

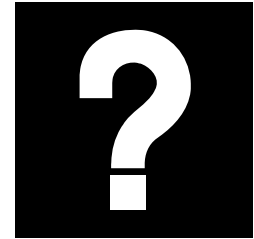
# Pace of Play and The Gender Impact

Bill Yates,  
Pace Manager  
Systems



# The Questions

The USGA posed two questions:



- Is the championship pace of play different for men and women?
- If so, why?



Photo: [www.USGA.com](http://www.USGA.com)

# Our Laboratory

## Pinehurst No. 2

Men's and Women's back-to-back 2014 Championships

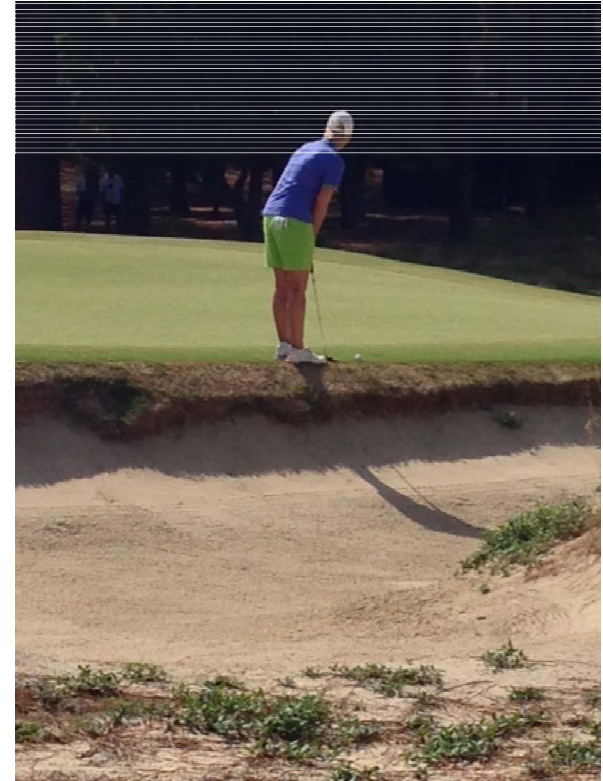
June 12-15    June 19-22



Photo: [www.Pinehurst.com](http://www.Pinehurst.com)

# Study Expectations

- Answer **Question #1**
- If yes, identify key variables and areas of difference
- Suggest tentative hypotheses for **Question #2 (Why?)**
- Develop a plan for future data gathering to prove/disprove hypotheses



Note: We will **NOT** draw final conclusions based on initial data

# Is there a Difference?

**ANSWER:**

**YES!** The championship pace of play was different for men and women



# The Activities of “Playing the Game”

The following Activities were selected to measure

1. Time to Tee Off
2. Time to Play Second Shot
3. Time to Walk
4. Time Around Green
5. Time to Putt (only)
6. Time to Play a Hole
7. Time to Play a Round



# Measurement Tools

## For Activities 1-5

Time to Tee Off ▪ Time to Play Second Shot ▪ Time to Walk ▪ Time Around Green ▪ Time to Putt (only)

- Observation with Stopwatches
- Documentation of observation
- Calculation of average times

Group times were measured, and individual player times were calculated based on group size.



# Measurement Tools

## For Activities 6-7

Time to Play a Hole ▪ Time to Play a Round

- Use of USGA Pace Rating System
  - Playing Length (including Time Around Green)
  - Obstacles – Course Slope Rating Data
  - Green to Tee Distance
- Individual Hole “Time Par”
- Total Round “Pace Rating”
- Comparison of actual times to Pace Rating, to calculate “Performance”



Pinehurst #2  
Photo: [www.Pinehurst.com](http://www.Pinehurst.com)



# What Impacts Pace of Play

## The Five Factors Impacting Pace of Play™ are:

1. Management Practices & Policies
2. Player Behavior
3. Player Ability
4. Course Maintenance & Setup
5. Course Design

© Pace Manager Systems



# Playing the Game: Data

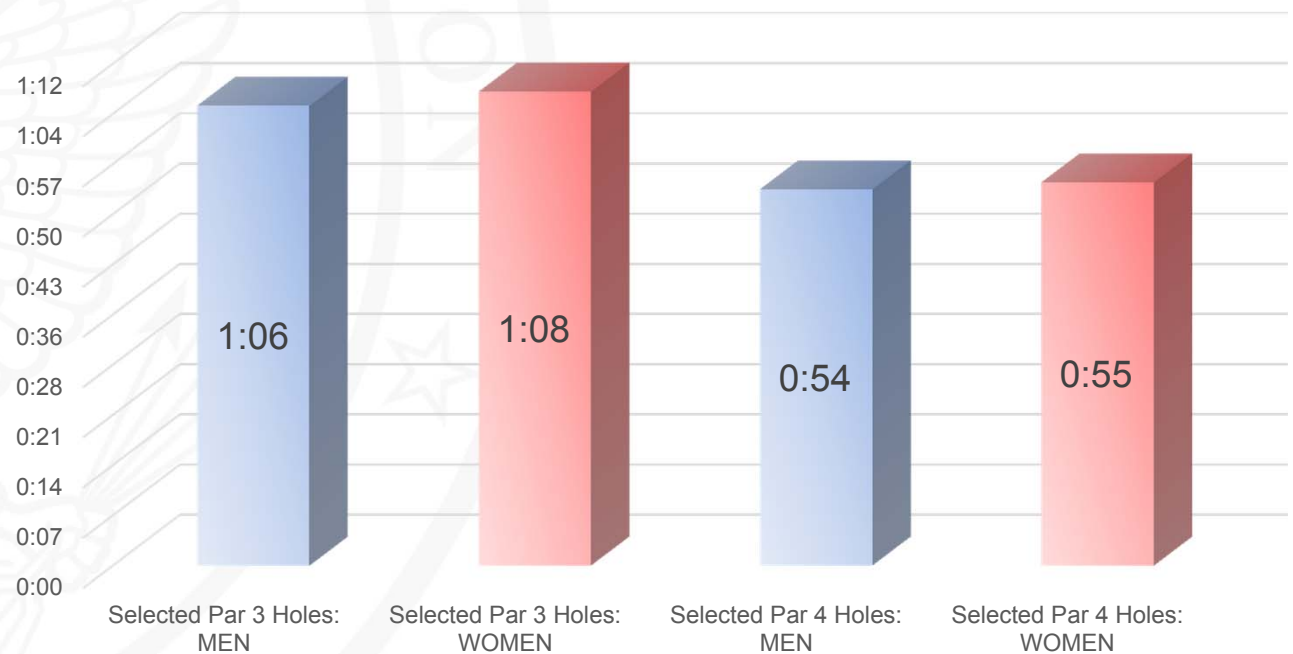
Factor(s) Involved: **PLAYER BEHAVIOR**

## Data Gathered for Activity 1: **Time to Tee Off**

\*Measured from time group was able to tee off to time group walked off the tee\*



**Time to Tee Off (minutes & seconds, per person)**



**Activity 1: Time to Tee Off**

# Playing the Game: Data

Factor(s) involved: **PLAYER BEHAVIOR**

## Data Gathered for Activity 2: **Time to Play 2<sup>nd</sup> Shot**

\*Measured from time first player arrived at ball until time last player struck ball\*



**Time to Play 2<sup>nd</sup> Shot (minutes & seconds, per person)**



**Activity 2: Time to Play 2<sup>nd</sup> Shot**

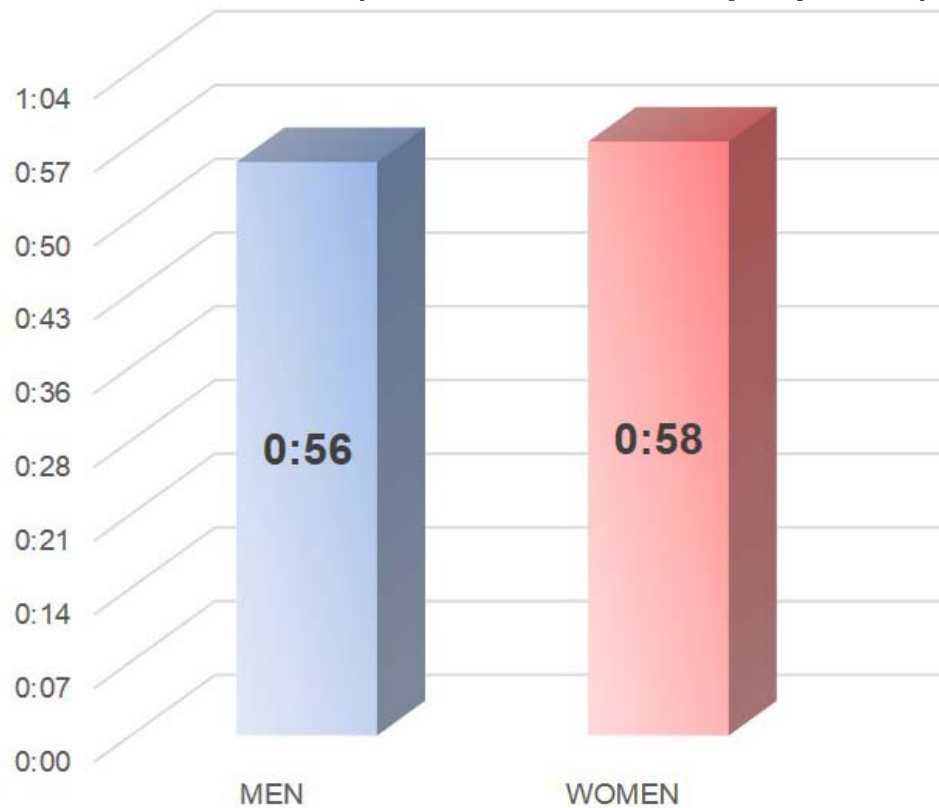
# Playing the Game: Data

Factor(s) involved: **PLAYER BEHAVIOR**

## Data Gathered for Activity 3: **Time to Walk**

\*Measured on Hole #4 from tee to a tree 109 yards out \*

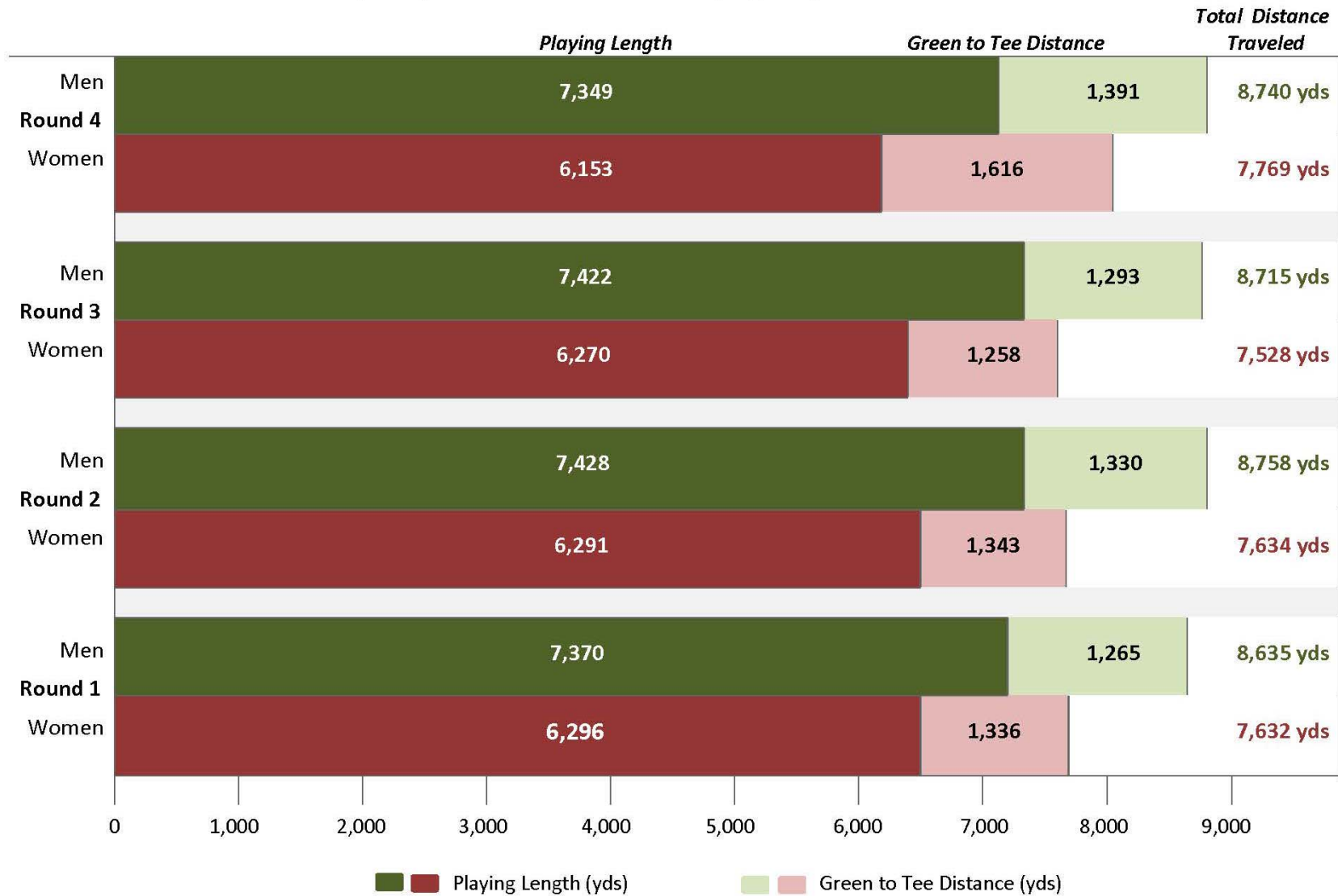
**Time to Walk (minutes & seconds, per person)**



**Activity 3: Time to Walk**

# Total Distance Traveled

Comparing Men's and Women's Playing Length and Green to Tee Distance



Note: If women walked the same distance as men did in Round 2, the cumulative effect of their slower walking time would add *only 3 additional minutes*.

## Activity 3: Time to Walk

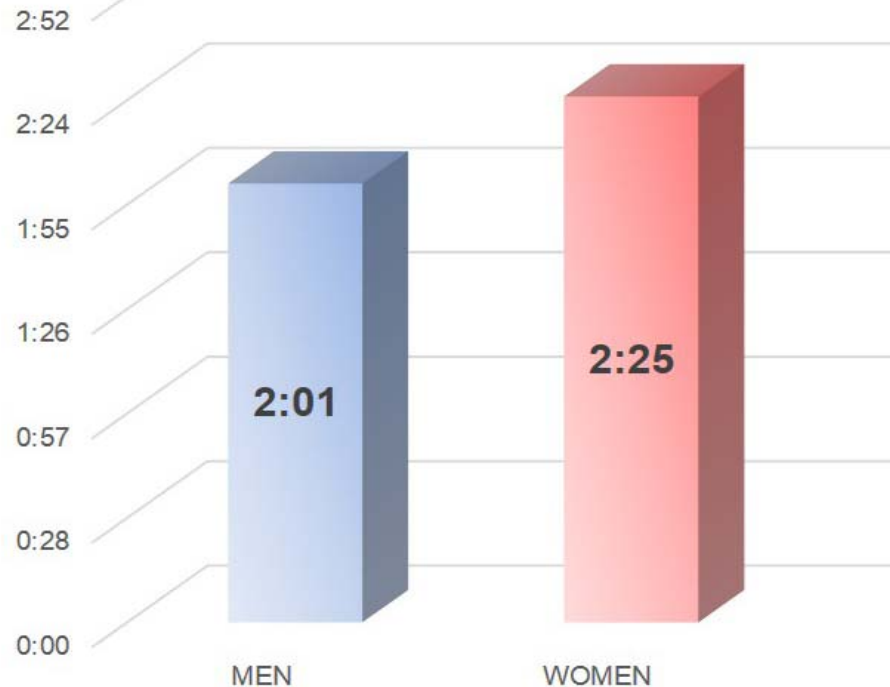
# Playing the Game: Data

Factor(s) involved: **PLAYER BEHAVIOR, PLAYER ABILITY, COURSE MAINTENANCE & SETUP, COURSE DESIGN**

## Data Gathered for Activity 4: **Time around Green**

\*Measured from time first player reached the apron until flagstick was placed back in hole\*

**Time around Green (minutes & seconds, per person)**



**Activity 4: Time around Green**

# Playing the Game: Data

Factor(s) involved: **PLAYER BEHAVIOR**

## Player Behavior: Gender Differences

**“Women spend more time finding the ideal solution”**

--“How Women Decide”, Harvard Business Review, Sept. 2013

## HOW WOMEN CHOOSE SHAMPOO:



- Effectiveness
- Brand
- Smell
- What it does to hair
- Ingredients
- Color
- Quality
- Design
- Recommendations
- Reviews
- Quantity
- Popularity

# Playing the Game: Data

Factor(s) involved: **PLAYER BEHAVIOR**

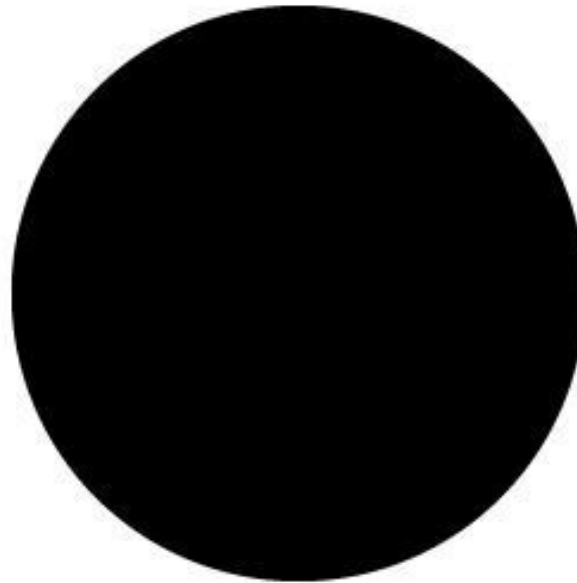
**Player Behavior: Gender Differences**

**“The typical man is mission and task-oriented”**

--“How Women Decide”, Harvard Business Review, Sept. 2013

## HOW MEN CHOOSE SHAMPOO:

■ it says shampoo





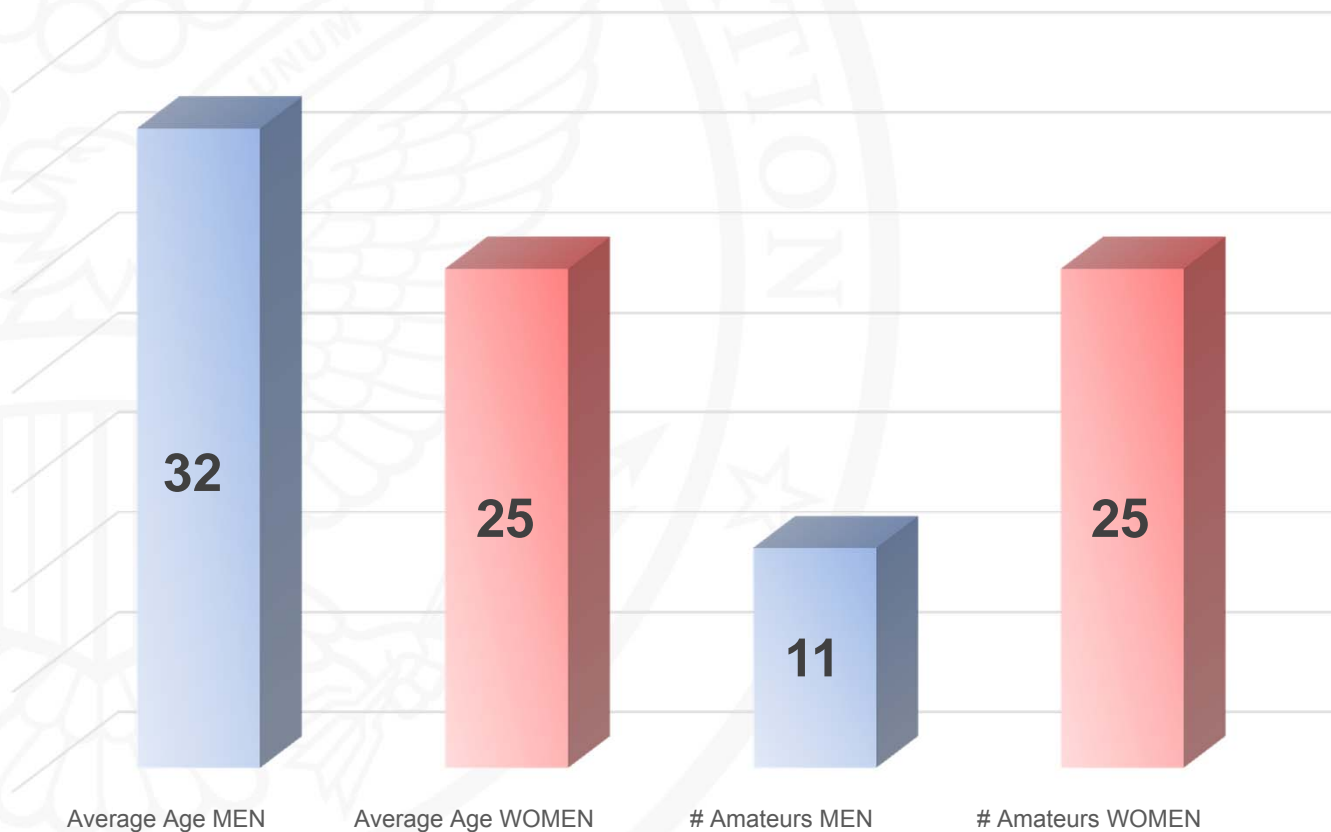
# Playing the Game: Data

Factor(s) involved : **PLAYER ABILITY**

**Player Ability: Level of Experience** (noted by Jan Bel Jan, ASGCA)

**Level of Experience Based on Average Age Difference**

**Level of Experience Based on Amateur or Collegiate Status**

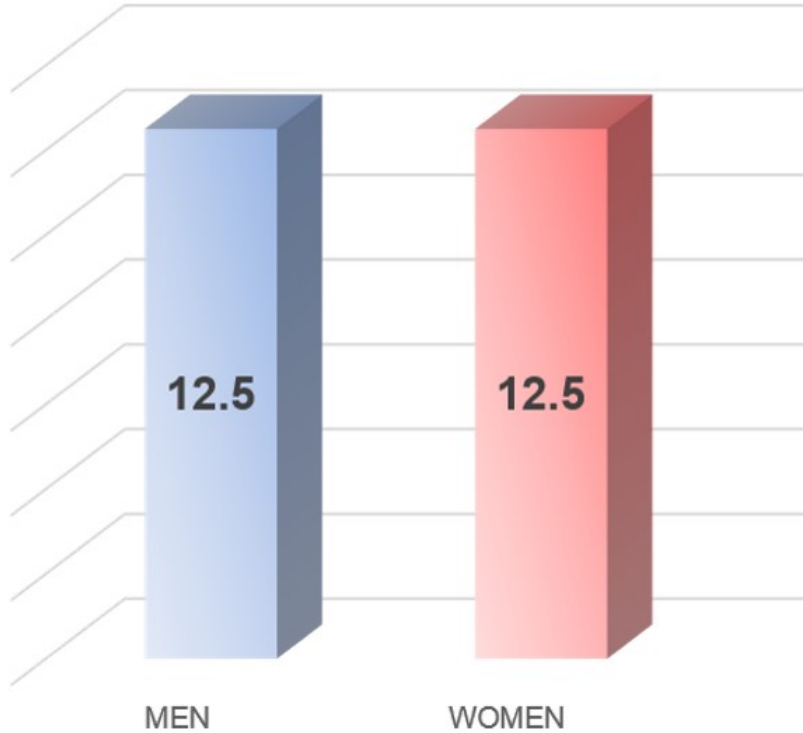


**Activity 4: Time around Green**

# Playing the Game: Data

Factor(s) involved: **COURSE MAINTENANCE & SETUP**

**Hole Location**



**Green Speed**



**Activity 4: Time around Green**

# Playing the Game: Data

Factor(s) involved: **COURSE DESIGN**

## Green Size, Contours and Surrounds



**Activity 4: Time around Green**

# Playing the Game: Data

Factor(s) involved : **PLAYER BEHAVIOR, PLAYER ABILITY, COURSE MAINTENANCE & SETUP, COURSE DESIGN**

## Is the Pinehurst Time around Green a one-off?

### MEN

Pinehurst 2:01

Merion 2:02



### WOMEN

Pinehurst 2:25

Sebonack 2:04



# Playing the Game: Data

Factor(s) involved: **PLAYER BEHAVIOR, PLAYER ABILITY, COURSE MAINTENANCE & SETUP, COURSE DESIGN**

## Data Gathered for Activity 5: **Time to Putt (only)**

\*Measured from time last ball arrived on green until flagstick was placed back in hole\*

**Time to Putt (minutes & seconds, per person)**



**Activity 5: Time to Putt (only)**

# Playing the Game: Data

Factor(s) involved : **PLAYER BEHAVIOR, PLAYER ABILITY, COURSE MAINTENANCE & SETUP, COURSE DESIGN**

As a subset of **Time around Green**,  
**Time to Putt (only)** is also influenced by:

- **Player Behavior**  
(including Gender)
- **Player Ability**  
(including Level of Experience)
- **Maintenance & Setup**  
(Hole Location and Green Speed)
- **Course Design**  
(Green Size and Contours)



**Activity 5: Time to Putt (only)**

# The Concept of “Performance”

Factor(s) involved: **ALL FIVE FACTORS™: MANAGEMENT POLICIES & PRACTICES, PLAYER BEHAVIOR, PLAYER ABILITY, COURSE MAINTENANCE & SETUP, COURSE DESIGN**

Using performance metrics, we can compare the performance:

- by Hole
- by Group
- by Round
- by Championship



Pinehurst #2  
Photo: [www.Pinehurst.com](http://www.Pinehurst.com)

# The Concept of “Performance”

## For example:

Performance on a hole is measured by the hole’s “Time Par” and the actual time to play the hole.

- Time Par = 13 min.
- Actual time to play = 14.2 min.
- **Performance = 91.5%**



Photo: [www,USGA.com](http://www.USGA.com)

Performance for a round is measured by the round’s “Pace Rating” and the actual time to play the round.

- Pace Rating = 4 hrs, 12 min.
- Actual time to play = 4 hrs, 9 min.
- **Performance = 101%**



# Compiled Data for Activity 6: Time to Play Hole

\*Measured from time group was able to play until flagstick was placed back in hole\*

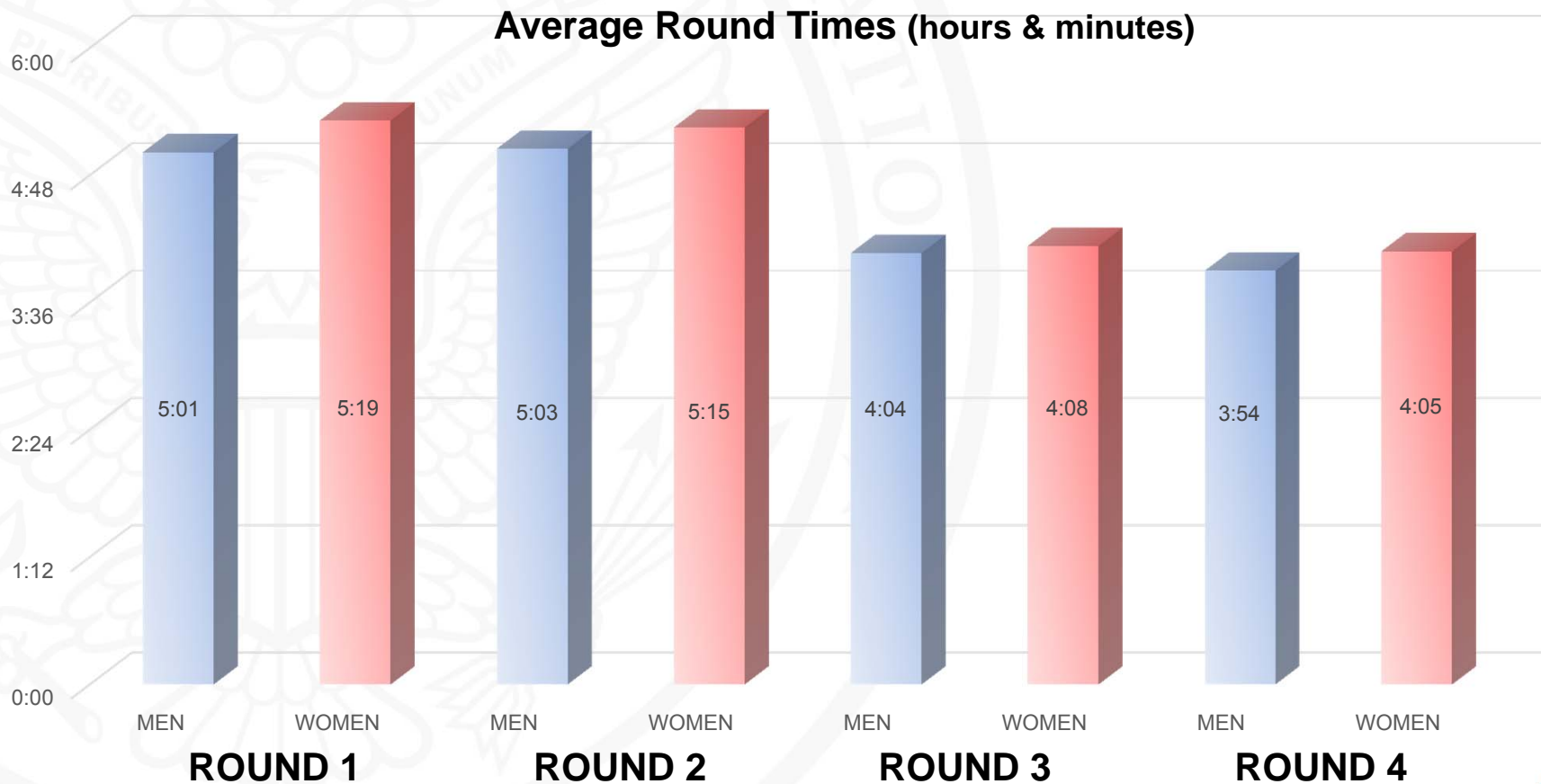
Round #	Time to Play Hole	Men				Women			
		Time (minutes)	Yards	Time Par	Performance (Time Par/Time)	Time (minutes)	Yards	Time Par	Performance (Time Par/Time)
1	Hole #6: Par 3 (3 players)	11.1	202	11.3	101.8%	12.5	174	10.4	83.2%
1	Hole #4: Par 4 (3 players)	18.3	497	16.7	91.3%	16.6	421	15.2	91.6%
2	Hole #6: Par 3 (3 players)	11.5	245	12.2	106.1%	12.2	185	10.7	87.7%
2	Hole #4: Par 4 (3 players)	16.0	523	17.2	107.5%	18.3	445	15.7	85.8%
3	Hole #9: Par 3 (2 players)	—	—	—	—	9.2	170	8.4	91.3%
4	Hole #9: Par 3 (2 players)	8.7	172	8.6	98.9%	8.1	145	7.9	97.5%
		Average Performance 101.1% + 11.6%				Average Performance 89.5%			

## Activity 6: Time to Play Hole

# Playing the Game: Data

Factor(s) involved : **ALL FIVE FACTORS™: MANAGEMENT POLICIES & PRACTICES, PLAYER BEHAVIOR, PLAYER ABILITY, COURSE MAINTENANCE & SETUP, COURSE DESIGN**

## Data Gathered for Activity 7: **Time to Play Round**



**Activity 7: time to Play Round**

# Delay Codes

- In 2013 the USGA adopted delay codes
  - Identify cause, length and location of all playing delays
- Every delay category is part of one of the Five Major Factors Impacting Pace of Play™
- Therefore, for the first time we can differentiate player responsibility from management responsibility.



Photo: dailymail.co.uk

# Delay Codes

Delay Code **W**:  
Waiting on group ahead



Delay Code **D**:  
Waiting - drivable Par 4, two-shot Par 5



Delay Code **R**:  
Ruling



Delay Code **X**:  
Ready but Xwalk open



Delay Code **N**:  
Media/Gallery Noise



Delay Code **G**:  
Waiting for gallery ropes to be lowered



Delay Code **O**: Other

Delay Code **S**: Ball search, if found

# Delay Codes

## 114th U.S. OPEN CHAMPIONSHIP ®

Pinehurst Resort & Country Club - Pinehurst No. 2  
 Round 1 -- Thursday, June 12, 2014

### Player Names

Garth Mulroy  
 Steven Alker  
 Bobby Gates

## REFEREE'S TIMING CARD

Group - 27 Starting Tee - #1 Starting Time - 12:30 pm

Actual Start Time - \_\_\_\_\_ (if different)

Walking Scorer: \_\_\_\_\_

Standard Bearer: \_\_\_\_\_

Hole #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Par	4	4	4	4	5	3	4	4	3	5	4	4	4	4	3	4	3	4
Allotted Time	0:16	0:18	0:15	0:19	0:20	0:12	0:14	0:18	0:12	0:18	0:16	0:17	0:14	0:16	0:12	0:19	0:12	0:16
Expected Completion	12:46	1:04	1:19	1:38	1:58	2:10	2:24	2:42	2:54	3:12	3:28	3:45	3:59	4:15	4:27	4:46	4:58	5:14
Flagstick in Time																		
+/- Expected																		
Delays																		
Reasons																		
Locations																		

Referees should note total elapsed time of delays for each hole and the use the following codes for the reason:

W - Waiting on preceding group (non-specific)

D - Waiting on preceding group (drivable par-4; two shot par-5)

G - Waiting for ropes to be lowered and/or gallery to be moved

N - Ready to play; media/gallery noise or distraction

X - Ready to play; crosswalk open too long

S - Ball Search; if found

R - Ruling

O - Other

## Championship Delay Code Summary

Table values represent the frequency of the delay for all groups in a wave or round

### Delay Codes

#### W

Waiting on preceding Group (non-specific)

#### D

Waiting on preceding group (drivable par 4, two shot par 5)

#### R

Ruling

#### O

Other

#### X

Ready to play; crosswalk open too long

#### N

Ready to play; media/gallery noise or distraction

#### G

Waiting for ropes to be lowered and/or gallery to be moved

#### S

Ball search, if found

*MEN*	Round #1				Round #2				Round #3	Round #4	Totals
	A.M. 1st	A.M. 10th	P.M. 1st	P.M. 10th	A.M. 1st	A.M. 10th	P.M. 1st	P.M. 10th	1 <sup>st</sup> Tee	1 <sup>st</sup> Tee	
W	56	66	64	96	60	58	56	66	124	82	728
D	3	9	8	13	15	17	15	21	49	40	190
R	5	4	2	8	7	7	7	9	17	7	73
O	3		3	2	1	4		2	6	2	23
X	2	1	2	1				1	3	3	13
N		3		1	5	3	1	4	1	1	19
G			2				1		1		4
S							1		2		3
<b>Total # Delays</b>	<b>69</b>	<b>83</b>	<b>81</b>	<b>121</b>	<b>88</b>	<b>89</b>	<b>81</b>	<b>103</b>	<b>203</b>	<b>135</b>	<b>1,053</b>

*WOMEN*	Round #1				Round #2				Round #3	Round #4	Totals
	A.M. 1st	A.M. 10th	P.M. 1st	P.M. 10th	A.M. 1st	A.M. 10th	P.M. 1st	P.M. 10th	1 <sup>st</sup> Tee	1 <sup>st</sup> Tee	
W	141	122	125	116	108	161	112	134	187	151	1357
D	28	28	19	26	30	27	13	18	43	55	287
R	8	4	9	3	2	7	6	5	12	3	59
O		2	5	3	7	2	1	5	2		27
X	2		1				1				4
N				1					2	2	5
G											0
S						1			3	1	5
<b>Total # Delays</b>	<b>179</b>	<b>156</b>	<b>159</b>	<b>149</b>	<b>147</b>	<b>198</b>	<b>133</b>	<b>162</b>	<b>249</b>	<b>212</b>	<b>1,744</b>

+691

# Delay Codes

## A Closer Look at W and D Delay Codes

**W:** Waiting on preceding group (non-specific)

- **Men** 728 delays
- **Women** 1,357 delays (+629)

	Round 1 Waits	Round 4 Waits	Change
<b>Men</b>	5.42 /group (52 groups)	2.41 /group (34 groups)	56%
<b>Women</b>	9.69 /group (52 groups)	4.19 /group (36 groups)	57%

**D:** Waiting on preceding group (due to drivable par 4, two-shot par 5)

- **Men** 190 delays
- **Women** 287 delays (+97)



# Delay Codes

## Drivable Par 4's and Two-shot Par 5's

Correlations for Playing Yardage, Drivable Par 4's and Two-shot Par 5's, and Total 'D' Codes for Round

Round	Men			Total 'D' Codes for Round	Women			Total 'D' Codes for Round
	Playing Yardage	Drivable Par 4's	Two-Shot Par 5's		Playing Yardage	Drivable Par 4's	Two-Shot Par 5's	
Round 1	7,349		#5	33	6,153		#5, #10	101
Round 2	7,422	#3		68	6,270	#3	#5	88
Round 3	7,428	#7	#10	49	6,291	#5	#10	43
Round 4	7,370	#3	#13	40	6,296	#3, #13	#10	55
		3	3	190		4	5	287

Total = 6 Holes

Total = 9 Holes

+ 97



# Other Variables and Data

## Weather: Pinehurst High Temperatures during Opens

	MEN	WOMEN
Round 1	89.6°	96.8°
Round 2	89.6°	91.4°
Round 3	87.8°	91.4°
Round 4	87.8°	84.2°

## Scoring: Average score for men and women

	MEN	to par	WOMEN	to par
Round 1	73.23	+3	75.83	+5
Round 2	72.89	+2	75.01	+5
Round 3	73.82	+3	73.30	+3
Round 4	72.40	+2	72.39	+2

# A Word About Slow Play

**Two stubborn myths keep slow play alive for both men and women.**

**MYTH #1: “A ROUND OF GOLF SHOULD TAKE 4 HOURS OR LESS”**

**→ The USGA Pace Rating Systems completely disproves this myth.**

**MYTH #2: “PLAYERS ARE THE PRIMARY CAUSE OF SLOW PLAY”**

**→ Using the  
Five Factors Impacting Pace of Play™  
completely disproves this myth.**

**MANAGEMENT POLICIES & PRACTICES,  
PLAYER BEHAVIOR,  
PLAYER ABILITY,  
COURSE MAINTENANCE & SETUP.  
COURSE DESIGN**

**©Pace Manager Systems**



# Pace of Play and the **Gender** Impact: What's Next?

**The study has suggested areas for further research about identifying and addressing gender differences in championship play.**

**It has also focused attention on next steps for eliminating slow play for men, for women, for championship players, and for recreational players.**

**The USGA is committed to solving the problem with effective solutions that will be applied at every level of the game.**

**The future is bright!**

Photo: [www.USGA.com](http://www.USGA.com)