GOLF IMPACT REPORT 2022

Economic and Quality of Life

American Golf Industry Coalition

APRIL 2023
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KEY POINTS

The data and findings found in this report reflect the fifth study aimed at quantifying the size and scope of the economic impact of the industry within the U.S., the world’s largest golf market. The previous studies, driven by the World Golf Foundation and the support of allied industry associations, were conducted in 2000, 2005, 2011, and 2016.

A $102 Billion Industry ... With Even Bigger Reach

Golf is an incredibly popular recreational activity (roughly 1 in every 7 people participated in 2022 with an economic footprint comprising multiple sub-industries (golf courses, retail, construction, tourism, real estate and charity).

The game of golf drove $101.7 billion in direct economic activity throughout the U.S. in 2022, an increase of 20% over its $84.1 billion impact in 2016. But there’s a significant ripple effect, too. Golf stimulates a deeper layer of economic activity in other complementary industries – a lifestyle that spurs millions to travel, make purchases, and build and buy homes. The industry’s indirect and induced effects ($124.9 billion) are even bigger than its direct contributions, meaning golf’s complete economic portrait in the U.S. is much greater, totaling $226.5 billion and enabling over 1.65 million jobs (including more than 1 million employees directly tied to the industry).

Charitable Impact Climbs to $4.6 Billion

Golf has proven to be a tremendous vehicle for fundraising, both through outings and events at local golf courses as well as nationally-recognized professional tournaments and events.

In 2022, the total amount of money that golf raised for various charitable causes was almost $4.6 billion, a 16% increase compared to 2016 ($3.9 billion). The majority of giving – over 90% – was driven by events at local courses, with 4-out-of-5 facilities holding at least one charitable golf tournament or outing in 2022.

Golf Is Growing & Evolving

While the economic impact of the U.S. golf industry has grown by 63% over the past two decades (from $62 billion in 2000\(^1\)), the game itself is changing and growing as well. Alternative forms of golf (like Topgolf) have made the game more fun and accessible to a larger and more diverse audience, helping to push the game’s overall participant base to 41.1 million (up from 32 million in 2016\(^2\)), while the on-course golfer population has never been more diverse in terms of both gender and race/ethnicity. There’s a remarkable youth movement, too. In 2022, almost half (48%) of all golf participants (on- and off-course) were between the ages of 6 and 34, outsizing their share of the U.S. 6+ population (41%)\(^2\). These youngest cohorts also have the most positive views of golf – the majority (60%) agree that golf is “cool,” or at least has the potential to become “cool.” The industry has never been as vibrant or youthful as it is today.

Good for People

Golf delivers value in ways beyond jobs, revenue, taxes, and multiplier effects. Golf is a lifestyle, a community asset, and a positive contributor to physical, mental and social wellness. Recent research highlights the game’s critical role in helping people to escape their everyday stressors – especially 35- to 49-year-olds, who are much more likely than other age groups to say they play golf to recover from stress and recharge their mental battery. Golf courses have become especially valuable in the pandemic era, which operators nationwide seem to recognize. Surveys reveal that virtually every U.S. golf facility (97%) organized at least one recreational program or initiative in 2022 to expand golf’s local reach and impact, in turn elevating the quality of life within their communities\(^3\).

Good for the Planet

Golf provides valuable green space, as trees and turfgrass at courses can improve air quality by producing oxygen and trapping pollutants, thus preventing them from reaching groundwater supplies. U.S. golf courses, which also serve as sanctuaries providing an essential habitat for a wide variety of plants and animals, continue to exhibit dramatic reductions, savings and technological advancements when it comes to environmental sustainability. Perhaps most notable is the industry’s management of its most precious resource – water – with usage at golf courses dropping 29% since 2005\(^4\). While a small portion of these savings is attributable to a reduction in facility supply, the bigger impact is from the industry’s ongoing sustainability efforts: applying/using water more efficiently, and the implementation of best management practices that include water management guidelines, more drought-tolerant turfgrass, and an 11.5% reduction in total irrigated acres at existing facilities.

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METHODOLOGY
For more than 20 years, the World Golf Foundation has led the industry in measuring and communicating the various contributions that golf makes to the U.S. economy and society. In 2009, a new partnership was formed among golf’s leading organizations to better promote and advocate for the collective interests of the sport. Together, the American Golf Industry Coalition emphasizes initiatives focused on golf’s diversity, equity and inclusion efforts, contributions to the economy (local and national), health and wellness benefits, charitable giving, as well as environmental and sustainability initiatives.

In 2022, the American Golf Industry Coalition commissioned the National Golf Foundation (NGF) to estimate golf’s economic contributions. To do this, the NGF gathered and analyzed a broad range of existing internal and secondary data, along with new data captured through primary research efforts. Using these data, estimates were created for the direct expenditure impacts across core and enabled industry sectors. Following this, input-output modeling was used to calculate golf’s total impact on the national economy.

**Direct Effects**

Direct effects represent those economic effects related to key sectors of the golf economy including:

- Golf courses and related facilities including club houses, pro shops, teaching facilities, and practice facilities
- Manufacture of golf equipment and supplies (clubs, bags, golf carts, shoes, golf balls, etc.)
- Wholesale trade of golf equipment and supplies
- Retail trade of golf related products (equipment, apparel)
- Hospitality venues (golfer visitor spending at restaurants, non-golf retail and entertainment)
- Operations of professional golf associations
- Business operations of charitable organizations supported by golf tournaments and events
- Housing development in golf course developments

Business operations spending at golf courses specifically includes personnel costs, operating costs, and capital investments in courses and related facilities. For other components, input-output models were used to estimate business activity supported by golfer spending. This analysis employed the IMPLAN economic input-output model developed by MIG, Inc. The IMPLAN model is widely used in academic and professional research.

**Indirect Effects**

Indirect effects estimated through input-output modeling represent the spending that flows through the value chain of the golf industry. For example, a golf course hires a contractor to maintain the HVAC systems at the clubhouse and other on-site facilities. In turn, the HVAC contractor hires workers, rents office space and a workshop, and retains the services of a bookkeeping firm. The bookkeeper hires accountants and janitorial service to clean their offices, and so on. The model accounts for imported goods and services that add little to U.S. economic activity.

**Induced Effects**

Induced effects capture the economic value of household spending by golf industry employees and golf related businesses, plus employees of firms across the relevant industry value chains that support the golf industry. This household spending is adjusted across income cohorts based on estimated labor earnings within each sector of the golf and related industries. Even when accounting for imported goods and services, the sum of the direct, indirect, and induced effects is usually larger than direct spending, which is the “multiplier effect.”

The IMPLAN model provides estimates of total output, value added, labor income, and jobs. Output is a measure of the value of business transactions. Value added is equivalent to gross domestic product. Job count estimates are expressed as headcount jobs and labor income includes salaries, wages, and benefits. The databases used to build the economic input-output model account for full- versus part-time employment in the relevant sectors of the economy.
OVERVIEW

Despite roots that go back hundreds of years, the game of golf has evolved dramatically since the previous Economic Impact Study in 2016.

Golf has long been entrenched in the fabric of American society as one of the nation’s leading participation sports. But in addition to its rich history – both at the professional and recreational levels – golf is a dynamic, growing and evolving industry that’s impacting the broader United States economy in a wide variety of ways.

Indeed, golf is a recreational activity with a large economic footprint comprising multiple sub-industries, but also stimulates economic activity in other complementary industries – a lifestyle that spurs millions to travel, make purchases, and build and buy houses connected to golf.

The game of golf drove $101.7 billion in economic activity throughout the U.S. in 2022, an increase of 20% over its $84.1 billion impact in 2016.

So, how big is that exactly? To help put it in context, consider that Americans spent $104.6 billion on shoes in 2022.¹

The golf economy also has a scope that rivals that of U.S. grain farming ($102.8B). It’s more than twice the size of the global running shoes market ($48.4 billion)² and only about 25% smaller than an industry as ubiquitous as pets – as Americans in 2022 spent $136.8 billion on food, treats, supplies, medicine, veterinary care, boarding, grooming, insurance, sitting and other services for their furry friends.³

The total economic impact generated by the business of golf, when indirect and induced effects are considered, is $226.5 billion. Golf supports approximately 1.65 million jobs, with a wage income of over $80 billion. Over one million employees are directly tied to the U.S. golf industry.

## ECONOMIC CONTRIBUTION

<table>
<thead>
<tr>
<th>GOLF ECONOMY</th>
<th>EMPLOYMENT</th>
<th>WAGES AND BENEFITS</th>
<th>GOVERNMENT TAXES</th>
</tr>
</thead>
<tbody>
<tr>
<td>$101.7B</td>
<td>1.65M Jobs</td>
<td>$80.1B</td>
<td>$29.6B</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>CORE INDUSTRIES</th>
<th>Direct Impact</th>
<th>Indirect/Induced</th>
<th>Direct Jobs</th>
<th>Indirect/Induced Jobs</th>
<th>Wage Income</th>
<th>State &amp; Local</th>
<th>Federal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital Investments</td>
<td>$3.650</td>
<td>$5.106</td>
<td>25,156</td>
<td>26,131</td>
<td>$3.645</td>
<td>$0.345</td>
<td>$0.727</td>
</tr>
<tr>
<td>Golf-Related Retail, Supplies &amp; Manufacturers</td>
<td>$7.224</td>
<td>$5.959</td>
<td>66,040</td>
<td>31,897</td>
<td>$3.760</td>
<td>$0.721</td>
<td>$0.698</td>
</tr>
<tr>
<td>Golf Tournaments, Associations &amp; Endorsements</td>
<td>$3.350</td>
<td>$2.958</td>
<td>34,670</td>
<td>15,676</td>
<td>$1.957</td>
<td>$0.178</td>
<td>$0.408</td>
</tr>
<tr>
<td>Raised for Charities</td>
<td>$4.585</td>
<td>$6.221</td>
<td>16,891</td>
<td>27,247</td>
<td>$3.120</td>
<td>$0.367</td>
<td>$0.702</td>
</tr>
<tr>
<td>TOTAL CORE INDUSTRIES</td>
<td>$55.905</td>
<td>$73.621</td>
<td>745,390</td>
<td>385,833</td>
<td>$48.332</td>
<td>$8.998</td>
<td>$9.002</td>
</tr>
</tbody>
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| ENABLED INDUSTRIES | | | | |
|-------------------|-----------------|-----------------|-----------------|-------------------|---------------|---------------|---------|
| Golf Tourism      | $31.046         | $33.012         | 183,098         | 163,213           | $19.808       | $4.145        | $3.673  |
| Golf Real Estate  | $14.702         | $18.229         | 76,371          | 97,000            | $11.972       | $1.449        | $2.368  |
| TOTAL GOLF ECONOMY | $101.653       | $124.862        | 1,004,859       | 646,046           | $80.112       | $14.592       | $15.043 |

| TOTAL IMPACT       | $226.516        | 1,650,905 (Total Employment) | $29.635 |

$ in billions
GOLF'S TOTAL ECONOMIC IMPACT ON THE U.S.
TOTAL IMPACT (DIRECT, INDIRECT & INDUCED)

TOTAL GOLF ECONOMY IN 2022

$226.515 Billion

DIRECT $101.653B + INDIRECT & INDUCED $124.862B

CORE INDUSTRIES

$13.183B GOLF-RELATED, RETAIL SUPPLIES & MANUFACTURERS
DIRECT $7.224B
INDIRECT/INDUCED $5.959B

$8.756B CAPITAL INVESTMENTS
DIRECT $3.650B
INDIRECT/INDUCED $5.106B

$90.473B GOLF FACILITY OPERATIONS
DIRECT $37.096B
INDIRECT/INDUCED $53.377B

$6.308B GOLF TOURNAMENTS, ASSOCIATIONS & ENDORSEMENTS
DIRECT $3.350B
INDIRECT/INDUCED $2.958B

$10.806B RAISED FOR CHARITIES
DIRECT $4.585B
INDIRECT/INDUCED $6.221B

$64.058B GOLF TOURISM
DIRECT $31.046B
INDIRECT/INDUCED $33.012B

$32.931B GOLF REAL ESTATE
DIRECT $14.702B
INDIRECT/INDUCED $18.229B

PRICELESS
GOLF'S NON-ECONOMIC BENEFITS

ENABLED INDUSTRIES
A GROWING & EVOLVING GOLF LANDSCAPE

119.2M +25% since 2016
GOLF’S TOTAL REACH IN THE U.S. (AMERICANS AGE 6+ WHO PLAYED, WATCHED, READ, AND/OR FOLLOWED GOLF IN THE PAST 12 MONTHS)

41.1M +28% since 2016
TOTAL GOLF PARTICIPANTS

27.9M +41% since 2016
OFF-COURSE PARTICIPANTS

25.6M +8% since 2016
ON-COURSE PARTICIPANTS

The U.S. golf economy has grown substantially in just over two decades, with these ongoing studies demonstrating that the overall impact increased by 65% during that time. The golf economy typically fluctuates in concert with cycles in the U.S. economy, albeit to a somewhat lesser extent, yet is always influenced significantly by participation and play. Future growth (and industry well-being) is the reason the major U.S. golf associations, organizations and industry partners remain focused on initiatives that improve access and approachability, in turn helping diversify the overall participant base of this “game of a lifetime.”

Since the previous Economic Impact Report, the U.S. on-course participation base has grown for six straight years – with a 7.5% increase to 25.6 million.¹

Even more notable is the growth in the non-traditional, off-course forms of golf. In fact, the number of Americans who have played golf away from a course – driving ranges, Topgolf venues, indoor simulators, golf-in-school programs, etc. – rose to 27.9 million in 2022², surpassing on-course play for the first time. When combining those who have played traditional golf with those who have only engaged in off-course, alternative forms, the overall participant base is 41.1 million. There’s been a 28% increase in total participation since 2016³.

This evolution is especially notable because off-course forms of golf have been shown to complement the traditional game, boosting interest, engagement and the image of the sport while helping to diversify its ranks.

The proliferation of off-course forms of golf, including fun, social and approachable golf entertainment offerings, has contributed to a 62% rise (since 2016) in NGF’s measure of “latent demand,” defined as the interest among non-golfers in trying the on-course game. Meanwhile, female and ethnically diverse representation among on-course participants has risen to its highest levels on record; women and girls accounting for 25% of traditional golfers, and African American, Asian and Hispanics representing 22% of all on-course players. These proportions are even higher among off-course only golf participants, suggesting greater opportunity for the green-grass game in years to come.


How is off-course golf captured in this analysis?

The continued growth of alternative forms of golf extends across several categories.

Non-traditional golf facilities continue to reshape the modern golf ecosystem, perhaps most visibly Topgolf with its original three-level, 100+ bay golf entertainment venues as well as its Swing Suite locations that have indoor simulators for golf and other virtual games.

While there are close to 100 large-scale golf entertainment venues, with more in planning, that is equivalent to less than 1% of the traditional, green-grass facility supply. And, as noted in the facility operations section (Page 17), revenues from these facilities are spread across the “driving range” and “restaurant” categories, including an almost 50/50 split in the case of Topgolf.

Some public golf courses and facilities have a simulator component, which is also included in their operational accounting. But that isn’t the case for many of the other 600+ golf business locations with indoor golf simulators, including commercial brands such as X Golf and Five Iron Golf. Venues such as these are included in the golf-related retail, supplies and manufacturers category.

Businesses like Puttery, Puttshack and Popstroke are positioning themselves squarely in the golf-entertainment space. And revenues from some of these new-age mini golf ventures are indeed captured in the broader accounting, as Puttery is owned by Drive Shack Inc. and Puttshack is under the Topgolf umbrella.

GOLF’S DIRECT IMPACT

Photo courtesy of Matt Aylward
SIZING THE DIRECT GOLF ECONOMY

Core Industries

$55.905B

$37.096B
GOLF FACILITY REVENUE

$3.650B
CAPITAL INVESTMENTS

$7.224B
GOLF-RETAIL, SUPPLIES & MANUFACTURERS

$3.350B
GOLF TOURNAMENTS, ASSOCIATIONS & ENDORSEMENTS

$4.585B
RAISED FOR CHARITIES

Enable Industries

$45.748B

$31.046B
GOLF-RELATED TOURISM

$14.702B
GOLF REAL ESTATE

TOTAL DIRECT GOLF ECONOMY

$101.7B

American Golf Industry Coalition | 2022 Impact Report
## DIRECT ECONOMIC IMPACTS

Golf’s direct economic impact encompasses seven areas. Most notable is golf facility operations, which accounts for more than one-third (36%) of the overall total. Also measured in this direct economic impact are capital investments and improvements at nearly 14,000 U.S. golf facilities; golf-related retail, supplies and manufacturers; golf tournaments, associations and charitable events; golf-enabled tourism; and golf real estate. There are almost 8,700 companies in the U.S. that have a primary interest in golf and nearly 3,500 additional golf associations and/or non-profit golf organizations.

The findings in the 2022 study demonstrate, in part, the impact the Coronavirus pandemic has had on the U.S. golf economy due to increased levels of participation and play.

Since the first Golf Economy Report in 2000, the U.S. has experienced two significant economic recessions and, more recently, the social and economic impacts of a global pandemic.

The latter reinforced the significant mental, physical and social benefits of golf, which continues to attract more than 25 million on-course participants despite there being over 1,000 fewer golf facilities than in 2016. This market correction – a rebalancing of supply/demand and culling of underperforming facilities -- has improved overall financial health and strengthened the existing supply of almost 16,000 golf courses at the ~14,000 facilities.

### Size of Direct U.S. Golf Economy by Segments (in $ Millions)

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</thead>
<tbody>
<tr>
<td>Golf Facility Operations</td>
<td>$20,496</td>
<td>$28,052</td>
<td>$29,852</td>
<td>$34,417</td>
<td>$37,096</td>
<td>1.3%</td>
</tr>
<tr>
<td>Golf Course Capital Investments</td>
<td>$7,812</td>
<td>$3,578</td>
<td>$2,073</td>
<td>$2,156</td>
<td>$3,650</td>
<td>9.2%</td>
</tr>
<tr>
<td>New course construction</td>
<td>$5,646</td>
<td>$1,419</td>
<td>$516</td>
<td>$210</td>
<td>$141</td>
<td>-6.4%</td>
</tr>
<tr>
<td>Investment in existing facilities</td>
<td>$2,166</td>
<td>$2,159</td>
<td>$1,557</td>
<td>$1,946</td>
<td>$3,509</td>
<td>10.3%</td>
</tr>
<tr>
<td>Golf-Related Supplies</td>
<td>$5,982</td>
<td>$6,151</td>
<td>$5,639</td>
<td>$6,043</td>
<td>$7,224</td>
<td>3.0%</td>
</tr>
<tr>
<td>Tournaments, Associations &amp; Endorsements</td>
<td>$1,293</td>
<td>$1,682</td>
<td>$2,045</td>
<td>$2,442</td>
<td>$3,350</td>
<td>5.4%</td>
</tr>
<tr>
<td>Golf Charitable Impact</td>
<td>$3,200</td>
<td>$3,501</td>
<td>$3,911</td>
<td>$3,940</td>
<td>$4,585</td>
<td>2.6%</td>
</tr>
<tr>
<td><strong>Total Core Industries</strong></td>
<td>$38,783</td>
<td>$42,964</td>
<td>$43,520</td>
<td>$48,998</td>
<td>$55,905</td>
<td>2.2%</td>
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<thead>
<tr>
<th>ENABLED INDUSTRIES</th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Golf Tourism</td>
<td>$13,480</td>
<td>$18,001</td>
<td>$20,555</td>
<td>$25,724</td>
<td>$31,046</td>
<td>3.2%</td>
</tr>
<tr>
<td>Golf Real Estate</td>
<td>$9,904</td>
<td>$14,973</td>
<td>$4,735</td>
<td>$9,341</td>
<td>$14,702</td>
<td>7.9%</td>
</tr>
<tr>
<td>New home construction &amp; reconstruction</td>
<td>$8,400</td>
<td>$11,628</td>
<td>$3,140</td>
<td>$7,235</td>
<td>$13,138</td>
<td>10.5%</td>
</tr>
<tr>
<td>Realized golf premium</td>
<td>$1,504</td>
<td>$3,345</td>
<td>$1,595</td>
<td>$2,106</td>
<td>$1,564</td>
<td>-4.8%</td>
</tr>
<tr>
<td><strong>Total Enabled Industries</strong></td>
<td>$23,884</td>
<td>$32,975</td>
<td>$25,290</td>
<td>$35,065</td>
<td>$45,748</td>
<td>4.5%</td>
</tr>
</tbody>
</table>

| TOTAL GOLF ECONOMY                   | $62,167 | $75,939 | $68,810 | $84,064 | $101,653 | 3.2%  |

**Golf Facility Operations:**
Revenue generated by playing fees and memberships exceeded $37 billion in 2022. Restaurant and food & beverage also contributed heavily to a category that saw an almost 8% lift from the $34.4 billion economic impact estimate in 2016. While the number of non-traditional, off-course golf venues continues to grow (golf entertainment, simulators and driving ranges), there were 1,068 fewer green grass golf facilities in 2022 than in 2016.¹

**Golf Tourism:**
Home to over 40% of the world’s golf courses and over 1,000 golf resorts, golfers generated just over $31 billion in golf tourism-related expenditures in the U.S. in 2022. NGF estimates there were over 26 million U.S.-based trips of 50-or-more miles to play golf (with at least one round) and expenditures in this category includes anything beyond that spent at golf facilities – such as travel, lodging, meals and incidentals.

**Golf Real Estate:**
NGF measured almost $14.7 billion in expenditures related to new home construction, renovation and reconstruction in golf communities as well as economic activity associated with the property tax assessment valuation of golf homes and the “golf premium” associated with these homes. The opportunity to live in active, outdoor communities has gained popularity in recent years, amplified by remote work options and the pandemic.

**Golf-Related Retail, Supplies & Manufacturers:**
The primary contributor to this $7.2 billion segment is consumer retail – most notably what golfers are spending on equipment, apparel, shoes, accessories and more (backing out what’s already counted at green grass golf facilities). Also captured is the manufacturing and support, as well as the business-to-business revenue from additional services and equipment, including commercial products like those that keep golf’s most important resource – the course – in the best shape possible.

**Golf Facility Capital Investment:**
This $3.65 billion segment takes into consideration major improvements at golf facilities beyond normal maintenance and operating expenditures. New golf course construction accounts for less than 4% of this total, which is comprised mostly of investments in improving courses (greens, teeing areas, bunkers, cart paths, new turf, irrigation systems) as well as renovations or upgrades to clubhouses and other buildings.

**Tournaments, Associations & Endorsements:**
The PGA Tour, USGA, PGA of America and LPGA generate almost 50% of golf association revenue, but the U.S. is home to 3,467 golf associations or non-profit golf organizations in total. This segment has also been expanded to include endorsements from companies non-endemic to golf (think Rolex, NetJets and DraftKings) that pay golfers and golf associations to endorse products and services beyond the equipment and apparel deals accounted for in the retail category.

**Charitable Giving:**
The total amount of money that golf raised for various charitable causes was almost $4.59 billion in 2022, a 16% increase compared to the $3.94 billion in 2016. The majority of giving – over 90% – was driven by charitable golf events at local courses, with 4-out of-5 green grass U.S. facilities holding at least one charitable golf tournament or event in 2022.²

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GOLF FACILITY OPERATIONS

15,945
Golf courses in the U.S.

5X
Number of golf courses in the U.S. vs. any other country

More Golf Courses
than the number of Starbucks or McDonald’s locations nationwide

2,500+
Alternative golf facilities (including standalone ranges, golf entertainment, indoor simulators/golf centers)

Photo courtesy of Matt Aylward
The U.S. is the world's best supplied golf market, with five times as many golf courses as any other country -- a total of 15,945 at 13,946 facilities at the start of 2022. For perspective, that's more courses than the number of Starbucks and McDonald's locations nationwide.

Golf operations account for more than one-third of the industry's direct economic impact, with the $37.1 billion total including $11.9 billion in golf playing fees and $11.5 billion in membership revenue.

This represents a $2.68 billion increase (+7.8%) from the $34.4 billion estimate in 2016.

### Average golf facility revenue by category

<table>
<thead>
<tr>
<th>Category</th>
<th>2022</th>
<th>% of Total</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Golf Playing Fees</td>
<td>$11.915B</td>
<td>32.1%</td>
<td>-</td>
</tr>
<tr>
<td>Membership</td>
<td>$11.542B</td>
<td>31.1%</td>
<td>-</td>
</tr>
<tr>
<td>Retail Sales</td>
<td>$2.742B</td>
<td>7.4%</td>
<td>-</td>
</tr>
<tr>
<td>Restaurant*</td>
<td>$7.987B</td>
<td>21.5%</td>
<td>-</td>
</tr>
<tr>
<td>Lessons</td>
<td>$4.76B</td>
<td>1.3%</td>
<td>-</td>
</tr>
<tr>
<td>Other**</td>
<td>$1.174B</td>
<td>3.2%</td>
<td>-</td>
</tr>
<tr>
<td>Driving Ranges***</td>
<td>$1.261B</td>
<td>3.4%</td>
<td>-</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>$37.096B</strong></td>
<td><strong>100%</strong></td>
<td><strong>$34.417B</strong></td>
</tr>
</tbody>
</table>

*Half of the revenue from entertainment ranges (like Topgolf) are included
**Includes banquet, clubhouse, locker rooms, club repair, etc.
***Includes revenue from stand-alone ranges

The total revenue per facility of $2.66 million in 2022 was up from $2.29 million in 2016, further evidence of the “Covid effect” in golf. This reflects a substantial 16% increase despite:

- 1,068 fewer facilities since 2016... a 7.1% decline
- 1,805 fewer facilities since 2011... an 11.5% decline

Fueled by a pandemic-driven uptick in participation and play, along with a culling of underperforming facilities in recent years, there’s been a dramatic rise in the proportion of U.S. golf facilities reporting to be in good or great financial shape compared to previous studies.

### What is Measured

Golf facility revenue generated from green fees, cart fees, membership fees, range fees as well as associated spending on food and beverage, merchandise, banquets and other items. This revenue supports facility operations through direct employment and purchases of a wide range of goods and services from other vendors, among them golf equipment and apparel manufacturers, F&B providers, and turfgrass equipment and maintenance providers. The “other” category at green grass facilities includes locker, simulator, club repair, banquets and all other non-golf activities.

### How it’s Measured

Golf facility revenue data comes from the U.S. golf facility survey conducted by NGF in 2023, which collected data on reported 2022 revenues by type for each of the six classes of golf facilities. The revenues generated from driving ranges was applied to only those golf facilities that had a driving range with at least 10 tee stations on site plus additional revenue assumed for stand-alone ranges in the United States.
One byproduct of improved facility and industry health is the $3.65 billion in capital investment at U.S. golf courses, a figure that’s up from $2.2 billion in 2016.

### Summary of Golf Facility Capital Investment

<table>
<thead>
<tr>
<th>Type</th>
<th>2022</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total On-Course Capital Expenditures (Incl Irrigation)</td>
<td>$1.806B</td>
<td>-</td>
</tr>
<tr>
<td>Total Clubhouse + Structures</td>
<td>$1.526B</td>
<td>-</td>
</tr>
<tr>
<td>Total Carts &amp; Equipment</td>
<td>$.318B</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total Capital Expenditures in the U.S.</strong></td>
<td><strong>$3.650B</strong></td>
<td><strong>$2.156B</strong></td>
</tr>
</tbody>
</table>

An estimated 62% of facilities made some kind of capital investment in 2022 and the average was almost $420,000 per facility.

While there are fewer golf courses than during previous economic studies, it’s clear that because more courses are in better financial condition, they’re putting revenue back into improving their facilities.

On-course expenditures are almost equal to that of clubhouse investments and other off-course expenditures. It’s notable that many of the biggest individual and unique projects were clubhouse upgrades and improvements, which speaks to an increased focus on the overall customer experience.

Only about $140 million of this total is tied to the development of brand-new golf courses — about 4% of the overall capital investment.

- New U.S. openings remain exceedingly limited due to the existing wealth of supply (more than five times any other country in the world).
- Course closures have outnumbered openings for 17 straight years during the ongoing market correction, but indications are that supply/demand balance is approaching equilibrium. In 2022, the number of golfers per 18-hole equivalent course (1,940) reached its highest level since 2007, the year after the current industry supply correction began.¹

GOLF-RELATED RETAIL, SUPPLIES & MANUFACTURERS

Photo courtesy of Matt Aylward
What is Measured

This segment captures both: (1) the revenue that accrues to U.S. retailers and individuals from spending by golfers on golf equipment, shoes, and apparel; and (2) overall manufacturing and business to business revenue from additional services and equipment.

### Total Golf-Related Retail, Supplies & Manufacturers

<table>
<thead>
<tr>
<th></th>
<th>2022</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Consumer Retail² (Apparel, Equipment, Shoes, etc.)</td>
<td>$7.675B</td>
<td>-</td>
</tr>
<tr>
<td>Less: on course already counted³</td>
<td>36%</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>$4.933B</td>
<td>-</td>
</tr>
<tr>
<td>Other Service Products</td>
<td>$2.291B</td>
<td>-</td>
</tr>
<tr>
<td>Total Golf-Retail, Supplies &amp; Manufacturers</td>
<td>$7.224B</td>
<td>$6.043B</td>
</tr>
</tbody>
</table>

With increases in play in recent years, American golfers have spent significant money on equipment (golf balls and clubs), apparel, shoes, accessories, and a variety of other golf products including media expenditures. This includes purchases made at retail outlets like PGA Tour Superstore and DICK’S Sporting Goods as well as at other stores and online, with the value to the U.S. economy coming both from retail sales and production.

TOURNAMENTS, ASSOCIATIONS & ENDORSEMENTS
$3.350B
TOTAL GOLF TOURNAMENTS, ASSOCIATIONS & ENDORSEMENTS

The PGA Tour, PGA of America, United States Golf Association and LPGA are the biggest associations in the golf world and generate almost 50% of the $1.44 billion in golf association revenue, but there are 3,463 other small and medium-sized associations or golf non-profit organizations nationwide. NGF research shows that nearly 79% of all non-profit golf organizations generate less than $10,000 in total revenue annually.

In addition to other national associations – among them the Club Managers Association of America, Golf Course Superintendents Association of America, and the National Golf Course Owners Association – there are a multitude of state and regional golf associations that represent golfers, golf professionals, golf course superintendents and their staff, golf course owners/operators, and club managers. These groups support local and regional economic activity by organizing junior and amateur tournaments, holding professional development training and meetings, supporting turf maintenance research, and providing other services.

When it comes to tournament golf, there was more than $1.4 billion in direct spend related to hosting and organizing professional and major amateur golf events. This included more than 100 professional tournaments in 2022 when counting the PGA Tour, Champions (senior) Tour, LPGA Tour and the four men’s major championships operated independently of the PGA Tour. This total was up from $876 million in 2016.

As for endorsements, there are a lot of big names in the professional game earning money from golf companies – balls, clubs and apparel, for example – but NGF has backed this out here to avoid double counting with the retail estimate. The endorsements reflected in this section are instead those involving “non-endemics,” companies from outside the golf world making an investment in the golf industry. The endorsement revenue received by golfers and associations might come from car companies, online sports betting websites, luxury watch brands, private jets, and companies in sectors like financial services, insurance, travel, alcoholic beverages, and more.

<table>
<thead>
<tr>
<th></th>
<th>2022</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional and Major Amateur Golf</td>
<td>$1.405B</td>
<td>$1.236B</td>
</tr>
<tr>
<td>Events</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Associations</td>
<td>$1.447B</td>
<td>$0.876B</td>
</tr>
<tr>
<td>Endorsements</td>
<td>$0.498B</td>
<td>$0.330B</td>
</tr>
<tr>
<td><strong>Total Golf Tournaments &amp; Associations</strong></td>
<td><strong>$3.350B</strong></td>
<td><strong>$2.442B</strong></td>
</tr>
</tbody>
</table>

RAISED FOR CHARITIES
No sport has as significant a charitable component as golf, which raised almost $4.6 billion for a wide variety of causes at the national, regional and local level in 2022. That total is almost 1% of the nearly $485 billion in total U.S. charitable giving from individuals, bequests, foundations and corporations, according to the Annual Report on Philanthropy from Giving USA. It’s estimated that more than 141,000 separate charity events were held at golf courses around the country, with approximately 80% of all U.S. facilities hosting at least one. The average number of charitable events per facility in 2022 was 22, with each event raising an average of $29,500.

While the total number of events is down from previous studies, the average and total amount earned is up. There are a number of likely reasons for the slight drop in the number of fundraising golf tournaments; number one being that there are fewer facilities overall. Number two is the potential holdover effect on larger gatherings in the wake of the pandemic. Lastly, and this may be the most noteworthy, is that many public courses are seeing so much demand for regular fee play that they’re not allowing as much discounted tournament play. In other words, some operators are indicating less willingness to give up their course to host a tournament at a discount.

Professional golf tournaments raised almost $400 million for charity in 2022, while golf entertainment venues continue to have a growing impact in the charitable giving category – raising over $35 million through various events. But it’s local events at golf facilities that continue to have the greatest impact, at over $4 billion in 2022. The fundraising isn’t all directly from golf either; more than half of golf facilities in 2022 hosted a non-golf charitable event in their clubhouse, from auctions and dinners to social gatherings.

<table>
<thead>
<tr>
<th></th>
<th>2022</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-Course Local Events</td>
<td>$4.163B</td>
<td>-</td>
</tr>
<tr>
<td>Professional Tournaments</td>
<td>$.386B</td>
<td>-</td>
</tr>
<tr>
<td>Off-Course Golf Entertainment Venues</td>
<td>$.035B</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total Raised for Charities</strong></td>
<td><strong>$4.585B</strong></td>
<td><strong>$3.940B</strong></td>
</tr>
</tbody>
</table>


What is Measured
Charitable giving captures both the in-kind contributions and the net proceeds resulting from charitable golf events that are hosted by golf facilities and professional golf tournament events.
The popularity of golf drives an enormous golf travel industry in the U.S., which has more golf-related resorts (1,166) than nearly 99% of other countries have courses in total.

This sub-industry is the second-biggest component in the U.S. golf economy, generating over $31 billion in spending in 2022 – up from $25.7 billion in 2016. Golf-related tourism encompasses trips of 50-miles-or-more within the U.S. that included at least one round of golf.

There are three categories of golf travel included in this accounting:

- **Day trips** ($5.2 billion in direct spending)
- **Overnight trips** (generating $25.5 billion in direct spending)
- **International trips** ($358.6 million in direct spending)

When it comes to the economic impact of golf tourism, it’s important to note that the amount of money that golf travelers spend at golf facilities – on playing fees and all purchases at the course – has been backed out to avoid a double count as those expenditures have already been included in the facility operations category. This golf-tourism related spend, an average of $1,184 per trip, is being paid at other businesses along the way or nearby, whether its meals, travel, lodging or incidental costs. Transportation and lodging are the two biggest categories, accounting for about 69% of the overall golf travel total.

More than just buddies’ trips to renowned golf destinations like Bandon Dunes (Oregon), Myrtle Beach (South Carolina), Pebble Beach (California), and Pinehurst (North Carolina), this major industry includes “day-tripper” golfers, those who hop in a car, alone or in groups, to drive at least 50 miles to play golf outside their local area. It also includes trips that have a business component, including playing as part of a conference or event, or playing a round with colleagues or solo while on a business trip.

Travel of all types, including golf, was obviously greatly limited after the onset of the Coronavirus in spring of 2020. But golf tourism has since benefited, generally, as Americans pursued experiential offerings more aggressively – giving rise to the behavior known as “revenge travel,” in which people seek to make up for time lost during the pandemic. Getting away for golf trips with friends and family is a part of that.

For the most part, travel rounds aren’t incremental rounds. They’re primarily rounds that move from local markets to resorts, although those who have been on a golf getaway realize there tends to be more play than there would have been back in their home market. That said, with increased demand overall in recent years post-pandemic, local courses aren’t necessarily “losing rounds” when regulars travel to play at a resort or destination course, with the openings creating opportunity for other locals.

GOLF REAL ESTATE
Green grass, fresh air and relaxing open space – they are just a few of the reasons golf courses have a prominent presence in residential communities in every state in the nation. Golf is clearly driving a whole separate class of real estate in specific, defined communities, as well as impacting real estate that is proximate to golf courses.

In total, NGF counts 3,159 golf communities in the U.S. that include more than 1.5 million single family homes and 800,000 condominiums or townhomes.¹ These range from master-planned communities with golf as the centerpiece to active lifestyle communities with a wide variety of amenities, golf among them. Some golf courses with a residential component are tied to primary homes, others are secondary homes, and still others are in 55-and-over, retirement or resort communities.

The economic impact of golf real estate extends to two main components: golf-related development (construction and renovations) as well as the net gain that local jurisdictions collect in property taxes because of the “golf premium” for real estate associated with golf courses. The average golf premium for residential units with direct frontage on, or in immediate proximity to, a golf course is estimated by NGF at about 15% in added value.¹

There was estimated to be more than $13.1 billion in golf-related home construction activity in 2022, both new construction and renovations. With relatively few new courses and communities being built, the majority of home construction currently comes from undeveloped lots inside golf communities, as there is a significant amount of vacant property remaining in communities from 1990s and 2000s. Additionally, there is a robust reconstruction and renovation market with homes being transacted in these communities – as well as those from the 1960s, 1970s and 1980s – many with the sole purpose of knocking them down and building anew. It is estimated there were almost 40,000 new home construction and renovations directly tied to golf real estate in 2022.¹

There is a $179 billion golf premium associated with property values in these golf course developments. This is realized with a $1.56 billion net gain on local taxes that can be used for education and other local initiatives funded by property tax revenue.

<table>
<thead>
<tr>
<th>What is Measured</th>
<th>2022</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>33,200 golf home construction &amp; renovations</td>
<td>$13.13B</td>
<td>-</td>
</tr>
<tr>
<td>Net gain on local property tax from golf premium</td>
<td>$1.564B</td>
<td>-</td>
</tr>
<tr>
<td>Total Golf Real Estate Impact</td>
<td>$14.702B</td>
<td>$9.34B</td>
</tr>
</tbody>
</table>

¹ National Golf Foundation. Proprietary research & analysis 2022, including use of Google Map for aerial reviews surrounding residential real estate golf courses}
What is Measured

This segment captures both: (1) the estimated number of employees working directly in the U.S. golf industry and (2) the estimated number of employees who are employed to service those industries that indirectly service the golf industry (restaurants, construction workers, etc.).

American Golf Industry Coalition | 2022 Impact Report
NON-ECONOMIC BENEFITS

Photo courtesy of Matt Aylward
Golf delivers value in ways beyond jobs, revenue, taxes, and multiplier effects. Golf is a lifestyle, a community asset, and a positive contributor to physical, mental and social wellness.

ENVIRONMENT

Golf provides valuable green space, with many courses located in metropolitan areas that particularly stand to benefit from an ecological standpoint. Trees and turfgrass at courses can improve air quality by producing oxygen and trapping pollutants, in turn preventing them from reaching groundwater supplies. Courses often serve as sanctuaries that provide an essential habitat for a wide variety of plants and animals, from pollinators to nesters, helping improve the surrounding environment. Oft maligned for water and chemical use, U.S. golf courses continue to exhibit dramatic reductions, savings and technological advancements when it comes to environmental sustainability.

Water usage at golf courses dropped 29% from 2005 through 2020, according to a study from the Golf Course Superintendents Association of America with assistance from NGF researchers. The biggest impact came from facilities applying/using water more efficiently, including new and improved technologies, and the implementation of best management practices that include water management efforts, more drought-tolerant turfgrass, and a drastic reduction in total irrigated acres. Additionally, nutrient usage at U.S. courses is down substantially, enhancing environmental protection, while fertilized acreage has declined 14% since 2006.

The U.S. Environmental Protection Agency (EPA) in 2022 recognized The Toro Company, the golf industry’s leading global supplier of maintenance equipment and irrigation solutions, with an eighth consecutive WaterSense Excellence Award for its dedication to helping consumers and businesses responsibly use water.¹

The United States Golf Association (USGA) continues to make significant investments² in new water resilience efforts, most recently a $30 million commitment through 2037 to advance underutilized strategies and technologies that golf courses can use to economically reduce their use of water. The USGA Green Section – comprised of agronomists and turfgrass experts – is collaborating with the GCSAA, golf course owners, superintendents, regional golf associations, course architects, university researchers, industry partners and water agencies to continuously update a water resilience playbook focused on the long-term economic and environmental sustainability of green-grass golf courses. Audubon International, through collaborative efforts with the USGA, continues to expand its Audubon Cooperative Sanctuary Program for Golf.³ More than 1,000 U.S. facilities are part of this award-winning education and certification program which helps enhance the valuable natural areas and wildlife habitats that golf courses provide, improve efficiency, and minimize potentially harmful impacts of golf course operations.

³ Audubon Cooperative Sanctuary Program for Golf. Retrieved in March 2023 from https://auduboninternational.org/acsp-for-golf/
Beyond the environmental aspect, golf facilities frequently serve as community centers, serving not only as valuable and healthy recreation outlets for participants of all ages, but also providing developmental programs, initiatives and access for youth, beginners, females, military and veterans, disabled and others with limited accessibility.

### HEALTH

Golf’s health benefits are well-documented – both from a physical and mental standpoint. On average, golfers live five years longer than non-golfers, as the game provides aerobic exercise that improves quality of life and helps with strength and balance. On a regular 18-hole course, those golfers who walk will cover four to five miles while burning up to 2,000 calories.

Recent research highlights the game’s critical role in helping people to escape their everyday stressors – especially 35- to 49-year-olds, who are disproportionately more likely to agree that they play golf to recover from stress and recharge their mental battery. Golf courses have become especially valuable in the pandemic era, which operators nationwide seem to recognize. Surveys reveal that 97% of U.S. golf facilities organized at least one recreational program or initiative in 2022 to expand golf’s reach and impact, in turn elevating the quality of life within their communities.

More broadly, the golf industry has experienced a tremendous rise in the number of purpose-driven missions, initiatives and brands – all striving to create a more positive impact on people and the planet.

### PURPOSE-DRIVEN MISSIONS

In 2020, a collection of industry leaders – organizations, tours, equipment manufacturers and companies from within the retail, course management, apparel and instruction categories – came together to address two critical opportunities: how to further diversify golf and how to build on the momentum the game had been experiencing since the start of the pandemic. The result was “Make Golf Your Thing,” a collaborative, multifaceted campaign to ensure the future of golf is open to everyone. Research from the NGF in 2021 confirmed that the initial public response to the “Make Golf Your Thing” initiative was overwhelmingly positive. People who’d become aware had a much more favorable opinion about golf’s welcomingness, and a higher level of interest in making golf a bigger (or more regular) part of their lives.

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In 2022, the industry launched the “Make Golf Your Career” job portal as part of its continued efforts to promote diversity, equity, and inclusion -- driving greater awareness of the golf industry’s opportunities.

This is part of a growing list of examples of sustainability and social responsibility across the U.S. golf industry. Among them:

Topgolf recently being honored with three different prestigious employer awards in recognition of its DE&I efforts.² They include Diversity Jobs Top Employer 2021, Forbes 2020 Best Employers for Women, and National Down Syndrome Congress 2018 Employer of the Year. Beginning in 2024, Topgolf will be an officially sanctioned event in the Special Olympics, the first time a brand has become a medaled event.³

The TaylorMade Golf Company in 2022 was ranked No. 70 in Newsweek’s 2022 Top 100 “Most Loved Workplaces,”⁴ while Acushnet was named one of America’s Best Mid-Sized Employers of 2021 by Forbes Magazine.⁵

In a market with over 11,600 public golf courses, including almost 3,000 of which are owned or operated by municipalities, there are also a number of high-profile, successful and impactful efforts aimed at improving golf’s positioning as accessible and affordable recreation.

The National Links Trust, a 501©(3) non-profit, has teamed with prominent management companies, golf developers and architects in its expanding efforts to protect and promote accessible, affordable and engaging municipal golf courses that positively impact local communities.⁶

First Tee, formed over two decades ago as a partnership among the LPGA, the Masters Tournament, the PGA of America, the PGA TOUR, and the USGA to make golf affordable and accessible for all kids, integrates the game of golf with a life skills curriculum to create active learning experiences for youth and teens.⁷ First Tee is perhaps most-prominent among a host of youth development efforts across the industry, while Youth on Course is a nationwide program that helps subsidize the cost of golf for kids (as low as $5 per round) while providing access to life-changing opportunities through golf such as paid high school internships, college scholarships and more.⁸

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2. Topgolf Callaway Brands, Retrieved March 2023 from https://www.topgolfcallawaybrands.com/static-files/390496f2-60d9-4985-9422-0f3fa4c8cab9#page=10
7. First Tee, Retrieved March 2023 from https://firsttee.org/about/
8. Youth on Course. Retrieved March 2023 from https://youthoncourse.org/who-we-are
General Limiting Conditions

This report is based on information collected from direct National Golf Foundation Consulting, Inc. (“NGF”) research completed for the American Golf Industry Coalition in 2023 for the data year of 2022.

General

Every reasonable effort has been exerted to ensure that the data contained in the written report reflects the most accurate and timely information possible, and is believed to be reliable. However, no responsibility will be assumed for inaccuracies in reporting by sources used to collect data from golf facilities, associations and other data sources used in preparing the report.

Custom NGF Facility Survey – 2023

NGF conducted a survey among U.S. golf facility operators in an effort to gather inputs that would assist in the quantification of golf’s economic impact in the United States. Key survey questions centered around operational data like rounds played, revenues and expenses, as well as capital expenditures, information on employment/staffing and charitable events.

With the support of the cooperative effort between the American Golf Industry Coalition (AGIC), and its affiliated umbrella organizations, data collection took place in January – March of 2023. Survey responses were reviewed and weighted by type (public/private, number of holes, etc.) to properly match and be representative of the mix of golf facilities in the United States.

IMPLAN Economic Modeling

The IMPLAN economic modeling system was used to derive estimates of several direct and secondary economic impacts (including value added, employment, and labor income). The methodology and calculations were prepared and reviewed for soundness and accuracy by Dr. Terry L. Clower, the Northern Virginia Chair and Professor of Public Policy at George Mason University.

Acknowledgments

This report was prepared by National Golf Foundation Consulting, Inc. in agreement with the American Golf Industry Coalition (AGIC), and its affiliated umbrella organizations. The study was conducted by the National Golf Foundation, with support from Dr. Terry L. Clower, the Northern Virginia Chair and Professor of Public Policy at George Mason University (also Director of GMU’s Center for Regional Analysis).
REFERENCES


IMPLAN® model, [2022] Data, using inputs provided by the user and IMPLAN Group LLC, IMPLAN System (2023 software), 16905 Northcross Dr., Suite 120, Huntersville, NC 28078 www.IMPLAN.com


National Golf Foundation. Proprietary research & analysis 2022., Jupiter, FL

