

# Economic Impacts of Great Smoky Mountains National Park Visitors on the Local Region, 1997-2000

Daniel J. Stynes, Ph.D.  
Michigan State University

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National Park Service  
Social Science Program

Department of Park, Recreation and  
Tourism Resources  
Michigan State University

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Great Smoky Mountains National Park (GRSM) reported over 10 million visitors in 2000, including 329,721 overnight stays in the park. Gateway communities of Gatlinburg, Pigeon Forge, Townsend and Cherokee have extensive tourism developments including a major theme park, numerous factory outlet malls, an Indian gaming casino, and a variety of other entertainment, recreation and retail establishments targeted at park visitors and tourists more generally.

Sevier county, the primary gateway to the park on the Tennessee side, has witnessed double-digit annual growth in tourism activity since 1969. Earnings in the lodging sector have grown from \$5.9 million in 1969, to \$16.8 million in 1979, to \$42.6 million in 1988, and to \$105 million in 1999 (BEA, REIS data). Restaurants and amusements sectors have experienced similar growth. In 1999, the four primary tourism sectors (hotels, restaurants, amusements and retail trade) accounted for 43% of all sales in the county.

While the park was the initial impetus for tourism in the area, today many visitors come to the area as much for the other tourist attractions around the park. Many visitors are on extended trips passing through the area and stopping for a few hours or a night at the park. Just over half of park visitors in 1996 (56%) indicated the park was their primary destination in the area. When asked to check a list of reasons for their trip, 80% checked visit the park, 50% travel through the area, 40% shopping, and 18% visit Dollywood (VSP, 1996).<sup>1</sup>

As Great Smoky Mountains National Park is integrally linked to tourism activity in the area, we begin with an assessment of the economic importance of tourism to the region. Then using park visitor statistics and park visitor spending patterns we identify the portion of economic activity in the area from park visitors. Economic impacts are first presented for 1997<sup>2</sup> and then updated to 2000. The local region is defined to encompass a six county area: Blount, Cocke and Sevier counties in Tennessee and Graham, Haywood and Swain counties in North Carolina.

### **Economic Importance of Tourism to Region**

Tourism Satellite Accounting (TSA) methods are used to identify the contribution of tourism activity to the region's economy (WTO, 1999). The TSA approach identifies a set of tourism industries (lodging, eating and drinking establishments, etc.) and extracts the portion of sales in each industry to tourists. The method uses official county level economic accounts and a set of tourism industry ratios. IMPLAN provides data on sales, income and employment for some 528 sectors for the six counties. The most recent data available to us was for 1997.

Total output of all industries in 1997 for the region was \$9.8 billion (Table 1). Tourism-related industries accounted for \$1.8 billion or about 18% of all sales<sup>3</sup>. Tourism industries account for 23% of value added, a fourth of wage and salary income and a third of all jobs in the region. There was \$330 million in sales in the lodging sector in 1997. Sevier county, while representing only a fourth of the six county region's population, accounts for 71% of the lodging sales, 77% of amusements, 59% of restaurant sales and a third of retail trade.

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<sup>1</sup> Percents are averages of summer and fall visitors which are reported separately.

<sup>2</sup> 1997 is the most recent year for which we have complete economic data and IMPLAN county data files for the region.

<sup>3</sup> This excludes \$67 million in the air transportation sector, and only includes the retail margins on any goods purchased by tourists.

**Table 1. Total Economic Activity in Tourism Industries, 1997 GRSM Region**

	Sales (\$millions)	Jobs	Personal Income (\$millions)	Total Income (\$millions)	Value Added (\$millions)
Hotels And Lodging Places	330	6,499	128	175	196
Eating & Drinking	406	10,915	151	185	214
Recreation/Entertainment	186	4,781	65	91	96
Retail Trade	770	21,352	379	481	606
<u>Local Transp. &amp; auto</u>	<u>98</u>	<u>1,328</u>	<u>30</u>	<u>46</u>	<u>50</u>
Tourism Industry Total	1,789	44,875	752	979	1,162
Total Economy	9,856	134,957	3,043	4,667	5,043
Percent	18%	33%	25%	21%	23%

a. GRSM Region consists of six counties: Blount, Cocke and Sevier, TN and Graham, Haywood and Swain, NC.

SOURCE: IMPLAN, 1997 county data files.

For the region as a whole, we estimate that 42% of the sales in these tourism industries (\$755 million) represents sales to tourists (Table 2). The "TI Ratios"<sup>4</sup> in Table 2 show the percentage of sales in each sector attributed to visitors. Ninety percent of hotel sales are to visitors. Visitors account for about half of all restaurant and amusement/entertainment sales and 16% of all retail sales.

The \$755 million in sales to tourists in 1997 only includes the retail margins on any goods bought by tourists. Assuming an average retail margin of 40%, adds another \$180 million to cover the costs of the goods sold at retail and yields an overall visitor spending estimate of \$935 million.

The \$755 million in tourism sales supports about 18,000 jobs with a total payroll of about \$300 million. Including rents and profits brings total tourism income to \$392 million. Adding indirect business taxes yields a total value added for tourism of \$449 million. Hotels account for 42% of the tourism value added followed by restaurants (24%), retail trade (21%) and amusements (12%).

**Table 2. Total Economic Activity from Tourists, 1997 GRSM Region (\$ millions)**

Sector	Tourism Sales (\$ millions)	Jobs	Personal Income (\$millions)	Total Income (\$ millions)	Value Added (\$ millions)	TI Ratio
Hotels And Lodging Places	314	6,190	122	167	187	90%
Eating & Drinking	203	5,458	75	92	107	50%
Recreation/Entertainment	102	2,653	36	50	53	54%
Retail Trade	119	3,313	59	75	94	16%
<u>Local Transp. &amp; auto</u>	<u>17</u>	<u>245</u>	<u>5</u>	<u>8</u>	<u>8</u>	<u>30%</u>
Total	755	17,858	297	392	449	

<sup>4</sup> The TI ratio represents the portion of sales in a given industry to tourists. Tourism sales in a given industry may be estimated by multiplying the TI ratio in Table 2 by total sales in Table 1.

### Economic Impact of Park Visitors- The MGM2 model

The Money Generation Model (MGM2) is used to estimate spending and economic impacts of park visitors. MGM2 estimates total visitor spending by multiplying the number of visitors (expressed in party nights in the area) by per day/night spending averages. The model uses distinct spending profiles for eight visitor segments to capture differences in spending between day visitors, campers, and visitors staying in area hotels. Spending is estimated in 12 spending categories and then applied to an input-output model of the area economy to translate spending into associated income and jobs and also to estimate secondary effects (Stynes and Propst, 2000).

There are three primary inputs to the MGM2 model: (1) Visits, (2) Spending, and (3) Multipliers.

#### Visits

Great Smoky Mts NP reported just under 10 million recreation visits in 1997 including 487,780 overnight stays in the park (Table 3). Park visits were converted to party nights in the area by visitor segment by applying average party size, length of stay and re-entry factors to the visitation and overnight stay data<sup>5</sup>.

**Table 3. Great Smoky Mt. NP Park Visits, 1997**

<b>Visitor Segment<sup>6</sup></b>	<b>Recreation Visits</b>	<b>Pct of visits</b>	<b>Party Nights in Area</b>	<b>Pct of party nights</b>
Local day trip	1,438,993	14%	478,315	12%
NL day trip	2,110,523	21%	578,183	14%
Motel-IN	10,758	0%	5,379	0%
Camp-IN	335,733	3%	123,593	3%
Backcountry	25,296	0%	53,122	1%
Motel-out	5,276,308	53%	2,428,369	60%
Camp-Out	383,732	4%	196,232	5%
<u>VFR</u>	<u>383,732</u>	<u>4%</u>	<u>205,190</u>	<u>5%</u>
Total	9,965,075	100%	4,068,383	100%

Park visitors spent just over 4 million party nights in the region in 1997<sup>7</sup>. The largest segment (60% of party nights) is visitors staying outside the park in hotels, motels, cabins, B&B's and other commercial lodging (Motel-out). Campers represent 8% of party nights, 5% outside the park and 3% inside.

<sup>5</sup> These parameters were estimated from the 1996 VSP study data (Littlejohn, 1997) and are given in Table A1 in the Appendix.

<sup>6</sup> Locals are defined as visitors who reside in the six county area, NL day trips are visitors from outside the region who do not stay overnight in the area, VFR are visitors staying with friends and relatives, a seasonal home or other "unpaid" lodging.

<sup>7</sup> A day trip is counted as equivalent to one "night". The overall average party size was 2.8.

### Spending

Spending profiles for each of the eight segments were estimated for GRSM visitors using the 1996 VSP study and default MGM2 park visitor spending profiles (Table 4). Spending is estimated on a party night basis within 9 spending categories<sup>8</sup>. Spending per party varies from \$22 per day for local visitors to \$69 per day for non-local day visitors to \$185 per night for visitors in area motels. The average room rate was \$70 (including room taxes) in 1997 and the average per night camping fee was \$15 inside the park and \$25 outside

**Table 4. Visitor Spending by Lodging Segment in Local Area, 1997 (\$ per party per night)**

CATEGORY	SEGMENT							VFR	TOTAL (\$ 000's)
	Local Day User	NL-Day User	Motel- In	Camp- In	Back- country	Motel- Out	Camp- Out		
	Spending per party per night								
Motel, hotel cabin or B&B	0.00	0.00	83.41	0.00	3.49	70.00	0.00	0.00	170,620
Camping fees	0.00	0.00	0.00	15.05	1.55	0.00	25.00	0.00	6,848
Restaurants & bars	6.80	22.22	35.97	11.78	4.30	45.07	18.29	18.89	134,891
Groceries	2.33	9.07	6.31	12.04	3.15	7.21	10.85	6.16	28,951
Gas & oil	4.80	17.28	17.41	14.14	4.32	12.60	17.14	12.62	50,913
Admissions & fees	1.00	11.34	13.66	6.50	2.38	15.37	14.36	8.44	49,917
Clothing	1.44	2.12	9.53	5.29	0.67	8.47	10.58	4.00	26,111
Sporting goods	1.12	1.04	1.12	1.12	1.84	1.12	1.12	1.12	4,550
<u>Souvenirs</u>	<u>4.53</u>	<u>6.03</u>	<u>13.38</u>	<u>4.50</u>	<u>4.65</u>	<u>24.68</u>	<u>30.94</u>	<u>6.60</u>	<u>73,880</u>
<b>Total</b>	<b>22.03</b>	<b>69.10</b>	<b>180.78</b>	<b>70.43</b>	<b>26.35</b>	<b>184.52</b>	<b>128.27</b>	<b>57.82</b>	546,682
Party nights	478,315	578,183	5,379	123,593	53,122	2,428,369	196,232	205,190	4,068,383
Total spending (\$000's)	10,537	39,951	972	8,704	1,400	448,082	25,171	11,864	546,682
Percent	2%	7%	0%	2%	0%	82%	5%	2%	100%

Multiplying the per party night spending figures by the number of party nights for each segment and summing across segments yields total visitor spending of \$547 million. Visitors spent \$171 million on lodging, \$135 million on restaurant meals, and \$50 million on amusements and entertainment. A total of \$184 million (34% of the total) is retail purchases including groceries, gas and oil, clothing, sporting goods, souvenirs and other items.

### Multipliers

The MGM2 model applies this spending to a set of sector specific multipliers and economic ratios for the region (See Table A2 in Appendix). Economic ratios convert the spending to the associated jobs and income in tourism businesses (direct effects), while the multipliers estimate the secondary effects from the circulation of this money within the local economy. By using sector-specific multipliers, MGM2 takes into account the different effects of spending in one sector vs another. For example, the job and income to sales ratios are different in the lodging sector than in retail trade. Secondary effects are based on the propensities of businesses and households to purchase goods and services locally rather than from outside the region. MGM2 also handles the margining of retail purchases and excludes most of the cost of goods sold in estimating direct sales. If a good is not locally manufactured, only the retail margin accrues to the local economy as direct sales.

<sup>8</sup> The VSP survey did not measure casino or local transportation expenses, so these are omitted.

MGM2 Results

Direct and Total economic impacts of the \$547 million spent by park visitors in the area in 1997 are reported in Table 5. Eighty-two percent of visitor spending is captured as \$446 million in direct sales. Roughly \$100 million is lost to the region to cover the cost of imported goods sold to tourists. The Direct effects are the impacts on businesses that sell directly to visitors. These are itemized by sector in the MGM2 model and reported in Table 5.

**Table 5. Economic Impacts of GRSM Visitor Spending, 1997**

<b>Sector/Spending category</b>	<b>Direct 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	170,620	3,603	65,167	99,887
Camping fees	6,848	145	2,616	4,009
Restaurants & bars	134,891	3,924	47,784	67,814
Amusements/Entertainment	49,917	1,686	19,188	29,851
Retail Trade	68,041	2,201	33,017	53,134
Wholesale Trade	9,956	180	4,053	6,971
<u>Local Production of goods</u>	<u>5,867</u>	<u>-</u>	<u>-</u>	<u>-</u>
<b>Total</b>	<b>446,141</b>	<b>11,738</b>	<b>171,824</b>	<b>261,668</b>
<b>Secondary Effects</b>				
	135,551	2,455	52,271	89,760
Multiplier	1.30	1.21	1.30	1.34
<b>Total impact</b>	<b>581,692</b>	<b>14,193</b>	<b>224,096</b>	<b>351,428</b>

Park visitors account for \$446 million in sales, \$172 million in personal income and \$262 million in value added<sup>9</sup>. Visitor spending supports about 12,000 jobs in tourism industries. The hotel sector receives the largest impact - \$171 million in sales, 3,600 jobs and almost \$100 million in value added.

The tourism sales multiplier for the region is 1.3, which means that for every dollar of direct sales another \$.30 in sales is generated through secondary effects. Secondary effects accrue to a variety of industries in the area and especially those that sell goods and services to local residents or tourism businesses. With secondary effects the impact on the region's economy is \$582 million in sales, \$224 million in personal income, \$351 million value added and roughly 14,200 jobs.

**Park Visitor's Contribution to Tourism in the Region**

We do not have estimates of the total number of visitors to the region or how many do not visit Great Smoky Mts. NP at least once during their stay. If we assume that park visitors account for 60% of all visitor spending in the region, the MGM2 model estimates of economic activity in Table 5 roughly balance with the tourism satellite approach in Table 2<sup>10</sup>.

<sup>9</sup> Personal income includes wages and salaries, payroll benefits, and income of sole proprietors. Value added is the sum of personal income, rents and profits and indirect business taxes. It is the most commonly used measure of the contribution of a region or sector to gross state or national product.

<sup>10</sup> There are a few minor technical differences in the satellite vs MGM2 estimates. The satellite estimate for the lodging sector includes hotel restaurant sales, while the MGM2 hotel figures include only room costs. MGM2 includes a small amount of local production of goods purchased at retail and also a portion of wholesale trade margins. MGM2 did not include any local transportation spending. These are all minor differences that do not change the overall conclusion that the two estimates are consistent.

**Table 6. Great Smoky Mt. NP Visitor Portion of 1997 Tourism Sales (\$ millions)<sup>a</sup>**

	Sales	Jobs	Personal Income	Total Income	Value Added
Hotels And Lodging Places	188	3,714	73	100	112
Eating & Drinking	122	3,275	45	55	64
Recreation/Entertainment	61	1,592	22	30	32
Retail Trade	72	1,988	35	45	56
<u>Local Transp. &amp; auto</u>	10	147	3	5	5
<b>Total</b>	<b>453</b>	<b>10,715</b>	<b>178</b>	<b>235</b>	<b>269</b>

a. Based on park visitors accounting for 60% of tourist spending in the area. Figures are 60% of the tourism satellite account estimates for the region in Table 2.

The impact estimates in Tables 5 and 6 for park visitor spending count all spending while in the area of anyone who visits the park at least once during their stay. A "pure" economic impact analysis would ask how much of this economic activity would be lost if the park did not exist or were closed to visitors. This question is difficult to answer. First, there are visitors who would not come to the area in the absence of the park. All of their spending would be lost to the region. Others visitors would still come to the area, but might shorten their stay or alter their spending patterns. As there are limited opportunities to spend money inside the park, it is likely that spending is inversely related to time spent in the park. Visitors who come specifically to visit the park likely spend less money than those who come for the other attractions in the area.

#### Park Visitor Spending Impacts for 2000

The MGM2 model lets us readily update the park visitor spending and impact estimates to the year 2000. We simply price adjust the visitor spending profiles to 2000 and enter the year 2000 visitor statistics. Recreation visits increased slightly to 10.2 million in 2000, although overnight stays in the park declined (Table 7).

**Table 7. Great Smoky Mt. National Park Visits and Party Nights, 2000**

Visitor Segment	All visitor party nights				Party nights attributed to the park		
	Recreation Visits	Pct of visits	Party Nights in Area	Pct of party nights	Attribution Pct	Party Nights in Area	Pct of party nights
Local day trip	1,473,516	14%	491,172	12%	0%	-	0%
NL Day Trip	2,161,157	21%	593,724	14%	80%	474,980	23%
Motel-IN	10,614	0%	5,307	0%	100%	5,307	0%
Camp-IN	322,553	3%	109,907	3%	100%	109,907	5%
Backcountry	19,203	0%	40,327	1%	100%	40,327	2%
Motel-out	5,402,893	53%	2,493,643	60%	50%	1,246,821	60%
Camp-Out	392,938	4%	201,506	5%	50%	100,753	5%
<u>Other</u>	<u>392,938</u>	<u>4%</u>	<u>210,706</u>	<u>5%</u>	<u>50%</u>	<u>105,353</u>	<u>5%</u>
<b>Total</b>	<b>10,175,812</b>	<b>100%</b>	<b>4,146,293</b>	<b>100%</b>		<b>2,083,448</b>	<b>100%</b>

We also take the impact estimates one step further for 2000, assigning only a portion of visits and spending to the park based on the primary purpose of the trip. In the right hand columns we attribute a share of party nights and associated spending to the park. All nights and spending of visitors staying inside the park are attributed to the park. Only half of the spending is attributed to the park for visitors staying overnight outside the park and 80% is counted for park visitors on day trips. Local visitors are excluded, as their spending doesn't represent "new" money to the region. These shares are somewhat

arbitrary, but illustrate how the MGM2 model can handle visits that are not "caused" by the park. Based on the assumed shares, about half or 2 million of the party nights (and associated spending) are attributed to the park. The other half are attributed to other area attractions.

Park visitors spent \$618 million in the region in 2000 (Table 8). As above, 82% of this spending was captured as direct sales yielding a direct effect of \$505 million in direct sales, \$194 million in income, \$296 million value added and 12,400 jobs. With secondary effects 15,000 jobs are supported by park visitor spending. These estimates do not take into account possible increased spending due to the addition of casinos, baseball stadium, aquarium and other attractions. These changes could be simulated in the MGM2 model by increasing spending on amusements. However, further research is needed to better understand whether added attractions result in more visitors, added spending or simply substitutions between spending opportunities in the area. Recent economic data for the area is not yet available to make comparisons with the satellite approach as we did for 1997.

**Table 8. Economic Impacts of GRSM Visitor Spending, 2000 - All visitors**

Sector/Spending category	Direct Sales \$000's	Jobs	Personal Income \$000's	Value Added \$000's
Motel, hotel cabin or B&B	196,963	3,885	75,229	115,310
Camping fees	7,596	150	2,901	4,447
Restaurants & bars	148,425	4,032	52,579	74,618
Admissions & fees	59,042	1,862	22,695	35,308
Retail Trade	74,986	2,265	36,387	58,558
Wholesale Trade	10,969	185	4,465	7,680
<u>Local Production of goods</u>	<u>6,758</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total	504,739	12,379	194,255	295,921
Secondary effects	153,483	2,598	59,264	101,742
Multiplier	1.30	1.21	1.31	1.34
Total impact	658,222	14,978	253,520	397,662

a. Based on 10.2 million recreation visits or 4.15 million party nights in the area.

To estimate impacts just for visitors whose primary trip purpose was to visit the park, party nights attributed to the park from Table 6 are entered into the MGM2 model. As expected, this reduces the impact to about half of the estimate when all visitors and spending is included (Table 9).

**Table 9. Economic Impacts of GRSM Visitor Spending, 2000; Primary purpose trips**

Sector/Spending category	Direct Sales \$000's	Jobs	Personal Income \$000's	Value Added \$000's
Motel, hotel cabin or B&B	98,644	1,946	37,676	57,750
Camping fees	4,764	94	1,819	2,789
Restaurants & bars	77,490	2,105	27,450	38,957
Admissions & fees	32,052	1,011	12,321	19,168
Retail Trade	39,034	1,179	18,941	30,482
Wholesale Trade	5,772	97	2,349	4,041
<u>Local Production of goods</u>	<u>3,650</u>	<u>-</u>	<u>-</u>	<u>-</u>
Direct effects	261,405	6,432	100,557	153,186
Secondary effects	79,130	1,342	30,614	52,561
Multiplier	1.30	1.21	1.30	1.34
Total impact	340,535	7,775	131,171	205,748

a. Based on 2 million party nights in the area attributed primarily to park visits.

## Summary

This report has illustrated the use of the MGM2 model to estimate the impacts of Great Smoky Mt. National Park visitor spending on the local economy. We have supplemented the MGM2 model with a tourism satellite accounting approach to better convey the park's contribution to overall tourism activity in the region.

It should be noted that the impact estimates reported here only cover the impacts of visitor spending. We have not included the economic impacts of park operations, the impacts of tourism and park-related construction, seasonal homes, or other government activity related to tourism. Tourism estimates also exclude air transportation and in most cases local manufacturing of items for tourists such as arts and crafts. Also bear in mind that economic impact assessment does not address fiscal impacts or other costs associated with park visitors or other benefits that are not represented in market transactions.

Using value added as the measure of the economic contribution, tourism industries contribute \$1.162 billion value added to the six-county region's economy. This represents 23% of all value added in the region (Table 10). About 40% of the sales in these tourism industries is to tourists, making tourist's contribution 9% of all value added in the region. Park visitor spending accounts for 5% of all value added in the region; 3% if we only include primary purpose trips. Of the \$450 million in value added due to tourist spending in the area, park visitors account for 58%, 30% if we only include primary purpose trips.

**Table 10. Summary of the Economic Contribution of Tourism and Great Smoky Mt. National Park Visitors to the Region**

	Value Added <sup>a</sup> (\$ millions)	Percent of Total VA	Percent of Tourism VA
Total Economy - all industries	5,043	100%	
Tourism Industries	1,162	23%	
Sales to Tourists	449	9%	100%
GRSM Park Visitors	262	5%	58%
GRSM Primary Purpose Trips	135	3%	30%

a. Covers only direct value added. The tourism value added multiplier for the region is 1.3, so including secondary effects would increase the contributions of tourism and park visitors by 30%, e.g. the "sales to tourists" percentage would increase from 9% to 12%, and GRSM park visitor contribution would increase from 5% to 6.5%.

## Further Research

This analysis could be extended in a number of ways. Room and sales tax data, and other local indicators of tourism activity should be gathered from tourism officials and businesses around the park. Such data can be extremely valuable in validating the spending estimates. In the analysis reported here, we have relied primarily on park visitor surveys, park use statistics and available economic data at the county level. A more complete accounting of the contribution of the park and park visitors to the local economy should be a cooperative effort between the park and local tourism authorities. Sharing of market, visitation, revenue and tax data is encouraged. For example, findings from park visitor surveys should be compared with broader surveys of visitors to the area to better understand differences between area visitors who use the park and those who do not.

Changes both within and outside the park affect the entire region. Economic analysis is an important vehicle for assessing the linkages between the park and local communities and fostering partnerships and cooperation. A report completed for Great Smoky Mts, NP in 1992 (Stynes 1992) compiles a variety of local data to document changes in tourism activity and the local economy over time. In that report, I recommend monitoring and tracking of tourism activity and local economic indicators over time to compliment the park's environmental monitoring programs. Since 1992, growth and economic development around the park has continued at a rapid pace. It is now more important than ever that the park understand patterns of development outside the park and their implications for park management. Conversely, tourism organizations, businesses and local planning authorities should be aware of park management decisions and understand the impacts of these decisions on regional tourism activity and surrounding communities.

Sevier county accounts for almost three fourths of the tourism activity in the area. It would be useful to disaggregate the analysis to the county and even community level to better asses impacts on particular communities. Separate analyses for the North Carolina and Tennessee side of the park would also be useful as these are really distinct economic regions.

The MGM2 model can also be used to evaluate particular management, marketing and policy alternatives either in the park or surrounding communities. The region is quite dependent on tourism and must carefully consider the economic effects of actions within the park and outside. Preserving the natural and cultural environment and scenic beauty of the area is also crucial to the sustainability of the region and its tourism-based economy.

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## Appendix: Visit Conversion Parameters and Multipliers

**Table A1. Great Smoky Mountains NP Visit Conversion Parameters**

Segment	Party size	Length of stay in area (nights)	Nights spent in the park	Park entries per trip	Percent attributable to the park
Local	2.5	1.0	0.0	1.2	0%
Day-NL	2.6	1.0	0.0	1.4	80%
Camp-In	3.0	4.6	4.6	4.5	100%
Motel-In	2.0	3.0	3.0	3.0	100%
Backcountry	2.0	4.2	4.2	1.0	100%
Motel-out	3.0	3.6	0.0	2.6	50%
Camp-Out	3.0	4.0	0.0	2.6	50%
Other	3.0	3.7	0.0	2.3	50%

SOURCE: Further analysis of the 1996 Great Smoky Mt. NP Visitor Study data

**Table A2. Multipliers for selected tourism-related sectors, GRSM region<sup>a</sup>, 1997**

Sector	Direct effects			Total effects multipliers				
	Jobs/ MM sales	Personal Value Added inc/sales	Value Added /sales	Sales II	JobsII/ MMsales	IncII/ sales	VA II/sales	Sales I
Hotels And Lodging Places	21.12	0.38	0.59	1.36	27.37	0.52	0.81	1.20
Eating & Drinking	29.09	0.35	0.50	1.28	33.99	0.46	0.68	1.14
Amusement And Recreation	33.77	0.38	0.60	1.32	39.38	0.50	0.80	1.17
Auto repair and services	14.78	0.27	0.46	1.23	19.09	0.35	0.61	1.12
Local transportation	42.83	0.45	0.52	1.29	48.00	0.55	0.70	1.12
Apparel from purch. mate	13.78	0.19	0.24	1.34	18.84	0.32	0.44	1.24
Manufacturing	9.24	0.21	0.35	1.27	13.63	0.32	0.51	1.18
Retail Trade	32.35	0.49	0.78	1.28	37.20	0.59	0.96	1.10
Wholesale trade	18.05	0.41	0.70	1.26	22.65	0.51	0.86	1.11

a. GRSM Region consists of six counties: Blount, Cocke and Sevier, TN and Graham, Haywood and Swain, NC

SOURCE: IMPLAN model of the six county region.