THE 2005
GOLF ECONOMY REPORT

TABLE OF CONTENTS

LIST OF ACRONYMS

CMAA	Club Managers Association of America
GCBAA	Golf Course Builders Association of America
GCSAA	Golf Course Superintendents Association of America
GRAA	Golf Range Association of America
GDP	Gross Domestic Product
LPGA	Ladies Professional Golf Association
NGF	National Golf Foundation
NSGA	National Sporting Goods Association
PGA	Professional Golfers' Association of America
TIA	Travel Industry Association of America
USGA	United States Golf Association

I. OVERVIEW

Since its emergence as a major spectator sport in the 1920s, the game of golf has provided lifelong recreational opportunities and enjoyment for millions of people. Golf attracted more than 40 million participants in 2005.[1] Since the first Golf Economy Report covering the year 2000, the number of golf courses grew from approximately 15,000 to more than 16,000 in 2005. Today, Tiger Woods remains one of America's most revered athletes and the golf industry has recovered from significant declines in revenue and participation following the "dot.com" bust in 2000 and the economic fallout from 9/11/2001.

Beyond its sport and recreational value, golf is at the heart of a major industry cluster that generates jobs, commerce, economic development, and tax revenues for communities throughout the country. **The U.S. golf economy generated $76 billion of goods and services in the year 2005.** This represents an average annual growth rate of 4.1 percent since 2000 (when the estimated size of the industry was $62 billion),[2] and primarily reflects growth in golf facility revenues, real estate, and golf-related tourism. Golf industry growth over this five-year period stayed ahead of inflation, which averaged 2.5 percent per year from 2000. In addition, SRI estimates that **golf generated a total economic impact of $195 billion in 2005, creating approximately 2 million jobs with wage income of $61 billion.**

This report describes the U.S. golf industry in the year 2005, including the revenues and economic impact generated, and compares these estimates to the year 2000. It highlights changes in the golf industry in the five years from 2000 to 2005, and presents the performance of different golf industry segments.

Delineation of the golf industry cluster and development of the corresponding analytical model were first undertaken in 2002. At that time, SRI and GOLF 20/20 worked with key golf industry stakeholders to forge a consistent industry measurement and reporting framework, which accounts for the myriad contributions of golf to the national economy. Since then, SRI, GOLF 20/20, and a number of state-level task forces have applied this methodology to the impact of golf on state economies.[3] This 2005 report updates *The 2000 Golf Economy Report*[4] and includes improvements to the analytical model, based on SRI's experience with both national and state data sources in recent years. In addition, *The 2005 Golf Economy Report* presents the direct, indirect, induced, and total economic impact of golf on the U.S. economy, which was not included in the 2000 estimate.

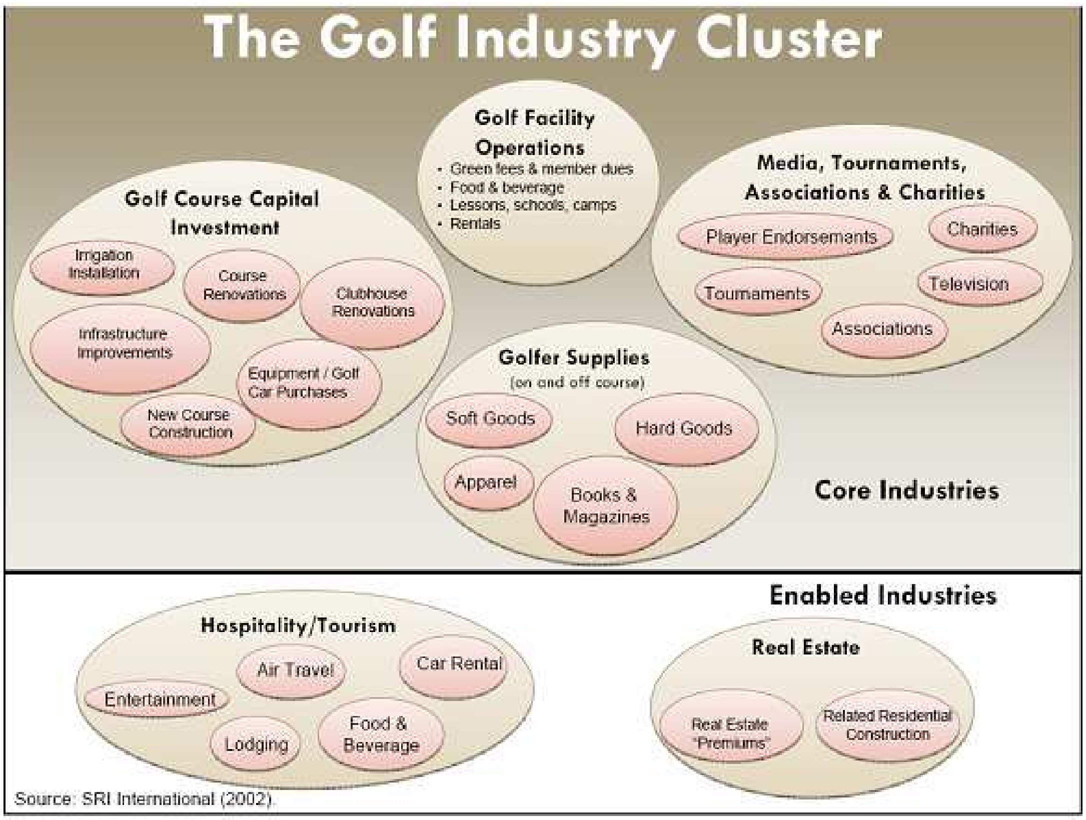
This report was researched and written by SRI International, commissioned by GOLF 20/20, and funded through support from the Allied Associations of Golf: the Club Managers Association of America (CMAA), the Golf Course Superintendents Association of America (GCSAA), the Ladies Professional Golf Association (LPGA), the National Golf Course Owners Association (NGCOA), the Professional Golfers' Association (PGA) of America, the PGA TOUR, and the United States Golf Association (USGA).

[1] National Golf Foundation (2007), *Golf Industry Report*, Volume 7, Second Quarter 2007.
[2] This is calculated using a compound average annual growth rate.
[3] State studies have been undertaken by SRI for Iowa, Louisiana, Massachusetts, Michigan, Minnesota, Ohio, Texas, and Virginia.
[4] SRI International (2002). *The Golf Economy Report*, http://www.golf2020.com/Reports/2020_GER_F.pdf

II. ANALYTIC FRAMEWORK

The Golf Industry Cluster map pictured below illustrates the analytical framework employed to measure the comprehensive set of golf-driven industry components in the year 2000. This framework, with several improvements, is again applied to the analysis of golf in 2005.

To arrive at economic impact, we first estimated the size of the golf economy in the country, mapping out where the golf industry begins and ends, and then estimating the size of each of these industry segments. We divided 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 the 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 club management services. The game of golf further enables a number of other industries, such as golf-related tourism and real estate development.

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 economic output and (2) impact on total employment. However, this process is complicated by the fact that, while most of these industries produce golf-related goods and services, many companies may not limit their activities exclusively to the golf industry. Therefore, in general, our approach is to include only those revenues that are directly attributable or linked to the game of golf. In so doing, we used a number of different estimation techniques to ensure that our final estimates are reasonable and robust.

III. THE 2005 GOLF ECONOMY

SRI estimates the total size of the national golf economy in 2005 was approximately $76 billion. This estimate is comprised of $43 billion in core industries and an additional $33 billion in enabled industries, as illustrated in the table below.[5]

The total U.S. golf economy grew by $13.8 billion over this five-year period, representing an average annual growth rate of 4.1 percent.[6] This compares to an average annual inflation growth rate of 2.5 percent from 2000-2005.[7]

Size of the U.S. Golf Economy by Industry Segment, 2000 and 2005 ($ millions)		
	2000	2005
CORE INDUSTRIES		
Golf Facility Operations	$20,496	$28,052
Golf Course Capital Investment	$7,812	$3,578
Golfer Supplies	$5,982	$6,151
Endorsements, Tournaments & Associations	$1,293	$1,682
Charities	$3,200	$3,501
Total Core Industries	**$38,783**	**$42,964**
Real Estate	$9,904	$14,973
Hospitality/Tourism	$13,480	$18,001
Total Enabled Industries	**$23,384**	**$32,975**
TOTAL GOLF ECONOMY	**$62,167**	**$75,938**

Note: Columns may not sum due to rounding of individual estimates.

From 2000 to 2005, U.S. golf economy growth was driven primarily by three industry segments: golf facility operations, golf-related real estate, and hospitality/tourism.

In 2000, the size of the total golf economy was $62.2 billion. Facility revenue grew from $20.5 billion in 2000 to $28.1 billion in 2005. Tournament and association revenues also increased

[5] All figures, unless otherwise noted, have been adjusted to year 2005 dollars using the implicit GDP price index (sometimes known as the GDP deflator).
[6] This is calculated using a compound average annual growth rate.
[7] U.S. Bureau of Labor Statistics, Consumer Price Index, http://www.bls.gov/cpi/

during this period, while golf course capital investment declined substantially—the result of a slowing rate of golf course construction during this period, as well as a changing economic landscape for operators which reduced average annual capital expenditures. In the enabled industries, golf community construction followed the national housing boom growing to $14.9 billion in 2005. Golf-related hospitality/tourism also exhibited strong growth rising to $18 billion.

The size of the golf economy is significant and comparisons to other industries illustrate this point. It is larger than newspaper publishing, performing arts and spectator sports, and the motion picture and video industries.

Size of the U.S. Golf Economy in Comparison to Other Industries, 2005 ($ billions)	
Newspapers[1]	$50.1
Performing arts, spectator sports, and related industries[2]	$64.7
Motion pictures and videos[2]	$73.9
Golf (including core and enabled industries)	**$75.9**

Note: Revenues for comparison industries adjusted from 2004 dollars to 2005 dollars using the GDP deflator.
Source: [1] U.S. Census Bureau, "2004 Service Annual Survey, Information Sector Services," published December 2005; [2] U.S. Census Bureau, "2004 Service Annual Survey, Arts, Entertainment, and Recreation Services," published April 2006; [3] U.S. Census Bureau, Current Business Reports, Annual Revision of Monthly Retail and Food Services: Sales and Inventories—January 1992 Through February 2006, Series BR/05-A..

A. GOLF'S ECONOMIC IMPACT

Golf's impact on the U.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 portion of each dollar spent at a golf course is spent by the course owner to purchase goods and services for the golf operation. The producers or these goods and services must, in turn, increase production—these are indirect effects. In addition, golf course employees spend a portion of their incomes on personal goods and services, and this requires companies in a myriad of other industries to hire employees and increase output to meet this demand—these are induced effects.

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

Overall, in 2005, the $76 billion national golf economy generated:

- A total impact of $195 billion for the U.S. economy, including the indirect and induced economic impacts of the golf industry's activities;

- A total impact of 2 million jobs; and
- Total wage income of $61 billion.

Multiplier Impacts on National Economy, 2005

Industry	Direct	Indirect	Induced	TOTAL OUTPUT ($ millions)	TOTAL JOBS	TOTAL WAGE INCOME ($ millions)
Golf Facility Operations	$28,052	→	→	$81,231	913,161	$25,932
Golf Course Capital Investment*	$3,578	→	→	$4,872	38,749	$1,498
Golfer Supplies**	$6,151	→	→	$7,126	71,149	$2,164
Endorsements, Tournaments & Associations	$1,682	→	→	$5,403	57,656	$1,871
Charities***	$3,501	→	→	-	-	-
Real Estate ****	$14,973	→	→	$39,933	317,570	$12,276
Hospitality/Tourism	$18,001	→	→	$56,549	668,120	$17,444
TOTAL	**$75,938**	→	→	**$195,115**	**2,066,404**	**$61,183**

Note: Some of the industry segments included in the direct economy calculations are excluded from the economic impact estimation, because they do not represent new economic activity or their inclusion would result in double-counting. Economic impact analysis is calculated on $63.2 billion of direct golf economy revenues. The following industry segments are excluded in the economic impact analysis: (1) *capital investment—only new golf course construction is included for this category since other types of golf facility capital investment are typically financed through facility revenues (and therefore not included because of double counting); (2) **golfer supplies—only the retail margin from the sale of golfer supplies is included in economic impact estimation, since the U.S. is a net importer of golf equipment and apparel; (3) ***charitable giving—this is a transfer of income rather than new economic activity; and (4) ****real estate—new golf-related residential construction is included for this category, but the golf premium (the additional amount a buyer is willing to pay for a home located on/near a golf course) is considered a transfer or assets rather than new economic activity.

B. 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, range fees, golf car rentals, 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. The country's 16,052 golf courses, 1,900 stand-alone ranges, and 1,392 miniature golf facilities generated $28.1 billion in revenues in 2005.

Golf Facility Revenues in 2005 ($ millions)	
Golf Facilities	$26,957.9
Practice Ranges & Alternative Facilities	$1,094.3
TOTAL[1]	**$28,052.3**

Note: [1]Golf facility revenues exclude on-course merchandise sales, which are included in the Golfer Supplies industry segment. Column does not sum due to rounding.

Golf facility revenue is quite impressive on its own, but is even more so when compared to other popular sports. For example, all spectator sports, including baseball, basketball, football, and hockey brought in revenues of $24.4 billion in 2005. The gaming industry had annual revenues of approximately $26.5 billion, and fitness and recreational sports centers had annual revenues of $16.8 billion in 2005.[8]

Golf Course Capital Investments

Every year, existing golf courses invest in renovating pro shops and clubhouses, improving greens and tees, repaving cart paths, and other improvements. Average facility capital investments declined substantially from 2000-2005 reflecting a changing economic landscape. SRI estimates that existing golf facilities made a total capital investment of $2.2 billion in 2005.

In addition to maintaining and renovating existing facilities, considerable investment is made each year in constructing new golf courses. Investment in golf course construction includes the costs of constructing the golf course, clubhouse, pro shop and maintenance buildings, as well as the initial outlay on equipment and course amenities.

In 2005, approximately 390 golf course construction projects were underway (268 new facilities and 122 major golf course expansion projects). These 390 projects represent a sharp decline from the 707 construction projects undertaken in 2000. New golf course construction has been in decline since 1998, reflecting a correction of golf course supply and demand. SRI estimates new golf course construction contributed $1.4 billion to the U.S. economy in 2005.

In total, golf course capital investments were $3.6 billion in 2005.

Golf Course Construction and Capital Investment in 2005 ($ millions)	
Existing Facility Capital Investment	$2,159.2
New Golf Course Construction	$1,418.8
TOTAL	**$3,578.0**

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

[8] U.S. Bureau of the Census, *2004 Annual Survey: Arts, Entertainment, and Recreation Services*, April 2006.

Golfer Supplies

In 2005, American golfers spent significant sums on items, such as golf balls, golf clubs, golf apparel, and golf books. The United States is home to a number of companies that manufacture golf equipment, golf apparel, and other golf-related products. The economic value that accrues to the U.S. economy comes from both the production and retail sales of such items. However, because the U.S. is a net importer of golfer supplies, we focus on the retail side of the picture at the national level.

In 2005, Americans spent $6.2 billion on golfer supplies. Of this amount, the largest proportion, or $3.7 billion, was spent on equipment, such as golf clubs, golf balls, and golf bags. Americans purchased $1.5 billion worth of apparel, including popular polo shirts with golf-related brands (Ashworth, Cutter & Buck, Nike Golf, etc.) that are worn on and off the course. Golf magazines represented approximately $860 million of total purchases in 2005. These magazines range from large, general interest golf magazines, such as *Golf Digest* and *Golf World*, to regional and specialty magazines such as *Travel & Leisure Golf*. Finally, Americans spent approximately $65 million on golf books in 2005. These golf books include course guides, instructional books, golfer biographies—such as John Daly's *My Life In and Out of the Rough*—histories of the game, and other golf-related topics. In total, golfer supplies totaled $6.2 billion in 2005.[9]

Consumer Purchases of Golfer Supplies in 2005 ($ millions)	
Equipment	$3,724.4
Apparel	$1,500.5
Magazines	$860.8
Books	$65.2
TOTAL	**$6,150.9**

Note: This includes on-course and off-course purchases of golf equipment, apparel and media.

Endorsements, Tournaments, and Associations

This portion of the golf cluster encompasses industries related to advertising and entertainment, where customers see golf as a source of entertainment—e.g., watching the U.S. Open on TV—as well as a participation sport. It includes major tournaments, industry and player associations, and endorsements of individual players. Total revenues for this industry segment reached $1.7 billion in 2005.

[9] In calculating the economic impact of these retail sales, the economic multiplier is applied to the margin that the retailer makes from the sale of the golf product (i.e., the retailer's net revenues after covering the cost of purchasing the wholesale golf equipment or apparel from the manufacturer). The margin that U.S. retailers and golf facilities made on the sale of golfer supplies in 2005 totaled $2.5 billion.

Tournaments

Major golf tournaments directed by the PGA of America, the PGA TOUR, the USGA, and the LPGA generated approximately $954 million in 2005. Tournament revenues include fees generated by selling broadcast rights to tournaments, corporate sponsorship of events, and spectator ticket sales and merchandise purchases.

Endorsements

Some golfers are themselves mini-advertising and product endorsement industries, often earning more off the golf course than on the golf course. Endorsement earnings can come from both golf-related industries (club and apparel manufacturers) as well as completely unrelated industries, such as food and automobiles. While golf superstars are the most visible of these endorsement recipients, many other professional golfers receive smaller sums for endorsing products. In total, SRI estimates that golfers received $265 million for endorsements in 2005.

Associations

Numerous golf associations represent different segments of the industry in the United States (e.g., golf professionals, course owners, merchandisers, superintendents, etc.). These associations provide valuable services to their members including updates on equipment and rules, personal job and retirement benefits, certifications, professional development assistance, referral services, and other information. The major national-level associations, such as the CMAA, GCSAA, NGCOA, PGA of America, and the USGA, are represented at the state- or regional-level by chapters. In 2005, the aggregate size of these professional associations was approximately $464 million.[10]

Endorsements, Tournaments, and Association Revenues in 2005 ($ millions)	
Major Tournaments	$953.7
Player Endorsements	$265.0
Associations	$463.6
TOTAL	**$1,682.3**

Charities

The U.S. golf industry makes substantial contributions to a variety of charities. Golf course owners, operators and golf professionals are happy to serve as access points for annual fundraising by local service organizations. Golfers pay fees to play charity golf tournaments at their local golf club or a neighboring facility, with proceeds going to local charities or local branches of national charitable foundations. Revenues accruing to golf courses have been

[10] A small number of associations (though representing a large share of economic impact) secure a large percentage of their revenues from professional golf tournaments. These tournament-related activities are included exclusively in the "Tournaments" section above.

included in the Golf Facilities segment above, and the portion going to charities is included here. Overall, SRI estimates that the amount of charitable giving attributed to the game of golf in the U.S. to be $3.5 billion in 2005.[11]

Charitable Giving in 2005 ($ millions)	
TOTAL	**$3,501.1**

Note: Charitable giving is not included in economic impact estimation, because it represents a transfer of income rather than new economic activity.

C. ENABLED INDUSTRIES

Real Estate

Real estate developers are increasingly using golf to attract new home buyers to vacation properties and primary residences. Golf affects real estate on two fronts: golf community residential construction and the impact of the location of golf courses on home values. An estimated 63,840 golf course homes were constructed in 2005 at a total cost of $11.6 billion. Additionally, SRI estimates that new golf courses generated $3.3 billion in increased real estate value or premium (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). In total, we estimate the total value of golf-related real estate to be approximately $14.9 billion in 2005. This represents a 51% increase in economic activity for golf-related real estate and is consistent with the historical peak of the housing market in 2005 in terms of units sold.

Golf-Related Residential Real Estate in 2005 ($ millions)	
Golf-Related Residential Construction	$11,628.0
Realized Golf Premium	$3,345.4
TOTAL	**$14,973.4**

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, whether it is the primary motivation for a trip or is connected to other recreational time spent with friends and family, or business colleagues. Golf resorts attract business meetings and vacationers, and golf is often a secondary activity for those visiting friends and family. Core golf enthusiasts follow professional golfers and

[11] This estimate is derived from a national study based on the number of charitable golf outings held; the discounted fees, services and staff time for these events; as well as the charitable giving associated with professional golf tournaments. National Golf Foundation (2002). *The Charitable Impact Report*, November 2002.

thousands of fans attend major tournaments. They also travel to play at famous golf courses (e.g., Pebble Beach) or to play at courses outside of their immediate community.

SRI estimates that approximately 39.8 million golf person trips were taken in 2005 with average golf tourism spending of $452 per person per trip. In total, golf-related travel expenditures amounted to an estimated $18.0 billion in 2005.

U.S. Golf-Related Travel Expenditures in 2005	
# Golf person trips (million)	39.8
Average travel $ per person per trip	$452
TOTAL ($ MILLIONS)	**$18,001.2**

D. CONCLUSIONS

- The game of golf is an industry in its own right, and contributes significantly to the U.S. economy.
- From 2000-2005, U.S. golf economy growth was 4.1% per year, slightly ahead of the annual average inflation rate of 2.5%.
- Growth was driven primarily by facility operations, the impact of the national housing boom on golf-related real estate, and recovery in the tourism sector following 9/11/2001.
- Golf facility operations experienced gains driven primarily by higher revenues and also by a net gain in the number of courses.
- Golf economy growth was dampened by a slowing rate of golf course construction (representing a correction in the oversupply of courses) and significantly lower, average capital investment made by facilities in response to the changing economic landscape.
- Golf equipment and supplies sales remained relatively level over this period.
- As a $76 billion industry, the continued health and growth of the golf industry has a direct bearing on future jobs, commerce, economic development, and tax revenues for a large number of U.S. communities and industries.
- The total economic impact of golf on the economy of the United States in 2005 was $195 billion.
- The golf economy includes a total impact of 2 million jobs, and total wage income of $61 billion.

IV. DETAILED METHODOLOGY & SOURCES

This section outlines in more detail the methodologies and sources used to construct estimates of each element in the golf economy. A key challenge in this type of analysis is to identify reliable data sources for measuring the size of industry components. In some cases, data sources that we used for measuring the 2000 national golf economy could not be used for measuring the 2005 golf economy (e.g., golf tourism). In other cases, the SRI team made improvements to the estimation methodology based on ongoing work in measuring state golf economies (e.g., golf real estate premium). The SRI team made its best effort to maintain consistency in methodology and data sources to preserve comparability between time periods. We note, below, those instances in which changes in data sources and/or methodology occurred. 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 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. Using facility data from the PGA of America supplemented with National Golf Foundation (NGF) and U.S. Census Bureau data on golf facilities, SRI estimated the average revenue collected at the average golf facility.[12] This was then multiplied by the number of golf facilities in the country to arrive at total revenue in each of five facility segments: (1) private golf facilities, (2) daily fee/semi-private golf facilities, (3) resort facilities, (4) municipal/military/university golf facilities, and (5) non-traditional facilities.

Number of Golf Course Facilities

Many golf organizations track the number of golf facilities in the United States: the PGA of America, NGF, 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.

These organizations' calculations of the total numbers of golf courses, and categorization of facilities by type, are not always consistent with each other due to: (1) absence of data for courses which are not members (e.g., PGA tracks those courses with a PGA member) or for particular subsets of courses (e.g., municipal facilities and golf resort facilities are not tracked by

[12] Note that spending on golf equipment and merchandise is excluded from the golf facilities estimate, as this is included in the "Golfer Supplies" segment below.

the Census), (2) annual facility or course closures and openings, and (3) inconsistency in the classification of courses, especially resorts.

The chart below shows SRI's estimates for golf facilities by type. NGF maintains the most comprehensive facility data, and these are used for private, daily fee, resort, and municipal/military/university courses. The golf range estimate comes from the Golf Range Association of America (GRAA), and the miniature golf course estimate comes from the Census Bureau. There were a total of 19,344 golf facilities in 2005. This includes 16,052 traditional facilities (private, daily fee/semi-private, resort, and municipal/military/university facilities).

Number of U.S. Golf Facilities in 2005	
Private[1]	4,265
Daily Fee/Semi-Private[1]	8,406
Resort[1]	798
Municipal/Military/University[1]	2,583
Golf Range[2]	1,900
Miniature Golf[3]	1,392
TOTAL	**19,344**

Sources: [1] National Golf Foundation, *Golf Facilities in the U.S., 2006 Edition.*
[2] Golf Range Association of America (GRAA).
[3] U.S. Census Bureau, 2002 Economic Census.

Average Revenue per Facility

The SRI team collected average revenue data from a number of sources. Here again, the data challenge was that average facility revenues 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. The last such census was in 2002. 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) 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 nationally. 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 2005. PGA revenue data are broken down by type of facility—private, daily fee, resort, municipal/military/university—for categories for which Census data are not available. As an additional validity check, we also examined NGF revenue data. Average revenue data from the Census (2002), PGA (2005) and NGF (2005) are presented below.

Estimates of Average Revenue per Facility from Different Sources, 2002-2005

	Census (2002)[1]	PGA (2005)[2]	NGF (2005)[3,4]
Private facility	$2,213,755	$2,530,343	$3,564,339
Daily fee facility	$1,284,168	$1,687,443	$1,615,239
Resort facility	X	$2,474,656	X
Municipal/military/university facility	X	$1,232,230	X
Driving range	X	X	$350,000
Miniature golf	$308,407	X	X

Note: Census (2002) and GRAA and NGF (2003) data were adjusted to 2005 dollars using the GDP deflator.
Sources: [1] U.S. Census Bureau, *2002 Economic Census.*
[2] Professional Golfers' Association of America (2006). *Operations Survey 2006.*
[3] NGF (2006). *Operating & Financial Performance Profiles of 18-hole Golf Facilities in the U.S., 2007 edition.*
[4] Golf Range Association of America and NGF (2003). *Profile of Golf Practice Facility Operations 2003.*

In consultation with GOLF 20/20, SRI used PGA average facility revenue data to calculate total revenues for private facilities, daily fee facilities, resorts, and municipal/military/university facilities. Driving range revenues were calculated using GRAA and NGF (2003) data, and miniature golf facilities were calculated using Census (2002) data.

As shown below, this analysis yielded an estimate of $31.2 billion in total facility operations revenue. SRI then subtracted total on-course merchandise sales from the total, because these sales are accounted for the in the Golfer Supplies segment. Total 2005 net revenues are then calculated to be $28.1 billion.

Golf Facility Operations Revenues in 2005

Facility type	Calculation	Estimate($000's)
Private facilities	Average revenue	$2,530.3
	Number of facilities	4,265
	Total revenue [1]	$10,791,912.5
Daily fee facilities	Average revenue	$1,687.4
	Number of facilities	8,406
	Total revenue [2]	$14,184,642.6
Municipal/military/university facilities	Average revenue	$1,232.2
	Number of facilities	2,583
	Total revenue [4]	$3,182,849.1

Golf Facility Operations Revenues in 2005 (continued)		
FACILITY TYPE	CALCULATION	ESTIMATE($000'S)
Resort facilities	Average revenue	$2,474.7
	Number of facilities	798
	Total revenue [3]	$1,974,775.7
Driving ranges	Average revenue	$350
	Number of facilities	1,900
	Total revenue [5]	$665,000.0
Miniature golf facilities	Average revenue	$308
	Number of facilities	1,392
	Total revenue [6]	$429,302.5
TOTAL[1]	Sum [1] to [6]	$31,228,482.4
ON-COURSE MERCHANDISE SALES		$3,176.2
TOTAL REVENUE NET ON-COURSE SALES[2]		**$28,052,252.4**

Note: [1] Numbers do not sum due to rounding of average revenues per facility type. [2] On-course merchandise sales were subtracted from average facility revenue because on-course merchandise sales are included in the Golfer Supplies industry segment.

Sources: Golf facilities average revenue data are from the PGA of America (2006), *Operations Survey 2006*. Driving range average revenue data from the Golf Range Association of America and from NGF (2003), *Profile of Golf Practice Facility Operations*. Miniature golf facilities average revenue data are from the *2002 Economic Census*.

B. GOLF COURSE CAPITAL INVESTMENTS

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

Golf Course Construction and Capital Investment in 2005 ($ millions)	
Golf Course Capital Investment[1]	$2,159.2
New Course Construction	$1,418.8
TOTAL	**$3,578.0**

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.

Investments at Existing Courses

Golf course capital investment includes such things as 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. SRI examined golf course capital investment from two sources: the Golf Course Superintendents Association of America (GCSAA) and NGF. The GCSAA data comes from golf course capital expenditure/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 region; 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 used the GCSAA data in our capital investment calculations. We estimated average facility investment across the country's diverse courses (public and private, 9-hole to 45-hole) to be $134,513. Multiplying this figure by the 16,052 golf facilities in 2005, we arrived at a total capital investment figure of $2.2 billion.

New Course Construction

For this segment, we multiplied the estimated number of 18-hole equivalent golf courses under construction in 2005 by the average cost of construction. We included both new facility construction, as well as expansions. New course construction data come from the NGF which tracks annual golf course openings, closings and construction projects. In 2005, NGF estimated there were 238.5 new golf course facilities under construction and 69.5 expansions.

Average golf course construction cost data comes from the National Golf Course Builders Association of America (NGCBAA). In 2005, NGCBAA estimated the average cost of constructing a golf course was $5.2 million. SRI used this figure to calculate total investment in 18-hole equivalent golf course expansions. However, according to golf course architecture and design consultants, golf course construction, alone, accounts for only half of the total cost of constructing a new golf facility. An equal amount is spent on the construction of the clubhouse, pro shop, maintenance buildings and initial purchase of equipment and course amenities, etc. Therefore, we estimate the average cost of constructing a new 18-hole facility to be $10.4 million. Finally, we assume a two-year build-out rate for new golf course construction.

Investment in New Golf Course Construction, 2005

	Expansions	New facilities	Total
# of new courses under construction (18-hole equivalent)	69.5	238.5	**308.0**
Avg construction cost per year	$2,596,218	$5,192,437	
Total ($ millions)	**$180.4**	**$1,238.4**	**$1,418.8**

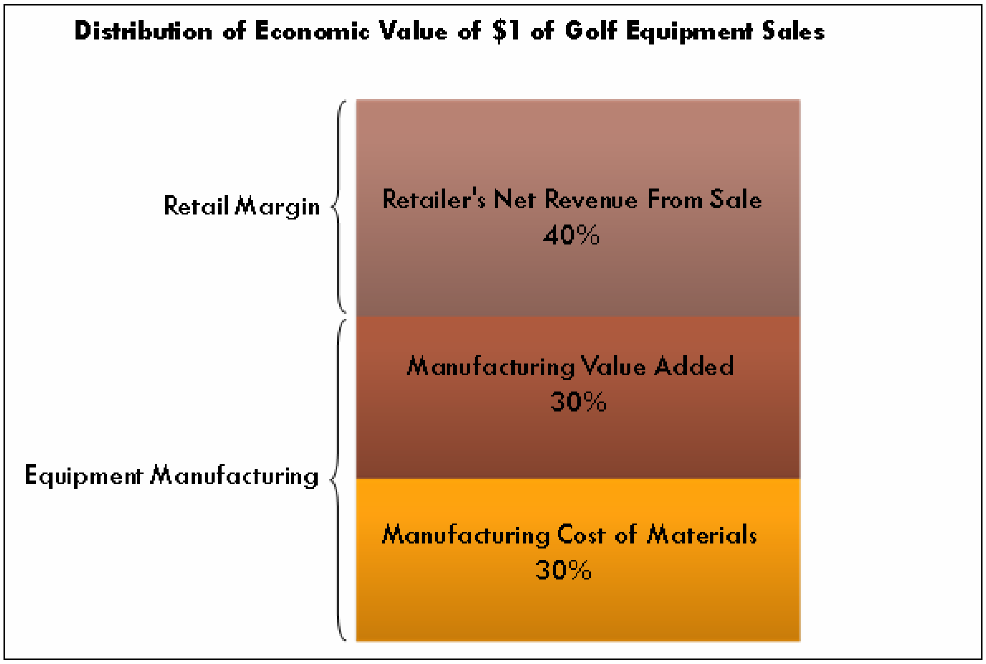
Sources: NGF (2007). Golf Course Project Summary Report, 2005 data.

C. GOLFER SUPPLIES

The economic value created by golfer supplies comes from both the production and retail sale of such items. (See graphic below.) While U.S. exports of golf equipment are considerable—reaching $790.8 million in 2005—the U.S. is a net importer of golf equipment and apparel.

Golf equipment imports totaled $1.4 billion in 2005.[13] Therefore, we focus on the retail side of the picture at the national level.

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. The U.S. Census Bureau calculates the retail margin for different categories of products each year from its retail trade survey. In 2005, the retail margin for the sporting goods, hobby, book, and music stores category was 40.1% of total sales. Economic impact is calculated on this retail margin.



Below, we describe the data sources and methodology employed to derive estimates for each of the major golfer supplies categories: golf equipment, golf apparel, golf books, and golf magazines.

Golf Equipment

To calculate total spending on golf equipment, SRI collected data from the National Sporting Goods Association (NGSA), which conducts an annual 100,000-household consumer panel survey for its *The Sporting Goods Market* publication.

As shown below, golf club sets accounted for $1.7 billion in on- and off-course sales in 2005, the largest segment of equipment sales. Americans spent an estimated $914.7 million on golf balls in

[13] The value of 2005 U.S. golf equipment exports and imports comes from the U.S. Census Bureau's Foreign Trade Division and includes data for golf bags (420291), golf clubs (950631), golf balls (950632), and golf club parts (950639).

2005, and $537.9 million on individual clubs. When golf bags and golf shoes are included, Americans spent a total $3.7 billion on golf equipment in 2005.

Golf Equipment Sales in 2005 ($ millions)	
Golf Club Sets	$1,680.4
Golf Balls	$ 914.7
Individual Clubs	$ 537.9
Golf Bags	$ 332.6
Golf Shoes	$ 258.8
TOTAL	**$3,724.4**

Source: National Sporting Goods Association (2006). *The Sporting Goods Market in 2006*, Mt. Prospect, IL: NSGA

Golf Apparel

SRI collected data on golf apparel spending from NSGA's *Sports Clothing Expenditure* reports. This report is issued once every two years. Because data were not available for 2005, SRI took an average of the 2004 and 2006 NGSA apparel estimates. In total, about $1.5 billion was spent on golf apparel in 2005.

Golf Apparel Sales in 2005 ($ millions)	
TOTAL	**$1,500.5**

Source: National Sporting Goods Association (2005), *Sports Clothing Expenditures in 2004*, Mt. Prospect, IL: NSGA, and National Sporting Goods Association (2007), *Sports Clothing Expenditures in 2006*, Mt. Prospect, IL: NSGA

Golf Magazines

To estimate golf magazine revenues, SRI first collected circulation and revenue data for the two golf magazines with the largest circulation, *Golf Digest* and *Golf Magazine*. We calculated average revenue per unit circulation, based on data from the Magazine Publishers of America. We then collected circulation data for 15 national golf magazines[14] from the Magazine Publishers of America's *Circulation Trends & Magazine Handbook*, the New York Times Annual Report, and magazine websites. Circulation numbers were not available for all golf-related magazines, and we left out smaller regional and local golf magazines from the circulation total. However, this is balanced by the fact that the relationship between revenues and circulation is most likely not linear—small regional magazines do not typically earn as much per subscriber as the larger magazines. Multiplying the total circulation of the top 15 golf magazines by the average revenue per unit circulation, SRI estimates total golf magazine revenues were $860.8 million in 2005.

[14] These include the following magazines: *Executive Golfer*, *Golf Business*, *Golf Connoisseur*, *Golf Digest*, *Golf Illustrated*, *Golf Magazine*, *Golf Tips*, *Golf Today*, *Golf Week*, *Golf for Women*, *Golf World*, *Golf World Business*, *PGA Tour Partners*, *Travel & Leisure Golf*, and *U.S. Open Championship Journal*.

Golf Magazine Sales in 2005 ($ millions)	
Total circulation	7,489,884
Average revenue per circulation (not in millions)	$114.92
TOTAL	**$860.8**

Sources: Magazine Publishers of America's *Circulation Trends & Magazine Handbook*, the New York Times Annual Report, and magazines websites.

Golf Books

A large number of books related to golf are sold each year. These include golf course guides, self-help books (how to improve your golf swing/golf score), golfer biographies, histories of the game of golf, and golf-based fiction novels. No comprehensive data for the sales of golf books exist. Therefore, SRI constructed its estimate by analyzing total book sales and determining what fraction of these sales related to the game of golf.

To calculate the sales of golf books relative to total book sales, SRI obtained data on: (1) the percentage of total book sales that sports books account for and (2) the percentage of sports book sales that are golf related. These estimates came from the *2006 Bowker Annual of Library & Book Trade Information* and the American Booksellers Association, respectively. Estimates for golf books as a percentage of total book sales were then calculated by multiplying the aforementioned percentages. By using these calculated percentages with the dollar value of total books sold in 2005, SRI arrived at its final dollar values for consumer spending on golf books in 2005, $65.2 million.

Golf Book Sales in 2005 ($ millions)	
Retail book sales	$15,532.4
Golf books as % of total book sales	0.4%
TOTAL	**$65.2**

Sources: *2006 Bowker Annual of Library & Book Trade Information* and American Booksellers Association data.

In total, consumers purchased $6.2 billion of golf products and apparel on and off the golf course in 2005. Retailers' net revenues, or margin, on these sales totaled approximately $2.5 billion. Golf's economic impact is calculated on this retail margin figure.

Consumer Spending on Golfer Supplies in 2005 ($ millions)	
Golf Equipment	$3724.4
Golf Apparel	$1,500.5
Golf Magazines	$860.8
Golf Books	$65.2
TOTAL	**$6,150.9**
RETAIL MARGIN (40.1%)	**$2,466.5**

Note: Column does not sum due to rounding of individual numbers.

D. TOURNAMENTS, ENDORSEMENTS, ASSOCIATIONS & CHARITIES

Associations

SRI collected revenue data for the largest U.S. golf organizations: the PGA TOUR, the Professional Golfers' Association of America, the United States Golf Association, the Ladies Professional Golf Association, the Golf Course Superintendents Association of America, the World Golf Foundation, the National Golf Course Owners Association, and the Club Managers Association of America. A number of additional associations were added to the associations list from 2000, and state chapters of major golf associations were also rolled up into this estimate. Therefore, comparisons between this category in 2000 and 20005 are not appropriate.

Major Tournament Revenue

Tournament revenue is estimated directly by adding the tournament-related revenue of major tour operators—the PGA TOUR, USGA, PGA, and the LPGA. This estimate does not attempt to include revenue from the far more numerous club tournaments held at golf facilities. These tournaments are already captured in the *Golf Facility Operations* section above and in the *Charities* segment below.

Player Endorsements

Comprehensive numbers for this category are not generally available. To estimate player endorsements, SRI used a new ranking by Golf Digest[15] of endorsement income for top tour players. The SRI team used data for the top 30 U.S. players found in this report, added estimated endorsement income for Michelle Wie and other top female players, and then ran a regression to estimate the value of endorsement income for the top 150 U.S. male players. In total, player endorsements totaled $265 million in 2005.

Tournament, Endorsement and Association Revenues in 2005 ($ millions)	
Associations	$463.6
Tournaments	$953.7
Endorsements	$265.0
TOTAL	**$1,682.3**

15 "The Golf Digest 50: Our inaugural ranking of the tours' top money-earners--on & off the course," *Golf Digest*, April 19, 2007.

Charities

Overall, SRI estimates that the amount of charitable giving attributed to the game of was $3.5 billion in 2005. This estimate is derived from a national study conducted by the National Golf Foundation[16] based on the number of charitable golf outings 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 contribution of the industry to the national economy.

Charitable Giving by U.S. Golf Industry in 2005 ($ millions)	
TOTAL	**$3,501.1**

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. In total, we estimate the total value of golf-related real estate was approximately $14.9 billion in 2005.

Golf Residential Real Estate in 2005 ($ millions)	
Golf-Related Residential Construction	$11,628.0
Realized Golf Premium	$3,345.4
TOTAL	**$14,973.4**

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.

Golf-Related Residential Construction

For this industry segment, SRI worked with U.S. golf course builders and golf real estate developers to arrive at estimates of the number of courses with active real estate development, the average number of homes constructed in each new golf community, the fraction of these homes under construction in a given year, and the average construction costs per type of home (i.e., condominium, townhouse or single family home). The number of courses with active development was derived from total golf facility openings over the past five years and adjusted, since not all new courses have real estate development. Construction values varied considerably depending on such factors as the location of golf communities, the proportion of

[16] National Golf Foundation (2002). *The Charitable Impact Report,* November 2002.

condominiums or townhouses versus single family homes, and overall real estate market conditions.

From interviews with golf course owners, golf real estate developers, and other industry experts, SRI estimates that approximately 63,840 units were being developed in 2005, which represents a build-out rate of 12 percent per year. We further assumed average construction costs in the U.S. of $200,000 for single family homes, $150,000 for townhouses and $100,000 for condominiums. Multiplying the total number of each type of unit under construction times the average construction cost per unit yielded a total 2005 golf-related residential construction figure of $11.6 billion.

Realized Golf Premium

The "golf" premium is the extra value a home owner can expect to receive on the sale of a home 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 4,289 existing golf communities by the average number of housing units per golf course (600), we estimated a total of 2.6 million golf community homes in existence in 2005. The National Association of Realtors (NAR) estimated the home turnover rate (percentage of homes sold relative to the total housing stock) in 2005 was approximately 5.0 percent. 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 the golf real estate premium was $3.3 billion in 2005.

F. HOSPITALITY/TOURISM

SRI calculated 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. In 2005, golf-related travel expenditures amounted to an estimated $18 billion. This is based on an estimated 39.8 million golf person trips taken and an average of $452 of golf tourism spending per person per trip. SRI changed the data source and methodology for calculating this segment between 2000 and 2005, because of a change in the type of golf travel data reported by NGF. We provide further explanation below.

U.S. Golf-Related Travel Expenditures in 2005	
# Golf person trips (millions)	39.8
Average travel $ per person per trip	$451.75
TOTAL ($ MILLIONS)	**$18,001.2**

Number of Golf-Related Trips

According to the Travel Industry Association (TIA) of America's TravelScope®/DIRECTIONS® statistics[17], domestic person trips grew from 1.89 billion in 2000 to 1.99 billion in 2005. Over this period, the percentage of travelers who played golf while on a trip stayed consistent accounting for approximately 2 percent of total domestic trips. Therefore, SRI estimates that approximately 39.8 million golf trips were taken in 2005. A "golf trip" is defined as a trip in which a person travels 50-plus miles and plays golf while on this trip.

This methodological approach marks a change from the approach used by SRI in 2000. In 2000, SRI used NGF's 1998 *U.S. Golf Travel Market* report data as the basis for our golf trips and average travel expenditures calculations. However, NGF changed the type of golf travel data it reported between the 1998 and 2003 editions making time-series comparison impossible. Consequently, for the 2005 golf economy report the SRI team opted for a more consistent source of data (TIA/DKS&A) to better ensure time-series consistency going forward.

Average Spending per Golf Trip

Average golf travel expenditure includes spending on accommodation, 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 segment. To estimate average golf trip expenditure, SRI analyzed average travel expenditure data from NGF's *The U.S. Golf Travel Market, 2003 Edition* report and adjusted it based on TIA and DKS&A average travel expenditure data. The average spending figure is a weighted average based on the ratio of overnight and day trips, which are estimated to be 77 percent and 23 percent of total trips, respectively. SRI estimated that average spending per golf trip in the U.S. in 2005 was $451.75 per person.

G. GOLF'S ECONOMIC IMPACT

The impact of golf on the national economy includes both the direct economic activity generated by the sector itself (its core and enabled industries), as well as the indirect and induced (or multiplier) impacts that are stimulated in other sectors of the economy.

[17] TIA's TravelScope®/DIRECTIONS® by DKS&A program is a large-scale, on-going survey that tracks the American consumers' travel behavior and provides a comprehensive snapshot of the U.S. domestic travel and tourism market. The program produces quarterly travel and tourism reports that describe national and state-level information on trip volume, trip and traveler characteristics, and overall travel patterns.

Direct Economic Impact

The direct economic impact of golf is simply the size of the golf industry cluster within the U.S. economy in terms of revenues. The "national 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 National Golf Economy		
Core Industries	+	Golf Facility Operations
	+	Golf Course Capital Investment
	+	Golfer Supplies
	+	Endorsements, Tournaments, Associations
Enabled Industries	+	Real Estate
	+	Hospitality/Tourism
	=	Size of National 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 a portion of their income on other goods and services, which increases demand and supports jobs in other sectors of the economy. These impacts are considered "induced" impacts. Together, the indirect and induced impacts make up the multiplier impact of the golf economy. For this study, the Regional Input-Output Modeling System (RIMS), calculated by the U.S. Bureau of Economic Analysis (BEA), was used to calculate the multiplier impact of the golf economy. The BEA is the same bureau charged with estimating U.S. state and national gross domestic product (GDP). RIMS was first developed in the 1970s by the BEA, and has been vetted and revised over the decades.

III. BIBLIOGRAPHY

Bogart, Dave (Ed.) (2006). *The Bowker Annual: Library and Book Trade Almanac 2006*. Medford, NJ: Information Today, Inc.

Golf Course Builders Association of America (2001). *Guide to Estimating Cost for Golf Course Construction*. Lincoln, NE: Golf Course Builders Association of America.

Golf Course Superintendents Association of America (2007). National Compensation Survey. Lawrence, KS: Golf Course Superintendents Association of America.

Golf Course Superintendents Association of America (2005). National Compensation Survey. Lawrence, KS: Golf Course Superintendents Association of America.

Golf Digest (2007). "The Golf Digest 50: Our Inaugural Ranking of the Tours' Top Money-Earners—On and Off the Course," *Golf Digest*, April 19, 2007.

Golf Range Association of America and NGF (2003). *Profile of Golf Practice Facility Operations*. Jupiter, FL: The National Golf Foundation and the Golf Range Association of America.

Magazine Publishers of America (2007). "Average Circulation for Top ABC Magazines 2005," *Circulation Trends & Magazine Handbook* online. http://www.magazine.org/circulation/circulation_trends_and_magazine_handbook/index.cfm

NGF (2007). Golf Course Project Summary Report 2005, Golf Course Project Database. Retrieved on 10/14/06. Jupiter, FL: The National Golf Foundation.

NGF (2007). *Golf Industry Report*. Jupiter, FL: The National Golf Foundation.

NGF (2006). *Golf Facilities in the U.S., 2006 Edition*. Jupiter, FL: The National Golf Foundation.

NGF (2006). *Operating & Financial Performance Profiles of 18-hole Golf Facilities in the U.S., 2006 Edition*. Jupiter, FL: The National Golf Foundation.

NGF (2004). *Operating & Financial Performance Profiles of 18-hole Golf Facilities in the U.S., 2004 Edition*. Jupiter, FL: The National Golf Foundation.

NGF (2003). *The U.S. Golf Travel Market, 2003 Edition*. Jupiter, FL: The National Golf Foundation.

NGF (2002). *The Charitable Impact Report*. Jupiter, FL: The National Golf Foundation. http://www.golf2020.com/Reports/2020_Impact_01.pdf

NGF (2002). *Operating & Financial Performance Profiles of 18-hole Golf Facilities in the U.S., 2002 Edition*. Jupiter, FL: The National Golf Foundation.

NGF (1998). *The U.S. Golf Travel Market, 1998 Edition*. Jupiter, FL: The National Golf Foundation.

National Sporting Goods Association (2007). *Sports Clothing Expenditures in 2006*. Mt. Prospect, IL: National Sporting Goods Association.

National Sporting Goods Association (2006). *The Sporting Goods Market in 2006*. Mt Prospect, IL: National Sporting Goods Association.

National Sporting Goods Association (2004). *Sports Clothing Expenditures in 2004*. Mt. Prospect, IL: National Sporting Goods Association.

PGA TOUR (2006). *PGA TOUR, Inc. 2006 Annual Report*. Ponte Vedra Beach, FL.

Professional Golfers' Association of America (2006). *PGA of America Annual Report 2006*. West Palm Beach, FL.

Professional Golfers' Association of America (2006). PGA Facility Operations Survey. West Palm Beach, FL: PGA of America.

SRI International (2002). *The Golf Economy Report*. Menlo Park, CA: SRI International.

SRI International (2007). *The Iowa Golf Economy in 2006*. Menlo Park, CA: SRI International. http://www.golf2020.com/reports/Iowa2006.pdf

SRI International (2007). *The Michigan Golf Economy in 2006*. Menlo Park, CA: SRI International. http://www.golf2020.com/reports/Michigan2006.pdf

SRI International (2007). *The Ohio Golf Economy in 2006*. Menlo Park, CA: SRI International. http://www.golf2020.com/reports/Ohio2006.pdf

SRI International (2006). *Virginia's Golf Economy, 2005*. Menlo Park, CA: SRI International. http://www.golf2020.com/reports/Virginia_Final_Report.pdf

United States Golf Association (2006). *USGA 2006 Annual Report*. Far Hills, NJ.

U.S. Census Bureau (2007). Table 1213. Arts, Entertainment and Recreation Services—Estimated Revenue: 2000 to 2004, *Statistical Abstract of the United States: 2007*. Washington, D.C.: U.S. Department of Commerce, Economics and Statistics Administration.

U.S. Census Bureau (2007). Table 1107. Information Sector Services—Estimated Revenue: 2000 to 2004, *Statistical Abstract of the United States: 2007*. Washington, D.C.: U.S. Department of Commerce, Economics and Statistics Administration.

U.S. Census Bureau (2004). *2002 Economic Census: Arts, Entertainment, and Recreation Industry Series*. Washington, D.C.: U.S. Department of Commerce, Economics and Statistics Administration.

U.S. Census Bureau (2001). *Summary: 1997 Economic Census: Arts, Entertainment, and Recreation Subject Series*. Washington, D.C.: U.S. Department of Commerce, Economics and Statistics Administration.

World Golf Foundation (2005). *2005 Annual Report*. St. Augustine, FL.