

USGA Pace of Play Symposium: “While We’re Young.”

By David Hueber, Ph.D

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On the website promoting the USGA “Pace of Play Initiative,” it states that the key “Factors known to influence pace of play include course design (overall length, green-to-tee walks, location and number of hazards), course management and setup (green speed, hole locations, height and location of rough), player management (most significantly, the proper distribution of starting times), and the effectiveness of player education programs.”¹ Part of that player educational program is the roll-out of the promotional campaign, based upon a scene in the iconic movie, “Caddyshack,” when Judge Smails (Ted Knight) is on the first tee at Bushwood Country Club and taking too long in preparing to hit his drive, and Al Czervic (Rodney Dangerfield) whose foursome is on-deck and waiting impatiently for their turn to play, yells, “While We’re Young.”

Slow play has plagued the game and golf business for a long time. Back in the early 1960s, I can remember caddying for my dad (who was a PGA club professional) and hearing him complain that “There is no reason why a round of golf should take four hours!” Today, we would be delighted to finish a round in four hours. Back then, he blamed the pros on TV, slowpokes like Jack Nicklaus, who he believed were setting a bad example and ruining the golfing experience for everyone. I remember the commentators on the U.S. Open telecast noting Nicklaus’ response to that criticism was that he walked more quickly between shots to compensate for being “too deliberate” in his play.

Since then, the ruling bodies in golf have instituted rules to penalize slow play in tournament competition; unfortunately, the pace of play problem persists, especially, where it matters most...at golf courses across the country. According to National Golf Foundation (NGF) research, 90% of avid golfers think that slow play is a big problem and 70% believe that the problem has gotten worse over the years. The problem is so bad that about half of those surveyed said that they quit playing during a round because it was taking too long.

We have all experienced slow play; some of us may even be part of the problem. And, unfortunately, it only takes one slow foursome to add 30 minutes or more to a round for the golfers stuck behind that group. Slow play is a cancer that has metastasized into the culture and body of golf, and is adversely impacting the popularity of the game and undermining the economic vitality of the golf industry. There is no single solution, so we need to take a holistic approach in treating both the symptoms and the underlying causes for slow play.

With respect to treating the symptoms, the USGA’s initial focus is on player education. The “Pace of Play Initiative” was introduced in June of 2013 in association with the LPGA, the PGA of America and the Golf Course Superintendents Association of America (GCSAA). Humor is a great way to get the message across, and the roll-out of the promotional campaign, “While We’re Young” is designed to create awareness of the problem and encourage golfers to be cognizant of their pace of play. However, in order to change the culture of the game, we need to address the broader issues that create the perception that golf is a costly, difficult and time consuming game to play. There are no

¹ “USGA Pace of Play Initiative.” www.usga.org. ©2013 United States Golf Association. All Rights Reserved.

shortages of good ideas to reduce the time to play golf and to speed the pace of play including: the PGA and the USGA “Tee It Forward” campaign; and, the USGA Pace Rating System, which rates how long it should take for a foursome to play a golf course on a busy day. Another idea that I like that addresses both the cost and time issues was offered by John Reed, a Hilton Head golf community developer, during a Clemson University “Symposium on Sustainability” in 2012. He recommended that golf courses offer a “one-hour golf experience.” This might be just hitting some balls on the range, putting, playing three to five holes, etc. Nine-holes has long been lauded as an affordable and less time consuming option, but it has not caught on with many golf courses. I don’t know why this idea has not been put in play.

While treating the symptoms of slow play is all about educating the golfers, treating the underlying causes is all about educating and encouraging the golf course operators to address what the USGA identifies as the key factors influencing the pace of play: the golf course design (length, distance between greens and tees, difficulty); how the golf course is maintained (fairway width, rough height, green speed); and, how the golf course is set-up (tee markers and hole placements).

So, what has changed over the past 40 or 50 years when my dad was complaining about a four-hour round being too long, and today, when four hours is considered to be the goal? Answer: the golf courses have changed. Since the 1990s, the golf courses have become more costly to build and to maintain, the golf courses are longer and more difficult, and it takes longer to play a round of golf.

Back when I was caddying for my dad in the early 1960s, most golfers walked. We only had about eight golf cars in the golf club’s “fleet.” There were no golf car paths, except for a few high traffic areas adjacent to the greens or tees. The distance between the green and the next tee was just a short jaunt. The fairways were firmer and wider; the roughs were watered enough to keep them green, but cut low enough so you could find the ball and play the next shot toward the green. Furthermore, the approach to the green did not require a forced carry over a hazard. And, if you missed the green with your approach shot, there were a variety of pitch/chip shots that could be played, as opposed to being forced to extricate a play out of deep rough or conversely, trying to play a shot from closely cut turf that only “Kreskin” could predict how it might be played. Last but not least, after finally arriving on the green, the putting surface is twice the speed that you imagined, with undulations that couldn’t be seen, so you must call upon Kreskin once again for advice on how to read and play your third putt.

The Underlying Cause

A few years ago, I played Thornblade Country Club (a Tom Fazio design) in Greer, South Carolina, as the guest of the developer, Champ Covington. Thornblade annually hosts the PGA Tour’s “Web.com BMW Charity Pro Am” in April. When I played the course on that hot summer day in June, the greens were firm and fast, the fairways were narrow and mowed very short, and the roughs were thick and cut very high. By the time we had reached the 11th tee, we had spent about three hours on the golf course looking for golf balls in the roughs and slashing our way around the golf course. If after a lengthy search, we didn’t find our balls, we just dropped another, took a one stroke penalty and played away. We didn’t have the time or inclination to play by the USGA rules for a lost ball (stroke and distance), because the golfers behind us were waiting to play.

Since I was Covington’s guest, I did not want to be critical of the golf course’s maintenance and set-up, but asked him why the golf course was still being maintained for the play of a PGA Tour event. Covington’s reply was that in two weeks, Thornblade would be hosting an American Junior Golf Association tournament. So, in order to make the golf course a severe test for the junior golfers,

the membership at Thornblade had to endure playing conditions that made the golf course too difficult, not much fun and take too long to play.

There is no reason to maintain a golf course like they do for a PGA Tour event. The pros play a different game and it costs too much to maintain those playing conditions. Golfers need to be able to find their golf ball in the rough and be able to hit their next shot toward the green...they do not want to chop something sideways back to the fairway. Also, golfers don't want to hit a shot from a tight lie in the fairway that is groomed for the pros, they want a little "fluff" under the ball. The bottom line is simply this, most golfers have what they call in football as a "Ground Game;" they are not able to carry their ball over hazards onto a shallow green. And, if they miss the green, most golfers want to have a chance to chip their next shot onto the green and don't want to putt on green linoleum...they want a smooth surface, but they want the greens to be a reasonable speed.

Golfers today are faced with playing on golf courses that are designed, maintained and set-up to challenge the pros, but these golf courses are ill-suited for the skill level and capabilities of the average golfers who play a different game. This disparity between pros and amateurs was noted by Phil Mickelson prior to the 2011 PGA Championship at the Atlanta Athletic Club. Mickelson was critical of the design changes that had been made to the club's 7,467-yard, par-70 Highlands course. He felt that some holes had become "unplayable for the member" and believed the redesign was "a perfect example of how modern architecture is killing the game," Mickelson stated that "It's a good reason why the number of rounds is down on this golf course amongst the membership...and it's a good reason why, in my opinion, this is a great example again of how modern architecture is killing the participation of the sport, because the average guy just can't play it." ²

Over the course of the past 25-years, the golf industry has been creating a product that our customers just don't want to buy. According to NGF Synovate research, the perception of the game among golfers and non-golfers alike is that playing golf is costly, the golf courses are long and difficult and it takes too much time to play.³ This is how it happened.

Where We Were

Before going any further, I should disclose to having more than just a casual or academic interest the sustainability of the golf industry. As one of the people who helped create golf's current problems, I can assure you that the road to chaos was paved with good intentions. Back in the mid-1980s, I was the president and CEO of the National Golf Foundation. Unfortunately, the game and the golf business were heading in the wrong direction, just as it is today. The numbers of golf courses being built were slowing. The number of golfers and the number of rounds played were slipping. Golf was viewed by most in business as being a mature industry with little headroom for growth. So, when the NGF convened the first Golf Summit in 1986 at Westchester Country Club in Rye, New York, the game and the golf industry was at a crossroad. The NGF presented its research regarding the state of the game at conference, and then engaged McKinsey & Company to help develop a "Strategic Plan for the Growth of the Game" at the 1988 Golf Summit. The centerpiece concept for that strategic plan refuted notion that golf was a dying industry; instead, the NGF/McKinsey strategic vision was that golf was at the threshold of a boom based upon the theory that there was tremendous latent demand coming from the huge "Baby Boomer" generation (born between 1946 and 1964) that had a high percentage of self-described golfers. The Baby Boomers

² Kevin Robbins, *Atlanta Journal Constitution*, report regarding Phil Mickelson's press conference during the PGA Championship on August 11, 2011.

³ The NGF Synovate Study has been conducted every January since 1986. Synovate is a leading global market research firm in Chicago, IL. This survey of at least 20,000 Americans focuses on golf participation via samples drawn from the Synovate panel comprised of over two million people. Prior to 2007, surveys were sent via mail; now they are fielded online.

were expected to play and spend more on golf as they aged. In fact, if this occurred, it was estimated that we would not have enough golf courses to meet the demand for the game.

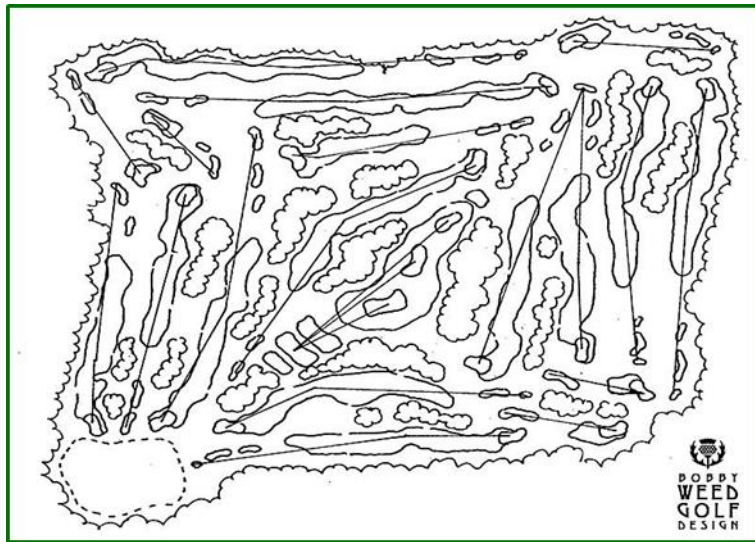
As the NGF CEO, I was the person responsible for the clarion call at the 1988 Golf Summit to build a “Course a Day” from then until the year 2000 to meet the anticipated demand for the game. The promotional campaign had the support of the PGA Tour, the PGA and other leading national associations, and importantly, the golf media. It worked; the idea lit a fuse that ignited an explosion in the growth of the game and golf industry. It instigated a change in the collective mind set of the golf business from gloom and doom, to boom and emboldened investment of more than \$20 billion into all facets of the golf industry. Fueled by the growing economy, golf became the darling of Wall Street. The game and the golf business grew unabated. Golf company IPOs were funded. PGA Tour purses increased. Golf commerce flourished, and more than a golf course a day was built during the 1990s.

At the time, it was inconceivable that too many golf courses could be built, or that the wrong type of golf courses would be built in all of the wrong places, or for that matter, that the supply of golf courses could possibly exceed the demand for the game. It was inconceivable that developers might build golf courses designed primarily to sell real estate at premium prices, without regard for the economic viability of the golf courses because they planned on selling the golf course when the real estate was sold.

When the economy soured and the real estate market imploded during the “Great Recession,” the golf industry would inherit a large number of golf courses that would not be sustainable.

What Happened

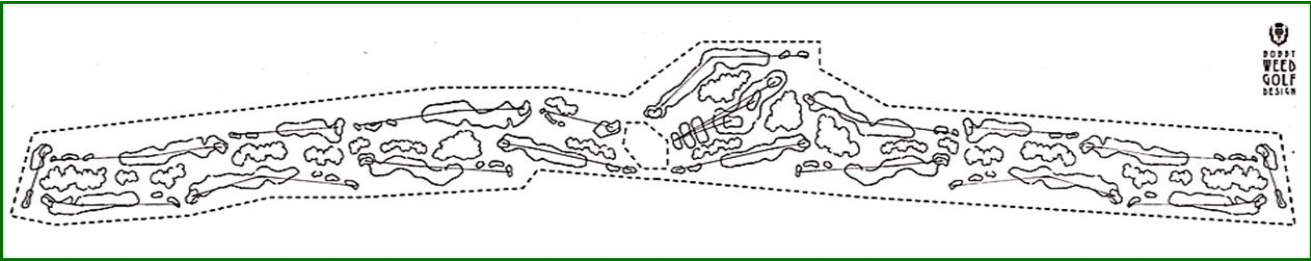
During the 20th century, there were three “boom” periods of accelerated golf course development that peaked in 1930, 1970 and 2000. The first boom in the 1920s built private golf courses for the upper class. By 1930, 80% of the 5,700 golf courses were private. In many cases, the golf course was a featured recreational amenity for the country club. The golf courses rarely had any ties to a real estate development. Below is an illustration of what is known as a “Core” golf course design with a driving range and clubhouse. The entire golf course footprint was around 100 acres.



The second boom in the 1960s was driven by the growing post war economy and built public golf courses to meet the demand for the burgeoning middle class, which for the first time in our nation’s history had the disposable income and interest in recreational activities. By 1970, 45% of

the 10,200 golf courses were private clubs and 55% were open to the public. The demographic democratization of the game was well underway, and it was during this time that developers first started using golf as an amenity to sell real estate. About 18% of the golf courses built in the 1960s were in association with a real estate development.

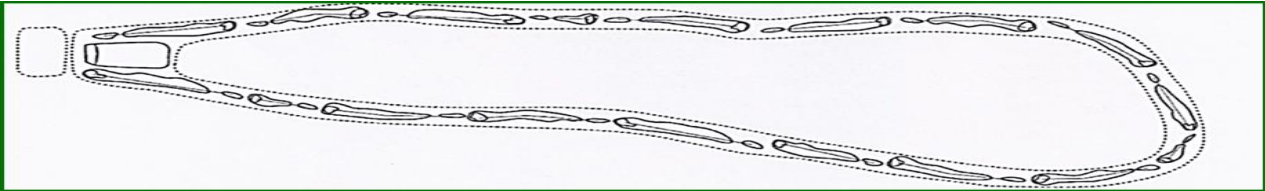
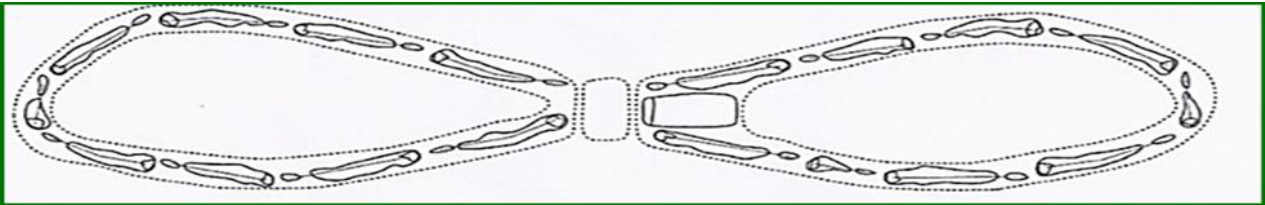
Below is an illustration of what is known as a double fairway golf course design with a clubhouse and driving range. There are variations for a double and/or multiple adjacent golf holes, which is indicative of the early real estate related golf course designs in the 1960s and 1970s. The golf course footprint increased to approximately 150-acres in order to accommodate the increased number of premium priced fairway lots around the perimeter of the golf course.



As noted, the third development boom in the 1990s built golf courses in anticipation of the latent demand from the huge “Baby Boomer” generation who were expected to spend and play more golf as they aged, entered the prime of their working lives and later retired. While the first two golf course development booms were driven in response to actual socio-cultural and economic phenomena, the third boom was anticipatory in nature and driven more by the real estate speculation on the part of both the real estate developers and buyers.

During the 1990s, more than 40% of the golf courses were tied to master planned communities; therefore, real estate developers played an influential role in promulgating the development of upscale golf courses that served as an amenity in selling real estate at premium prices. The conventional wisdom was that golf courses that had “big name” architects and that were famous for their difficulty led to higher property values and had higher sales turnover.

To follow are two illustrations of single fairway layouts. The first has “returning nines” and the second is a “continuous 18-hole layout.” The golf facility footprint for both designs increases to roughly 175 to 200-acres.



Interestingly, it made business sense to build longer courses because the developer could squeeze in more premium priced golf course frontage lots. For example, by adding about 65 to 67

yards to the length of a hole, there is room for four additional 100-foot-wide golf course lots on either side of the fairway. At a \$250,000 per golf frontage lot, those extra yards could represent \$1 million in incremental income on just one hole.

This real estate development business model and marketing strategy led to the creation of more costly, difficult and longer golf courses, which maximized the number of premium priced golf course frontage lots. Ironically, this business strategy also indirectly inspired many existing golf courses as well as many developers of golf courses that did not have a real estate tie-in, to build more costly, longer and more difficult golf courses, because they wanted to offer a “country club for a day” golf experience that was competitive with the real estate developers’ golf course product.

Because many of the golf courses that were developed in the 1990s were part a master planned community, the golf course operations were subsidized, which made business sense because the developers were primarily interested in selling real estate. The golf course was only an amenity that enhanced real estate values and increased sales. Once it became evident that the golf courses were not profitable enterprises, the golf course went from being an asset to a liability on the developers’ balance sheet. The developers’ exit strategy after selling the real estate was to sell the golf course; unfortunately, this was a game changer for the developers because they could not get rid of the golf course because golf course operation was subsidized and was losing money. And, since the value of any business enterprise is some multiple of its projected earnings, that golf course asset had become a liability.

During the 1990s, too many golf courses were built; many of these courses were built where they were not needed...sometimes they were built in the wrong places. Often, the wrong types of golf courses were built. The golf courses were expensive to construct and costly to maintain. As a result, the cost for playing a round of golf increased. Furthermore, these golf courses were too difficult for the average golfer; and, it took more time to play a round of golf on these longer and more difficult golf courses. In building costly, long and difficult golf courses that took too long to play, they created a product that golfers didn’t want to buy. It was a perfect storm of unintended consequences that created golf courses that did not meet the needs of its customers and that were not economically viable.

By the year 2000, the golf industry had over 16,000 golf courses with nearly 30 million golfers playing an estimated 520 million rounds. The democratization of the game was a fait accompli with 72% of the golf courses being open to the public where 80% of the golf rounds were played. But that quickly changed with the downturn in the U.S. real estate market in 2006 and the economy in 2008. Real estate buyers no longer saw real estate as a “can’t-miss” investment. Speculation no longer drove real estate sales, because buyers were now looking for value and utility instead of capital gains.

Since 2000, the golf industry has experienced significant declines in the key barometers of its economic well-being as defined and measured by the number of golfers, the number of golf rounds and the net increase (decrease) in the number of golf courses. NGF research reveals that the percentage of the overall population that plays golf has declined over the past 20 years.

In 1990, the percentage of the population that played golf was 12.1%, by 2000 it was 11.1% and by 2010 it was down to 10.2%. Rounds played were down 5.7%, from 518.4 million in 2001 to 463 million rounds played in 2011. Accordingly, the NGF estimates that the number of rounds played per 18-hole equivalent golf course has decreased by 12% from 36,333 in 2001, to 31,299 in 2011. Consequently, the golf industry is in the midst of a major crisis in the economic viability of its built environment.

The ramifications of this paradigm change in golf’s built environment are profound. The adverse impact upon the game, golf participation and the golf industry are clear. The current contraction in the golf industry is going to continue for at least the next seven to 10 years with an estimated net loss of 140 courses per year. Additionally, there is a huge inventory of unsold lots in golf community developments across the country.

Dissertation Research⁴

When I started working on my Ph.D at Clemson University in 2008, my gut feeling was that during the 1990s there had been a paradigm change in the nature and type of golf courses built during the 1990s. The golf courses seemed to be getting longer and more difficult; existing golf courses were being “Tiger Proofed;” and, the cost and time to play a round of golf seemed to be increasing. I wondered if there were any facts to support my contention. If so, how and why did it occur?

My dissertation research hypothesis was that...

“The nature and type of golf courses built (or renovated) during the 1990’s development boom were more expensive, longer, more difficult and took longer to play compared to the golf courses built during the previous golf course development boom eras in the 1920’s and 1960’s.”

In order to determine if there had been a paradigm change in golf’s built environment during the 1990s compared to the two other development boom periods in the 20th century, an analysis of the NGF Golf Facility Database was undertaken. The golf course statistics that characterized the nature and type of golf courses built during each development boom eras were identified. The variables of interest included: the cost to play golf (green/guest fees), the total length of the golf course (yardage) and the USGA Slope and Course Rating, which were all available from the NGF Golf Facility Database. In order to fill some information gaps in the NGF database, a supplemental on-line survey, the *NGF Pace of Play Report, 2012*, was conducted to gather information regarding the time to play a round of golf, as well as to identify any golf course renovations that may have been made to make the golf courses longer and more difficult.

The quantitative analysis included both a univariate and a bivariate “Analysis of Variance (ANOVA) analysis. A qualitative study was undertaken to explain how and why golf’s built environment had changed, which was based upon the responses from 12 in-depth expert interviews with prominent golf community developers and golf course architects.

Dissertation Research Findings

The analysis of the NGF Golf Facility Database and the *NGF Pace of Play Report, 2012*, survey supported the research hypothesis that “The nature and type of courses built or renovated during the 1990s development boom were more costly, longer, more difficult and took longer to play compared to the golf courses built during the previous golf course development boom periods in the 1920s and 1960s.”

Quantitative Study Findings:

The univariate analysis compared and interpreted the descriptive data to explain how the group means for the variables of interest differed for the golf courses built during the 1990s, compared to the golf courses built during the 1920s and 1960s eras. This analysis confirmed that the 1990s vintage golf courses were:

More costly: The golf courses built in the 1990s had an average 18-hole greens fee of \$59 per round compared to \$45 and \$47 per round respectively for the vintage 1920s and 1960s courses.

⁴ Hueber, D. (2012). The Changing Face of the Game and Golf’s Built Environment. *Doctor of Philosophy, Department of Planning, Design and the Built Environment, Clemson University*. Copy is available at: www.mindseyegolf.com.

Longer in length: The average length of the golf courses built in the 1990s is 6,699 yards; the average length of 1920s vintage golf courses is 6,397 yards, which is 302 yards less; and, average length of 1960s vintage golf courses is 6,468, which is 231 yards less than the vintage 1990s courses.

More difficult: The distribution of the group means for USGA Slope and Course Rating are similarly revealing in depicting how the golf courses built in the 1990s were more difficult than the golf course built in the 1920s and 1960s.

USGA Slope: The mean Slope rating for the golf courses built in the 1990s is 129, which is significantly higher than the group means for the 1920s vintage golf courses built at 123.2 and the 1960s vintage golf courses at 121.7.

USGA Course Rating: The mean Course Rating for the golf courses built in the 1990s is 72, which is significantly higher than the group means for the 1920s vintage golf courses at 70.5 and the 1960s vintage golf courses built at 70.6.

Takes too long to play: The mean time for a foursome to play 18-holes during the peak season for the vintage 1990s courses is 267 minutes (four hours and 27 minutes), which is significantly higher than the group means for the vintage 1920s courses at 247 minutes (four hours and seven minutes) and for the vintage 1960s courses at 258 minutes (four hours and 18 minutes).

However, while the univariate analysis depicts the actual differences in the mean measurements across the three development eras; the interpretation of those differences and whether or not those measurements are material is up to the researcher's subjective assessment. In other words, if the mean cost to play golf for a golf course built in the 1990s is \$59, is that difference in the cost significantly higher than the average cost of \$45 and \$47 respectively to play at golf courses built in the 1920s and 1960s? On the face of it, the differences seem obvious; however, there is a statistical method that can be employed to analyze the group means and determine if the differences are statistically significant.

The ANOVA method analyses tested the null hypothesis that the group means for the golf courses built during the 1920s, the 1960s and the 1990s development decades were equivalent. The research results revealed that there were statistically significant differences in the group means for the golf courses built in the 1990s compared to the golf courses built in the 1920s and 1960s. Therefore, the null hypothesis is rejected and the results support the research hypothesis and unequivocally prove that the differences in the mean measurements defining nature and type of golf courses built in the 1990s were statistically significant from those same mean measurements for the golf courses built in the 1920s and 1960s.

Qualitative Study Findings:

In-depth expert interviews were conducted with seven prominent real estate developers and five golf course architects. In total, this group of developers has been involved in part or fully responsible for the development of more than 100 golf communities. And, this group of architects collectively has more than 400 golf course designs to their credit.

- 1) Champ Covington, Covington Properties;
- 2) Paul Fletcher, Fletcher Management Company;
- 3) Henry DE Lozier, Principal, Global Golf Advisors;
- 4) M.G. Orender, Hampton Golf and Past PGA President;
- 5) John Reed, Reed Development;
- 6) Dr. Buddy Thompson, The Reserve at Lake Keowee; and,
- 7) Bob Whitley, Whitley Development Group, Inc.

- 1) Tom Fazio, Fazio Design;
- 2) Jim McCumber, McCumber Golf;
- 3) Greg Norman, Norman Design
- 4) Bob Walker, Robert C. Walker Design; and,
- 5) Bobby Weed, Weed Design

Since many of the golf courses built during the 1990s were tied to real estate development, it is understandable why developers played such an influential role in the nature and type of golf courses built. As noted, the developers believed that if their golf courses had a famous designer and a reputation for difficulty, it would enable them to sell real estate lots at higher prices (longer courses had more premium golf frontage lots to sell). Architects knew that if they designed a golf course that was renowned for its difficulty, it might have a better chance making its way onto the *Golf Digest* “Top 100” list, which would enhance their reputation, fame and fees as a designer.

The consensus view among the developers and architects was that these motivations played a role in the development of golf courses that were more costly, longer and more difficult and take longer for average golfers to play. These results provided an explanation for how and why golf’s built environment had changed in the 1990s and may have contributed significantly to the disastrous decline of golf demand in the 2000s.

NGF Pace of Play Report, 2012

The developers’ influence went beyond their golf real estate projects. Existing golf courses and even new golf courses that did not have a real estate tie believed that they needed to offer a product that would be competitive with what the real estate developers were offering, which indirectly fostered the development or renovation of existing golf courses that made them more costly, longer and take longer to play.

- During the 1920s, 72% of the courses were renovated; 39% were lengthened and 77% were redesigned to make the golf course more difficult.
- During the 1960s, 65% of the courses were renovated; 47% were lengthened and 62% were redesigned to make the golf course more difficult.
- And, surprisingly, 36% of the golf courses built in the 1990s were renovated; 27% were lengthened and 42% were redesigned to make the golf course more difficult.

While it is expected that the golf courses built in the 1920s and 1960s would be updated and lengthened to make the golf courses more difficult; however, it is interesting that even after these golf course improvements/design changes that the golf courses built in the 1990s still took longer to play than the 1920 and 1960 vintage courses. Perhaps that was because the golf courses could only be lengthened by so much and/or there wasn’t room to make significant changes to toughen the course design.

The developers built longer and more difficult golf courses because they were in the business of selling real estate. However, there were other factors that played a role in making the golf courses course more challenging for the pros. In the qualitative section of my research, I asked the golf course architects how advancements in golf equipment technology that has enabled the pros to hit the golf ball farther and straighter has impacted golf course design. Bob Walker responded, “With the golf ball going so much farther, we have needed to lengthened the golf courses, which is fine for the pros, but that has not worked out very well for the average golfers...not just because they don’t hit the ball as far, the modern golf course designs require shot making skills that most golfers just

don't have." It is not just a matter of making to golf course too difficult to play for most of the golfers, it is also the fact that golf courses of this length and difficulty will take longer to play.

Walker then explained how the turning point on a dogleg hole was about 240 yards in the 1970s compared to about 260 yards some 20 years later, which doesn't work for golfers playing the forward tees because they can't reach the turning point in the dogleg. This leaves them with a more difficult (and longer) shot to the green. This is a complicated concept for a non-architect to understand, so Walker offered another application of this concept that even non-golfers could understand, "Most golfers need to be able to bounce their ball onto the green. They cannot carry a shot 125-yards across a lake or over some looming sand bunker and then stop it on the green. Furthermore, these types of golf course designs cost more to build and maintain."

Golf has to be difficult and it has to be fun—that's a tender equilibrium. However, the challenge and difficulty of the game is different for the pros versus the amateur; yet, the pros and the average golfers play on the same golf course. Golf's answer to that disparity in playing ability is to have different sets of tees that are intended to be suitable for the length that average golfers hit the golf ball. However, this approach does not always work, because the length of a golf hole is not the only factor determining its playability for golfers of differing skill levels.

An analogy with snow skiing is useful in explaining this point. Imagine a ski resort charging \$100 for a single day lift ticket and requiring that all skiers, regardless of their abilities, must use the most difficult black diamond run. And, the only accommodation for the less skillful skiers is that they are allowed to start farther down the mountain. This is how many golf courses built in the 1990s accommodate the majority of their golfing customers. For example, if the design of a golf hole has a landing area that is 160 yards from each set of tees, it could pose an unreasonable challenge to most golfers who have less prodigious shot making skills...98% of the people who pay to play the game. From 160 yards, the pro may be able to hit a towering eight or nine-iron onto a shallow green, while the typical male golfer might need a five or six-iron to carry a golf ball that distance. That golfer may or may not be able to hit the ball high enough to stop it on the green. Older, younger and shorter hitting golfers can't carry the golf ball that far and must navigate their way around or between the hazards to reach the green.

Many real estate development golf courses were designed create a golf course that was famous for its difficulty, to test the pros, leaving average golfers with forced carries and challenges beyond their golfing capabilities. If a golfer does not have the skill to extricate a shot out of a deep bunker or is not able to carry a water hazard or stop a shot onto a shallow green, it will take a longer time to finish playing a round of golf. And lastly, whether walking or riding in a golf car, the distance between the golf green and the next tee is often longer on the real estate development golf courses in order to maximize golf course frontage lots; therefore, it takes longer to traverse the distance over, around and through a real estate development.

Long and Difficult Golf Courses Take More Time to Play

All of the developers and designers agreed that golf takes too long to play, and everyone agreed that the principle reasons were the length, difficulty, design and maintenance of the golf courses. Jim McCumber noted how the maintenance of the golf course affects its playability, "If the fairways are narrow, the roughs are thick and mowed at a higher length, the golfers are going to spend a lot of time looking for their golf balls. If they cannot find their golf ball, according to the USGA rules, they have to return to their previous shot and replay it taking a one stroke penalty, which will further slow play. If there are a lot of hazards on the course and the greens are firm, the golfers will take longer to finish playing the golf course. It's that simple."

Bobby Weed also addressed the time issue in stating that "There are a number of factors that cause slow play. There are some things that the USGA should do. There are some things that the golf course professionals and golf course superintendents should do, and there are some things that

the golf course designers can do.” Weed continued, “First, the USGA should consider making some rule changes. I could never understand why the penalty for a golf ball lost in a water hazard is different from a golf ball hit OB (out-of-bounds); or, for that matter, why the penalty for a ball hit in a lateral hazard (i.e. a creek or stream) is different from a lost ball. Making a golfer go back to the previous shot after an OB or lost ball slows play and it’s unfair. If we can trust the golfers to determine where the golf ball is to be played for hitting a ball in a water hazard or lateral hazard, why can’t we do the same for an OB or lost ball?”

Weed is also a certified golf course superintendent and a golf course operator, and notes that “There is no reason to maintain a golf course like they do for a PGA Tour event. Those guys play a different game and it costs too much to maintain those playing conditions. Most golfers want to be able to find their golf ball in the rough and be able to hit their next shot towards the green... they do not want to chop something sideways back to the fairway. Most golfers don’t want to hit a shot from a tight lie in the fairway that is groomed for the pros; they want a little grass under the ball. And, most golfers don’t want to putt on green linoleum... they want a smooth surface and they want the greens to be a reasonable speed. In actuality, it is less expensive to give golfers the kind of golf course that they enjoy playing, and it will reduce the time that it takes to play a round of golf.” Weed concluded, “As a golf course operator, I want to give my golfers a course that they enjoy playing. As a golf course designer, there are a number of things that can be done to reduce maintenance costs and enhance the playability of a golf course, which will foster sustainable golf course development.”

Cost, Difficulty and Time

This research revealed that there was a paradigm change in the nature and type of golf courses built or renovated during the 1990s. The golf courses built during the 1920s and 1960s are less costly, not as long or difficult and take less time to play. It can be surmised from this research that there is a correlation among the means for variables of interest (cost, difficulty and time to play golf) within each development boom era, and those same correlations among the means hold for the same across each of golf course development boom eras.

For example...

- Golf courses that cost more to play are also longer and more difficult.
- There is a correlation between the length of a golf course and its difficulty. Longer golf courses have higher Slope and Course Ratings.
- Longer and more difficult golf courses take longer to play.

Summary Analysis

The USGA should be commended for taking the initiative to address the Pace of Play problem, which is an issue that is of paramount concern to the health and vitality of the golf industry. NGF research reveals that the top three reasons why golfers are not playing as often and why non-golfers do play at all is the perception that playing golf is costly, difficult and time consuming. This paper suggests that these three factors (“Barriers to Golf Participation”) are interrelated and play a role in the denigration the golfing experience and in diminishing the demand for the game. For example, if the golf course design is too long and difficult, and the golf course is maintained and set-up to be too challenging...it’s going to take longer to play a round of golf.



Source: NGF/Synovate Golf Participation Research (1989-2012).

Slow play is a cancer that has metastasized into the culture and body of golf, and is adversely impacting the popularity of the game and undermining and the economic vitality golf industry. There is no single solution, so we need to take a holistic approach in treating both the symptoms and the underlying causes for slow play.

With respect to treating the symptoms, the USGA’s initial focus is on player education. The “Pace of Play Initiative” was rolled out with the “While We’re Young” public service announcements (PSAs) on the U.S. Open telecast. Humor is a great way to get the message across. Hopefully, in creating awareness of the slow play problem, golfers will be encouraged and motivated to speed up. However, in order to change the culture of the game, we need to address the fundamental golf course issues that adversely impact the pace of play.

Treating the underlying cause is all about educating and encouraging the golf course operators to address what the USGA identifies as the key factors influencing the pace of play: the golf course design (length, distance between greens and tees, difficulty); how the golf course is maintained (fairway width, rough height, green speed); and, how the golf course is set-up (tee markers and hole placements).

My dissertation research proved that there had been a paradigm change in the nature and type of golf courses built in the 1990s. Real estate developers built golf courses that were more costly to build and are more costly to maintain; the golf courses are longer and more difficult, and many of these courses are maintained and set-up in a way that makes the makes the game too hard and not much fun for the average golfer. The result is that the golf courses take longer to play. Therefore, it is important to address these underlying causes for slow play.

Golf course operators need to recognize that the golf course is no longer an amenity designed to sell real estate. The role of the golf course has changed. It is a business. The golf course operations need to be sustainable within that context of each golf course’s economic objectives. For example, a private club might be incorporated as a non-profit, but that doesn’t mean that it should lose money or not make money. Unfortunately, there are many private clubs whose futures are uncertain, because the golf courses are not sustainable. The ownership/management of these golf courses need to be encouraged to create a product that their golfers want to buy. The professional associations in the golf industry can help and each has an important role to play.

Golfers should be encouraged to play the golf courses from the tees that are appropriate for their skill level. Forced carries to greens should be minimized, and a pathway to the green should be available to the golfers who mostly have a ground game. Helping the majority of golfers have more fun and enabling them to play the golf course in a timely fashion only makes business sense. The pros can still be challenged play from the back tees, but there is no reason to maintain the golf courses for the few when the many need and want wider fairways, roughs that are maintained and cut at a height where the golfers can find their golf balls and play their next shot to the greens.

The USGA, the PGA and the PGA Tour should take the leadership role because they have the media resources and gravitas to chart this new course for the game and the golf industry. Other associations such as the American Society of Golf Course Architects (ASGCA), the National Golf Course Owners Association (NGCOA), the GCSAA, the Club Managers Association of America (CMAA) state golf associations, PGA Sections, GCSAA Chapters, leading golf course management companies, etc., can and need to play a role in fostering the development of a sustainable golf course product that is affordable, fun and takes less time to play.

Recommendations

1. Expand the “Pace of Play” Player Education and promotion campaign to include Golf Facility Operators’ Education that is designed to encourage golf course management best practices that speed play and create a golfing experience that is challenging, fun and fair for all golfers.

The educational emphasis for the Golf Facility Operators should focus on how the golf courses are maintained and set-up; however, in some cases that may not be enough, and it may require that some design changes are made to make the golf courses less costly to maintain, to make the golf courses playable for the majority of the golfers and to speed play.

2. As the USGA continues in its lead role in fostering sustainable golf course development and management, it is recommended that it expand its “Pace of Play” partnerships to also include the PGA Tour, the ASGCA, the NGCOA, state and regional golf associations, leading golf course management companies and others who can play a role in educating golf course operators regarding best management practices and implementing Golf Facility Pace of Play initiatives.



