

Combined Offensive and Defensive Position Group F-Statistics

2025-03-26

Table 1: F-Statistics for ALL Offensive Position Variables Combined

Dataset	Starter Models			On-Field Models			Attempt Models		
	Starter LPM	Starter Probit	Starter Logit	On-Field LPM	On-Field Probit	On-Field Logit	Attempt LPM	Attempt Probit	Attempt Logit
Offense Grades	1.36* [41,3978]	1.51** [41,3978]	1.54** [41,3978]	0.80 [40,3979]	0.97 [40,3979]	0.97 [40,3979]	1.11 [41,25567]	0.95 [41,25567]	0.96 [41,25567]
Offense Yards	1.73*** [41,3978]	2.00*** [41,3978]	2.01*** [41,3978]	0.90 [40,3979]	0.99 [40,3979]	0.99 [40,3979]	0.86 [41,25567]	1.01 [41,25567]	0.93 [41,25567]
Offense Completions	1.56** [41,3978]	1.79*** [41,3978]	1.80*** [41,3978]	1.04 [40,3979]	1.14 [40,3979]	1.14 [40,3979]	0.72 [41,25567]	0.81 [41,25567]	0.73 [41,25567]
Control Variables									
Game Situation	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Coach Variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Team Stats	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Season/Team FE	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
Coach FE	No	No	No	No	No	No	Yes	Yes	Yes
GIMR	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
Player Presence	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
Control Def. Players	No	No	No	No	No	No	No	No	No
Control Off. Players	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Note:

F-statistics reported with degrees of freedom [df1,df2] and significance levels for ALL position variables combined.

* p < 0.10, ** p < 0.05, *** p < 0.01

Table 2: F-Statistics for ALL Defensive Position Variables Combined

Dataset	Starter Models			On-Field Models			Attempt Models		
	Starter LPM	Starter Probit	Starter Logit	On-Field LPM	On-Field Probit	On-Field Logit	Attempt LPM	Attempt Probit	Attempt Logit
Defense Grades	1.75*** [47,3972]	1.92*** [47,3972]	1.91*** [47,3972]	0.82 [47,3972]	1.12 [47,3972]	1.14 [47,3972]	0.81 [47,25561]	0.91 [47,25561]	0.91 [47,25561]
Defense Stops	1.28* [47,3972]	1.38** [47,3972]	1.41** [47,3972]	0.97 [47,3972]	1.06 [47,3972]	1.10 [47,3972]	1.02 [47,25561]	0.98 [47,25561]	1.00 [47,25561]
Defense Tackles	0.80 [47,3972]	0.87 [47,3972]	0.89 [47,3972]	1.04 [47,3972]	1.21 [47,3972]	1.21 [47,3972]	0.94 [47,25561]	0.91 [47,25561]	0.94 [47,25561]
Control Variables									
Game Situation	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Coach Variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Team Stats	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Season/Team FE	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
Coach FE	No	No	No	No	No	No	Yes	Yes	Yes
GIMR	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
Player Presence	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
Control Off. Players	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Control Def. Players	No	No	No	No	No	No	No	No	No

Note:

F-statistics reported with degrees of freedom [df1,df2] and significance levels for ALL position variables combined.

* p < 0.10, ** p < 0.05, *** p < 0.01

Table 3: F-Statistic Comparisons Between Starter and On-Field Models: Offensive Model Comparisons - Starter vs On-Field (All Position Variables Combined)

Dataset	LPM		Probit		Logit	
Offense Grades	1.70*** [0.000]	(Starter > On-Field)	1.56*** [0.000]	(Starter > On-Field)	1.59*** [0.000]	(Starter > On-Field)
Offense Yards	1.92*** [0.000]	(Starter > On-Field)	2.02*** [0.000]	(Starter > On-Field)	2.03*** [0.000]	(Starter > On-Field)
Offense Completions	1.50*** [0.000]	(Starter > On-Field)	1.57*** [0.000]	(Starter > On-Field)	1.58*** [0.000]	(Starter > On-Field)

Note:

F-ratio tests comparing the joint significance of position variables between models. * p < 0.10, ** p < 0.05, *** p < 0.01

Table 4: F-Statistic Comparisons Between Starter and On-Field Models: Defensive Model Comparisons - Starter vs On-Field (All Position Variables Combined)

Dataset	LPM			Probit			Logit		
Defense Grades	2.13***	[0.000]	(Starter > On-Field)	1.71***	[0.000]	(Starter > On-Field)	1.68***	[0.000]	(Starter > On-Field)
Defense Stops	1.32***	[0.000]	(Starter > On-Field)	1.30***	[0.000]	(Starter > On-Field)	1.28***	[0.000]	(Starter > On-Field)
Defense Tackles	1.30***	[0.000]	(On-Field > Starter)	1.39***	[0.000]	(On-Field > Starter)	1.36***	[0.000]	(On-Field > Starter)

Note:

F-ratio tests comparing the joint significance of position variables between models. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$