



Economic and Fiscal Impact Analysis

Estimated Impact of Beaufort County 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 Beaufort County 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 at three destinations within the county: Hilton Head Island, the Town of Bluffton, and the City of Beaufort. The estimated impact from spending at each of these locations is summed in order to estimate the total impact that tourists 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 destination was determined by a survey conducted by LRITI. Respondents reported spending in Hilton Head and Bluffton in 23 categories, including lodging, food, transportation, and entertainment; survey data for the City of Beaufort quantifies spending in four categories: lodging, dining, retail, and recreation. The total number of visitors for each destination is listed in Table 1. A list of spending categories reported in the survey for each destination 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 each destination 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 is the change in employment patterns observed over the past several years following the most recent recession. REMI data, which is current through 2014, reflects this ongoing shift in the utilization of labor. Since the end of the recession, employers overall have been doing more with less with regard to hiring employees. The model used previously, since much of this change has occurred within the past few years, did not yet reflect this change.

Secondly, the REDYN model was used only in its IO capacity; IO models are the standard tool for economic impact analysis, but it is important to realize that they 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, however, also

Table 1 – Number of Visitors by Destination, 2015

Segment	Count
Hilton Head Island	2,651,798
Bluffton	108,484
Beaufort	192,533
Total Visitors	2,952,814

Table 2 – Survey Results: Total Tourist Expenditures, All Visitor Segments (\$1000s)			
Question	Hilton Head	Bluffton	Beaufort
Transportation (around the area) - Estimated dollar amount spent	\$97,083	\$8,541	-
Lodging - Estimated dollar amount spent (excluding day visi-	\$376,635	\$20,230	\$10,028
Food-dining out - Estimated dollar amount spent	\$137,868	\$11,500	\$6,227
Food-groceries - Estimated dollar amount spent	\$74,650	\$2,597	-
Beaches - Estimated dollar amount spent	\$5,972	\$357	-
Shopping - Estimated dollar amount spent	\$81,797	\$5,552	\$4,529
Spas - Estimated dollar amount spent	\$7,687	\$501	-
Golf - Estimated dollar amount spent	\$24,988	\$2,474	\$5,095
Biking - Estimated dollar amount spent	\$12,227	\$1,066	-
Parks - Estimated dollar amount spent	\$5,624	\$423	-
Performance/visual arts - Estimated dollar amount spent	\$7,321	\$357	-
Festivals - Estimated dollar amount spent	\$4,369	\$102	-
Museum/historical tours - Estimated dollar amount spent	\$6,845	\$628	-
Boating/sailing - Estimated dollar amount spent	\$9,582	\$679	-
Nature based activities - Estimated dollar amount spent	\$5,896	\$390	-
Dolphin tours - Estimated dollar amount spent	\$5,359	\$0	-
Tennis - Estimated dollar amount spent	\$2,537	\$0	-
Fishing - Estimated dollar amount spent	\$7,644	\$0	-
Sporting events - Estimated dollar amount spent	\$4,312	\$170	-
Other cultural activities - Estimated dollar amount spent	\$6,120	\$0	-
Other sport activities - Estimated dollar amount spent	\$4,473	\$0	-
Other outdoor activities - Estimated dollar amount spent	\$9,047	\$110	-
Other expenses - Estimated dollar amount spent	\$33,956	\$1,104	-
Total	\$931,991	\$56,780	\$25,878

includes a CGE component, 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 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 comparable 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 therefore significantly more conservative than those generated by REDYN's internal fiscal model.

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 all three destinations is **1.18**; this means that every dollar spent by tourists in Beaufort

County increases output in the Beaufort County economy by a total of \$1.18.

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 Beaufort County do not reside in the 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 **\$1.2 billion** in 2015. Tourist spending generated a positive impact on net revenues (i.e., net of the impact on expenditures) to local governments in Beaufort County of approximately **\$11.8 million**, not including revenues generated by state and local ATAX and local hospitality and recreation taxes.

IV. Conclusion

Spending by visitors to Beaufort County 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 **13,812** jobs that comprise the estimated total employment impact generated by visitor spending in 2015 represent **14.6 percent** of all jobs in Beaufort County.¹ This is greater than the 10 percent share of jobs supported by tourism statewide, as estimated by the South Carolina Department of Parks, Recreation & Tourism.² This indicates the greater importance of tourism to the Beaufort County economy as compared to the remainder of the state.

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.

² www.scprtr.com/files/Research/SC%20TSA%202014%20Report%20-%20Final.pdf

Appendix

Table 1 – Estimated Visitor Spending Impact by Destination Beaufort County (2015)		
Destination	Concept	Estimate
Hilton Head Island	Employment	12,740
	Total Compensation (\$1000s)	\$379,602
	Output (\$1000s)	\$1,107,599
	Net Local Government Revenue (\$1000s)*	\$11,005
Bluffton	Employment	667
	Total Compensation (\$1000s)	\$19,921
	Output (\$1000s)	\$59,369
	Net Local Government Revenue (\$1000s)*	\$538
Beaufort	Employment	405
	Total Compensation (\$1000s)	\$12,990
	Output (\$1000s)	\$34,723
	Net Local Government Revenue (\$1000s)*	\$270
Total Impact	Employment	13,812
	Total Compensation (\$1000s)	\$412,530
	Output (\$1000s)	\$1,201,691
	Net Local Government Revenue (\$1000s)*	\$11,816
* Does not include impact on hospitality tax, recreation tax, or local portion of ATAX.		

Table 2 – Estimated Gross Local Governments Revenue from Visitor Spending, All Destinations, Beaufort County (2015)		
Revenue Type	Description	(\$1000s)
Charges	Air Transporation	\$357.4
Federal Intergovernmental	Air Transporation	\$115.4
Tax	Alcoholic Bev Sales	\$3.3
Charges	All Other	\$162.0
Federal Intergovernmental	All Other	\$30.8
State Intergovernmental	All Other	\$106.9
Tax	Amusements Lic	\$0.2
Intergovernmental to State	Correctional Institutions	\$0.2
Tax	Death and Gift	\$0.1
Tax	Documentary and Stock Transfer	\$7.5
Misc	Donations from Private Sources	\$16.3
Employee Retirement	Earnings on Investments (calculated)	\$3.8
Federal Intergovernmental	Education	\$1.8
State Intergovernmental	Education	\$2,412.8
Revenue	Electric Utilities	\$2,066.9
Federal Intergovernmental	Electric Utilities	\$2.2
Intergovernmental to State	Electric Utilities	\$1.6
Intergovernmental to State	Elementary-Secondary Ed	\$6.3
Charges	Elementary-Secondary Ed - Other	\$84.1
Charges	Elementary-Secondary Sch Lunch	\$49.3
Charges	Elem-Sec Ed Tuition and Transporation	\$6.1
Misc	Fines and Forfeits	\$59.6
Employee Retirement	From Other Governments	\$0.1
Revenue	Gas Utilities	\$815.7
Intergovernmental to State	General - Other	\$4.4
Federal Intergovernmental	General Local Gov Support	\$4.8
State Intergovernmental	General Local Gov Support	\$140.5
Misc	General Rev, NEC	\$269.1
Tax	General Sales/Gross Rcpts	\$748.7
Intergovernmental to State	Health - Other	\$3.5

Table 2 (cont.) – Estimated Gross Local Governments Revenue from Visitor Spending, All Destinations, Beaufort County (2015)		
Revenue Type	Description	(\$1000s)
Federal Intergovernmental	Health and Hospitals	\$84.7
State Intergovernmental	Health and Hospitals	\$75.0
Federal Intergovernmental	Highways	\$5.8
State Intergovernmental	Highways	\$33.5
Charges	Hospital Public	\$6,173.3
Charges	Housing and Community Dev	\$15.8
Federal Intergovernmental	Housing and Community Dev	\$139.5
State Intergovernmental	Housing and Community Dev	\$11.1
Misc	Interest Earnings	\$305.3
Intergovernmental to State	Judicial and Legal Serv	\$3.4
Intergovernmental to State	Libraries	\$0.1
Employee Retirement	Local Empl Contribution	\$0.1
Charges	Misc Commercial Activities	\$4.2
Tax	Motor Vehicle Lic	\$231.5
Federal Intergovernmental	Natural Resources	\$21.8
Charges	Natural Resources - Other	\$2.7
Tax	Occupation/Business Lic	\$956.3
Intergovernmental to State	Other Higher Ed	\$0.0
Tax	Other Licenses	\$32.3
Tax	Other Selective Sales	\$412.6
Charges	Parking Facilities	\$18.2
Charges	Parks and Rec	\$23.6
Tax	Property	\$2,186.4
Tax	Public Utilities Sales	\$234.2
Tax	Public Utility Lic	\$241.1
Federal Intergovernmental	Public Welfare	\$5.1
State Intergovernmental	Public Welfare	\$7.8
Intergovernmental to State	Public Welfare	\$1.2
Charges	Regular Highways	\$23.0
Intergovernmental to State	Regular Highways	\$0.6

Table 2 (cont.) – Estimated Gross Local Governments Revenue from Visitor Spending, All Destinations, Beaufort County (2015)		
Revenue Type	Description	(\$1000s)
Misc	Rents	\$23.7
Misc	Sale of Property	\$139.9
Charges	Sea and Inland Port Facilities	\$4.7
Charges	Sewerage	\$2,198.8
Federal Intergovernmental	Sewerage	\$109.2
State Intergovernmental	Sewerage	\$34.7
Intergovernmental to State	Sewerage	\$0.1
Charges	Solid Waste Mgt	\$710.6
Misc	Special Assessments	\$13.1
Tax	Tax, NEC	\$433.5
Revenue	Transit Utilities	\$41.0
Federal Intergovernmental	Transit Utilities	\$71.1
State Intergovernmental	Transit Utilities	\$64.1
Revenue	Water Utilities	\$2,059.9
Federal Intergovernmental	Water Utilities	\$41.1
State Intergovernmental	Water Utilities	\$68.2
Intergovernmental to State	Water Utilities	\$0.2
Revenue	County Accommodations Tax (3%)	**
Revenue	Town Share of State ATAX	**
Revenue	Hospitality Tax	**
Revenue	Recreation Tax	**
Total		\$24,745.3
** Not included.		