

THE ECONOMIC
IMPACT OF
MINNESOTA
GOLF





Acknowledgements

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Overview

The game of golf drives significant economic activity across the State of Minnesota. This impact includes not only the direct operational expenditures and capital investments made by Minnesota's 447 golf facilities, but also golf tourism, golf-related manufacturing and retail spending, and new golf course residential construction.

Ten years have passed since the last analysis of Minnesota's golf economy. Since 2006, Minnesota's golf economy has weathered a Great Recession and a correction in its total number of golf facilities, with a net decline of 39 facilities. However, compared to 2006, Minnesota's remaining 447 facilities demonstrated robust growth, in aggregate, in revenue and in capital investments in 2016.

Looking beyond the green, Golf Tourism and the Golf-Related Manufacturing component of Golf-Related Supplies, were strengths (2006-2016 compound annual growth rates of 1.2% and 1.5%, respectively). Golf is a popular outdoor recreational activity that supports Minnesota's tourism industry by attracting Minnesotans and visitors to different parts of the states. In 2016, TEconomy estimates that visitor expenditures generated by visitors who played golf while on a trip or vacation generated \$480.6 million. Golf championship events can also be a big draw. In 2016, Minnesota scored a major coup by hosting the Ryder Cup. The event drew 295,000 spectators and TEconomy estimates that these spectators generated \$47.7 million in direct visitor spending. Minnesota will become the first U.S. venue to host a Ryder Cup for a second time, when the Ryder Cup returns to Hazeltine National Golf Club in 2028.

Minnesota is home to some major golf-related manufacturers, such as Bloomington-based Toro, which manufactured its first golf mower in 1921, and Lino Lakes-based golf course equipment manufacturer, Par Aide Products, as well as several other smaller equipment manufacturers.

In 2016, the state's largest golf industry sectors were:

- Golf Facility Operations (\$725.5M),
- Golf Tourism (\$480.6M),
- Golf-Related Supplies (\$148.5M), and
- Golf Facility Capital Investments (\$67.9M).

Table 1 presents the estimated size of each golf industry segment in 2006 and 2016. The six segments sum to \$1.555 billion, the size of Minnesota's total direct golf economy in 2016, which is up from \$1.332 billion in 2006.

Table 1. Minnesota's Direct Golf Economy by Industry Segment:
2006 and 2016 (\$M)

	2006	2016	CAGR 2006-2016
CORE INDUSTRIES			
Golf Facility Operations	\$552.7*	\$725.5	2.8%
Golf Course Capital Investments (investment and new construction)	\$43.6	\$67.9	4.5%
Golf-Related Supplies (retail and manufacturing)	\$154.1	\$148.5	-0.4%
Major Golf Tournaments and Associations	\$9.6	\$10.3	0.7%
Golf Charitable Events	\$52.4	\$64.0	2.0%
Total Core Industries	\$794.3	\$1,016.3	2.5%
ENABLED INDUSTRIES			
Golf Tourism	\$426.2*	\$480.6	1.2%
Golf Real Estate (new construction and realized premium)	\$149.3*	\$58.2	-9.0%
Total Enabled Industries	\$537.5	\$538.8	0.02%
TOTAL GOLF ECONOMY	\$1,331.8*	\$1,555.1	1.6%
TOTAL DIRECT IMPACT FOR IMPACT ANALYSIS**	\$1,260.8	\$1,404.0	1.1%

Note: * TEconomy recalculated 2006 Golf Facility Operations, Golf Tourism, and the realized golf premium portion of Golf Real Estate. See these sections of the report for full explanations. ** The economic impact analysis calculates total impact on the margin of retail sales for both the Golf-Related Supplies and Tourism estimates and only the new golf course construction and new golf residential construction portions of Golf Course Capital Investment and Golf Real Estate. This follows the same methodological approach as the 2006 study. Source: TEconomy Partners, LLC, 2016 calculations. SRI International, 2006 calculations.

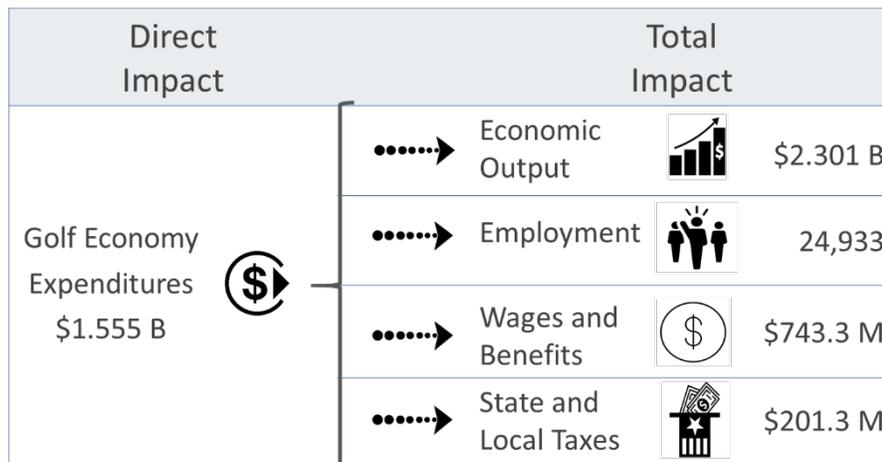
Minnesota's \$1.555 billion golf industry is comparable to other major industries in the state, such as Spectator Sports (\$752.2 million), Milk Production (\$1.606 billion), and Surgical and Medical Equipment and Supplies Manufacturing (\$3.569 billion).¹

The golf industry's direct economic activity generates secondary and tertiary impacts throughout the state economy through operating expenditures and consumer spending by employees. When these indirect and induced impacts are included, Minnesota's golf industry drove:

- \$2.301 billion of direct, indirect, and induced economic output;
- 24,993 direct, indirect, and induced jobs;
- \$743.3 million in compensation; and
- \$201.3 million in state and local tax revenue.

Figure 1, below, presents Minnesota golf's total direct economic expenditures and the total economic impact generated by the direct expenditures across the state. Most, but not all, of Minnesota's total golf economy expenditures are included in economic impact accounting. Table 1 shows that total economic impact was calculated on \$1.404 billion of the total \$1.555 billion Minnesota golf economy.² Figure 1 presents the golf economy's total economic impact on the state.

Figure 1 Minnesota Golf's Total Economic Impact 2016



Source: TEconomy Partners, LLC

¹ Dairy Production, Milk, "Top Five Commodities," State Fact Sheet: Minnesota, 2016, U.S. Department of Agriculture, Economic Research Service; NAICS 3391 Surgical and Medical Equipment and Supplies Manufacturing, U.S. Census Bureau, Annual Survey of Manufacturers 2016; and 7112 Spectator Sports, U.S. Economic Census, 2012, adjust for inflation to 2016 dollars using the GDP price inflator. 2017 U.S. Economic Census data will not be available at the state level until late 2019.

² The values subtracted from the total golf economy for economic impact accounting include: (1) the costs of goods for retail sales of golf-related supplies and golf tourism shopping expenditures, as only the retail margin values generate state impacts from retail sales, (2) the capital investment in existing golf facilities to avoid double counting, because it is assumed to be financed through golf facility operation revenue, (3) the realized golf premium on the sale of existing golf homes, because the sale of existing homes is considered a transfer of assets, and (4) money raised through charitable golf events, because it is considered a transfer of income.

Methodology

Framework

For the past 15 years, the World Golf Foundation's GOLF 20/20 and key golf industry stakeholders in many states have successfully measured and communicated golf's economic impact—i.e., how much the game contributes to state and national economies through direct, indirect, and induced economic activity and employment. As a result, the framework has been replicated internationally—e.g., see Ernst & Young's *The Australian Golf Industry Economic Report 2010* and Sports Marketing Survey Inc.'s *The Economic Impact of Golf on the Economy of England 2012*.³ Adoption of the WGF's golf industry impact framework⁴ has enabled the golf industry to assess its overall growth and the growth of individual industry segments over time and across geographic regions. Figure 1 presents the WGF's golf industry and economic impact framework.

Figure 2 Golf Industry Impact Framework



Source: TEconomy Partners, LLC

³ Ernst & Young (2011). *The Australian Golf Industry Economic Report 2010*, https://www.clearinghouseforsport.gov.au/data/assets/pdf_file/0003/437610/AGIC_2010_Golf_Industry_Economic_Report.pdf Sports Marketing Survey Inc. (2014). *The Economic Impact of Golf on the Economy of England 2012*, <http://www.Englandgolf.org/library-media%5Cdocuments%5CThe%20Economic%20Impact%20of%20Golf%20on%20the%20Economy%20of%20England.pdf>.

⁴ The World Golf Foundation's golf industry cluster framework debuted in its commissioned study performed by SRI International (2002). *The Golf Economy Report*. <http://www.golf2020.com/media/30717/2002golf2020economicreport.pdf>

The framework divides the golf industry into core and enabled industries. The four core industry segments include Golf Facility Operations, Golf Facility Capital Investments (course construction and renovations), Golf-Related Supplies (production and retail sales), and Golf Tournaments, Associations, and Charitable Events. The two enabled industry segments are Golf Real Estate (new home construction and premiums related to the sale of existing homes in golf communities) and Golf Tourism.

Data and Estimations

To estimate Minnesota's golf's economic impact, TEconomy first collected and analyzed secondary data from a wide range of long-standing data sources with time-series data for each of the six industry segments. These data were used to develop direct expenditure impact estimates for each of the four core and two enabled industry segments. These data sources include: the National Golf Foundation's *US Golf Facilities* report and *Golf's Charitable Impact* report, the Professional Golfers' Association of America's *PGA Operations Survey* and *PGA Compensation Survey*, the U.S. Economic Census, the Golf Course Superintendents Association of America's *Capital Expenditures Survey*, the Golf Course Builders Association of America, Dun & Bradstreet/Hoovers, the National Sporting Goods Association's *The Sporting Goods Market Survey*, golf association tax filings, and tourism surveys and studies commissioned by Explore Minnesota Tourism, the state's tourism promotion office.

TEconomy also performed primary research, such as online searches for golf communities and interviews with developers and real estate agents to collect data on the number of homes constructed and the average construction cost of homes in these developments. In cases where response rates to existing facility surveys are low, TEconomy works with state golf task forces to implement golf facility surveys to collect additional economic data.

Using these data, TEconomy estimated the direct expenditure impacts for each of the four core and two enabled industry segments. Based on the golf task force's review and approval of these estimates, TEconomy then used IMPLAN, an economic impact modeling software, to perform the economic impact analysis to estimate the golf industry's total economic impact on Minnesota's economy.

The subsequent chapters present TEconomy's direct impact estimate for each of the six golf industry segments, as well as an explanation of what was measured and the estimation approach. The final chapter presents the economic impact analysis results.



Golf Facility Operations

Finding

Minnesota's 447 golf facilities generated \$725.5 million in operating revenue in 2016, up from \$552.7 million in 2006, representing a compound annual growth rate of 2.8%. This strong overall performance was driven by growth in average facility revenue, especially by private facilities and resorts over this 10-year period. Growth in average revenue outweighed the net decline in the total number of golf facilities.⁵ Minnesota's net closures of facilities over this period (down 39 from 486 facilities in 2006) mirrors the correction in facilities nationally. Alternative facilities—particularly miniature golf facilities—also experienced net closures and declines in operating revenue over this period, while the performance of golf ranges and indoor facilities was mixed. Topgolf will open its first Minnesota location in the Twin Cities in 2018. Thus far, Topgolf represents a growing and highly profitable sports entertainment model in the U.S. and internationally.

Table 1. Minnesota Golf Facility Revenue (\$M): 2006 and 2016

	2006	2016	CAGR
Regulation and alternative facilities	\$552.7	\$725.5	2.8%

Source: TEconomy Partners and SRI International (2007). *The Minnesota Golf Economy 2006*.

Approach

What is measured:

Golf facilities generate operating revenue through greens fees, membership fees, range fees, golf cart rental, and associated spending on food and beverage. The golf facilities use this revenue to support facility operations through direct employment and purchases of a range of goods and services from other vendors—e.g., turfgrass equipment and maintenance providers, golf equipment and apparel manufacturers, food and beverage providers, etc. These expenditures by golf facilities is what drives the economic impact.

How it's measured:

This industry segment's direct economic impact is calculated by multiplying the number of regulation golf facilities in each of four categories—private, daily fee/semi-private, municipal/university/military, and resort—by the average revenue for that type of facility. TEconomy did the same for alternative facilities, which includes practice ranges, miniature golf, and others.

⁵ The overall growth in total facility operations revenue at the macro level, from 2006-2016, masks variability in establishment-level performance. For individual facilities, revenue growth varied greatly by type of facility, by geographic region, by number of holes, etc.



Number of Facilities

TEconomy compiled data on the total number of Minnesota golf facilities, by type, from the Economic Census, the National Golf Foundation, and the Minnesota Golf Association (see table, below). Comparing the different facility estimates by type of facility, it appears that the Economic Census may have some classification errors. The Economic Census reports a much higher number of private facilities than the NGF in 2007 and 2012. This may explain why the Economic Census average revenue for privates (Table 3) is also lower—because of the inclusion of daily fee facilities that pull down the average revenue.

TEconomy used the following number of facilities in its calculations: 44 private facilities and 403 public facilities, which includes 298 daily fee/semi-private facilities, 91 municipal/university facilities, and 14 golf resorts. Note that this is very similar to the National Golf Foundation's count of 48 private facilities and 399 public facilities, with an identical total number of facilities. For alternative facilities, TEconomy included 10 miniature golf facilities and 22 golf ranges and indoor facilities based on Economic Census⁶ and PGA of America data.

Table 2. Number of Minnesota Golf Facilities by Type of Facility: 2006 and 2016

	Private	Public	Daily fee/ Semi- private	Municipal/ University/ Military	Resort	Total
MGA 2016	44	403	298	91	14	447
NGF 2016	48	399	-	-	23	447
NGF 2012	52	416	-	-	23	468
NGF 2007	55	431	-	-	25	486
Economic Census 2012	68	-	287	-	-	355
Economic Census 2007	70	-	293	-	-	363
NGF 2006	55	431	-	-	25	486
SRI 2006	55	453	351	83	19	508

Source: U.S. Economic Census 2007 and 2012. National Golf Foundation. *U.S. Golf Facilities, 2006-2016*. SRI International (2017). *The Minnesota Golf Economy 2006*. The Minnesota Golf Association database.

Average Revenue

TEconomy compiled average revenue data from the Economic Census, the PGA Facility Operations Survey, the PGA Professional Compensation Survey, and the 2006 Minnesota golf economic impact study (see table, below).

⁶ The 2012 Economic Census is the latest available. The 2017 Economic Census data will not be released until 2019 for national level data and 2020 or 2021 for state-level data.



The Economic Census only surveys private facilities and daily fees every five years (not municipal/university/military facilities and golf resorts). The most recent data available for Minnesota from the Economic Census is 2012.⁷ TEconomy developed and implemented an online survey that was sent to 357 facilities (out of the 447 total Minnesota golf facilities) for whom email contacts were available. 108 facilities responded for a 30.3% response rate. The response rate for private facilities was particularly high, with 33 out of 44 total private facilities (75%) responding. The TEconomy survey average revenue line up very closely with the PGA Compensation Survey average revenue, except for the resorts category.

TEconomy used the reported \$4.774 million for private facilities, up from \$1.750 million in 2006 (driven by strong growth in membership dues and revenue from wedding receptions and banquets over the 10-year period); \$1.340 million for daily fee facilities, up from \$1.031 million in 2006; \$1.382 for municipal/university/military facilities, up from \$1.136 million in 2006; and \$2.807 million for resorts, up from \$2.672 million in 2006.⁸

Table 3. Minnesota Average Golf Facility Revenue by Type: 2006 and 2016

	Private	Daily fee/ Semi-private	Municipal/ University/ Military	Resort
TEconomy 2016	\$4,773,869	\$1,340,290	\$1,382,088	\$2,807,173
PGA 2016	\$4,331,114	\$1,204,870	\$1,301,618	\$10,850,000
PGA 2012	\$3,112,991	\$921,043	\$803,205	\$3,799,338*
Economic Census 2012	\$1,595,500	\$822,282	-	-
Economic Census 2007	\$1,845,629	\$751,509	-	-
Economic Census 2002	\$1,522,325	\$648,754	-	-
SRI 2006 (PGA 2006)	\$1,750,000	\$1,031,283	\$1,135,800	\$2,671,664*

Note: *This is an average of responses from golf resorts in the Midwest region.

Source: U.S. Economic Census 2002, 2007 and 2012. PGA Operations Survey 2012 and PGA Compensation Survey 2016. SRI International (2007). *The Minnesota Golf Economy 2006*.

⁷ The 2017 Economic Census data will not be released until 2019 for national level data and 2020 or 2021 for state-level data.

⁸ In 2006, the average revenue for private facilities (\$1,750,000) was used as a proxy for resorts in the Golf Facility Operations calculation. TEconomy revised the 2006 Golf Facility Operations calculations using the PGA reported average revenue for resorts (\$2,671,664) in the Midwest region, because the task force decided it had been too conservative previously after reviewing PGA reported average revenue for resorts from 2006-2016.



Golf Facility Capital Investment

In 2016, Minnesota golf facilities invested \$60.4 million in capital improvements to existing greens and tees, equipment, and structures, up from \$31.1 million in 2006. This represents a compound annual rate of growth of 6.9% over this ten-year period. GCSAA survey data for the North Central Region shows strong recovery in capital investment following deferred investments during the Great Recession of 2008-2010 and tepid economic recovery in the years after. In contrast to the strong rebound in capital investment by existing facilities, investment in new course construction reflects the net decline in Minnesota golf facilities over the past 10 years. NGF reported the opening of the 9-hole River golf course at Superior National at Lutsen in 2016, and the task force identified construction of a new 18-hole golf course at Braemer Golf Course in Edina and the new 18-hole Royal Golf Club at St. Elmo, an Annika Sorenstam and Arnold Palmer-designed course which is one of Palmer's last projects. Both the Braemer course construction and the Royal course construction are 18-hole constructions occurring on the site of existing 27-hole golf courses. The partial year construction of the three facilities generated a total \$7.5 million of economic activity, which represents a decline from \$12.5 million in 2006 (-4.9% CAGR.)

Table 4. Minnesota Golf Facility Capital Investment (\$M): 2006 and 2016

	2006	2016	CAGR
Existing Facilities	\$31.1	\$60.4	6.9%
New Course Construction	\$12.5	\$7.5	-4.9%

Source: TEconomy Partners, LLC, and SRI International. *The Minnesota Golf Economy 2006*.

Approach

What is measured:

Capital investments are major improvements outside of normal maintenance and operating expenditures by golf facilities for turf maintenance and grounds upkeep. Golf facilities periodically make major investments to improve greens and tees, renovate clubhouses and other buildings, and purchase turf maintenance equipment and irrigation systems. In addition to capital investments by existing facilities, construction of new golf courses constitutes is the other major type of capital investment.

How it's measured:

Golf facility capital investment data comes from surveys. The Golf Course Superintendents Association of America includes a golf facility capital budget question on its annual Compensation Survey. Data is reported by GCSAA region and is no longer available at the state level. For this study, TEconomy used the GCSAA North Central



Region average reported capital investment of \$135,118, which is more than double the average reported capital investment on the GCSAA survey in 2006: \$61,260.

For new course construction, the National Golf Foundation reports the number of new golf courses under construction and the number of new golf facility openings each year as part of its annual *U.S. Golf Facilities* publication. In 2016, NGF estimated there was one 9-hole golf course that opened in Minnesota. The task force and TEconomy identified two other regulation 18-hole facilities that began construction in 2016: the Braemer Golf Course in Edina and the Royal Golf Club at Lake Elmo. By comparison, NGF reported 3.0 new 18-hole equivalent openings and 4.0 new course constructions in 2006. The Golf Course Builders Association of America provides data on golf course construction and renovation costs based on its survey of golf course builders around the country. In addition, TEconomy found master plan documents and local newspaper articles that provided total planned construction costs for the three Minnesota facilities.



Golf-Related Supplies

Consumer purchases of golf apparel, golf equipment, and accessories drive significant economic activity. Minnesota retailers earned \$44.6 million on \$107.1 million of on-course and off-course sales in 2016, down from \$47.1 million on \$117.5 million of golf-related consumer goods purchases in 2006 and representing a -1.0% compound annual growth rate. Retail sales of individual golf clubs, golf apparel, and golf shoes grew over this 10-year period, but sales of golf balls, golf bags, and golf club sets (the largest equipment category) declined resulting in the net contraction for this industry segment overall.

In addition to retail sales, Minnesota is home to some major golf-related manufacturers. Toro is a global company that designs and manufactures golf turf maintenance and turf irrigation equipment, among many other products. The Bloomington-based company manufactured its first golf mower in 1921. Minnesota is also home to global golf course equipment manufacturer, Par Aide Products, as well as TPK Golf, and others. These companies had total value-added production (wholesale revenue minus the cost of production) of golf-related products of \$41.5 million in 2016, up from \$35.8 million in 2006, reflecting a CAGR of 1.5%. This figure represents the companies' out-of-state shipments nationally and globally.

Table 5. Minnesota Golf-Related Supplies Revenue (\$M): 2006 and 2016

	2006	2016	CAGR
Retail Sales (Margin)	\$117.5 (\$47.1)	\$107.1 (\$44.6)	-1.0%
Manufacturing Out-of-State Shipments (Value Added)	\$35.8	\$41.5	1.5%

Source: TEconomy Partners and SRI International. *The Minnesota Golf Economy 2006*.

Approach

What is measured:

This segment captures both: (1) the net revenue (known as retail margin) that accrues to Minnesota retailers from spending by golfers on golf equipment, golf shoes, and golf apparel and (2) the manufacture of these goods by Minnesota companies. In addition to the manufacture of golf-related consumer goods, this segment captures the manufacture of golf cars, golf course accessories, and turf maintenance equipment. Like golfers, golf facilities also make purchases of goods to facilitate the game and facility operations.

How it's measured:

Data to calculate on-course and off-course retail spending on golf equipment, golf shoes, and golf apparel comes from the National Sporting Goods Association. The NSGA conducts an annual survey of 100,000 households. NSGA



has collected this data since 2002. Sales for different categories of purchases are broken down by geographic region, and TEconomy estimated state-level sales based on Minnesota's share of 18-hole equivalent facilities for the West North Central Region.

The estimation of economic impact is based upon the retail margin that accrues to Minnesota companies that sell golf equipment and apparel. The U.S. Census Bureau's Annual Retail Trade Survey reports the retail margin for different industry sectors. TEconomy used the most recent retail margin available for sporting goods stores (41.7% in 2015, up from 40.1% in 2006) to estimate the retail margin accruing to Minnesota companies. The retail margin is the net revenue accruing to the business after paying for the cost of goods from the wholesaler or manufacturer.

The second type of activity captured by this industry segment is manufacturing activity—companies that produce golf equipment and golf apparel for golfers, as well as companies that manufacture turf maintenance equipment, golf course accessories, and golf cars for golf facilities. Since consumer retail purchases and golf facilities operating expenditures are already captured in the retail portion of this industry segment and in the Golf Facility Operations estimate, respectively, TEconomy treats manufacturing separately.

To identify golf-related manufacturers, TEconomy solicited input from the golf task force and conducted Hoovers Dun & Bradstreet database searches. Annual revenue and employment figures for manufacturers come from the Hoovers' Dun & Bradstreet database, as well as TEconomy estimates developed based on analysis of annual reports and interviews with company representatives.

TEconomy subtracted the share of sales going to in-state customers from total sales to avoid double-counting with the golf facility operations and retail consumer golf sales segments. The IMPLAN data and modeling software calculates economic impact based on the value added for manufacturing, i.e., the company's wholesale revenue minus the cost of production inputs.



Tournaments, Associations & Charitable Events

Finding

Tournaments and Associations: In 2016, Minnesota hosted two professional golf events: the Ryder Cup and the 3M Championship. The Ryder Cup is an international men's team golf competition between the U.S. and Europe. It is played every two years with the venue alternating between different facilities in the U.S. and Europe. The 2016 Ryder Cup was played at Hazeltine National Club in Chaska, Minnesota, outside of Minneapolis. The event drew an estimated 295,000 spectators generating over \$80 million in visitor-driven economic impact according to Meet Minneapolis, the city's convention and visitor group.⁹ It was recently announced that the Ryder Cup will return to Hazeltine in 2028, a first for a U.S. venue. The 3M Championship, played annually at TPC Twin Cities, is a professional golf tournament that is part of the PGA TOUR's Champions Tour. Finally, in addition to being selected to host the Ryder Cup again, Minnesota scored another big coup by being selected to host the 2019 KPMG Women's PGA Championship at Hazeltine.

Minnesota has several state-level golf associations that serve as professional member organizations and generate a variety of benefits for members. The major state golf associations include the Minnesota Golf Association (which merged with the Minnesota Women's Golf Association and Minnesota Women's Public Golf Association in 2017), the Minnesota Section of The PGA, the Midwest Public Golf Managers Association, the Minnesota Golf Course Superintendents Association, the Upper Midwest Club Managers Association, and the Midwest Golf Course Owners Association. The MGA organizes amateur events for men and women of all ages, including juniors, seniors, and open events. The PGA Section organizes a series of events for juniors, as well as professional events for their members. The First Tee, a national junior golf development program, has chapters in the Twin Cities, Blaine, Rochester, and the Three Rivers Park District. Minnesota Reach, the Minnesota PGA Foundation, supports junior golfers through the operation of junior tour events, support for other organizations that provide golf development programs, and financial assistance for worthy recipients to attend college. The Minnesota Golf Course Superintendents Association and the Minnesota Women's Golf Foundation also provide college scholarships.

TEconomy estimates that total expenditures stemming from the 3M Championship event, as well as golf association-supported tournament and member activities generated \$10.3 million in 2016, up from \$9.6 million in

⁹ Sanchez, Gabriel (2016). "Ryder Cup visitors will bring their dollars into the state, as well," Twin Cities Pioneer Press, 26 September 2016. <https://www.twincities.com/2016/09/26/ryder-cup-hazeltine-chaska-mn-minneapolis-visitors-their-dollars-in-as-well/> Accessed 12 March 2016. TEconomy performed a high-level calculation of direct visitor impact stemming from the 295,000 spectators who attended the Ryder Cup at Hazeltine in 2016. TEconomy estimates the direct visitor spending totaled \$47.7 million which would be equivalent to the \$70 million to \$80 million of total economic impact estimated by Meet Minneapolis.



2006, reflecting a compound annual growth rate of 0.7%. (Visitor spending related to the Ryder Cup is captured in the “Golf Tourism” estimate and chapter.)

Charitable Events: Charitable golf events serve as important fundraisers for many state and local charitable organizations. In 2016, Minnesota golf facilities hosted charitable events that generated \$64.0 million in charitable proceeds for beneficiary organizations, up from \$52.4 million in 2006, reflecting a 2% compound annual growth rate. This includes charitable monies raised at both championship events and at the club level. The 2016 Ryder Cup raised \$2.85 million for charities, such as the Boys and Girls Club of America and the PGA Junior League Golf, and over \$270,000 for local nonprofits and school groups through ticket auctions. The 3M Championship donated \$1.3 million for local hospitals, including Allina Health's United Hospital, Abbott Northwestern Hospital, and Mercy & Unity Hospitals. At the club level, golf facilities serve as vehicles for a number of major fundraisers, such as the Best Buy Charity Classic played at Hazeltine, which raised \$2.8 million to funds grants for technical skills training and career exploration programs for underserved teens; Tee It Up for the Troops Minnesota played at Mendakota which raised \$688,000; Tapemark Charity Pro-Am played at Southview, which raised \$475,000 for Arc Greater Twin Cities and the Arc of Minnesota supporting people with intellectual and developmental disabilities and their families; Great Clips Charity Golf Classic played at Golden Valley, which raised \$411,000 for the Family Needs Fund at Children’s Minnesota; and several others. Many Minnesota golf clubs generate smaller, but high-impact funds for local hospitals, schools, youth development organizations, guide dog organizations, research funds, college scholarships, etc. The TEconomy survey found that the average Minnesota facility hosts 11 charitable events each year which raises \$15,959 in net proceeds per event for charitable and nonprofit organizations.

Table 6. Minnesota Tournaments, Associations & Charitable Giving (\$M): 2006 and 2016

	2006	2016	CAGR
Tournaments and Associations	\$9.6	\$10.3	0.7%
Charitable Events	\$52.4	\$64.0	2.0%

Source: TEconomy Partners, LLC and SRI International. *The Minnesota Golf Economy 2006*.

Approach

What is measured: Direct expenditures related to hosting professional events, total expenditures on tournaments and other activities by state golf associations, and charitable monies raised via golf events. The PGA TOUR, the PGA of America, the USGA, and the LPGA organize professional golf championship events across the country. The MGA organizes amateur events for men and women of all ages, including juniors, seniors, and open events. The PGA Section organizes a series of events for juniors, as well as professional events for their members.



Charitable giving captures both the in-kind contributions and the net proceeds resulting from charitable golf events that are hosted by Minnesota's golf facilities.

How it's measured: The Tournaments estimate is derived from direct tournament-related expenditures. Direct expenditures related to hosting the Ryder Cup were not publicly available, although they are sizeable.¹⁰ Lodging, food and beverage, and other tourism-related expenditures associated with these high-impact events are captured in the Golf Tourism segment of the report. The Associations estimate is the sum of major state golf association expenditures. These are reported on profit and loss (P&L) statements provided by the state golf associations to TEconomy and/or via tax filings.

The charitable giving estimate draws on the National Golf Foundation's 2016 charitable giving survey.¹¹ The national study of charitable giving is based on the number of golf facilities that hold charitable golf events, the average number of events held by each facility, and both the net proceeds raised, and in-kind fees, services, and discounts donated. It also includes the charitable giving associated with professional golf tournaments. Charitable giving is not included in economic impact estimation because it is considered a direct transfer of income in economic impact accounting.

¹⁰ For example, The PGA paid Minnesota \$4,137,654 in sales tax, alone, for concessions and merchandise sold at the course." See <http://www.startribune.com/officials-say-ryder-cup-paid-its-way-mostly/408665735/>

¹¹ National Golf Foundation (2017). *Estimating the Charitable Impact of Golf*. January 2017.



Golf Tourism

Direct Impact

Golf is a popular outdoor recreational activity that supports Minnesota's tourism industry by attracting visitors to different parts of state for day trips and extended stays. In 2016, TEconomy estimates that tourism expenditures stemming from travelers who played golf while on a trip or vacation generated \$480.6 million, up from \$426.2 million in 2006 and representing a 1.2% compound annual rate of growth. This growth was driven by both an increase in the number of trips taken, compared to 2006, and increased spending while on these trips. Golf championship events can also be a big draw. In 2016, Minnesota scored a major coup by hosting the Ryder Cup. The event drew 295,000 spectators and TEconomy estimates that these spectators generated \$47.7 million in direct visitor spending.¹² When the Ryder Cup visitor spending is included, total golf-related traveler expenditures totaled \$528.2 million in 2016, representing a 2.2% CAGR. Junior, senior, amateur, and member-guest tournaments also bring Minnesotans and out-of-state visitors to different parts of the North Star state, as do other professional golf events like the 3M Championship held annually at TPC Twin Cities.

Table 8. Minnesota Golf Tourism (\$M): 2006 and 2016

	2006	2016	CAGR
Travel Expenditures (\$)	\$426.2*	\$480.6	1.2%
Ryder Cup Visitor Expenditures (\$)	-	\$47.7	-

Note: *Revised figure using same data source for 2006, as 2016, to enable time-series comparison.
Source: TEconomy Partners, LLC

Approach

What is measured: The golf tourism industry segment estimates the golf-related travel expenditures in which a person travels 50-plus miles and plays or watches golf as a key recreational activity while on business or leisure travel.

How it's measured: Data for this calculation comes from surveys and studies of visitors and visitor spending conducted or commissioned by state departments of tourism. Between the previous golf economic impact study

¹² Adler, Erin (2016). "Officials say Ryder Cup paid its way: Several government officials and business leaders emphasized that the Ryder Cup was a boon to the area, filling hotel rooms and bringing esteem to the Twin Cities," Star Tribune. 30 December 2016. Accessed April 10, 2018. A pre-event estimate projected a \$70 million to \$80 million Ryder Cup total economic impact. Running an economic impact analysis on TEconomy's estimate of \$47.7 million in direct visitor spending would generate a total economic impact of \$70 million to \$80 million. See Sanchez, Gabriel (2016). "Ryder Cup visitors will bring their dollars into the state, as well," Twin Cities Pioneer Press. 26 September 2016.



in 2006 and this study focused on the base year of 2016, Explore Minnesota switched data vendors. Since the goal of this study is to provide analysis of growth or decline in different golf industry segments over the past 10 years, TEconomy opted to use Tourism Economics data on Minnesota traveler spending from 2009-2015, with additional estimations to develop the 2006 to 2016 data for this study. We extrapolated Minnesota traveler spending for 2006 by calculating and applying the U.S. growth rate in U.S. traveler spending from 2006-09 (1.1%) to the Minnesota data. We also estimated 2016 Minnesota traveler spending using 2015 Minnesota traveler spending and assumed the same (most recent available) 2014-15 growth rate of 4.5% for the 2015-2016 period.

To estimate golf's contribution to Minnesota tourism, TEconomy used estimates from studies that analyzed the share of travelers who played golf while on a trip. In 2006, a David Peterson Associates survey¹³ found that 5% of Minnesota travelers reported having played golf while on a trip, while more recently, the share of travelers who reported playing golf fell to 4%.¹⁴ To estimate Ryder Cup visitor spending, TEconomy used the total number of spectators (295,000 people) and multiplied this by the per traveler per day average spending from Tourism Economics, \$161.54. In 2028, Minnesota's Hazeltine National Golf Club will become the first golf course in the U.S. to host the Ryder Cup a second time.

¹³ David Peterson Associates (2008). *Profile of Travelers in Minnesota, June through May (2005-2006 and 2007-2008)*, p.29. Prepared for Explore Minnesota, the University of Minnesota Tourism Center, and others.

¹⁴ University of Minnesota Tourism Center (2012). *Twin Cities Metropolitan Area Summer Visitor Profile*, p.17. Prepared for the Metro Tourism Association.



Golf Real Estate

Golf courses provide walkable open spaces and recreational facilities, making them a key amenity in many residential communities. New golf-related real estate construction generated \$31.5 million in 2016, down from \$105.6 million in 2006. New golf home construction peaked in 2006 before the financial crisis and economic recession of 2008-2010. Two factors explain the absence of a larger rebound in new golf home construction in 2016: very few new golf courses have been constructed in Minnesota over the last 10 years (which saw a net decline of 39 facilities) and many, but not all, of the existing golf communities have been completely build out. In 2016, TEconomy identified new golf home construction at The Jewel in Lake City; Boulder Pointe in Elko New Market; The Villas at Medina Country Club in Medina; Somerby Golf Community in Byron; Cragun's Resort in Brainerd; and Fairway Hills at Chaska Town Course.

The Golf Real Estate segment also estimates the "golf" premium associated with golf communities. There were an estimated 53 golf communities in Minnesota in 2016, up from 52 golf communities in 2006. TEconomy estimated the "golf" premium associated with these developments to be \$26.7 million, down from \$43.7 million in 2006. The premium is generated by the sale of existing golf homes and reflects the additional amount a buyer is willing to pay to purchase a home or property located on a golf course or within a golf community. The value of golf homes has rebounded since the recession, but the pace of sales of existing homes relative to the total stock of golf homes still lags the peak in 2006, which brought down the 2016 golf premium.

Table 7. Minnesota Golf Real Estate (\$M): 2006 and 2016

	2006	2016	CAGR
Golf Home Construction	\$105.6	\$31.5	-11.4%
Existing Home Sales Golf Premium	\$43.7*	\$26.7	-4.8%

Source: TEconomy Partners and SRI International. *The Minnesota Golf Economy 2006*. * Revised.

Approach

What is measured: New golf home construction generates significant regional economic activity and impact. For this segment, TEconomy measures expenditures related to new golf home construction, as well as economic activity associated with the resale of existing golf homes and the premium associated with these homes. The "golf premium" is the extra value a homeowner can expect to receive on the sale of a home located in a golf community beyond the home's other features.

How it's measured: TEconomy conducted online research to identify new golf community developments and new phases of development at existing golf communities. We also solicited input from the Minnesota golf task



force. TEconomy then contacted real estate developers, builders, and real estate agents to identify the number of new homes under construction in the base year and the average construction cost of these homes.

To calculate the golf premium, TEconomy multiplied Minnesota's 53 existing golf communities by the average number of housing units per golf course by the home turnover rate. TEconomy estimates that in 2016, the home turnover rate (percentage of homes sold relative to the total housing stock) was 3.6 percent in Minnesota.

Economic Impact

Economic impact analysis is an effective way of modeling how growth or decline of a target industry sector contributes to changes in the overall level of economic activity in a state economy. In the case of the golf industry, TEconomy analyzed the total economic impact of each of the six core and enabled golf industry segments. Economic impact analysis measures three major channels by which growth or decline of an industry sector impacts the overall level of economic activity in a state:

- **Direct effects:** The direct employment and economic activity stemming from the golf industry segments' operations and expenditures.
- **Indirect effects:** The demand generated for supplier firms by the six golf industry segments.
- **Induced effects:** The additional economic activity generated by the spending of the golf industry's and related supplier firms' employees in the overall economy.

The sum of these three effects is referred to as the **total impact**. This concept of how a dollar of investment is re-spent multiple times throughout the economy as it passes from business to business or business to employee is known as the "multiplier effect." The result of the multiplier effect is that one dollar of expenditure or investment ends up having a total economic impact that is a few multiples higher.

Multiplier effects are larger when the initial investment spurs follow-on investment, when the consumption component, including purchases from suppliers, is higher, and when the spending occurs locally. To calculate economic impact, TEconomy used a State of Minnesota-specific model and data from IMPLAN to create a golf industry-specific model. IMPLAN is one of the most widely used and respected providers of economic impact modeling software. The software provides a platform for estimating total impact using highly detailed data tables representing 536 economic sectors in the state economy. An advantage of IMPLAN is that it also estimates total state/local and federal taxes generated by the golf industry in the form of income, sales, property, and other taxes.

Table 9 presents the total economic impacts stemming from the direct, indirect and induced effects of each of the six golf industry segments. Note that capital investments in existing golf courses, charitable giving, and the realized golf premium on the sale of existing golf homes are not included in the economic impact calculation. Capital investments, outside of major renovations, are assumed to be financed through operating revenue and, therefore, not included to avoid double counting. Charitable giving is considered a transfer of income rather than the generation of new income. Similarly, the sale of existing homes is also considered a transfer of assets rather than new economic activity.

Table 9. Minnesota Golf's Total Economic Impact in 2016 by Industry Segment (\$ millions)

		Total (Direct, Indirect, and Induced) Economic Impact				
		Direct	Output	Employment	Compensation	State and Local Taxes
CORE INDUSTRIES						
	Golf Facility Operations	\$725.5	\$1,341.9	16,400	\$417.3	\$128.3
	Golf Course Construction*	\$7.5	\$14.1	112	\$5.8	\$0.6
	Golf-Related Supplies*	\$148.5	\$151.2	1,382	\$48.3	\$9.3
	Major Golf Tournaments and Associations	\$10.3	\$18.0	119	\$7.9	\$1.0
Total Core Industries		\$891.8	\$1,525.2	18,013	\$479.3	\$139.2
ENABLED INDUSTRIES						
	Golf Residential Construction*	\$31.5	\$59.9	414	\$23.2	\$2.5
	Golf Tourism*	\$480.6	\$715.5	6,506	\$240.8	\$59.6
Total Enabled Industries		\$512.1	\$775.4	6,920	\$264.0	\$62.1
TOTAL (without Ryder Cup)		\$1,404.0	\$2,300.6	24,933	\$743.3	\$201.3
	Ryder Cup Spectator Spending	\$47.7	\$73.1	840	\$27.9	\$7.4
Total (with Ryder Cup)		\$1,451.7	\$2,373.7	25,773	\$771.1	\$208.8

Source: TEconomy Partners, LLC analysis using IMPLAN Minnesota state model. Note: Rounded figures. * The economic impact analysis calculates total impact on the margin of retail sales for both the Golf-Related Supplies and Tourism estimates and only the new golf course construction and new golf residential construction portions of Golf Course Capital Investment and Golf Real Estate.

The 2016 golf economic impact figures are not directly comparable to the 2006 figures due to the fact that the IMPLAN economic impact model uses a larger number of industry sectors that enables a higher degree of specificity for the impact analysis, often resulting in lower multipliers than the RIMS multipliers used in the previous analysis. In addition, in advanced, open economies, multipliers tend to decrease over time due to increasing productivity and increasing imports of inputs from outside the region.

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Appendix: Economic Impact Tables

Table A1-1. Golf Facility Operations

Impact Type	Employment	Labor Income	Value Added	Output	State & Local Tax Revenues	Federal Tax Revenues
Direct Effect	12,386	\$210,602,704	\$394,363,323	\$725,521,865	\$95,129,951	\$57,016,759
Indirect Effect	1,934	\$106,070,995	\$178,706,189	\$321,976,816	\$15,255,688	\$24,943,964
Induced Effect	2,080	\$100,661,755	\$168,361,862	\$294,429,635	\$17,927,038	\$24,094,225
Total Impacts	16,4000	\$417,335,453	\$741,431,375	\$1,341,928,316	\$128,312,677	\$106,054,948
Multiplier	1.32	1.98	1.88	1.85		

Source: TEconomy Partners, LLC analysis using IMPLAN Minnesota state model

Table A1-2. Golf Course Construction

Impact Type	Employment	Labor Income	Value Added	Output	State & Local Tax Revenues	Federal Tax Revenues
Direct Effect	70	\$3,563,395	\$4,392,187	\$7,543,102	\$224,068	\$703,978
Indirect Effect	13	\$842,253	\$1,291,473	\$2,439,416	\$125,823	\$191,762
Induced Effect	29	\$1,395,928	\$2,336,177	\$4,083,918	\$248,944	\$334,223
Total Impacts	112	\$5,801,576	\$8,019,837	\$14,066,435	\$598,835	\$1,229,963
Multiplier	1.60	1.63	1.83	1.86		

Source: TEconomy Partners, LLC analysis using IMPLAN Minnesota state model

Table A1-3. Golf-Related Supplies (Retail Sales and Manufacturing Shipments)

Impact Type	Employment	Labor Income	Value Added	Output	State & Local Tax Revenues	Federal Tax Revenues
Direct Effect	969	\$25,582,859	\$38,614,377	\$86,118,452	\$5,722,996	\$5,869,962
Indirect Effect	173	\$11,043,450	\$17,503,163	\$31,069,866	\$1,503,002	\$2,542,359
Induced Effect	240	\$11,626,898	\$19,451,888	\$34,011,398	\$2,071,931	\$2,783,355
Total Impacts	1,382	\$48,253,208	\$75,569,428	\$151,199,716	\$9,297,929	\$11,195,676
Multiplier	1.43	1.89	1.96	1.76		

Source: TEconomy Partners, LLC analysis using IMPLAN Minnesota state model

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Table A1-4. Major Golf Tournaments and Associations

Impact Type	Employment	Labor Income	Value Added	Output	State & Local Tax Revenues	Federal Tax Revenues
Direct Effect	65	\$5,049,702	\$8,251,886	\$10,285,416	\$565,513	\$1,192,636
Indirect Effect	14	\$910,712	\$1,279,066	\$2,219,807	\$97,314	\$196,956
Induced Effect	39	\$1,893,510	\$3,167,334	\$5,538,626	\$337,302	\$453,249
Total Impacts	119	\$7,853,924	\$12,698,287	\$18,043,849	\$1,000,129	\$1,842,841
Multiplier	1.83	1.56	1.54	1.75		

Source: TEconomy Partners, LLC analysis using IMPLAN Minnesota state model

Table A1-5. Golf Residential Construction

Impact Type	Employment	Labor Income	Value Added	Output	State & Local Tax Revenues	Federal Tax Revenues
Direct Effect	222	\$13,172,419	\$17,988,584	\$31,527,201	\$835,552	\$2,722,506
Indirect Effect	77	\$4,464,191	\$6,588,751	\$12,003,906	\$678,808	\$995,264
Induced Effect	116	\$5,588,886	\$9,353,110	\$16,350,643	\$996,634	\$1,338,113
Total Impacts	414	\$23,225,496	\$33,930,446	\$59,881,751	\$2,510,994	\$5,055,883
Multiplier	1.87	1.76	1.89	1.90		

Source: TEconomy Partners, LLC analysis using IMPLAN Minnesota state model

Table A1-6. Golf Tourism (without Ryder Cup)

Impact Type	Employment	Labor Income	Value Added	Output	State & Local Tax Revenues	Federal Tax Revenues
Direct Effect	4,346	\$125,150,395	\$209,356,372	\$378,920,163	\$41,721,734	\$31,139,654
Indirect Effect	960	\$57,621,267	\$91,817,413	\$166,752,616	\$7,558,047	\$13,254,538
Induced Effect	1,200	\$58,060,781	\$97,121,174	\$169,831,781	\$10,342,930	\$13,898,113
Total Impacts	6,507	\$240,832,443	\$398,294,959	\$715,504,560	\$59,622,711	\$58,292,305
Multiplier	1.50	1.92	1.90	1.89		

Source: TEconomy Partners, LLC analysis using IMPLAN Minnesota state model

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Table A1-7. Ryder Cup Spectator Spending

Impact Type	Employment	Labor Income	Value Added	Output	State & Local Tax Revenues	Federal Tax Revenues
Direct Effect	607	\$15,548,498	\$25,542,283	\$36,921,191	\$5,505,563	\$3,852,160
Indirect Effect	94	\$5,648,035	\$9,057,176	\$16,441,342	\$731,721	\$1,302,629
Induced Effect	139	\$6,733,992	\$11,264,113	\$19,697,279	\$1,199,549	\$1,611,917
Total Impacts	840	\$27,930,525	\$45,863,572	\$73,059,812	\$7,436,833	\$6,766,706
Multiplier	1.38	1.80	1.80	1.98		

Source: TEconomy Partners, LLC analysis using IMPLAN Minnesota state model

Table A1-8. Total, Minnesota Golf Industry without Ryder Cup

Impact Type	Employment	Labor Income	Value Added	Output	State & Local Tax Revenues	Federal Tax Revenues
Direct Effect	18,058	\$383,121,473	\$672,966,730	\$1,239,916,201	\$144,199,814	\$98,645,494
Indirect Effect	3,171	\$180,952,867	\$297,186,056	\$536,462,427	\$25,218,683	\$42,124,846
Induced Effect	3,704	\$179,227,759	\$299,791,546	\$524,246,000	\$31,924,778	\$42,901,278
Total Impacts	24,933	\$743,302,099	\$1,269,944,331	\$2,300,624,627	\$201,343,275	\$183,671,618
Multiplier	1.38	1.94	1.89	1.86		

Source: TEconomy Partners, LLC analysis using IMPLAN Minnesota state model

Table A1-9. Total, Minnesota Golf Industry with Ryder Cup

Impact Type	Employment	Labor Income	Value Added	Output	State & Local Tax Revenues	Federal Tax Revenues
Direct Effect	18,664	\$398,669,971	\$698,509,013	\$1,276,837,392	\$149,705,377	\$102,497,654
Indirect Effect	3,265	\$186,600,902	\$306,243,232	\$552,903,769	\$25,950,404	\$43,427,475
Induced Effect	3,843	\$185,961,751	\$311,055,659	\$543,943,279	\$33,124,327	\$44,513,195
Total Impacts	25,773	\$771,232,624	\$1,315,807,903	\$2,373,684,439	\$208,780,108	\$190,438,324
Multiplier	1.38	1.93	1.88	1.86		

Source: TEconomy Partners, LLC analysis using IMPLAN Minnesota state model