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OFFSHORE DRILLING VS. TOURISM

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Projected Revenue for South Carolina



Offshore Drilling vs. Tourism

The series of procedural steps that must take place before an oil rig can be operational and therefore offer occupational opportunity for local residents is nearly two decades. The job benefits that the Gulf States enjoy were generations in the making, and still those states rank alongside South Carolina in their levels of poverty... our citizens will be competing nationally for the most dangerous, low skill... positions. If they succeed they will join an industry whose employees are seven times more likely to die on the job than the average American worker. —Mayor Scoville of Georgetown

PROJECTED REVENUE FOR SOUTH CAROLINA

PREAMBLE

Offshore oil does not mix well with coastal tourism. Anyone who believes it does is encouraged to recall examples of oil communities where they have personally enjoyed the beaches. Still, it is difficult not to consider oil and natural gas as potential sources of state revenue. Supporters of offshore drilling believe that they have found a shortcut to the prosperity that some coastal counties have long sought. But a close analysis of the financial tradeoffs as they pertain to the proposed venture to drill for oil in the Atlantic Ocean off the South Atlantic States, suggests that such an effort would most likely cause a significant loss in state income and economic activity. This paper looks critically at the numbers provided predominantly by the government or by petroleum industry consultants. The question raised here is whether the state can afford to take the financial risks that accompany oil drilling off the SC coastline.

No assumptions are made concerning the probability of an oil spill. However, this analysis concurs with the

belief, historically well substantiated, that drilling for oil in deep water cannot be undertaken without assuming some risk. Senator Graham supports that statement

when he defends drilling by saying, "There is risk in everything you do." Evidence appears from many directions. For example, revenue sharing, discussed as a major source of state income, is, at present, solely directed at coastal maintenance, undoubtedly for a reason. BP has recently agreed to pay the last of \$62 billion for the damage done to people, property, and the environment in and bordering on the Gulf of Mexico just five years ago.

Drilling proponents claim that technology has made the process safer. Courts, however, have affirmed that human error, not technology was the cause of the Gulf oil spill. The "safer technology" argument has long been invoked by the oil industry to argue for permission to pursue efforts, such as deep water drilling in the Gulf of Mexico, that have proven devastating to state economies and populations. Despite the efforts of the best and the brightest, human error has proven not fully amenable to the engineering discipline.

The intent here is to shed light on whether the potential oil revenue is great enough to pass the risk/reward test that reasonable people would apply before proceeding with drilling. It is also an effort to help politicians and private individuals consider the magnitude of the risk to South Carolina's financial well-being.

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EXECUTIVE SUMMARY

An analysis of data provided by government, government-hired contractors, the South Carolina Department of Parks, Recreation and Tourism, and business sources was used to determine the ratio of risk to reward associated with the Department of Interior's (DOI) proposal for oil and gas drilling off the SC coast.

The data show, indisputably, that the pursuit of oil industrialization would mean that South Carolina would assume potentially great risks at a highly unfavorable risk-to-reward ratio.

Both oil and tourism drive multiple revenue streams. First, oil produces some number of jobs whose workers pay taxes to the state and county; second, a portion of the oil revenues collected by the federal government and shared with the states, a practice known as revenue sharing, is calculated; third, people who work in the industry, and for businesses benefitting from the oil industry, spend salaries that help the economy grow. Quest calls this "economic benefit," and that terminology is adopted here.

Tourism's revenue streams consist of: first, the taxes paid by workers in the industry; second, the salaries earned and spent by workers in the tourism industry (an economy driver called "economic benefit"); third, the dollars spent by tourists in the four coastal counties discussed in this report; fourth, the latter category results in taxes to the states and the counties, as well as contributing to economic benefit.

A considerable level of detail about how these comparative numbers are derived is included. We have used figures from the Quest Report of December 2013, in every case where provided, to show the industry's claims.

Mutually Exclusive Industries

Before showing the important ratios of revenue provided by the two alternative approaches to South Carolina's future, it must be emphasized that tourism and oil are mutually exclusive economic pursuits. They cannot both exist in a functioning economy. Those who claim otherwise are asked to visit, or at least watch YouTube videos, on Port Fourchon, LA. South Carolina's most avid pro-drillers see a Port-Fourchon future for South Carolina. Most coastal residents, the city councils of

nineteen communities, and tourists who cherish our beaches don't share that vision. The objective numbers make the case quite clear. In many cases the ratios are so stark that examination of the rest of this short report will be required to assure the reader of their reliability.

Cumulative Contributions

The report shows the cumulative contributions to South Carolina from 2014 to 2035 for the two industries. In every case, the benefit of the doubt of this analysis has been given to the oil industry figures.

RATIO OF ECONOMIC BENEFITS – TOURISM TO OIL

TOURISM: \$533.5B Oil: \$19.4B RATIO – 27.5:1

QUEST REPORT VIEW OF REVENUES

Quest Offshore Resources¹, Inc., reports that three revenue streams will flow to the state of South Carolina² as a result of petroleum and natural gas production conducted in one or more of the federally proposed lease³ areas in the Atlantic Ocean. The potential revenue sources are:

- 1) Shared federal oil revenue, comprised of three components – leasing, bonuses, and royalty receipts – which does not exist, but for which the South Atlantic states are currently pleading their case to Congress. Quest Resources assumes that 37.5 percent of the total federal revenue, if approved by Congress, would be shared with the states.
- 2) The income taxes paid by South Carolina residents newly employed by the petroleum company or companies making successful bids for oil field leases.
- 3) The economic benefit of worker salaries plus oil company expenditures related to drilling and maintenance of facilities.

Revenue Sharing

The prospects for revenue sharing appear uncertain.^{4,5} Despite threats to cut DOI funding by Senator Lisa Murkowski (R. Alaska), Secretary of the Interior Sally Jewell has said that, *“The outer continental shelf is owned by all Americans. There is a small portion of the Gulf where there is revenue sharing proposed for certain Gulf States. We believe that needs to be reexamined to look at what is a fair return to taxpayers across the whole United States.”*⁶ Jewell’s statement expresses not only the administration’s opposition to revenue sharing in the Atlantic Outer Continental Shelf (OCS) project, but appears to dim the prospects for continued sharing in the Gulf of Mexico states as well. In addition, Abigail Ross Harper, Director of the Bureau of Ocean Energy Management (BOEM), the DOI agency in charge of the proposed drilling projects, has said that the administration objects to the three bills introduced in the Senate to compel federal sharing.⁷ That statement appears to foreshadow a veto of any revenue sharing legislation.

Since few decisions prove to be as final as they may appear in Washington, revenue sharing cannot be ruled out. There is a strong lobbying effort in the U.S. Senate to re-authorize sharing. However, it has been capped at \$375 million annually for the Gulf States, a limit which would presumably apply to OCS states as well. OCS production in the planned Atlantic lease areas is not expected to equal that in the Gulf, however, so any revenue sharing could reasonably be expected to be subject to lower ceilings, either legal or *de facto*, than those previously imposed on the Gulf States.

Page 3 of Quest’s *Economic Benefits* study, Table 25, specifies one possible revenue-sharing scenario. Quest makes it clear, however, that there is no revenue sharing taking place at this time.

An important point, often missed, is that past revenues shared with Gulf States were earmarked for beach/shoreline restoration, preservation and maintenance and were restricted from becoming part of the states’ general funds. It is a reasonable assumption that if revenue sharing were reinstated, that restriction would once more apply.

Revenue Sharing Conclusions

Pending the outcome of US Congressional and gubernatorial efforts to persuade or compel the federal government to share oil revenues, South Carolina will receive either zero dollars, some unknown amount allocated among the 50 states (the Obama option), or the hypothetical amount shown in Quest Report Table 25.

INCOME TAX REVENUE TO SC FROM OIL

The Quest Report cited below shows a total of 279.6 thousand jobs across the U.S. resulting from Atlantic drilling by the year 2035, of which 121 thousand are in the four participating Atlantic states. Quest Table 21 shows 35,569 as South Carolina jobs. This constitutes a mere 13% of the 2035 total. If the 13% ratio holds, then 4,624 SC jobs would be direct oil jobs and 30,945 presumably lower paying indirect and induced jobs. It is perhaps worth noting that these rather precise projections are made without benefit of knowing the quantity of fossil fuels that lie offshore, the amount of fossil fuel pre-processing which would be undertaken at the rigs or on Floating Production Storage and Offloading (FPSO) ships, or how broadly onshore facilities would be distributed (a factor which plays a large role in generating indirect and induced jobs). Added to the considerable uncertainty of fossil fuel prices in the years 2016 through 2035, it is not unreasonable to question the accuracy of the job numbers cited. The 6.7:1 ratio of indirect to direct jobs appears realistic.

Job Caveats

Placing confidence in the job predictions by Quest Resources is problematic in light of the scant knowledge of the amount of petroleum/natural gas reserves present in the South Atlantic OCS. Other influences such as per barrel prices, product demand, oil industry efficiency improvements, technology, wage rates, the outcome of industry efforts to market crude oil overseas, well production quantities and flow rates, natural gas versus oil yields at the wellhead, etc., cast doubt on the validity of these figures. However, Quest Resources has estimated job prospects and we will make our comparisons on that basis.

Number of Jobs

For purposes of this study, and for revenues anticipated by the state of South Carolina, what matters is the number of jobs resulting from oil industry activities versus the number of jobs (discussed in next section) placed at risk by drilling. How that might that adversely affect state income from tourism, an industry growing at more than 5% in recent years, is what is under study.

INCOME TAX REVENUE TO SC FROM COASTAL TOURISM

Tourism drives four separate revenue streams. Unlike the uncertain petroleum revenue, these figures are either accurate or err on the conservative side. Stream One is the 7% to 11% (8% is used in all report calculations) that tourists pay for goods and services obtained during vacations along the coast. Stream Two is the 4.5% income tax that will be paid to the state by employees in the tourism industry. Tourism income uncertainty could result from a recession, but that would likely affect both petroleum and tourism equally. The total number of tourism employees fluctuates from high season to low season, but likewise the number of petroleum workers fluctuates (100,000 unemployed in North Dakota)⁸ as a result of high or low demand, price per barrel, ratio of gas to oil (unknown), other supply sources coming online, success or failure in industry efforts to sell American crude overseas, etc. Such fluctuations tend to counter-balance each other. Stream Three is the economic benefit of spending by the burgeoning number of tourism workers. Stream Four is created by tourist spending at hotels, restaurants, sightseeing venues, and by admissions to entertainment events, etc .

Tourism is a major source of revenue for South Carolina. Based on a 2015 U.S. Travel Association report⁹ (done for the South Carolina Department of Parks, Recreation and Tourism) using 2013 tourism statistics, "Spending on travel or on behalf of tourism in

South Carolina totaled \$18.1 billion in 2013.” The report added, “Tourism generated more than \$1.3 billion in state and local tax revenues for South Carolina.” Consequently, each South Carolina taxpayer was relieved of a \$742 burden in state and local taxes. It is generally accepted¹⁰ that tourism jobs account for over ten percent of the state’s employment.

“I find it ironic that, in a state that has rejected poker machines, pari-mutuel betting, horse and dog tracks, jai alai and gambling casinos, all of which would complement our tourist economy and create thousands of jobs, our legislators and governor would rather take the biggest gamble of all, by jeopardizing our beaches, inlets and waterways, the hundreds of thousands of jobs that exist in our coastal tourism economy, and all the tax base that creates, to welcome the accident-prone oil industry to our state.”

*— Rick Bauman,
Murrell’s Inlet Seafood
Founder & Owner*

Coastal Tourism – Four Counties

Coastal tourism is a significant part of the South Carolina tourism trade. To derive coastal visitor statistics, this report aggregates¹¹ the total of visitors to Horry, Georgetown, Charleston, and Beaufort Counties. These are four of the twenty-two South Carolina counties designated by the U. S. National Oceanographic and Atmospheric Administration (NOAA) as coastal counties¹². NOAA applies two criteria. Either the county must have 15% of its territory “within the nation’s coastal watershed, or a portion of or an entire county accounts for at least 15% of a coastal cataloging unit.” This analysis uses only the four coastal counties which most South Carolinians would agree provide the bulk of coastal tourism revenue. A more complete approach would have been to include all 22 counties which NOAA designated as “coastal”, thus resulting in a larger coastal tourism total.

Coastal Tourism Tax Revenue Table Base (1 Year) Calculation

The following South Carolina, four-county visitor statistics model, showing related expenditures and their sources, is a single-year example for 2014 which explains the derivation of key statistics in the extended calculation :

County	Source of Statistics	Base Year	Number of Visitors A	Expenditure Per Visitor B	Tax Revenue Yield @ 8% $A * B * 8\%$
Horry	SCPRT	2014	7,790,000	\$689	\$429 million ¹³
Georgetown	SCPRT	2014	552,475	\$551 (80% * \$689)	\$24 million ¹⁴
Charleston	SCPRT	2014	5,740,000	\$689 (100% * \$689)	\$319 million ¹⁵
Beaufort	SCPRT	2014	2,767,500	\$827 (120% * \$689)	\$183 million ¹⁶
Grand Total Four Counties For Single Year					\$953 million

The numbers used in this analysis are not the only ones available, but they are among the most conservative. This report's approach to selecting data sources is that in every assumption we have given the benefit of the doubt to petroleum projections and held tourism projections to the minimum credible. Footnote 13 clarifies this point.

Statistically summarizing the tax-related (state/county/local income) risk-reward case for drilling in the Atlantic OCS off South Carolina produces the following table:

Coastal Tourism Tax Revenue Table Extended Calculation

Year	Hypothetical Revenue Sharing ¹⁷ (Millions)	Projected Oil Jobs ¹	Taxes Paid by Holders of Oil Jobs ¹⁸ (Millions)	Tourism Job Growth ¹⁹	Taxes Paid by Holders of Tourism Jobs ²⁰ (Millions)	Number of Visitors (Millions)	Four County Tourism Tax Revenue ²¹ (Millions)
2015	\$0	0	\$0	128,319	\$80.8	17.27	1001.4
2016	\$0	0	\$0	130,565	\$82.3	17.70	1052.1
2017	\$0	169	\$0.53	132,849	\$83.7	18.15	1105.4
2018	\$19	667	\$2.1	135,174	\$85.2	18.60	1161.4
2019	\$20	735	\$2.3	137,540	\$86.7	19.06	1220.2
2020	\$29	1,014	\$3.2	139,947	\$88.2	19.54	1281.9
2021	\$30	1,282	\$4.0	142,396	\$89.7	20.03	1346.8
2022	\$32	1,622	\$5.1	144,888	\$91.3	20.53	1415.0
2023	\$31	2,607	\$8.2	147,423	\$92.9	21.04	1486.7
2024	\$31	3,688	\$11.6	150,003	\$94.5	21.57	1561.9
2025	\$30	5,274	\$16.6	152,628	\$96.2	22.11	1641.0
2026	\$34	8,658	\$27.3	155,299	\$97.8	22.66	1724.1
2027	\$72	11,907	\$37.5	158,017	\$99.6	23.23	1811.3
2028	\$115	15,387	\$48.5	160,782	\$101.3	23.81	1903.0
2029	\$170	18,929	\$59.6	163,596	\$103.1	24.40	1999.4
2030	\$225	22,115	\$69.7	166,459	\$104.9	25.01	2100.6
2031	\$308	25,514	\$80.4	169,372	\$106.7	25.64	2206.9
2032	\$418	27,781	\$87.5	172,336	\$108.6	26.28	2318.7
2033	\$604	30,602	\$96.4	175,352	\$110.5	26.94	2436.1
2034	\$712	31,840	\$100.3	178,421	\$112.4	27.61	2559.4
2035	\$848	35,569	\$112.0	181,543	\$114.4	28.30	2689.0
Total	\$3.7B		\$773		\$2,030		\$36,022

Column by column explanation of the statistical summarization table by column heading (see footnotes for additional details):

Year – 2035 was chosen as the cutoff year because it is the end point of Quest projections.

Hypothetical Revenue Sharing – President Obama, Secretary Jewell, and BOEM Director Abigail Ross Hopper have all stated that there will be no sharing of federal oil payments with the Atlantic OCS states. The Quest Report clearly states that there is currently no revenue sharing in the Atlantic OCS, However, the OCS Governors’ Coalition continues to pursue lobbying and legislative efforts to achieve revenue sharing exclusively for their states. The figures shown are derived from the Quest Report, Tables 12 and 25.

Oil Jobs Projected – The numbers are extracted from the Quest Report (Table 21) done for BOEM under contract. From 2036 on there are no BOEM assumptions of greater or lesser oil/gas production, so we have not made any.

Oil Jobs Tax Revenue Growth – We have assumed a \$45,000 average annual salary taxed at 7% (a combination of sales and income taxes) to produce these figures.

Tourism Job Growth – Assumes a growth rate of 2.5% intentionally conservative.

Taxes Paid by Holders of Tourism Jobs – This is the previous column multiplied by an assumed annual salary of \$20,000 then multiplied by 4.5% (a combination of sales and income taxes). The taxes are reduced 30% for seasonal workers when summed with other revenue streams.

State Tourism Revenue – This additional component of state income from tourism represents the amount of taxes paid directly by tourists on rooms, admissions, meals, etc., at an 8% tax rate. The algorithm is number of tourists X 689 X .08. The assumed annual growth rate is 2.5% in both tourists and their spending from base year 2014.

Tourism/Oil Tax Revenue Yield Ratios – 2014 – 2035

The following ratios reflect the cumulative tax/revenue sharing amounts from 2014 through 2035 from the table above:

Petroleum Probable Tax Revenue: 773M Taxes (No Revenue Sharing (RS))

Petroleum Possible Tax Revenue: \$3.7B RS + \$773M Taxes = \$4.47Billion

Tourism Assured Tax Revenue: \$2.03B Taxes + \$36.02B Taxes = \$38.05 Billion

Tourism Possible Tax Revenue: Driven by growth assumptions.

RATIO: Guaranteed Tourism Tax \$ to Probable Oil Tax \$ = 49 to 1

RATIO: Guaranteed Tourism Tax \$ to Oil Tax \$ + RS \$ = 8.5 to 1

Perhaps the clearest way to characterize these two ratios is: The ratio of tourism to oil tax revenue is 49 to 1. Contingent on unpredictable events in Congress, that ratio could change, and in one hypothetical scenario could go as low as 8.5 to 1.

Economic Benefits of Oil and Tourism: Non-Tax sources

In the preceding analysis the discussion was limited to benefits to South Carolina's treasury resulting from taxes paid by workers and tourists. Also included was the hypothetical amount the state might receive if proposed legislation in Congress becomes law, a component known as "revenue sharing."

The remainder of the analysis relates to the non-tax economic benefits (Quest appears to use this term synonymously with "contributions") of spending by workers and tourists and a calculation of the tourism-to-oil revenue ratios from both tax and non-tax sources. We take Quest to mean the sum of the salaries generated by oil-related jobs, purchases of products (oil and non-oil related) in the state, oil infrastructure installed in the state, and any other economic activity due to oil and natural gas development. In spite of a number of telephone requests left with Quest, we were unable to confirm that this was indeed correct.

Before computing their ratios, we present two spreadsheets for oil for non-tax revenue; the Quest Report's economic benefit amounts and the shared revenue. The latter is for

clarification purposes only, and is not used in ratio calculations since that number is presumably contained in the \$18.6 billion of economic benefit. We then show two spreadsheets; first the salaries earned and spent by tourism workers, then the cumulative expenditures of tourists to the four largest coastal counties – for tourism revenue.

Finally, the ratio of tourism revenue to oil revenue is calculated, using both tax and non-tax (economic benefit) sources.

Data for the first chart shown below are copied from the Quest Report, Table 23.

**OFFSHORE DRILLING - ECONOMIC BENEFITS OF TOURISM VS OIL
(TAX IMPLICATIONS ARE ANALYZED SEPARATELY)**

OFFSHORE DRILLING VS. TOURISM - PROJECTED ECONOMIC BENEFITS FOR SOUTH CAROLINA																																											
The Following, Using Quest Figures, Shows the Oil Industry Contribution to the State (SC) By Year																																											
QUEST REPORT PROJECTIONS	QUEST REPORT PAGE 120 /121 FROM DIRECT, INDIRECT & INDUCED YEARS & AMOUNTS LISTED ARE FROM QUEST REPORT																																										
<p>August, Tuesday 18 2015 - 19:45:55</p> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid gray; padding: 5px;"> <p>WTI Crude Oil \$41.87 ▼-0.63 -1.50%</p> </div> <div style="border: 1px solid gray; padding: 5px;"> <p>Brent Crude Oil \$49.03 ▲0.00 0.00%</p> </div> </div>	<table border="1"> <thead> <tr> <th>YEAR</th> <th>MILLION \$</th> </tr> </thead> <tbody> <tr><td>2017</td><td>14</td></tr> <tr><td>2018</td><td>54</td></tr> <tr><td>2019</td><td>61</td></tr> <tr><td>2020</td><td>85</td></tr> <tr><td>2021</td><td>95</td></tr> <tr><td>2022</td><td>121</td></tr> <tr><td>2023</td><td>206</td></tr> <tr><td>2024</td><td>286</td></tr> <tr><td>2025</td><td>402</td></tr> <tr><td>2026</td><td>641</td></tr> <tr><td>2027</td><td>885</td></tr> <tr><td>2028</td><td>1132</td></tr> <tr><td>2029</td><td>1410</td></tr> <tr><td>2030</td><td>1685</td></tr> <tr><td>2031</td><td>1934</td></tr> <tr><td>2032</td><td>2093</td></tr> <tr><td>2033</td><td>2325</td></tr> <tr><td>2034</td><td>2457</td></tr> <tr><td>2035</td><td>2730</td></tr> <tr> <td>TOTAL</td> <td>18,616</td> </tr> </tbody> </table>	YEAR	MILLION \$	2017	14	2018	54	2019	61	2020	85	2021	95	2022	121	2023	206	2024	286	2025	402	2026	641	2027	885	2028	1132	2029	1410	2030	1685	2031	1934	2032	2093	2033	2325	2034	2457	2035	2730	TOTAL	18,616
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<p align="center">THUS, THE TOTAL ECONOMIC BENEFIT TO SOUTH CAROLINA FROM ALL 22 OIL/GAS JOB TYPES FROM 2017 THROUGH 2035 IS \$18,616,000,000.</p>																																											

ASSERTION OF DATA AND ALGORITHM VALIDITY

Because of the flood of contradictory data available on the tourism topics discussed in this study, arguments intended to invalidate its conclusions should be anticipated. In point of fact, there is little tourism-related data that is entirely free from controversy. However, to make his case, the critic must first counter the following facts reflecting the ultra-conservative nature of the statistics used to analyze the two cases, oil and tourism. These include:

- For consistency, we did not use the Myrtle Beach Area Chamber of Commerce 2014 estimate of 16.1 million visitors, but used the 2013 number (7.6 million) from the SCPRT. That is \$227 billion in Horry County tourism revenue at an annual growth rate of 2.5% from 2014 to 2035 not counted. A 2014 MBACC survey showed tourists spent \$689 over an average 5 days stay.
- Our fixed salary of \$20,000 for tourist workers for 21 years would, if history is a guide, grow by at least one or two percent per year. We have used \$20,000 for all 21 years.
- From two points of view, the number of oil-related jobs and the \$45,000 fixed wage attributed to oil workers is generous in terms of how the analysis tilts toward oil; first, with the mean average wage of South Carolina workers at \$39,570 in May of 2014²², and considering that few of the assumed workers are direct oil industry employees, and that and many are in the blue-collar category, \$45,000 is an unrealistically high estimate; second, the projected number of workers (direct, indirect, and induced) is derived from propriety algorithms and from data used by Quest Resources that are not subject to outside evaluation.
- As Quest Resources makes clear in their report, the tenuous and controversial nature of revenue sharing makes any future projections in this area extremely difficult to substantiate.
- The total tourism tax burden exceeds the number used here, 8%, by significant amounts in certain cases. For example, the Myrtle Beach hotel tax total is at least 12%²³, and the Georgetown County tax on property rentals is 10%²⁴.

- The income tax rates shown, 4.5% for tourism workers and 7.0% for higher paid oil workers, may not be exact. However, apart from income taxes, no other tax benefits to the economy have been claimed. Thus, if the tax rates are high, they are proportionately so, and will cause no distortion in the results. By adding the amounts these workers pay in sales, property and other taxes, it is probable that amounts exceeding the rates shown are paid to local, county, and state taxing authorities.

Economy for the Four Largest Coastal Counties			
(1.75% is the Assumed Year-over-Year Growth Rate of Tourism Jobs)			
The Assumed Salary Growth is Zero, thereby Making this Estimate Highly Conservative			
	Tourism		
	Workers		Coastal Workers
YEAR	4 Counties	Salary	Aggregate Salary
2015	128,319	\$20,000	\$2,566,380,000
2016	130,565	\$20,000	\$2,611,300,000
2017	132,849	\$20,000	\$2,656,980,000
2018	135,174	\$20,000	\$2,703,480,000
2019	137,540	\$20,000	\$2,750,800,000
2020	139,947	\$20,000	\$2,798,940,000
2021	142,396	\$20,000	\$2,847,920,000
2022	144,888	\$20,000	\$2,897,760,000
2023	147,423	\$20,000	\$2,948,460,000
2024	150,003	\$20,000	\$3,000,060,000
2025	152,628	\$20,000	\$3,052,560,000
2026	155,299	\$20,000	\$3,105,980,000
2027	158,017	\$20,000	\$3,160,340,000
2028	160,782	\$20,000	\$3,215,640,000
2029	163,596	\$20,000	\$3,271,920,000
2030	166,459	\$20,000	\$3,329,180,000
2031	169,372	\$20,000	\$3,387,440,000
2032	172,336	\$20,000	\$3,446,720,000
2033	175,352	\$20,000	\$3,507,040,000
2034	178,421	\$20,000	\$3,568,420,000
2035	181,543	\$20,000	\$3,630,860,000
			\$64.5 Billion



Reduce by 30% to account for seasonal workers = \$45.12B

Workers' taxes calculated at 4.5% effective rate for sales and income = \$2.03 Billion

The Following Calculations Show the Amount Spent by Tourists in the Four Biggest Coastal Resort Counties (the next two pages comprise one spreadsheet):

In terms of demonstrating SC's total economic result from tourism in a way that is analogous to the Quest figure above, it is necessary to include tourist expenditures for the four largest coastal counties.

HORRY				GEORGETOWN			
YEAR	VISITORS MILLIONS	\$ PER VISITOR	\$MILLION	YEAR	VISITORS MILLIONS	\$ PER VISITOR	\$MILLION
2015	7.98	706	5,639	2015	0.57	565	320
2016	8.18	724	5,925	2016	0.58	579	336
2017	8.39	742	6,224	2017	0.59	594	353
2018	8.60	761	6,540	2018	0.61	608	371
2019	8.81	780	6,871	2019	0.63	624	390
2020	9.03	799	7,218	2020	0.64	639	410
2021	9.26	819	7,584	2021	0.66	655	430
2022	9.49	839	7,968	2022	0.67	672	452
2023	9.73	860	8,371	2023	0.69	688	475
2024	9.97	882	8,795	2024	0.71	706	499
2025	10.22	904	9,240	2025	0.72	723	524
2026	10.48	927	9,708	2026	0.74	741	551
2027	10.74	950	10,200	2027	0.76	760	579
2028	11.01	974	10,716	2028	0.78	779	608
2029	11.28	998	11,258	2029	0.80	798	639
2030	11.56	1023	11,828	2030	0.82	818	671
2031	11.85	1048	12,427	2031	0.84	839	705
2032	12.15	1075	13,056	2032	0.86	860	741
2033	12.45	1101	13,717	2033	0.88	881	778
2034	12.76	1129	14,412	2034	0.91	903	818
2035	13.08	1157	15,141	2035	0.93	926	859
TOTAL			\$202,839				\$11,509

Coastal Counties Calculation (Continued)

CHARLESTON				BEAUFORT			
YEAR	VISITORS MILLIONS	\$ PER VISITOR	\$MILLION	YEAR	VISITORS MILLIONS	\$ PER VISITOR	\$MILLION
2015	5.88	706	4,155	2015	2.84	847	2,404
2016	6.03	724	4,365	2016	2.91	869	2,526
2017	6.18	742	4,586	2017	2.98	890	2,654
2018	6.34	761	4,819	2018	3.05	913	2,788
2019	6.49	780	5,063	2019	3.13	935	2,929
2020	6.66	799	5,319	2020	3.21	959	3,077
2021	6.82	819	5,588	2021	3.29	983	3,233
2022	6.99	839	5,871	2022	3.37	1007	3,397
2023	7.17	860	6,168	2023	3.46	1033	3,569
2024	7.35	882	6,480	2024	3.54	1058	3,749
2025	7.53	904	6,809	2025	3.63	1085	3,939
2026	7.72	927	7,153	2026	3.72	1112	4,139
2027	7.91	950	7,515	2027	3.82	1140	4,348
2028	8.11	974	7,896	2028	3.91	1168	4,568
2029	8.31	998	8,296	2029	4.01	1197	4,800
2030	8.52	1023	8,716	2030	4.11	1227	5,043
2031	8.73	1048	9,157	2031	4.21	1258	5,298
2032	8.95	1075	9,620	2032	4.32	1290	5,566
2033	9.18	1101	10,107	2033	4.42	1322	5,848
2034	9.41	1129	10,619	2034	4.53	1355	6,144
2035	9.64	1157	11,157	2035	4.65	1389	6,455
			\$149,459				\$86,473
Four County Total = \$203 + \$12 + \$149 + \$86 = \$450 Billion							
VISITOR EXPENDITURES 2014 - 2035							

QUEST'S DATABASE AND ALGORITHM FOR PROJECTING INDIRECT AND INDUCED JOBS ARE PROPRIETARY AND ARE NOT AVAILABLE FOR OUR USE. AS A RESULT, WE PROJECT ONLY KNOWN NUMBERS OF DIRECT TOURISM EXPENDITURES AT A 2.5% YEAR-OVER-YEAR GROWTH RATE. THE 2.5% GROWTH FACTOR IS APPLIED BOTH TO THE NUMBER OF VISITORS AND THE AMOUNT THEY SPEND.

Summary of the Economic Benefits Calculated in the Tax Section And in the Preceding Non-Tax Worksheets

Ratios of the Sources of Tourism Revenue VS the Sources of Oil Revenue 2017 - 2035

Calculation of the Ratio of the Economic Benefit of Tourism Revenue to the Economic Benefit of Oil					
	Taxes		Potential Shared Revenue	Economic Benefit	
	Workers	Tourists		Workers	Tourists
Tourism	\$2.03B	\$36.02B	N/A	\$45.12B	\$450.3B
Oil	\$773M	N/A	Included in Economic Benefit	18.6B	
	Tourism 2.03B 36.02B 45.12B 450.3B -----	Oil 0.773B 18.6B -----			
Totals	533.5B	19.4B			
Ratio	Tourism 27.5	Oil 1			

This ratio is an expression of the relative economic benefit to South Carolina of tourism to oil from all sources of revenue generated by each industry.

Bottom-Line Considerations

The disparity in the 27.5 to 1 tourism-to-oil revenue ratio isn't the only aspect of this issue that threatens the financial viability of our communities. We have not discussed the impact of seismic testing and oil drilling on the important fishing industry on the Grand Strand. We haven't factored the large number of tourists who are here to enjoy fishing activities, or the impact on golfers and their families who would never have come here in the first place if we were an industrialized oil community. Is there a compelling reason for sending a message to our tourist customer base, via a changeover to an oil-based economy, informing them that we no longer care about their business?

As this study shows, the answer is a resounding **NO!**

What the ratio shows, in indelibly stark numbers, is that *there is no economic interest of the State of South Carolina or of its residents that is served by such a risky business strategy -- one that superimposes an oil venture on a secure, tourism-based economy.*

Nor is it apparent what national interest might be served in the face of an on-going oil glut that drives Exxon-Mobil and Chevron to lobby hard to gain the right to sell crude extracted from America's oceans to overseas customers. Even American refineries lose under that scenario. While long-range planning is normally advantageous, few of the benefits of the oil proposal are realized prior to 2026, or possibly much later if oil prices remain at current levels, as is projected for the foreseeable future.

While the Outer Continental Shelf Governors Coalition is working to turn their Gulf Coast fantasy into an Atlantic Coast reality, none have yet made their constituents aware that all revenues (if any are legislated) go into a fund for coastal maintenance, not into the general fund. That has been the law in the Gulf of Mexico, and it may well survive Congressional tinkering this time around.

Oil is yesterday's energy source. By exhausting limited fossil-fuel resources, South Carolina consciously chooses to forego the enormous opportunities, profits, and job numbers that would result from refocusing on renewable energy. Its universities are poised to lead. Its entrepreneurs began blazing trails years ago. Its climate is ideal to make it the R&D hub of alternative fuel research and manufacturing.

Instead, its leaders choose to remain mired in a technology that offers only a single discernible advantage – large campaign contributions – to a small group of leaders who appear to place their personal interests above those of the state they were elected to serve.

Abbreviations and Acronyms

B – Billion(s)

BOEM – Bureau of Ocean Energy Management (Part of the DOI)

DOI – Department of the Interior

FPSO – Floating Production Storage and Offloading

M – Million(s)

NOAA – National Oceanographic and Atmospheric Administration

OCS – Outer Continental Shelf

OCSGC – Outer Continental Shelf Governors Coalition

R – Republican

RS – Revenue Sharing

R&D – Research & Development

SC – South Carolina

SCPRT – South Carolina Department of Parks, Recreation, and Tourism

CONCLUSIONS

The risk/reward ratio of offshore drilling is daunting. Very little would be gained even if there were no adverse impacts from deep water extraction of fossil fuels. No casino owner, or state budget, could long survive by offering the odds indicated by the two competing revenue sources. Officials in South Carolina, by volunteering to participate in the federal leasing program, have unknowingly exposed state and county (not limited to coastal counties) revenues to unsustainable shocks such as oil price fluctuations²⁵, uncertainty of revenue sharing income, job insecurity (e.g., 100,000 recent oil worker layoffs in North Dakota), threatened marine mammal takings, coastal blight from oil infrastructure and the impact that poses to property values²³, unavoidable reductions in tourist traffic to locations associated with oil production, and the undeniable risk of an oil spill²⁶.

To date, no pro-drilling officials have said “It can’t happen here.” The most frequently offered reasons for assuming these risks are energy independence, lower gasoline prices, and jobs. Each argument has repeatedly been shown to be without merit, although each is often put forth in public venues. In a sense, this study closes the discussion by showing that adhering to the virtually risk-free policy of aggressively growing South Carolina’s vital tourism business holds vastly more promise for statewide economic prosperity.

Yet policy and political changes to eliminate the risks are not out of reach. If officials at the gubernatorial, senatorial, and congressional level voiced opposition to continuing with this reckless experiment and used their influence to withdraw South Carolina from the program, a portion of the risk would be mitigated. But only by convincing the leading political representatives of the three other participating states can the danger be fully averted.

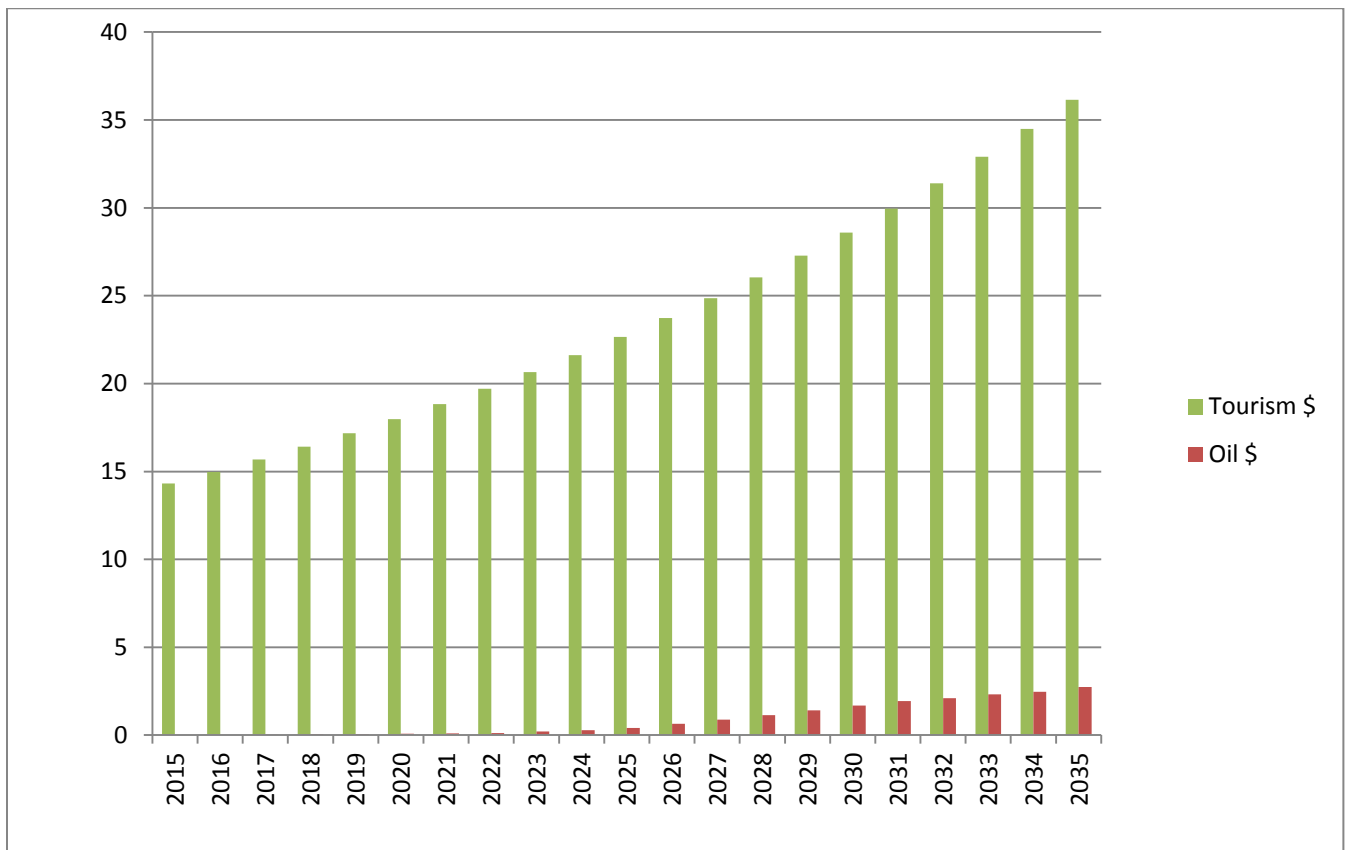
ENDNOTES:

- ¹ The oil-related projections shown are from a December 2013 report by Quest Offshore Resources Inc. entitled *The Economic Benefits of Increasing U.S. Access to Offshore Oil and Natural Gas Resources in the Atlantic*. <http://www.api.org/~media/Files/Oil-and-Natural-Gas/Exploration/Offshore/Atlantic-OCS/Executive-Summary-Economic-Benefits-of-Increasing-US-Access-to-Atlantic-Offshore-Resources.pdf>. This study was prepared for the American Petroleum Institute (API) with assistance from the National Ocean Industries Association.
- ² The question of what proportion of the shared money goes to which states is largely a federal decision. See recent OCSGC letter: <http://ocsgovernors.org/wp/wp-content/uploads/2015/04/FINAL-OCSGC-Letter-on-DPP-2017-2022-03-30-15.pdf>
- ³ Atlantic OCS lease map. See link at: <http://www.boem.gov/Oil-and-Gas-Energy-Program/Leasing/Five-Year-Program/2017-2022/2017-2022-DPP-Mid-Atlanticand-South-Atlantic.aspx> Also see: BOEM's 2017-2022 Draft Proposed Lease Schedule Table S-1, Page S-3 <http://www.boem.gov/2017-2022-DPP/> Cap is \$375 million: <http://fuelfix.com/blog/2015/05/14/coastal-states-launch-new-bid-for-offshore-drilling-dollars/>
- ⁴ <http://www.doi.gov/news/upload/Interior-Fact-Sheet-Budget-2016.pdf>; <http://bakken.com/news/id/233547/what-does-obamas-budget-mean-for-gulf-revenue-sharing/>, et al. "In his \$4 trillion budget request to Congress, Obama also says he wants to change the way money from offshore oil and gas production is shared with Gulf Coast states, by diverting more of those dollars to national programs with "broad" natural resource and conservation benefits."
- ⁵ <http://fuelfix.com/blog/2015/02/02/obama-budget-would-slash-oil-tax-breaks-while-boosting-renewables/>
- ⁶ http://www.blm.gov/or/news/files/Interior_Disburses_13.4_Billion_in_FY14_Energy_Revenues_12-14_.pdf; and <http://www.eenews.net/stories/1060018851> "To hear your comments that effectively the way you want to work with us is to redirect existing revenue payments ... not to the states that are impacted, but basically to pull the rug out from under the promise that was already made, is a little bit disconcerting, Murkowski said."
- ⁷ <http://fuelfix.com/blog/2013/11/08/report-royalty-revenue-sharing-plan-carries-high-pricetag/> "Existing law will give four coastal states — Alabama, Louisiana, Mississippi and Texas — 37.5 percent of oil and gas royalty revenue on most Gulf of Mexico leases beginning in 2017, but it is capped at \$375 million annually."

- ⁸ 100,000 Layoffs And Counting: Is this the New Normal? <http://www.wsj.com/articles/oil-layoffs-hit-100-000-and-counting-1429055740>
- ⁹ Direct, Indirect and Induced Impacts of Tourism in South Carolina.” <https://www.scprrt.com/files/Research/SC%20TSA%202013%20Report%20-%20Final.pdf>
- ¹⁰ http://www.palmettoinstitute.org/client_resources/bethea%20-%20tourism-%20manifesto.pdf
- ¹¹ <https://www.scprrt.com/files/Research/County%20Level%20Visitation%20Estimates.pdf>
- ¹² NOAA List of coastal counties in U.S: https://www.census.gov/geo/landview/lv6help/coastal_cty.pdf
- ¹³ South Carolina Department of Parks, Recreation and Tourism 2013 tourism visitor numbers updated by 2.5% for 2014.
- Horry County Formula is [# of visitors X expenditure per visitor X 8% tax] = (7790000 X 689) X .08 = \$429 million for 2014. The number most often seen for Horry County is not 7.6 million visitors in 2013, but 14 million in 2010 and 16.1 million visitors (supported by the Myrtle Beach Chamber of Commerce) in 2014. Horry County Government puts this number at 14 million for 2013 on page 32 of their Annual Financial Plan for Fiscal Year July 1, 2014 To June 30, 2015: (<http://www.horrycounty.org/Portals/0/Docs/BudgetAndRevenue/budgetFY2015.pdf>) However, we concluded that the requirement for a consistent reference source (SCPRT) for all four counties overrode the use of the more commonly referenced number and so we used the lower number. The Chamber of Commerce per tourist revenue calculation uses the formula $\$2755/4 = \689 per tourist: page 29). Median Party Size = 4 people. Avg. Length of Stay = 5 nights in 2014 (<http://www.myrtlebeachareachamber.com/research/docs/2014MyrtleBeachEconomicImpactStudy.pdf>),
- ¹⁴ Georgetown County Formula is [# of visitors X Expenditure per visitor X 8% tax] = 552,475 X 551 X .08 = \$24 million for 2014. Our reasoning for using 80% of the Horry County rate is that there are fewer tourist attractions in Georgetown County.
- ¹⁵ Charleston County Formula is [# of visitors X Expenditure per visitor X 8% tax] = 5,740,000 X 689 X .08 = \$316 million for 2014.
- ¹⁶ Beaufort County Formula is [# of visitors X Expenditure per visitor X 8% tax] = 2,767,500 X 827 X .08 = \$183 million for 2014. The assumed expenditure is 120% of the Horry County figure since Hilton Head constitutes much of this revenue and the typical visitor is presumed to be more affluent than the typical Horry County visitor.

- ¹⁷ API TABLES ON REVENUE SHARING, etc., TABLE 2: <http://www.api.org/~media/Files/Oil-and-Natural-Gas/Exploration/Offshore/Atlantic-OCS/Executive-Summary-Economic-Benefits-of-Increasing-US-Access-to-Atlantic-Offshore-Resources.pdf>
- ¹⁸ Assumes a \$45,000 salary and 7% income tax rate. The total jobs projection of the API report (Table 2) shows 6,057 for the year 2020, 37,751 for 2025, and 215,612 (contradicting the text, which claims “nearly 280,000 jobs”) for 2035. All job numbers are rounded.
- ¹⁹ For the **Grand Strand** – Coastal Carolina Univ.: http://www.tourismworksforus.com/economic_impact.html and Dr. Robert Salvino BB&T, May 2012: http://www.tourismworksforus.com/docs/TourismImpactStudyCCI_5-16-12_final.pdf. In November of 2014, “The rate of job growth along South Carolina's Grand Strand has been one of the fastest in the nation during recent months.” 73,500 tourism employees.
For **Charleston County** – 35,000 direct employees (2012)
<http://www.charlestoncounty.org/files/AnnualReport2012.pdf>
For **Beaufort County/Hilton Head** – 17,612
<http://www.thinkhiltonheadisland.org/article-details?hhaid=345> (Click on Download Files)
- ²⁰ Taxes paid = number of jobs * \$20,000 (assumed salary) * .045 (effective sales + income tax rate)
- ²¹ “Tourism job growth” sum (73500 + 35000 + 17612) = **126112 Coastal Tourism Jobs** starting figure 2014. \$2,030,432,648 is the sum of the four counties’ tourism workers’ tax revenue paid to the state. The extrapolation assumes an annual growth rate of 2.5%
- ²² US Bureau of Labor Statistics. http://www.bls.gov/oes/current/oes_sc.htm#00-0000
- ²³ City of Myrtle Beach Local Government: <http://www.cityofmyrtlebeach.com/didyouknow2.html>
- ²⁴ The Lachicotte Company Policies – General Information: <http://www.lachicotte.com/pawleys-island-vacation-rentals/rental-policies>
- ²⁵ Houston Outlook Grows Darker as the Oil Downturn Becomes Deeper and Longer:
<http://www.bauer.uh.edu/centers/irf/houston-updates.php>
- ²⁶ The real estate industry along the Gulf Coast was hit disproportionately hard by the BP oil spill:
<http://www.floridalegalrights.com/About-The-BP-Settlement/Real-Estate.shtml>
http://usatoday30.usatoday.com/money/economy/housing/2010-08-19-gulfrealestate19_ST_N.htm

APPENDIX I



Showing projected contribution to South Carolina's economy from oil drilling in the Atlantic compared to:

The projected contribution to South Carolina's economy from tourist spending and tourism workers' wages in Horry, Georgetown, Charleston and Beaufort Counties in Billions of Dollars year-by-year from 2015 to 2035.

To download a copy: <http://www.sodasc.com/facts>