



THE CONNECTICUT GOLF ECONOMY

FULL REPORT

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ACRONYMS

CAGCS	Connecticut Association of Golf Course Superintendents
CCMA	Connecticut Club Managers Association
CMAA	Club Managers Association of America
CPGA	Connecticut Section of The Professional Golfers' Association of America
CSGA	Connecticut State Golf Association
CWGA	Connecticut Women's Golf Association
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
MGA	Metropolitan Golf Association
MPGA	Metropolitan Section of The Professional Golfers' Association of America
NGCOA	National Golf Course Owners Association
PGA	The Professional Golfers' Association of America
SNEWGA	Southern New England Women's Golf Association
USGA	United States Golf Association
WGF	World Golf Foundation

I. STUDY OVERVIEW

Home to 185 golf facilities and host each June to the PGA Tour’s Travelers Championship, golf in the “Constitution State” is more than just an enjoyable pastime—it is a key industry contributing to the vitality of Connecticut’s economy. In 2008, the size of Connecticut’s direct golf economy was approximately \$637.7 million. 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, Connecticut’s golf industry generated approximately \$1.1 billion of direct, indirect and induced economic output, \$336.6 million of wage income, and nearly 11,570 jobs in 2008.

While financial and insurance services are a pillar of Connecticut’s economy, the golf industry’s \$637.7 million in direct revenues supports economic activity comparable to several other important industries in the state: accounting, tax preparation, and bookkeeping services (\$1.5 billion); “fast food” services (\$1.3 billion); and greenhouses/nurseries (\$273.8 million).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 Connecticut, to bring consistency to the industry measurement and reporting process. This report describes and analyzes Connecticut’s golf industry including the revenues and economic impact generated by the industry. Such analysis will assist Connecticut’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 (2005). 2002 Economic Census, Geographic Series: Tax Preparation & Bookkeeping Services (NAICS 5412) and Industrial Machinery Manufacturing (NAICS 3332). SRI used the GDP implicit price deflator to inflate 2002 industry revenue data to 2008 dollars. U.S. Department of Agriculture, Economic Research Service (2010), “Top Commodities, Exports, and Counties in 2008,” Connecticut State Fact Sheet.

² Key industry stakeholders comprising the Connecticut Golf Task Force include representatives from the Connecticut State Golf Association, the Connecticut Section of The PGA of America, Connecticut Association of Golf Course Superintendents, and the Connecticut Club Managers Association.

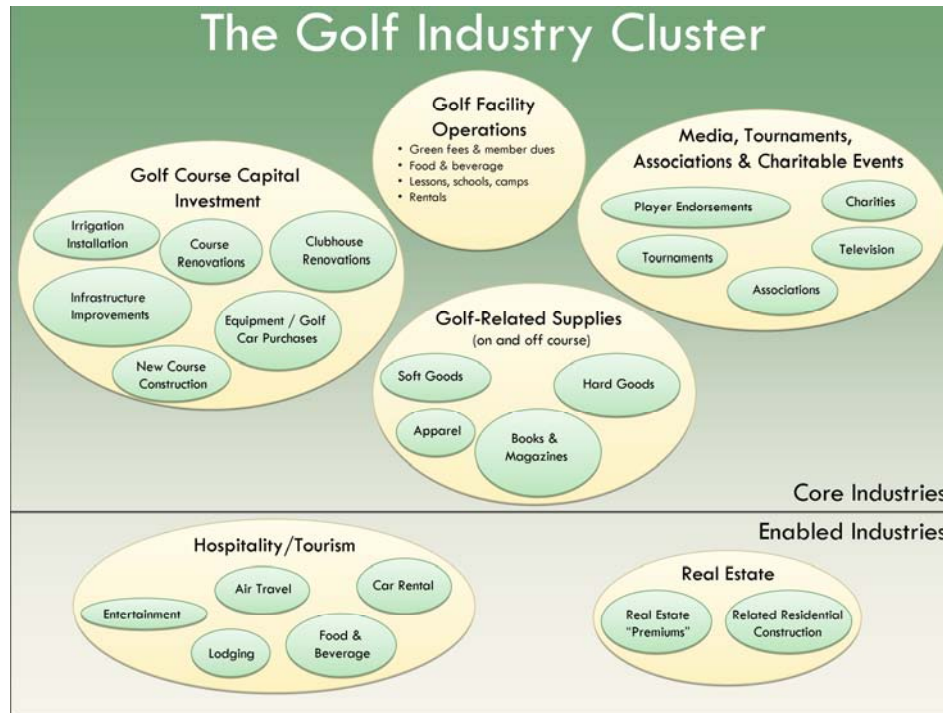
II. ANALYTICAL FRAMEWORK

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 on p.3). 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	PGA Facility Database, multiple years (2006-2008 data)	2002 Economic Census; state task force; NGF Facility Database, multiple years
Avg. revenues by type of facility	PGA Facility Operations Survey, multiple years (2006-2008 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, 2008 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, 2008 data)	2006 PGA Compensation Survey (2005 data)
Golf apparel	National Sporting Goods Association (2007, 2008 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> (2007, 2008 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 and club managers 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,

State Golf Economy Indicators and Data Sources		
Indicator	Primary source	Cross-validation source
Avg. construction costs per home and real estate premium	Interviews with real estate developers	Golf Course Builders Association of America, National Golf Course Owners
Hospitality/Tourism		
# of golf travelers or # of golf-related trips to the state	TIA/D.K. Shifflet & Associates	State department of tourism/recent surveys/studies
Avg. spending per traveler or per trip	TIA/D.K. Shifflet & Associates	State department of tourism/recent surveys/studies; National Golf Foundation

III. THE SIZE OF CONNECTICUT'S GOLF ECONOMY

SRI estimates the total size of Connecticut's golf economy in 2008 was approximately \$637.7 million. This estimate is comprised of \$569.9 million in core industries and an additional \$67.8 million in enabled industries, as illustrated in the table below.

Size of Connecticut's Golf Economy in 2008 by Industry Segment (\$ millions)	
Core Industries	
Golf Facility Operations	\$425.6
Golf Course Construction and Capital Investment	\$59.8
Golf-Related Supplies (retail margin and manufacturing exports)	\$70.5
Major Golf Tournaments and Associations	\$14.0
TOTAL CORE INDUSTRIES	\$569.9
Enabled Industries	
Real Estate	\$20.9
Hospitality/Tourism	\$46.9
TOTAL ENABLED INDUSTRIES	\$67.8
TOTAL GOLF ECONOMY	\$637.7

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.

Connecticut's 185 golf courses, 32 stand-alone ranges, and 29 miniature golf facilities generated nearly \$425.6 million of revenues in 2008.

Connecticut Golf Facility Revenues in 2008 (\$ millions)	
Golf Facilities	\$407.1
Practice Ranges & Alternative Facilities	\$18.5
TOTAL¹	\$425.6

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

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 services from companies within the state. SRI's estimate of Connecticut's golf course capital investment is divided into two segments: (1) capital investment at existing facilities and (2) new course construction. Together, Connecticut's golf facilities made \$59.8 million worth of capital investments in 2008: \$55.8 million of investments at existing facilities and \$4.0 million for the construction of new courses.

Connecticut Golf Course Construction and Capital Investment in 2008 (\$ millions)	
Golf Course Capital Investment¹	\$55.8
New Course Construction	\$4.0
TOTAL	\$59.8

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.

Golf-Related Supplies

In 2008, Connecticut golfers spent significant sums on golf balls, golf clubs, golf apparel, and golf instructional books and DVDs. 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. Connecticut is home to a number of magazine publishers, including the companies that publish *Golf Digest*, *Golf Range Magazine*, and *Pocket Caddie*. Several small manufacturers of high-end golf apparel, custom clubs, and accessories are also active in the state. In 2008, value-added production by Connecticut's golf magazine publishers (e.g., Golf Digest Publications) and golf apparel and equipment manufacturers (e.g., Fairway & Greene, Ashdown Golf, Roll-Master Golf, etc.) totaled

approximately \$44.2 million. On the retail side, Connecticut retailers and golf facilities earned approximately \$26.3 million on the sale of \$65.0 million of golf equipment, apparel, and media in 2008. In total, the Golf-Related Supplies segment contributed \$70.5 million in revenues to Connecticut's economy.

Connecticut Manufacturers' Value-Added Exports of Golf-Related Products in 2008 (\$ millions)	
TOTAL	\$44.2

Connecticut Retailers' Net Revenues on Consumer Purchases of Golf-Related Merchandise in 2008 (\$ millions)		
	Total purchases	Retail sales margin
Golf Equipment (retail margin)	\$54.4	\$22.0
Golf Apparel (retail margin)	\$9.7	\$3.9
Golf Media (retail margin)	\$0.8	\$0.3
TOTAL	\$65.0	\$26.3

Note: This includes on-course and off-course purchases of golf equipment, apparel and media. Column may not sum due to rounding. The margin does not account for unsold inventory. It is the margin on the sale of merchandise.

State Golf Associations, Tournaments and Charitable Events

Associations

Numerous associations represent the game of golf in Connecticut including the Connecticut State Golf Association, the Connecticut Section of The PGA of America, the Metropolitan Golf Association, the Metropolitan Section of The PGA of America, the Connecticut Association of Golf Course Superintendents, the Connecticut Club Managers Association, the Connecticut Women's Golf Association, the Southern New England Women's Golf Association, as well as seniors and other member-based golf associations. The First Tee of Connecticut aims to introduce youth to the game and values of golf. In 2008, Connecticut golf associations generated total revenues of \$4.1 million.

Major Tournaments

Each year, Connecticut plays host to the Travelers Championship, a PGA Tour event, and the ING New England Golf Classic (a Duramed FUTURES Tour event, which is the developmental tour for the LPGA). The ING New England Golf Classic is held each July at Wintonbury Hills Golf Club in Bloomfield, CT. The Travelers Championship, previously known as the Greater Hartford Open, is one of the state's largest sporting events and has been since it first debuted as the Insurance City Open in 1952. Since 2008, the tournament has been played in late June of each year one week after the U.S. Open. The venue for this championship event is the TPC at River Highlands in

Cromwell, CT. Major golf championships generate significant tourism revenues and economic impact for local economies because of the number of players, officials, and golf enthusiasts they bring to a state. In 2008, the Travelers Championship generated approximately \$9.9 million in direct tournament-related revenues, excluding the tournament purse and costs for TV broadcasting.

Connecticut's Major Golf Tournament & Golf Association Revenues in 2008 (\$ millions)	
Major tournaments	\$9.9
Associations	\$4.1
TOTAL	\$14.0

Charitable Giving

Connecticut's golf industry makes substantial contributions to a variety of charities. For example, the Travelers Championship donates 100 percent of its net proceeds to charity. In 2008, the championship event generated \$1 million, benefiting the Hole in the Wall Gang Camp and the Greater Hartford Jaycees. The Hole in the Wall Gang Camp, founded by Paul Newman in 1988, provides free, high-quality camp experiences to children with cancer and other serious illnesses. The Greater Hartford Jaycees fosters leadership development through community service. The Greater Hartford Jaycees are involved in organizing community projects for those in need and annually distributes thousands of dollars in scholarships and grants to residents and organizations in Greater Hartford. Locally, Connecticut golf clubs host several events in support of a number of local, state and national charities. For example, the Country Club of Farmington hosts an annual charity golf event which raises approximately \$100,000 in support of the Petit Family Foundation, and Bull's Bridge Golf Club hosts a benefit golf tournament for Kent's volunteer firefighters. 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 Connecticut to be \$32.0 million in 2008.

Charitable Giving by Connecticut's Golf Industry in 2008 (\$ millions)	
TOTAL	\$32.0

B. Enabled Industries

Real Estate

Real estate developers use amenities to attract new home buyers, and golf courses are a key amenity. As one of the oldest golf states in the country, Connecticut has a significant number of long-standing golf clubs and the oldest state golf association. Consequently, much of the real estate adjacent to existing golf courses has been significantly built out. Nevertheless, in 2008, two golf community developments were under way at Oxford Greens and River Oaks. This new golf-related residential construction generated average annual revenue of \$12 million. Furthermore, in 2008 there were approximately nine existing golf communities in Connecticut, and we estimate the “golf” premium associated with the sale of real estate in these developments to be \$8.9 million. The 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.

Connecticut’s Golf Real Estate Revenues in 2008 (\$ millions)	
Golf-Related Residential Construction	\$12.0
Realized Golf Premium	\$8.9
TOTAL	\$20.9

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 Connecticut, golf is an important tourism segment, alongside hiking, camping, fishing, and trips to historic sites. The state’s tourism website features golf as a key “active adventure” (<http://www.ctvisit.com>). In 2008, SRI estimates golf-related tourism spending in Connecticut was \$46.9 million. This is based on the following estimates of golf trips and associated expenditures by Connecticut residents and non-residents: (1) an estimated 48,251 day trips with average golf trip spending of \$75, and (2) an estimated 75,469 overnight trips with average golf trip spending of \$573.

Connecticut’s Golf-Related Travel Expenditures in 2008	
# of day trips	48,251
Average travel \$ per day trip	\$75.18
# of overnight trips	75,469
Average travel \$ per overnight trip	\$572.75
TOTAL	\$46.9 million







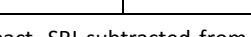
IV. GOLF'S ECONOMIC IMPACT IN CONNECTICUT

Golf's impact on Connecticut's 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 2008, the \$637.7 million Connecticut golf industry supported:

- A total economic impact of \$1.1 billion for the state of Connecticut including the indirect and induced economic impacts stimulated by golf sector activity;
- A total impact of nearly 11,570 jobs; and
- Total wage income of \$336.6 million.

Golf's Impact on Connecticut's Economy (2008)						
Industry	Direct	Indirect	Induced	TOTAL OUTPUT (\$ million)	TOTAL JOBS (\$ million)	TOTAL WAGE INCOME (\$ million)
Golf Facility Operations	\$425.6			\$783.7	8,830	\$250.5
Golf Course Capital Investment*	\$59.8			\$8.1	61	\$2.6
Golf-Related Supplies	\$70.5			\$134.3	933	\$37.1
Tournaments & Associations	\$14.0			\$28.0	399	\$10.3
Real Estate **	\$20.9			\$24.4	182	\$7.7
Hospitality/Tourism	\$46.9			\$89.7	1,165	\$28.4
TOTAL	\$637.7			\$1,068.2	11,570	\$336.6

Note: To calculate golf's total economic impact, SRI subtracted from the direct golf economy impact of \$637.7 million the portion of capital investment that is investment in existing facilities (\$55.8 million of \$59.8 million) and the portion of real estate that is the realized golf premium associated with the sale of real estate in existing developments (\$8.9 million of \$20.9 million). This is because:

*Golf course capital investments—Only new course construction has an indirect and induced economic impact. Other types of facility capital investment are typically financed through facility revenues and, therefore, are omitted to avoid double-counting.

**Real Estate—Only golf residential construction has an indirect and induced impact. The golf premium associated with golf real estate is considered a transfer of assets rather than new economic activity.

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, green fees, range fees, and cart rental fees; purchases of golf apparel

and equipment in pro shops³; 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

Estimates of Connecticut Golf Facilities from Various Sources, 2002-2008					
	2002 Census (# of facilities minus resorts & municipal)¹	2008 PGA (# of facilities)²	2008 CSGA (# of facilities)³	2008 NGF (# of facilities)⁴	2008 NGF (# of 18-hole equivalent courses)³
PRIVATE	71	81	80	75	70
PUBLIC	87	103	103	101	90.5
Daily fee/ semi-private		69	67		
Municipal					
Military		34	36		
University					
RESORT		0	2	3	2.5
TOTAL	158	184	185	179	163

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

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

³ Connecticut State Golf Association (2009). *Connecticut Golf Facility Database*.

⁴ NGF (2009). Total Facility Supply Tables 5-10, *Golf Facilities in the U.S., 2009 edition*, pp.5-10.

³ However, on-course merchandise sales are subtracted from facility revenue, because these sales are included in the Golf-Related Supplies industry segment.

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 Connecticut in 2008 or the latest available year.

After analysis of different golf facility numbers in collaboration with the Connecticut Golf Alliance, SRI used the CSGA numbers as the basis for our assessment. The CSGA's and PGA's total facility estimates are nearly identical, with minor differences by facility type. The PGA's and NGF's total facility estimates fall within a narrow range: NGF's 179 versus PGA's 184 facilities.

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 Census⁴ 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 2008. 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.

⁴ The most recent Economic Census is the 2007 Economic Census, but state-level data on golf facilities will not be publicly available until the fall of 2010.

Estimates of Connecticut Average Revenue per Facility Data From Different Sources, 2002-2005					
	Census (2002) ¹	PGA (2007) ²	PGA (2008) ³	CSGA/MGA (2008) ⁴	NGF (2005) ^{5,6}
Private facility	\$3,031,775	\$2,398,123	\$1,748,400	\$3,612,000	\$3,564,339
Daily fee facility	\$1,081,218	\$1,639,373	\$1,461,690	X	\$1,291,582
Resort facility	X	N/A	\$1,335,859	\$3,667,000	X
Municipal/military/ university facility	X	\$1,370,447	\$1,750,563	X	X
Driving range	X	X		X	\$350,000
Miniature golf	\$198,966	X		X	X

Note: Bolded values are a Connecticut and Rhode Island average.

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

² Professional Golfers' Association of America (2008). *2007 Operations Survey*.

³ Professional Golfers' Association of America (2009). *2008 Operations Survey*.

⁴ Metropolitan Golf Association Foundation (2008). *Cooperative Golf Club Survey*.

⁵ NGF (2006). *Operating & Financial Performance Profiles of 18-hole Golf Facilities in the U.S., 2006 edition*.

⁶ Golf Range Association of America (2006).

Average revenue data from the Census (2002), PGA (2007, 2008) and NGF (2005) are presented above. Note that the NGF average revenue figure for private facilities is a national average, not a Connecticut average, and the NGF average revenue figure for daily fee facilities is a Frostbelt regional average, not Connecticut specific. The 2002 Census average revenue data is typically lower than the 2008 PGA data. However, in the case of Connecticut, the Census private facility figure (\$3,031,775) is much higher than the PGA figure (\$2,398,123 in 2007 and \$1,748,400 in 2008). Therefore, we supplemented the PGA data with Connecticut golf facility survey data from the Metropolitan Golf Association Foundation's (MGAF) *2008 Cooperative Golf Club Survey*. This resulted in a new weighted private average revenue figure of \$3.6 million per facility.

Connecticut has two golf resorts: Heritage Hotel in Southbury featuring the 9-hole Paumpeaug Golf Course and Foxwoods Resort in Mashantucket featuring the Lake of Isles North Course. The Lake of Isles also has a private 18-hole South Course which was not included in the private facility calculation. Based on Connecticut State Golf Association primary research, average revenue for the two resorts is estimated to be \$3,667,000.

In consultation with the Connecticut Golf Alliance, SRI calculated total traditional facility revenues using the new MGAF/PGA weighted-average revenue data for private facilities, CSGA data for resort facilities, and PGA data for daily fee facilities and municipal/military/university facilities. Driving range revenues were calculated using the Golf Range Association of America's (GRAA) estimate of average revenue figure for golf ranges in 2006, and miniature golf facilities were calculated using Census (2002) data. We adjusted the GRAA and Census data for inflation to 2008 dollars using the GDP deflator.

2008 Golf Facility Operations Revenues		
Facility type	Calculation	Estimate
Private facilities	Average revenue ¹	\$3,245,553
	Number of facilities	80
	Total revenue [1]	\$259,644,263
Daily fee/semi-private facilities	Average revenue ¹	\$1,284,393
	Number of facilities	67
	Total revenue [2]	\$86,054,305
Municipal/military/university facilities	Average revenue ¹	\$1,521,519
	Number of facilities	36
	Total revenue [3]	\$54,774,692
Resort facilities	Average revenue ¹	\$3,299,732
	Number of facilities	2
	Total revenue [4]	\$6,599,465
Driving ranges	Average revenue	\$367,714
	Number of facilities	32
	Total revenue [5]	\$11,766,850
Miniature golf facilities	Average revenue	\$234,312
	Number of facilities	29
	Total revenue [6]	\$6,795,055
TOTAL	Sum [1] to [6]	\$425,634,630

Note: ¹In 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.

Sources: Private facility average revenue is a weighted average calculated using data from The PGA's 2008 Operations Survey and the Metropolitan Golf Association Foundation's 2008 Cooperative Golf Club Survey. Daily fee facility and municipal facility average revenue figures come from The PGA's 2008 Operations Survey. Resort facility average revenue comes from CSGA primary research. The standalone range average revenue figure comes from the Golf Range Association of America (2006). Miniature golf facilities average revenue data are from the 2002 Economic Census. Driving range and miniature golf facility revenue have been adjusted for inflation to 2008 dollars.

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.

Connecticut Golf Course Construction and Capital Investment in 2008 (\$ millions)	
Golf Course Capital Investment¹	\$55.8
New Course Construction	\$4.0
TOTAL	\$59.8

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 irrigation systems, and renovations of the clubhouse, proshop and maintenance buildings. Maintenance expenses are not included. SRI examined golf course capital investment from three sources: NGF, the GCSAA, and a Condon O’Meara McGinty & Donnelly survey of private golf and country clubs. The GCSAA data comes from golf course capital budget questions included in its 2005 and 2008 Compensation Surveys. The 2008 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). The Condon O’Meara McGinty & Donnelly data comes from a survey of capital expenditures at 27 out of 80 total private golf clubs in Connecticut, almost all of which were located in Fairfield County.

After review of the three data sets, SRI applied the GCSAA data to public golf facility capital investment calculations. We estimated average facility investments in Connecticut using the known distribution and type characteristics of facilities in the state. (See preceding section on number of facilities for sources.) SRI’s calculations indicate that Connecticut’s 103 public golf facilities made average annual investments in 2008 of \$94,260. In the case of private golf facilities, we supplemented the GCSAA private facility data with the Condon O’Meara data. Annual facility revenue and capital investment by private facilities in Fairfield County and a few other clubs are significantly higher than for private facilities in other parts of the state. When factoring in the much higher capital investments made by the 27 facilities covered in the Condon O’Meara survey, SRI estimates that Connecticut’s 80 private facilities made average annual capital investments of \$575,883 in 2008. In total, SRI estimates that public and private golf facility was \$55.8 million in 2008.

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 2008, NGF indicated that one new 9-hole opened at Blue Fox Run in Avon, CT, and another 9-hole course was under construction.

An estimate for the average investment required for each new golf course in Connecticut 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 Coastal Lowlands and the average (“normal”) costs for each of the various construction categories (see box below), SRI estimates the average investment required to build a new golf course in Connecticut is \$8.1 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. Assuming the average 18-hole course takes approximately two years to complete, then average investment per year is \$4.0 million for a new 18-hole course. We estimate the 9-hole course under construction and the 9-hole course opening at Blue Fox Run, CT, in 2008 total an average annual investment of \$2.0 million per course, for a total of \$4.0 million.

C. Golf-Related Supplies

This section explains our methodology for calculating Connecticut manufacturers' exports (i.e., shipments out-of-state) of high-end golf apparel, custom golf clubs, golf magazines, and other goods purchased 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. 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 media (e.g., magazine publishing), 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 magazine or golf ball is manufactured.

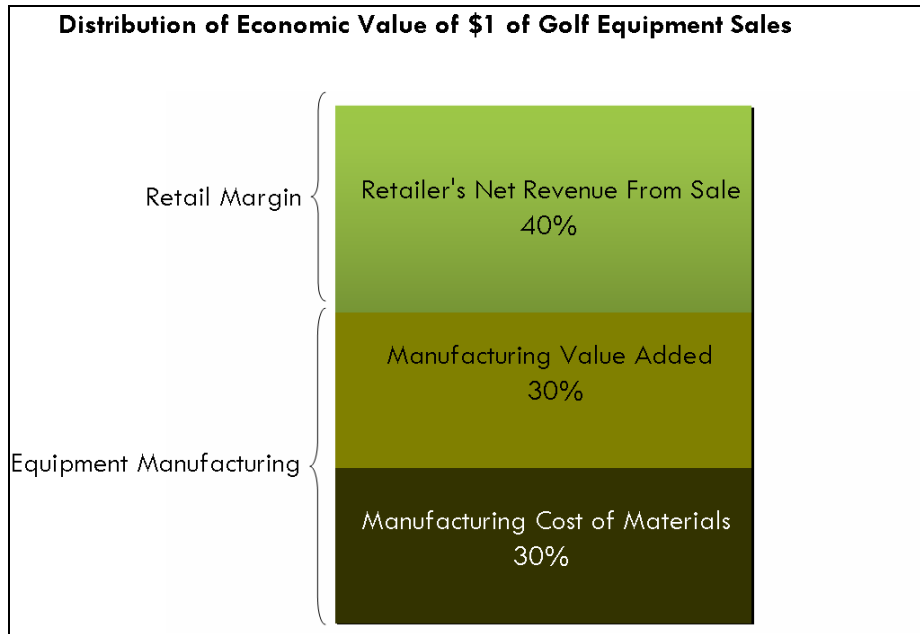
We began by working with the Connecticut Golf Alliance to identify manufacturers of golf-related products in the state. We identified a number of golf magazine publishers and small manufacturers of golf apparel and equipment in Connecticut—e.g., Golf Digest Publications, Fairway & Greene, Ashdown Golf, Roll-Master Golf, etc. We then conducted research on these companies to ascertain: (1) if they had production facilities in Connecticut, (2) the total value of their golf-related sales, and (3) 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*.

Connecticut Manufacturers' Value-Added Exports of Golf-Related Products in 2008 (\$ millions)	
TOTAL	\$44.2

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 2008, NSGA reported total U.S. off-course and on-course purchases of individual golf clubs to be \$573.9 million. The NSGA survey found the New England region accounted for 4.4% of these purchases, or \$25.3 million. Within the New England region, one can estimate Connecticut'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. Connecticut represents 20.5% of total 18-hole equivalent courses in the New England region, so this weight was applied to the region total (\$25.3 million) to estimate \$5.2 million of individual golf club sales in the state of Connecticut in 2008. Further, retail margins on final sales suggest that 40.5%, or \$2.1 million, of total sales was retained in the Connecticut economy. (See graphic below.)



Connecticut's On-Course and Off-Course Golf Equipment & Apparel Purchases, 2008		
Category	Calculation	Estimate (\$ million)
Golf club sets	New England region's sales	\$148.9
	CT's courses-based weight	20.5%
	CT's share of sales [1]	\$30.5
Golf apparel	New England region's sales	\$47.5
	CT's courses-based weight	20.5%
	CT's share of sales, [2]	\$9.7
Golf balls	New England region's sales	\$51.3
	CT's courses-based weight	20.5%
	CT's share of sales, [3]	\$10.5
Golf clubs	New England region's sales	\$25.3
	CT's courses-based weight	20.5%
	CT's share of sales, [4]	\$5.2
Golf bags	New England region's sales	\$28.3
	CT's courses-based weight	20.5%
	CT's share of sales, [5]	\$5.8
Golf shoes	New England region's sales	\$11.7
	CT's courses-based weight	20.5%
	CT's share of sales, [6]	\$2.4
TOTAL	Sum of [1] to [6]	\$64.2
Retail sales margin	Multiply TOTAL by 40.5%	\$26.0

Source: National Sporting Goods Association (2008). *The Sporting Goods Market in 2008*, 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. Connecticut is home to the companies that publish *Golf Digest*, *Golf Range Magazine*, and *Pocket Caddie*, and their value-added production is captured above. 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. 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 2008 were estimated to be \$811,152 with a retail sales margin of \$328,517. 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 Connecticut, 2008	
Category	Estimate
Connecticut retail book sales¹	\$193,131,490
Golf books as % of total book sales	0.4%
Total retail golf book sales	\$811,152
Retail sales margin	\$328,517

Note: ¹Adjusted for inflation into 2008 dollars using the appropriate GDP deflator.
Sources: Connecticut 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.

Connecticut Retailers’ Net Revenues on Consumer Purchases of Golf-Related Merchandise in 2008 (\$ millions)		
	Total purchases	Retail sales margin
Golf Equipment (retail margin)	\$54.4	\$22.0
Golf Apparel (retail margin)	\$9.7	\$3.9
Golf Media (retail margin)	\$0.8	\$0.3
TOTAL	\$65.0	\$26.3

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 gathered association revenue data for the largest state and regional golf organizations from these organizations' 990 income tax filings. These include the Connecticut State Golf Association, the Connecticut Section of the PGA, the Connecticut Association of Golf Course Superintendents, the Connecticut Club Managers Association, the Connecticut Women's Golf Association, the Southern New England Women's Golf Association, as well as seniors and other member-based golf associations.

Major Tournaments. In 2008, Connecticut hosted one professional golf tournament, the PGA Tour's Travelers Championship. We subtracted the tournament purse and cost of television broadcasting from total tournament revenues to estimate the revenues that remained in the state.

Connecticut's Major Golf Tournament & Golf Association Revenues in 2008 (\$ millions)	
Major tournaments	\$9.9
Associations	\$4.1
TOTAL	\$14.0

Charitable Events. Overall, SRI estimates that the amount of charitable giving attributed to the game of golf in Connecticut to be \$32.0 million in 2008. This estimate is derived from a national study⁵ 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 by Connecticut's Golf Industry in 2008 (\$ millions)	
TOTAL	\$32.0

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.

⁵ National Golf Foundation (2002). *The Charitable Impact Report*, November 2002.

Connecticut's Golf Real Estate Revenues in 2008 (\$ millions)	
Golf-Related Residential Construction	\$12.0
Realized Golf Premium	\$8.9
TOTAL	\$20.9

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.

Golf-related residential construction. For this industry segment, SRI used NGF data on new golf facility openings and construction, as well as online research to identify golf courses with residential construction in the study base year (2008). We then contacted these developments directly to collect information on the size of the development, the number of homes/townhomes/condos under construction in 2008, and the average construction costs per type of home (i.e., townhouse or single family home). Construction values can vary 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 identified only two Connecticut golf communities that were under development in 2008. A relatively small state with a high population density, residential development properties are at a premium in Connecticut with the land adjacent to existing golf courses largely built out. In addition, the overall real estate market and economic and financial conditions in 2008 sidelined a significant share of new home construction. The golf communities that were under development in 2008 ranged from the very high-end 66-home Club at River Oaks development in Sherman, CT, to the 800-home Golf Club at Oxford Greens development in Oxford, CT. No new homes were constructed at River Oaks in 2008, although homes were constructed in 2007 and 2009. Multiplying the total number of new homes under construction at the Golf Club at Oxford Greens with the average construction cost per unit yielded a total 2008 golf-related residential construction figure of \$12 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 \$75,000 per unit, since many golf communities are located in the metropolitan New York area. Multiplying the approximately 9 existing Connecticut golf communities by 400, the mean number of housing units per golf course, we arrive at a total of 3,600 golf community homes. In 2008, the home turnover rate (percentage of homes sold relative to the total housing stock) was 3.3 percent in Connecticut. 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 Connecticut's golf real estate premium was approximately \$8.9 million in 2008.

F. Hospitality/Tourism

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, such as the Travel Industry Association (TIA) of America's TravelScope® surveys, now conducted by D.K. Shifflet & Associates (DKSA) and marketed as TravelScope®/Directions®. SRI used TIA TravelScope® data for the total number of visitor trips in Connecticut: 12 million in 2003, which is the most recent estimate available for total Connecticut visitor trips.⁶ Applying the growth rate in U.S. visitor trips from 2003 to 2008 (0.6% CAGR) to the 2003 figure, SRI estimates that the total number of visitor trips in Connecticut in 2008 was 12.4 million.⁷

A recent study commissioned by Connecticut Commission on Culture and Tourism estimated that approximately 1 percent of Connecticut's visitors played golf and/or tennis while on a trip.⁸ Based on this survey data and survey data for neighboring New York State (also 1 percent), SRI calculated that 123,720 golf trips were taken in Connecticut in 2008. SRI defines a "golf trip" as a trip in which a Connecticut resident or non-resident travels 50-plus miles to, through, or within the state and plays golf while on this trip. This figure includes trips to Connecticut golf resort destinations (of which Connecticut has two), 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 professional and amateur golf tournaments played annually in Connecticut.

⁶ Travel Industry Association (TIA) of America's TravelScope®, 2003, cited in Connecticut Commission on Culture & Tourism, *Strategic Marketing Plan 2005-2006*, slide 10.

http://www.ctvisit.com/PDFS/2005_CT_Tourism_Strategic_Plan.pdf

⁷ The estimate for the number of domestic person trips in 2003 in the U.S. was 1,890.3 million, according to the Travel Industry Association (TIA) of America

http://www.tia.org/researchpubs/us_overview_volumes_trends.html.

The estimate for the number of domestic person trips in 2008 in the U.S. was 1,948 million, according to IHS Global Insight & D.K. Shifflet & Associates, Ltd. *US Travel Insights: The Outlook for Domestic Travel & International Arrivals*, June 2009, Table 2, p.10

<https://www.dksa.com/downloads/USForecast061809.pdf>.

Based on these figures, the U.S. compound annual growth rate (CAGR) in domestic person trips from 2003 to 2008 was calculated to be 0.6 percent.

⁸ Witan Intelligence Strategies, Inc. (2009). *VISION 2009 Connecticut Visitor Intercept Study*.

Using SRI’s estimate of golf trips (123,720) and TIA TravelScope®’s estimate of the percent of day trips (39%) versus overnight trips (61%) in 2003, SRI calculated that 48,251 Connecticut golf day trips and 75,469 golf overnight trips were made in 2008. This figure (123,720 total golf trips, day and overnight) seems plausible given the PGA of America’s estimate of 4.4 million rounds played in Connecticut.

Average spending per golf trip. SRI estimated that average spending per golf trip in Connecticut in 2008 was \$75 per day trip and \$573 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), report and adjusted average trip spending based upon cost of living in Connecticut vis-à-vis the rest of the country, as well as other average trip expenditure research. 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 Connecticut was approximately \$3.6 million for day trips and \$43.2 million for overnight trips, totaling \$46.9 million.

Connecticut’s Golf-Related Travel Expenditures in 2008	
# Golf person day trips	48,251
Average travel \$ per person per day trip	\$75.18
# Golf person overnight trips	75,469
Average travel \$ per person per overnight trip	\$572.75
Total	\$46.9 million

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.

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 Connecticut’s golf economy.

Golf's Impact on Connecticut's Economy (2008)						
Industry	Direct	Indirect	Induced	TOTAL OUTPUT (\$ million)	TOTAL JOBS (\$ million)	TOTAL WAGE INCOME (\$ million)
Golf Facility Operations	\$425.6			\$783.7	8,830	\$250.5
Golf Course Capital Investment*	\$59.8			\$8.1	61	\$2.6
Golf-Related Supplies	\$70.5			\$134.3	933	\$37.1
Tournaments & Associations	\$14.0			\$28.0	399	\$10.3
Real Estate **	\$20.9			\$24.4	182	\$7.7
Hospitality/Tourism	\$46.9			\$89.7	1,165	\$28.4
TOTAL	\$637.7			\$1,068.2	11,570	\$336.6

Note: To calculate golf's total economic impact, SRI subtracted from the direct golf economy impact of \$637.7 million the portion of capital investment that is investment in existing facilities (\$55.8 million of \$59.8 million) and the portion of real estate that is the realized golf premium associated with the sale of real estate in existing developments (\$8.9 million of \$20.9 million). This is because:

*Golf course capital investments—Only new course construction has an indirect and induced economic impact. Other types of facility capital investment are typically financed through facility revenues and, therefore, are omitted to avoid double-counting.

**Real Estate—Only golf residential construction has an indirect and induced impact. The golf premium associated with golf real estate is considered a transfer of assets rather than new economic activity.

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