

# RELATIONSHIP BETWEEN NATIONAL FOOTBALL LEAGUE (NFL) COMBINE MEASURABLES AND PLAYING TIME IN THE 2024 NFL ROOKIE CLASS

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## INTRODUCTION

- The National Football League's (NFL) Combine assesses anthropometrics and performance metrics for hundreds of collegiate athletes in preparation of the NFL Draft.
- The consensus is that these measurables are helpful in determining a prospect's ability to play in the NFL.
- However, research is conflicted on the ultimate usefulness of the NFL Combine in determining playing time (PT).

### Purpose:

- To determine if anthropometric and performance measures of athletes invited to the 2024 NFL Combine were related to PT during the 2024 NFL Regular season.

## METHODS

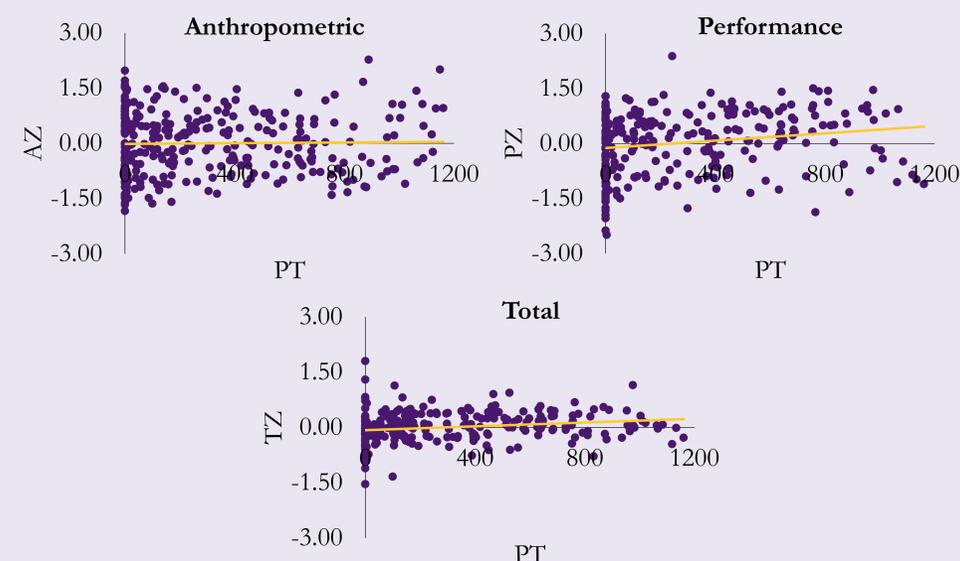
- Player performance from 315 athletes from the 2024 NFL Combine were analyzed from open-source databases.
  - Anthropometric: BMI; Arm Length; Hand Size; Wingspan
  - Performance: 40y Sprint; 10y Split; Vertical Jump; Broad Jump; 3-Cone Drill; 20y Shuttle; 225lb Bench Reps
- Scores were standardized into average Anthropometric Z-Scores (AZ), Performance Z-Scores (PZ) and Total Z-Scores (TZ) for analyses to account for players who did not complete every Combine test.
- PT was calculated as a player's total number of regular season offensive, defensive, and special teams snaps.

### Statistical Analyses:

- Pearson product moment correlations used to investigate relationships ( $\alpha = 0.05$ ) between AZ, PZ, and TZ to PT.
- Potential differences were also analyzed for each position.
  - Offensive Line; Running Back; Wide Receiver; Tight End; Quarterback; Defensive Line; Linebacker; Defensive Back



*The NFL Combine may be ineffective in determining a rookie's playing time.*



## RESULTS

### AZ:

- No significant relationship among all players.
- No significant relationship within position groups.

AZ	All (312)	OL (70)	RB (29)	WR (37)	TE (16)	QB (13)	DL (50)	LB (30)	DB (67)
r	0.02	0.13	0.21	0.24	0.39	0.03	-0.10	0.19	-0.02
p	0.73	0.29	0.29	0.16	0.15	0.95	0.52	0.33	0.89

### PZ:

- Significant, weak, positive relationship among all players.
- Significant weak, positive relationship within: OL, WR.

PZ	All (263)	OL (61)	RB (25)	WR (34)	TE (12)	QB (7)	DL (43)	LB (26)	DB (55)
r	0.19	0.33	0.31	0.39	0.07	-0.39	0.30	0.31	0.19
p	<0.01	0.01	0.14	0.03	0.85	0.40	0.06	0.13	0.17

### TZ:

- Significant, weak, positive relationship among all players.
- Significant weak, positive relationship within: OL, WR, LB.

TZ	All (263)	OL (61)	RB (25)	WR (34)	TE (12)	QB (7)	DL (43)	LB (26)	DB (55)
r	0.20	0.35	0.31	0.46	0.43	-0.24	0.30	0.39	0.06
p	<0.01	<0.01	0.14	<0.01	0.18	0.61	0.06	0.05	0.70

## CONCLUSIONS

- These findings suggest that NFL Combine performance metrics may provide some insight on subsequent PT.
- Prospects' anthropometric measurables were not related to subsequent PT in any meaningful way.
- Findings may be impacted by the number of prospects who do not fully participate in the Combine process.

## PRACTICAL APPLICATIONS

- Strength and conditioning professionals may want to emphasize Combine specific techniques to maximize a prospect's chances of playing in the NFL.
- Due to the relatively weak and variable nature of these relationships across position groups, training that focuses on a prospect's position specific demands or weaknesses that are not directly measured by the NFL Combine tests may be more useful in increasing PT.