

# Impacts of Visitor Spending on the Local Economy: John Day Fossil Beds National Monument, 2004



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## **Executive Summary**

John Day Fossil Beds National Monument hosted 117,613 recreation visits in 2004. Based on the 2004 visitor survey 6% of the visitors are local residents, 35% are visitors from outside the local area not staying overnight within the local area, and 59% are visitors staying overnight in the local area. Forty-two percent of the overnight visitors are staying in motels, cabins or B&B's, 31% are camping and 27% did not report any lodging expenses.

The average visitor party spent \$82 in the local area. Visitors reported expenditures of their group inside the park and within 50 miles of the site. On a party trip basis, average spending in 2004 was \$22 for non-local day trips, \$199 for visitors in motels, and \$100 for campers. On a per night basis, visitors staying in motels spent \$130 in the local region compared to \$54 for campers. The average per night lodging cost was \$67 per night for motels and \$12 for campgrounds.

Total visitor spending in 2004 within 50 miles of the park was \$4.2 million including \$70,000 spent in the gift shop inside the park. Thirty-seven percent of the total spending was for lodging, 22% restaurant meals and bar expenses, 21% gas and oil. Overnight visitors staying in motels accounted for 61% of the spending.

Not all of this spending would be lost to the region in the absence of the park. The vast majority of visitors did not come to the area primarily to visit John Day Fossil Beds NM, so only a portion of their expenses can be attributed to the park visit.

Spending directly attributed to the park was estimated by counting all spending for visitors whose primary reason for coming to the area was to visit the park. Half of the spending outside the park was counted if John Day Fossil Beds NM was not the primary reason for the trip to the area. All spending inside the park was attributed to the park, while all spending by local residents outside the park was excluded. These procedures yield a total of \$2.74 million in spending attributed to the park, about two-thirds of the \$4.2 million spent by park visitors in the area.

The economic impact of park visitor spending is estimated by applying this spending to a model of the local economy. The local region was defined as a four county area. Including direct and secondary effects, the \$2.74 million spent by park visitors supports 55 jobs in the area, generates one million dollars in personal income and \$1.5 million in value added. Value added includes wages and salaries as well as profits and rents to area businesses and sales taxes.

Recreation visits increased by 6% in 2005 to 124,937 visitors. Combined with a 5% increase in per visitor spending, total visitor spending increased to \$4.8 million in 2005. The park itself employed 23 people in FY 2005 with a total payroll of \$1.2 million.

Including secondary effects, the local impact of park operations in 2005 was 30 jobs, \$1.3 million in personal income and \$1.45 million total value added. Including both visitor spending and park operations, the total impact of the park on the local economy in 2005 was 89 jobs and \$3.1 million value added. Park operations account for a third of the employment effects and about half of the value added.

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## **Introduction**

The purpose of this study is to document the local economic impacts of visitors to John Day Fossil Beds National Monument (JODA) in 2004. Economic impacts are measured as the direct and secondary sales, income and jobs in the local area resulting from spending by park visitors. The economic estimates are produced using the Money Generation Model 2 (MGM2) (Stynes and Propst, 2000). Three major inputs to the model are:

- 1) Number of visits broken down by lodging-based segments,
- 2) Spending averages for each segment, and
- 3) Economic multipliers for the local region

Inputs are estimated from the John Day Fossil Beds NM Visitor Survey, National Park Service Public Use Statistics, and IMPLAN input-output modeling software. The MGM2 model provides a spreadsheet template for combining park use, spending and regional multipliers to compute changes in sales, personal income, jobs and value added in the region.

## **John Day Fossil Beds National Monument and the Local Region**

John Day Fossil Beds NM consists of three units in eastern Oregon. The park hosted 117,613 recreation visitors in 2004 and 124,937 in 2005. About 70% of the visitation is between May and September (Table 1).

The local region was defined to cover Crook, Grant, Jefferson, and Wheeler counties. The region roughly coincides with the 50 mile driving distance for which spending was reported. The rural region had a population of 51,000 in 2005.

**Table 1. Recreation Visits to John Day Fossil Beds NM, 2004-2005**

<b>Month</b>	<b>2004</b>	<b>2005</b>
January	844	1,215
February	1,757	2,436
March	8,462	6,669
April	11,389	10,799
May	13,118	15,697
June	16,641	18,388
July	17,081	19,331
August	18,177	20,227
September	16,939	16,519
October	7,902	9,017
November	3,292	3,328
<u>December</u>	<u>2,011</u>	<u>1,311</u>
<b>Total</b>	<b>117,613</b>	<b>124,937</b>

Source: NPS Public Use Statistics

## **John Day Fossil Beds NM Visitor Survey, 2004**

A park visitor study was conducted at John Day Fossil Beds NM from August 29–September 4, 2004 (Le, Schuette and Hollenhorst, 2005). The study measured visitor demographics, activities, and travel expenditures. Questionnaires were distributed to a sample of 396 visitors, divided among the three units. Visitors returned 310 questionnaires for a 78% response rate. Data generated through the visitor survey were used as the basis to develop the spending profiles, segment shares and trip characteristics for John Day Fossil Beds NM visitors.

Most visitors did not come to the area primarily to visit John Day Fossil Beds NM. Most visitors were passing through the area or visiting other attractions/recreation facilities in the area. Twenty-six percent of respondents indicated that visiting JODA was the primary reason for their trip to the area.

## MGM2 Visitor Segments

MGM2 divides visitors into segments to help explain differences in spending across distinct user groups. Five segments were established for JODA visitors:

**Local day users:** Visitors who reside within the local region, defined as a 50 mile radius of the park<sup>1</sup>.

**Non-local day users:** Visitors from outside the region, not staying overnight in the area. This includes day trips as well as pass-through travelers, who may be staying overnight on their trip outside the region.

**Motel:** Visitors staying in motels, hotels, cabins, or B&B's within 50 miles of the park

**Camp:** Visitors staying in private or public campgrounds within 50 miles of the park

**Other OVN:** Other visitors staying overnight in the area with friends or relatives or not reporting any lodging expenses

The 2004 visitor survey was used to estimate the percentage of visitors from each segment as well as spending averages, lengths of stay and party sizes for each segment. Only six percent of the visitors surveyed were local residents, 35% of the trips were classified as non-local day trips, and 59% were overnight trips including an overnight stay in the local area. Forty-two percent of overnight visitors were staying in motels, cabins or B&B's, 31% were camping and 27% were staying with friends or relatives or other unpaid lodging (Table 2)<sup>2</sup>. The average spending party was 2.8 people. Only about a fourth of visitors indicated that visiting the park was the primary reason for the trip to the area.

**Table 2. Selected Visit/Trip Characteristics by Segment, 2004**

Characteristic	Local	Day trip	Motel	Camp	Other OVN	Total
Segment share	6%	35%	25%	18%	16%	100%
Average Party size	2.4	2.6	2.2	2.2	2.8	2.4
Length of stay (days/nights)	1.0	1.0	1.5	1.9	2.0	1.5
Percent primary purpose trips	28%	20%	37%	30%	14%	26%

John Day Fossil Beds NM hosted 117,613 recreation visitors in 2004. Recreation visits were allocated to the five segments using the segment shares in Table 2. These visits are converted to 48,424 party trips by dividing by the average party size for each segment (Table 3). Total visitor spending is estimated by multiplying the number of party trips of each segment by the average spending estimated in the survey.

<sup>1</sup> Local residents were identified by zipcodes. Cases with the following zipcodes were classified as local residents: 97734, 97741, 97750, 97754, 97756, 97760, 97830, 97845.

<sup>2</sup> These percentages vary slightly from the VSP report (Le, Schuette, and Hollenhorst. 2005) as some visitors listing motels or campgrounds as lodging types did not report any lodging expenses and are classified here in the other OVN category.

**Table 3. Recreation Visits and Party Trips by Segment, 2004**

Measure	Local	Day trip	Motel	Camp	Other OVN	Total
Recreation visits	6,829	41,734	28,834	21,626	18,590	117,613
Party visits/trips	2,845	16,292	12,926	9,722	6,639	48,424

## Visitor spending

Spending averages were computed on a party trip basis for each segment. The survey covered expenditures of the travel party within 50 miles of the site.

The average visitor group in 2004 spent \$82 on the trip<sup>3</sup>. On a party trip basis, average spending was \$22 for non-local day trips, \$199 for visitors in motels, \$100 for campers and \$37 for other overnight visitors (Table 4). On a per night basis, visitors in motels spent \$130 in the local region compared to \$54 for campers and \$18 for other overnight visitors. The average per night lodging cost was \$67 per night for motels and \$12 for campgrounds.

**Table 4. Average Visitor Spending by Segment (\$ per party per trip)**

	Local	Day trip	Motel	Camp	Other OVN	All Visitors
<b>In Park</b>						
Admissions	0.00	0.00	0.00	0.00	0.00	0.00
Gift shop	0.00	1.35	2.73	0.77	0.84	1.42
Donations	0.28	0.50	0.64	1.11	0.41	0.62
<b>In Community</b>						
Motel, hotel cabin or B&B	0.00	0.00	102.26	3.29	0.00	25.67
Camping fees	0.00	0.00	0.00	22.52	0.00	4.14
Restaurants & bars	4.78	5.21	47.81	17.32	9.37	18.51
Groceries, take-out food/drinks	2.83	3.17	9.55	14.95	9.71	7.91
Gas & oil	9.06	7.19	26.53	32.46	11.78	17.41
Local transportation	0.00	0.04	1.92	0.00	3.06	0.97
Admissions & fees	0.00	0.03	2.08	0.77	0.00	0.66
Souvenirs and other expenses	4.72	4.63	3.42	6.29	1.84	4.20
Donations	0.28	0.16	1.59	0.48	0.24	0.59
<b>Grand Total</b>	<b>21.94</b>	<b>22.27</b>	<b>198.53</b>	<b>99.95</b>	<b>37.24</b>	<b>82.11</b>
Total in park	0.28	1.84	3.37	1.88	1.24	2.04
Total outside park	21.67	20.42	195.16	98.07	36.00	80.07

<sup>3</sup> The average of \$82 is lower than the \$108 spending average in the VSP report (Le, Schuette and Hollenhorst 2005), due to the omission of some outliers and treatment of missing spending data.

**Table 5. Average Spending per Night for Visitors on Overnight Trips (\$ per party per night)**

	Motel	Camp	Other OVN
<b>Spending In Community</b>			
Motel, hotel cabin or B&B	66.93	1.77	0.00
Camping fees	0.00	12.13	0.00
Restaurants & bars	31.29	9.33	4.59
Groceries, take-out food/drinks	6.25	8.05	4.76
Gas & oil	17.37	17.48	5.77
Local transportation	1.26	0.00	1.50
Admissions & fees	1.36	0.41	0.00
Souvenirs and other expenses	2.24	3.38	0.90
<u>Donations</u>	<u>1.04</u>	<u>0.26</u>	<u>0.12</u>
<b>Grand Total</b>	<b>129.95</b>	<b>53.82</b>	<b>18.23</b>

The sampling error at a 95% confidence level for the overall spending average is 15%. The sampling error for the motel segment is also 15%. Sampling errors for other segments with smaller sample sizes are much higher (See Table B-2 in the appendix).

John Day Fossil Beds NM visitors spent a total of \$4.2 million in the local area in 2004 (Table 6). Total spending was estimated by multiplying the number of party trips for each segment by the average spending per trip and summing across segments.

**Table 6. Total Visitor Spending by Segment, 2004 (\$000s)**

	Local	Day trip	Motel	Camp	Other OVN	All Visitors
<b>In Park</b>						
Admissions	0.00	0.00	0.00	0.00	0.00	0.00
Gift shop	0.00	21.97	35.24	7.46	5.56	70.23
Donations	0.79	8.07	8.32	10.76	2.71	30.66
<b>In Community</b>						
Motel, hotel cabin or B&B	0.00	0.00	1321.78	31.94	0.00	1,353.72
Camping fees	0.00	0.00	0.00	218.91	0.00	218.91
Restaurants & bars	13.60	84.90	617.95	168.39	62.19	947.03
Groceries, take-out food/drinks	8.06	51.57	123.41	145.30	64.50	392.84
Gas & oil	25.77	117.18	342.97	315.61	78.18	879.71
Local transportation	0.00	0.60	24.79	0.00	20.32	45.71
Admissions & fees	0.00	0.45	26.91	7.46	0.00	34.83
Souvenirs and other expenses	13.44	75.48	44.27	61.11	12.19	206.49
<u>Donations</u>	<u>0.79</u>	<u>2.54</u>	<u>20.54</u>	<u>4.69</u>	<u>1.63</u>	<u>30.18</u>
<b>Grand Total</b>	<b>62</b>	<b>363</b>	<b>2,566</b>	<b>972</b>	<b>247</b>	<b>4,210</b>
Total in park	0.79	30.04	43.56	18.23	8.27	100.88
Total outside park	61.65	332.71	2522.63	953.41	239.02	4,109.42
Segment Percent of Total	1%	9%	61%	23%	6%	100%

Overnight visitors staying in motels accounted for 61% of the total spending. Lodging accounted for 37% of the total spending, restaurants and bars 22% and gas and oil 21%.

Not all of this spending would be lost to the region in the absence of the park as most visitors did not make the trip primarily to visit the park. Spending directly attributed to the park visit was estimated by counting all spending for trips where the park was the primary reason for the trip and half of the spending outside the park if the park was not the primary destination. All spending inside the park was counted, but all spending by local visitors outside the park was excluded.

These attributions yield a total of \$2.74 million in visitor spending attributed to the park visit, representing 65% of the overall visitor spending total. Overnight trips still account for the majority of spending attributed to the park. Visitors in motels account for 64%, and campers 23% (Table 7).

**Table 7. Total Spending Attributed to Park Visits, 2004 (\$000s)**

	Local	Day trip	Motel	Camp	Other OVN	All Visitors
<b>In Park</b>						
Admissions	0.00	0.00	0.00	0.00	0.00	0.00
Gift shop		6.09	12.29	1.83	1.14	21.35
Donations	0.79	8.07	8.32	10.76	2.71	30.66
<b>In Community</b>						
Motel, hotel cabin or B&B		0.00	905.33	20.82	0.00	926.15
Camping fees		0.00	0.00	142.68	0.00	142.68
Restaurants & bars		51.02	423.26	109.76	35.54	619.57
Groceries, take-out food/drinks		30.99	84.53	94.71	36.86	247.08
Gas & oil		70.42	234.91	205.71	44.68	555.71
Local transportation		0.36	16.98	0.00	11.61	28.95
Admissions & fees		0.27	18.43	4.87	0.00	23.57
Souvenirs and other expenses		45.36	30.32	39.83	6.97	122.47
<u>Donations</u>		1.53	14.07	3.06	0.93	19.58
<b>Total Attributed to Park</b>	<b>0.8</b>	<b>214.1</b>	<b>1,748.4</b>	<b>634.0</b>	<b>140.4</b>	<b>2,737.8</b>
Percent of spending attributed to the park	1%	59%	68%	65%	57%	65%
Percent of attributed spending	0%	8%	64%	23%	5%	100%

## Economic Impacts of Visitor Spending

The economic impacts of John Day Fossil Beds NM visitor spending on the local economy were estimated by applying the spending attributed to the park (Table 7) to a set of economic ratios and multipliers representing the local economy. Multipliers for the region were estimated with the IMPLAN system using 2001 data. The tourism sales multiplier for the region is 1.25. Every dollar of direct sales to visitors generates another \$ .25 in secondary sales through indirect and induced effects<sup>4</sup>.

Impacts are estimated based on the visitor spending attributed to the park in Table 7<sup>5</sup>. Including direct and secondary effects, the \$2.74 million spent by park visitors<sup>6</sup> supports 55 jobs in the area and generates one million dollars in personal income and \$1.5 million in value added (Table 8). Personal income covers wages and salaries, including payroll benefits. Value added is the preferred measure of the contribution to the local economy as it includes all sources of income to the area, payroll benefits to workers, profits and rents to businesses, and sales and other indirect business taxes. The largest direct effects are in lodging establishments and restaurants.

**Table 8. Economic Impacts of Visitor Spending Attributed to the Park, 2004.**

Sector/Spending category	Sales \$000's	Jobs	Personal Income \$000's	Value Added \$000's
<b>Direct Effects</b>				
Motel, hotel cabin or B&B	926	22	405	656
Camping fees	143	1	15	35
Restaurants & bars	620	16	254	287
Admissions & fees	24	1	8	14
Local transportation	29	1	14	16
Retail Trade	258	6	119	155
Wholesale Trade	44	1	16	29
<u>Local Production of goods</u>	<u>27</u>	<u>0</u>	<u>0</u>	<u>0</u>
<b>Total Direct Effects</b>	2,070	47	831	1,192
<u>Secondary Effects</u>	<u>527</u>	<u>8</u>	<u>187</u>	<u>320</u>
<b>Total Effects</b>	2,597	55	1,018	1,511

<sup>4</sup> Indirect effects result from tourism businesses buying goods and services from local firms, while induced effects stem from household spending of income earned from visitor spending.

<sup>5</sup> The local economic impact of all \$4.2 million in visitor spending (Table 6) is reported in Appendix C.

<sup>6</sup> Revenues received by the park (park admissions and donations) are excluded in estimating visitor spending impacts as the impacts resulting from park revenues are covered as part of park operations.

## 2005 Update

The spending and impact estimates may be updated to 2005 based on reported recreation visits in 2005. Recreation visits increased by 6% in 2005 to 124,937. The visitor segment mix, party sizes and lengths of stay were assumed unchanged from 2004. Spending averages measured in the 2004 visitor survey were price adjusted to 2005 using Bureau of Labor Statistics price indices for each spending category. Spending averages increased by about five percent in 2005 compared to 2004.

The increase in visits along with a five percent increase in per visitor spending, increased total visitor spending to \$4.8 million in 2005 (Table 9).

**Table 9. Update of Spending Estimates to 2005**

	Local	Day trip	Motel	Camp	Other OVN	Total
Average Spending (\$ per party)						
2004	21.94	22.27	198.53	99.95	37.24	81.10
2005	24.32	24.28	211.04	109.40	40.47	85.51
Total Spending (\$000's)						
2004	62	363	2,566	972	247	4,210
2005	74	420	2,898	1,130	285	4,807
Spending Attributed to the Park (\$000's)						
2004	1	214	1,748	634	140	2,738
2005	1	233	1,859	694	153	2,886

The park itself employed 23 people in FY 2005 with a total payroll of \$1.2 million. Including secondary effects, the local impact of park operations in 2005 was 30 jobs, \$1.3 million in personal income and \$1.45 million total value added. Including both visitor spending and park operations, the total impact of the park on the local economy in 2005 was 89 jobs and \$3.1 million value added. Park operations account for a third of the employment effects and about half of the value added.

## Study Limitations and Error

The accuracy of the MGM2 estimates rests on the accuracy of the three inputs: visits, spending averages, and multipliers. Recreation visit estimates rely on counting procedures at the park, which may miss some visitors and count others more than once during their visit.

Spending averages are derived from the 2004 John Day Fossil Beds NM Visitor Survey. Estimates from the survey are subject to sampling errors, measurement errors and seasonal/sampling biases. The overall spending average is subject to sampling errors of 15%.

Spending averages are also sensitive to decisions about outliers and treatment of missing data. To estimate spending averages incomplete spending data had to be filled and decisions had to be made about the handling of missing spending data and zero spending reports. Spending averages were estimated under conservative assumptions.

First, cases reporting some expenses but leaving other categories blank were filled with zeros. Thirty-nine respondents that did not complete the spending question were assumed to spend no money in the area. Omitting cases with missing spending data instead of treating them as zeros would increase the spending average from \$82 to \$94. This change would increase overall spending totals and impacts by about 15%. Only two spending outliers were dropped in computing spending averages. Including the outliers would increase the spending average to \$92.

As the sample only covers visitors during a single week, we must assume these visitors are representative of visitors during the rest of the year to extrapolate to annual totals.

Multipliers are derived from an input-output model of the local economy using IMPLAN. Input-output models rest on a number of assumptions, however, errors due to the multipliers will be small compared to potential errors in visit counts and spending estimates. Visits are taken from NPS public use statistics.

More problematic than the errors in visits, spending or multipliers is sorting out how much of the spending to attribute to the park. As the park was not the primary motivation for the trip to the region for most visitors, some visitor spending would likely not be lost to the region in the absence of the park. The procedures for attributing spending to the park are somewhat subjective, but reasonable. Sixty-five percent of all visitor spending is attributed to park visits under the stated assumptions.

## REFERENCES

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## Appendix A: Definitions of Economic Terms

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<b>Term</b>	<b>Definition</b>
Sales	Sales of firms within the region to park visitors.
Jobs	The number of jobs in the region supported by the visitor spending. Job estimates are not full time equivalents, but include part time positions.
Personal income	Wage and salary income, sole proprietor's income and employee payroll benefits.
Value added	Personal income plus rents and profits and indirect business taxes. As the name implies, it is the net value added to the region's economy. For example, the value added by a hotel includes wages and salaries paid to employees, their payroll benefits, profits of the hotel, and sales and other indirect business taxes. The hotel's non-labor operating costs such as purchases of supplies and services from other firms are not included as value added by the hotel.
Direct effects	Direct effects are the changes in sales, income and jobs in those business or agencies that directly receive the visitor spending.
Secondary effects	These are the changes in the economic activity in the region that result from the re-circulation of the money spent by visitors. Secondary effects include indirect and induced effects.
Indirect effects	Changes in sales, income and jobs in industries that supply goods and services to the businesses that sell directly to the visitors. For example, linen suppliers benefit from visitor spending at lodging establishments.
Induced effects	Changes in economic activity in the region resulting from household spending of income earned through a direct or indirect effect of the visitor spending. For example, motel and linen supply employees live in the region and spend their incomes on housing, groceries, education, clothing and other goods and services.
Total effects	Sum of direct, indirect and induced effects. <ul style="list-style-type: none"><li>▪ Direct effects accrue largely to tourism-related businesses in the area</li><li>▪ Indirect effects accrue to a broader set of businesses that serve these tourism firms.</li><li>▪ Induced effects are distributed widely across a variety of local businesses.</li></ul>

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## Appendix B: Handling of Missing Spending Data and Outliers

To compute spending averages and to sum spending across categories, spending categories with missing spending data had to be filled. If spending was reported in any category, the remaining categories were assumed to be zero. This yielded 259 cases with valid spending data, 12 cases reporting zero spending and 39 cases not completing the spending question. Cases with missing or no spending reported were local residents, day trips, or overnight trips without any local lodging expenses. It was assumed that these cases spent no money in the local area.

**Table B-1. Cases with Valid, Zero and Missing Spending Data by Segment**

	Local	Day trip	Motel	Camp	Other OVN	Total
Report some spending	15	78	76	57	33	259
Missing spending data	2	24	0	0	13	39
<u>Zero spending</u>	<u>1</u>	<u>8</u>	<u>0</u>	<u>0</u>	<u>3</u>	<u>12</u>
Total cases	18	110	76	57	49	310
Percent zero	6%	7%	0%	0%	6%	4%
Percent missing	11%	22%	0%	0%	27%	13%

Two cases reporting spending of more than \$1,000 were dropped when computing spending averages. Another three cases with party sizes or lengths of stay greater than seven were also omitted, yielding a final sample of 305 cases for the spending analysis. The overall spending average is \$82 omitting outliers compared to \$92 with outliers.

**Table B-2. Spending Averages by Segment, with and without outliers**

Segment	With outliers			Without outliers			
	Mean	N	Std. Deviation	Mean	N	Std. Deviation	Pct Error <sup>a</sup>
Local	22	18	25	22	18	25	52%
Day trip	23	110	46	22	109	45	38%
Motel	233	76	248	199	73	127	15%
Camp	106	57	123	100	56	115	30%
<u>Other OVN</u>	<u>37</u>	<u>49</u>	<u>58</u>	<u>37</u>	<u>49</u>	<u>58</u>	<u>44%</u>
Total	92	310	162	82	305	113	15%

a. Pct errors computed at a 95% confidence level

## Appendix C. Impacts of all Visitor Spending, 2004

Table C1 gives the impacts of \$5.9 million in visitor spending on the local economy. All visitor spending in the region except park admissions and donations is included in this analysis. Impacts attributed to the park in Table 8 are about a third of the impacts when all visitor spending is included.

**Table C-1. Impacts on Local Economy**

<b>Sector/Spending category</b>	<b>Sales \$000's</b>	<b>Jobs</b>	<b>Personal Income \$000's</b>	<b>Value Added \$000's</b>
<b>Direct Effects</b>				
Motel, hotel cabin or B&B	1,983	37	865	1,405
Camping fees	188	1	22	52
Restaurants & bars	1,370	36	564	637
Admissions & fees	113	4	41	69
Local transportation	39	0	0	0
Retail Trade	704	14	335	439
Wholesale Trade	106	2	39	68
<u>Local Production of goods</u>	<u>48</u>	<u>0</u>	<u>0</u>	<u>0</u>
<b>Total Direct Effects</b>	<b>4,552</b>	<b>94</b>	<b>1,866</b>	<b>2,670</b>
<u>Secondary Effects</u>	<u>1,598</u>	<u>24</u>	<u>558</u>	<u>932</u>
<b>Total Effects</b>	<b>6,149</b>	<b>118</b>	<b>2,425</b>	<b>3,601</b>