



Economic and Fiscal Impact Analysis

Estimated Impact of Hilton Head Island Tourism in 2015 on Beaufort County, South Carolina

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I. Introduction

This study of the economic and fiscal impact of spending by tourists to Hilton Head Island in the year 2015 was performed by Regional Transactions Concepts, LLC, in association with Dr. John Salazar of the Lowcountry and Resort Islands Tourism Institute (LRITI) at the University of South Carolina, Beaufort.

The study examines spending by tourists classified into five segments according to their lodging arrangement while visiting the island: villa rental, timeshare, hotel, second homeowners and their non-paying guests, and finally those who visit for the day and do not lodge overnight. The estimated impact from spending by each of these groups is summed in order to indicate the total impact that tourists to the island have on Beaufort County, South Carolina.

II. Model and Assumptions

The models generated by Regional Transactions utilized the Regional Economic Models, Inc. (REMI) PI⁺ economic modeling engine. The REMI model is an input-output (IO) and computable general equilibrium (CGE) model; it is also a New Economic Geography model, taking into account transportation and labor and resource availability in order to more accurately model economic activity across geographic regions. The model forecasts a baseline level of activity assuming all things constant except for normal economic growth. Changes to employment, income, or demand for products or services by either the private or the public sector can be input to the model. Based on these inputs, the REMI model generates a county level estimate of the resultant variation from the projected baseline, as well as the effects on every industry.

Visitor spending for each visitor segment was determined by a survey conducted by LRITI. Respondents reported spending in 23 categories, including lodging, food, transportation, and entertainment. The total number of visitors in each segment is listed in Table 1. A list of spending categories reported in the survey is presented in Table 2. For purposes of generating inputs to the

model, the mean expenditures reported by each group for each category were weighted according to the proportion of survey respondents reporting spending in that category; this was then divided by the average number of persons per party reported by the respondents. Finally, this weighted average spend per person in each category was multiplied by the total number of visitors to the island for each group reported by the Convention and Visitors Bureau for 2015.

Note that this study uses a different modeling system than did previous visitor impact estimates. This change was necessary due to the REDYN model, which was used for previous reports, coming under proprietary use and therefore unavailable to us. The REMI model is more conservative in its estimates than the previous model for several reasons.

First, REMI uses more current data than did the previous model. REMI data reflects the observed shift in the utilization of labor following the last recession. Since the end of the recession, employers overall have been doing more with less with regard to hiring employees. The model used previously did not reflect this change.

Secondly, the REDYN model was used only in its IO capacity; IO models utilize a number of simplifying assumptions, most notably fixed factor prices. In other words, when additional economic activity creates demand for additional workers for example, IO models assume that this will have no impact on local wage rates. The REMI model used in this current study includes a

CGE model, which does away with the assumption of fixed factor prices. As a result, the model adjusts local wage rates, using the previous example, in response to

Segment	Count
Villa Rental	775,025
Timeshare	463,208
Second Homeowner	598,777
Non-Paying Guests	159,137
Hotel	429,045
Day Trip	226,606
Total Visitors	2,651,798

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Table 2 – Survey Results: Total Tourist Expenditures, All Visitor Segments			
Question	N	Avg. Spend per Person	Total Spend (\$1000s)
Transportation (around the Hilton Head Island area) - Estimated dollar amount spent	1,424	\$61.12	\$87,032.3
Lodging - Estimated dollar amount spent (excluding day visitors and non-paying guests)	1,477	\$268.17	\$396,081.7
Food-dining out - Estimated dollar amount spent	1,870	\$83.12	\$155,443.4
Food-groceries - Estimated dollar amount spent	1,625	\$53.84	\$87,497.7
Beaches - Estimated dollar amount spent	507	\$14.89	\$7,549.4
Shopping - Estimated dollar amount spent	1,663	\$59.44	\$98,849.9
Spas - Estimated dollar amount spent	248	\$39.29	\$9,743.2
Golf - Estimated dollar amount spent	579	\$65.64	\$38,006.6
Biking - Estimated dollar amount spent	612	\$18.50	\$11,322.0
Parks - Estimated dollar amount spent	307	\$18.43	\$5,656.8
Performance/visual arts - Estimated dollar amount spent	329	\$34.71	\$11,421.1
Festivals - Estimated dollar amount spent	248	\$23.56	\$5,844.0
Museum/historical tours - Estimated dollar amount spent	503	\$18.85	\$9,479.1
Boating/sailing - Estimated dollar amount spent	310	\$32.34	\$10,024.2
Nature based activities - Estimated dollar amount spent	332	\$18.02	\$5,984.0
Dolphin tours - Estimated dollar amount spent	309	\$28.50	\$8,807.8
Tennis - Estimated dollar amount spent	137	\$24.89	\$3,409.9
Fishing - Estimated dollar amount spent	183	\$37.96	\$6,946.6
Sporting events - Estimated dollar amount spent	118	\$32.63	\$3,849.9
Other cultural activities - Estimated dollar amount spent	264	\$30.55	\$8,064.0
Other sport activities - Estimated dollar amount spent	145	\$30.13	\$4,368.1
Other outdoor activities - Estimated dollar amount spent	351	\$26.52	\$9,309.6
Other expenses - Estimated dollar amount spent	816	\$52.69	\$42,992.8
Total			\$1,027,684.1

increased demand for labor. These changes in wage rates create their own “ripples” of economic impact within the county. This results in a more conservative estimate of job creation and as a result compensation. Because of these factors, the estimates generated by the REMI model are similar to but not directly com-

parable to those generated by the REDYN model.

Additionally, the previous reports used the internal fiscal impact modeling component of the REDYN model to estimate net impacts on government finances. This current study uses our own fiscal impact

model that utilizes outputs from the REMI model to approximate changes in local (county and municipal) government revenue and expenditures. Our fiscal model uses US Census of Governments data for local governments within South Carolina to provide the baseline for our projections. The estimates generated by our model are therefore more specific to South Carolina local government finances, and are significantly more conservative than those generated by REDYN's internal fiscal model. ATAX and hospitality tax revenue impacts are estimated separately using REMI projections of the impact of visitor spending on total sales by restaurants and hotels within the county.

The numbers reported in the following include direct, indirect, and induced impacts. Estimates are reported using the following metrics:

- *Employment* is the number of jobs or job equivalents created by economic activities resulting through direct, indirect, and induced effects from tourist expenditures.
- *Total compensation* is the aggregated impact on wages paid in Beaufort County, including fringes. This includes wages paid to workers holding jobs in the county who may reside elsewhere; likewise, it excludes wages earned by Beaufort County residents who work outside of the county.
- *Output* is the dollar value of all goods and services produced within the county per year.
- *Net local government revenue* is the revenue collected by local (county and municipal) governments from all sources, including taxes, licensing, and fees, less expenses. Detailed impact estimates for *gross* local government revenues are presented in the Appendix.

III. Results

Impact estimates for each visitor segment and the total tourism impact are presented in the Appendix. The total output multiplier was estimated from the model estimates. The output multiplier is the ratio of total economic impact to direct spending for each segment. The estimated multiplier for combined tourist spending for Beaufort County by all five segments is 1.08; this means that every dollar spent by tourists

in Hilton Head increases output in the Beaufort County economy by a total of \$1.08.

The size of the multiplier is due to several factors, including the number of vendors and suppliers in the county to generate indirect impacts. Additionally, the model contains U.S. Census commuter data, so that it is “aware” that many workers in the hospitality industry in Hilton Head do not reside in Beaufort County; as much of the consumer spending by workers will occur in their county of residence, this impacts the size of the multiplier.

Total economic impact (output) on Beaufort County from tourist spending was approximately **\$1.1 billion** in 2015. Tourist spending generated a net positive impact on revenues to local governments in Beaufort County of approximately **\$11 million**, not including revenues generated by state and local ATAX and local hospitality taxes.

As the ATAX is assessed on lodging, it can be counted as being entirely attributable to visitor spending, unlike the hospitality and recreation taxes, which are partly borne by local residents. Actual ATAX revenue reported in 2015 was **\$5.3 million** for the state portion, of which the Hilton Head Island-Bluffton Chamber of Commerce receives **\$1.6 million** (30 percent); the local ATAX (1 percent) plus beach renourishment fees (2 percent), generated a reported revenue of **\$9.2 million**.

The gross estimated impact on the 2 percent county hospitality tax revenue, estimated from the model's estimates of impact on food services, was **\$2.9 million**, which was equivalent to approximately 47 percent of total hospitality tax revenue reported by the Town. The 2.5 percent county tax on recreation activities yielded an estimated **\$2.2 million**.

Adding these revenues (excluding the state portion of the ATAX) to the model's \$11 million fiscal impact estimate yields an estimated net fiscal impact on local government revenues of **\$26.9 million**. Economic and fiscal impact estimates for each visitor segment and the total estimated impact from all visitors are presented in the Appendix.

Based on these estimates, the net return on tax investment (ROTI) on direct marketing spending was approximated. Direct marketing expense reported by

the Town of Hilton Head was \$1.4 million in 2015. Given the net fiscal impact of \$23.99 million for the county from spending by visitors to Hilton Head Island, the ROTI for 2015 is estimated to be **\$19.10** for every dollar spent on direct marketing.

IV. Conclusion

Spending by visitors to the island generate income to local businesses and households. Because tourist spending is undertaken by individuals who live outside of the county, it is a true export industry and therefore represents a net inflow of funds to the region.

The **12,740** jobs that comprise the estimated total employment impact generated by the five combined visitor segments in 2015 represent **13.4 percent** of all jobs in Beaufort County.¹ Given this impact, tourism is clearly a major driver in the Beaufort County economy.

¹ Total employment in Beaufort County, South Carolina was 94,723 according to the Bureau of Economic Analysis (BEA), Table CA4, in 2014, the most recent year for which county employment data are available.

Appendix

Table 1 – Estimated Visitor Spending Impact by Segment Beaufort County (2015)		
Segment	Concept	Estimate
Villa Rental	Employment	4,664
	Total Compensation (\$1000s)	\$144,200
	Output (\$1000s)	\$434,774
	Net Local Government Revenue (\$1000s)	\$4,615
Timeshare	Employment	2,162
	Total Compensation (\$1000s)	\$63,597
	Output (\$1000s)	\$184,508
	Net Local Government Revenue (\$1000s)	\$1,630
Second Homeowner	Employment	2,819
	Total Compensation (\$1000s)	\$81,688
	Output (\$1000s)	\$233,564
	Net Local Government Revenue (\$1000s)	\$2,036
Non-Paying Guests	Employment	645
	Total Compensation (\$1000s)	\$18,385
	Output (\$1000s)	\$53,262
	Net Local Government Revenue (\$1000s)	\$489
Hotel	Employment	2,274
	Total Compensation (\$1000s)	\$63,303
	Output (\$1000s)	\$187,462
	Net Local Government Revenue (\$1000s)	\$1,735
Day Trip	Employment	175
	Total Compensation (\$1000s)	\$5,002
	Output (\$1000s)	\$13,745
	Net Local Government Revenue (\$1000s)	\$78

Table 1 (continued) – Estimated Visitor Spending Impact by Segment Beaufort County (2015)		
	Concept	Estimate
Total Impact	Employment	12,740
	Total Compensation (\$1000s)	\$379,602
	Output (\$1000s)	\$1,107,599
	Net Local Government Revenue (\$1000s)*	\$26,905.2
* Includes revenue from county and county portion of state accommodations tax and hospitality and recreation taxes.		

Table 2 – Estimated Gross Local Governments Revenue from Visitor Spending, All Visitors, Beaufort County (2015)		
Revenue Type	Description	(\$1000s)
Charges	Air Transportation	\$329.6
Federal Intergovernmental	Air Transportation	\$106.4
Tax	Alcoholic Bev Sales	\$3.0
Charges	All Other	\$147.3
Federal Intergovernmental	All Other	\$28.0
State Intergovernmental	All Other	\$97.2
Tax	Amusements Lic	\$0.2
Intergovernmental to State	Correctional Institutions	\$0.2
Tax	Death and Gift	\$0.1
Tax	Documentary and Stock Transfer	\$6.8
Misc	Donations from Private Sources	\$14.8
Employee Retirement	Earnings on Investments (calculated)	\$3.5
Federal Intergovernmental	Education	\$1.6
State Intergovernmental	Education	\$2,193.3
Revenue	Electric Utilities	\$1,906.2
Federal Intergovernmental	Electric Utilities	\$2.0
Intergovernmental to State	Electric Utilities	\$1.5
Intergovernmental to State	Elementary-Secondary Ed	\$5.7
Charges	Elementary-Secondary Ed - Other	\$76.4
Charges	Elementary-Secondary Sch Lunch	\$44.8
Charges	Elem-Sec Ed Tuition and Transportation	\$5.5
Misc	Fines and Forfeits	\$54.2
Employee Retirement	From Other Governments	\$0.1
Revenue	Gas Utilities	\$752.3
Intergovernmental to State	General - Other	\$4.0
Federal Intergovernmental	General Local Gov Support	\$4.4
State Intergovernmental	General Local Gov Support	\$127.7
Misc	General Rev, NEC	\$244.6
Tax	General Sales/Gross Rcpts	\$689.0
Intergovernmental to State	Health - Other	\$3.2

Table 2 (cont.) – Estimated Gross Local Governments Revenue from Visitor Spending, All Visitors, Beaufort County (2015)		
Revenue Type	Description	(\$1000s)
Federal Intergovernmental	Health and Hospitals	\$77.9
State Intergovernmental	Health and Hospitals	\$69.0
Federal Intergovernmental	Highways	\$5.3
State Intergovernmental	Highways	\$30.5
Charges	Hospital Public	\$5,680.3
Charges	Housing and Community Dev	\$14.4
Federal Intergovernmental	Housing and Community Dev	\$126.8
State Intergovernmental	Housing and Community Dev	\$10.1
Misc	Interest Earnings	\$277.5
Intergovernmental to State	Judicial and Legal Serv	\$3.1
Intergovernmental to State	Libraries	\$0.1
Employee Retirement	Local Empl Contribution	\$0.1
Charges	Misc Commercial Activities	\$3.8
Tax	Motor Vehicle Lic	\$213.4
Federal Intergovernmental	Natural Resources	\$20.1
Charges	Natural Resources - Other	\$2.5
Tax	Occupation/Business Lic	\$881.4
Intergovernmental to State	Other Higher Ed	\$0.0
Tax	Other Licenses	\$29.4
Tax	Other Selective Sales	\$379.7
Charges	Parking Facilities	\$16.5
Charges	Parks and Rec	\$21.5
Tax	Property	\$2,020.2
Tax	Public Utilities Sales	\$216.0
Tax	Public Utility Lic	\$222.4
Federal Intergovernmental	Public Welfare	\$4.6
State Intergovernmental	Public Welfare	\$7.1
Intergovernmental to State	Public Welfare	\$1.1
Charges	Regular Highways	\$20.9
Intergovernmental to State	Regular Highways	\$0.5

Table 2 (cont.) – Estimated Gross Local Governments Revenue from Visitor Spending, All Visitors, Beaufort County (2015)		
Revenue Type	Description	(\$1000s)
Misc	Rents	\$21.7
Misc	Sale of Property	\$128.8
Charges	Sea and Inland Port Facilities	\$4.3
Charges	Sewerage	\$2,027.8
Federal Intergovernmental	Sewerage	\$100.7
State Intergovernmental	Sewerage	\$32.0
Intergovernmental to State	Sewerage	\$0.1
Charges	Solid Waste Mgt	\$658.6
Misc	Special Assessments	\$11.9
Tax	Tax, NEC	\$399.4
Revenue	Transit Utilities	\$37.8
Federal Intergovernmental	Transit Utilities	\$65.6
State Intergovernmental	Transit Utilities	\$59.1
Revenue	Water Utilities	\$1,899.7
Federal Intergovernmental	Water Utilities	\$37.9
State Intergovernmental	Water Utilities	\$62.9
Intergovernmental to State	Water Utilities	\$0.2
Revenue	County Accommodations Tax (3%)	\$3,948.0
Revenue	Town Share of State ATAX	\$1,588.0
Revenue	Hospitality Tax	\$2,917.1
Revenue	Recreation Tax	\$2,190.0
Total		\$38,658.2