



**THE ECONOMIC
CONTRIBUTION OF ARIZONA'S
GOLF INDUSTRY**

December 2020



EXECUTIVE SUMMARY

Golf is not only one of Arizona's defining characteristics, it is also a significant economic driver in the state where over 10M rounds of golf are played each year.¹ Public enthusiasm towards golf and increased accessibility have transformed the sport into an economic engine that few other industries can match.

The impact of golf reaches beyond the confines of the course, and the economic effect is expansive and growing.

This is especially true in the State of Arizona, where the industry supports local businesses, creates jobs, drives tourism, has a positive effect on real estate values, and generates significant tax revenues.

This report captures the extent the golf industry impacts the state's economy and how the industry is an important economic development tool for tourism related activities, both now and into the future.



“Golf is core to the state’s tourism activity. The sport’s impact goes beyond just golf courses, it also impacts the broader tourism industry including resorts, hotels, restaurants and bars, and general retail activity.”

Debbie Johnson

Director

Arizona Office of Tourism



KEY FINDINGS

There are sizeable economic and fiscal benefits that arise from the presence of a healthy golf industry. These benefits include:

- The golf industry in Arizona is a significant job creator for the local economy. The state's 300+ golf facilities, golf-related businesses, and golf tourism activity support approximately 50,000 jobs in Arizona.²
- Total activity within the golf industry in Arizona produced an estimated \$4.6B in economic activity and approximately \$388M in state and local tax collections in 2019.
- Hundreds of thousands of people visit Arizona to either play or watch golf. Approximately 10% of Arizonans play golf and over 550,000 of the state's residents are considered avid golfers. It is a sport enjoyed by Arizonans from all walks of life and is growing in popularity.
- Golf is foundational to the development of many resorts and master-planned communities, and adds significantly to the value of Arizona's residential property taxes collected annually. Additionally, it is fair to say that tens of thousands of residential units would likely not be purchased without a thriving Arizona golf community.
- The industry has a proven and positive impact on residential property values. Estimates of premiums for homes with golf course frontage in select Arizona residential golf communities ranged between 18% to 40% (i.e., golf community home values are between 18% to 40% above market values).



KEY FINDINGS

- The regional golf amenities allow for major sporting events and conventions to occur, enhancing the tourism and hospitality industries, as well as providing support to the state's business procurement efforts.
- While the economic impacts of golf are impressive, there may exist opportunities to further enhance golf's presence in Arizona. This includes additional coordination among industry participants as well as coordination with the broader tourism community.
- Golf course managers have been implementing more efficient irrigation technologies and promoting water conservation efforts. Golf related water use is only 2% of total statewide use but fully drives the \$4.6B in estimated economic activity.
- The implementation of more sustainable practices in managing golf courses across the spectrum of environmental issues from water use to green space planning has made the golf industry a partner in creating a greener footprint for our communities.
- Golf produces significant economic and fiscal impacts that justify the investment of both land and water.

WHY ARIZONA'S GOLF INDUSTRY MATTERS

10+ MILLION



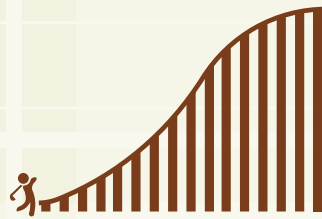
Total rounds of golf played by residents and visitors in Arizona.

50,700



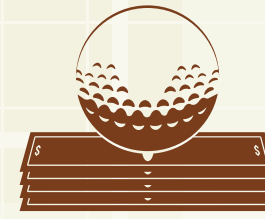
Total direct, indirect, and induced jobs supported by the golf industry.

\$4.6 BILLION



Total economic activity generated by the golf industry in Arizona.

\$1.7 BILLION



Total wages earned by the direct, indirect, and induced jobs supported by the golf industry.

\$388 MILLION



Total state and local tax revenues generated by the golf industry.

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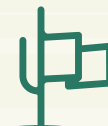
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INTRODUCTION

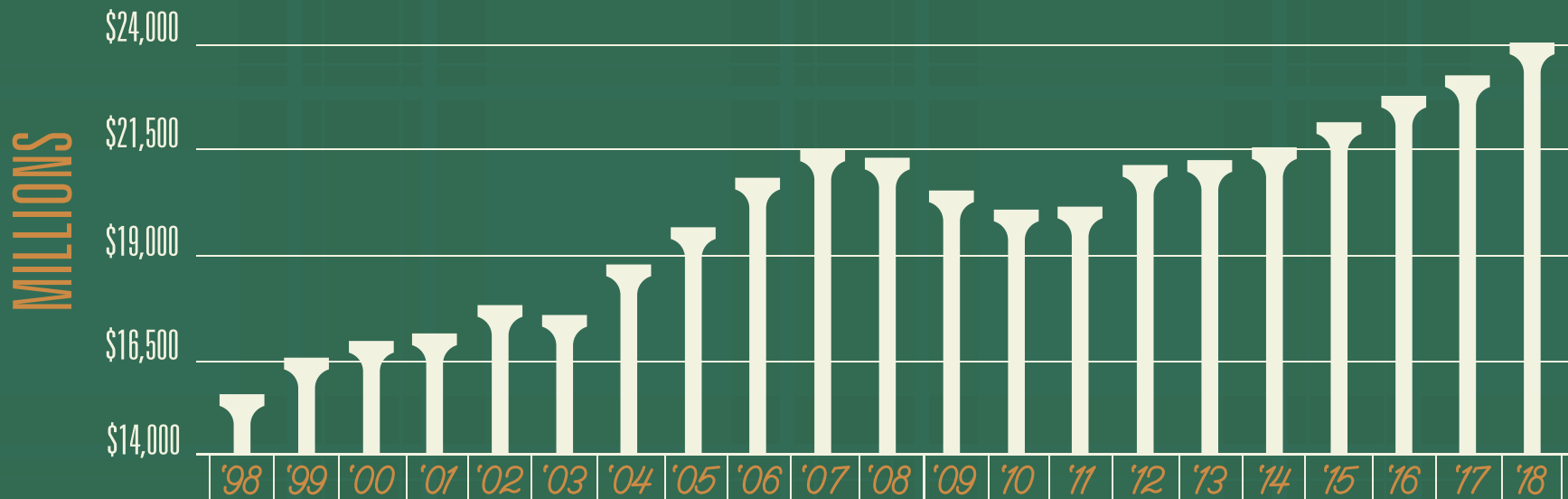
The golf industry in Arizona is a significant contributor to the local economy. Each year over 10M rounds of golf are played by Arizona residents and out-of-state visitors.³ The golf industry's impact extends well beyond golf courses and the individuals that play the sport. The state's 300+ golf facilities directly support jobs and incomes, indirectly support the growth of supplier industries, drive tourist activity and spending,⁴ as well as support the state's housing market.

Golf is one of Arizona's defining characteristics and draws in thousands of visitors to the state each year to either play or watch golf. The Arizona Office of Tourism and Longwoods International estimate that approximately 6% of all domestic overnight visitors to Arizona report playing golf during their visit.⁵ In 2019, there were 40.6M domestic visitors in Arizona,⁶ and approximately 2.4M of those visitors reported playing golf during their visit.⁷

Both locally and nationally, interest and participation in golf is expected to grow. Nationwide, golf is an \$84.1B industry and supports two million jobs.⁸ Furthermore, 108M people in the U.S. either played, watched, or read about golf in 2019. Golf is more accessible than ever, with 75% of the courses being open to the public. Last year, there were 24.3 million people that played golf at one of the nation's 16,000 golf courses.

The golf industry continues to grow. In 2018, the nation's golf courses generated \$23.4B in revenues, a 3.3% increase from 2017, according to the U.S. Census Bureau (see Figure 1).

FIGURE 1: U.S. COUNTRY CLUB AND GOLF COURSE REVENUE 1998-2018



ARIZONA ACTIVITY

550,000 people
The number of Arizona residents that play golf regularly

10 million
The number of rounds played by Arizona residents and out-of-state visitors

2.4 million
The number of domestic overnight visitors to Arizona that report playing golf during their visit

INTRODUCTION

Arizona is also home to various collegiate and professional golf tournaments. The Mountain West Conference Championship, the NAIA Men's Championship, and NCAA Division I Men's Championship tournaments are all played in Arizona.

The Cologuard Classic and Charles Schwab Cup Championship hosted by the PGA Champions Tour; the LPGA Volvik Founders Cup; and the largest PGA tournament, the Waste Management Phoenix Open (WMPO), are also played in Arizona. In total, an estimated 860,000 people attended these events in 2019.⁹

The annual week-long WMPO draws in over 700,000 attendees and contributed approximately \$389M to Arizona's economy.¹⁰ According to The Thunderbirds, which host the WMPO, over \$161M has been raised for local charities through proceeds over the life of the tournament.

In addition to the economic contributions and the impacts on tourism, golf courses also have a positive effect on residential real estate prices. There is a significant price premium attributed to the proximity of residential real estate to a golf course.

While the premium is highest when the property is directly adjacent to a golf course, non-adjacent properties within a residential golf community can still hold a significant price premium compared to similar homes that are not within a golf community. These premiums are addressed in subsequent sections of this report.

INTRODUCTION

This report provides an estimate of the overall economic impact of the Arizona golf industry. An economic impact model was developed to quantify the overall economic contribution related to golf facility operations. A second model was developed to capture the vast number of tourism impacts and a third model was developed to capture golf-related business impacts.

The impacts are defined based on their source. Direct impacts are the result of the initial activity being analyzed (e.g., golf course operations, golf shops, golf management companies, etc.). Multiplier, or secondary impacts (e.g., supplier businesses such as food and beverage distributors, etc.), are measured as indirect or induced.

Finally, this report examines water use and conservation strategies used by golf courses. The results show that golf courses account for a small portion of Arizona's daily water use and the positive impacts of the golf industry are greater than the industry's toll on the state's water usage. This can be significant as water usage regulations and restrictions are among the largest challenges that will limit the future growth of the golf industry.



“In 2020, a record \$14M was raised from proceeds of the Waste Management Phoenix Open at TPC Scottsdale. Over the life of the tournament, more than \$161M has been distributed to local organizations and individuals in need through Thunderbirds Charities. Golf is not only part of the fabric of this community, golf works to strengthen the community.”

Chance Cozby
Executive Director/
The Thunderbirds



IMPACT OF GOLF IN ARIZONA

Golf is a significant driver of economic activity in Arizona. It stimulates economic growth by generating employment, income, and draws millions of visitors to Arizona each year. The impact from visitors is significant since each golf visitor spends on average approximately \$2,000 per trip (2.9 times more than a typical visitor).¹¹

The following section summarizes the 2019 economic impacts for the three major components of the golf industry: 1) golf facility operations, 2) golf tourism, and 3) golf-related businesses. The impacts of each of the three major components are further detailed in the subsequent sections.

- The largest economic contributor in the golf industry was facility operations. The 2019 impacts of golf facility operations were derived from the 17,700 Arizonans that worked at the state's various golf facilities, from the \$1.2B in operating revenues that were generated at these facilities (i.e., green fees, food and beverage sales, etc.), and by the indirect and induced effects that result from operations. In 2019, golf facility operations contributed approximately \$2.3B to Arizona's economy.
- The tourism impact of golf is the industry's second largest economic contributor. Out-of-state golfers and spectators brought in approximately \$1.2B in spending to Arizona in 2019. This spending supports 24,100 local jobs at the state's hotels, resorts, retail shops, and restaurants and bars. Golf tourism alone added \$2.2B to Arizona's economy in 2019.
- Golf-related businesses, which include retailers and service providers that sell directly to consumers separate from golf facilities, supported approximately 1,500 workers in 2019 statewide. These golf-related businesses contributed \$117.4M to Arizona's economy in 2019.



“Our large groups may not always play golf, but they wouldn’t even book their group in a place like Desert Ridge if we didn’t have golf as an option for them.”

Steve Hart

General Manager & Area General Manager
JW Marriott Desert Ridge Resort

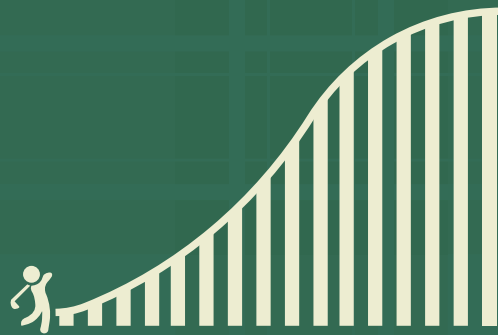
Arizona's golf industry, including golf facility operations, golf tourism, and golf-related businesses, employed a combined 50,700 workers in 2019. In total, golf contributed approximately \$4.6B to Arizona's economy and generated approximately \$388M in state and local tax revenues in 2019.

FIGURE 2: ECONOMIC AND FISCAL IMPACTS OF ARIZONA'S GOLF INDUSTRY



50,700

Total direct, indirect,
and induced jobs.



\$4.6 billion

Total economic activity



\$388 million

State and local
(city & county) taxes.

ECONOMIC IMPACT METHODOLOGY

Economic and fiscal impact models are an effective way to demonstrate regional implications of a particular project, policy, business, development or other activity in a given area. The study area can range from a single neighborhood or city, to an entire state or country. Typically, the effects resulting from the activity are estimated in terms of output, earnings, employment, and tax revenues.

RCG developed various economic and fiscal impact models to analyze the golf industry's impact on Arizona's economy. The RCG proprietary models employ an input-output model methodology commonly used by economists to determine impacts.

This method was used to estimate the multiplier or ripple effects caused by the activities being analyzed. The activity was then converted into tax revenues in each of the relevant categories.

Assumptions were based on previous golf and tourism studies, a survey of golf facilities and golf-related businesses, extensive outreach with golf businesses, and information compiled from a variety of sources that are subject to some uncertainty and variation. Therefore, actual impacts may vary.

The golf industry produces significant economic and fiscal impacts through:

Employing a large number of people who spend throughout the economy.

Enhancing statewide tourism activity.

Enhancing property values and tax collections.

Assisting with economic development and state marketing.

Enabling major events to occur locally.

ECONOMIC IMPACT MODELING METHODOLOGY

An economic impact model provides a quantifiable method to estimate the economic activity of a particular activity in a given area. Impacts can be used to measure existing activity and to measure potential expansions/contractions of an area's economy resulting from changes in economic activity.

Typically, the level of economic effects resulting from the activity are estimated in terms of output, earnings, and employment. These are defined as:

OUTPUT captures the broader level of economic activity, or the total value of goods and services produced in the region, similar to how statistics like gross domestic product (GDP) capture economic volume in individual states and across the country.

EARNINGS, a component of output, represents income to employees. The earnings component is used to measure the total change in income throughout the economy due to economic or business activity.

EMPLOYMENT is the total number of full-time equivalent (FTE) jobs created in the economy on an annualized basis.

The economic effects occurring as a direct consequence of the initial activity create additional activity in the regional economy. **This relationship is known as the multiplier or ripple effect.**

MULTIPLIERS

What they are and how they work:

A customer spends money on golf and an employee gets paid.

The employee spends their paycheck and the business pays for supplies.

The transacted money is again used for employee pay and business supplies at other locations.

For golf, the basic operations flow in a similar way and multiple businesses are impacted.

However, the golf industry also impacts tourism activity and the spending patterns continue.

This is why a job created in the golf industry results in additional jobs created in the economic region.

The basis for multiplier effects is the interdependencies between industries, how one industry impacts other sectors, and the cycle of spending and re-spending within the regional economy.

An input-output model is used to generate these multipliers. These multipliers quantify relationships among industries and estimate the extent that the area being analyzed can capture sales, earnings, and job impacts within the region.

Input-output models measure impacts based on their source. Direct effects are the result of the initial activity being analyzed. The multiplier effects, or secondary effects, are measured as either indirect or induced. These are defined as:

Input-output models measure impacts based on their source. Direct effects are the result of the initial activity being analyzed. The multiplier effects, or secondary effects, are measured as either indirect or induced. These are defined as:

DIRECT EFFECTS, OR IMPACTS, measure business activity at an individual site or the initial change in the economy attributed to the development under consideration. For example, this includes the direct golf course and golf-related employees that run the daily operations of golf businesses.

INDIRECT IMPACTS capture additional output, earnings, and employment changes generated as a result of increased demand in the industries which supply services or products to the direct business or development under consideration.

IMPACT OF GOLF IN ARIZONA

For example, this includes the workers that are employed by businesses that supply food, retail, maintenance suppliers, etc. to the direct golf businesses.

Induced impacts capture additional output, earnings, and employment changes generated as a result of increased spending in the local economy made by the households of both the direct and indirect employees. For example, this includes the grocery store workers that are supported by the spending of the direct and indirect employees.

A common input-output model used to generate economic multipliers is an IMPLAN model (short for impact analysis for planning). Originally developed by the U.S. Forest Service in the 1970s, the responsibility for developing IMPLAN data sets shifted to the University of Minnesota as demand grew for regional models.

Currently, IMPLAN runs as a private organization and is the leading provider of nationwide economic impact data and analytical software. The RCG custom economic impact model employs a modified version of this input-output model methodology and uses Arizona-specific multipliers.

FISCAL IMPACT MODELING METHODOLOGY

Fiscal impact models provide estimates for the government revenues that are generated by a particular project, policy, business, development, or activity in a given area. Typically, fiscal impacts examine revenues that are likely to result from a project or activity and are determined by the study area's tax structure.

In general, the types of government taxes analyzed include sales taxes, excise taxes, lease taxes, income taxes, and property taxes. The type of activities subject to these taxes include payrolls, retail sales, utility use, leases, and construction, to name a few. Fiscal impacts are categorized similar to economic impact studies and are broken down at the direct, indirect, and induced levels in which they are created. These revenues are expressed as either primary or secondary based on their source.

In general, primary revenues can be estimated by definable sources such as sales taxes calculated by on-site retail sales or utility use; whereas secondary revenues are generated by the wages, residency, and spending of those direct, indirect, and induced employees who are supported by the business or economic activity. The RCG fiscal impact model employs this methodology. The model was designed to produce revenue information for the State of Arizona and local counties and municipalities.

IMPACT OF GOLF FACILITY OPERATIONS

Approximately 550,000 golfers play at Arizona's 300+ golf courses on a regular basis. Of the total golf courses in Arizona, approximately 26% are private courses while 74% are public courses.

In 2019, over 10M rounds of golf were played by Arizona residents and out-of-state visitors statewide.¹²

Although golf is played across the entire state, the majority of golf is played where population centers are located. In the Central region alone (Maricopa, Pinal, Gila and Yavapai Counties), approximately 7.7M rounds of golf were played in 2019.¹³

The aforementioned Arizona golf facilities also generated approximately \$1.2B in operating revenue from green fees, membership fees, range fees, golf cart rentals, food and beverage expenditures, etc. In 2019. Approximately 75% of the golf facility revenues were generated by golf play.¹⁴

FIGURE 3: ESTIMATED ROUNDS PLAYED BY REGION

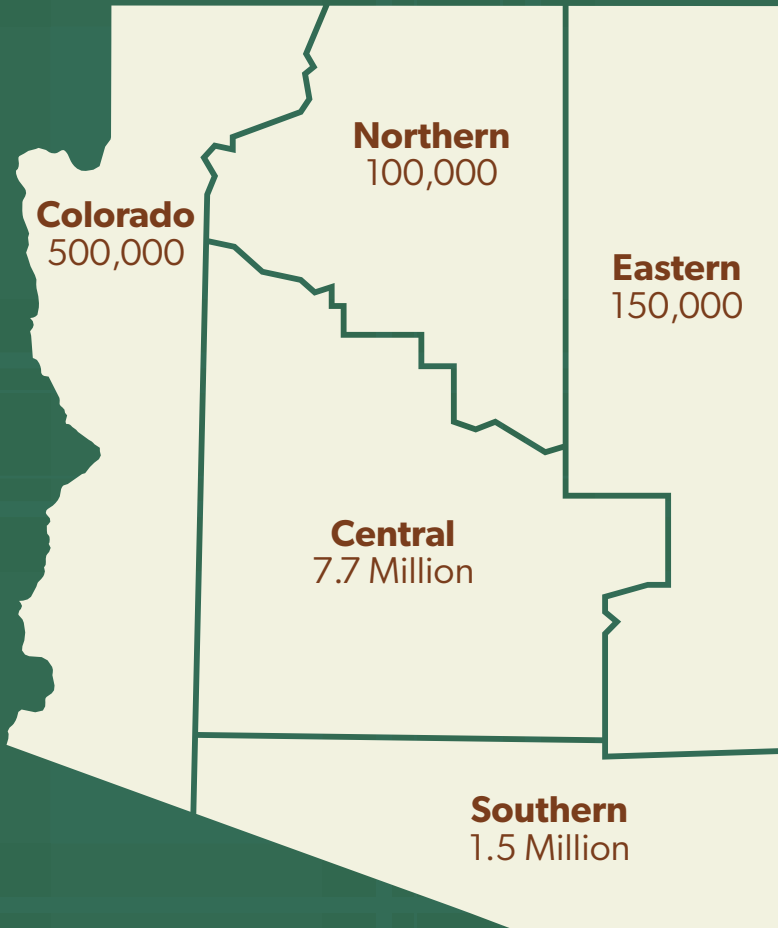
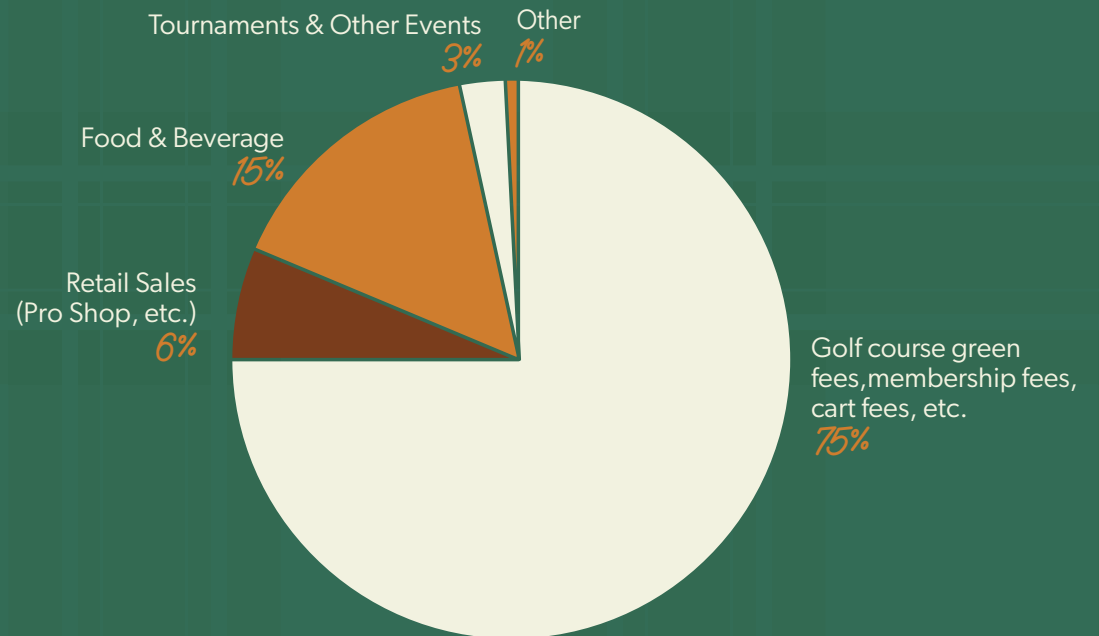
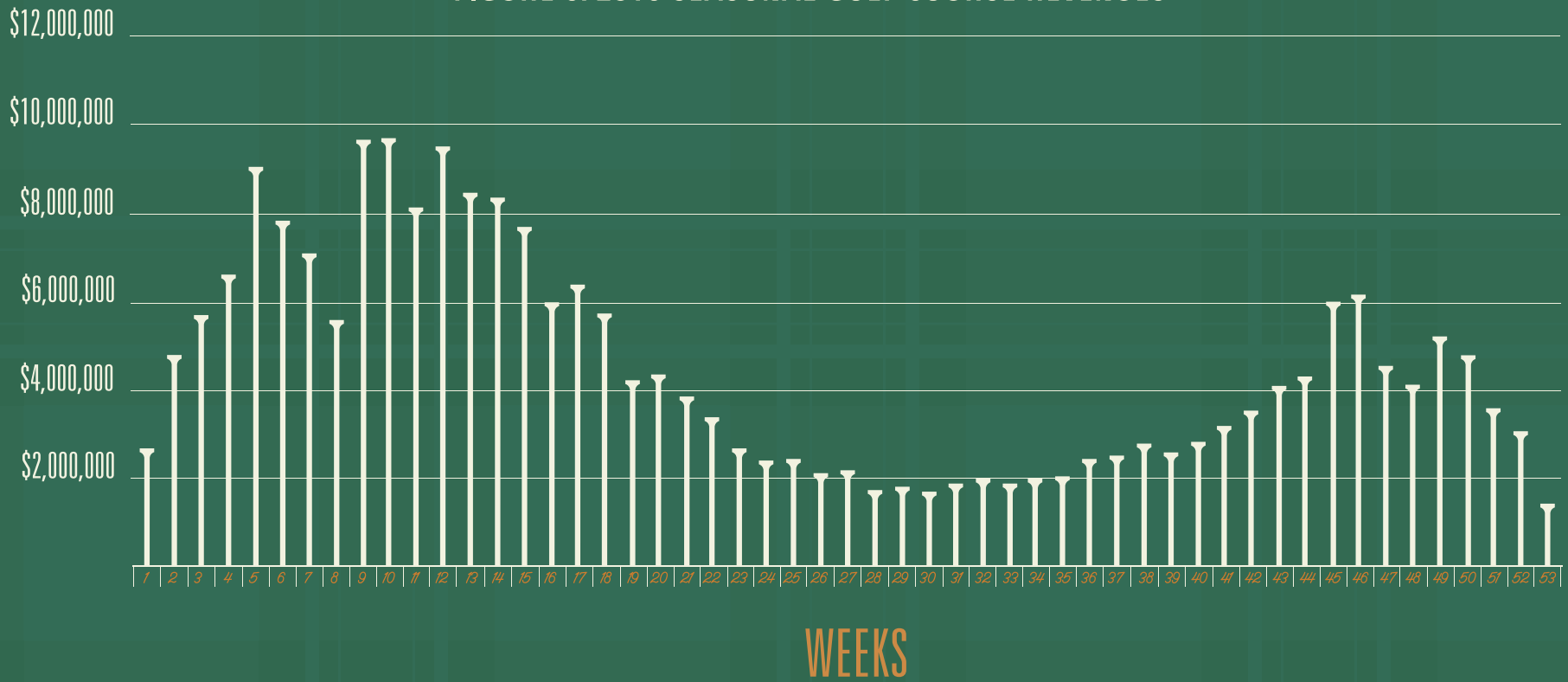


FIGURE 4: 2019 GOLF COURSE REVENUES BY CATEGORY



Similar to many other industries, golf course revenues experience routine seasonality. Approximately 40% of golf course revenues are earned in the first quarter of the year.¹⁵

FIGURE 5: 2019 SEASONAL GOLF COURSE REVENUES



IMPACT OF GOLF IN ARIZONA

Arizona's 300+ golf facilities employed approximately 17,700 full-time equivalent workers in 2019.¹⁶ The type of jobs that golf facilities employ range from groundskeepers and caddies to certified PGA teaching professionals and general managers.

Direct workers earned a combined \$522.1M in wages in 2019. The average wage of direct workers ranged from \$25,000 to \$100,000.¹⁷ Direct golf facility operations contributed approximately \$1.2B to Arizona's economy in 2019.

However, the operational impacts go beyond the direct effects as golf facilities purchase local supplies, goods and services from various other supplier businesses throughout the state.

Supplier businesses provide golf facilities with pro shop retail goods, golf course maintenance equipment, and restaurant food and beverages, among other goods and services. This indirect effect supports another 3,200 supplier jobs.

When the employees of the golf facilities and their supplier businesses spend their wages on household goods, another 4,200 jobs are created throughout the state.

In total, golf facility operations employed 26,000 Arizonans in 2019. The combined wages earned by these employees equaled \$861.8M. Golf facility operations contributed approximately \$2.3B to Arizona's economy and generated \$158.0M in state and local tax revenues in 2019. These 2019 tax revenues were generated from taxes levied on golf played, retail/food sales, golf course property, incomes and payrolls, among others.



“Arizona is one the most active and beautiful golf states in the country. The industry supports thousands of Arizona jobs. I see it as our sixth ‘C’ – copper, cattle, cotton, citrus, climate and courses.”

Dawn Grone
Corporate Counsel
Karsten Manufacturing
Parent Company of PING

TABLE 1: ECONOMIC & FISCAL IMPACTS — GOLF FACILITY OPERATIONS

	ECONOMIC OUTPUT	JOB	WAGES	TAX REVENUES
DIRECT	\$1,239,902,400	17,686	\$552,086,100	\$121,053,900
INDIRECT	\$492,426,300	3,214	\$145,580,000	\$15,938,700
INDUCED	\$600,985,700	4,186	\$194,147,200	\$21,035,100
TOTAL	\$2,333,314,300	25,086	\$861,813,300	\$158,027,700

Note: Tax revenues generated for the State of Arizona and local (county and city) governments. May not sum to total due to rounding.

IMPACT ON TOURISM

Golf attracts millions of travelers to Arizona every year and a relatively large portion of golf participation comes from out-of-state visitors. Based on estimates from the Arizona Office of Tourism, approximately 2.4M visitors came to Arizona to play golf and attend golf tournaments in 2019.

There is a fundamental truth in golf – golfers like to play at the places where they watch tournaments being played. Because of our winter and spring weather, Arizona is uniquely positioned to continue to capture a disproportionate share of tournament golf and golfers.

Dozens of resorts, anchored by and dependent on the golf industry, are spread across the state. These resorts attract thousands of golf visitors each year and host numerous corporate events, contributing to a strong tourism industry and supporting business procurement efforts. Traveling golfers, whether in Arizona for business or leisure, but typically a combination of the two, contribute through green fees, cart fees, room nights, incremental food and beverage spending, and golf retail merchandise purchases.

Golf Magazine recently published a list of the top 100 resorts in North America in which several Arizona resorts were included. Arizona resorts were among the top resorts for each of the categories, including luxury, general excellence and best resorts for families. These resorts attract individual visitors and corporate events based largely on the playability of the golf course, with a significant portion of the resort's core revenue coming from those intending to play golf.



“Scottsdale and golf became synonymous more than a century ago when golfers played the area’s first oiled dirt course beneath Camelback Mountain. With major golf tournaments and more than 300 golf courses in the state, Arizona remains an unparalleled golf destination to this day. Many visitors come to Arizona solely for our pristine courses, and many more book tee times once they’re here. Golf has and always will be a foundational part Arizona’s tourism industry.”

Rachel Sacco
President & CEO
Experience Scottsdale

IMPACT OF GOLF IN ARIZONA

Not only are golf visitors vital to the resort industry, but visitors generate significant revenues outside of golf facilities at the state's restaurants, bars, retail shops, and various other businesses. These imported expenditures circulate and ripple throughout the state's economy, support local businesses, create jobs, and generate significant tax revenue.

Out-of-state golf travelers spend, on average, 2.9 times more than Arizona's general tourists (approximately \$2,000 per trip). In total, golf-related visitors spent approximately \$1.2B in 2019 across the entire state, in addition to the money spent playing golf (this is captured in the operations component).¹⁸

Approximately 35% of total tourism spending in 2019 was spent on accommodations and lodging. Food and beverage purchases made up 23%, and retail purchases made up 20%. Entertainment (e.g., tournament tickets, movie tickets, etc.) and transportation made up 15% and 7% of the total spending, respectively.

Overall, in 2019, golf tourism supported 24,100 local jobs in Arizona. Golf tourism produced approximately \$840.2M in personal income for the state's tourism industry workers. In total, golf tourism contributed an estimated \$2.2B to Arizona's economy in 2019.

In addition, golf tourism generated approximately \$216.9M in state and local tax revenues in 2019. These revenues were generated by taxes levied on lodging, retail purchases, food and beverage purchases, transportation, and admission fees, among others.

TABLE 2: ECONOMIC & FISCAL IMPACTS — GOLF TOURISM

	ECONOMIC OUTPUT	JOB	WAGES	TAX REVENUES
DIRECT	\$1,158,960,000	17,170	\$552,641,400	\$182,373,700
INDIRECT	\$460,280,100	3,004	\$136,076,300	\$14,898,300
INDUCED	\$561,752,500	3,912	\$181,473,000	\$19,662,000
TOTAL	\$2,180,992,600	24,086	\$840,190,800	\$216,934,000

Note: Tax revenues generated for the State of Arizona and local (county and city) governments. May not sum to total due to rounding.

IMPACT OF GOLF-RELATED BUSINESSES

In addition to supplier businesses, there are various supplemental golf-related businesses in Arizona. These supplemental golf-related businesses sell goods and services such as golf carts, golf apparel, golf equipment, and golf lessons directly to consumers (i.e., not supplying goods to golf facilities).

Arizona is also the headquarters for world renowned golf businesses such as Troon Golf, LLC (a leading golf course management company that services courses around the world), PING (a prominent golf equipment manufacturing company), and The Antigua Group (a leading designer and marketer for golf apparel), among many others. In addition to the above-mentioned businesses, examples of golf-related businesses operating in Arizona include:

- AZ Golf Works
- Parsons Extreme Golf
- Communication Links
- PGA Tour Superstore
- Digital Golf Management
- Sagacity Golf
- OB Sports Golf Management
- Van's Golf Shops

In 2019, golf-related businesses directly employed approximately 1,105 Arizonans. These businesses directly contributed \$62.4M to Arizona's economy and generated \$11.2M in state and local tax revenues. Another 372 indirect and induced jobs were supported by golf-related businesses in Arizona.

In total, 1,478 jobs, \$43.1M in wages, and \$117.4M in economic output was generated for Arizona by golf-related businesses in 2019. The State of Arizona and local governments collected approximately \$13.1M in tax revenues from golf-related business activity.

NOTE: These exclude the golf supplier businesses such as certain golf cart repair shops, irrigation system suppliers, etc., that primarily supply golf facilities. Those supplier businesses are included as indirect businesses in the prior golf facility operations section.



“The business of golf has far reaching impacts. Each golf round played represents a reverberation of economic activity and an improvement in quality of life.”

Mike Loustalot

Co-Founder
Sagacity Golf

TABLE 3: ECONOMIC & FISCAL IMPACTS — GOLF-RELATED BUSINESSES

	ECONOMIC OUTPUT	JOB	WAGES	TAX REVENUES
DIRECT	\$62,367,200	1,105	\$26,012,300	\$11,210,800
INDIRECT	\$24,769,100	162	\$7,322,700	\$801,700
INDUCED	\$30,229,600	211	\$9,765,600	\$1,057,900
TOTAL	\$117,365,900	1,478	\$43,100,700	\$13,070,400

Note: Tax revenues generated for the State of Arizona and local (county and city) governments. May not sum to total due to rounding.

TOTAL IMPACT OF GOLF

The golf industry drives significant economic activity across Arizona. The impact of golf on Arizona's economy includes not only the operations of the state's golf facilities, but also golf tourism and golf-related businesses.

In 2019, golf facility operations, golf tourism, and golf-related businesses contributed \$4.6B to Arizona's economy. Approximately 50,700 direct, indirect, and induced jobs, earning \$1.7B in wages, were supported by the golf industry across the State of Arizona.

For perspective, if the golf industry was compared to other major employment industries, it would be approximately the same size as the entire information industry which is comprised of data centers, telecommunications, and publishing companies.

In total, the golf industry generated approximately \$388.0M in tax revenues for the State of Arizona and local governments in 2019. Tax revenues were generated by retail sales, green fees, utility use, property taxes, income and payroll taxes, lodging taxes, restaurant and bar sales, and by various other taxes and fees.



“Over 550,000 active golfers play in Arizona regularly. That’s a significant group of people who value this sport and will work to enhance its role in Arizona.”

Ed Gowan
Executive Director
Arizona Golf Association

TABLE 4: ECONOMIC & FISCAL IMPACTS — TOTAL GOLF INDUSTRY

	ECONOMIC OUTPUT	JOB	WAGES	TAX REVENUES
DIRECT	\$2,461,229,600	35,962	\$1,070,739,800	\$314,638,400
INDIRECT	\$977,475,500	6,380	\$288,979,000	\$31,638,700
INDUCED	\$1,192,967,800	8,308	\$385,285,800	\$41,755,000
TOTAL	\$4,631,674,400	50,650	\$1,745,104,800	\$388,032,100

Note: Tax revenues generated for the State of Arizona and local (county and city) governments. May not sum to total due to rounding.

TABLE 5: TOTAL FISCAL IMPACTS — GOLF INDUSTRY 2019

	<i>Golf Facility Operations</i>	<i>Golf Tourism</i>	<i>Golf-Related Businesses</i>	<i>Total</i>
DIRECT IMPACTS	\$121,053,900	\$182,373,700	\$11,210,800	\$314,638,400
Sales Taxes ¹	\$55,962,800	\$126,610,100	\$7,819,000	\$190,391,900
Property Taxes ²	\$29,716,500	\$8,237,300	\$530,400	\$38,484,200
Income & Payroll Taxes ³	\$16,013,500	\$15,545,600	\$1,000,900	\$32,560,000
Other Taxes & Fees ⁴	\$19,361,100	\$31,980,700	\$1,860,500	\$53,202,300
INDIRECT & INDUCED IMPACTS	\$36,973,800	\$34,560,300	\$1,859,600	\$73,393,700
Sales Taxes ⁵	\$16,096,800	\$15,046,000	\$809,600	\$31,952,400
Property Taxes ⁶	\$2,714,200	\$2,537,000	\$136,500	\$5,387,700
Income & Payroll Taxes ⁷	\$10,163,900	\$9,500,500	\$511,300	\$20,175,700
Other Taxes & Fees ⁸	\$7,988,900	\$7,476,800	\$402,200	\$15,877,900
TOTAL IMPACTS	\$158,027,700	\$216,934,000	\$13,070,400	\$388,032,100

1) Sales taxes levied on on- and off-site retail sales, food/beverage sales, utility use, and hotel/resort stays.

2) Property tax revenues collected from golf facilities, golf-related businesses, hotel/resorts, and direct employee owned real estate property.

3) State personal income taxes and unemployment insurance taxes.

4) Other taxes and fees including gasoline and fuel use taxes, vehicle license taxes, motor vehicle registration fees, and State Shared Revenues that are distributed to cities and counties.

5) Sales tax revenues levied on the indirect and induced employee utility use, retail purchases, and food/beverage purchases.

6) Property tax revenues collected from indirect and induced employee owned real estate property.

7) State personal income taxes and unemployment insurance taxes.

8) Other taxes and fees including gasoline and fuel use taxes, vehicle license taxes, motor vehicle registration fees, and State Shared Revenues that are distributed to cities and counties.

Note: May not sum to total due to rounding.



IMPACTS ON PROPERTY VALUES

In addition to the impacts discussed thus far, golf courses produce a positive effect on residential real estate values. The following is a review of the findings of previous empirical studies regarding the price premium paid for homes in close proximity to a golf course (see Table 6).

Limited available data as well as difficulty identifying and measuring all relevant variables makes performing a comprehensive statewide analysis difficult. However, RCG has duplicated and updated findings of previous Arizona-specific analyses completed by SRI International and the University of Arizona to show the total price premium attributed to homes located within residential golf course communities.

Additionally, RCG conducted an abbreviated analysis and examined home sales data for several individual neighborhoods within the state. This analysis highlights the price premium by square footage for homes within a golf community compared with the overall neighborhood, the premium that exists for homes that have golf course frontage compared to those without golf course frontage, and the price effect for homes with golf course frontage compared to those without.

The results of this abbreviated analysis provide additional context as to the impact golf courses have on residential homes prices.

GOLF INDUSTRY LITERATURE REVIEW

Scores of empirical studies and publications have attempted to show the effect of the “intangible” attributes of a home or neighborhood. These include quality of schools, proximity to shopping or open space, level of noise, among others. Any of these attributes, while difficult to quantify or measure, is considered by a prospective homebuyer and can influence the buying decision.

One of these attributes is proximity to a golf course. Numerous studies have shown that proximity to a golf course has a positive effect on the value and sales price of the home. The following table displays a selection of these studies.

The magnitude of the value and price effect varies depending on the location of the property across the U.S. and on the type of golf course near the studied property. For example, Steven Shultz and Nicholas Schmitz (Shultz & Schmitz 2009) showed that homes located in Omaha, Nebraska sell for a 28.0% premium when located on a private course compared to a 15.0% premium for homes located on a public course.

Sarah Nicholls & John Crompton (Nicholls & Crompton 2007) show that properties adjacent to a golf course had a 25.8% premium on the sales price and a 19.2% premium on the assessed valuation of homes in a neighborhood in College Station, Texas.

However, each of these studies analyze home prices in various locations around the country and variations in the residential housing market limit the ability for these conclusions to be applied to the Arizona market without adjustment.



“Golf access is foundational to many master-planned communities. This access allows for additional high-quality development to occur, thus positively impacting property values and local tax collections.”

Ed Robson

Founder and Chairman
Robson Resort Communities

TABLE 6: SELECT STUDIES OF GOLF COURSE PROXIMITY PRICE EFFECTS

STUDY	PRICE EFFECT
Grudnitski (2003). Golf course communities: The effect of course type on housing prices. The Appraisal Journal.	12.5% - Private courses 6% - Semi-private courses 5.7% - Public courses
Owusu-Edusei & Espey (2003). Does proximity to a golf course matter? Clemson University Working Paper	Average 21% for golf course-abutting homes
Nicholls & Crompton (2007). The Impact of a Golf Course on Residential Property Values. Journal of Sports Management Vol. 21	25.8% - sales price 19.2% - assessed valuation
Shultz & Schmitz (2009). Augmenting Housing Sales Data to Improve Hedonic Estimates of Golf Course Frontage. Journal of Real Estate Research, Vol. 31	28% - Private non-equity 15% - Public 9% - Municipal 5% - Private equity
Shin, Saginor & Van Zandt (2011). Evaluating Subdivision Characteristics on Single-Family Housing Value Using Hierarchical Linear Modeling. Journal of Real Estate Research, Vol 33	16.25% - golf course frontage
Allen, Fraser (2016). The Effect of Appurtenant Golf Memberships on Residential Real Estate Prices. International Real Estate Review, Vol. 19.	7.96% for homes with golf memberships

GOLF PROPERTY PREMIUM IN ARIZONA

Utilizing the national average number of homes located on golf course frontage lots and those located on non-adjacent lots as reported by SRI International,¹⁹ Troy Schmitz (Schmitz 2006)²⁰ estimated the total statewide price premium (the extra value a homeowner can expect to receive on the sale of the home) paid for homes located in residential golf course communities.

In 2006, the study estimated that Arizonans paid a total of \$1.4B in premiums for golf course frontage property and \$655M for non-adjacent properties within golf course communities, for a total premium of \$2.05B.

The total golf course sales price impact on residential property values in 2014, using the same methodology, was estimated to be \$2.06B.²¹ In 2019, the total price premium represented by Arizona residential golf communities was estimated to be \$2.24B. This premium represented \$16.2M in additional property tax revenues to all taxing districts including county, city, and school districts.

TABLE 7: TOTAL PRICE PREMIUM OF ALL EXISTING GOLF COMMUNITY HOMES IN ARIZONA

2006	2004	2019
\$2.05 Billion	\$2.06 Billion	\$2.24 Billion

Source: SRI International; Rounds Consulting Group, Inc.

ANALYSIS OF RESIDENTIAL GOLF COMMUNITIES

A check of the data was performed based on a review of select golf course communities of varying values.

The results of the following abbreviated analysis provide additional context to the impact golf courses have on residential homes prices.

The random sample mix of residential golf communities located within various Arizona neighborhoods includes:

- Dobson Ranch
- Paradise Valley
- Ahwatukee Foothills
- Sun Lakes
- Estrella Mountain Ranch
- Tanque Verde

Utilizing available home sales data, the sale prices of the homes sold in the selected residential golf communities since 2017 were collected. The homes were then separated based on the home's property being adjacent to a golf course. In total, over 565 homes sales were analyzed in this review. Approximately 270 were adjacent to a golf course and 295 were not adjacent to a golf course.

The following chart shows the 2019 average sale price for the homes in the residential communities compared to the immediate local area.

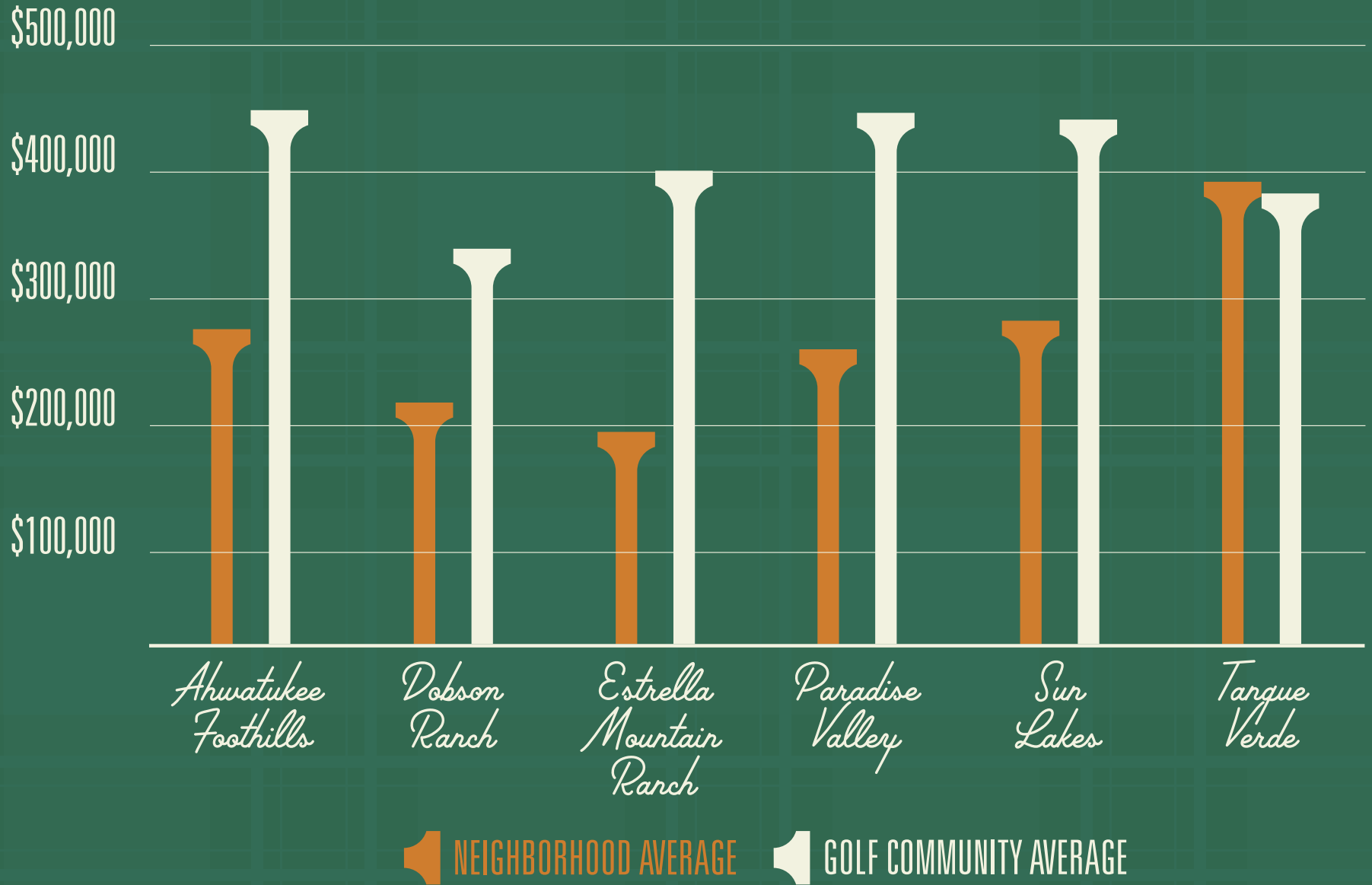
Note: Figure 6 below compares property values in golf course neighborhoods to the larger market area. Table 8 (p. 18) displays the property values of homes directly on a golf course versus property values for the larger golf course community.

GOLF AND PROPERTY VALUES:

\$2.24B

Total premium of all existing golf course property

FIGURE 6: AVERAGE HOME PRICE IN RESIDENTIAL GOLF COMMUNITIES V. LARGER NEIGHBORHOOD REGION



SOURCE: ZILLOW; MARICOPA COUNTY ASSESSOR'S OFFICE; ROUNDS CONSULTING GROUP, INC.

IMPACTS ON PROPERTY VALUES

For each of the neighborhoods examined, the homes within the residential golf communities had higher average sale prices in 2019 than the average home price for the broader neighborhood, with the exception of homes sold in Tanque Verde.

The largest difference comes from the homes in Paradise Valley, where homes in the golf communities sold on average for \$435,500 in 2019 compared to the average price of \$267,700 for the local area of Paradise Valley.

Within the larger neighborhood regions, the average sale price for the homes with golf course frontage is compared with the home sale prices of those without golf course frontage. Overall, within this small case study, the golf course premium ranged between 18% and 40% (see Table 8).

TABLE 8: AVERAGE HOME SALE PRICE WITHIN GOLF COMMUNITY (EXCLUDING LARGER NEIGHBORHOOD REGION)

NEIGHBORHOOD	NON-ADJACENT PROPERTY	GOLF ADJACENT PROPERTY	PRICE PREMIUM
<i>Paradise Valley</i>	\$388,254	\$512,469	32.0%
<i>Sur Lakes</i>	\$377,736	\$482,991	27.9%
<i>Dobson Ranch</i>	\$325,306	\$336,363	3.4%
<i>Ahwatukee Foothills</i>	\$440,349	\$458,356	4.1%
<i>Estrella</i>	\$370,307	\$439,582	18.7%
<i>Tanque Verde</i>	\$375,772	\$390,546	3.9%
TOTAL	\$380,499	\$447,830	17.7%

Note: Homes sold between 2017 and 2020.

IMPACTS ON PROPERTY VALUES

As yet another check to the property premium data, values per square foot were similarly reviewed. The analysis at the per square foot level was consistent with the previous two approaches.

Square footage is a significant indicator of home price. Generally, homes with more livable square footage will have a higher sale price than smaller ones. To account for this, the homes in the sample neighborhoods are grouped by total square footage.

The average sale prices within each grouping for homes adjacent to a golf course and those that are not adjacent is then calculated.

For each square footage grouping, with the exception of those homes with less than 1,500 sq. ft., the homes that have golf course frontage had a higher average sale price than those without golf course frontage.

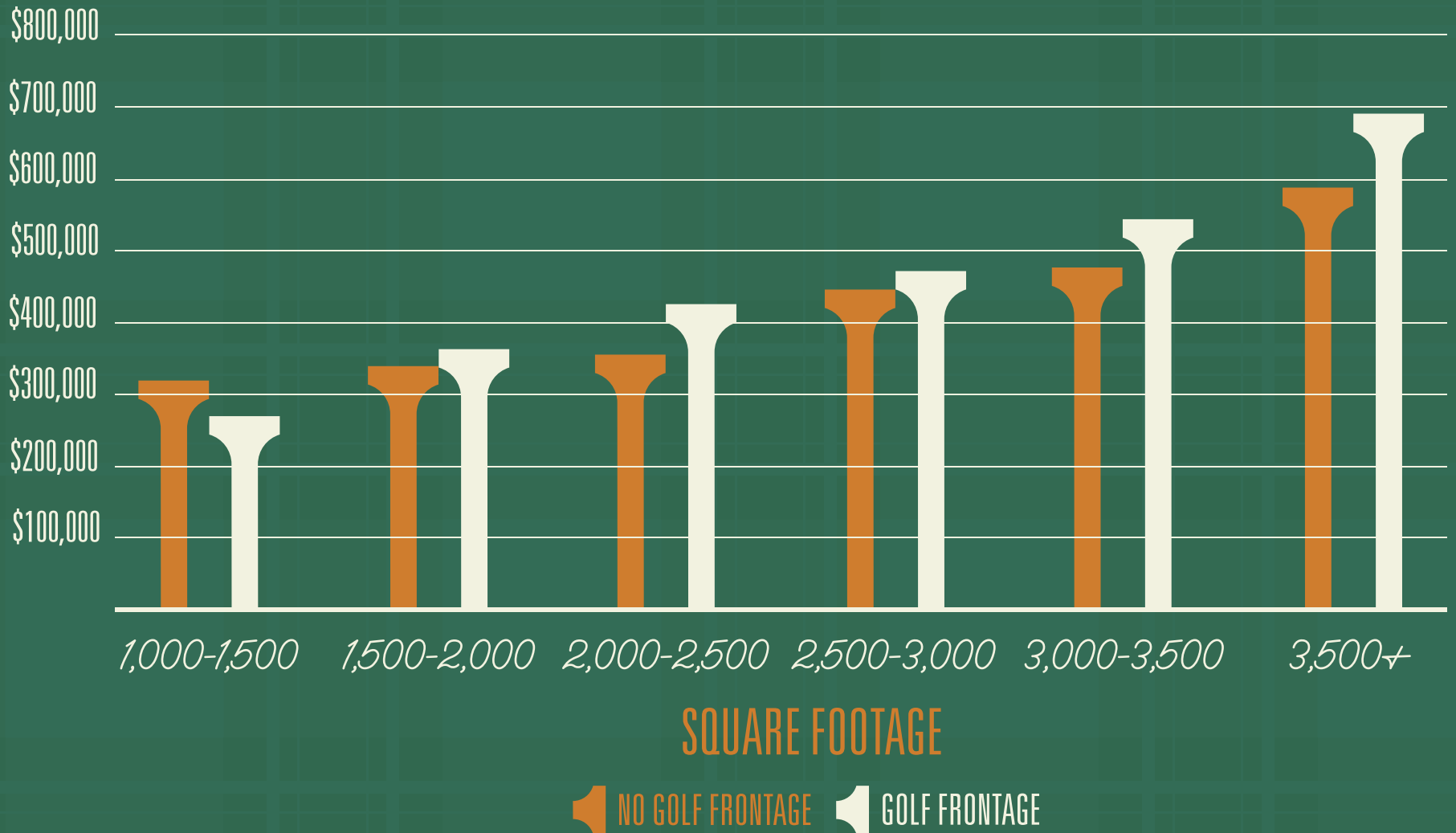
The premium is greatest for homes above 3,500 square feet, with the average house with golf course frontage selling for 17.2% higher than those without golf course frontage.

GOLF COURSE HOUSING PRICE PREMIUM:

Up to 40%

The premium paid for homes in the selected neighborhoods with golf course frontage

FIGURE 7: AVERAGE SALE PRICE BY SQUARE FOOTAGE AND GOLF FRONTAGE



Note: Sale data collected from 2017 through May 2020

IMPACT OF GOLF ON MASTER PLANNED COMMUNITIES

Golf is a foundational component to Arizona's identity and is an integral part of residential life in Arizona. This is evident in the dozens of master-planned residential communities anchored by golf. These residential communities include vast, highly desired public developments, exclusive private communities and wholly self-contained retirement communities, complete with dedicated fire and medical services.

Examples of such master-planned communities anchored by golf are Sun City and Sun City West. According to the U.S. Census Bureau, Sun City and Sun City West are home to 65,000 residents. The driving force for the demand of these communities are the combined 15 golf courses located within the communities.

Another example of a master-planned community in which golf is foundational is Desert Mountain in North Scottsdale. The 8,000-acre community features homes varying from small cottages to extensive estates, fine dining, miles of private hiking and biking trails, as well as world-class amenities including clubhouses, fitness centers, spas, and tennis courts, all designed around the community's 7 golf courses. It is fair to say that Desert Mountain and other communities like it would not exist in Arizona without golf as its anchor.

ADDITIONAL HOUSING CONSIDERATIONS

One issue that has been discussed relates to the redevelopment of golf course property for residential or other commercial uses. It has been argued that these developments have a larger economic impact than an individual golf course provides. However, this opportunity cost is not fully considered in this example.

The opportunity cost is largest when there is a scarcity of available vacant/developable land within the region being studied. In the case that a shortage of available land exists, or if residential prices are growing at an unsustainable rate, consideration can be given to transforming existing land uses or developments to satisfy demand.

This does not apply to Arizona at the moment. Arizona has a significant supply of available land, and while housing demand continues to grow, there is not a shortage of housing supply or residentially zoned land.



“Outdoor recreation is a huge draw for visitation in rural Arizona with the golf industry ranking at the top. The direct golf spending, when combined with the additional tourism dollars spent, strengthens many small businesses across rural Arizona.”

Julie Pastrick

President & CEO

Greater Flagstaff Chamber of Commerce

IMPACTS ON PROPERTY VALUES

Absent a shortage of land or scarcity in the current supply of housing, the opportunity cost mentioned above is nonexistent. Therefore, there is not any significant additional economic benefit that comes from transforming a golf course into another land use development.

Additionally, Arizona is home to many seasonal residents. These residents maintain a second home in Arizona but occupy the home only part of the year.

These people pay the same amount in property taxes as a full-time resident, but do not require the same level of public services as a full-time resident (i.e., police, firefighters, public schools, etc.). The golf industry attracts thousands of these seasonal visitors.

A decline in the Arizona golf industry could cause a decline in seasonal residents, translating to a corresponding loss in the additional local retail, food, and other spending those residents bring to Arizona.

Golf ultimately drives higher real estate values, stronger overall market absorption, and higher property taxes. Furthermore, golf adds to the state's quality of life and adds immeasurable cultural, societal, and community benefits.



GOLF AND WATER USE

The following section provides insight into the water use and conservation practices of golf courses throughout the state.

Not only is golf water use a minimal portion of the state's overall use, but golf managers have also been aggressively implementing more efficient and sustainable irrigation technologies, and promoting water conservation practices. Furthermore, golf returns a significant ROI on its water use as it is only 2% of total use but generates \$4.6B in economic activity.

In addition to data collected through the survey results, many other sources such as the Central Arizona Project (CAP), Arizona Department of Water Resources (ADWR), and the United States Geological Survey (USGS) were utilized.

U.S. GEOLOGICAL DATA

The USGS completes a comprehensive survey of water use across the country every five years. Measurements are recorded in either millions of gallons per day or acre-feet per year. One acre-foot is approximately 326,000 fluid gallons.

The water usage observed through the USGS survey is broken down into the following categories, public supply, irrigation, industrial/manufacturing and other.

The irrigation category is further broken down into crop irrigation, water used for growing crops and irrigating pastures, and golf course irrigation for water used at golf facilities.

According to the 2015 USGS (the latest available data), crop irrigation was the largest water use category with 73.5% of Arizona's total daily withdrawals. Public supply, which includes domestic and commercial water usage, accounted for 20.7% of the state's daily water use.

Industrial/manufacturing, which includes water use for mining and thermoelectric power generation, used 2.6% of daily water use. Golf course irrigation accounted for 2.0% of daily water use, while the other use category, which includes livestock and aquaculture water uses accounted for 1.2% of Arizona's daily water use (see the following chart).

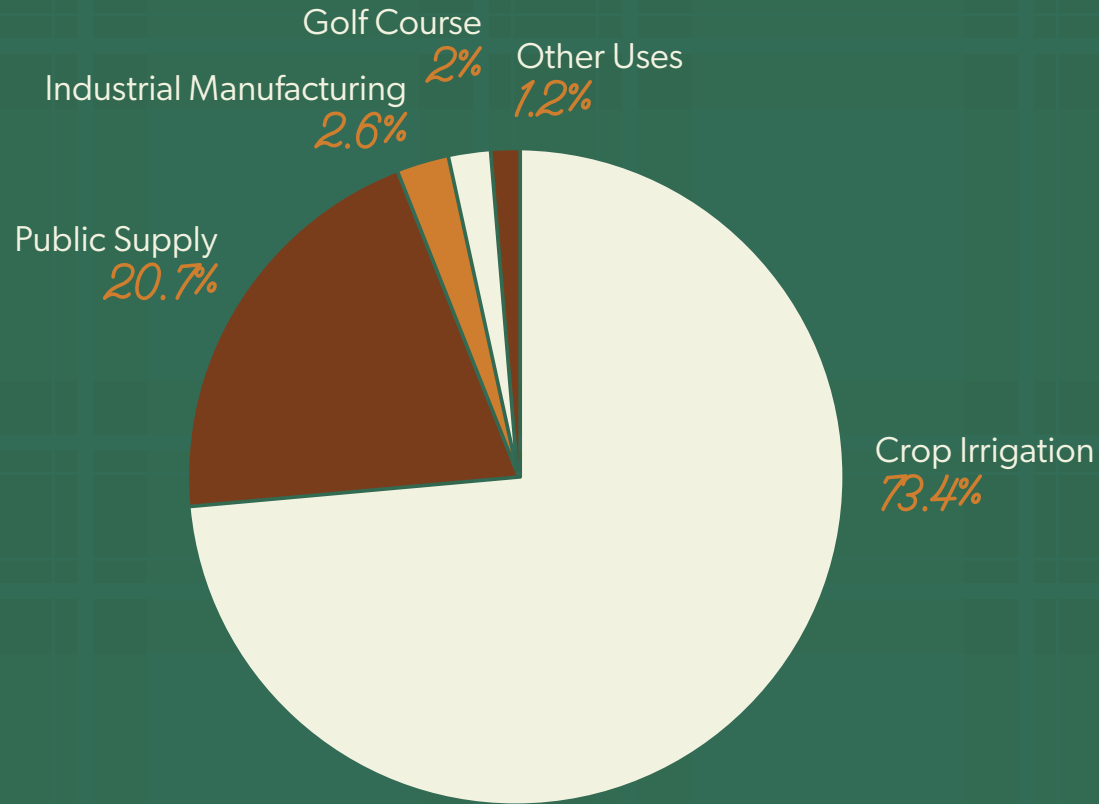


“Golf is a leader in sustainability. Golf landscapes help reduce the carbon footprint of urban areas. More and more golf courses are using recycled water for irrigation which has a number of environmental and economic benefits. Golf water management is not only sustainable, but also produces a significant ROI. Golf in Arizona is a leader in using water efficiently.”

Doug York
CEO

Ewing Irrigation and Landscape Supply

FIGURE 8: TOTAL DAILY WATER USE IN ARIZONA BY CATEGORY



Golf course water use accounts for a minimal proportion of the state's total water use and golf courses continually strive to use smart and sustainable best practices to irrigate. Golf's massive impact on the state's economy relative to its minimal water usage makes the return on investment for Arizona a wise investment.

The following table displays the daily water use by category. Of the total water used in Arizona, only 2.0% is used to irrigate golf courses.

TABLE 9: DAILY WATER WITHDRAWALS BY CATEGORY

CATEGORY	USAGE IN GALLONS
Crop Irrigation	4,406,000,000
Public Supply	1,240,000,000
Industrial/Manufacturing	158,000,000
Golf Course Irrigation	122,000,000
Other	73,000,000
TOTAL	5,999,000,000

Golf course managers have been investing in more efficient irrigation technologies and focusing on conservation efforts by using reclaimed wastewater, filtering it to meet quality standards (non-potable) and then recycling this water for irrigation.

Maricopa, Pima, Pinal and Coconino Counties recycled the largest amount of reclaimed water for golf course use, with Maricopa County using 25 million gallons.

TABLE 10: RECLAIMED WATER USAGE AT GOLF COURSES BY COUNTY

COUNTY	USAGE IN GALLONS
Apache	--
Cochise	740,000
Coconino	2,540,000
Gila	440,000
Graham	--
Greenlee	--
La Paz	90,000
Maricopa	25,010,000
Mohave	3,020,000
Navajo	70,000
Pima	10,200,000
Pinal	2,710,000
Santa Cruz	60,000
Yavapai	760,000
Yuma	1,350,000
TOTAL	46,990,000

WATER AND ACTIVE MANAGEMENT AREAS

The Arizona Department of Water Resources (ADWR) has designated areas of the state where water use is regulated due to heavy reliance on mined groundwater resources. These areas are called Active Management Areas (AMA) and are often found surrounding large cities, but encompass both urban and rural land.

Five AMAs are designated in Arizona: Prescott, Phoenix, Pinal, Tucson, and Santa Cruz.

The Phoenix AMA has the highest water use at 2.2M acre-feet per year, followed by Pinal, Tucson, Prescott, and Santa Cruz AMAs at 1.0M, 314,500, 24,200, and 14,900, respectively (according to most recent 2018 estimates).

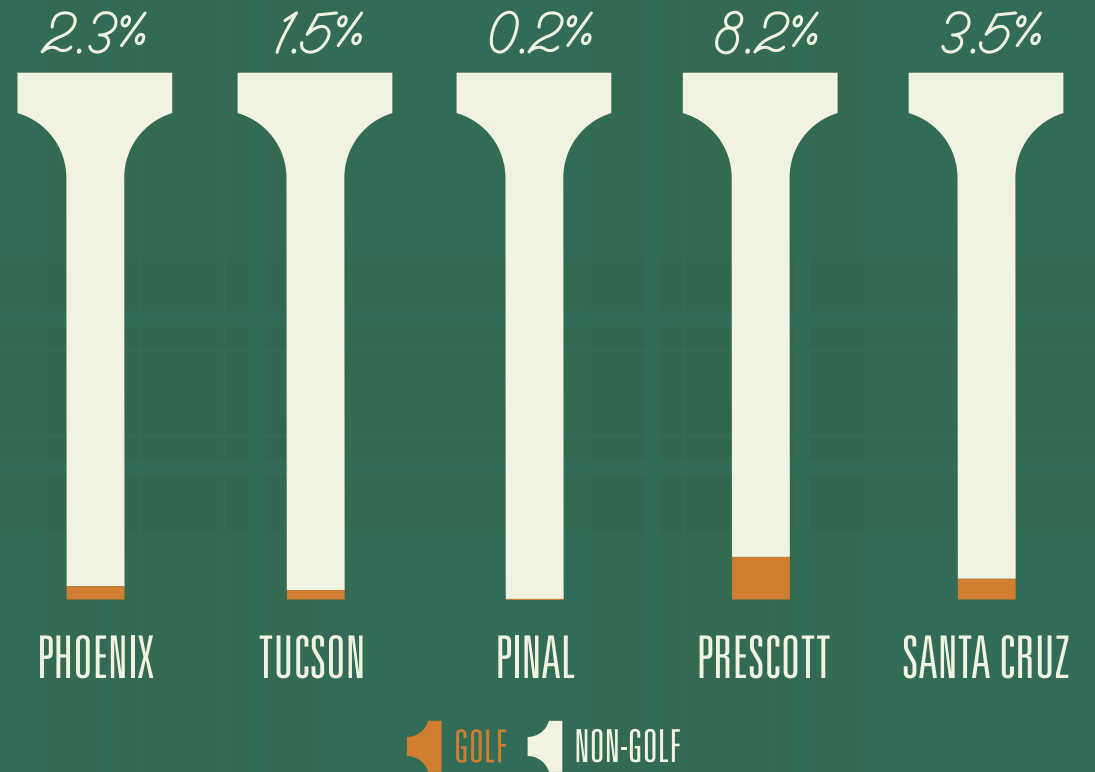
Golf water usage as a percent of total water usage ranges between 0.2% in the Pinal AMA and 8.2% in the Prescott AMA (Figure 10 below).

However, overall golf water demand is approximately 1.7% (61,900 acre-feet per year) of the total water use (3.6M acre-feet per year) across all AMAs.

FIGURE 9: ACTIVE MANAGEMENT AREAS



FIGURE 10: WATER USE WITHIN AN AMA FOR GOLF AND NON-GOLF USE



WATER USAGE CONCLUDING REMARKS

With the water data provided through reliable sources, it can be observed that golf course water use in Arizona remains minimal in comparison to the various other uses like agriculture, residential, commercial, etc. The USGS data shows golf course water use accounted for 2.0% of total daily water use in the state, while the ADWR data shows it accounted for 1.7% of total water use across the state's AMAs.

Arizona's climate, affordable housing market and new job opportunities has led to significant population and employment growth. The golf industry is an important component of this growth. Any regulation or public policy that limits water use in the golf industry should be thoroughly researched and analyzed before being implemented.

Supporting golf courses in their water conservation efforts, such as utilizing drought resistant breeds of grass, installing irrigation systems with water use analytics, turf replacement, among others should be considered an investment in maintaining the playability and condition of golf courses and facilities.

The economic impacts of the golf industry in Arizona are significant and understanding that an appropriate balance between sustainable water use and water conservation is critical for the golf industry to maximize the positive economic impacts.

The golf industry produces positive impacts for a variety of additional industries including, tourism, landscape supply, manufacturing, hospitality, retail, just to name a few. Therefore, it is likely that any investment in the golf industry produces a positive return on investment.

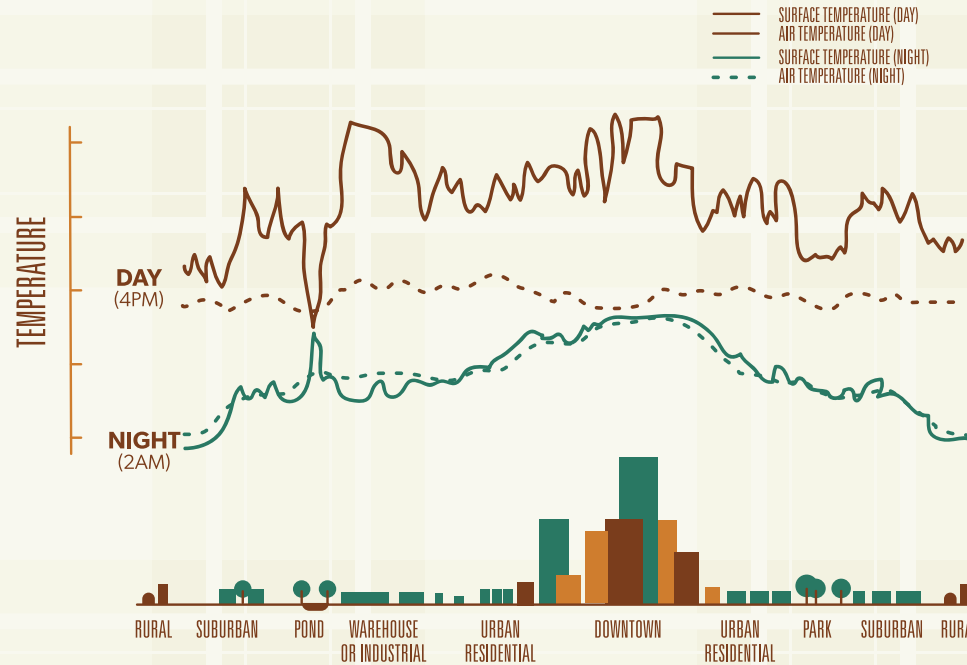
GOLF'S ENVIRONMENTAL BENEFITS

The implementation of more efficient and sustainable golf course water management practices has amplified golf's positive environmental benefits. As green space, often located near or even in the middle of urban areas, golf courses are a natural intervention to "heat island effects" while preserving native habitats and ecosystems.

According to the U.S. Environmental Protection Agency (EPA), a heat island is an urbanized area that experiences higher temperatures than outlying areas as structures such as buildings, roads, sidewalks, etc. absorb and re-emit the sun's heat more than natural landscapes, even at night. This heat island effect is especially prevalent in Arizona's desert cities.

Elevated temperatures from heat islands negatively affect a community's environment and quality of life in multiple ways. Higher temperatures increase demand for electricity to cool buildings, which can overload utility systems and exacerbate air pollutants and greenhouse gases.²² Excessive heat also contributes to heat-related illnesses and deaths from heat stroke, respiratory problems, and dehydration.²³

GOLF AND WATER USE



Studies from the EPA and local research institutes, such as the University of Arizona’s Water Resources Research Center and Arizona State University’s School of Sustainability, have found that temperatures are significantly cooler in green spaces such as parks, golf courses, and other natural areas.

Daytime temperatures can be between 1.8 and 5.4 degrees warmer within cities than surrounding open space areas – while nighttime temperature differences can be up to 22 degrees.²⁴ These temperature differences can have a significant impact on the livability of areas.

Green space is a natural solution, especially in urban areas, to the heat island effect. The trees and vegetation at golf courses lower temperatures by providing shade and absorbing the sun’s heat. Golf courses act as “cool islands” by mitigating the negative effects of urban heat islands which reduces energy use, improves air quality, reduces adverse heat-related health effects, and improves the overall quality of life.



ECONOMIC POTENTIAL/CONCLUSIONS

The golf industry in Arizona is foundational to local economies, bringing both jobs and revenues to our cities and towns. The economic activity that golf brings to Arizona is estimated to be \$4.6B. Golf is the anchor for many of the resorts and master-planned communities in our state.

The value golf brings to our economy and the well-being of our communities, given its varied and important contributions of wellness and social structure, is unparalleled by any other sport. Golf in Arizona also has a thriving youth participation with programs like the Junior Golf Association of Arizona and First Tee.

The Junior Golf Association of Arizona has over 1,000 members with over 4,200 rounds played annually through the Youth on Course program. Youth on Course is an access program where young golfers can play at 30 courses around the state for five dollars.

First Tee of Phoenix provides an affordable and accessible venue to expose young Arizonans to the game of golf and to develop essential character and core values. First Tee programming is available at 17 different golf courses throughout the Valley and in over 200 elementary schools in Arizona with over 140,000 children benefiting from its after school, life skills and physical education programs.

There is an opportunity to further advance these statistics through additional analysis and coordination. Enhanced coordination includes the development of a more formal golf industry advocacy entity. Entities such as this are vital in the economic development community. This is where partnerships are formed, and coalitions are built to accomplish specific tasks that have been identified through detailed research.

For example, the industry would benefit from a central entity more efficiently coordinating with the Arizona Office of Tourism. Various tourism marketing campaigns can include more aggressive (and better quality) golf industry information.

The recommended enhanced coordination through a central entity could also serve as an industry advocate and watchdog as it relates to water usage and coordination with the real estate community. Additional efforts related to identifying other metro competitors and monitoring their efforts and progress can be included in the entity's list of tasks.

MONETIZING THE OPPORTUNITY

In reality, very minor changes in economic activity within the golf industry can yield significant economic benefits. Consider the following example.

Assuming that with extensive coordination and promotion the golf industry can extend its peak season by a month (start the peak season two weeks earlier and extend the end of peak season by two weeks) and increase peak season activity by 10%, Arizona golf revenues would realize a 9.9% increase.

That 9.9% increase is equivalent to an increase of \$122.7M in golf revenues. The increased activity generates 2,500 new jobs and adds \$230.9M to Arizona's economy. The State of Arizona and local governments would collect an additional \$10.7M in tax revenues with enhanced coordination and promotion.

TABLE 11: ECONOMIC & FISCAL IMPACTS — ENHANCING GOLF’S PEAK SEASON IN ARIZONA

ECONOMIC OUTPUT	JOB	WAGES	TAX REVENUES
\$230,900,900	2,500	\$85,283,600	\$10,655,100

Note: Potential increases in activity as a result of enhanced coordination. Tax revenues generated for the State of Arizona and local (county and city) governments. May not sum to total due to rounding. Sources: IMPLAN; Rounds Consulting Group, Inc.

For additional perspective, if it is assumed that enhanced coordination extends peak season by two weeks and peak season activity only increases by 5%, golf revenues realize a 4.8% increase. This increase generates 1,200 new jobs, adds \$112.4M to Arizona’s economy, and produces an additional \$5.2M in state and local tax revenues.

A sub-regional case study was also reviewed, and interviews were conducted with select industry leaders. Myrtle Beach, South Carolina recently went through a process by which various golf industry entities more formally coordinated their activities. This included forming partnerships with tangential industry operators including those in tourism.

ADDITIONAL CONSIDERATIONS

While the economic impacts of golf are impressive, there may exist opportunities to further enhance golf's presence in Arizona. Further considerations include:

- There appears to exist opportunities to further advance the golf industry's economic contribution in Arizona through more coordinated industry advocacy and collaboration.
- Coordination with the broader tourism industry would be of benefit to the state as a whole as well as to golf industry businesses.
- Should enhanced coordination and advocacy efforts within the industry increase golf activity during the peak season by just 10%, an additional \$122.7M in golf facility revenues would be realized.
- Alternatively, through the same efforts, if the peak season was extended by two weeks (one week in the winter and one week in the spring), the increase in golf activity would create an additional \$112.0M in golf industry revenue.

CONCLUDING REMARKS

Based on this review, Arizona's golf industry provides significant value. Even modest coordination and advocacy efforts within the golf and associated industries will provide a significant return on investment for the state and all industry participants, including golf facilities, supplier firms, the broader tourism industry, and consumers. Additionally, Arizona's quality of life is enhanced by the immeasurable social, lifestyle, and community benefits that golf provides.



“Golf is an economic driver for Arizona; attracting tourism, generating valuable tax dollars and employing hundreds of thousands of residents directly or through supporting industries. In addition to the inherent recreation, social and health benefits the game provides to residents and visitors, golf provides a \$4.6B economic impact to the state of Arizona. Troon fully supports further coordination and collaboration among industry professionals as this will help to enhance the benefits to our state.”

Tim Schantz

CEO

Scottsdale-based Troon

Troon is the world's largest golf management company. Through Troon & Troon brands, the company provides management services to 50+ golf courses in Arizona while employing nearly 3,000 Arizonans.



CITATIONS

1. Based on surveys and research conducted by RCG.
2. Based on surveys and research conducted by RCG.
3. Based on surveys and research conducted by RCG.
4. Based on surveys and research conducted by RCG.
5. Arizona Office of Tourism; Longwoods International.
6. According to the Arizona Office of Tourism.
7. Arizona Office of Tourism; Longwoods International.
8. According to a 2019 study conducted by the National Golf Foundation (NGF).
9. According to The Thunderbirds.
10. According to a 2017 study conducted by Arizona State University.
11. Based on surveys and research conducted by RCG and estimates from Sports & Leisure Research Group.
12. Based on surveys and research conducted by RCG.
13. Based on surveys and research conducted by RCG.
14. Based on surveys and research conducted by RCG & Sagacity Golf.
15. Based on surveys and research conducted by RCG & Sagacity Golf.
16. Based on surveys and research conducted by RCG.
17. See above note.
18. Based on surveys and research conducted by RCG.
19. SRI International's Golf Economy Report.
20. Schmitz, T.G. (2006). Economic impacts and environmental aspects of the Arizona golf course industry.
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24. University of Arizona Water Resources Research Center: <https://wrrc.arizona.edu/publications/water-harvesting/quick-resource-urban-heat-island-effect>.



ROUNDS CONSULTING GROUP, INC.