

THE MARYLAND GOLF ECONOMY

FULL REPORT

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GOLF 20/20 for the
Maryland Golf Alliance
and prepared by SRI International.





PGA
Middle Atlantic Section



The Maryland Golf Economy

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ACRONYMS

CMAA	Club Managers Association of America
CMAA-B	Baltimore Chapter of the Club Managers Association of America
GCBA	Golf Course Builders Association of America
GCSAA	Golf Course Superintendents Association of America
GRAA	Golf Range Association of America
LPGA	Ladies Professional Golf Association
MAAGCS	Mid-Atlantic Association of Golf Course Superintendents
MAPGA	Middle Atlantic Section of The PGA of America
MGCOA	Maryland Chapter of the Golf Course Owners Association
MSGA	Maryland State Golf Association
NCCMA	National Capital Club Managers Association
NGCOA	National Golf Course Owners Association
PGA	The Professional Golfers' Association of America
USGA	United States Golf Association
WGF	World Golf Foundation

STUDY OVERVIEW

Maryland caters to all types of golf enthusiasts, from mountainous layouts in the western part of the state to links courses dotted along the Eastern seaboard—all within a few hours drive of each other. Maryland also boasts courses that rank in the Top 100 nationally, and hosted the U.S. Open Championship in 2011, which was won by Rory McIlroy, the youngest U.S. Open champion in nearly a century.

In addition to its recreational value, golf is a key industry contributing to the vitality of Maryland's economy. In 2010, the size of Maryland's direct golf economy was approximately \$727.2 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 Maryland's golf-related activities is considered, the golf industry generated approximately \$1.3 billion of direct, indirect and induced economic output, \$407.6 million of wage income, and 14,700 jobs in 2010.

The golf industry's \$727.2 million in direct revenues supports economic activity comparable to several other important industries in the state: medical equipment and supplies manufacturing (\$457.7 million), agricultural crops (\$691.6 million), and data processing and hosting services (\$1.648 billion).¹

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

¹ U.S. Department of Agriculture, Economic Research Service (2010), Maryland: Leading Commodities for Cash Receipts, 2009. U.S. Census Bureau (2010), 2007 Economic Census, Geographic Series: Medical Equipment and Supplies Manufacturing (NAICS 3391) and Data Processing, Hosting and Related Services (NAICS 518). 2007 revenues adjusted to 2010 dollars using the GDP deflator.

² Key industry stakeholders comprising the Maryland Alliance for Golf include representatives from the Middle Atlantic Section of The PGA of America, the Maryland State Golf Association, the Mid-Atlantic Association of Golf Course Superintendents, the Maryland Golf Course Owners Association, and the National Capital Club Managers Association.

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.

ANALYTICAL FRAMEWORK

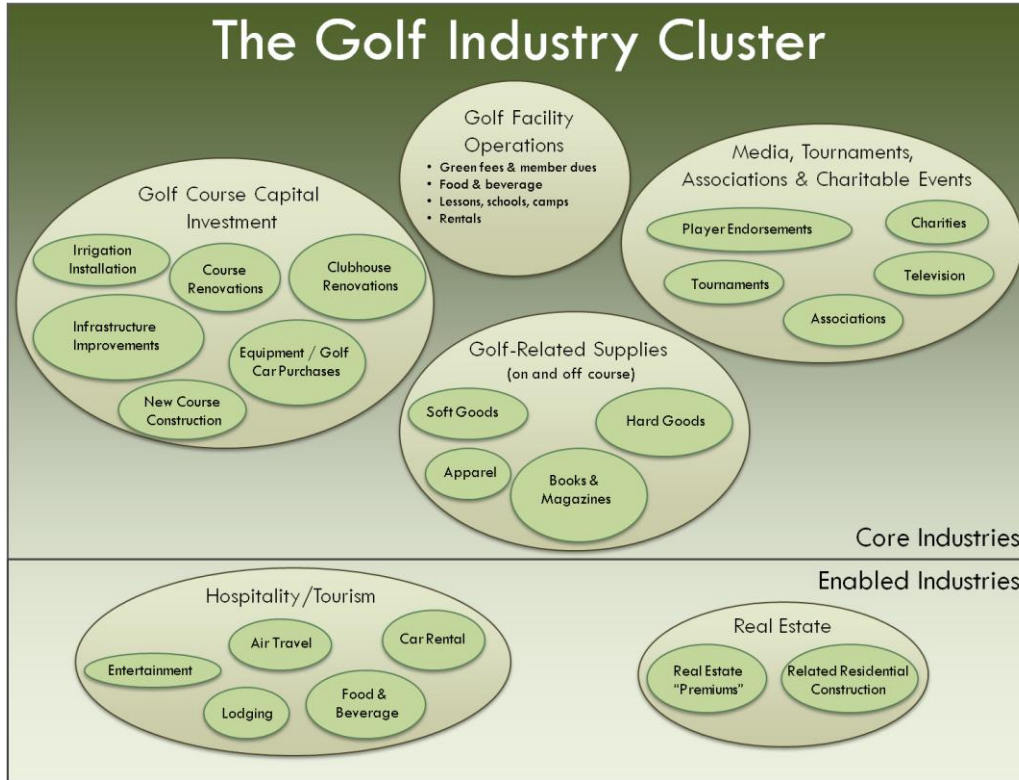
Current economic studies of the golf industry in different states emphasize various factors and outcomes. For example, one may focus largely on the turf industry, while another might examine the impact of sports and recreation-related tourism more broadly. Ideally, one would want to include all the key 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 next page). 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 (2006-2010 data)	NGF Facility Database, multiple years; state golf associations; 2007 Economic Census
Avg. revenues by type of facility	PGA Facility Operations Survey, multiple years (2006-2010 data)	2007 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, 2009 data)	National Golf Foundation; state task force
Number of golf courses under construction in current year	National Golf Foundation (2007-2010 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 (2007-2010 data)	2006 PGA Compensation Survey (2005 data)
Golf apparel	National Sporting Goods Association (2007-2010 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> (2007-2010 data)	Amazon and Barnes & Noble for top golf book sales
Major Tournaments		
# of major tournaments held in state	State task force	PGA TOUR, LPGA
Visitor attendance at tournaments, tournament revenues	Major golf associations	State tourism agency; national golf associations; state golf associations
Associations & Charitable Events		
# of major state-level golf associations	State counterparts of national golf associations	State task force
Annual expenditures/budgets	State golf associations	IRS Form 990
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	National Golf Foundation	Online research

<p>construction # of lots per course</p> <p>Avg. construction costs per home and real estate premium</p>	<p>Real estate development site plans; interviews with real estate developers</p> <p>Interviews with real estate developers</p>	<p>Real estate agents</p> <p>Real estate agents</p>
<p>Hospitality/Tourism</p>		
<p># of golf travelers or # of golf-related trips to the state</p> <p>Avg. spending per traveler or per trip</p>	<p>TNS Travel America or TIA/D.K. Shifflet & Associates</p> <p>TNS Travel America or TIA/D.K. Shifflet & Associates</p>	<p>State department of tourism/recent surveys/studies</p> <p>State department of tourism/recent surveys/studies; National Golf Foundation</p>

THE SIZE OF MARYLAND'S GOLF ECONOMY

SRI estimates the total size of Maryland's golf economy in 2010 was approximately \$727.2 billion. This estimate is comprised of \$559.2 million in core industries and an additional \$168.2 million in enabled industries, as illustrated in the table below.

Size of Maryland's Golf Economy in 2010 by Industry Segment (\$ millions)	
CORE INDUSTRIES	
Golf Facility Operations	\$386.8
Golf Course Construction and Capital Investment	\$33.0
Golf-Related Supplies (retail margin and manufacturing exports)	\$131.7
Major Golf Tournaments and Associations	\$7.5
Total Core Industries	\$559.0
ENABLED INDUSTRIES	
Real Estate	\$47.8
Hospitality/Tourism	\$120.4
Total Enabled Industries	\$168.2
TOTAL GOLF ECONOMY	\$727.2

A. CORE INDUSTRIES

Golf Facility Operations

At the center of any golf economy lie the golf facilities—the largest component in terms of revenues. The revenue that flows through a golf facility comes primarily from green 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. Maryland's 189 golf courses, 34 stand-alone ranges, and 34 miniature golf facilities generated \$386.8 million of revenue in 2010.

Maryland Golf Facility Revenues in 2010 (\$ millions)	
Golf Facilities	\$361.5
Practice Ranges & Alternative Facilities	\$25.3
TOTAL¹	\$386.8

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

This is a sizeable industry, but even more significant when compared to other popular revenue-generating sports. For example, Maryland’s golf facilities generate revenues that are nearly threequarters of the combined revenue of all other spectator sports in the state—including baseball, football, horse racing, and other popular spectator sports. Spectator sports excluding golf generated revenues of \$535.2 million in 2007, or \$557.2 million in 2010 inflation-adjusted dollars.³

Golf Facility Capital Investments

Golf facilities generate economic impacts beyond operational revenues through investments to upgrade and maintain facilities and infrastructure, and through the construction, expansion and renovation of courses. These investments create employment in the construction and maintenance industries and often involve the purchase of significant amounts of equipment and supplies from companies within the state. SRI’s estimate of Maryland’s golf course capital investment is divided into two segments: (1) capital investment at existing facilities and (2) new course construction. Together, Maryland’s golf facilities made \$33.0 million worth of capital investments in 2010: \$20.9 million of investments at existing facilities and \$12.1 million for the construction of new courses.

Maryland Golf Course Construction and Capital Investment in 2010 (\$ millions)	
Golf Course Capital Investment¹	\$20.9
New Course Construction	\$12.1
TOTAL	\$33.0

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.

Golf-Related Supplies

Maryland golfers spend significant sums on golf balls, golf clubs, golf apparel, and golf media (books, magazines, DVDs). The economic value that accrues to a state comes from the production of these golf-related goods, as well as retail sales of such items. Maryland is home to a small number of golf apparel, golf club, and turf maintenance equipment companies, e.g., Under Armour, STX Golf, Wright Manufacturing, etc. In 2010, Maryland manufacturers’ total value-added shipment of golf-related products was approximately \$106.6 million. Maryland retailers and golf facilities earned approximately

³ U.S. Census Bureau (2010). *Maryland: 2007 Economic Census, Arts, Entertainment & Recreation Geographic Series*, July 2010.

\$25.2 million on the sale of \$64.7 million of golf equipment, apparel, and media in 2010. In total, the Golf-Related Supplies segment contributed \$131.7 million in revenues to the Maryland economy.

Maryland Manufacturers' Value-Added Exports of Golf-Related Products in 2010 (\$ millions)	
TOTAL	\$106.6

Maryland Retailers' Net Revenues on Consumer Purchases of Golf-Related Supplies in 2010 (\$ millions)		
	Total purchases	Retail sales margin
Golf Equipment (retail margin)	\$48.0	\$18.7
Golf Apparel (retail margin)	\$15.6	\$6.1
Golf Media (retail margin)	\$1.1	\$0.4
TOTAL	\$64.7	\$25.2

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

Associations, Tournaments & Charitable Giving

Associations

Numerous associations represent the game of golf in Maryland. The largest golf associations include the Maryland State Golf Association, the Middle Atlantic Section of the PGA, the Maryland Golf Course Owners Association, the Mid-Atlantic Association of Golf Course Superintendents, the Eastern Shore Association of Golf Course Superintendents, the National Capital Club Managers Association, and the Greater Baltimore Chapter of the Club Managers Association. Also very active are the Executive Women's Golf Association chapters, as well as senior, junior, and regional member golf associations, such as the Washington Metropolitan Golf Association and the Middle Atlantic Golf Association. There are a number of First Tee program chapters in the state, including chapters in Baltimore, Howard County, Montgomery County, and Prince George's County that are supported by junior golf foundations. The First Tee aims to introduce youth to the game and values of golf. The Middle Atlantic PGA Junior Golf Foundation also reaches over 2,500 junior golfers annually in the Maryland, Virginia and Washington, DC region, through its MAPGA Junior Tour, junior clinics, inner-city youth golf programs, and other activities. Finally, Maryland is home to several turfgrass associations, including the National Turfgrass Federation and the Maryland Turfgrass Council. In 2010, Maryland golf associations generated \$4.3 million of expenditures.

Major Tournaments

The United States Open Championship (U.S. Open) is one of the four major international golf championships played each year—the three others being the Masters, the British Open, and the PGA Championship. In 2010 (the base year for this analysis), the U.S. Open was played in Pebble Beach, California. However, in 2011, the U.S. Open was played at the Congressional Country Club in Bethesda, Maryland, and was won by Rory McIlroy, the youngest U.S. Open champion since Bob Jones in 1923. The 2011 U.S. Open drew an estimated 230,000 spectators over the course of the tournament. Economic impact estimates of hosting the U.S. Open in 2011 vary, but are sizeable ranging from \$100 million to \$150 million depending on general economic conditions, weather, etc.⁴

In 2010, Maryland hosted two major golf championships: one Champions Tour event and one Nationwide Tour event. The TPC Potomac at Avenel Farm in Potomac hosted the Constellation Energy Senior Players Championship in 2010, one of five major championships on the PGA TOUR's Champions Tour for eligible professionals age 50 and over. This event has been a carbon-neutral event since 2008, when it became the first Champions Tour event to earn that distinction.⁵ Melwood Prince George's County Open, a Nationwide Tour event, was hosted by the University of Maryland Golf Course in College Park in 2010. Altogether, golf events in Maryland generated approximately \$3.3 million in 2010, excluding the tournament purse and costs for TV broadcasting.

Maryland's Major Golf Tournament & State Golf Association Revenues in 2010 (\$ millions)	
Major Tournaments	\$3.3
Associations	\$4.3
TOTAL¹	\$7.5

Note: Numbers do not sum due to rounding.

Charitable Giving

Maryland's golf industry makes substantial contributions to a variety of charities. The Constellation Energy Senior Players Championship, a Champions Tour event, has generated over \$7.5 million since

⁴ Sources: Shay, Kevin (2011), "Region's Businesses Tee Up for U.S. Open in June," *The Gazette / Maryland Community Newspapers*, 1 Apr 2011, http://ww2.gazette.net/stories/04012011/businew181223_32545.php; and Montgomery County website, <http://www.visitmontgomery.com/2011-us-open-congressional-bethesda>.

⁵ "Constellation Energy Foundation Awards \$400,000 to Maryland-based Nonprofit Organizations," <http://ir.constellation.com/releasedetail.cfm?releaseid=436849>.

1992 for charities in the communities where the event is located.⁶ In 2010, using proceeds from the championship, the Constellation Energy Foundation awarded \$400,000 to various Maryland organizations: The First Tee of Baltimore, Kennedy Krieger Institute, Union Memorial Hospital, and the Baltimore Community Foundation/BGE Community Assistance Fund.⁷ Proceeds from the Nationwide Tour event (the Melwood Prince George’s County Open) benefit their host charity, Melwood. Headquartered in Upper Marlboro, the organization trains, employs, and supports over 2,100 people with disabilities in the Washington, DC, metropolitan area each year.⁸

At the local level, the Celebrity Golf & Tennis Classic for Leukemia & Lymphoma has raised over \$1.4 million over the past 15 years to fund blood cancer research through the Leukemia & Lymphoma Society. It was held at the Towson Golf & Country Club in 2010.⁹ The Scramble for Kids golf tournament, sponsored by The Golfers’ Charitable Association since 1987, was played at Green Spring Valley Hunt Club in 2010 and has netted over \$2.4 million in donations for children’s hospitals and charities over the years. Charitable projects funded include a Nutrition Center Metabolic Kitchen, an indoor-outdoor recreational therapy area at the John F. Kennedy Institute, and the conversion of a complete ward into private rooms for treatment of dwarfism for the Children's Hospital.¹⁰ 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 Maryland to be \$33.7 million in 2010.

Charitable Giving by Maryland Golf Industry in 2010 (\$ millions)	
TOTAL	\$33.7

⁶ “Constellation Energy Senior Players Championship,” <http://together.pgatour.com/tournaments/s507.html>.

⁷ “Constellation Energy Foundation Awards \$400,000 to Maryland-based Nonprofit Organizations,” <http://ir.constellation.com/releasedetail.cfm?releaseid=436849>.

⁸ “Melwood Prince George’s County Open – Host Charity,” <http://www.pgatouratumd.com/host-charity.php>.

⁹ “The Celebrity Golf & Tennis Classic for Leukemia & Lymphoma Maryland Golf Tournament,” <http://www.golfcharity.net/index.php/2011/06/the-celebrity-golf-tennis-classic-for-leukemia-lymphoma-maryland-golf-tournament/>.

¹⁰ “Golfers’ Charitable Association - History,” <http://golferscharitable.org/History.html>.

B. ENABLED INDUSTRIES

Real Estate

Real estate developers use amenities to attract new home buyers, and golf is a key amenity in many parts of the state. The development of new golf communities in Maryland followed the rise in the national real estate market which peaked in 2005 in terms of new home starts and existing home sales.¹¹ Given the poor economic and financial market conditions in 2010, new home construction had weakened considerably at Maryland golf communities. Nevertheless, a modest number of new homes were constructed in 2010. Examples of communities with new home construction include the Beechtree/Lake Presidential Golf Club community in Upper Marlboro with its championship golf course and world-class training facility; Thousand Acres at Deep Creek Lake, a lakeside golf community nestled in the Appalachian Mountains of Western Maryland; and GlenRiddle Golf Club near Ocean City. New golf-related real estate construction generated \$33.7 million in 2010. Furthermore, in 2010 there were approximately 36 golf communities in Maryland, and SRI estimates the “golf premium” associated with the sale of real estate in these developments to be \$14.1 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.

Maryland’s Golf Real Estate Revenues in 2010 (\$ millions)	
Golf-Related Residential Construction	\$33.7
Realized Golf Premium	\$14.1
TOTAL	\$47.8

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 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 Maryland, golf is an important tourism segment, alongside the state’s other outdoor and recreational activities such as camping, boating, fishing, biking, hiking, and bird watching, as well as trips to historic sites, farms, and vineyards. Maryland’s golf resorts help the state attract conferences and business meetings, and both amateur and professional golf tournaments draw people to courses in different parts of the state. The state’s “VisitMaryland” website features golf as a key outdoor recreational activity (<http://www.VisitMaryland.org/>). In 2010, SRI estimates golf-related tourism spending in Maryland was \$120.4 million. This is based on the following estimates of golf trips and associated

¹¹ National Association of Realtors data.

expenditures by Maryland residents and non-residents: (1) an estimated 160,619 *day* trips with average golf trip spending of \$75, and (2) an estimated 161,093 *overnight* trips with average trip spending of \$673.

Maryland's Golf-Related Travel Expenditures in 2010	
# of day trips	160,619
Average travel \$ per day trip	\$74.89
# of overnight trips	161,093
Average travel \$ per overnight trip	\$672.78
Total	\$120.4 million

Note: Numbers do not sum due to rounding.

GOLF'S ECONOMIC IMPACT IN MARYLAND

Golf's impact on Maryland'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 other industries in the state 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 2010, the \$727.2 million Maryland golf industry supported:

- A total economic impact of \$1.343 billion for the state of Maryland including the indirect and induced economic impacts stimulated by golf sector activity;
- A total employment impact of nearly 14,700 jobs; and
- Total wage income of \$407.6 million.

Golf's Impact on Maryland's Economy (2010)						
INDUSTRY	DIRECT	INDIRECT	INDUCED	TOTAL OUTPUT (\$ millions)	TOTAL JOBS	TOTAL WAGE INCOME (\$ millions)
Golf Facility Operations	\$386.8	→		\$743.0	8,523	\$221.8
Golf Course Capital Investment*	\$33.0	→		\$24.5	176	\$7.6
Golf-Related Supplies	\$131.7	→		\$257.1	2,890	\$85.7
Tournaments & Associations	\$7.5	→		\$16.4	139	\$5.1
Real Estate **	\$47.8	→		\$68.2	489	\$21.2
Hospitality/Tourism	\$120.4	→		\$233.6	2,430	\$66.2
TOTAL	\$727.2	→		\$1,342.8	14,647	\$407.6

Note: Columns may not sum due to rounding. To calculate golf's total economic impact, SRI subtracted from the direct golf economy impact of \$727.2 million the portion of capital investment that is investment in existing facilities (\$20.9 million of \$33.0 million) and the portion of real estate that is the realized golf premium associated with the sale of real estate in existing developments (\$14.1 million of \$47.8 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.

Numbers in columns may not sum due to rounding.

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 shops; golf lessons; tournament entry fees; consumption of food and beverages; etc.

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

In some surveys, golf facilities are allowed to self-classify themselves. In others, the surveying organization classifies the facility based on specific criteria. This can mean the difference between a small number of resorts (e.g., a figure that includes five-star accommodation located on or adjacent to an 18-hole course) or a much larger number of resorts (e.g., three-star hotel accommodation located near a daily fee golf course). Similarly, a resort with two 18-hole golf courses could be counted as two golf facilities or as one depending on the reporting organization. Fortunately, the variances caused by these data collection issues are very small, and thus do not materially impact the overall analysis. The table below presents slightly differing estimates for the number of golf course facilities in Maryland in 2010 or the latest available year.

Estimates of Maryland Golf Facilities from Various Sources, 2007-2010

	2007 Economic Census (# of facilities, excl resorts & municipal) ¹	2010 PGA (# of facilities) ²	2010 NGF (# of facilities) ³	2010 NGF (# of 18-hole equivalent courses) ³
PRIVATE	43	64	63	66.5
PUBLIC	111	117	114	112.5
Daily fee/ semi-private		71		
Municipal Military University		46		
RESORT		8	9	12.5
TOTAL	154	189	186	191.5

Sources: ¹ U.S. Census Bureau, *2007 Economic Census*.

² Professional Golfers' Association of America (2011). *Facility Database*.

³ NGF (2011). Total Facility Supply Tables 6-14, *Golf Facilities in the U.S., 2011 edition*, pp.6-14.

The PGA of America and NGF data fall within a very narrow range, PGA's 189 vs. NGF's 186. SRI conducted further research to confirm the classification of individual facilities by type, especially golf resorts, and arrived at the following estimates: 64 private facilities, 120 public facilities (74 daily fee facilities and 46 municipal/military/university facilities), and 5 golf resort facilities.¹²

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

¹² The golf resorts identified by SRI include the Harbourtowne Golf Resort and Conference Center, Hyatt Regency Chesapeake Bay Golf Resort, Spa and Marina, Rocky Gap Lodge & Golf Resort, Turf Valley, and Wisp Resort.

negatively impacted the golf industry. The latest 2007 Economic Census contains revenue, payroll, and employment data on 12,193 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 2010, but the PGA has annual data going back to 2005. 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 at the national level for: (1) private 18-hole facilities, (2) daily fee 18-hole facilities, and (3) municipal 18-hole facilities.

Estimates of Maryland Average Revenue per Facility Data From Different Sources, 2007-2010						
	Census (2007) ¹	PGA (2007) ²	PGA (2008) ³	PGA (2009) ⁴	PGA (2010) ⁵	NGF (2009) ^{6,7}
Private facility	X	\$2,438,320	\$2,830,959	\$3,386,886	\$3,135,299	\$3,277,000
Daily fee facility	X	\$1,907,523	\$1,517,786	\$1,609,962	\$1,539,888	\$1,457,700
Resort facility	X	\$1,965,826	\$2,114,996	\$1,634,997	\$825,463	X
Municipal/military/ university facility	X	\$1,627,889	\$2,230,262	\$1,551,972	\$1,787,294	\$1,269,100
Driving range	X	X	X	X	X	\$350,000
Miniature golf	\$377,647	X	X	X	X	X

Note: Bolded values are an average of resort facility revenue for Maryland and neighboring states.

Sources: ¹ U.S. Census Bureau, *2007 Economic Census*.

² Professional Golfers' Association of America (2009). *2008 Operations Survey*.

³ Professional Golfers' Association of America (2010). *2009 Operations Survey*.

⁴ Professional Golfers' Association of America (2011). *2010 Operations Survey*.

⁵ NGF (2010). *Operating & Financial Performance Profiles of 18-hole Golf Facilities in the U.S., 2009 edition*.

⁶ Golf Range Association of America (2006).

Average revenue data from the Census (2007), The PGA (2007-2010) and NGF (2009) are presented above. Interestingly, average revenue for private and daily facilities was suppressed by the U.S. Census Bureau, which has not been the case for other states studied by SRI. The most likely reason for data suppression is that too few facilities reported, and data was suppressed to protect the identity of facilities that did report. The PGA average revenue data for daily fee facilities is fairly consistent from 2007-10. In consultation with the Maryland Golf Task Force, SRI calculated total daily fee facility revenues using the 2010 PGA survey data. However, for the private facilities, PGA estimates varied

widely across the years. The 2007 private facility estimate of \$2.438 million, which was considerably lower than the other PGA estimates, had a much lower response rate than the other years, so SRI treated it as an outlier and took an average of the 2008-2010 estimates, which ranged from \$2.831 to \$3.387 million. This yielded average private facility revenue of \$3.118 million, which is slightly lower than NGF’s national average of \$3.277 million. Also, because the PGA survey responses rates for the municipal/military/university facilities were low from 2007 to 2010, SRI calculated the average of these values, \$1.799 million, to estimate municipal/military/university facility average revenue in 2010. The golf resort response rate to the PGA survey data was also very low. Based on primary research (survey of a representative sample of resorts), SRI revised the average golf resort facility revenue to \$1.567 million. Driving range revenues were calculated using the Golf Range Association of America’s estimate of average revenue figure for golf ranges in 2006 (the latest available data), and average miniature golf facility revenue was calculated using the 2007 Census data.

To calculate golf facility operations revenues, SRI subtracted out on-course merchandise sales from the average golf facility revenue estimates because on-course merchandise sales are included in the Golf-Related Supplies industry segment. SRI then multiplied these adjusted average golf facility operations revenue estimates by the respective number of golf facilities. Overall SRI estimates that Maryland’s 189 golf courses, 34 stand-alone ranges, and 34 miniature golf facilities generated \$386.8 million of revenue in 2010.

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.

Maryland Golf Facility Capital Investment and New Course Construction in 2010 (\$ millions)	
Golf Course Capital Investment¹	\$20.9
New Course Construction	\$12.1
TOTAL	\$33.0

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

Investment at existing courses. Golf facility capital investment includes improvements to greens and tees, repaving of cart paths, purchases of new turf maintenance equipment and irrigations systems, and renovations of the clubhouse, proshop and maintenance buildings. Ordinary maintenance expenses are not included. SRI examined golf facility capital investment data from two sources: NGF and the GCSAA. The GCSAA data comes from golf facility capital budget questions included in its 2009 Compensation

Survey. The data is state-level and includes the mean, median and standard deviation of capital expenditures (not maintenance expenses). The NGF's *2010 Operating and Financial Performance Profile* presents national estimates of capital expenditures (and also breaks out maintenance expenses separately) at: (1) daily fee facilities (average revenue of \$1,457,700, with 69.6% of daily fee facilities making average capital improvement investments of \$131,700); (2) municipal facilities (average revenues of \$1,269,100, with 70.2% of municipal facilities making average capital investments of \$189,300); and (3) private facilities (average revenues of \$3,277,000, with 82% of private facilities making capital investments of \$410,400).

After review of both the state-level and national data sets, SRI used the GCSAA's data for Maryland in our capital investment calculations. The data indicate that, on average, a Maryland golf facility invested approximately \$110,548, for a total capital investment of \$20.9 million. Both data sets indicate that capital investments were down significantly from 2006 (the year preceding the economic recession that began in 2007 and ended in 2009). The GCSAA data indicate a large standard deviation (\$146,786) reflecting the fact that some facilities undertook no capital investments, others scaled back investment, and some (such as Congressional Country Club, which hosted the U.S. Open in 2011) continued to make large investments, taking advantage of market conditions to undertake big projects at a lower cost than before the recession. SRI confirmed that this was the case through primary research.

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 2010, NGF estimated that there were 2.0 new 18-hole equivalent golf course openings in Maryland and that 0.5 were under construction.

An estimate for the average investment for each new golf course in Maryland is derived from the Golf Course Builders Association of America's 2010 *Golf Course Construction and Renovation Costing Guide, Version 6*. This database of golf course construction costs is based on a survey of golf course builders around the country. Using the values provided for Maryland-West and the average ("normal") costs for each of the various construction categories (see box below), we estimate the average investment required to build a new golf course in Maryland is \$6.9 million.

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

This investment, however, is not entirely expended over one year but is rather disbursed over several years. Assuming the average course takes approximately two years to complete, we estimate the average investment in construction per 18-hole equivalent course per year was \$3.5 million. We applied this figure to 0.5 18-hole equivalent golf course opening and 0.5 course under construction in 2010; for the other 1.5 course openings, our primary research yielded higher construction cost estimates. In total, SRI estimates that 2010 investment in new course construction in Maryland was \$12.1 million.

C. GOLF-RELATED SUPPLIES

This section explains our methodology for calculating Maryland manufacturers' exports (out-of-state and overseas shipments) of golf apparel, golf equipment, and accessories. We also detail our methodology for calculating the retail margin for on-course and off-course purchases of golf equipment, golf apparel, and golf media.

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

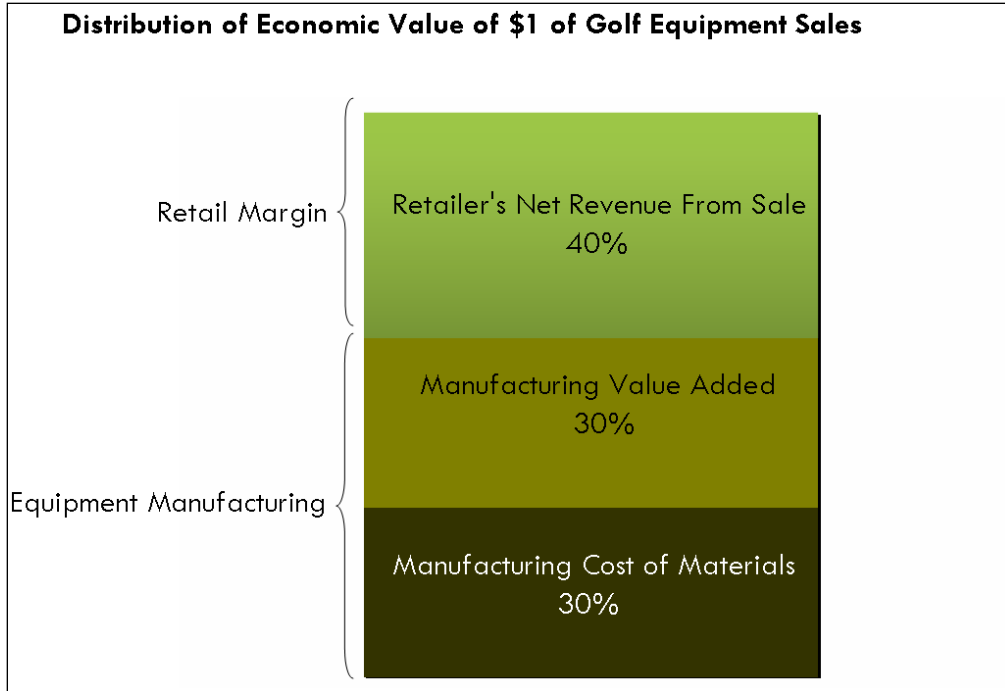
We began by conducting database research to identify manufacturers of golf-related products in the state. We identified a small number of manufacturing companies with headquarters in Maryland—Under Armour, STX Golf, Wright Manufacturing, etc. We then conducted research on these companies to ascertain: (1) the total value of their golf-related sales, and (2) the percentage of these sales that were out-of-state. Finally, we extrapolated value-added output from each company's revenues using value-added data from the Census's *Survey of Manufacturers*.

Maryland Manufacturers' Value-Added Exports of Golf-Related Products in 2010 (\$ millions)	
TOTAL	\$106.6

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 2010, NSGA reported total U.S. off-course and on-course purchases of individual golf clubs to be \$532.0 million. The NSGA survey found the South Atlantic region accounted for 23.3% of these purchases, or \$124.0 million. Within the South Atlantic region, one can estimate Maryland'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. Maryland represents 6.0% of total 18-hole equivalent courses in the South Atlantic region, so this weight was applied to the region total (\$124.0 million) to estimate \$7.4 million of individual golf club sales in the state of Maryland in 2010. Further, retail margins on final sales suggest that 38.9%, or \$2.9 million, of total sales was retained in the Maryland economy. (See graphic below.)



Maryland's On-Course and Off-Course Golf Equipment & Apparel Purchases, 2010		
Category	Calculation	Estimate (\$ millions)
Golf club sets	South Atlantic region's sales	\$361.0
	MD's courses-based weight	6.0%
	MD's share of sales [1]	\$21.7
Golf apparel	South Atlantic region's sales	\$259.7
	MD's courses-based weight	6.0%
	MD's share of sales, [2]	\$15.6
Golf balls	South Atlantic region's sales	\$210.0
	MD's courses-based weight	6.0%
	MD's share of sales, [3]	\$12.6
Golf clubs	South Atlantic region's sales	\$124.0
	MD's courses-based weight	6.0%
	MD's share of sales, [4]	\$7.4
Golf bags	South Atlantic region's sales	\$46.2
	MD's courses-based weight	6.0%
	MD's share of sales, [5]	\$2.8
Golf shoes	South Atlantic region's sales	\$58.2
	MD's courses-based weight	6.0%
	MD's share of sales, [6]	\$3.5

TOTAL	Sum of [1] to [6]	\$63.5
Retail sales margin	Multiply TOTAL by 38.9%	\$24.7

Source: National Sporting Goods Association (2011). *The Sporting Goods Market in 2010*, Mt. Prospect, IL: NSGA.

Golf media. Similar to golf equipment, golf media’s economic contribution to the state economy has two components: value-added production and the retail sales margin. On the production side, the economic impact created by the publication of magazines or books is attributable to the state in which the magazine or book is published. On the retail side, the economic impact is derived from the margin the retailer makes from the sale of golf media, i.e., the net revenues accruing to retailers after covering the cost of purchasing the media from the wholesalers/producers. For golf magazines, we identified national golf publications with the largest circulations and the state in which they are published—no national golf magazines were published in Maryland in 2010. Similarly, no major publishers of golf books are located in the state. However, we calculated a weight to estimate the percentage of book retailers’ sales attributable to the sale of golf books in stores. Total retail golf book sales in 2010 were estimated to be \$1,125,000 with a retail sales margin of \$438,000. Golf videos and DVDs are more difficult. In SRI’s previous national-level study, we were not able to identify a source with data on the annual sales of golf-specific videos/DVDs. In the case of this current state-level study, this category was also omitted due to the absence of a reliable data source.

On-Course and Off-Course Sales of Golf Books in Maryland, 2010	
Category	Estimate
Maryland retail book sales ¹	\$267,862,115
Golf books as % of total book sales	0.4%
Total retail golf book sales	\$1,125,021
Retail sales margin	\$437,633

Note: ¹Adjusted for inflation into 2010 dollars using the appropriate GDP deflator. Sources: Maryland retail book sales data from the *2007 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.

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 Maryland State Golf Association, the Middle Atlantic Section of The PGA, the Maryland Golf Course Owners Association, the

Mid-Atlantic Association of Golf Course Superintendents, the Eastern Shore Association of Golf Course Superintendents, the National Capital Club Managers Association, and the Greater Baltimore Chapter of the Club Managers Association. Also very active are the Executive Women’s Golf Association chapters, as well as senior, junior, and regional member golf associations, such as the Washington Metropolitan Golf Association and the Middle Atlantic Golf Association.

Major Tournaments. In 2010, two major golf championships were played in Maryland: Constellation Energy Senior Players Championship, a Champions Tour event; and Melwood Prince George’s County Open, a Nationwide Tour event. We subtracted the tournament purse and cost of television broadcasting from total tournament revenues to estimate the direct event-related spending that remained in the state. Accommodation and tourism-related expenditures from this event are captured in the Tourism segment of the report.

Maryland’s Major Golf Tournament & State Golf Association Revenues in 2010 (\$ millions)	
Major Tournaments	\$3.3
Associations	\$4.3
TOTAL¹	\$7.5

Note: Numbers do not sum due to rounding.

Charitable Events. Overall, SRI estimates that the amount of charitable giving attributed to the game of golf in Maryland to be \$33.7 million in 2010. This estimate is derived from a national study¹³ based on the number of charitable golf outings/events held each year; 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 Maryland Golf Industry in 2010 (\$ millions)	
TOTAL	\$33.7

¹³ National Golf Foundation (2002). *The Charitable Impact Report*, November 2002.

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.

Maryland’s Golf Real Estate Revenues in 2010 (\$ millions)	
Golf-Related Residential Construction	\$22.1
Realized Golf Premium	\$23.5
TOTAL	\$45.6

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

SRI estimates that approximately five Maryland golf communities had new home construction in Maryland in 2010. Developments ranged from the 2,400-unit Beechtree/Lake Presidential Golf Club development in Upper Malboro to the 650-unit GlenRiddle Golf Club development near Ocean City. In 2010, only a handful of homes were built at three out of five of the Maryland golf communities due to the poor financial and economic conditions. However, a significant number of homes were constructed at two of the courses. The new homes built in 2010 had an average construction cost of \$274,000 (which does not include the cost of the lot). Multiplying the total number of units under construction at each course by their average construction cost and summing these values yielded a total 2010 golf-related residential construction figure of \$33.7 million.

Realized golf premium. The “golf” premium is the extra value a homeowner can expect to receive on the sale of a housing unit located in a golf community that is above and beyond the premium associated with a home’s other features or amenities (e.g., square footage, fixtures, landscaping, etc.). Through industry interviews, SRI arrived at a conservative estimate of this premium of \$25,000 per unit in 2010. Multiplying the approximately 36 existing Maryland golf communities by 488, the median number of

housing units per golf course, we arrive at a total of 17,568 golf community homes. In 2010, the home turnover rate (percentage of homes sold relative to the total housing stock) was 3.2 percent in Maryland. 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 Maryland's golf real estate premium was \$14.1 million in 2010.

F. HOSPITALITY/TOURISM

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

Number of golf-related trips. A number of organizations conduct surveys monitoring changes in trip volume and traveler preferences. Some of these surveys include golf participation questions, 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®. To maintain consistency with golf tourism estimates calculated for other states, SRI used the 2010 DKSA estimates available for total Maryland visitor trips: 32.17 million (16.06 million day trips and 16.11 million overnight trips).¹⁴

SRI defines a "golf trip" as a trip in which a Maryland resident or non-resident travels 50-plus miles to, through, or within the state and plays golf while on this trip. Golf-related trips include both overnight and day trips. This figure includes trips to Maryland golf resort destinations (of which Maryland has five), golf outings while on vacation or business travel, as well as trips by Maryland residents 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 in Maryland. In 2010, DKSA estimated that approximately 1 percent of Maryland's domestic visitors played golf while on a trip in 2010.¹⁵ By applying this percentage to the number of Maryland domestic visitor trips in 2010 (32.17 million total, including 16.06 million day trips and 16.11 million overnight trips), SRI estimated that there were 321,712 golf trips made in Maryland in 2010, including 160,619 golf day trips and 161,093 golf overnight trips.

Average spending per golf trip. SRI estimated that average spending per golf trip in Maryland in 2010 was \$75 per day trip and \$673 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*

¹⁴ D.K. Shifflet & Associates (DKSA), courtesy of the Maryland Office of Tourism Development.

¹⁵ D.K. Shifflet & Associates (DKSA), courtesy of the Maryland Office of Tourism Development.

U.S. Golf Travel Market, 2003 Edition report¹⁶ and adjusted average trip spending based upon online research of Maryland golf packages and relative price levels in Maryland vis-à-vis the rest of the country. Multiplying the total number of golf trips (day and overnight) by average spending per golf trip (day and overnight), SRI found that total golf-related tourism spending in Maryland was \$120.4 million in 2010.

Maryland's Golf-Related Travel Expenditures in 2010	
# Golf person day trips	160,619
Average travel \$ per person per day trip	\$74.89
# Golf person overnight trips	161,093
Average travel \$ per person per overnight trip	\$672.78
Total	\$120.4 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.







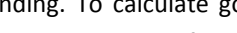
Direct economic impact. The direct economic impact of golf is simply the size of the golf industry cluster within the state economy in terms of revenues. The "state golf economy" can be calculated by adding together the size of each of the core and enabled industries calculated in the sections above:

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

¹⁶ See "Average Travel Spending" table on p.16 in NGF (2003), *U.S. Golf Travel Market*, available at: <http://www.ngf.org/cgi/catalogsearchdetail.asp?ITEMNUMBER=99MR002>. SRI adjusted for inflation from 2002-2010, since 2002 is NGF's most recent on golf travel survey.

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 Maryland’s golf economy.

Golf's Impact on Maryland's Economy (2010)						
INDUSTRY	DIRECT	INDIRECT	INDUCED	TOTAL OUTPUT (\$ millions)	TOTAL JOBS	TOTAL WAGE INCOME (\$ millions)
Golf Facility Operations	\$386.8			\$743.0	8,523	\$221.8
Golf Course Capital Investment*	\$33.0			\$24.5	176	\$7.6
Golf-Related Supplies	\$131.7			\$257.1	2,890	\$85.7
Tournaments & Associations	\$7.5			\$16.4	139	\$5.1
Real Estate **	\$47.8			\$68.2	489	\$21.2
Hospitality/Tourism	\$120.4			\$233.6	2,430	\$66.2
TOTAL	\$727.2			\$1,342.8	14,647	\$407.6

Note: Columns may not sum due to rounding. To calculate golf's total economic impact, SRI subtracted from the direct golf economy impact of \$727.2 million the portion of capital investment that is investment in existing facilities (\$20.9 million of \$33.0 million) and the portion of real estate that is the realized golf premium associated with the sale of real estate in existing developments (\$14.1 million of \$47.8 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.

Numbers in columns may not sum due to rounding.

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