

Crowd Wisdom and Player Evaluation

IDENTIFYING BIASES IN TRADITIONAL SCOUTING METHODS

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OVERVIEW

1. What is Crowd Scouting?
2. Combining Eye-Test & Objective Data
3. Exploring Biases

WHAT IS CROWD SCOUTING?



CROWD WISDOM

ARE SOME PEOPLE CONSISTENTLY AHEAD OF THE CURVE?

Posted 8/23/2005 4:48 PM Updated 8/23/2005 7:07 PM

Thrashers trade Heatley to Senators for Hossa

ATLANTA (AP) — The Atlanta Thrashers traded former NHL rookie of the year Dany Heatley to the Ottawa Senators for Marian Hossa on Tuesday, a blockbuster deal requested by Heatley less than two years after he was blamed for a wreck that killed a teammate.



Atlanta and Ottawa exchanged high-scoring forwards with the Thrashers getting Marian Hossa and the Senators getting Dany Heatley.

By The Associated Press

2011 Re-draft: Gaudreau makes big jump to No. 1

Flames forward originally taken with 104th pick; Saad, Kucherov, Palat move into top 10

by Adam Kimelman [@NHLAdamK](#) / NHL.com Deputy Managing Editor

June 20th, 2016

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MONEYPUCK

MARKET DYNAMICS



PLAYER VALUATION MARKET UNQUANTIFIED, TOUGH TO INFER



WHERE DO EYE-TEST & ANALYTICS ALIGN? WHERE DO THEY DEVIATE?



BIASES IN EITHER MARKET

PLAYER RATING

TOUGH DECISIONS FROM A DIVERSE CROWD

Hockey Head-to-Head - Select Preferred Player [Limit Scouting](#)

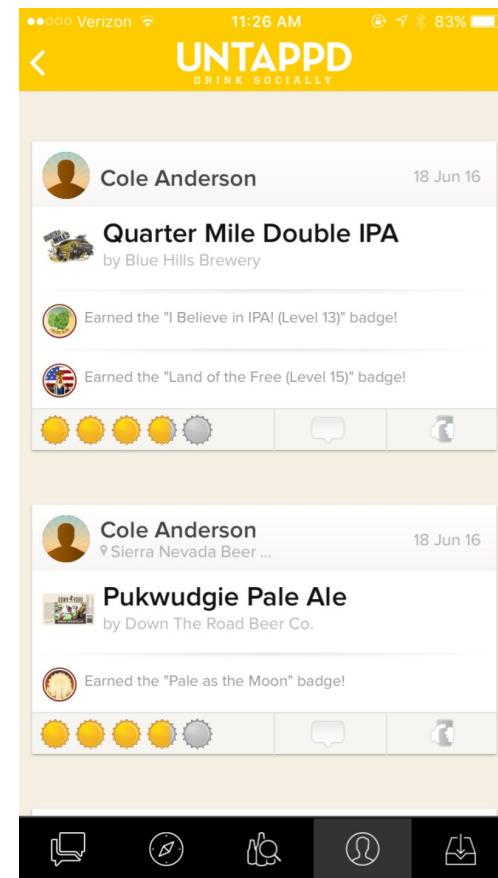
Current Hockey Scouting Strength: **2.034**

Brad Marchand (BOS) Johnny Gaudreau (CGY)

Not Sure (Next)

Select player who you feel would best give you a chance to win a championship, if the season started today

	Brad Marchand	Johnny Gaudreau
BOS	CGY	
Elo	1528.6	1527.9
L	L	
71 OA (2006 BOS)	104 OA (2011 CGY)	
5' 9	5' 9	
181	157	
28.4	23.1	
GP	77 / 77	79 / 91
G60	1.06 / 0.79	0.92 / 0.71
A60	0.95 / 0.91	1.38 / 0.95
P60	2.01 / 1.70	2.30 / 1.67
SCF%	54.4 / 58.12	48.9 / 46.69
CF%	55.0 / 56.50	49.5 / 46.18
CF% Rel	7.97 / 6.79	2.17 / 2.56
CF/60	65.63 / 64.14	55.97 / 54.71
CA/60	53.67 / 49.38	56.99 / 63.75
TOI/Gm	13.94 / 13.73	14.86 / 13.85

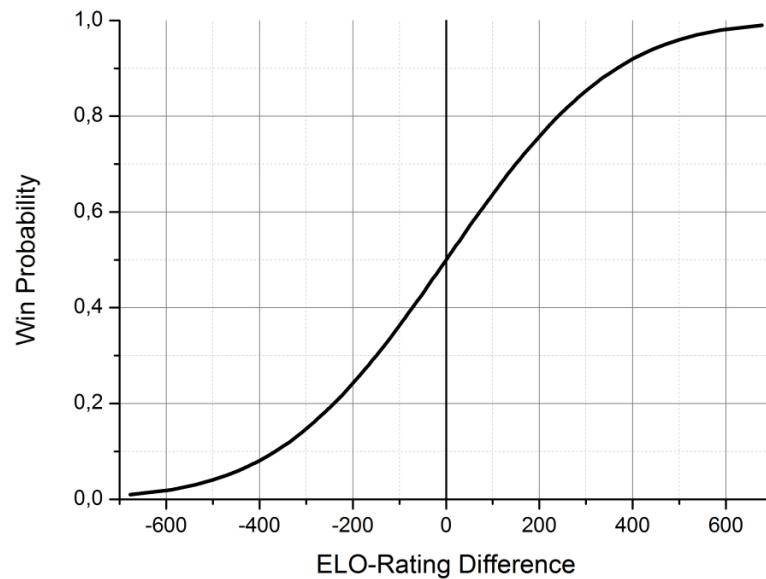


ELO FORMULA

ALL ABOUT THE PRIORS



$$R'_a = R_a + K(S_a - E_a)$$



ELO IN ACTION

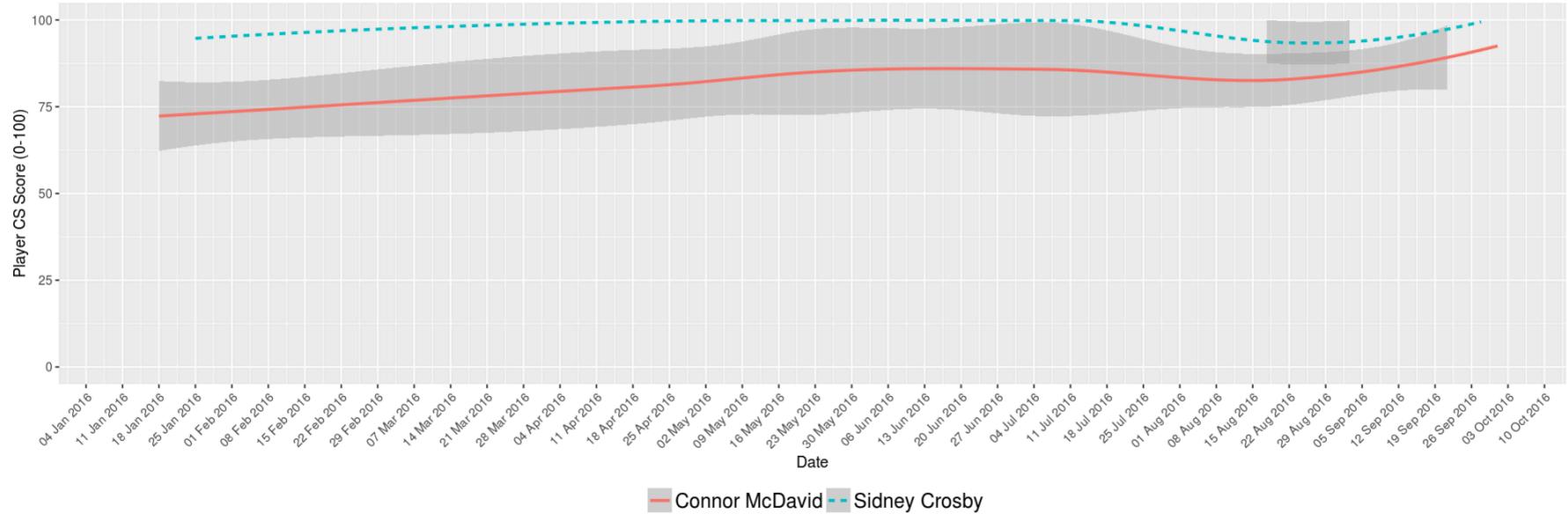
CHANGING OF THE GUARD?

Hockey Player Compare Tool

[Share 0](#)

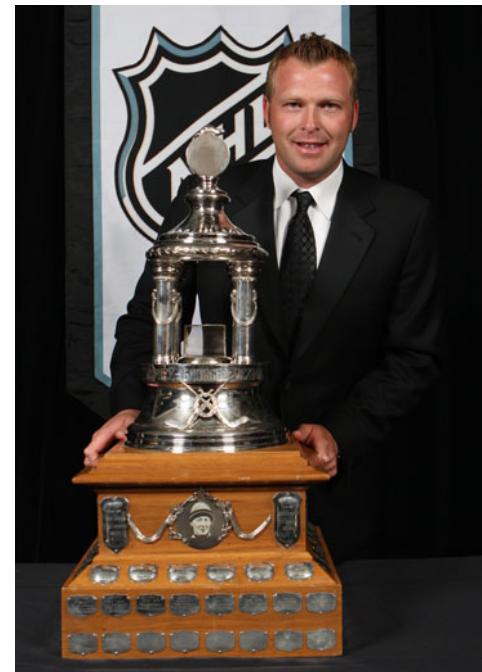
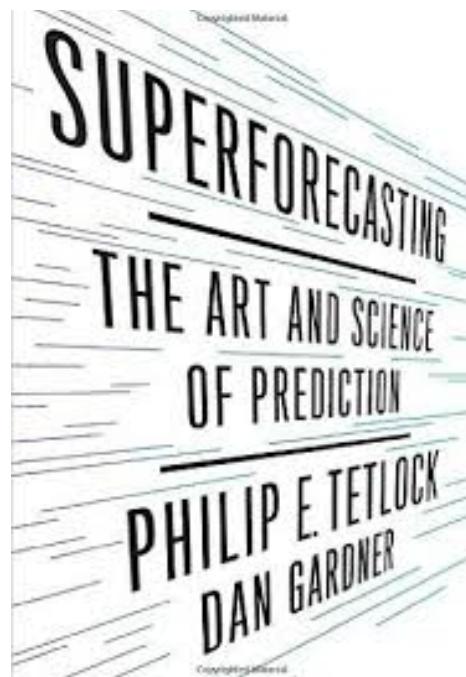
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Player Daily CS Score



SUPERSCOUTING OR NO?

TRACK WHAT PEOPLE CHOOSE AND JUDGE



COMBINING EYE-TEST & OBJECTIVE DATA

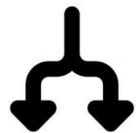


MODELING THE EYE-TEST

ASKING (STUMBLING UPON) THE RIGHT QUESTIONS



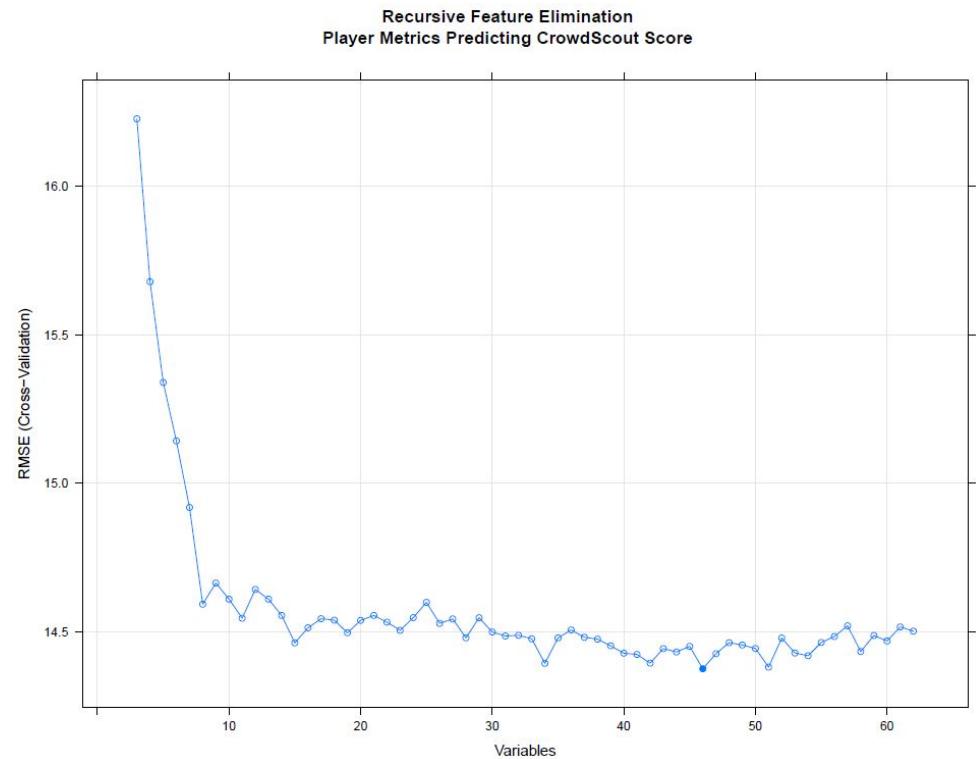
TARGET



SPLIT SEASON STATISTICS

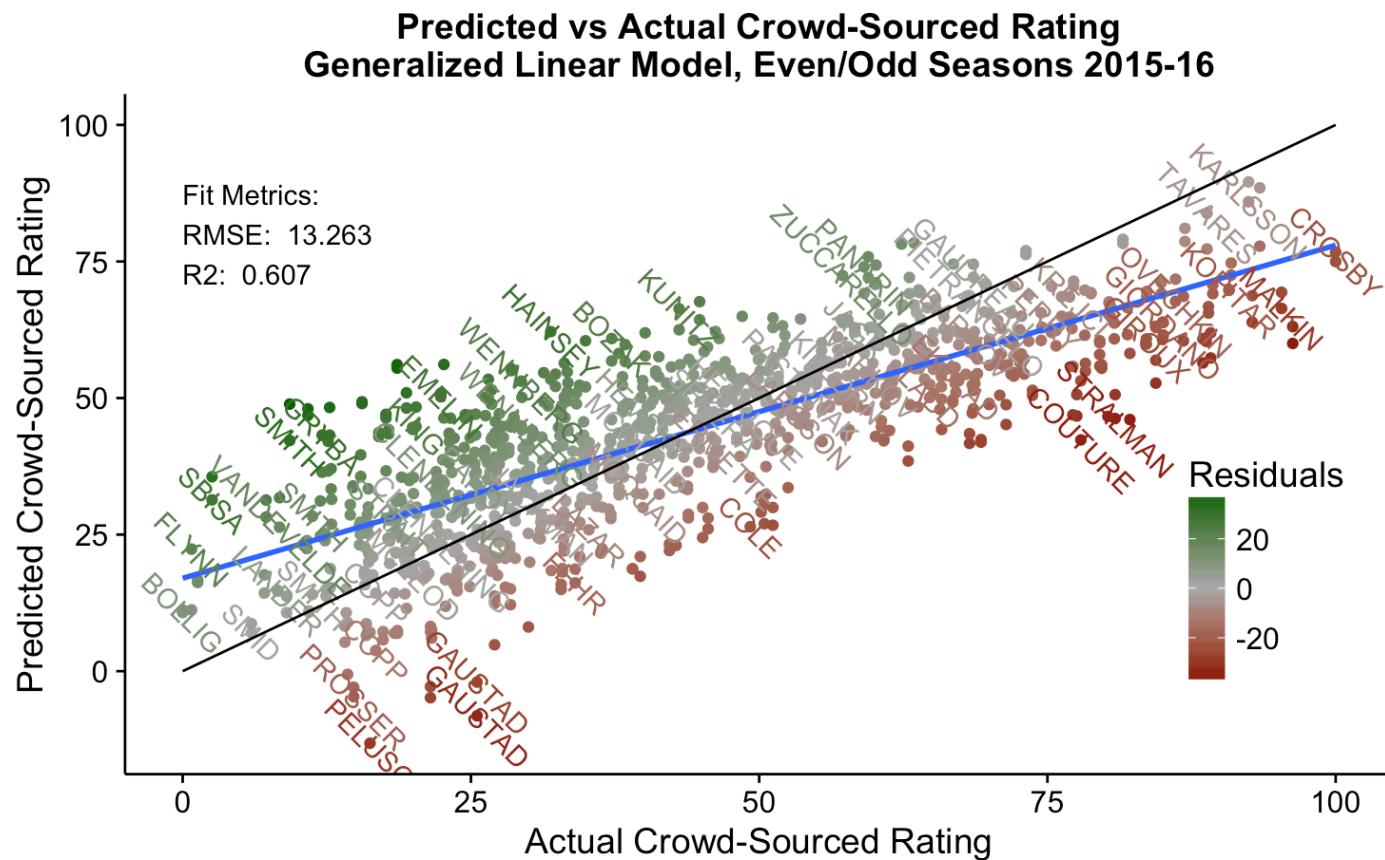


CARET



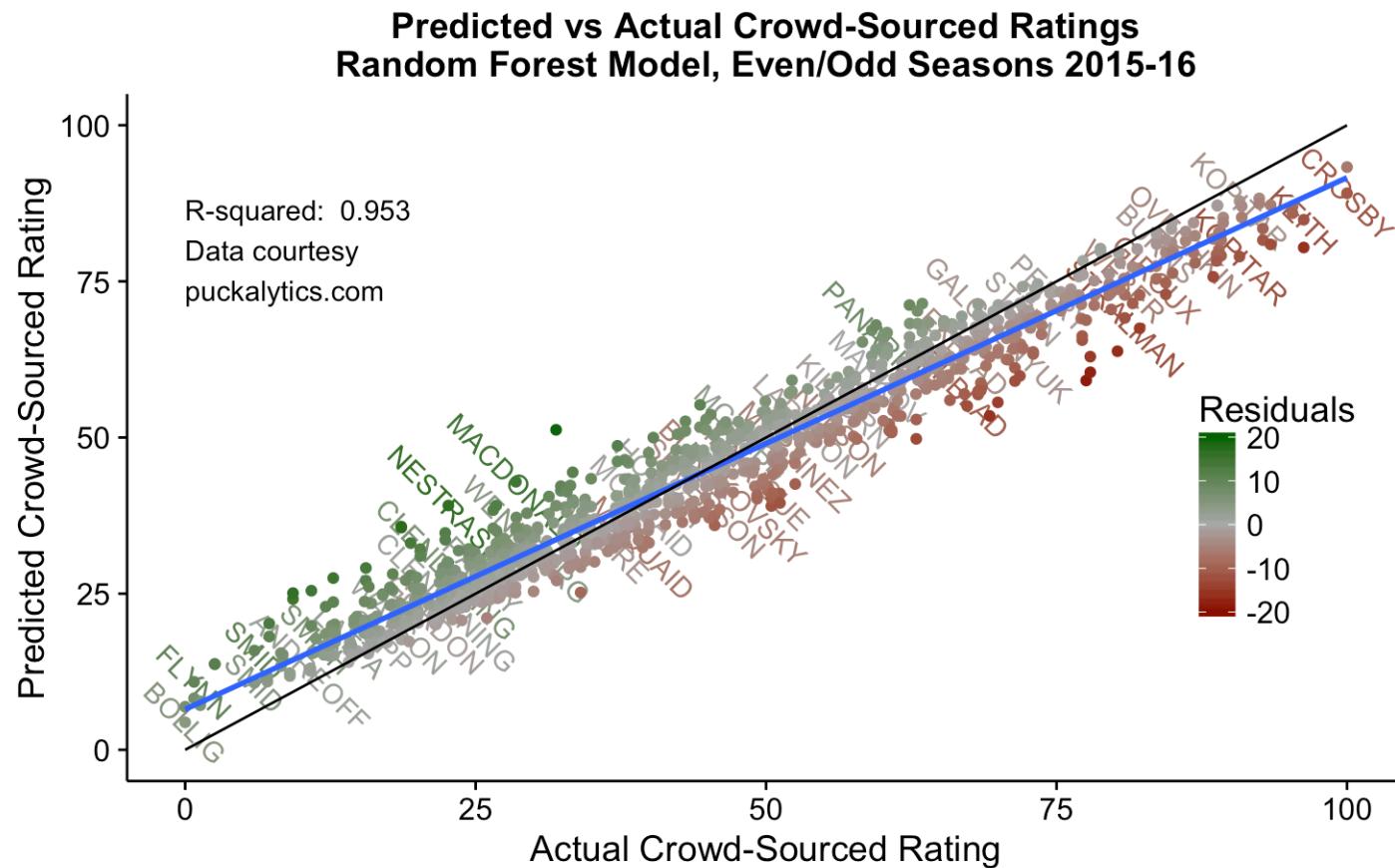
GENERALIZED LINEAR MODEL

GENERALLY EVERYBODY IS OKAY



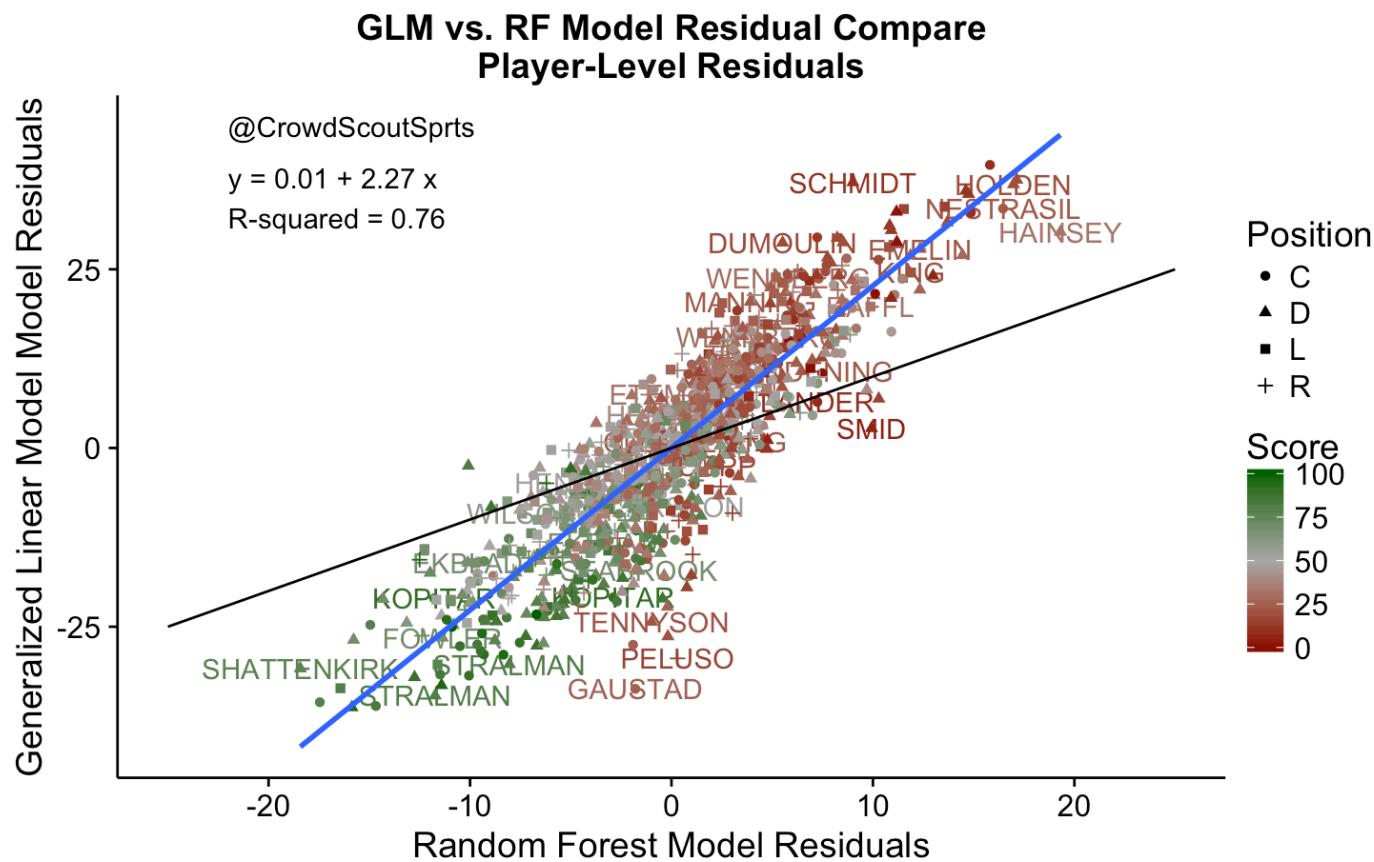
RANDOM FOREST MODEL

NOT SO RANDOM

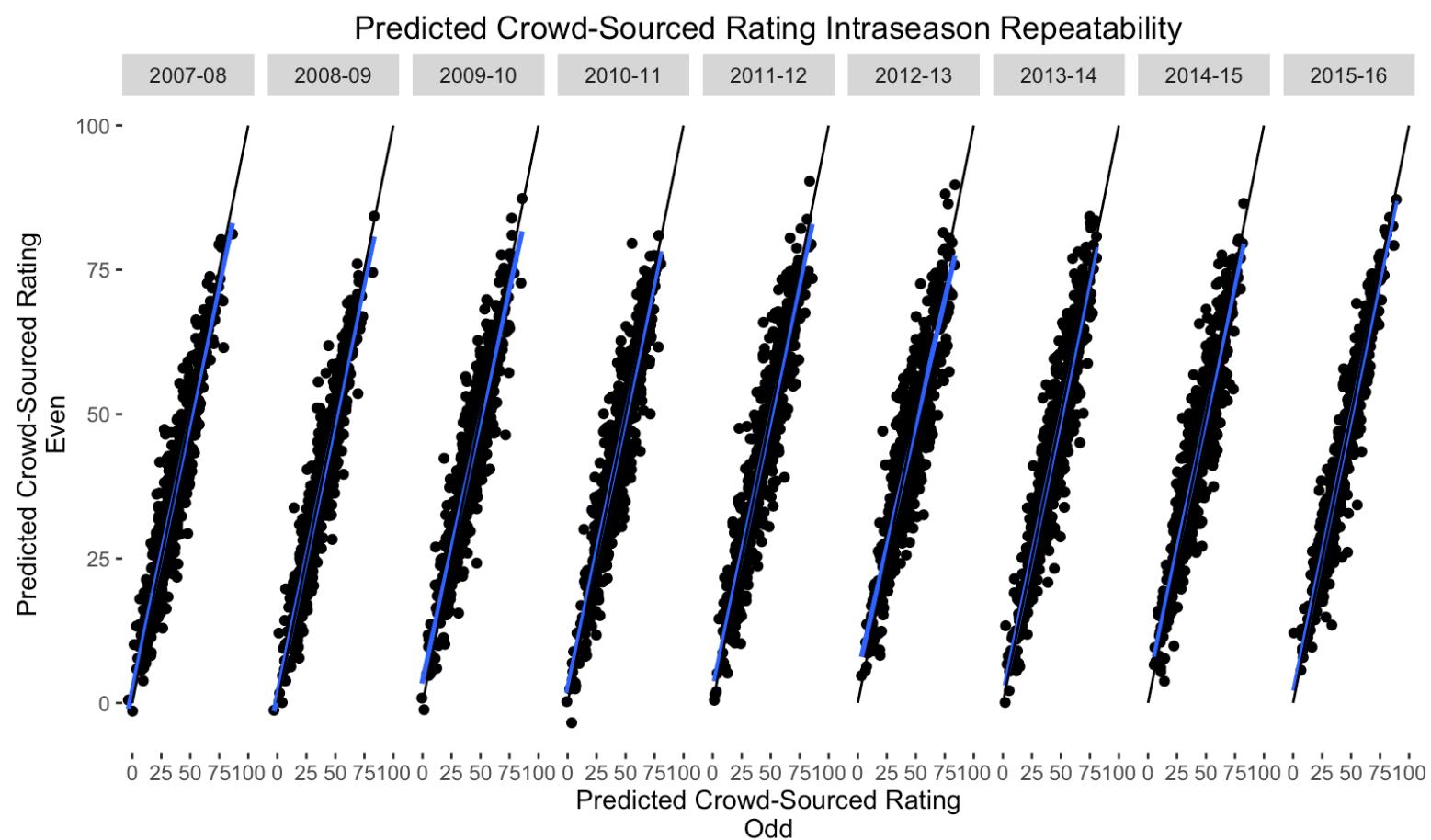


RESIDUAL COMPARE

GENERALLY AGREE

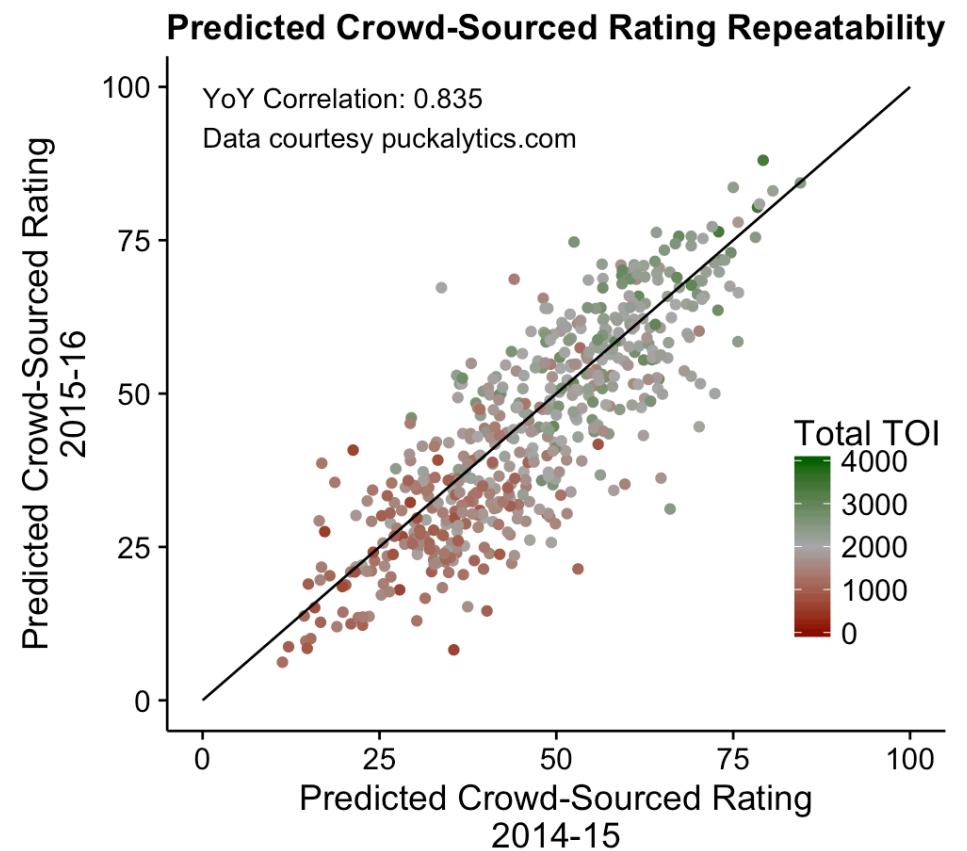
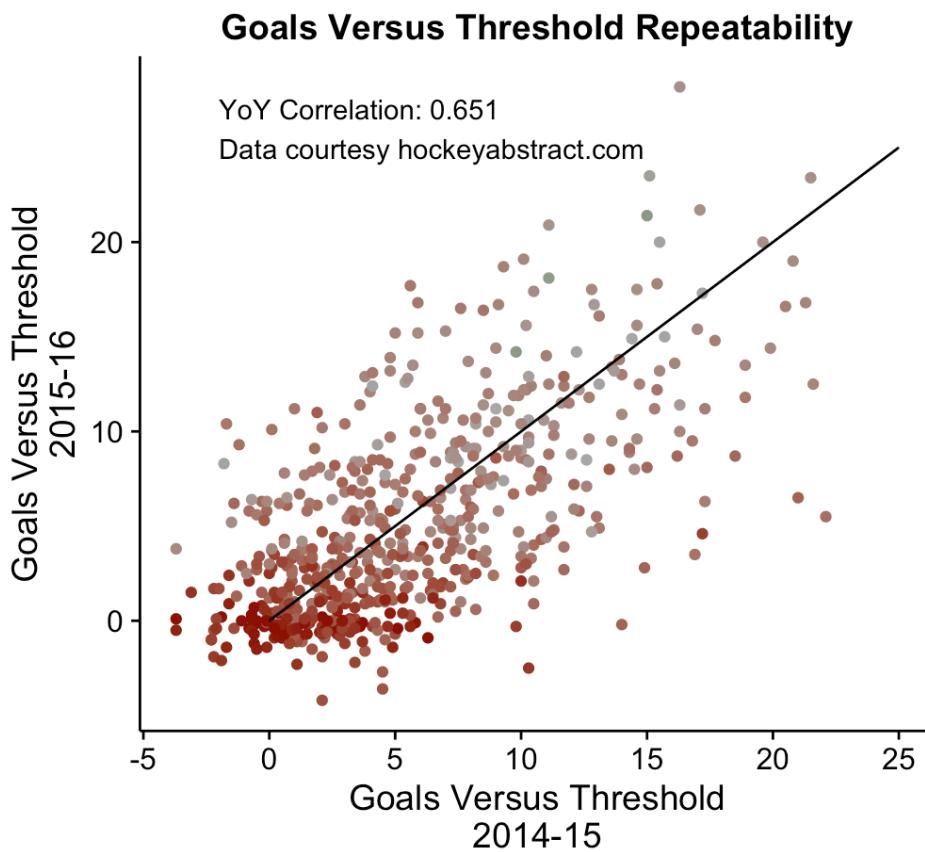


INTRASEASON PREDICTIONS



BACK-TEST AND BENCHMARK

MODEL PREDICTION VERSUS GOALS VERSUS THRESHOLD THRESHOLD



EXPLORING BIASES



EXPLANATORY FEATURES

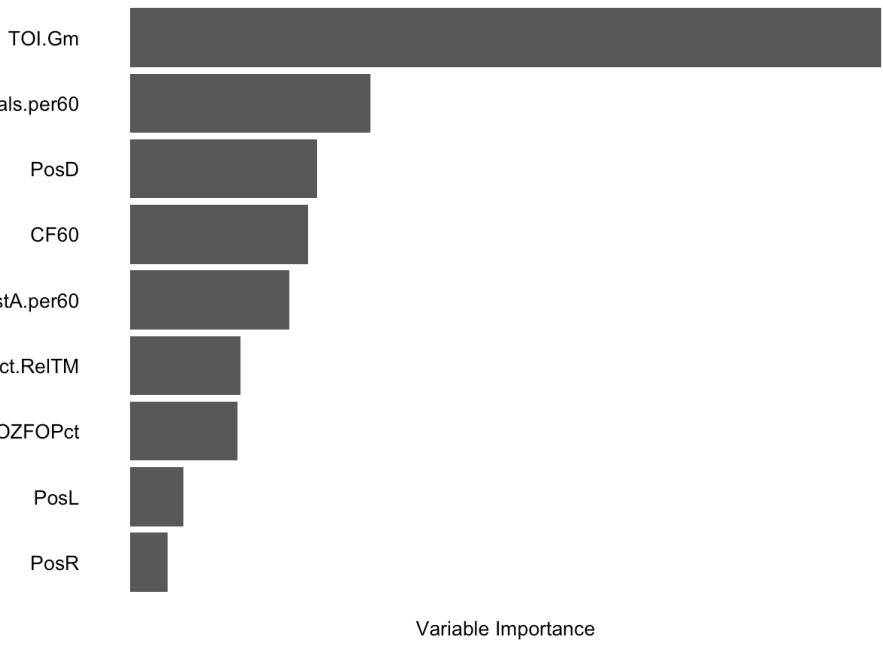
OFFENSIVE IN NATURE

GLM FEATURES

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	-69.50668	4.94033	-14.069	< 2e-16	***
PosD	-18.28359	1.65156	-11.071	< 2e-16	***
PosL	1.09242	1.22451	0.892	0.372520	
PosR	0.72555	1.22216	0.594	0.552863	
TOI.Gm	6.27643	0.24435	25.686	< 2e-16	***
CF60	0.34999	0.09147	3.826	0.000138	***
CFPct.RelTM	0.50076	0.14631	3.423	0.000643	***
OZFOPct	0.29489	0.08058	3.660	0.000265	***
FirstA.per60	9.25943	1.56818	5.905	4.73e-09	***
Goals.per60	7.77728	1.51746	5.125	3.52e-07	***

RANDOM FOREST FEATURES



GETTING DEFENSIVE

DISCUSSION TOPICS



SHOT GENERATED IS VIEWABLE, SHOT PREVENTED IS NOT



APPEAL OF RESULTS BASED DEFENSIVE METRICS



COACHING IMPLICATIONS (NOT A CROWD ISSUE)



DISTRIBUTION OF OFFENSIVE & DEFENSIVE TALENT

FUTURE AT @CROWDSCOUTSPRTS

DISCUSSION TOPICS



ALTERNATIVE RESULT-BASED MEASUREMENTS



STAY SKEPTICAL OF DATA



CROWDSCOUT DATA EVOLVING



USE MACHINE LEARNING METHODS TO JUDGE SELECTIONS