



BEES: Fantasy Golf

We need a better title for this



The Jewel, MN



The Old Works, Anaconda MT



Overview

- Fantasy Golf? What? Why? How?
- The 2022 Masters tournament: do we suck at this?
- Avoiding having to create models, thanks DraftKings
- It works (maybe?), but is it really worth it?
- Future thoughts: How do we estimate the number of times a golfer is chosen?

What is fantasy golf?

- Choose one player from each group and one WC from any group or no group at all for your “team” each week
- Highlighted = Playing this week
- If there are less than 3 players in a group, you can choose any player as extra WC
- Groups set at beginning of year and never changed
- Groups chosen by the commissioner by a brain algorithm based on OWGR, 2021 money list, and group balance & theme

Captain's Name	Tournament	Date
	<i>Masters</i>	04/07/2022-04/10/2022
Fantasy Selection 1	Fantasy Selection 2	Fantasy Selection 3
Patrick Cantlay Bryson DeChambeau Viktor Hovland Dustin Johnson Brooks Koepka Rory McIlroy Collin Morikawa Jon Rahm Xander Schauffele Jordan Spieth Justin Thomas	Abraham Ancer Daniel Berger Sam Burns Harris English Tony Finau Jason Kokrak Hideki Matsuyama Louis Oosthuizen Patrick Reed Scott Scheffler Webb Simpson	Paul Casey Corey Conners Matthew Fitzpatrick Tyrell Hatton Billy Horschel Sungjae Im Kevin Na Joaquin Niemann Cameron Smith Matthew Wolff Will Zalatoris
Fantasy Selection 4	Fantasy Selection 5	Fantasy Selection 6
Keegan Bradley Sergio Garcia Charley Hoffman Max Homa Kevin Kisner Marc Leishman Shane Lowry Ryan Palmer Justin Rose Adam Scott Cameron Tringale	Cameron Champ Cameron Davis Talor Gooch Emiliano Grillo Lucas Herbert Si Woo Kim Kyoung-Hoon Lee Maverick McNealy Sebastian Munoz Carlos Ortiz Aaron Wise	Jason Day Rickie Fowler Brenden Grace Brian Harman Russell Henley Mackenzie Hughes Chris Kirk Alex Noren Eric van Rooyen Bubba Watson Gary Woodland
Fantasy Selection 7		

Fantasy Scoring

Full breakdown of prize money and payouts from the 2022 Masters

Win: \$2,700,000 - Scottie Scheffler

2nd: \$1,620,000 - Rory McIlroy

T3: \$870,000 - Cameron Smith, Shane Lowry

5th: \$600,000 - Collin Morikawa

T6: \$521,250 - Will Zalatoris, Corey Conners

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43: \$55,500 - Billy Horschel

T44: \$51,000 - Kevin Kisner, Christiaan Bezuidenhout

46: \$46,500 - Cameron Davis

47: \$43,500 - Tiger Woods

T48: \$40,050 - Adam Scott, Max Homa

T50: \$37,750 - Mackenzie Hughes, Daniel Berger

52: \$37,600 - Tyrrell Hatton

4/10/2022

Masters & Grand Slam Nassau Tournament Summary

Team	Points	Team	Points
Lunn,Michael	6,169,533	Soener,Paul/Plotts,Adam	4,014,483
Muller,Matt	5,661,333	Leahy,Sam	4,002,300
Pickup,Walter	5,322,150	Jones, Jay	3,923,250
Tamse,Joe	5,298,000	Score69	3,860,213
Helgeson, Thomas	5,118,150	DevBro's	3,678,333
Oliver,Matt	5,073,333	Svec,Ray	3,669,300
Nelson,Dave/Nelson,Ben	5,019,000	Kemp,Jerrad/Harvey, Dan	3,669,300
Cross,Jerry	4,970,400	Walker,Heather	3,618,900
Whicker,Doug	4,968,000	sunshinelollipopsand	3,596,550
Essy, Lisa	4,842,150	Gioffredi,Jon	3,405,563
Dadey,Gary	4,722,150	Dunn,Dan	3,189,896
Brant,Scott	4,713,333	Gordon,B/Bambenek,H	3,166,946
Eiseman,Larry	4,692,150	Holtan, Marshall	2,465,213
Weber,Mike	4,692,000	Golf SZN	2,364,000
Rachuy,Scott/Fry,Rick	4,680,333	Christensen,Justin	1,851,563
Peeler,Ross	4,665,000	Glabman,Aaron	1,846,200
Davidshofer,Bill	4,649,850	Cunningham, Patrick	1,825,046
Myer,Jim/Myer,Cody	4,629,150	Flatness,Cory	1,733,733
Stahl,Lance	4,572,150	bogeysNbunkers	1,719,563
Tuttle,Thomas	4,550,733	Morrisette,Jack	1,701,563
Leahy,John	4,521,150	Leahy,Stuart	1,640,813
Mentzer,Tim/Junge,Tisha	4,416,483	Walker,Jeff	1,626,066
The Yankees	4,382,400	Zaborowski,James	1,624,500
Dalenberg,Dan	4,342,200	Arruda,Tony	1,610,700
Crookham,Doug	4,342,200	Stewart,Janet	1,547,400
Holt,Grady/O'Neil,Lance	4,302,150	LeJeune,Steve	1,534,050
Krobot,Curt	4,302,150	TapN4Me	1,464,000
Moerman,Eric	4,300,383	Hodson,Dave	1,434,000
Burke,M/Partington, B	4,284,300	Kolada,Mark/Stock,Brad	1,431,713
Leahy,Paul	4,249,050	McConkey,Don	1,403,733
Gioffredi,Joe	4,249,050	Goettelman.C/McRaith,B	1,309,383
Holm,Mitch	4,231,200	Dicken,Zach	1,252,763
LeJeune, Ron	4,209,450	Summers,Chris	964,500
Thompson,John	4,203,333	Thoms,Chris	940,716
Wilkie,Rob	4,169,250	DuFresne,John	896,846
MNRancher	4,138,050	Cross,Danny	839,733
Dalenberg,Paul	4,099,946	Omaha Hog	780,333
Dr. J	4,055,400	Gilliver,John	522,333
		Demorest,Co/Hoegh,An	122,063

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Gilliver,John	522,333
Demorest,Co/Hoegh,An	122,063

A photograph of a golf course at sunset. The sun is low on the horizon, casting a warm orange glow over the green grass and a large sand bunker in the foreground. A line of trees stands in the background under a clear blue sky.

So why is this hard? Just pick
the best players?

- [Shiny app: Why picking the best player may not be best](#)

A wide-angle photograph of a golf course at sunset. In the foreground, there's a stone bridge over a small stream. The middle ground shows a well-maintained green golf course. In the background, a large, multi-story hotel or resort building is visible, its windows reflecting the warm orange and yellow hues of the setting sun. The sky is filled with scattered clouds, also bathed in the golden light of the sunset.

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4/10/2022

Masters & Grand Slam Nassau Tournament Detail

Lunn,Michael

Result: 1st, +\$70

Adam Scott
Cameron Smith
Collin Morikawa
Rory McIlroy
Russell Henley
Scottie Scheffler
Talor Gooch

Soener,Paul/Plotts,Adam

Result: 34th, +\$0

Brian Harman
Cameron Smith
Jordan Spieth
Marc Leishman
Scottie Scheffler
Talor Gooch
Viktor Hovland

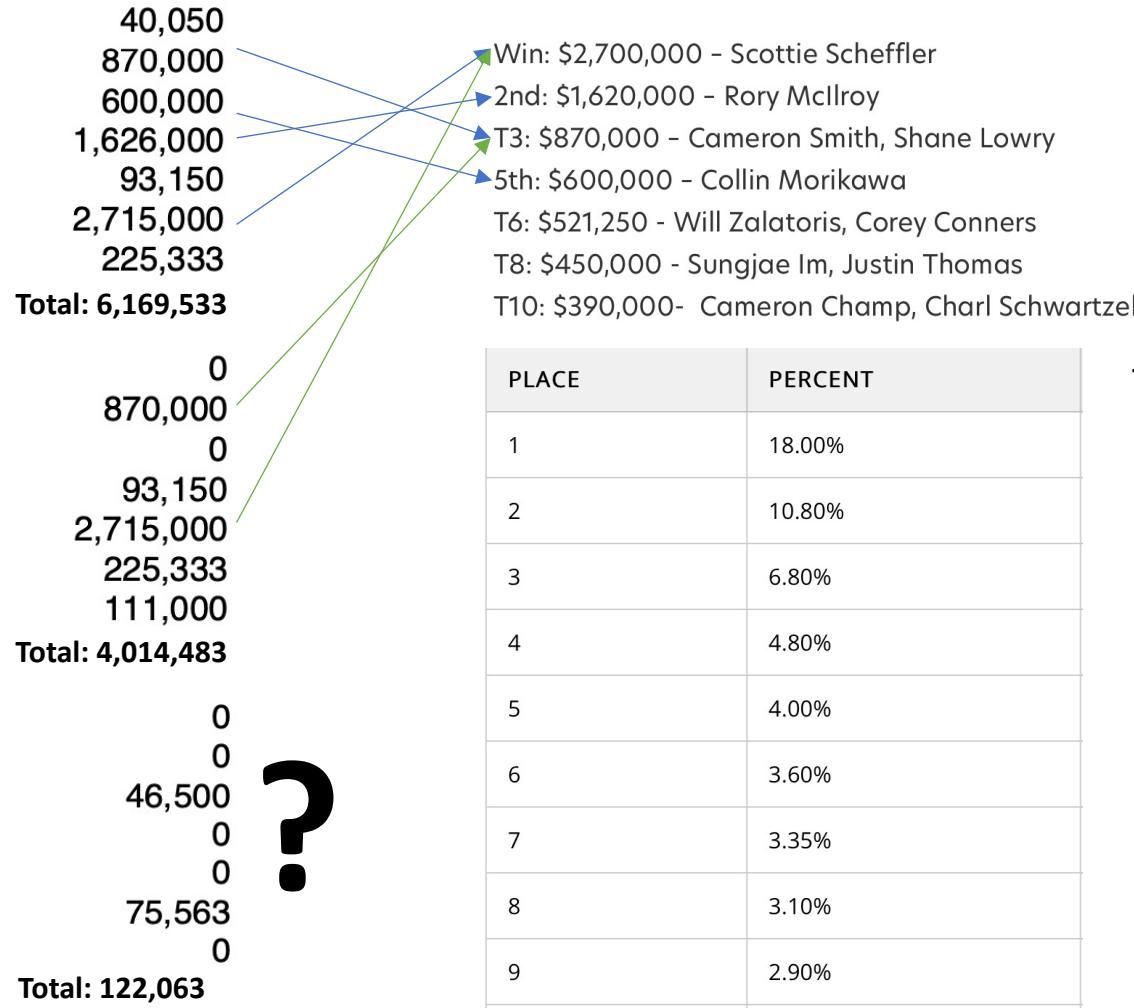
Demorest,Co/Hoegh,An

Result: 77th, +\$0

Brian Harman
Brooks Koepka
Cameron Davis
Justin Rose
Paul Casey
Tony Finau
Xander Schauffele

The 2022 Masters fantasy golf week was hard to win...

Full breakdown of prize money and payouts from the 2022 Masters

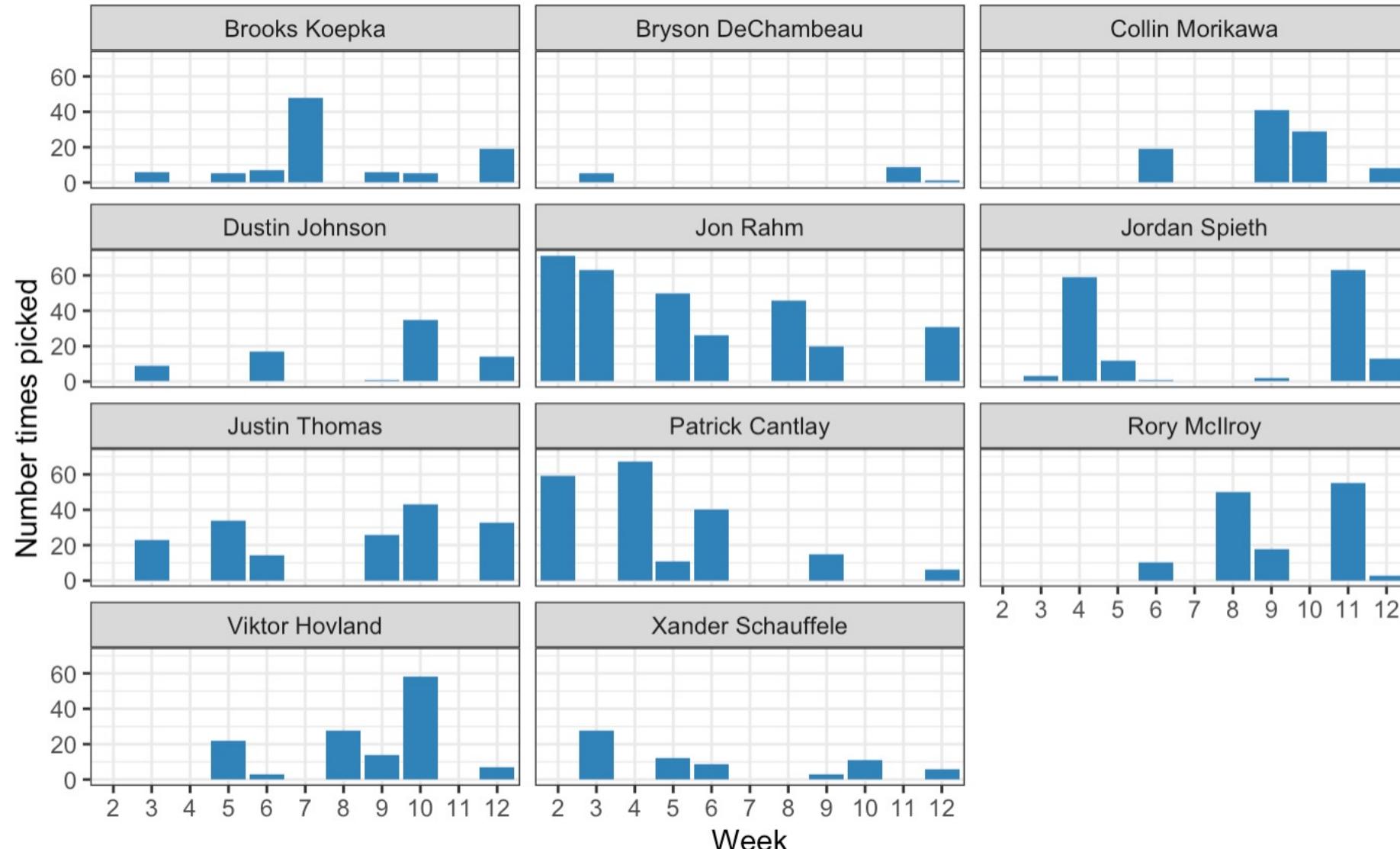


PLACE	PERCENT
1	18.00%
2	10.80%
3	6.80%
4	4.80%
5	4.00%
6	3.60%
7	3.35%
8	3.10%
9	2.90%
10	2.70%

Total purse: 15MM

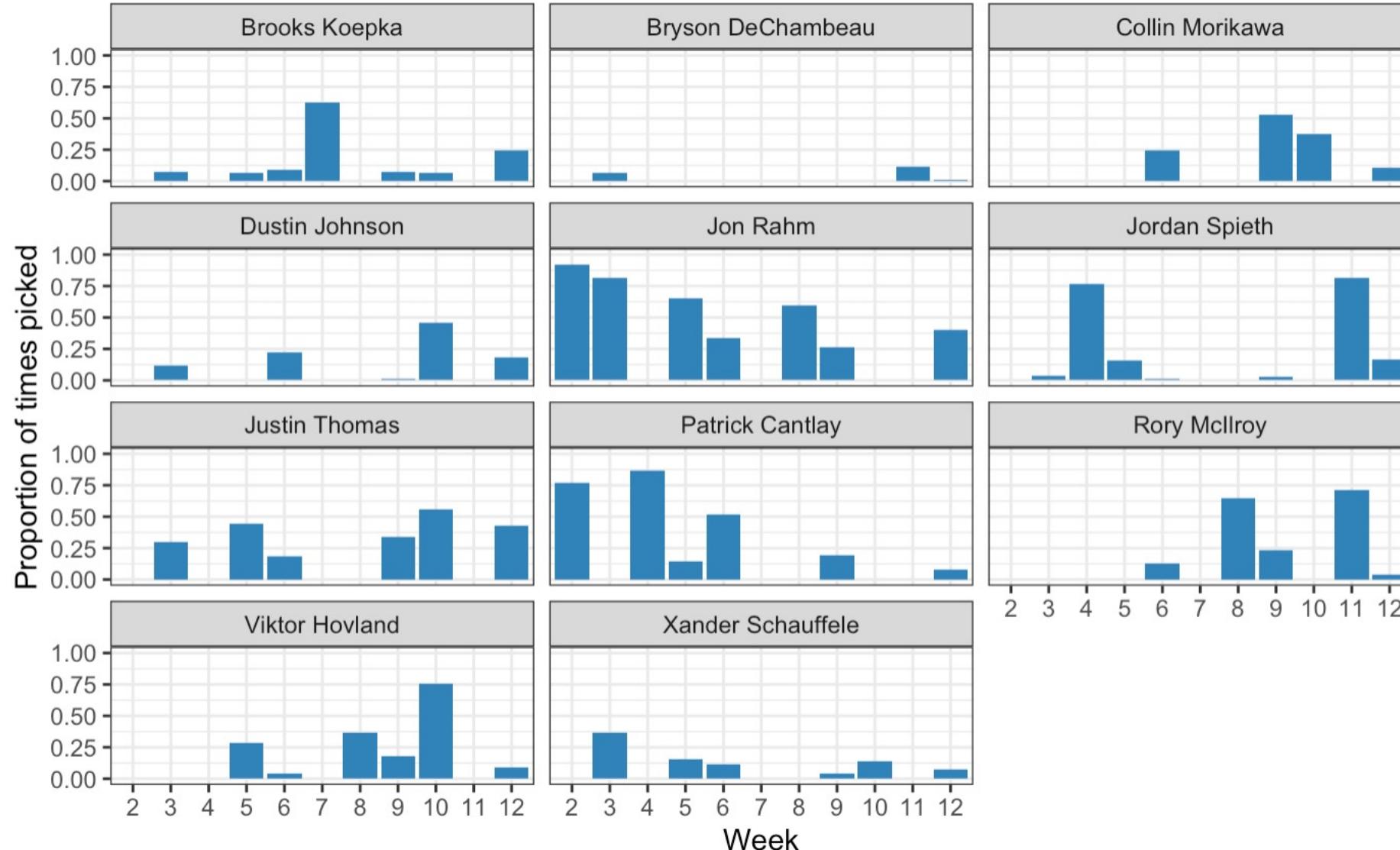
Group 1 golfers, number of times picked

Rahm gets picked frequently



Group 1 golfers, proportion of times picked

Theory: if there are more golfers playing in a week, they all get picked less often



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DraftKings odds

Highest Probability to win

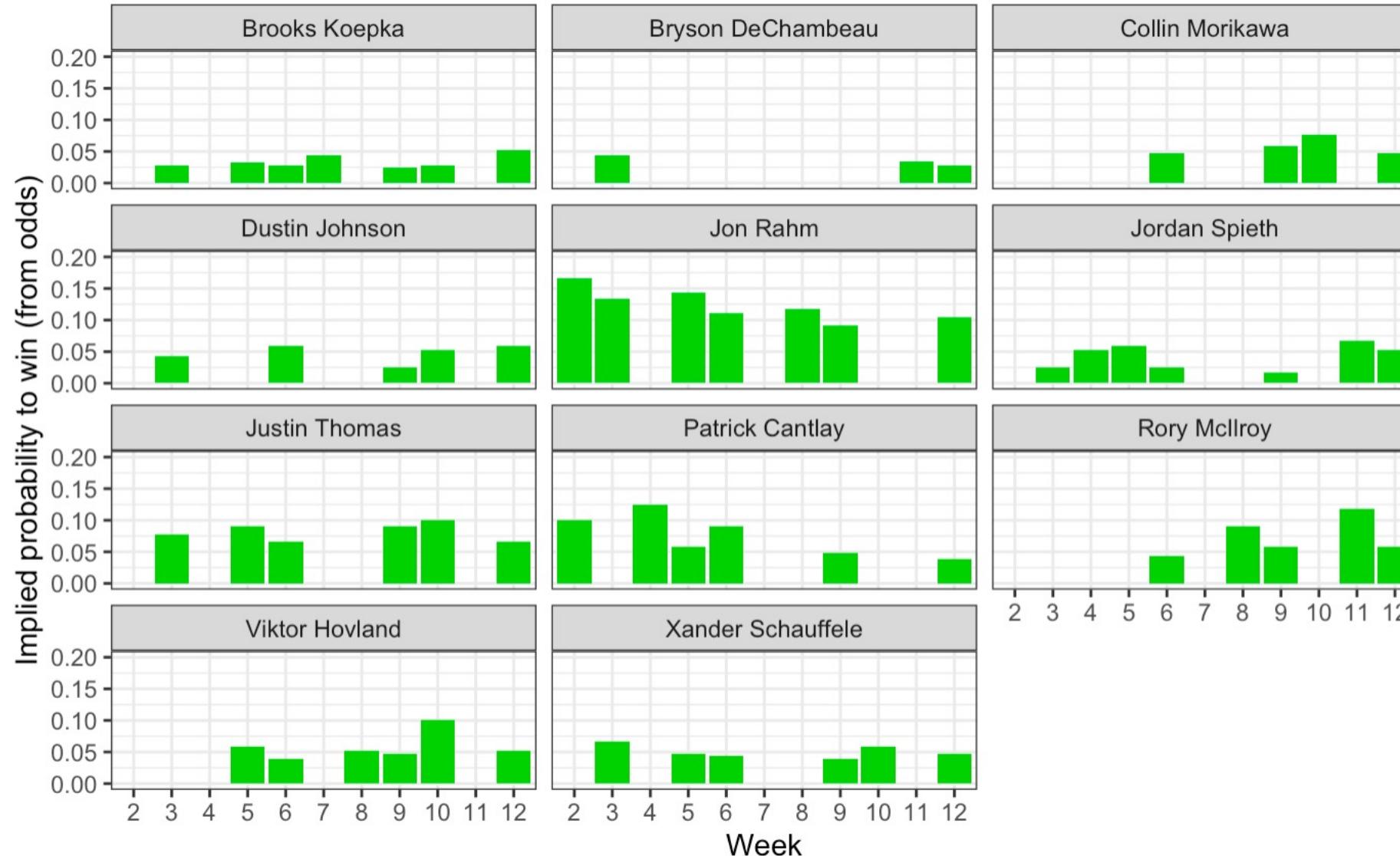
Golfer <chr>	Group <dbl>	Odds to Win <dbl>	Implied Prob to Win <dbl>	Frequency picked <dbl>
Jon Rahm	1	850	0.10526316	31
Scottie Scheffler	2	1200	0.07692308	50
Cameron Smith	3	1400	0.06666667	49
Justin Thomas	1	1400	0.06666667	33
Dustin Johnson	1	1600	0.05882353	14
Rory McIlroy	1	1600	0.05882353	3
Brooks Koepka	1	1800	0.05263158	19
Jordan Spieth	1	1800	0.05263158	13
Viktor Hovland	1	1800	0.05263158	7

- DraftKings makes odds for players to win tournaments (as well as top 5, 10, 20, 40, etc)
- Their website had the fewest issues with table scraping in R (rvest)
- We are not going to consistently outperform DK at predicting winners of tournaments (or we would just do that instead and print money)

Lowest Probability to win among those picked

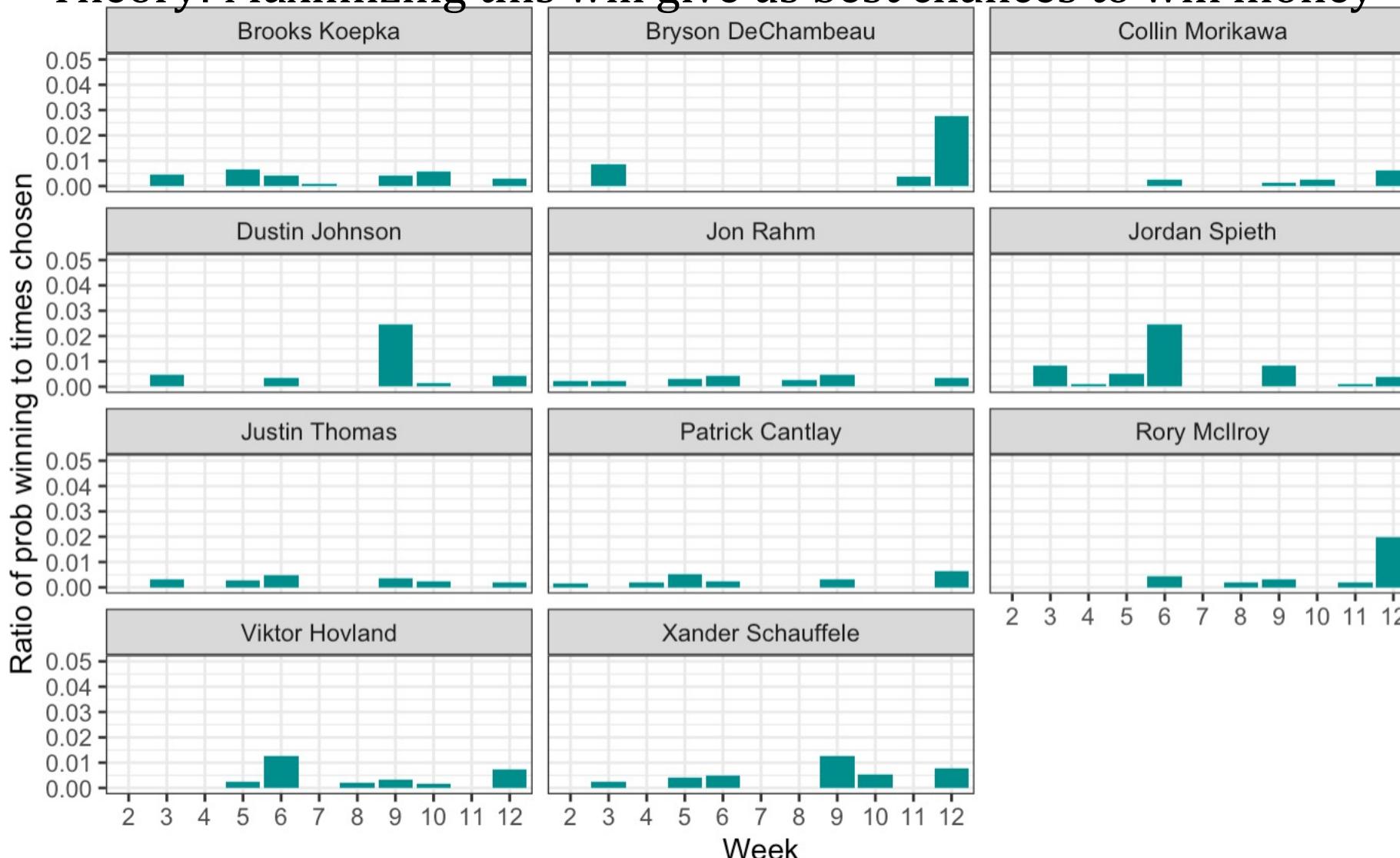
Cameron Davis	5	25000	0.003984064	3
K.H. Lee	5	25000	0.003984064	3
Erik Van Rooyen	6	20000	0.004975124	2
Lucas Herbert	5	20000	0.004975124	2
Mackenzie Hughes	6	18000	0.005524862	3
Tom Hoge	NA	18000	0.005524862	1
Brian Harman	6	15000	0.006622517	10
Cameron Champ	5	15000	0.006622517	12
Kevin Kisner	4	15000	0.006622517	9

Group 1 golfers, implied probability to win (Note y axis)



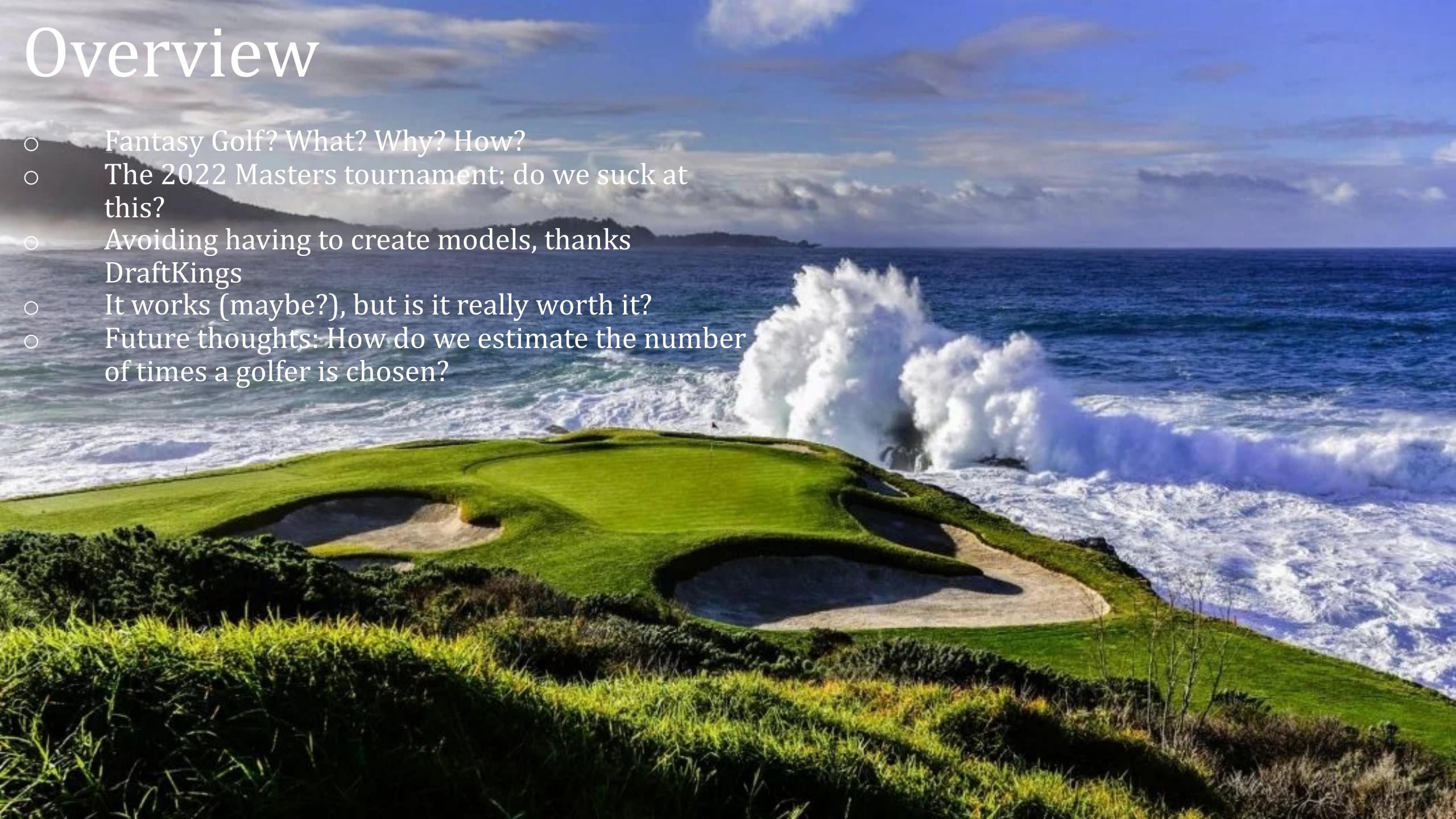
Group 1 golfers: ratio of prop winning and number of times chosen

Theory: Maximizing this will give us best chances to win money

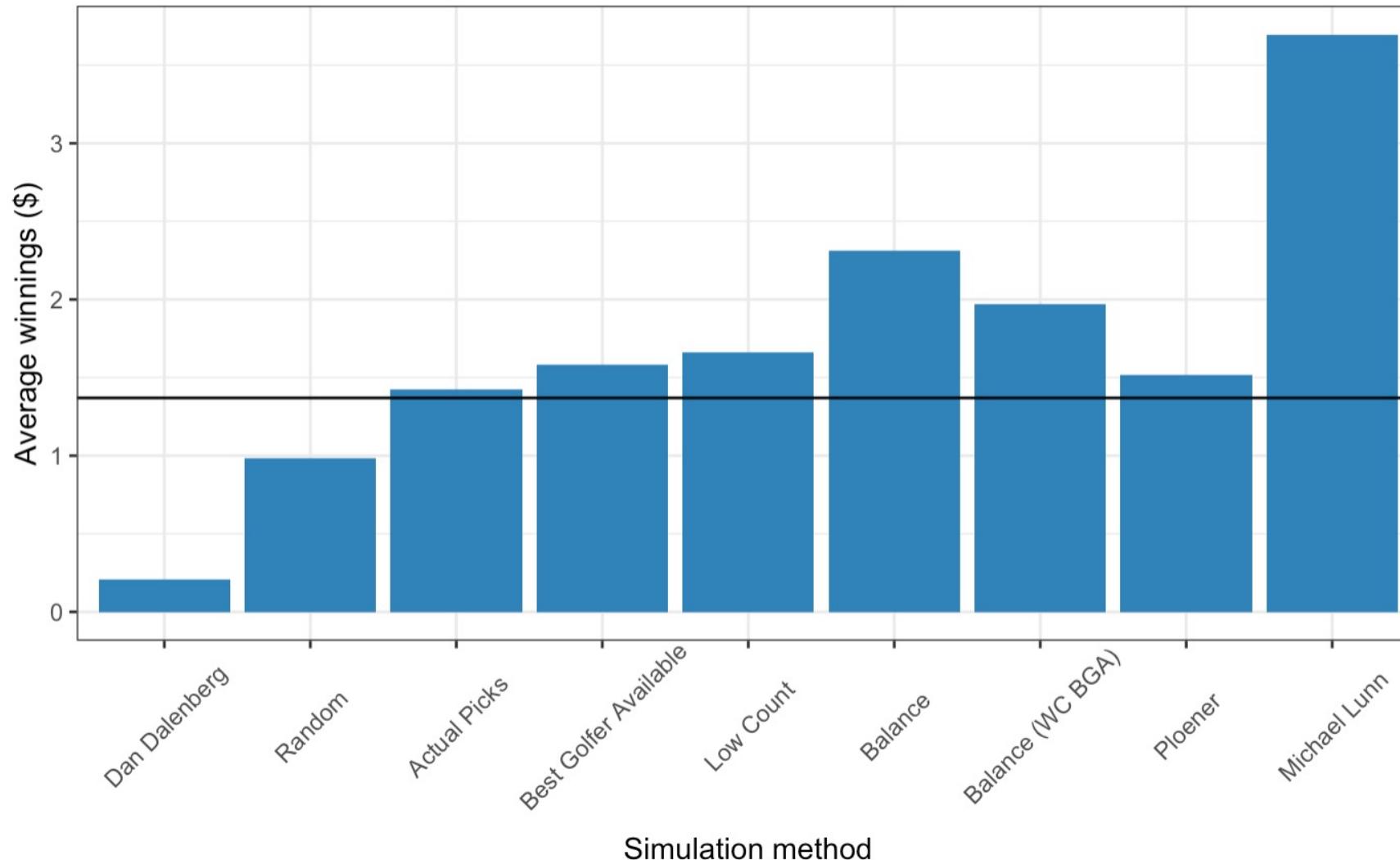


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Simulation study: Of the strategies tested, "Balance" is best average return



5,000 simulations of new tournaments by resampling the order of golfers without replacement

Black line: naive amount of return if everyone has the same chance to win money.

"Balance" method using the highest ratio of probability to win vs number of times picked.

"Dan" and "Michael" are comparisons for the highest and lowest average return. Not sure how you could be this good (or bad) at picking golfers.

Things to consider

- Assume: Odds given by DK are proportional to true odds of winning
- Assume: Frequencies of how often golfers will be chosen are known before picks are submitted
- Our best strategy by simulation makes ~\$0.54 more than Team Ploener
- About 15\$ over the course of a year even assuming everything was done right, and that we can get data that don't exist...
- Our strategy is kind of boring



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Just curious. How could we predict the number of times a golfer will be chosen?

- Golfers don't play every tournament
- Different numbers of golfers play in every group in every week
- Sometimes Group 1 golfers are chosen a total of 200 times between all players (due to WC, etc) and sometimes it's like, 50.