



THE NORTH CAROLINA GOLF ECONOMY

FULL REPORT

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and prepared by SRI International.





The North Carolina Golf Economy

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ACRONYMS

CGA	Carolinas Golf Association
CGCSA	Carolinas Golf Course Superintendents Association
CPGA	Carolinas Section of the Professional Golfers Association
CMAA	Club Managers Association of America
CMAA-C	Carolinas Chapter of the Club Managers Association of America
GCBA	Golf Course Builders Association of America
GRAA	Golf Range Association of America
GCSAA	Golf Course Superintendents Association of America
LPGA	Ladies Professional Golf Association
NCGCOA	North Carolina Golf Course Owners Association
NCGMA	North Carolina Golf Marketing Alliance
NGCOA	National Golf Course Owners Association
PGA	Professional Golfers' Association of America
USGA	United States Golf Association
WCGA	Women's Carolinas Golf Association
WGF	World Golf Foundation

I. STUDY OVERVIEW

Golf goes hand-in-hand with the natural beauty, the vibrant economy, and the high quality of life found in North Carolina. With 558 courses and several championship golf events, golf in the Dogwood State is more than an enjoyable pastime—it is a key industry contributing to the vitality of North Carolina’s economy. In 2007, the size of North Carolina’s direct golf economy was approximately \$2.6 billion. Golf brings visitors to the state, drives new construction and residential development, generates retail sales, and creates demand for a myriad of goods and services. When the total economic impact of these golf-related activities is considered, North Carolina’s golf industry generated approximately \$5.3 billion of direct, indirect and induced economic output, \$1.7 billion of wage income and nearly 68,667 jobs in 2007.

With \$2.6 billion in direct annual revenues, the golf industry supports economic activity comparable to several other important industries in the state: scientific R&D services (\$2.5 billion), agricultural crops (\$2.9 billion), and semiconductor and other electronic components manufacturing (\$2.9 billion).¹

Historically, many state-level economic studies surrounding the game of golf have been conducted across the country. However, no comprehensive, standardized framework was employed in these prior studies. This made it difficult to monitor a state’s industry growth over time, and to make state-to-state or regional comparisons. To ameliorate this problem, SRI International and GOLF 20/20 are currently working with key golf stakeholders in several states, including North Carolina, to bring consistency to the industry measurement and reporting process. This report describes and analyzes North Carolina’s golf industry including the revenues and economic impact generated by the industry. Such analysis will assist North Carolina’s industry stakeholders² in raising awareness of the impact of golf to state and local policymakers.

There are many potential uses for such an analysis:

- Defining the range of core and enabled industries associated with the game of golf;
- Clearly articulating, for policymakers and regulatory agencies, the employment and revenue-generating contributions of the golf industry to the state economy; and
- Building credibility and recognition of the golf industry as a significant business sector and a driver of economic activity in the state.

¹ U.S. Census Bureau. 2002 Economic Census. SRI used the GDP implicit price deflator to inflate 2002 industry revenue data to 2006 dollars.

² Key industry stakeholders comprising the North Carolina Golf Task Force include representatives from the Carolinas Chapter of the Club Managers Association of America (C-CMAA), the Carolinas Golf Association (CGA), the Carolinas Golf Course Superintendents Association (CGCSA), the Carolinas Section of the PGA (CPGA), and the North Carolina Golf Course Owners Association (NCGCOA).

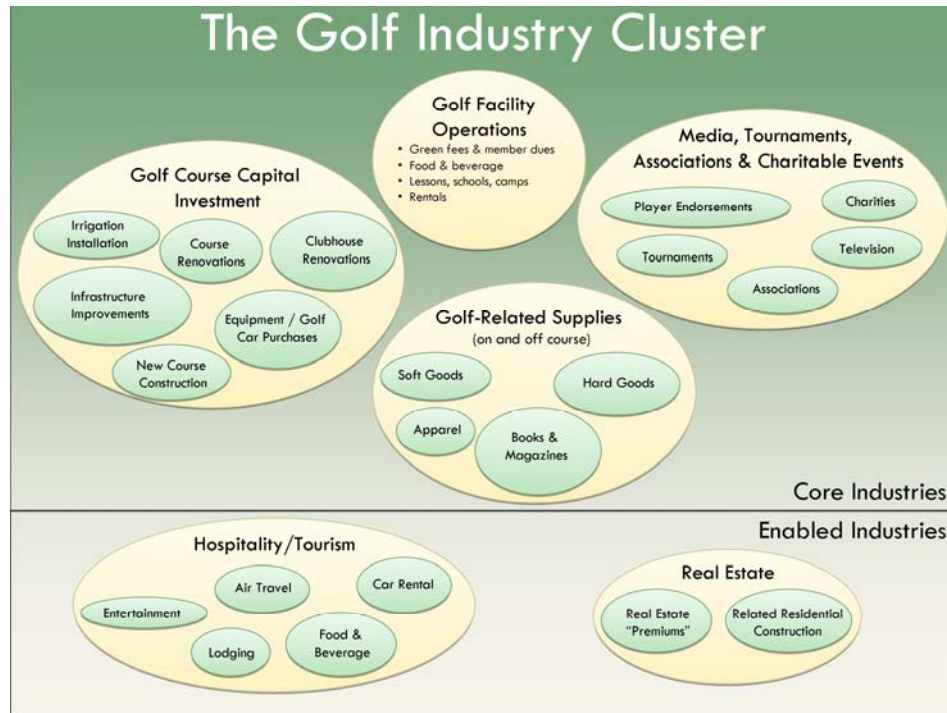
II. ANALYTICAL FRAMEWORK

Current economic studies of the golf industry in different states emphasize various factors and outcomes. For example, one may focus largely on the turf industry, while another might examine the impact of sports and recreation-related tourism more broadly. Ideally, one would want to include all the key activities and industries that are enabled by and benefit from the game of golf. To meet this goal, SRI has developed a standardized, economic impact framework that can be employed to measure a comprehensive set of golf-driven industry components. This state-level framework draws on the conceptual model of the golf economy developed in SRI's 2000 national-level *The Golf Economy Report* and the 2005 state-level *The Virginia Golf Economy Report*.

A. Golf Industry Cluster Definition

To arrive at economic impact, one must first estimate the size of the golf economy in the state. This entails mapping out where the golf industry begins and ends, and then estimating the size of each of these industry segments. We divide the golf industry cluster into two main categories: (1) core industries and (2) enabled industries (see figure). The golf industry cluster begins with the golf facilities themselves and with those other core industries that produce goods and services used to operate facilities and to play the game: golf equipment and golf apparel manufacturers, golf course architects and course builders, turf maintenance equipment and service providers, and club management services. The game of golf further enables a number of other industries, such as golf-related tourism and real estate development.

We detail these industry segments and estimate their size in the following section. Having defined the core and enabled golf industries, it is possible to estimate the size of each industry segment and to total them for an overall estimate of the size of the golf economy. Multipliers can then be applied to calculate the ripple effects of these economic activities in terms of: (1) impact on total state economic output and (2) impact on total state employment. However, this process is complicated by the fact that, while most of these industries produce golf-related goods and services, the firms themselves may not limit their activities exclusively to the golf industry. For example, Nike produces golf shoes, but also running, tennis, basketball, and other shoes. Therefore, in general, our approach is to include only those firms and sales that are directly attributable to the game of golf. In so doing, we use a number of different estimation techniques to ensure that our final estimates are reasonable and robust.



Moreover, additional data challenges and location factors make estimation more difficult at the state level than the national level. For example, many of the major golf equipment manufacturers have production facilities in just a few states. Similarly, several of the major golf association headquarters are located in Florida. The presence of such firms, associations, or a number of well-known courses will change the size of golf's economic impact in the state considerably. Therefore, one should consider the size of the golf economy and the game's economic impact in the state in relation to the size of the overall economy and other major industries in that state.

B. Data Sources

SRI developed its framework for measuring state golf economies based on a broad set of existing sources and data. Although there have been several state-level impact studies conducted in the past, by numerous golf constituencies, few have used a similar methodology, resulting in very different estimates depending on the golf economy elements included. A great deal of data is collected on the golf economy by many organizations on a regular basis. For example, government agencies, national golf associations, and national associations in the enabled industries collect data on different industry elements periodically—annually, every few years, or every five years. In addition, these data are based on a relatively consistent set of inputs by large numbers of constituents. Therefore, the principal challenges involve acquiring the data, inflating or deflating the estimates for the proper target year, and then combining them to represent the entire golf economy in the target year. The core and enabled industry indicators and data sources we have identified are as follows:

State Golf Economy Indicators and Data Sources

Indicator	Primary source	Cross-validation source
Golf Facility Operations		
# of golf course facilities by type	2008 PGA Facility Database (2007 data)	2002 Economic Census; state task force; 2008 NGF Facility Database
Avg. revenues by type of facility	2007 and 2008 PGA Facility Operations Survey (2006 and 2007 data)	2002 Economic Census; National Golf Foundation; state task force
# of rounds by facility type	2006 PGA Compensation Survey (2005 data)	National Golf Foundation
Golf Course Capital Investments		
Avg. capital investment by type of facility	GCSAA Compensation Survey (2005, 2007 data)	National Golf Foundation; State task force
Number of golf courses under construction in current year	National Golf Foundation (2007 data)	NGF Construction database; state task force
Avg. cost of construction per new course	Golf Course Builders Association of America	State task force; interviews with golf course builders in state
Golf-Related Supplies		
Golf-related manufacturing exports	Company annual reports; SEC filings; interviews	Company interviews; state task force
Golf equipment	National Sporting Goods Association (2007 data)	2006 PGA Compensation Survey (2005 data)
Golf apparel	National Sporting Goods Association (2007 data)	2006 PGA Compensation Survey (2005 data)
Golf media	Magazine Publishers of America for golf magazine sales; <i>Bowker Annual of Library and Book Trade Information</i> (2006 data)	Amazon and Barnes & Noble for top golf book sales
Major Tournaments		
# of major tournaments held in state	State task force	Major golf associations
Visitor attendance at tournaments, tournament revenues	Major golf associations	State task force or state associations
Associations & Charitable Events		
# of major state-level golf associations	State counterparts of national golf associations	State task force
Annual revenues/budgets	State golf associations	State task force
# of employees	State golf associations	State task force
Revenues raised through charitable golf events	National Golf Foundation	Sampling of golf professionals to identify # of tournaments and average amount raised
Real Estate		
# of residential golf courses under construction	National Golf Foundation; real estate/development agencies	Interviews with golf course architects and real estate developers
# of lots per course	Interviews with golf course architects and real estate developers	Golf Course Builders Association of America, National Golf Course Owners Association,
Avg. construction costs per home and real estate premium	Interviews with real estate developers	Golf Course Builders Association of America, National Golf Course Owners

State Golf Economy Indicators and Data Sources		
Indicator	Primary source	Cross-validation source
Hospitality/Tourism		
# of golf travelers or # of golf-related trips to the state	Travel Industry Association (TIA) of America/D.K. Shifflet & Associates	State department of tourism/recent surveys/studies
Avg. spending per traveler or per trip	Travel Industry Association (TIA) of America/D.K. Shifflet & Associates	State department of tourism/recent surveys/studies; National Golf Foundation

III. THE SIZE OF NORTH CAROLINA'S GOLF ECONOMY

SRI estimates the total size of North Carolina's golf economy in 2007 was approximately \$2.6 billion. This estimate is comprised of \$1.4 billion in core industries and an additional \$1.2 billion in enabled industries, as illustrated in the table below.

Size of North Carolina's Golf Economy in 2007 by Segment (\$ million)	
Core Industries	
Golf Facility Operations	\$1,030.8
Golf Course Construction and Capital Investment	\$153.2
Golf-Related Supplies (retail margin and manufacturing exports)	\$158.4
Major Golf Tournaments and Associations	\$35.8
TOTAL CORE INDUSTRIES	\$1,378.2
Enabled Industries	
Real Estate	\$740.4
Hospitality/Tourism	\$507.8
TOTAL ENABLED INDUSTRIES	\$1,248.2
TOTAL GOLF ECONOMY	\$2,626.4

A. Core Industries

Golf Facility Operations

At the center of any golf economy lies the golf facilities—the largest component in terms of revenues. The revenue that flows through a golf facility comes primarily from greens fees, membership fees, golf cart rentals, lessons, and associated spending on food and beverages. This revenue, in turn, supports a host of supply sectors including golf equipment manufacturers, food and beverage providers, and turfgrass equipment and maintenance service providers. North Carolina's 558 golf courses, 47 stand-alone ranges, and 58 miniature golf facilities generated over \$1 billion of revenues in 2007.

North Carolina Golf Facility Revenues in 2007 (\$ millions)	
Golf Facilities	\$1,000.7
Practice Ranges & Alternative Facilities	\$30.1
TOTAL¹	\$1,030.8

Note: ¹ Golf facility revenues exclude on-course merchandise sales, which are included in the Golf-Related Supplies industry segment.

This is a sizeable industry, but even more significant when compared to other popular revenue-generating sports. For example, North Carolina’s golf facilities generated revenues comparable to all other spectator sports in the state combined—auto racing, football, basketball, baseball, and soccer. These five other sports generated revenues of \$1.1 billion in 2002, or \$1.3 million in 2007 inflation-adjusted dollars.³

Golf Course Capital Investments

Golf facilities generate economic impacts beyond operational revenues through investments to upgrade and maintain facilities and infrastructure, and through the construction, expansion and renovation of courses. These investments create employment in the construction and maintenance industries and often involve the purchase of significant amounts of equipment and supplies from companies within the state. SRI’s estimate of North Carolina’s golf course capital investment is divided into two segments: (1) capital investment at existing facilities and (2) new course construction. Together, North Carolina’s golf facilities made \$153.2 million worth of capital investments in 2007: \$62.2 million of investments at existing facilities and \$91.0 million for the construction of new courses. In 2007, NGF data indicate North Carolina ranked among the top five states in the country for new course openings, after Florida, California, Colorado and Virginia. New course openings suggest the continuing popularity and vitality of the game in the Tar Heel State.⁴

North Carolina Golf Course Construction and Capital Investment in 2007 (\$ millions)	
Golf Course Capital Investment ¹	\$62.2
New Course Construction	\$91.0
TOTAL	\$153.2

Note: ¹ Only the New Course Construction category is included in the economic impact analysis, because it represents new economic output or activity.

³ U.S. Census Bureau (2005). *North Carolina: 2002, 2002 Economic Census, Arts, Entertainment & Recreation Geographic Series*, June 2005.

⁴ NGF data show that total course openings (new courses and expansions) in 18-hole equivalents fell from 220 in 2002 to 113 in 2007. In 2007, North Carolina ranked among the top five states in the country in new 18-hole equivalent course openings in 2007 with 5 new openings, following Florida (19), California (8.5), Colorado (8.0), and Virginia (5.5). See Table 2 “State/Regional Openings in 18-hole Equivalents, 2007” in NGF (2008). *Golf Facilities in the U.S., 2008 edition*.

Golf-Related Supplies

In 2007, North Carolina golfers spent significant sums on golf balls, golf clubs, golf apparel, and golf instructional books and DVDs. According to the National Sporting Goods Association, dollar sales of golf merchandise continued on a positive growth trajectory in 2007 following a low point in 2003. The economic value that accrues to a state comes from both the production of these golf-related goods, as well as retail sales of such items. North Carolina is home to a small number of golf-related companies with manufacturing operations or headquarters in the state—Golf Pride, Jacobsen, John Deere, and Peter Millar.⁵ The value of products manufactured and sold in North Carolina is already captured in the retail portion of the Golf-Related Supplies segment. However, the proportion of production that is shipped to other states and countries is not. Therefore, we include these companies' value-added shipments in our analysis, here.

North Carolina Manufacturers' Value-Added Exports of Golf-Related Products in 2007 (\$ millions)	
TOTAL⁶	\$76.8

In 2007, North Carolina manufacturers' total value-added shipment of golf-related products was approximately \$76.8 million. On the retail side, North Carolina retailers and golf facilities earned approximately \$81.6 million on the sale of \$205.0 million of golf equipment, apparel, and media in 2007. In total, the Golf-Related Supplies segment contributed \$158.4 million in revenues to the North Carolina economy.

North Carolina Retailers' Net Revenues on Consumer Purchases of Golf-Related Supplies in 2007 (\$ millions)		
	Total purchases	Retail sales margin
Golf Equipment (retail margin)	\$156.1	\$62.1
Golf Apparel (retail margin)	\$47.9	\$19.1
Golf Media (retail margin)	\$1.1	\$0.4
TOTAL	\$205.1	\$81.6

Note: This includes on-course and off-course purchases of golf equipment, apparel and media. Column does not sum due to rounding.

⁵ Golf Pride (Laurinburg, NC) produces golf grips; Jacobsen (Charlotte, NC) and John Deere (Fuquay-Varina) manufacture mowers and related turf maintenance equipment for golf facilities; and Peter Millar (Cary, NC) is a relatively new company focusing on luxury golf apparel.

⁶ Detailed data for all companies was unavailable. \$76.8 million is a conservative estimate of these companies' value-added exports based on best available data. The actual value likely falls in the range of \$75 million to \$150 million.

State Golf Associations, Tournaments and Charitable Events

Associations

Numerous associations represent the game of golf in North Carolina. The largest golf associations represent both North Carolina and South Carolina members, including the Carolinas Section of the PGA, the Carolinas Golf Association, the Carolinas Golf Course Superintendents Association, and the Women’s Carolinas Golf Association. State-level golf associations include the North Carolina Golf Course Owners Association, the North Carolina Women’s Golf Association, as well as regional seniors and junior golf associations. There are several chapters of The First Tee, including chapters in Brunswick County, Charlotte, Cleveland County, the Lake Norman Region, the Sandhills, the Triad (Greensboro, Winston-Salem, High Point), the Triangle (Chapel Hill, Durham, Raleigh) and Wilmington. The First Tee introduces youth to the game and values of golf. Another important golf organization is the Carolinas Golf Foundation (located in High Point, NC) which provides funding for youth golf programs, golf tournaments, turf maintenance research, and scholarship programs. In 2007, North Carolina golf associations generated total revenues of \$3.9 million.

Major Tournaments

In 2007, North Carolina hosted five major golf championships, including two PGA TOUR events, two Champions Tour events, and a Nationwide Tour event. The Wachovia Championship, played the first week of May each year at Quail Hollow in Charlotte, is one of the top events on the PGA TOUR. Tiger Woods won the Wachovia Championship in 2007. The Wyndham Championship, one of the oldest events on the PGA TOUR, is held in Greensboro, NC—played at Forest Oaks Country Club in 2007 and Sedgefield in 2008. The Championship Tour events include the Greater Hickory Classic, played at Rock Barn Golf & Spa (Conover, NC), and the SAS Championship, held at Prestonwood Country Club (Cary, NC). The Rex Hospital Open is an annual Nationwide Tour event. Altogether, golf events in North Carolina generated approximately \$31.9 million in 2007, excluding the tournament purse and costs for TV broadcasting.

North Carolina’s Major Golf Tournaments & State Golf Association Revenues in 2007 (\$ millions)	
Major tournaments	\$31.9
Associations	\$3.9
TOTAL	\$35.8

Charitable Events

North Carolina’s golf industry makes substantial contributions to a variety of charities donating greens fees, services, and staff time in support of local charitable golf events. In addition, there is a significant charitable component to all the professional golf tournaments played in North

Carolina. For example, \$1 million in proceeds from the annual Wyndham Championship supports Piedmont Triad Area Charities, such as the Autism Society of North Carolina, the MacKay Foundation for Cancer Research, and the Crosby Scholars Community Partnership. Proceeds from the Wachovia Championship go to Teach for America, the national corps of outstanding recent college graduates who commit two years to teach in urban and rural public schools and become lifelong leaders in expanding educational opportunity. Golf course owners, operators, and golf professionals are happy to serve as access points for annual fundraising by local service organizations. In total, SRI estimates that the amount of charitable giving attributed to the game of golf in North Carolina to be \$132.4 million in 2007.

Charitable Giving by North Carolina Golf Industry in 2007 (\$ millions)	
TOTAL	\$132.4

B. Enabled Industries

Real Estate

Real estate developers use amenities to attract new home buyers, and golf is a key amenity in many parts of the state. The development of new golf communities in North Carolina followed the rise in the national real estate market which peaked in 2005 in terms of new home starts and existing home sales.⁷ In 2007, many golf communities were mid-way or nearing the end of build out and still represented a sizable segment in the North Carolina golf economy. The state boasted an impressive number of new golf community developments in 2007 offering a mix of single family homes and townhomes/villas. Home construction was driven in part by the strong net migration of retirees and workers from other parts of the country wanting to take advantage of the natural beauty, vibrant economy, and high quality of life in North Carolina.

In 2007, large developments were underway at St. James Plantation in Southport, a coastal city near Wilmington, NC, as well as at TPC Wakefield Plantation in Raleigh, NC. Examples of golf community developments elsewhere in the state include: Balsam Mountain Preserve, a mountain golf community overlooking a new Arnold Palmer course in the Nantahala National Forest; Forest Creek, a forested countryside golf community flanked by two Tom Fazio courses in Pinehurst; and the Club at Longview, a private golf community constructed alongside a new Jack Nicklaus course in Charlotte.

New golf-related real estate construction generated \$571.9 million in 2007. Furthermore, in 2007 there were more than 180 golf communities in North Carolina, and we estimate the “golf” premium associated with the sale of real estate in these developments to be \$168.5 million. The

⁷ National Association of Realtors data.

premium is the additional amount a buyer is willing to pay for a home or property located on a golf course or within a golf community.

North Carolina's Golf Real Estate Revenues in 2007 (\$ millions)	
Golf-Related Residential Construction	\$571.9
Realized Golf Premium	\$168.5
TOTAL	\$740.4

Note: The sale of existing homes is considered a transfer of assets rather than new economic output, so the golf premium that is realized in the sale of an existing home is not included in the economic impact analysis.

Hospitality/Tourism

Across the country, golf has enjoyed increasing popularity among travelers, whether it is the primary motivation for a trip or is connected to other recreational time spent with friends and family, or business colleagues. In North Carolina, golf is an important tourism segment, alongside trips to the beach, mountains, and historic sites. North Carolina's golf resorts help the state attract conventions and business meetings, and both amateur and professional golf tournaments draw people to courses in different parts of the state. The state's "Explore North Carolina" website features golf as a key outdoor activity (<http://www.visitnc.com/>). In 2007, SRI estimates golf-related tourism spending in North Carolina was \$507.8 million.

North Carolina's Golf-Related Travel Expenditures in 2007	
# of day trips	534,000
Average travel \$ per day trip	\$58.02
# of overnight trips	867,000
Average travel \$ per overnight trip	\$549.99
Total	\$507.8 million

Note: SRI assumes a similar level of golf trips in 2005 as in 2007.

This is based on the following SRI assumptions about golf trips and associated expenditures by North Carolina residents and non-residents: (1) an estimated 534,000 *day* trips with average golf trip spending of \$58, and (2) an estimated 867,000 *overnight* trips with average trip spending of \$550.








IV. GOLF'S ECONOMIC IMPACT IN NORTH CAROLINA

Golf's impact on the North Carolina economy includes both the direct effects of economic activity in the core and enabled golf industries, as well as the indirect and induced (or multiplier) effects on the overall economy. In economics, the idea of the multiplier is that changes in the level of economic activity in one industry impacts other industries throughout the economy. For example, a fraction of each dollar spent at a golf course is, in turn, spent by the golf course to purchase goods and services for golf course operation—these are indirect effects. In addition, golf course employees spend their disposable income on personal goods and services, and this stimulates economic activity in a myriad of other industries—these are induced effects.

Therefore, golf's total (direct plus multiplier) economic impact includes both the direct employment and wage income of those employed in golf-related industries, as well as the secondary employment and wages supported in other sectors of the economy through subsequent purchases of goods and services by golf industry employees.

In 2007, the \$2.6 billion North Carolina golf industry supported:

- A total economic impact of \$5.3 billion for the state of North Carolina including the indirect and induced economic impacts stimulated by golf sector activity;
- A total impact of nearly 68,667 jobs; and
- Total wage income of \$1.7 billion.

Golf's Impact on North Carolina's Economy						
Industry	Direct	Indirect	Induced	TOTAL OUTPUT (\$ million)	TOTAL JOBS (\$ million)	TOTAL WAGE INCOME (\$ million)
Golf Facility Operations	\$1,030.8			\$2,155.7	32,734	\$714.2
Golf Course Capital Investment*	\$153.2			\$223.1	2,115	\$69.6
Golf-Related Supplies	\$158.4			\$343.6	2,836	\$86.7
Tournaments & Associations	\$35.8			\$82.8	1,124	\$32.1
Real Estate **	\$740.4			\$1,402.2	13,292	\$437.1
Hospitality/Tourism	\$507.8			\$1,096.3	16,566	\$355.8
TOTAL	\$2,626.4			\$5,303.7	68,667	\$1,695.5

Note: Economic impact is calculated on \$2,395.7 million of direct golf economy revenues. Portions of two industry segments included in direct economy calculations are excluded from economic impact estimation.

*Golf Course Capital Investments—only new course construction (\$91.0 million) is included for this category as other types of facility capital investment are typically financed through facility revenues and, therefore, are omitted to avoid double-counting.

**Real Estate—the golf premium associated with golf real estate is considered a transfer of assets rather than new economic activity, so only golf-related residential construction (\$571.9 million) is included.

V. DETAILED METHODOLOGY & DATA SOURCES

A key challenge in this study was to identify reliable state-level data sources and to develop methodologies for measuring the size of industry components for which cross-state estimates do not exist in straightforward metrics, e.g., golf real estate and off-course purchases of golf apparel and equipment. This section describes each of the core and enabled industries included in the golf economy and SRI's approach to measuring each of these segments.

A. Golf Facility Operations

For this industry segment, we analyzed the number of golf facilities and average facility revenue data to derive a total facility operations estimate. Revenues for this segment include: annual or monthly membership fees, greens fees, range fees and cart rental fees; purchases of golf apparel and equipment in pro shops; golf lessons; tournament entry fees; consumption of food and beverages; etc.

Number of golf course facilities. Many golf organizations track the number of golf facilities in a state: the National Golf Foundation (NGF), the PGA of America, and state/regional golf associations, among others. The U.S. Census Bureau also surveys golf course facilities as business establishments in its Economic Census every five years. However, these organizations' calculations of the total numbers of golf courses in each state, by type of facility, are not always consistent with each other due to: (1) absence of data for courses which are not members (e.g., the PGA tracks those courses with a PGA member) or for particular subsets of courses (e.g., municipal facilities and golf resorts are not tracked by the Census), (2) facility closures and openings, and (3) inconsistency in the classification of courses, especially resorts.

In some surveys, golf facilities are allowed to self-classify themselves. In others, the surveying organization classifies the facility based on specific criteria. This can mean the difference between a small number of resorts (e.g., a figure that includes five-star accommodation located on or adjacent to an 18-hole course) or a much larger number of resorts (e.g., three-star hotel accommodation located near a daily fee golf course). Similarly, a resort with two 18-hole golf courses could be counted as two golf facilities or as one depending on the reporting organization. Fortunately, the variances caused by these data collection issues are very small, and thus do not materially impact the overall analysis. The table below presents slightly differing estimates for the number of golf course facilities in North Carolina in 2007 or the latest available year.

Estimates of North Carolina Golf Facilities from Various Sources, 2002-2007				
	2002 Census (# of facilities minus resorts & municipal)¹	2007 PGA (# of facilities)²	2007 NGF (# of facilities)³	2007 NGF (# of 18-hole equivalent courses)³
PRIVATE	120	180	154	165.5
PUBLIC	362	348	360	391.5
Daily fee/ semi-private		291		
Municipal				
Military		57		
University				
RESORT		30	28	
TOTAL	482	558	542	557.0

Sources: ¹ U.S. Census Bureau, *2002 Economic Census*.

² Professional Golfers' Association of America (2008). *Facility Database*.

³ NGF (2007). Total Facility Supply Tables 5-10, *Golf Facilities in the U.S., 2008 edition*, pp.5-10.

After analysis of different golf facility numbers in collaboration with the North Carolina Golf Alliance, SRI used the PGA's facility numbers as the basis for our assessment. The facility number totals from the two organizations fall within an extremely narrow range, PGA's 558 versus NGF's

542 facilities. The PGA has slightly higher facility numbers in the private and resort facility categories, and NGF has a slightly higher number in the public facility category. Therefore, the differences are likely to be largely due to classification issues.

Average revenues per facility. The SRI team collected average revenue data from a variety of sources. Here again, the data challenge was that average facility revenues will vary significantly depending on: (1) the number of holes (e.g., a 9-hole course versus a 18-hole course) and (2) the type of facility—whether a golf course facility is private, daily fee, resort, municipal, etc.

The U.S. Census Bureau collects revenue data for golf course facilities as part of its Economic Census of all U.S. establishments every five years. Whereas facility surveys conducted by private sector organizations are often based on low response rates (less than 30 percent), all establishments are required by law to respond to the Census Bureau survey. However, the Census Bureau data has several limitations. Many types of facilities are not included in the survey: (1) resort facilities, (2) municipal and military facilities, (3) stand-alone driving ranges and (4) golf course facilities without payroll. In addition, in 2002 the national economy was just emerging from an economic recession which is likely to have negatively impacted the golf industry. Still, the latest 2002 Economic Census contains revenue, payroll, and employment data on 12,261 golf facilities broken down by state. This provides a robust estimate with which to compare other available golf facility revenue data.

The PGA recently began collecting revenue data for all 50 states on an annual basis through its Annual Operations Survey. The latest available data are from 2007. In addition, PGA revenue data are broken down by type of facility for categories for which Census data are not available—resorts, municipal courses, and military courses.

As an additional validity check, we also examined NGF revenue data. However, it is important to note that NGF does not provide state-level facility data. It presents average revenue data for: (1) public (daily fee) facilities for two regions (Sunbelt and Frostbelt) by fee level (mid-range and premium) and (2) private facilities—a national average—by fee level (mid-range and premium). For the table, below, SRI calculated a single NGF national average revenue figure for each category by using the sample size and mean.

Estimates of North Carolina Average Revenue per Facility Data From Different Sources, 2002-2007			
	Census (2002) ¹	PGA (2007) ²	NGF (2005) ^{3,4}
Private facility	\$2,187,092	\$3,381,155	\$3,564,339
Daily fee facility	\$1,091,876	\$1,215,481	\$2,152,883
Resort facility	X	\$2,153,513	X
Municipal/military/university facility	X	\$1,226,210	X
Driving range	X	X	\$350,000
Miniature golf	\$204,052	X	X

Sources: ¹ U.S. Census Bureau, *2002 Economic Census*. These figures are in 2002 dollars.

² Professional Golfers' Association of America (2008). *Operations Survey*.

³ NGF (2006). *Operating & Financial Performance Profiles of 18-hole Golf Facilities in the U.S., 2006 edition*.

⁴ Golf Range Association of America (2006).

Average revenue data from the Census (2002), PGA (2007) and NGF (2005) are presented above. Note the NGF's average revenue data are national averages rather than North Carolina specific. This may explain why the NGF's daily fee facility revenue figure is high relative to the PGA and Census data. It is also important to note that North Carolina's population and economy grew significantly from 2002-2007⁸, so one would expect the 2002 Census data to be lower than reported by the PGA in 2007 and NGF in 2005.

In consultation with the North Carolina golf task force, SRI calculated total traditional facility revenues using PGA average revenue data for private facilities, daily fee facilities, and municipal/military/university facilities. Driving range revenues were calculated using the Golf Range Association of America's estimate of average revenue figure for golf ranges in 2006, and miniature golf facilities were calculated using Census (2002) data. We adjusted the Census data for inflation over the 2002-2007 period using the GDP deflator.

⁸ According to the U.S. Bureau of Economic Analysis, North Carolina's economy grew at an annual rate of 3.5 percent compared to the national average of 2.8 percent over the 2002-2007 period. Population growth, particularly in urban areas was also significant over this period. This strong economic performance would likely have a positive impact on golf courses.

2007 Golf Facility Operations Revenues		
Facility type	Calculation	Estimate
Private facilities	Average revenue ¹	\$3,154,602
	Number of facilities	180
	Total revenue [1]	\$567,828,346
Daily fee/semi-private facilities	Average revenue ¹	\$1,090,941
	Number of facilities	291
	Total revenue [2]	\$317,463,752
Municipal/military/university facilities	Average revenue ¹	\$1,067,377
	Number of facilities	57
	Total revenue [4]	\$60,840,485
Resort facilities	Average revenue ¹	\$1,820,248
	Number of facilities	30
	Total revenue [3]	\$54,607,449
Driving ranges	Average revenue	\$350,000
	Number of facilities	47
	Total revenue [5]	\$16,450,000
	Adjusted for inflation²	\$16,458,200
Miniature golf facilities	Average revenue	\$204,052
	Number of facilities	58
	Total revenue [6]	\$11,835,016
	Adjusted for inflation²	\$13,610,376
TOTAL	Sum [1] to [6]	\$1,000,740,032

Note: ¹ In this table, on-course merchandise sales have been subtracted from average facility revenue, because on-course merchandise sales are included in the Golf-Related Supplies industry segment. ² Total revenues have been adjusted for inflation into 2007 dollars using the appropriate GDP deflator.

Sources: Golf facilities average revenue data are from the PGA of America (2008), *Operations Survey 2007*. Driving range average revenue data from the Golf Range Association of America (2006). Miniature golf facilities average revenue data are from the 2002 *Economic Census*.

B. Golf Course Capital Investment

To calculate golf course capital investments, SRI collected data on two major types of investment: (1) capital investment at existing facilities and (2) new course construction.

North Carolina Golf Course Construction and Capital Investment in 2007 (\$ millions)	
Golf Course Capital Investment ¹	\$62.2
New Course Construction	\$91.0
TOTAL	\$153.2

Note: ¹ Only the New Course Construction category is included in the economic impact analysis, because it represents new economic output or activity. Golf course capital investment is typically financed through golf facility revenues, so including both Golf Course Capital Investment and Golf Facility Operations in economic impact analysis would result in double-counting.

Investment at existing courses. Golf course capital investment includes improvements to greens and tees, repaving of cart paths, purchases of new turf maintenance equipment and irrigations systems, and renovations of the clubhouse, proshop and maintenance buildings. Maintenance expenses are not included. SRI examined golf course capital investment from two sources: NGF and the GCSAA. The GCSAA data comes from golf course capital budget questions included in its 2005 and 2007 Compensation Surveys. The 2007 data is broken down by: (1) type of facility, (2) number of holes at the facility and (3) agronomic region. The NGF's *2006 Operating and Financial Performance Profile* presents estimates of capital expenditures at: (1) public facilities by fee level (mid-range and premium) and divided into two regions (Sunbelt and Frostbelt); and (2) private facilities by size (those with revenues of less than \$3 million and those with revenues above \$3 million).

After review of both data sets, SRI applied the GCSAA data to our North Carolina capital investment calculations. We estimated average facility investments in North Carolina using the known distribution and type characteristics of facilities in the state. (See preceding section on number of facilities for sources.) These imply that each of North Carolina's 558 golf courses invested an average of approximately \$111,505 in 2007, for a total capital investment of \$62.2 million.

New course construction. The NGF's *Golf Facilities in the U.S.* series is the only national source for estimates of the number of new golf courses under construction in each state. In 2007, NGF estimated that 5.0 new 18-hole equivalent golf courses opened in North Carolina and that 17.5 were under construction.

An estimate for the average investment for each new golf course in North Carolina is derived from the Golf Course Builders Association of America's *2008 Guide to Estimating Cost for Golf Course Construction*. This database of golf course construction costs is based on a survey of golf course builders around the country and is divided into four construction regions. Using the values provided for region three (Central Plains) and the average ("normal") costs for each of the various construction categories (see box below), we estimate the average investment required to build a new golf course in North Carolina is \$8.0 million.

To Build a Golf Course: Required Investments	
Mobilization	Greens Construction
Layout and Staking	Tees
Erosion Control	Bunkers
Clearing	Bridges
Selective Clearing	Bulkheading
Topsoil	Cart Paths
Excavation	Fine Grading
Rough Shaping	Seeding and/or Grassing
Drainage	
Irrigation	

This investment, however, is not entirely expended over one year but is rather disbursed over several years. Assuming the average course takes approximately three years to complete, we estimate the 17.5 courses under construction in 2007 and the 5.0 new openings invest an average of \$4.0 million each, for a total of \$91.0 million.

C. Golf-Related Supplies

This section explains our methodology for calculating North Carolina manufacturers’ exports of golf club components, golf swing trainers, golf umbrellas and other golf accessories used by golfers. We also detail our methodology for calculating the retail margin for on-course and off-course purchases of golf equipment, golf apparel, and golf media.

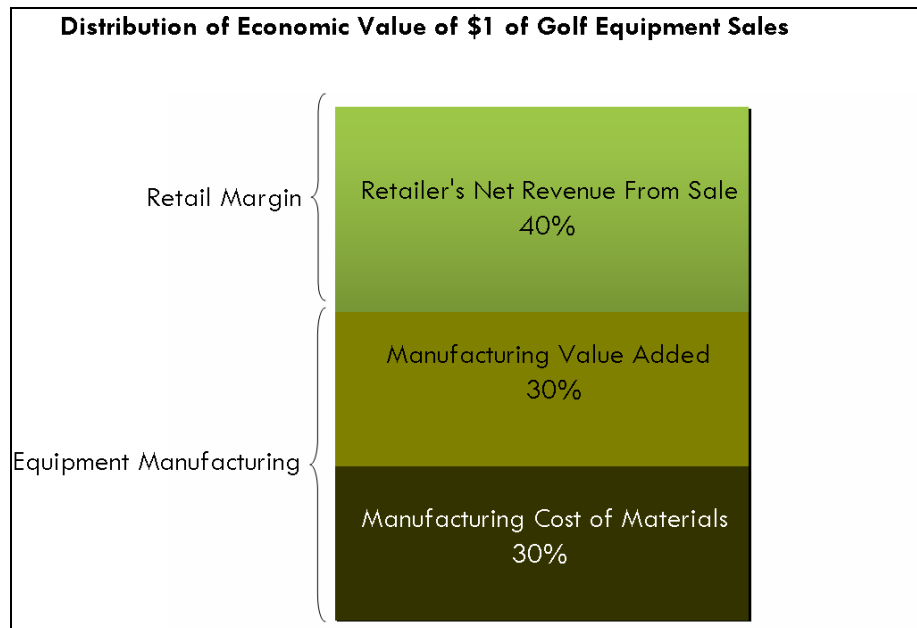
Manufacturing Exports. The economic value created by golf-related supplies consists of two components: (1) value-added production and (2) the retail sales margin. On the manufacturing, or production side, we are concerned with the value-added production of golf equipment, golf apparel, and golf accessories. This is the value of the company’s wholesale revenues minus the cost of production inputs, and this value-added production is attributable to the state in which the golf club or golf ball is manufactured.

North Carolina Manufacturers’ Value-Added Exports of Golf-Related Products in 2007 (\$ millions)	
TOTAL	\$76.8

We began by working with the North Carolina Golf Alliance to identify major manufacturers of golf-related products in the state. We identified a small number of companies that design and manufacture golf grips, turf maintenance equipment, and apparel in North Carolina—Golf Pride, Jacobsen, John Deere, and Peter Millar. We then contacted these companies to ascertain: (1) the total value of their golf-related sales, and (2) the percentage of these sales that were out-of-state. Finally, we extrapolated value-added output from each company’s revenues using value-

added data from the Census's *Survey of Manufacturers*. Detailed data for all companies was unavailable. SRI's estimate of \$76.8 million in total value-added exports is a conservative estimate based on best available data. The actual value likely falls in the range of \$75 million to \$150 million.

Retail Margin. On the retail side, the economic value is derived from the margin the retailer makes from the sale of the golf club, i.e., the net revenues accruing to retailers after covering the cost of purchasing the golf equipment or apparel from the wholesaler/producer.



To calculate this margin, we first estimate total sales of golf apparel and equipment at the state level and then apply the requisite retail margin percentage for economic impact analysis. In our national level study for GOLF 20/20, SRI was able to collect national sales data from a number of sources: (1) the NGF, (2) the National Sporting Goods Association (NSGA), (3) Golf Datatech, and (4) the Census Bureau. Unfortunately, the relatively small sample size for the majority of these surveys do not allow for publication of reliable state-level estimates by these organizations. However, each year the NSGA conducts a 100,000-household consumer panel survey for its annual *The Sporting Goods Market* publication. SRI uses these data in conjunction with the PGA's golf facilities data for each state to derive state-level estimates of golf equipment and apparel sales.

For example, in 2007, NSGA reported total U.S. off-course and on-course purchases of individual golf clubs to be \$615.8 million. The NSGA survey found the South Atlantic region accounted for 29.0% of these purchases, or \$178.6 million. Within the South Atlantic region, one can estimate North Carolina's share of purchases by creating a rounds- or courses-based weight. Using either

approach yields similar weights, since the number of rounds played is highly correlated with the number of 18-hole equivalent courses in a state ($r=0.93$). SRI used the number of 18-hole equivalent courses in each state, as it was easier to verify than estimated number of rounds played. North Carolina represents 17.3% of total 18-hole equivalent courses in the South Atlantic region, so this weight was applied to the region total (\$178.6 million) to estimate \$30.9 million of individual golf club sales in the state of North Carolina in 2007. Further, retail margins on final sales suggest that 39.8%, or \$12.3 million, of total sales was retained in the North Carolina economy. (See graphic below.)

North Carolina's On-Course and Off-Course Golf Equipment & Apparel Purchases, 2007		
Category	Calculation	Estimate (\$ million)
Golf club sets	South Atlantic region's sales	\$349.1
	NC's courses-based weight	17.3%
	NC's share of sales [1]	\$60.4
Golf apparel	South Atlantic region's sales	\$277.0
	NC's courses-based weight	17.3%
	NC's share of sales, [2]	\$47.9
Golf balls	South Atlantic region's sales	\$263.6
	NC's courses-based weight	17.3%
	NC's share of sales, [3]	\$45.6
Golf clubs	South Atlantic region's sales	\$178.6
	NC's courses-based weight	17.3%
	NC's share of sales, [4]	\$30.9
Golf bags	South Atlantic region's sales	\$59.8
	NC's courses-based weight	17.3%
	NC's share of sales, [5]	\$10.3
Golf shoes	South Atlantic region's sales	\$51.2
	NC's courses-based weight	17.3%
	NC's share of sales, [6]	\$8.9
TOTAL	Sum of [1] to [6]	\$204.0
Retail sales margin	Multiply TOTAL by 39.8%	\$81.2

Source: National Sporting Goods Association (2008). *The Sporting Goods Market in 2007*, Mt. Prospect, IL: NSGA.

Golf media. Similar to golf equipment, golf media's economic contribution to the state economy has two components: value-added production and the retail sales margin. On the production side, the economic impact created by the publication of magazines or books is attributable to the state in which the magazine or book is published. On the retail side, the economic impact is derived from the margin the retailer makes from the sale of golf media, i.e., the net revenues accruing to retailers after covering the cost of purchasing the media from the

wholesalers/producers. For golf magazines, we identified national golf publications with the largest circulations and the state in which they are published—no national golf magazines were published in North Carolina in 2007. Similarly, no major publishers of golf books are located in the state. However, we calculated a weight to estimate the percentage of book retailers’ sales attributable to the sale of golf books in stores. Total retail golf book sales in 2007 were estimated to be \$1,081,000 with a retail sales margin of \$430,000. Golf videos and DVDs are more difficult. In SRI’s previous national-level study, we were not able to identify a source with data on the annual sales of golf-specific videos/DVDs. In the case of this current state-level study, this category was also omitted due to the absence of a reliable data source.

On-Course and Off-Course Sales of Golf Books in North Carolina, 2007	
Category	Estimate
North Carolina retail book sales¹	\$257,334,090
Golf books as % of total book sales	0.4%
Total retail golf book sales	\$1,080,803
Retail sales margin	\$430,160

Note: ¹Adjusted for inflation into 2007 dollars using the appropriate GDP deflator.
 Sources: North Carolina retail book sales data from the 2002 Economic Census. Estimated percentage of golf books among total book sales derived from the 2006 *Bowker Annual of Library & Book Trade Information* and American Booksellers Association data.

North Carolina Retailers’ Net Revenues on Consumer Purchases of Golf-Related Supplies in 2007 (\$ millions)		
	Total purchases	Retail sales margin
Golf Equipment (retail margin)	\$156.1	\$62.1
Golf Apparel (retail margin)	\$47.9	\$19.1
Golf Media (retail margin)	\$1.1	\$0.4
TOTAL	\$205.1	\$81.6

Note: This includes on-course and off-course purchases of golf equipment, apparel and media. Column does not sum due to rounding.

D. State Golf Associations, Tournaments & Charitable Events

Associations. SRI worked with the North Carolina Golf Marketing Alliance to collect revenue data for the largest state or regional golf organizations. These included the Carolinas Golf Association, the Carolinas Section of the PGA, the Carolinas Golf Course Superintendents Association, the Women’s Carolinas Golf Association, the Carolinas Golf Foundation, the Carolinas Chapter of the Club Managers Association of America, the North Carolina Chapter of

the National Golf Course Owners Association, as well as multiple chapters of the Senior Golf Association, junior golf associations, The First Tee, and other allied organizations.

Major Tournaments. In 2007, North Carolina hosted five professional golf events. We subtracted the tournament purse and cost of television broadcasting from total tournament revenues to estimate the revenues that remained in the state.

North Carolina's Major Golf Tournaments & State Golf Association Revenues in 2007 (\$ millions)	
Major tournaments	\$31.9
Associations	\$3.9
TOTAL	\$35.8

Charitable Events. Overall, SRI estimates that the amount of charitable giving attributed to the game of golf in North Carolina to be \$132.4 million in 2007.⁹ This estimate is derived from a national study¹⁰ based on the number of charitable golf outings/events held; the discounted fees, services and staff time for these events; as well as the charitable giving associated with professional golf tournaments. Charitable giving is not included in economic impact estimation because it is a direct transfer of income. Nevertheless, it is an important golf industry contribution to the state.

Charitable Giving Generated by North Carolina Golf Industry in 2007 (\$ millions)	
TOTAL	\$132.4

E. Real Estate

In analyzing golf-related residential real estate, SRI collected data on two components: (1) new golf-related residential construction and (2) the “golf” premium associated with the sale of golf community homes.

North Carolina's Golf Real Estate Revenues in 2007 (\$ millions)	
Golf-Related Residential Construction	\$571.9
Realized Golf Premium	\$168.5
TOTAL	\$740.4

Note: The sale of existing homes is considered a transfer of assets rather than new economic output, so the golf premium that is realized in the sale of an existing home is not included in the economic impact analysis.

⁹ SRI based its calculation on the number of rounds played in California in 2006, and adjusted the figures for inflation based on the CPI inflation rate, cross-referenced with the rate of increase in charitable giving in the United States during this period.

¹⁰ National Golf Foundation (2002). *The Charitable Impact Report*, November 2002.

Golf-related residential construction. For this industry segment, SRI worked with North Carolina golf real estate developers to arrive at estimates of the number of courses with active real estate development, the size of the development, the average number of homes under construction in a given year, and the average construction costs per type of home (i.e., townhouse or single family home). The number of courses with active development was derived from new course openings over the past five years, golf task force input and online research. Construction values varied considerably depending on such factors as the location of golf communities within the state, the proportion of townhouses versus single family homes and overall real estate market conditions (e.g., high-growth metro regions versus more rural parts of the state).

SRI estimates that approximately 34 golf communities were under development, to varying degrees, in North Carolina in 2007. Developments ranged from the 3,500-unit TPC at Wakefield Plantation development in Raleigh to the 320-unit Club at Longview development. In 2007, an average of 36 single family homes (the median was 24) and 35 townhouses/villas were constructed per course. However, townhomes were not a feature of every new development. Single family homes were the primary housing unit on many of the new courses. New homes had an average construction cost of \$500,000 for single family homes and \$225,000 for townhomes/villas. Multiplying the total number of each type of unit under construction with the average construction cost per unit yielded a total 2007 golf-related residential construction figure of \$571.9 million.

Realized golf premium. The “golf” premium is the extra value a homeowner can expect to receive on the sale of a housing unit located in a golf community that is above and beyond the premium associated with a home’s other features or amenities (e.g., square footage, fixtures, landscaping, etc.). Through industry interviews, SRI arrived at a conservative estimate of this premium of \$25,000 per unit. Multiplying the approximately 180 existing North Carolina golf communities by 720, the median number of housing units per golf course, we arrive at a total of 129,600 golf community homes. In 2007, the home turnover rate (percentage of homes sold relative to the total housing stock) was 5.2 percent in North Carolina. Therefore, the realized golf premium was calculated by multiplying the home turnover rate by the total number of golf community homes by the average golf premium per unit. SRI estimates North Carolina’s golf real estate premium was \$168.5 million in 2007.

F. Hospitality/Tourism

Although a large and critical golf industry segment, there are no national sources of state-level golf tourism data. SRI calculates a state’s total golf tourism revenues by collecting data for two types of figures: (1) the annual number of golf-related trips and (2) average spending per trip.

Number of golf-related trips. A number of organizations conduct surveys monitoring changes in trip volume and traveler preferences. Some of these surveys include golf participation questions. Many states used to subscribe to the Travel Industry Association (TIA) of America's TravelScope® statistics. However, in 2005, TIA ceased collecting this primary data, and a new data set was created based on a national survey conducted by D.K. Shifflet & Associates (DKSA). Like the original TravelScope®, the new TravelScope®/Directions® by TIA/DKSA provides annual data on trip volume and characteristics (such as average length of stay and average trip expenditures). In addition to DKSA, TNS Travel America, a market research company, conducts an American Traveler Survey capturing similar visitor volume and expenditure data. However, 2005 TIA/DKSA data and 2006 TNS data are not comparable, so time-series analysis is no longer possible.¹¹ Consequently, SRI used the 2005 TIA/DKSA data for total number of visitor trips to maintain comparability with golf tourism estimates we have performed in other states and nationally.¹²

In 2005, TIA/DKSA estimated that approximately 1.5 percent of North Carolina's 35.6 million day visitors and approximately 3.0 percent of the state's 28.9 million overnight visitors reported they played golf while on a trip.¹³ This figure includes trips to North Carolina golf resort destinations (of which North Carolina has 30), as well as trips to play golf courses in other parts of the state. People also travel to watch the golf pros and upcoming golf talent battle it out at the many professional and amateur golf tournaments played annually in North Carolina. For example, an estimated 35,000 spectators turn out daily to watch the Wachovia Championship which is played each spring at Quail Hollow in Charlotte.¹⁴

Using TIA/DKSA's estimate of total visitor *day* trips in 2005 (35.6 million) and TIA/DKSA's data on the number of visitors who played golf while on a *day* trip (1.5 percent), SRI calculated that 534,000 North Carolina golf *day* trips were made in 2005.¹⁵ SRI also calculated that there were 867,000 North Carolina *overnight* golf trips in 2005, based on TIA/DKSA's estimates of total visitor overnight trips (28.9 million) and the percentage of people who played golf while on an

¹¹ TIA/DKSA reported 64.5 million North Carolina total visitor trips (35.6 million day and 28.9 million overnight) in 2005 compared to only 45 million reported by TNS Travel America in 2006. This significant change in visitor trips owes largely to methodological reasons rather than a systemic decline in visitors to North Carolina from 2005 to 2006. In order to maintain comparability with golf tourism estimates in other states, SRI used the 2005 DKSA data to estimate the number of golf trips made.

¹² To date, we have constructed golf tourism estimates in nine states and nationally: CA, IA, LA, MA, MI, MN, OH, VA, TX.

¹³ Travel Industry Association of America, DKS&A (2006). TravelScope®/Directions®. *Fast Facts: North Carolina Visitor & Trip Profile*, http://149.168.102.12/tourism/econ/FastFactsVisitor_05.pdf

¹⁴ "PGA event expects strong attendance," Triangle Business Journal, March 14, 2006, <http://www.bizjournals.com/triangle/stories/2006/03/13/daily10.html>

¹⁵ See Slide 7 in Global Insight (2006), *North Carolina Tourism: 2005 in Review* for total visitor trips http://149.168.102.12/tourism/econ/TSA_05.pdf and http://149.168.102.12/tourism/econ/FastFactsVisitor_05.pdf for the percentage of visitors who played golf while on a trip.

overnight trip (3.0 percent). SRI defines a “golf trip” as a trip in which a North Carolina resident or non-resident travels 50-plus miles to, through, or within the state and plays golf while on this trip.¹⁶ This figure (1,401,000 total golf trips, day and overnight) seems plausible given the PGA of America’s estimate of 13.8 million rounds played in North Carolina in 2005. This translates into approximately 10.2 percent of total rounds played on North Carolina courses being played by golfers from other parts of North Carolina or from out of the state.

Average spending per golf trip. SRI estimated that average spending per golf trip in North Carolina in 2007 was \$58 per day trip and \$550 per overnight trip. This includes spending on accommodation, local transportation, food and beverage, entertainment, gifts and so on. Greens fees and cart fees are not included as they are already captured in the Golf Facility Operations revenues. To estimate average golf trip expenditure, we began with national golf trip survey data from the National Golf Foundation’s *The U.S. Golf Travel Market, 2003 Edition* report¹⁷ and adjusted average trip spending based upon online research of North Carolina golf packages and relative price levels in North Carolina vis-à-vis the rest of the country. Multiplying the total number of golf trips (day and overnight) by average spending per golf trip (day and overnight), SRI found that golf-related tourism spending in North Carolina was approximately \$31.0 million for *day* trips and \$476.8 million for *overnight* trips, totaling \$507.8 million.

North Carolina’s Golf-Related Travel Expenditures in 2007	
# Golf person day trips	534,000
Average travel \$ per person per day trip	\$58.02
# Golf person overnight trips	867,000
Average travel \$ per person per overnight trip	\$550.00
Total	\$507.8 million

Note: SRI assumes a similar level of golf trips in 2005 as in 2007.

G. Golf’s Economic Impact

The impact of golf on a state’s economy includes both the direct impact of the sector itself (its core and enabled industries), as well as the indirect and induced (or multiplier) impacts that are supported by golf industry employment and expenditures.

¹⁶ Golf trips also include spectators who travel to watch the five professional golf tournaments held in North Carolina each year—two PGA TOUR events, two Championship Tour events, and two Nationwide Tour events. For example, approximately 35,000 spectators turn out daily for the Wachovia Championship played at Quail Hollow and 12,000 spectators turn out daily for the Wyndham Championship at Sedgewood. See <http://www.bizjournals.com/triangle/stories/2006/03/13/daily10.html> and http://www.news-record.com/content/2008/08/15/article/a_real_crowd_pleaser








¹⁷ See “Average Travel Spending” table on p.16 in NGF (2003), *U.S. Golf Travel Market*, available at: <http://www.ngf.org/cgi/catalogsearchdetail.asp?ITEMNUMBER=99MR002>. SRI adjusted for inflation from 2002-2007, since 2002 is NGF’s most recent on golf travel survey.

Direct economic impact. The direct economic impact of golf is simply the size of the golf industry cluster within the state economy in terms of revenues. The “state golf economy” can be calculated by adding together the size of each of the core and enabled industries calculated in the sections above:

Direct Impact of the State Golf Economy	
Core Industries	+ Golf Facility Operations
	+ Golf Course Capital Investment
	+ Golf-Related Supplies
	+ Media, Tournaments, Associations
Enabled Industries	+ Real Estate
	+ Hospitality/Tourism
= Size of State Golf Economy	

Indirect/induced economic impact (multiplier impact). Golf course facilities and the companies that provide goods and services to the golf industry, in turn, purchase goods and services from other companies. These purchases are considered the “indirect” impacts of the golf sector. Furthermore, the employees directly employed by the golf sector will spend much of their incomes in the region, creating more spending and more jobs in the economy. These impacts are considered “induced” impacts. Together, the indirect and induced impacts make up the multiplier impact of the golf economy.

Multiplier values vary from region to region, based on the unique characteristics of the state’s or region’s economy. Industries with more extensive linkages to other industries within the local economy will have a greater multiplier effect on final economic activity relative to the initial, direct effect. Conversely, economies and industry sectors dependent on a large share of imported supply will have smaller multiplier effects. For this study, the RIMS II (Regional Input-Output Multipliers), calculated by the U.S. Bureau of Economic Analysis, were used to calculate the multiplier impact of North Carolina’s golf economy.

Golf's Impact on North Carolina's Economy						
Industry	Direct	Indirect	Induced	TOTAL OUTPUT (\$ million)	TOTAL JOBS (\$ million)	TOTAL WAGE INCOME (\$ million)
Golf Facility Operations	\$1,030.8			\$2,155.7	32,734	\$714.2
Golf Course Capital Investment*	\$153.2			\$223.1	2,115	\$69.6
Golf-Related Supplies	\$158.4			\$343.6	2,836	\$86.7
Tournaments & Associations	\$35.8			\$82.8	1,124	\$32.1
Real Estate **	\$740.4			\$1,402.2	13,292	\$437.1
Hospitality/Tourism	\$507.8			\$1,096.3	16,566	\$355.8
TOTAL	\$2,626.4			\$5,303.7	68,667	\$1,695.5

Note: Economic impact is calculated on \$2,395.7 million of direct golf economy revenues. Portions of two industry segments included in direct economy calculations are excluded from economic impact estimation.

*Golf Course Capital Investments—only new course construction (\$91.0 million) is included for this category as other types of facility capital investment are typically financed through facility revenues and, therefore, are omitted to avoid double-counting.

**Real Estate—the golf premium associated with golf real estate is considered a transfer of assets rather than new economic activity, so only golf-related residential construction (\$571.9 million) is included.

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