

# 2022 Fantasy Football Wide Receiver Analysis

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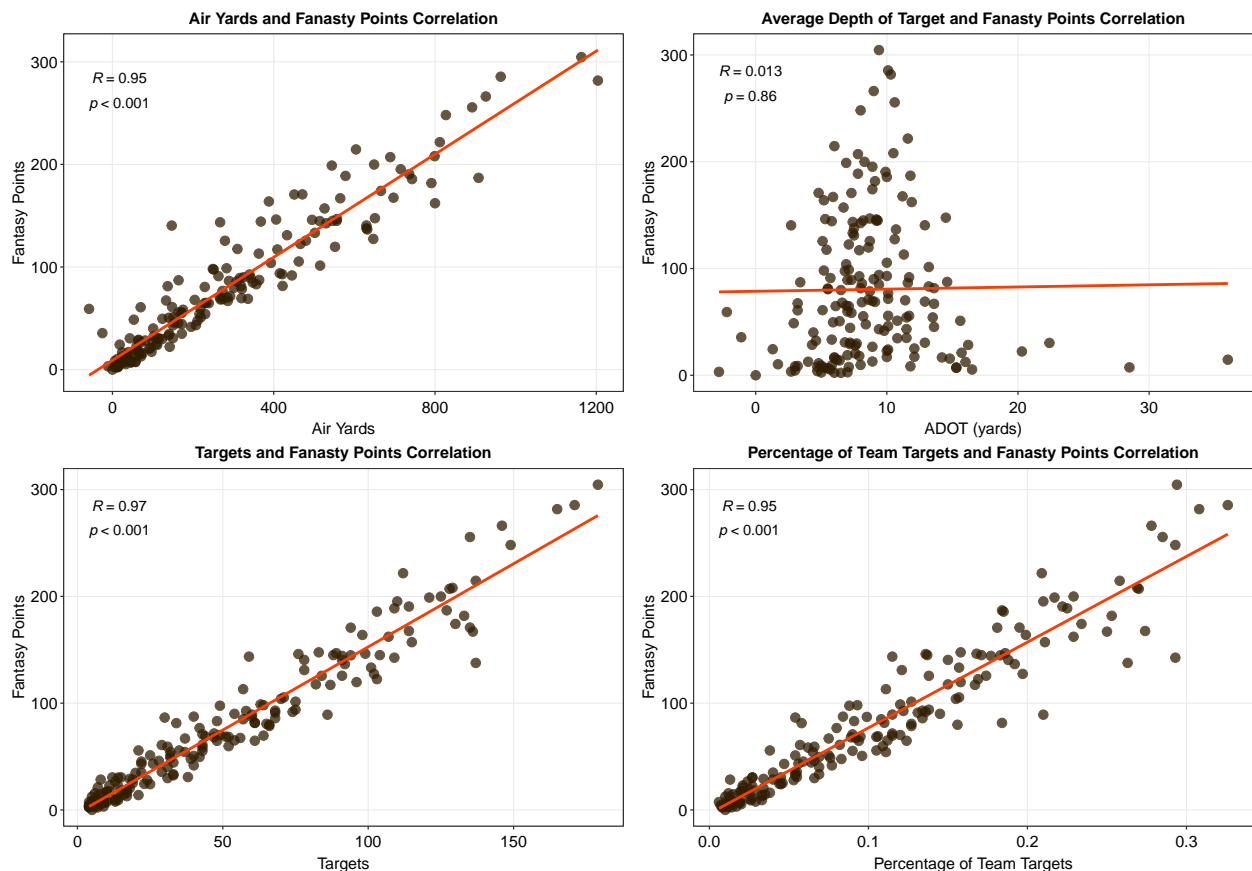
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## Introduction

Fantasy football is a statistics focused game based on the real life production of professional National Football League players. Success is found when the user can more accurately predict the seasonal statistical output of said players than their opponents. This report aims to identify specific advanced receiver stats that may aid in the prediction of future fantasy point output.

Pearson correlation will be used along with regression analysis to determine which statistic will be most important to predict future fantasy success. The distribution of points and targets will also be examined to view outlier values which, in this case, are very much desired.

## Pearson Correlation Analysis of Advanced WR Stats with Fantasy Point Output



Statistic	Correlation_Coefficient	P_value
Air Yards	0.950	0.001
Average Depth of Target	0.013	0.860
Targets	0.970	0.001
Percentage of Team Targets	0.950	0.001

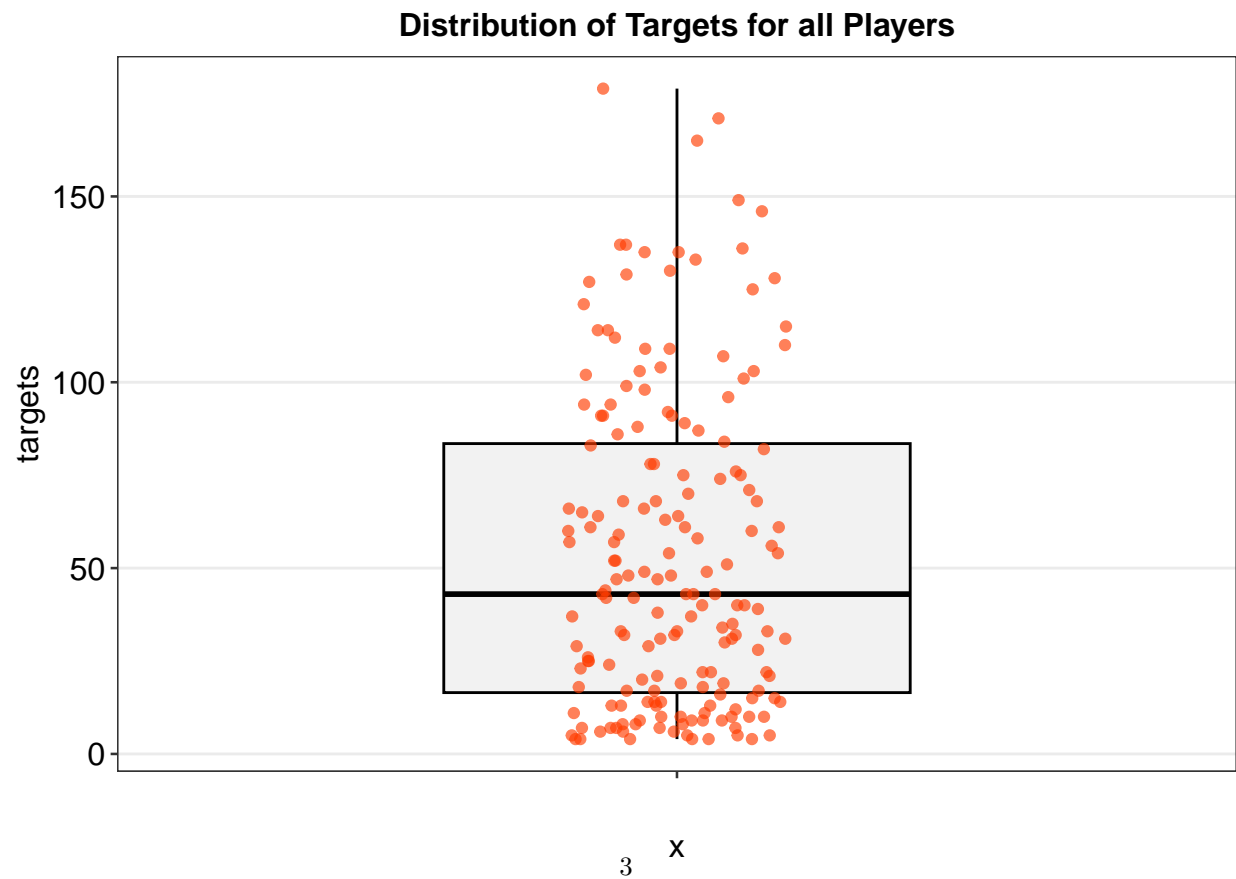
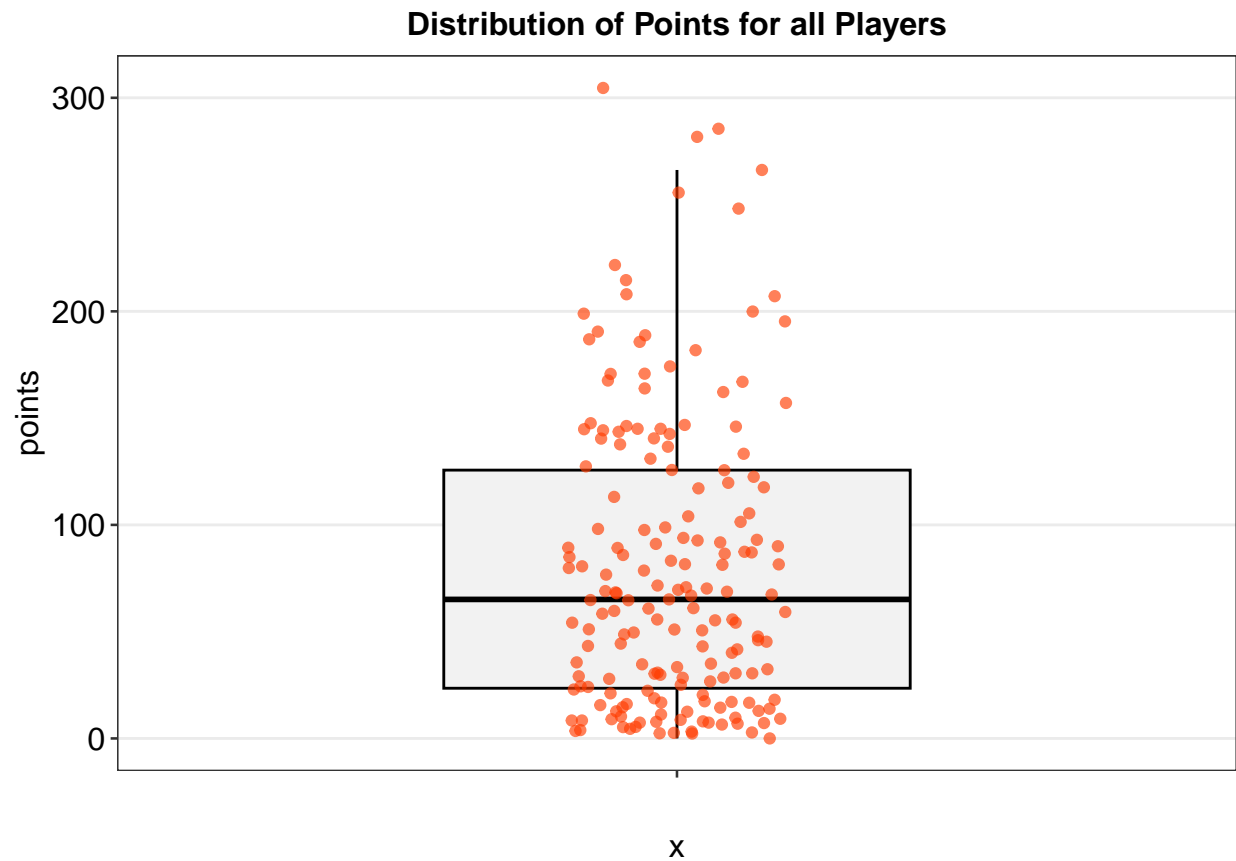
**Table 1: Correlation coefficients and p values of corresponding fantasy statistics**

## Regression Analysis of Advanced WR Stats

Table 2: Single Regression Results per Variable

	<i>Dependent variable:</i>			
	points			
	(1)	(2)	(3)	(4)
air_yards	0.251*** (0.006)			
air_per_rec		0.202 (1.143)		
targets			1.558*** (0.031)	
percent_team_targets_mult				8.026*** (0.205)
Constant	9.087*** (2.416)	78.660*** (11.151)	-3.043 (2.118)	-3.368 (2.706)
Observations	175	175	175	175
R <sup>2</sup>	0.902	0.0002	0.936	0.898
Adjusted R <sup>2</sup>	0.902	-0.006	0.936	0.898
Residual Std. Error (df = 173)	21.510	68.732	17.401	21.900
F Statistic (df = 1; 173)	1,593.635***	0.031	2,526.410***	1,531.343***
<i>Note:</i>			*p<0.1; **p<0.05; ***p<0.01	

Distribution of Points and Targets



player	team	air_yards	player	team	percent_team_targets
Tyreek Hill	MIA	1204	Davante Adams	LV	0.326
Justin Jefferson	MIN	1163	Tyreek Hill	MIA	0.308
Davante Adams	LV	963	Justin Jefferson	MIN	0.294
Stefon Diggs	BUF	926	CeeDee Lamb	DAL	0.293
Mike Evans	TB	908	Drake London	ATL	0.293
A.J. Brown	PHI	892	A.J. Brown	PHI	0.285
CeeDee Lamb	DAL	827	Stefon Diggs	BUF	0.278
Jaylen Waddle	MIA	812	DJ Moore	CAR	0.274
Chris Olave	NO	800	DeVonta Smith	PHI	0.270
Amari Cooper	CLE	799	Amari Cooper	CLE	0.269
DK Metcalf	SEA	791	Diontae Johnson	PIT	0.263
Tee Higgins	CIN	743	Amon-Ra St. Brown	DET	0.258
Terry McLaurin	WAS	736	DK Metcalf	SEA	0.253
Tyler Lockett	SEA	715	Michael Pittman Jr.	IND	0.250
DJ Moore	CAR	697	Garrett Wilson	NYJ	0.234
DeVonta Smith	PHI	689	Chris Olave	NO	0.229
Garrett Wilson	NYJ	666	Christian Kirk	JAC	0.229
Gabe Davis	BUF	651	Brandon Aiyuk	SF	0.225
Christian Kirk	JAC	649	Terry McLaurin	WAS	0.222
Courtland Sutton	DEN	647	Ja'Marr Chase	CIN	0.217

player	team	targets
Justin Jefferson	MIN	179
Davante Adams	LV	171
Tyreek Hill	MIA	165
CeeDee Lamb	DAL	149
Stefon Diggs	BUF	146
Amon-Ra St. Brown	DET	137
Diontae Johnson	PIT	137
Michael Pittman Jr.	IND	136
A.J. Brown	PHI	135
Chris Godwin	TB	135
DK Metcalf	SEA	133
Garrett Wilson	NYJ	130
Amari Cooper	CLE	129
DeVonta Smith	PHI	128
Mike Evans	TB	127
Christian Kirk	JAC	125
Ja'Marr Chase	CIN	121
Zay Jones	JAC	115
DJ Moore	CAR	114
Terry McLaurin	WAS	114

## Conclusion

The correlation and regression analysis of the 2022 wide receiver data demonstrates the importance of usage in the offense. The targets and air yards a player receives most indicate fantasy football success. These variables both have significant correlation coefficients and with a large R squared value shows when these variables increase, the points will follow.

The distribution of wide receiver points shows a nice cluster of around six elite scoring output-generating players. These players should be valued highly and selected early in fantasy drafts, as the next grouping of players many very similar outputs. Either take an high powered receiver early in drafts our wait a couple rounds to select one of many with close target numbers.

Future work will be done to determine if one can predict future target share for a player in a specific offense. This will require more team specific coaching data with a sprinkling of quarterback data. The trends in passing versus running plays for specific coaches will be important to examine for the prediction.