2016

To determine the average annual economic impact of the monuments (the direct impact plus the secondary impacts), BBC developed a spending flow model—shown in Figure 8—to trace the flow of dollars and associated labor income generated by the national monuments through the local economies. As shown in Figure 8, recreation spending was allocated to specific expenditure categories based on visitor type. Lodging and gasoline are the largest expenditure categories for non-local visitors, followed by restaurants and groceries.

This model is based on the IMPLAN Regional Input-Output Modeling System. A widely-used economic modeling software, IMPLAN estimates secondary economic impacts based on user-supplied direct impacts and accounts for revenue leakage from the local economy. BBC used IMPLAN data to estimate economic and labor income impacts based on the spending data discussed in the preceding section.<sup>15</sup>

<sup>15</sup> For more information on IMPLAN, refer to <http://implan.com/>.

## Total Economic Impacts from Non-Local Visitation

### Total Economic Impact

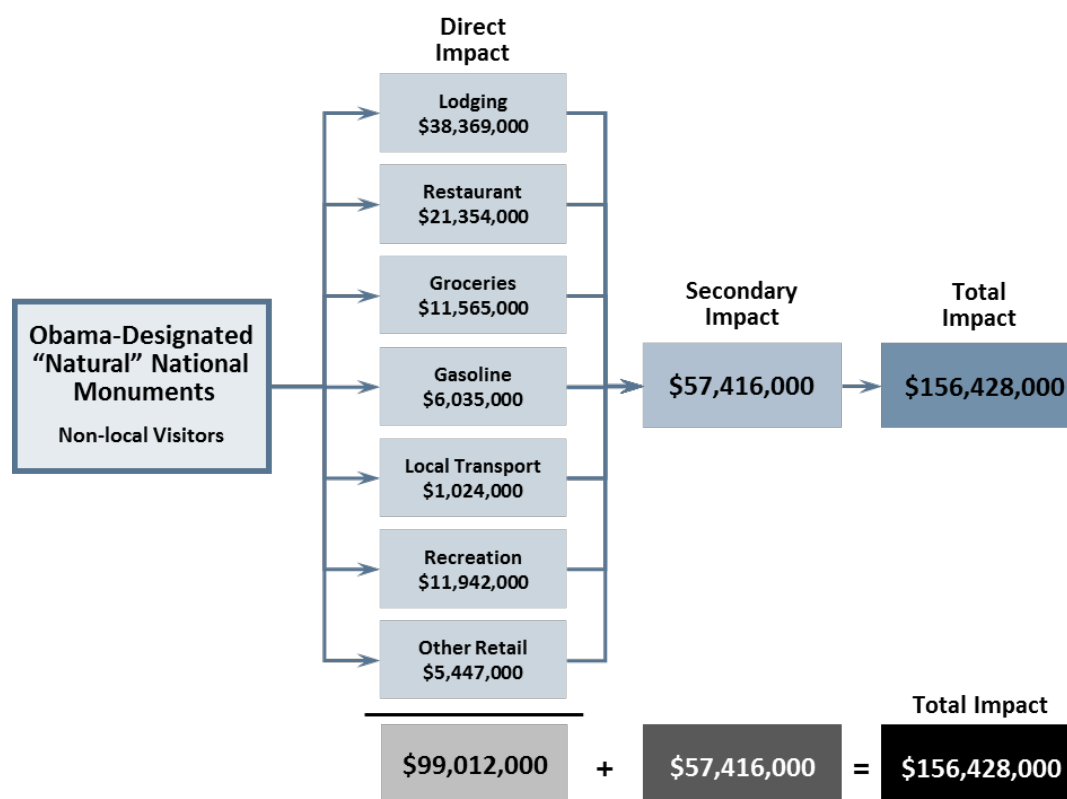
The Obama-designated natural and cultural national monuments generate a total annual economic impact of about \$156.4 million including direct and indirect impacts (Figure 9). This impact represents a substantial contribution to the local, often rural economies that are preserved by the designation of these new national monuments.

The direct impact of visitor spending presented in Figure 9 (\$99 million) differs from the non-local spending numbers presented in Figure 7 (\$129 million) for two reasons: (1) because the model adjusts for expenditure leakage from the local economies in sectors with a large presence of non-local companies (e.g., gas stations); and (2) because retail expenditures are treated differently than other categories in the IMPLAN model.

Most products purchased at retail establishments are manufactured outside the local economies and often even outside of the United States. For this reason, the study team conservatively included only the retail margin in estimating the local secondary (indirect and induced) economic effects associated with retail purchases, including labor income.

Expenditure leakage from the local economy arises from businesses and industries that retain only a portion of their revenues in the local economy. For example, the direct spending associated with gasoline and service stations amounted to is reduced from roughly \$27 million to \$6 million in direct economic output. This reduction occurs because much of the gas and service station expenditure is tied to national or international corporate activity, which is not based in the local economy.

**Figure 9.**  
**Total Annual Economic Impact—Output**



Note: Direct Expenditures reported net of taxes (sales, lodging and excise).

Source: BBC Research & Consulting, based on IMPLAN Regional Input-Output Modeling System, 2016.



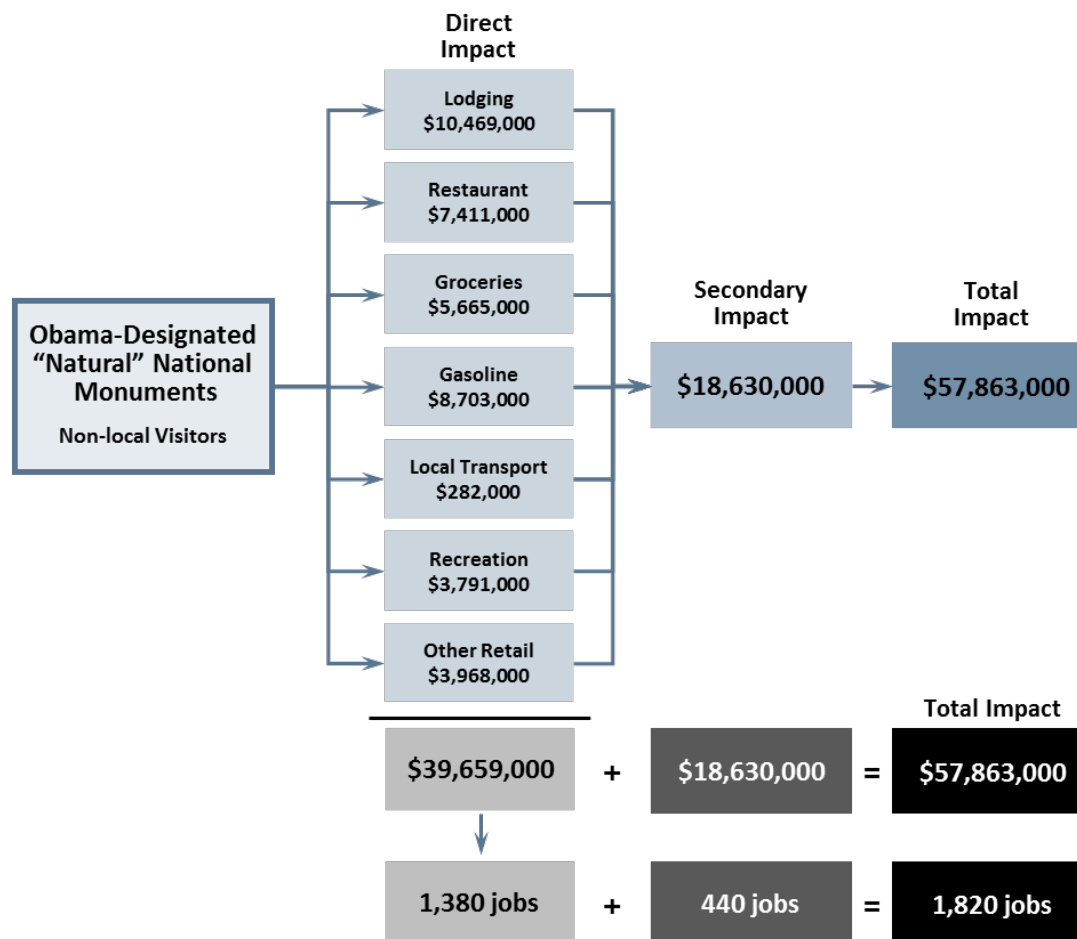
## Impact on Labor Income

National monument visitation results in approximately \$58 million in labor income per year, as shown in Figure 10. The lodging (\$10.5 million) industries produces the most labor income in the local economy.

Among the sectors supported by visitor spending, lodging (\$10.5 million), restaurant (\$7.4 million), and gasoline (\$8.7 million) industries produce the most labor income in the local economy.

Economic activity generated by these national monuments support approximately 1,820 jobs per year in the local economy.

**Figure 10.**  
**Total Annual Labor Income and Employment Impacts**



Source: BBC Research & Consulting, based on IMPLAN Regional Input-Output Modeling System, 2016.

# Monument Designation and Economic Impact

## Monument Designation and Visitation

Solidifying the protection of natural and cultural resources and preserving the economic and non-market values discussed in this report, evidence from previous monument designations suggest that a new national monument could be economically beneficial to the region by raising the profile of the area to potential visitors and increasing visitation and visitor spending in the region. In general, designation has enhanced the value of other public lands as a natural, cultural and recreational attraction, spurring additional visitation and visitor spending.

A 2011 study by Headwaters Economics evaluated the economic performance of communities surrounding 17 national monuments in the western United States. The study found that the local economies associated with each national monument expanded after monument designation. Headwaters updated the study in 2014 with post-recession data and found that the positive trends identified in 2011 continued or improved in each market. It should be noted that neither the 2011 nor the 2014 study attempt to identify a cause-and-effect relationship between monument designation and economic growth; however, the results do indicate that monument designation is consistent with local economic expansion and is not detrimental to it.<sup>16</sup>

Previous BBC studies evaluating the economic impacts of national monument designation have consistently identified increases in visitation, associated visitor spending and subsequent economic effects post designation.<sup>17</sup>

As a part of those previous studies, BBC reviewed data from previously designated national monuments to understand the potential visitor response. Although each monument is different, understanding the average impact of designation on visitation can provide a benchmark for potential visitation growth in newly designated monuments, such as those designated by the Obama Administration.

Monument selection for the benchmark analysis was based on data quality and availability as well as site similarities (i.e., location in the West, designation in 2000 or later and presence of multiple types of recreation). The final benchmarks included were Sonoran Desert, Kasha-Katuwe Tent Rocks, Carrizo Plain, Vermilion Cliffs, Grand Canyon–Parashant and Upper Missouri River Breaks.<sup>18</sup> Data sources include interviews with staff at recently-designated sites and visitation data from the BLM RMIS.<sup>19</sup>

To understand the change in visitation pre- and post-designation, BBC calculated the change in visitation at each site compared to the site's average pre-designation visitation in 1999 and/or 2000. The change in visitation per site was then averaged by year across the six benchmark sites. Figure 14 shows the average annual visitation increase compared to pre-designation visitation.

The benchmark analysis indicates that visitation growth is extensive following designation. Growth between 2002 and 2003 was slightly slower, possibly due to the September 11<sup>th</sup> terrorist attacks and a general aversion to travel in the U.S. Between 2003 and 2007, the growth in visitation is substantial, and in some sites grew by more than 500 percent. Reduced visitation in 2008 could be attributed to the financial crisis in the U.S. and the change in consumer spending patterns, but despite the decline, visitation remained greater than in pre-designation years. In recent years, visitation growth is rebounding and looks to be returning to levels found prior to 2008.

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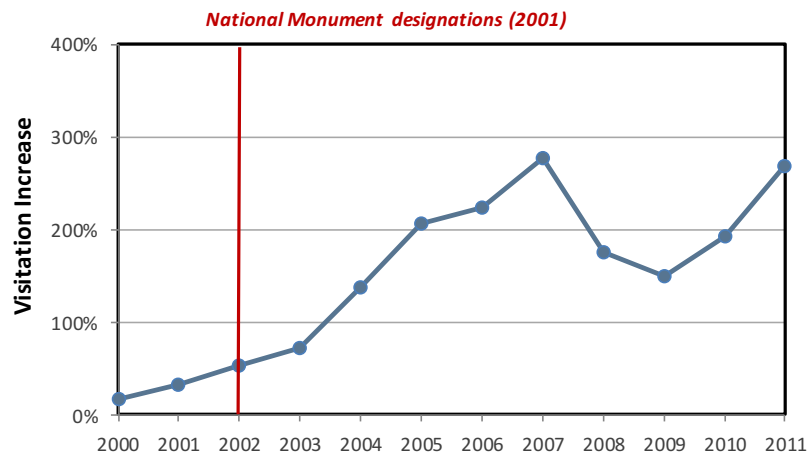
<sup>16</sup> The Economic Importance of National Monuments to Local Communities—Update. Headwaters Economics, 2014. <http://headwaterseconomics.org/public-lands/protected-lands/national-monuments>

<sup>17</sup> BBC has conducted economic studies of the following national monuments: Organ Mountains—Desert Peaks, Rio Grande Del Norte, Chimney Rock, Great Bend of the Gila and Upper Missouri River Breaks.

<sup>18</sup> Visitation data at several national monuments, including Agua Fria, Canyons of the Ancients, Ironwood Forest, Cascade Siskiyou and Prehistoric Trackways were unavailable in pre-designation years, making them unusable as benchmarks.

<sup>19</sup> All monuments that fit the selection criteria are managed by the BLM.

**Figure 14.**  
**Average Visitation Increase Compared to Pre-designation**



Source: BBC Research & Consulting with data provided by the BLM.

In summary, national monument designation seems to have a significant impact on visitation, but it is not the only factor that influences visitation. Other economic factors affect tourism such as geopolitical events and changes in consumer disposable income. It is important to note that overall visitation growth at all BLM lands relative to 2001 was between 3 percent and 14 percent per year, which is substantially lower than the benchmarks.

*“Conservation and economic growth can go hand-in-hand. Protected public lands improve local economies and local businesses benefit greatly from these protections.”*

— Ruben Guerra, Chairman and CEO of the Latin Business Association in Los Angeles, CA

*“National monuments are important to small businesses because they offer job creation, business growth and stimulate the economy.”*

— Vernita Naylor, owner of Jabez Enterprise Group in Oakland, CA near Berryessa Snow Mountain and Point Arena-Stornetta national monuments

## Future Economic Growth

The Obama-designated natural national monuments currently generate about \$156 million in local economic activity, but opportunities exist to grow the economic value as awareness of the unique historic, cultural and natural resources contained in the new monuments increases. A moderate increase in visitation to these monuments can lead to the emergence of additional startup tourism-based businesses, which in turn leads to greater economic activity in local communities. Additionally, existing small businesses located near national monuments will likely see greater economic activity as more tourism dollars flow into their communities. Once this cycle begins, tourism steadily grows and the local economy grows simultaneously. The recently-designated national monuments are invaluable assets that can be leveraged to attract visitors to serve as catalysts for local economic growth.