



2022 Syracuse University

Football Analytics Blitz

Gameplan vs Chiefs

Jake Federman, Justin Lipitz, Naomi Korn and Zeke Kelz



Chiefs Overall Trends

- Chiefs run about 30% of the time
- Play action:
 - Mean EPA play action: **0.213 v. 0.122** when no play action
- 3-0-1-1 is their most common scheme
 - **Ran only 22%** of the time in those formations, lowest
- 1-0-1-3 and 2-1-1-1 → Chiefs have few passing plays, but ran play action over 80% of the time in both situations
- In 2-0-1-2, the Chiefs have 144 passing plays; **52% of those plays were play action**



EPA by Offensive Personnel

Offensive Personnel	Mean Run EPA	Mean Pass EPA	Run Rate
1-0-1-3	0.133	0.544	0.543
2-0-1-2	-0.008	0.217	0.464
3-0-1-1	-0.134	0.215	0.219

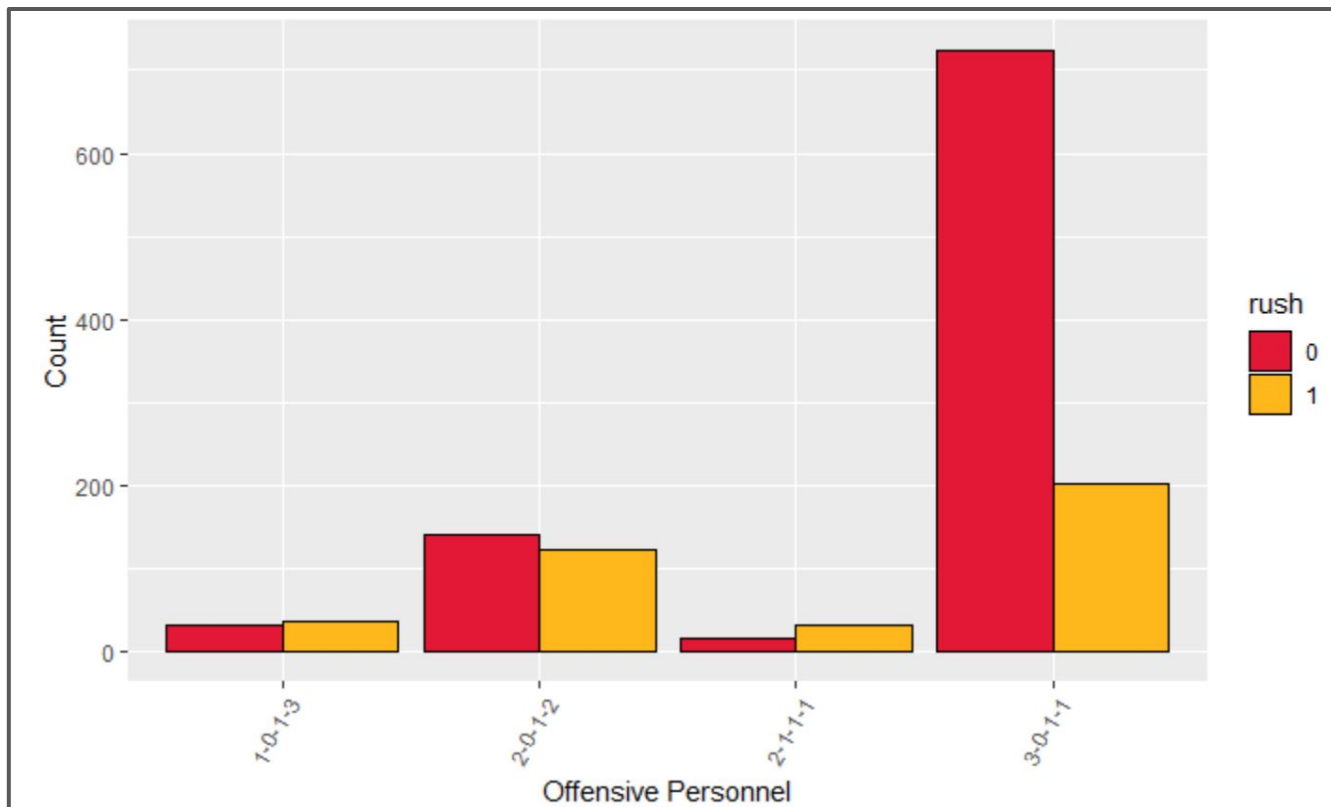


Passing Offense

Offensive Personnel	1-0-1-3 (34 obs.)	3-0-1-1 (741 obs.)	2-0-1-2 (144 obs.)
Target Depth	5	6.1	8.28
Play Action Rate	0.824	0.171	0.521
Yards After Catch	4.462	6.550	5.013

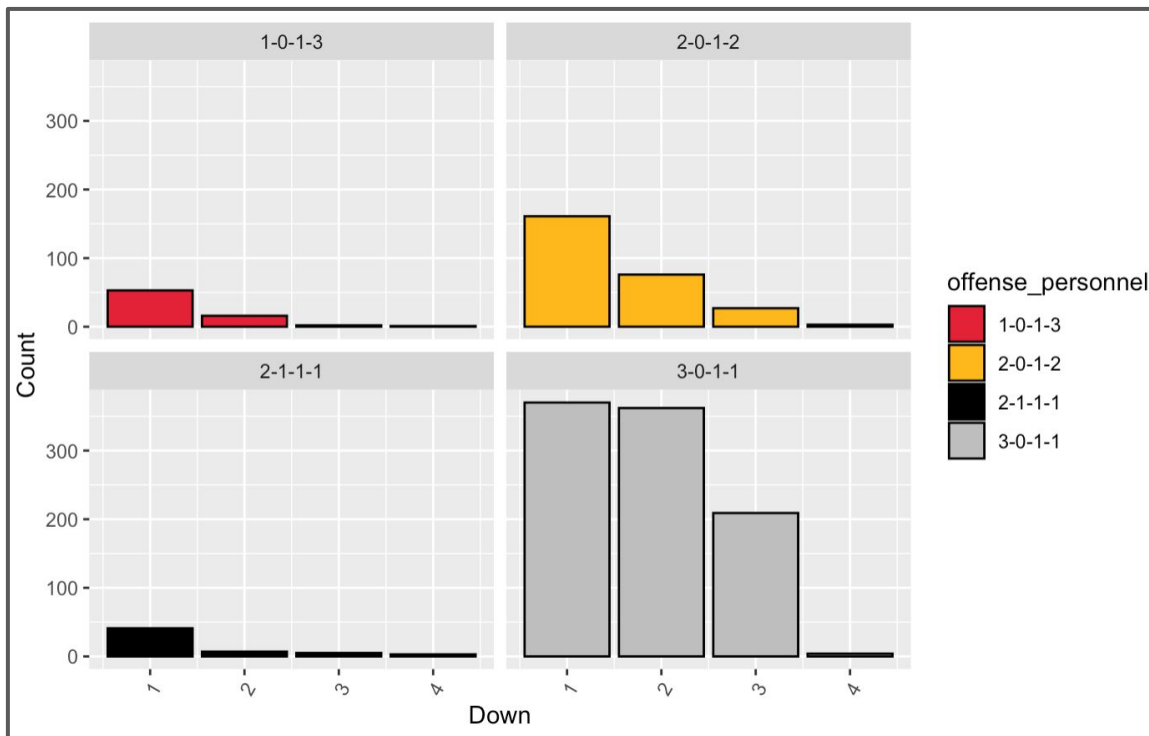


Offensive Personnel Pass/Rush Distribution





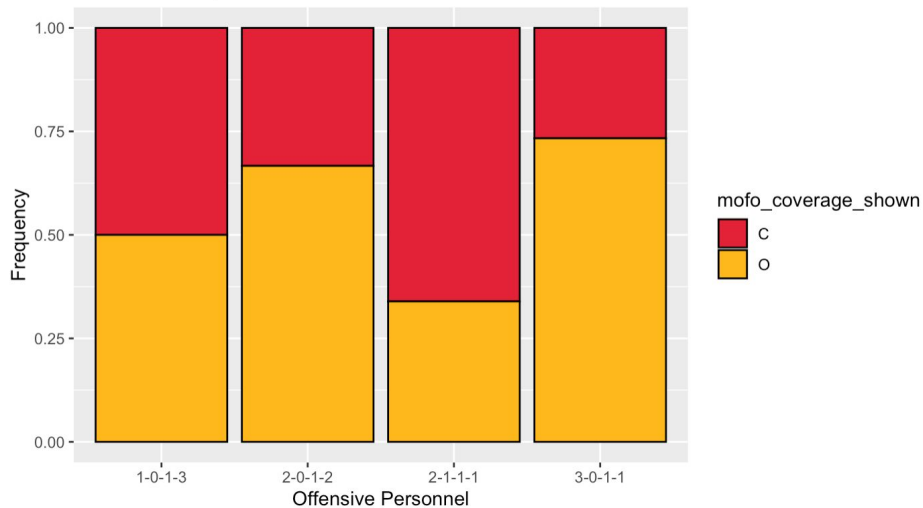
Offensive Personnel Distribution by Down



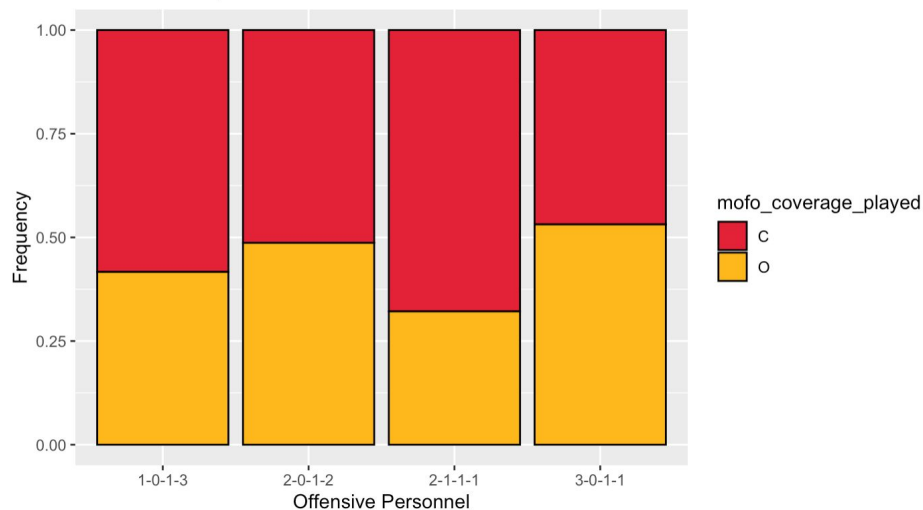


Shown v. Played Middle Coverage

Frequency of Middle of Field Coverage Shown in the Chiefs Top Offensive Formations



Frequency of Middle of Field Coverage in the Chiefs Top Offensive Formations





General Strategies

- Play lots of 2/3/06
 - The Chiefs most used personnel is 3-0-1-1, and they struggle dramatically against 2/3/06
- Push the Chiefs to run the ball
 - The Chiefs rushing attack is far less lethal than their passing
- Limit blitzes
 - Mean EPA lower for every defensive scheme when not blitzing
- Play lots of zone coverage to limit dangerous plays
 - Especially cover 4



General Defensive Scheme

Coverage Scheme	Mean EPA
1	0.097
2	0.206
3	0.191
4	0.047
6R	0.138
RZ	0.339

Defensive Personnel	Mean EPA
2/3/06	-0.0439
2/4/05	0.139
3/3/05	0.152
4/1/06	0.419
4/2/05	0.214



3-0-1-1 Vs. 2/3/06 Defensive Scheme

- The Chiefs have 89 plays in 3-0-1-1 against this defensive scheme, and their offense ran passing plays 94% of the time
- Despite this high rate of passing, the Chiefs have an EPA/play of -0.11 in this situation and only run play action 3% of the time
- Teams blitzed 10% of the time in this case, had approximately 5 players in the box, and Mahomes received pressure in 1.25 seconds on average

Our defense will rely on 2/3/06 and follow these rates



Defensive Teams



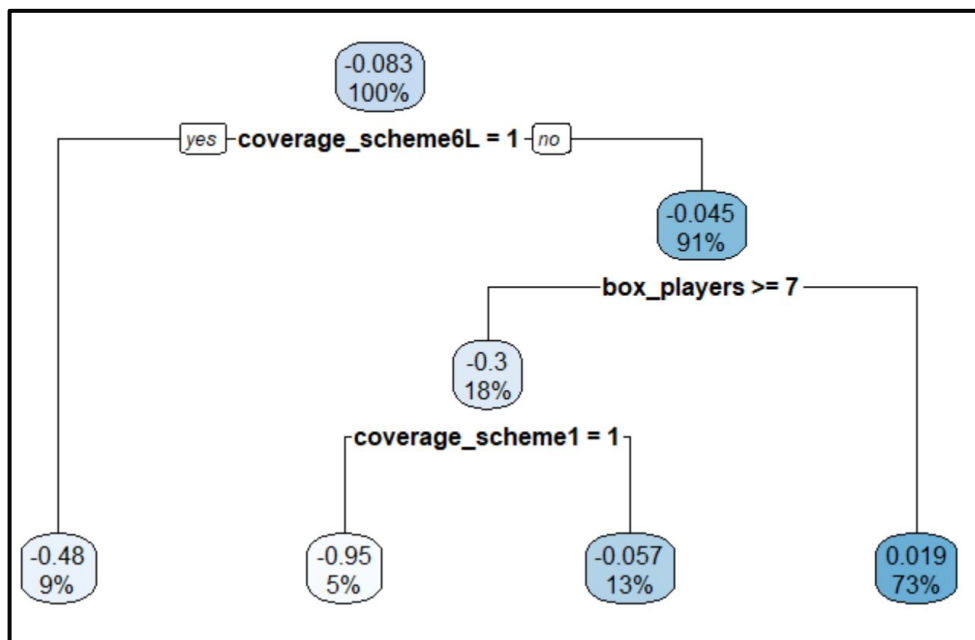
- We chose the **Los Angeles Rams** and the **New Orleans Saints** as our two defenses
 - Lowest mean EPA against 3-0-1-1 (offensive formation that Chiefs run most frequently)

Defense	Mean EPA against 3-0-1-1
CAR	0.0166
IND	0.027
LA	-0.089
MIA	0.0135
MIN	0.0028
NE	-0.0198
NO	-0.117
SEA	0.052
SF	-0.014
TB	-0.0243



Situation 1

Situation 1 (starting a game): 15:00 left in the 1st Quarter with 1st and 10 on the Chiefs 25-yard line with the Chiefs in 11 personnel (3-0-1-1)



Decision tree for Chiefs offense, Rams/Saints defense against 3-0-1-1 offensive personnel in this game situation. Data pulled from first down plays that take place in first and second quarter between offensive teams' 10 and 50 yard lines



Situation 1



Personnel: 3/3/05

Pass Rushers: 5

Coverage: Cover 3

Box Players: 6

12 observations

Mean EPA = -0.16

Personnel: 4/2/05

Pass Rushers: 4

Coverage: Cover 1

Box Players: 6

11 observations

Mean EPA = -0.16

The number of box players partially came from our decision tree ← in this scheme/game situation, the Chiefs run approximately 30% of the time, and we believe this number of box players will prepare both teams for passing and runs



Situation 2



Personnel: 4/2/05

Pass Rushers: 8

Coverage: Cover 1, man to man outside

Defense Personnel	Mean EPA	Count
2/4/05	-0.858	3
3/3/05	0.347	8
3/4/04	0.548	2
4/2/05	-1.80	3

Personnel: 4/2/05

Pass Rushers: 8

Coverage: Cover 1, closed MOFO

7 observations

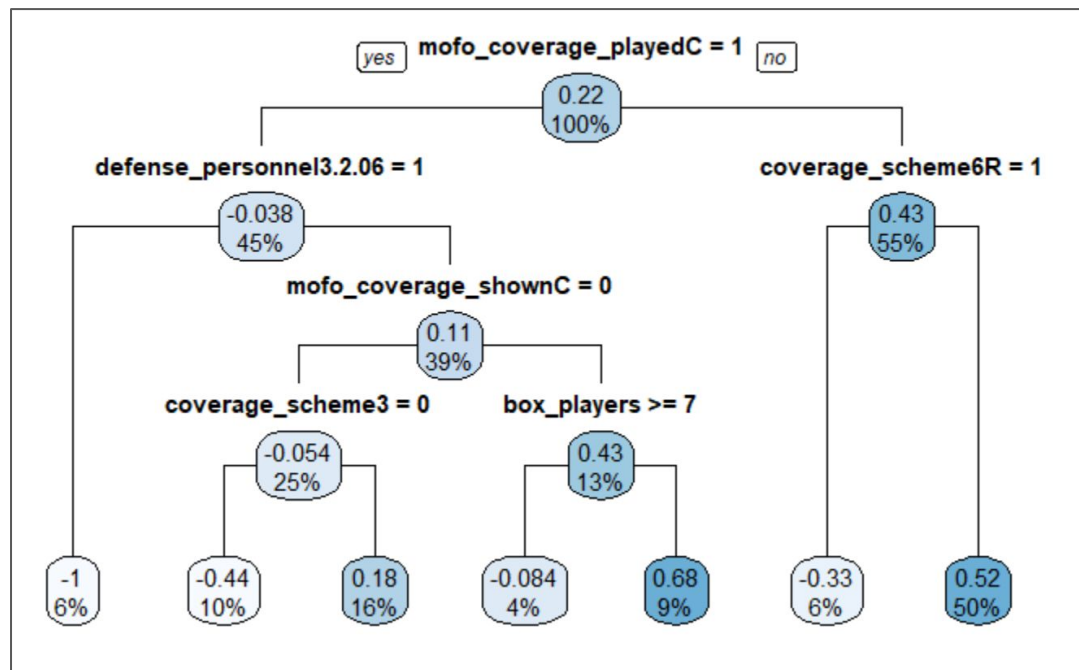
Mean EPA = -0.275

Situation 2 (4th and short): 10:44 left in the 2nd Quarter with 4th and 2 on the 50-yard line with the Chiefs in 12 personnel (1 running back, 2 tight ends, and 2 wide receivers)



Situation 3

Situation 3 (two-minute drill):
1:36 left in the 2nd Quarter
with 2nd and 9 on the Chiefs
40-yard line with the Chiefs
in 11 personnel (1 running
back, 1 tight end, and 3 wide
receivers)



For this decision tree, we only included pass plays, plays with the Chiefs as the possession team, Rams/Saints as the defense, 2nd/3rd down plays, and plays within the last three minutes of the second quarter



Situation 3



Coverage shown: Center open

Coverage played: Center closed

Personnel: 2/3/06

Pass Rushers: 4

Coverage: Cover 6

12 observations

Mean EPA = -0.16

Coverage shown: Center open

Coverage played: Center closed

Personnel: 3/2/06

Pass Rushers: 4

Coverage: Cover 1

14 observations

Mean EPA = -0.72

In this situation, it's imperative that we cover passing plays (offenses in our filtered dataset for this situation run only 13% of the time).



Situation 4

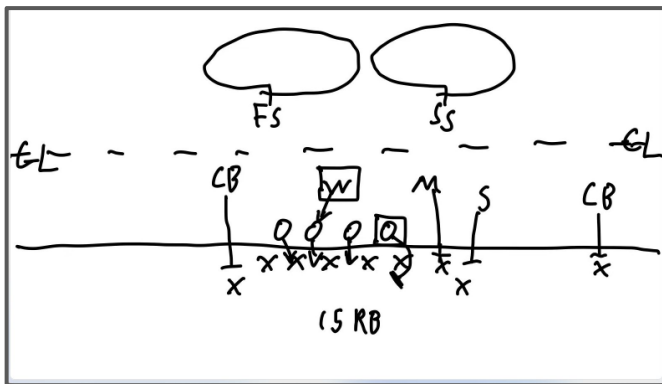
Shotgun

Personnel: 4/3/04

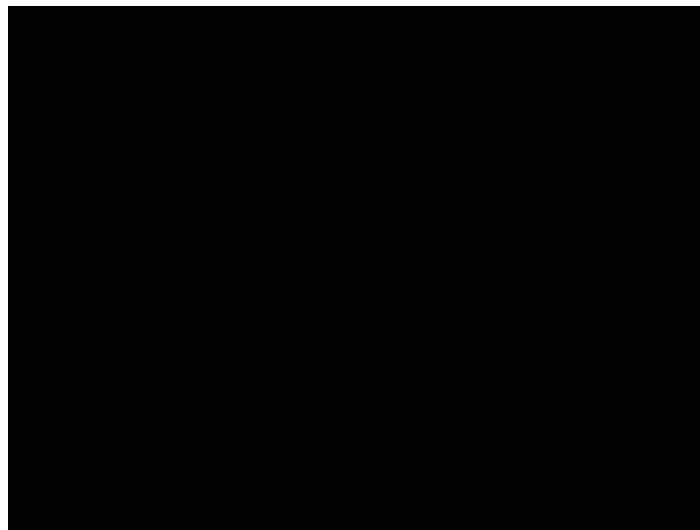
Pass rushers: 4

Coverage: Cover 2 “pinch”

Close the MOFO!



Situation 4 (goal line): 8:12 left in the 3rd Quarter with 3rd and Goal on your teams 2- yard line with the Chiefs in 13 personnel (1 running back, 3 tight ends, and 1 wide receiver)





Under Center

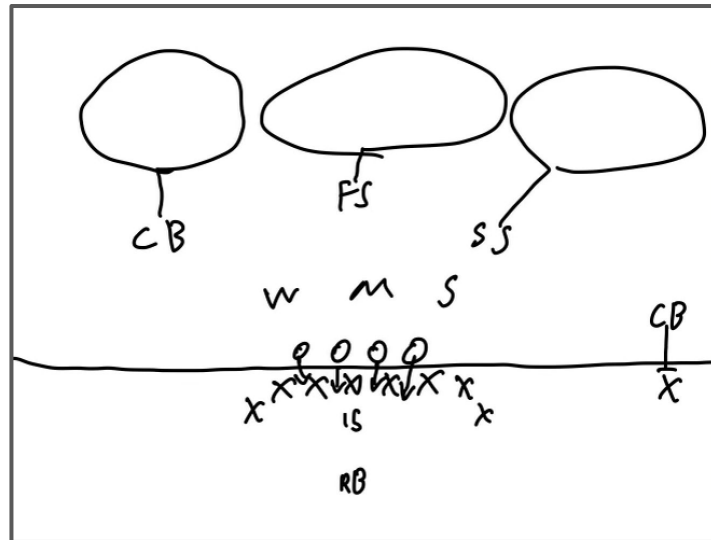
Under center:

Personnel: 4/3/04

Pass rushers: 4

Box players: 8

Coverage: Cover 3, man on outside





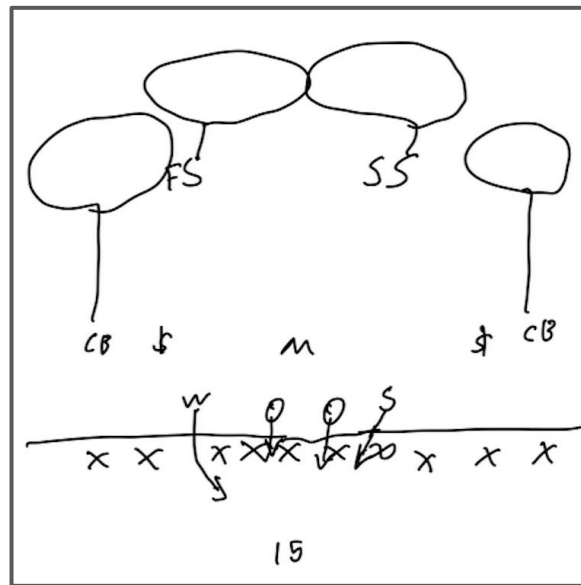
Defense 1: Situation 5

Situation 5 (game winning drive opportunity): 0:54 left in the 4th Quarter with 1st and 10 on the Chiefs 25-yard line – no timeouts – the score is tied with the Chiefs in 01 personnel (0 running backs, 1 tight end, and 4 wide receivers)

Personnel: 2/3/06

Pass Rushers: 4

Coverage: Cover 4



Coverage Scheme	Mean EPA	Count
3	-0.141	3
4	-0.891	4
6	2.41	2

Defense Personnel	Mean EPA	Count
2/3/06	0.0917	9
3/2/06	0.432	1



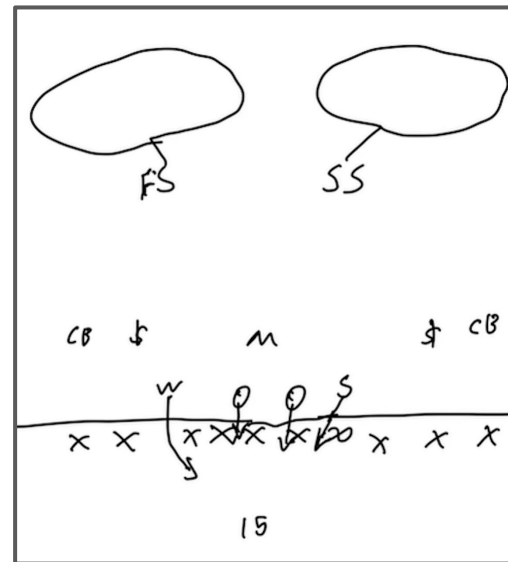
Defense 2: Situation 5

Personnel: 2/3/06

Pass Rushers: 4

Coverage: Cover 2

Coverage Scheme	Mean EPA	Count
1	3.31	2
2	-2.14	1
B	-1.38	1



# of Pass Rush Players	Mean EPA	Count
4	0.602	2
5	4.04	1



Thank you!!!