



vs



2023-2024  
**Big Game Breakdown**

Presented by



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# How Did We Get Here?

## San Francisco 49ers

The San Francisco 49ers entered the 2023-2024 season as the second most likely team to win the NFC according to most books. This was after the 49ers spun out in the previous NFC Championship Game when an injury to their starting quarterback's elbow dominoed to a loss. That quarterback, Brock Purdy, had a complete tear in his UCL and no one was sure of his status for the regular season opener. This is not to mention that Purdy repeating his surprise rookie season success was hardly seen as a sure thing.

To be one of the two favorites to win your conference despite no one knowing who your starting quarterback will be is a testament to the rest of your roster and your head coach. Kyle Shanahan has established himself as one of the league's best offensive minds and other teams continue to look for people who share his philosophies. Shanahan and General Manager John Lynch have constructed a tremendous roster. The 49ers have what is likely the best five player skill position group in the league in Brandon Aiyuk, Deebo Samuel, George Kittle, Christian McCaffrey, and Kyle Juszczyk.

The unexpected part of this season for the 49ers has been the level of Brock Purdy's on-field success. Purdy is a bit unique considering the long line of quarterbacks that have found themselves in Shanahan's offenses. He is more willing to color outside the lines and escape the pocket to extend plays. He executes the offense as it is intended to be but introduces another element that Shanahan cannot always plan for. Purdy has had lows this season but has also had eye popping plays and throws that simply were not present on film last year.

Despite the strongest collection of skill position players Shanahan has had (not to mention a true offensive playmaker in Trent Williams) and a strong defense anchored by an intimidating pass rush and Fred Warner, the 49ers stumbled in the middle of the season. After coming out of the starting gate 5-0, the 49ers lost to the Browns, Vikings, and Bengals in successive weeks. At 5-3 heading into the bye week, the 49ers were injured at multiple key positions and the fragility of an NFL roster came to light.

What happened through the rest of the season, though, was an emphatic march through the conference as the 49ers finished the year with the #1 seed, a bye week, and a presumptive date with destiny. Two tight comeback wins against the Packers and Lions brought San Francisco to this moment: another moment for Kyle Shanahan against Andy Reid on the game's biggest stage.

# How Did We Get Here?

## Kansas City Chiefs

On the eve of the 2023-2024 NFL season, the Kansas City Chiefs were the odds-on favorite to return to the Super Bowl. Fresh off another championship win, Patrick Mahomes and Andy Reid were poised to continue an already stellar run.

But the NFL is not meant to foster dynasties.

The salary cap, expiring contracts, and player movement all led to atrophy for a Chiefs offense that had a shallow wide receiver room and two new offensive tackles. Still, with Patrick Mahomes and Travis Kelce on the roster, there were not many reasons to doubt this juggernaut.

The season, however, gave us plenty of reasons to mull over our preseason expectations. Losing the opening game of the season was the start of a series of scratches on the Chiefs' red and yellow armor. Doubts quickly crept in about a young pass catching core that was not on the same timeline as a player who would likely make the Hall of Fame today in Mahomes. Drops and miscommunications led to losses in key moments as the team conceded surprising games to the Broncos and Raiders in the AFC West. The season ended with the Chiefs securing the 3rd seed, which meant Patrick Mahomes would finally have to play a road playoff game.

This did nothing to deter another Super Bowl run as the Chiefs defense continued their high-level play that was present throughout the regular season. A versatile defensive back room has been a weapon for Steve Spagnuolo, an underappreciated defensive coordinator for far too long. Spagnuolo's defense led the way for this Chiefs team and was palpable in the AFC Championship Game where Kansas City's offense scored zero second half points. Patrick Mahomes notched road playoff wins, Travis Kelce looked the healthiest he has in months, and Chris Jones is once again closing playoff games. Even in the NFL's constantly changing landscape, the Patrick Mahomes led Chiefs are once again vying to be the last team standing.

Both the Chiefs and 49ers rode the roller coaster of the NFL calendar and are still playing in February. One team will be crowned champion, but both teams had impressive seasons. Both overcame questions on offense. Both hit rough spots and faced upset losses. Both won close playoff games.

Above all, both of these teams earned their tickets to Las Vegas.



## Offense vs Defense

### EPA

/Play	0.18	1ST
/Pass	0.29	1ST
/Rush	0.04	1ST



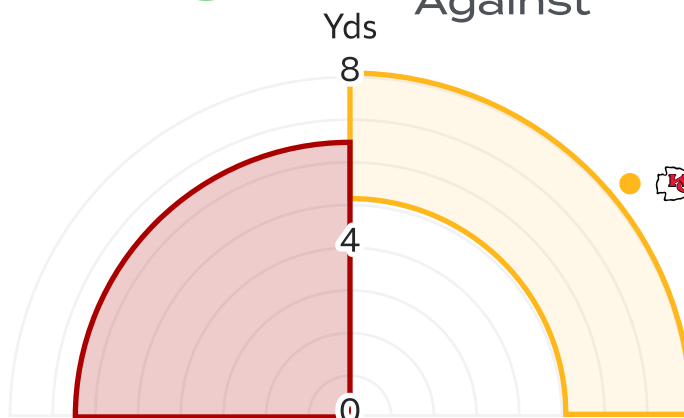
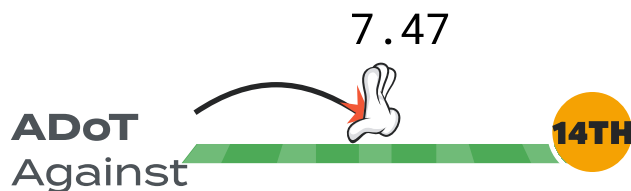
The 49ers offense doesn't really have a weakness ranking 1st in both EPA/pass and EPA/rush. They are able to mix down to down consistency with explosiveness.

The Chiefs defense has played well for most of the season, but their toughest matchup of the year will be in their final game. They are great against the pass but leaky against the run.

### EPA Allowed



/Play	-0.07	5TH
/Pass	-0.10	4TH
/Rush	-0.02	28TH



## THOMAS DIMITROFF

CEO & Former NFL GM

“ The 49ers and the Chiefs show that you can win through multiple team building strategies. What John Lynch and Brett Veach have been able to do since they last met in 2019 has been the pinnacle of the league, so there's no surprise they are in SBLVIII. ”



## Pass Rusher Breakdown

### Offense

Pressure % Allowed	21.1%	9TH
Blitz EPA/Play	0.42	1ST
Non-Blitz EPA/Play	0.22	2ND

### Defense

Pressure %	29.2%	2ND
Blitz Rate	31.7%	6TH

### Offensive Performance

# of Rushers	3 or less		4		5		6 or more	
Usage	5.7%	4TH	65.5%	26TH	23.9%	2ND	4.9%	27TH
EPA	0.61	1ST	0.21	2ND	0.35	1ST	0.38	4TH
Pressure %	20.0%	17TH	26.7%	20TH	31.8%	16TH	43.3%	20TH
Sack %	2.9%	13TH	6.2%	16TH	6.1%	12TH	6.7%	10TH

### Defensive Performance

# of Rushers	3 or less		4		5		6 or more	
Usage	5.8%	7TH	67.6%	27TH	19.3%	16TH	7.3%	8TH
EPA Allowed	-0.15	12TH	-0.09	5TH	-0.05	13TH	-0.48	8TH
Pressure %	17.8%	17TH	25.7%	9TH	31.1%	20TH	36.8%	22ND
Sack %	4.4%	12TH	8.1%	1ST	8.6%	9TH	8.8%	22ND



**SEAN CLEMENT**  
VP of Football Analytics

“ KC's defense has been good all year except for against the run, and their star pass rusher Chris Jones has really struggled this year in that area as well. If they can stop the ground game and force Purdy into a shootout versus Mahomes they'll come away with a win. ”



## Top Personnel

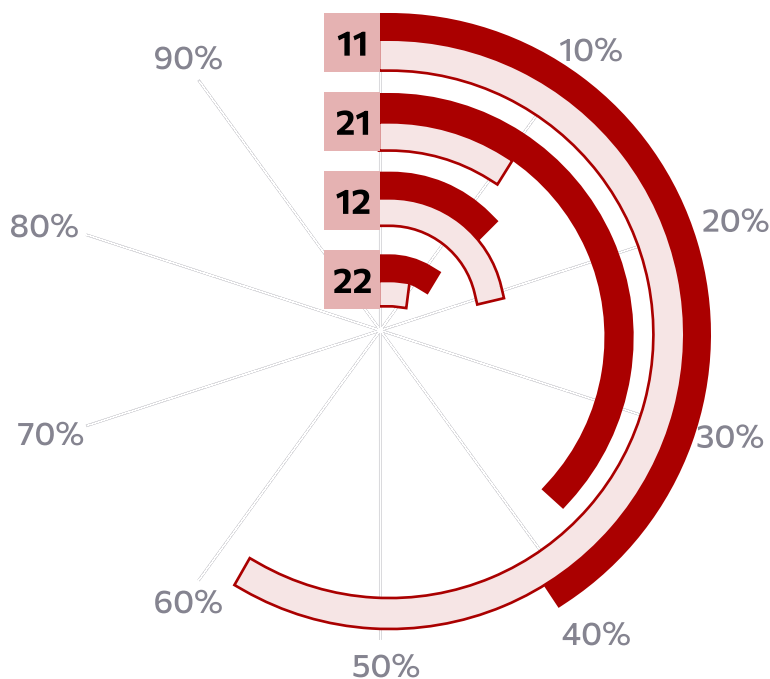
The 49ers are one of the most personnel diverse teams in the NFL.

They will likely play the most 21 personnel (two running backs, one tight end) that the Chiefs have seen all year. The Chiefs defense hasn't been as effective against 21 personnel as they have been against other groupings.

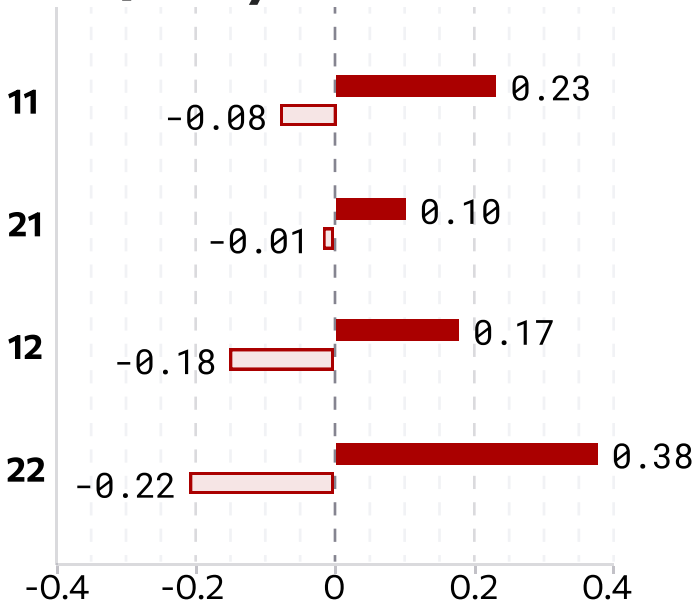
The 49ers will also occasionally get into 22 personnel, and it is more uncertain how the Chiefs will defend against it.

● Personnel ○ Personnel Against

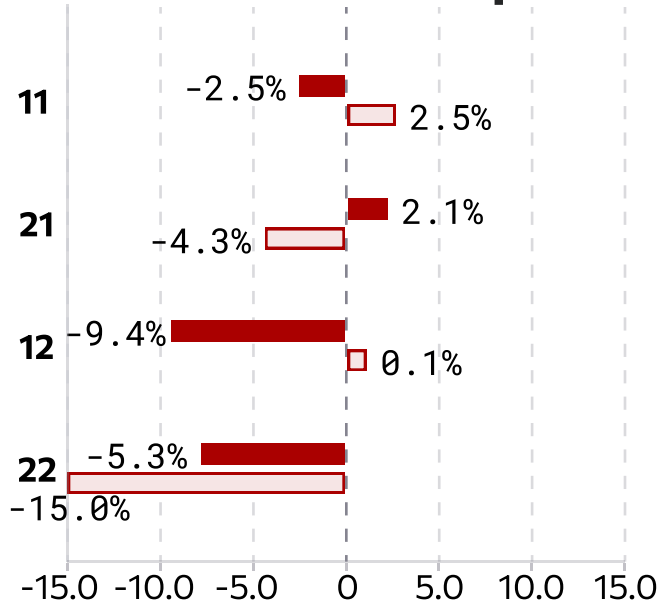
## Usage



## EPA/Play



## Pass Rate Over Expected



Note: **Positive** numbers favor offense, while **negative** numbers favor defense.



## Coverage Breakdown

The Chiefs play a lot of Cover 2 and Cover 2 Man relative to league average. The 49ers offense has been very efficiency against practically every coverage they've seen this year.

### Defensive Performance

	Frequency		EPA Allowed		Success %		Most Vulnerable Route
Cover 1	32.9%	20TH	-0.16	2ND	39.0%	3RD	Drag
Cover 2	24.0%	3RD	-0.12	5TH	36.6%	3RD	Slant
Cover 2 Man	14.2%	2ND	-0.15	8TH	39.8%	9TH	Curl
Cover 4	11.5%	21ST	-0.08	11TH	38.6%	7TH	Swing
Cover 3	6.7%	32ND	0.10	21ST	54.9%	29TH	Curl

### Offensive Performance

	Frequency		EPA		Success %		Most Popular Route
Cover 1	35.1%	17TH	0.40	2ND	56.1%	2ND	Quick Out
Cover 2	16.7%	17TH	0.23	5TH	54.9%	4TH	Post
Cover 2 Man	4.4%	27TH	0.52	1ST	63.0%	2ND	Screen
Cover 4	9.2%	31ST	0.23	3RD	53.6%	4TH	Curl
Cover 3	25.9%	3RD	0.13	11TH	48.1%	18TH	Drag



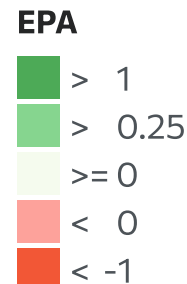
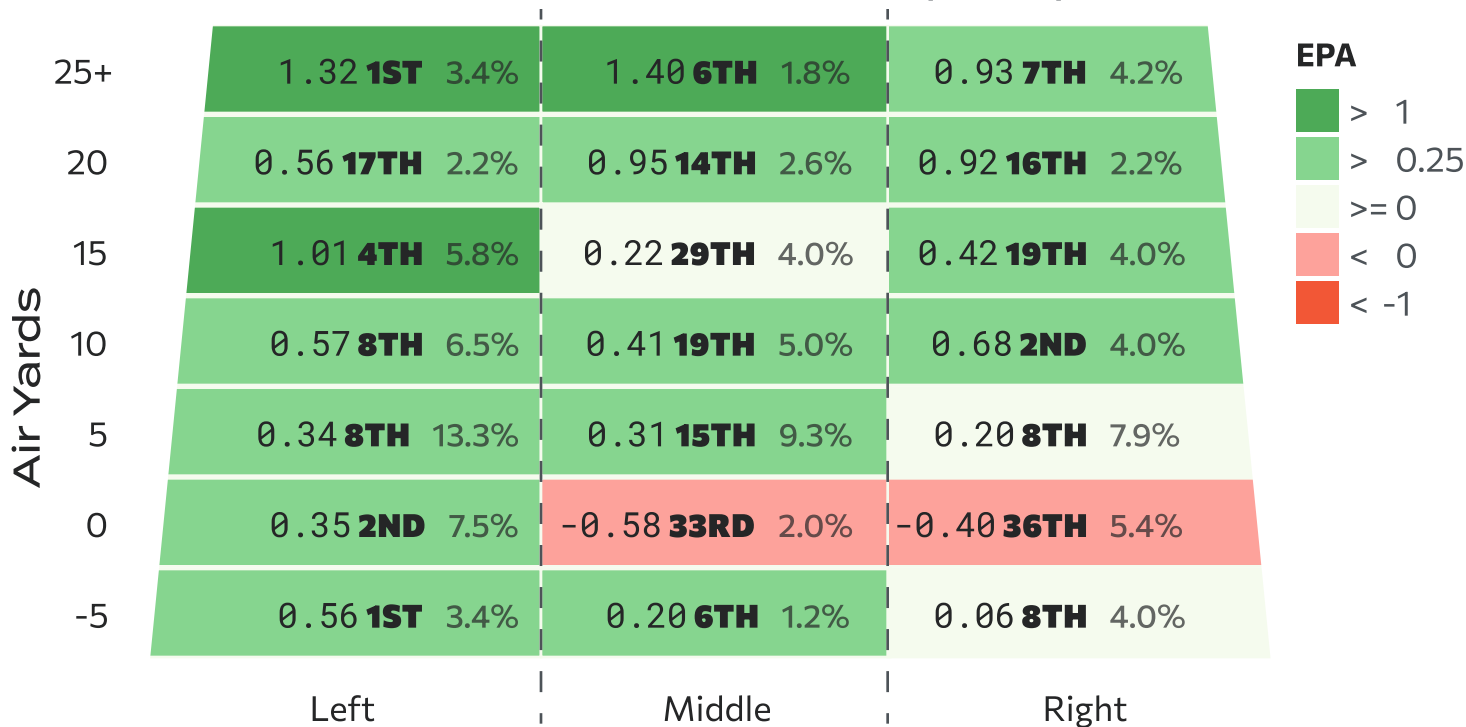
**SEAN CLEMENT**  
VP of Football Analytics

“ The 49ers might be matchup nightmare for the KC Defense. The Chiefs are going to need a classic Mahomes performance to come away with a win here. The 49ers could sit back and feed CMC right into a Super Bowl MVP and never test the vaunted Chiefs secondary that plagued Lamar Jackson. ”

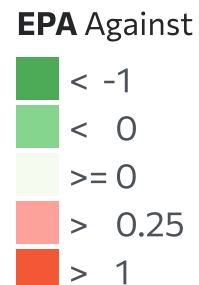
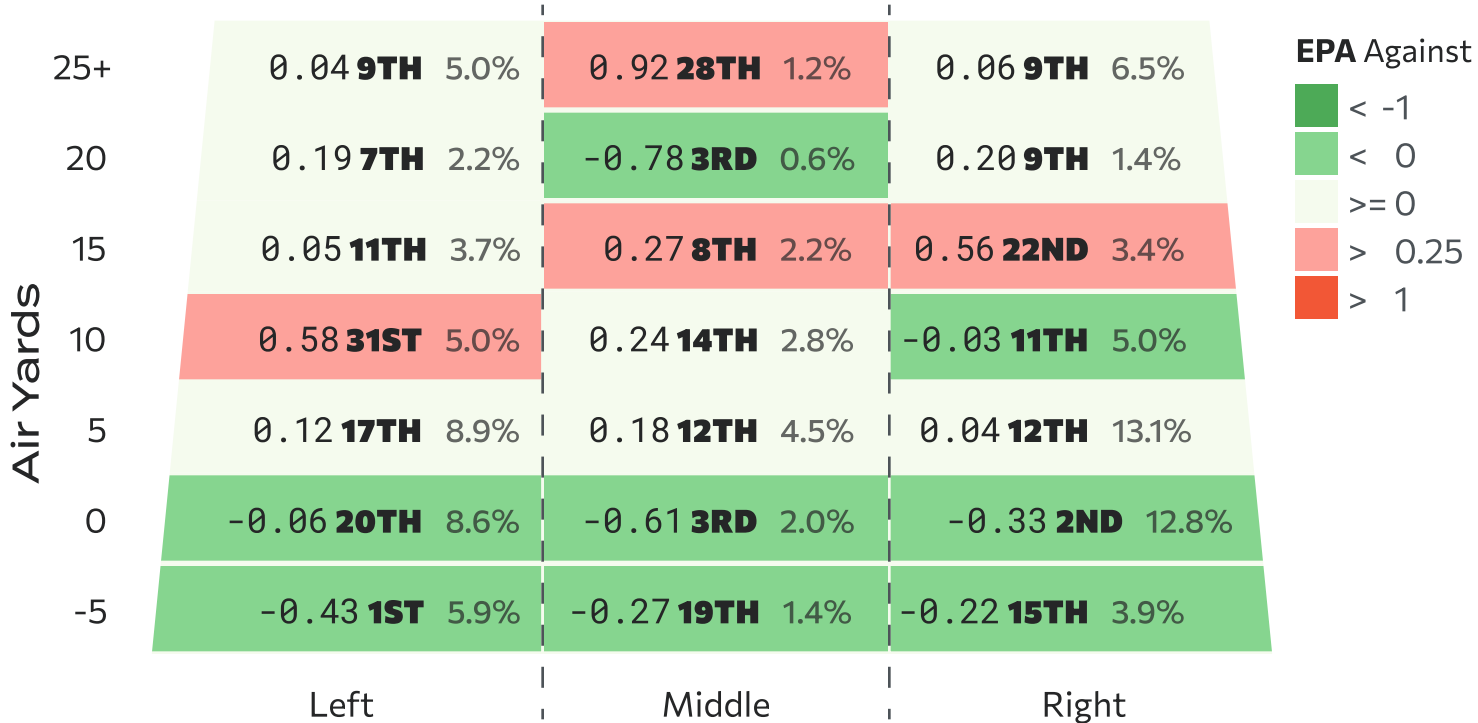




## Passing Production EPA/Pass, Rank, and Frequency



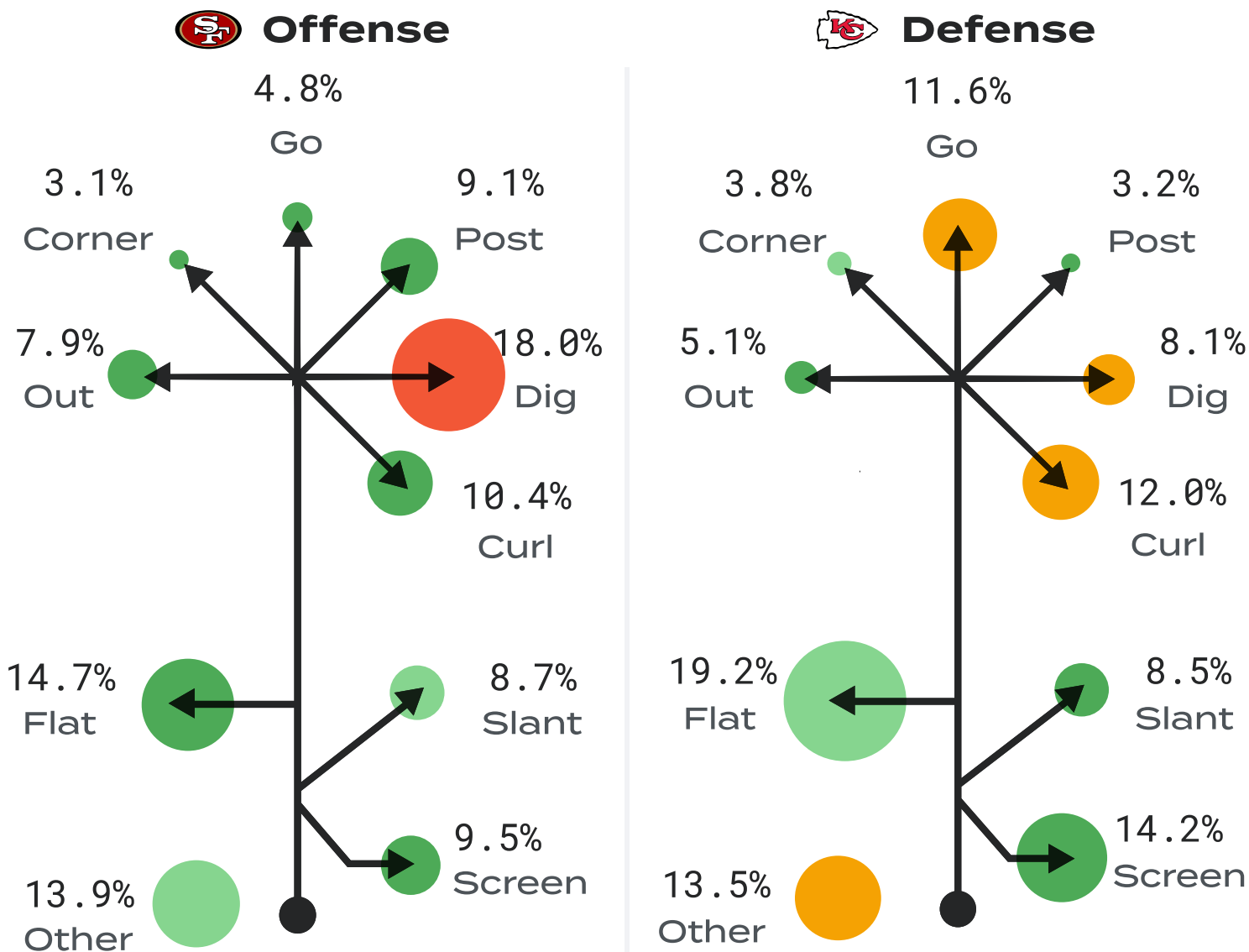
## Passing Production Against EPA/Pass Against, Rank, and Frequency





## Route Tree

The 49ers route tree is effective at almost every spot. The Chiefs defense defends short passes well and will look to continue that in this game.



### EPA vs League



### Frequency





## Light Boxes vs Heavy Boxes

The Christian McCaffrey effect means the 49ers see heavy boxes frequently and still take advantage of them. The Chiefs will have to stick to limiting explosives.

### Offensive Performance

Light Box		
Frequency %	34.0%	28TH
Yds/Carry	5.42	2ND
EPA/Rush	0.01	7TH
Success %	44.3%	7TH
Explosive %	10.8%	2ND
TFL %	7.4%	12TH

Heavy Box		
Frequency %	66.0%	4TH
Yds/Carry	4.47	3RD
EPA/Rush	0.06	1ST
Success %	48.4%	1ST
Explosive %	10.0%	2ND
TFL %	9.4%	11TH

### Defensive Performance

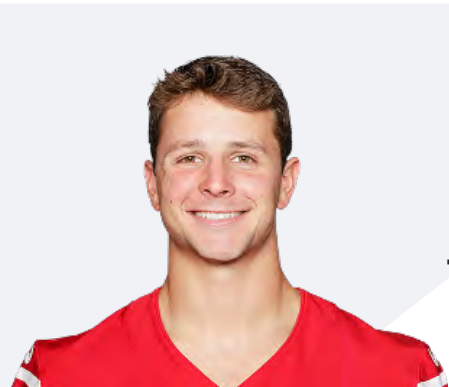
Light Box		
Frequency %	39.8%	22ND
Yds/Carry	4.93	28TH
EPA/Rush	0.04	32ND
Success %	50.3%	32ND
Explosive %	7.8%	14TH
TFL %	7.3%	24TH

Heavy Box		
Frequency %	60.2%	10TH
Yds/Carry	3.83	19TH
EPA/Rush	-0.06	22ND
Success %	36.2%	8TH
Explosive %	5.5%	10TH
TFL %	8.9%	20TH



## Quarterback Breakdown

Brock Purdy has checked all of the efficiency boxes this season. He ranked 1st in EPA/play, 1st in yards per attempt, and has been able to avoid sacks and scramble more often than previous quarterbacks under Kyle Shanahan.



**BROCK PURDY**  
#13

EPA/Play	0.30	QB1
Completion %	68.3%	QB5
Catchable Pass Rate	62%	QB11
Yards Per Attempt	9.34	QB1
Pressure To Sack %	19.6%	QB7
Scramble %	3.9%	QB25

## Rusher Breakdown

Christian McCaffrey was arguably the league's best running back this season. He is both an efficient runner and a true home run threat.

**CHRISTIAN MCCAFFREY**  
#23



61.3%	Rushing Share	15.7%		
RB3	5.33	Yds/Carry	3.65	RB50
RB6	0.07	EPA/Rush	-0.16	RB47
RB3	47.9%	Success %	39.2%	RB29
RB2	12.0%	Explosive %	6.3%	RB40
RB24	8.7%	TFL %	8.9%	RB25
RB3	3.18	Yds After Contact	2.51	RB28

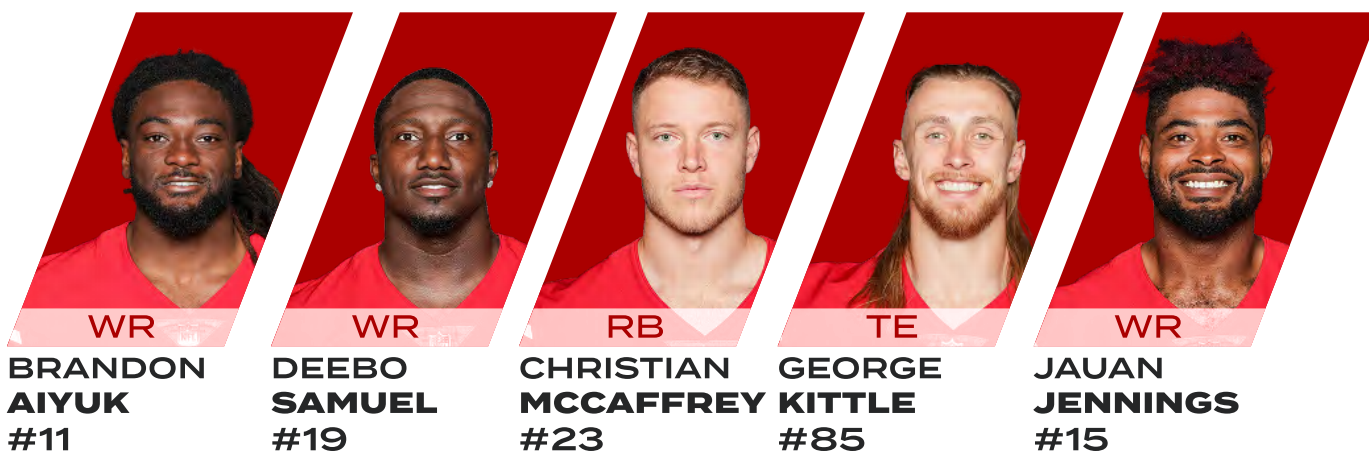
**ELIJAH MITCHELL**  
#25





## Pass Catcher Breakdown

Brandon Aiyuk continues to ascend in the playoffs as the #1 receiving option in this offense while Christian McCaffrey and George Kittle are highly effective when targeted compared to others at their positions.



	Target Share	Yards/Game	YPRR	when targeted		Most Popular Route
				EPA/ Game	Avg Separation	
<b>Brandon Aiyuk</b> WR	22.2 <b>WR23</b>	80.1 <b>WR11</b>	2.78 <b>WR3</b>	4.87 <b>WR3</b>	1.44 <b>WR15</b>	In 24.4%
<b>Deebo Samuel</b> WR	18.6 <b>WR32</b>	59.1 <b>WR29</b>	2.31 <b>WR10</b>	2.63 <b>WR21</b>	1.38 <b>WR22</b>	In 22.6%
<b>Christian McCaffrey</b> RB	18.6 <b>RB1</b>	35.3 <b>RB2</b>	1.34 <b>RB8</b>	0.19 <b>RB10</b>	1.78 <b>RB33</b>	Quick Out 20.6%
<b>George Kittle</b> TE	18.6 <b>TE8</b>	62.7 <b>TE3</b>	2.13 <b>TE1</b>	3.70 <b>TE2</b>	1.60 <b>TE6</b>	Quick Out 22.1%
<b>Jauan Jennings</b> WR	7.6 <b>WR89</b>	23.9 <b>WR98</b>	1.19 <b>WR72</b>	0.89 <b>WR62</b>	1.30 <b>WR34</b>	Quick Out 22.5%



## Offense vs Defense

### EPA

/Play	0.03	10TH
/Pass	0.11	9TH
/Rush	-0.13	21ST

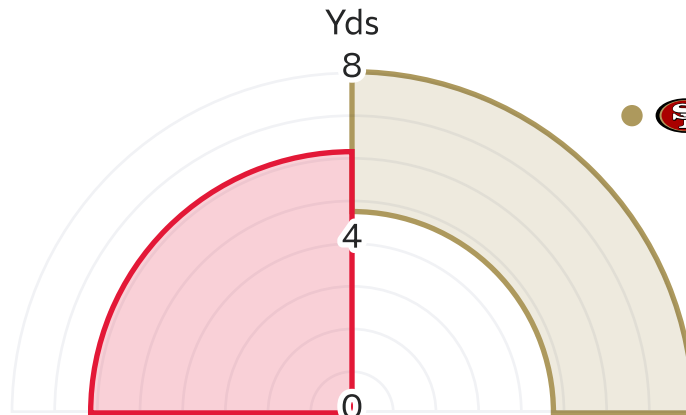
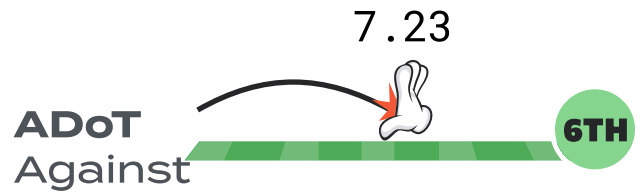
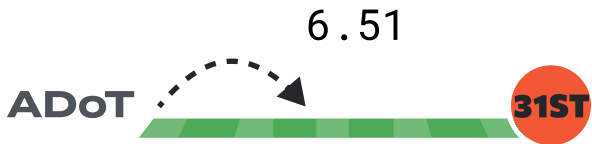


The Chiefs offense has played at a high level in the playoffs, reaching top 10 in both EPA/play and EPA/pass.

The 49ers defense has been great against the pass, but they have struggled against the run. The Chiefs hope they have the rush offense to take advantage on the ground.

### EPA Allowed

/Play	-0.04	13TH
/Pass	-0.04	5TH
/Rush	-0.04	25TH





## Pass Rusher Breakdown



### Offense

Pressure % Allowed	14.1%	<b>2ND</b>
Blitz EPA/Play	0.01	<b>19TH</b>
Non-Blitz EPA/Play	0.12	<b>9TH</b>



### Defense

Pressure %	22.5%	<b>26TH</b>
Blitz Rate	19.8%	<b>30TH</b>



## Offensive Performance

# of Rushers	3 or less		4		5		6 or more	
Usage	3.7%	<b>22ND</b>	77.1%	<b>4TH</b>	13.9%	<b>30TH</b>	5.2%	<b>22ND</b>
EPA	-0.06	<b>18TH</b>	0.14	<b>7TH</b>	-0.13	<b>26TH</b>	0.27	<b>6TH</b>
Pressure %	19.4%	<b>16TH</b>	24.3%	<b>16TH</b>	27.8%	<b>8TH</b>	27.9%	<b>5TH</b>
Sack %	3.2%	<b>14TH</b>	3.8%	<b>3RD</b>	2.6%	<b>2ND</b>	4.7%	<b>6TH</b>



## Defensive Performance

# of Rushers	3 or less		4		5		6 or more	
Usage	1.8%	<b>28TH</b>	79.1%	<b>4TH</b>	14.5%	<b>25TH</b>	4.6%	<b>23RD</b>
EPA Allowed	-0.54	<b>2ND</b>	-0.07	<b>7TH</b>	0.06	<b>19TH</b>	-0.53	<b>6TH</b>
Pressure %	21.4%	<b>14TH</b>	25.1%	<b>15TH</b>	37.7%	<b>7TH</b>	44.4%	<b>6TH</b>
Sack %	21.4%	<b>1ST</b>	5.6%	<b>23RD</b>	7.0%	<b>20TH</b>	11.1%	<b>17TH</b>

“ The Chiefs receiving corps has faced (and earned) a great deal of scorn. In the postseason, they have done their part with the continued emergence of Rashee Rice and the restoration of Marquez Valdes-Scantling. Combined with a rejuvenated Travis Kelce, this presents a challenge to a SF secondary that would have a sizable advantage if the game had been played in the middle of the regular season. ”



**ERIC EAGER**

VP of Research and Development



## Top Personnel

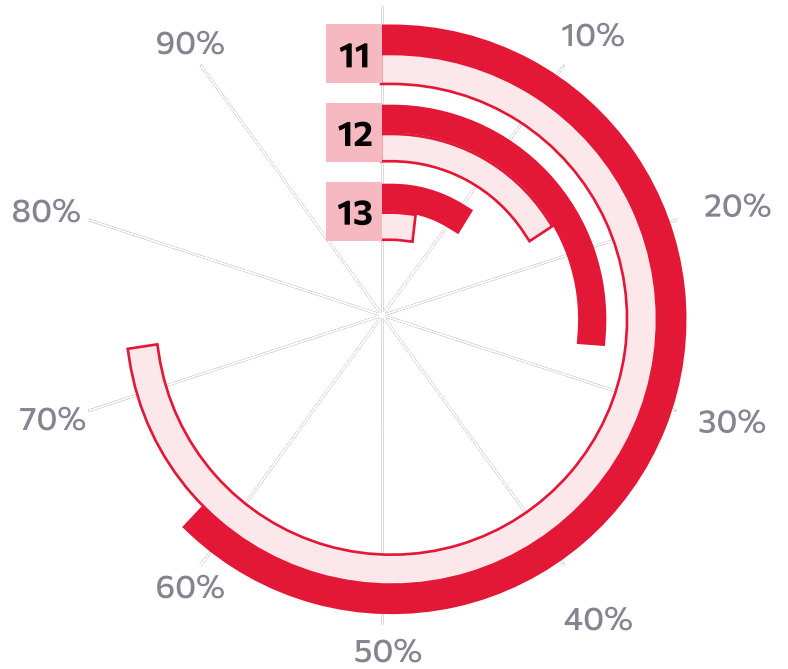
The Chiefs are primarily an 11 personnel team and use it at an about league average rate. They also have a +8.5% Pass Rate Over Expected when using one running back and one tight end.

They use 12 personnel at an above league average rate and pass very well out of it, which should be a difficult matchup for the 49ers.

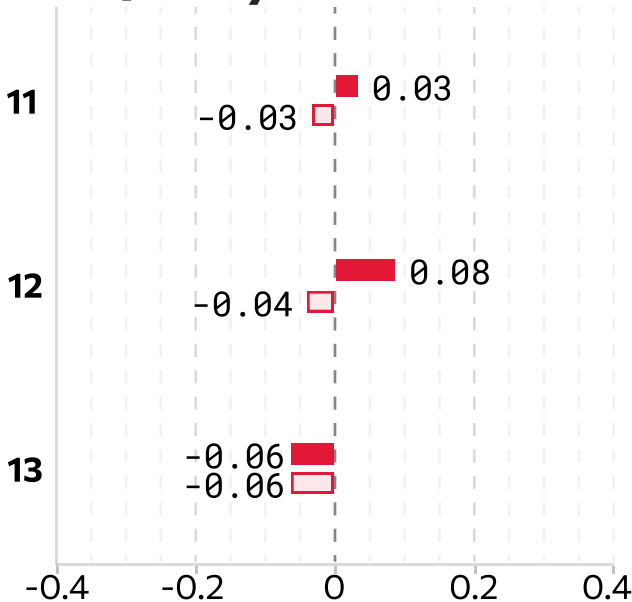
Andy Reid has increased the amount of 13 personnel they've used in the playoffs, and look for them to run frequently when they have three tight ends on the field.

● Personnel ○ Personnel Against

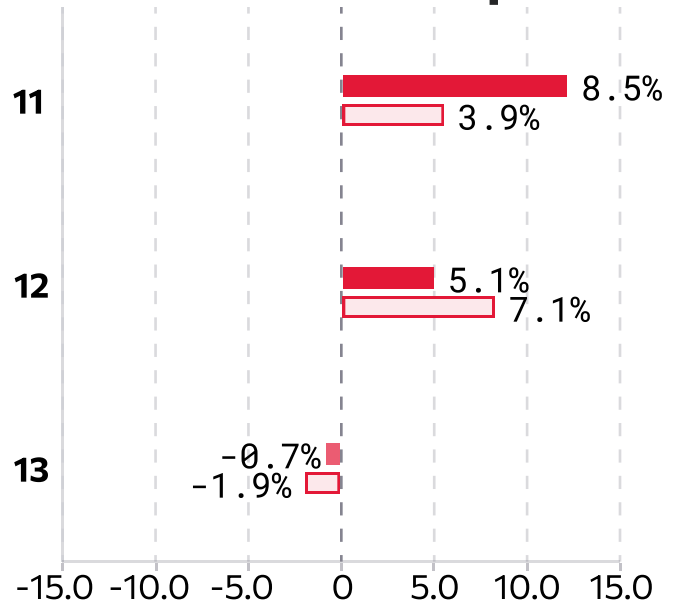
## Usage



## EPA/Play



## Pass Rate Over Expected



Note: **Positive** numbers favor offense, while **negative** numbers favor defense.





## Coverage Breakdown

The 49ers mix up their coverages but are a zone heavy team. The Chiefs have done well against zone coverages like Cover 2, Cover 3, and Cover 4, but are not as good against man coverage.

### Defensive Performance

	Frequency		EPA Allowed		Success %		Most Vulnerable Route
Cover 1	27.6%	<b>27TH</b>	0.04	<b>17TH</b>	46.3%	<b>23RD</b>	In
Cover 3	23.3%	<b>11TH</b>	0.14	<b>23RD</b>	45.4%	<b>8TH</b>	Cur1
Cover 2	18.5%	<b>10TH</b>	-0.14	<b>4TH</b>	38.6%	<b>4TH</b>	Screen
Cover 4	18.5%	<b>3RD</b>	-0.05	<b>13TH</b>	44.1%	<b>18TH</b>	Deep Out
Cover 6	5.5%	<b>14TH</b>	-0.49	<b>2ND</b>	44.2%	<b>14TH</b>	Cur1

### Offensive Performance

	Frequency		EPA		Success %		Most Popular Route
Cover 1	37.4%	<b>12TH</b>	0.03	<b>19TH</b>	45.9%	<b>13TH</b>	Slant
Cover 3	16.3%	<b>26TH</b>	0.14	<b>10TH</b>	49.6%	<b>11TH</b>	Cur1
Cover 2	15.2%	<b>24TH</b>	0.23	<b>6TH</b>	56.5%	<b>1ST</b>	Slant
Cover 4	16.1%	<b>4TH</b>	0.00	<b>17TH</b>	43.5%	<b>16TH</b>	Screen
Cover 6	5.5%	<b>13TH</b>	0.32	<b>5TH</b>	55.6%	<b>3RD</b>	Screen



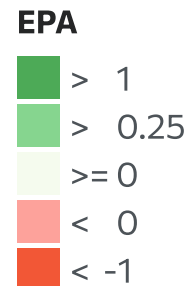
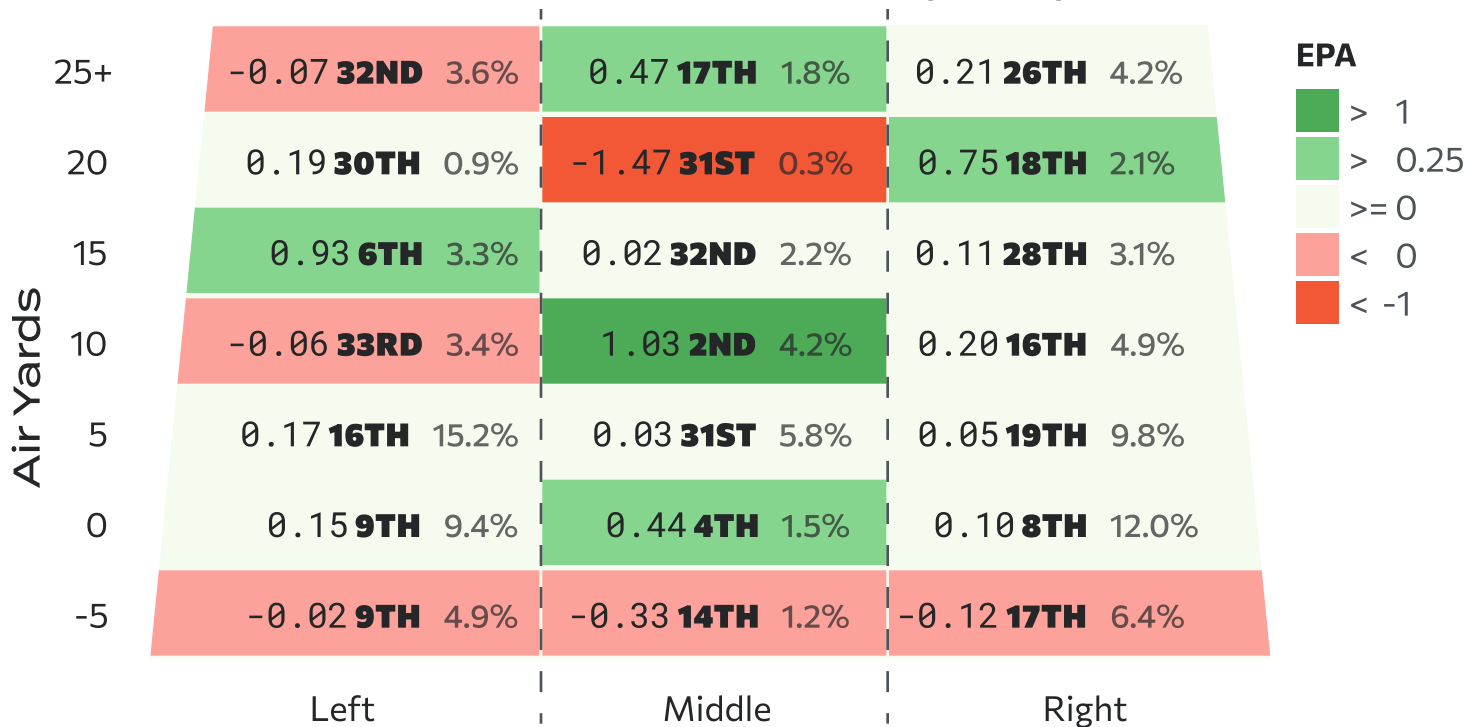
**ERIC EAGER**

VP of Research and Development

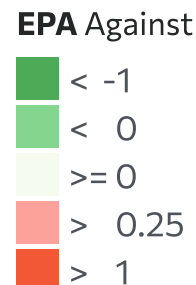
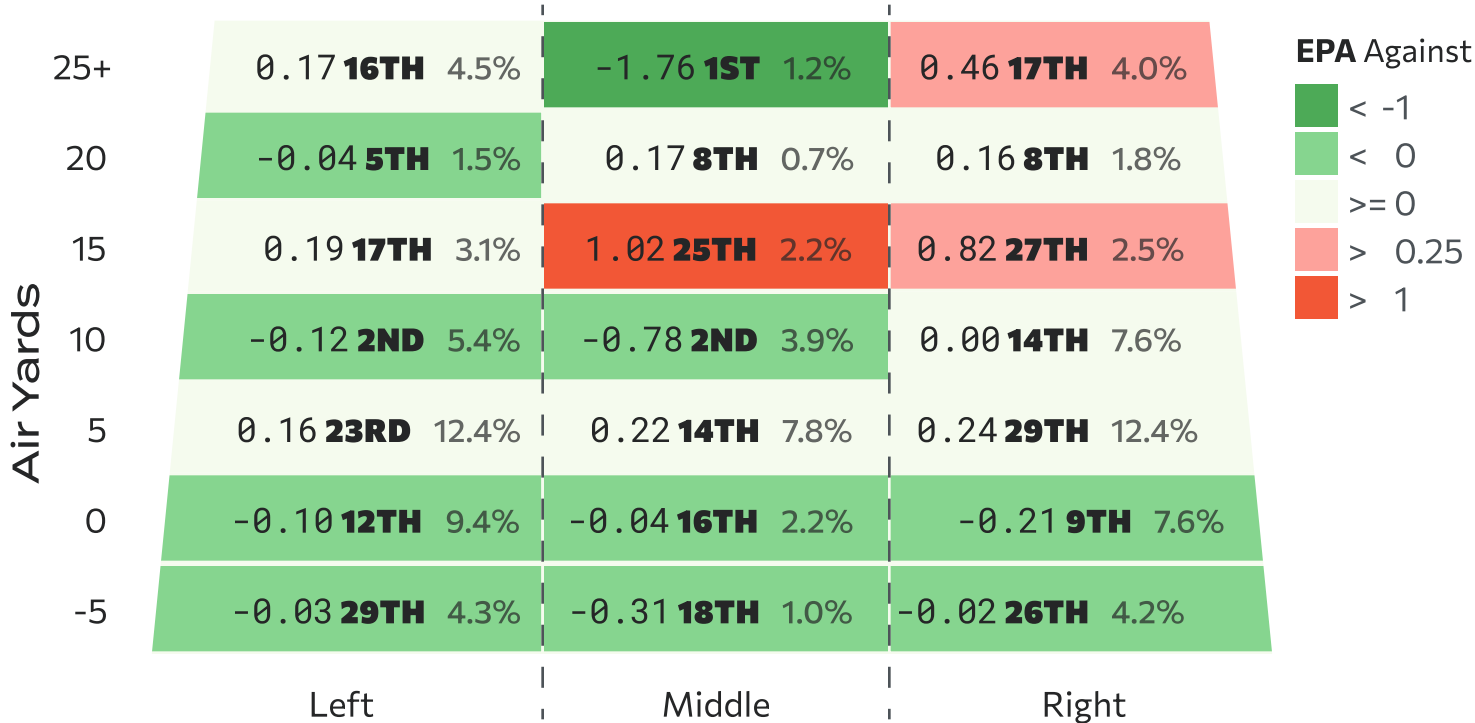
“ Kansas City overhauled their tackle position in 2023, which has increased the pressure on Patrick Mahomes. The 49ers are not as strong defensively as they normally are but have the matchup advantage in this one with Nick Bosa and Arik Armstead, especially if All-Pro guard Joe Thuney is out with a pec injury. ”



## Passing Production EPA/Pass, Rank, and Frequency



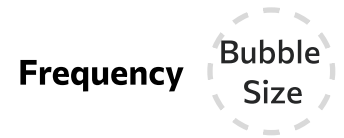
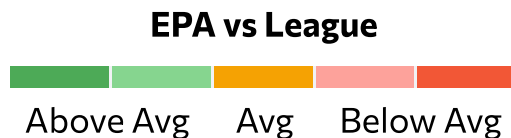
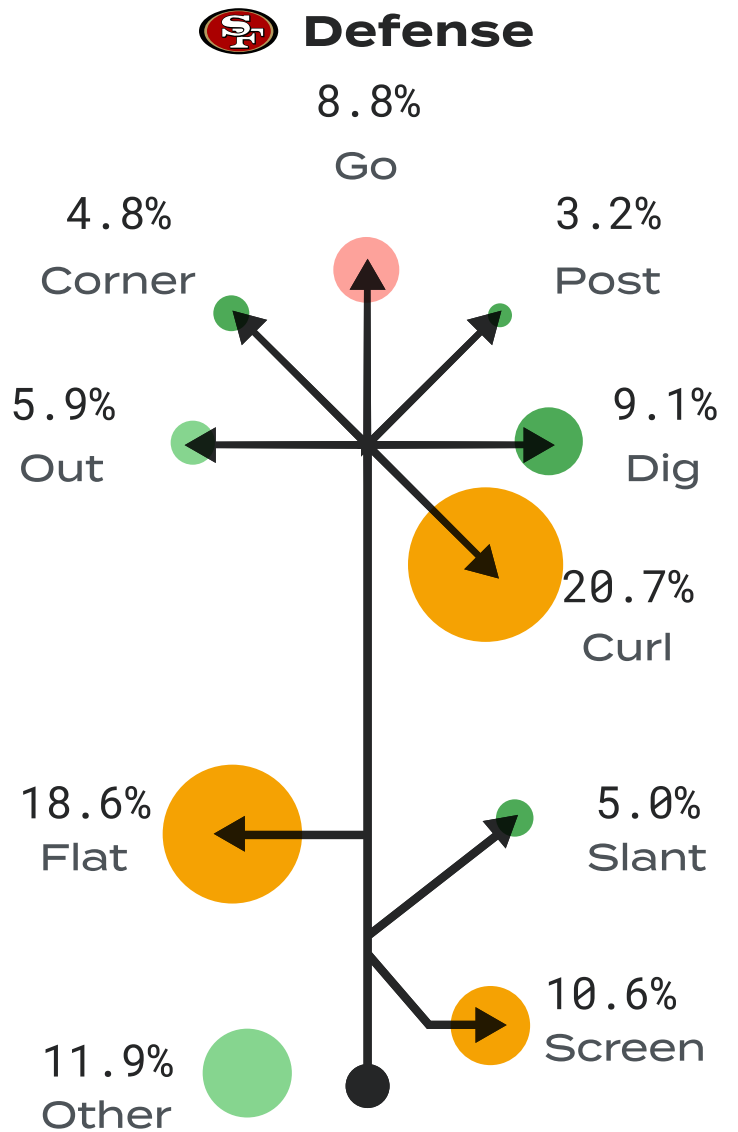
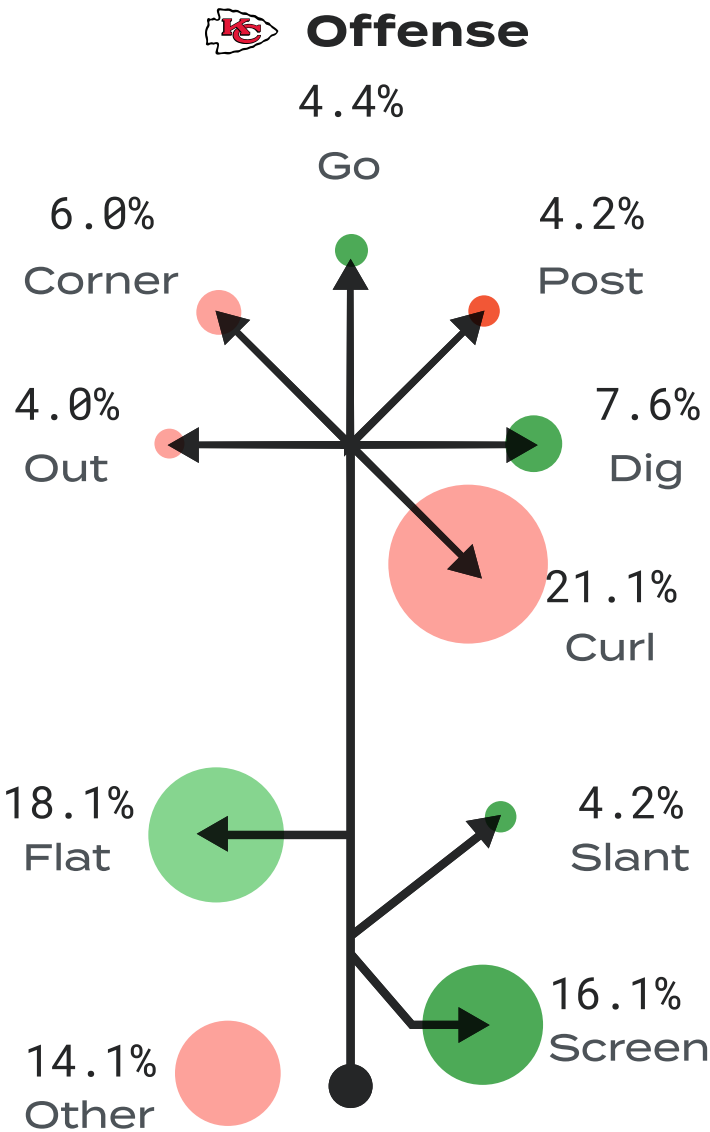
## Passing Production Against EPA/Pass Against, Rank, and Frequency





## Route Tree

The Chiefs have been one of the best teams in the league this year when throwing screens and flat routes, and the 49ers defense has done an average job defending them.





## Light Boxes vs Heavy Boxes

The Chiefs have struggled running against light boxes and have actually been better against heavy boxes this season. The 49ers defense plays a high rate of light boxes.

### Offensive Performance

Light Box		
Frequency %	49.8%	<b>6TH</b>
Yds/Carry	3.60	<b>28TH</b>
EPA/Rush	-0.20	<b>29TH</b>
Success %	28.3%	<b>32ND</b>
Explosive %	4.7%	<b>30TH</b>
TFL %	11.8%	<b>26TH</b>

Heavy Box		
Frequency %	50.2%	<b>26TH</b>
Yds/Carry	4.21	<b>5TH</b>
EPA/Rush	-0.06	<b>10TH</b>
Success %	39.7%	<b>14TH</b>
Explosive %	7.9%	<b>9TH</b>
TFL %	7.0%	<b>3RD</b>

### Defensive Performance

Light Box		
Frequency %	51.3%	<b>7TH</b>
Yds/Carry	4.63	<b>21ST</b>
EPA/Rush	0.04	<b>31ST</b>
Success %	44.7%	<b>28TH</b>
Explosive %	8.5%	<b>22ND</b>
TFL %	8.5%	<b>15TH</b>

Heavy Box		
Frequency %	48.7%	<b>26TH</b>
Yds/Carry	3.74	<b>17TH</b>
EPA/Rush	-0.11	<b>14TH</b>
Success %	40.7%	<b>23RD</b>
Explosive %	7.9%	<b>26TH</b>
TFL %	11.6%	<b>8TH</b>



## Quarterback Breakdown

Despite having a down regular season by his standards, Patrick Mahomes is back in the top 5 in terms of EPA/play and is still one of the best quarterbacks in the league at sack avoidance.



### PATRICK MAHOMES #15

EPA/Play	0.13	QB5
Completion %	67.3%	QB9
Catchable Pass Rate	64%	QB7
Yards Per Attempt	7.0	QB22
Pressure To Sack %	14.1%	QB2
Scramble %	7.3%	QB9

## Rusher Breakdown

Isiah Pacheco is the lead back for the Chiefs, has a low tackle for loss rate, and is strong after contact.

### ISIAH PACHECO #10



64.7%	Rushing Share	19.2%		
RB20	4.44	Yds/Carry	3.45	RB56
RB24	-0.05	EPA/Rush	-0.21	RB56
RB37	38.1%	Success %	26.2%	RB60
RB27	7.1%	Explosive %	7.5%	RB21
RB9	6.7%	TFL %	11.2%	RB51
RB20	2.61	Yds After Contact	1.44	RB60

### CLYDE EDWARDS-HELAIRE #25





## Pass Catcher Breakdown

Travis Kelce and Rashee Rice have separated themselves as the main receiving targets for the Chiefs. While both both rank well in EPA when targeted per game, the Chiefs will need their secondary receiving options to step up.



	Target Share	Yards/Game	YPRR	when targeted		Most Popular Route
				EPA/ Game	Avg Separation	
<b>Travis Kelce</b> TE	21.4 <b>TE3</b>	69.2 <b>TE1</b>	1.97 <b>TE2</b>	4.07 <b>TE1</b>	1.54 <b>TE10</b>	Curl 31.2%
<b>Rashee Rice</b> WR	18.4 <b>WR34</b>	61.1 <b>WR26</b>	2.29 <b>WR11</b>	2.95 <b>WR18</b>	1.54 <b>WR12</b>	Screen 24.2%
<b>Justin Watson</b> WR	8.4 <b>WR85</b>	27.6 <b>WR88</b>	1.19 <b>WR71</b>	0.24 <b>WR81</b>	1.07 <b>WR82</b>	Curl 20.0%
<b>Isiah Pacheco</b> RB	8.0 <b>RB28</b>	15.9 <b>RB26</b>	0.85 <b>RB30</b>	0.10 <b>RB14</b>	1.95 <b>RB21</b>	Screen 35.1%
<b>Marquez Valdes-Scantling</b> WR	7.2 <b>WR93</b>	22.3 <b>WR99</b>	0.80 <b>WR96</b>	0.39 <b>WR76</b>	1.38 <b>WR24</b>	Curl 24.1%

# Biggest Questions

## Is Patrick Mahomes Invincible?

Patrick Mahomes has been so excellent this postseason that it is almost impossible to give him proper praise for his performance. Mahomes flashes on the field with timely scrambles and accurate darts but also avoids sacks even when pressured. This season, only Josh Allen avoided sacks when pressured at a higher rate than Mahomes.

In the playoffs, Patrick Mahomes has had 0 interceptable passes as charted by FTN Data. On top of that, he hadn't taken a sack until the second half of the AFC Championship and has only taken 2 sacks on 40 pressures the entire postseason.

He is not only good at extending plays, but he extends them with a purpose. Mahomes escapes even the best pass rushers with ease and finds ways to get rid of the ball that seem to defy physics. San Francisco may be able to create pressure on the edge in this game, but the more important consideration will be if they can bring the Super Bowl MVP favorite to the ground.

## Which Defensive Line Can Create More Negative Plays in the Run Game?

The 49ers defensive line plays an attacking style that lets them get up the field and into the backfield. This can lead to explosive tackles for loss but may also open lanes for running backs to get through. Against Green Bay and Detroit, San Francisco was beat around the edge as wide receivers pinned down their defensive ends. Still, creating tackles for loss on early downs can be enough for a defense that has struggled at times against the run. Isiah Pacheco is rarely tackled for a loss, though, ranking 9th lowest in runs that result in negative yardage. Forcing the offense into 2nd and 3rd and long allows the pass rush to pin their ears back and try to conquer the unenviable task of sacking Patrick Mahomes.

On the other side of the ball, Kansas City's defense also appears to be mortal in the run game. Chris Jones and George Karlaftis will have to deal with the 49ers unique rushing attack, but they are supported by linebackers Nick Bolton and Drue Tranquill, and defensive backs that are more than willing to attack the line of scrimmage. Despite being the key to unlocking the 49ers offense and leading the way in countless running back statistics, Christian McCaffrey ranks 24th in tackle for loss percentage. Stopping the early down runs that San Francisco rely on is an important step to stopping this offensive attack.

# Biggest Questions

## How Will the Chiefs Attack the Edges in the Run Game?

The 49ers defense has allowed a 51.0% success rate to rushes outside the tackles this season – the 3rd worst mark in the league. This has been especially prevalent in the playoffs as they allowed a 75% success rate to outside rushes from the Packers and Lions. Out of 16 rushes, six of them have gone for over 10 yards and only two have been stopped for a loss of yardage.

When the Chiefs run outside zone, their 2nd most popular run concept, they run it outside the tackles 73% of the time. However, they have only had a 23.9% success rate when doing so. Andy Reid will have to add modifications to Kansas City's outside rushes in this game adding in pull leads (44.1% success rate) and pitches (40.0% success rate).

The Chiefs could also attack the 49ers defense on the edges by mixing in wide receiver runs, like how the Lions used Jameson Williams to score their opening touchdown in the NFC Championship Game. This isn't something that the Chiefs did often this season, but they have consistently shown they can add new wrinkles into the game plan. Even with a strong interior offensive line and a physical runner in Isiah Pacheco, Kansas City can find success outside. Watch out for a Mecole Hardman sweep as the Chiefs used him multiple times in last year's game against the 49ers.

## Can Kansas City Hold Up in Man Coverage?

The Chiefs play man coverage at the 5th highest rate in the league. They can do this because of high level play from their secondary, led by L'Jarius Sneed, and have the 3rd best success rate in man coverage. Kansas City smothered Baltimore's pass catchers for most of the day in the AFC Championship game, but the 49ers present a unique test.

The fully constructed Death Star of Aiyuk, Kittle, Samuel, McCaffrey, and Juszczyk is nearly uncoverable and the 49ers have a 57.8% success rate against man coverage. Brandon Aiyuk is a special route runner and averages a 64.7% success rate against man coverage. George Kittle has a 69.8% success rate against man coverage as well, the best mark in the league. Christian McCaffrey presents a matchup problem regardless of if he is matched up on a linebacker or a stronger coverage player. Kansas City's deep secondary will help them in this game, but Brock Purdy has also shown the ability to scramble and find success when the defense has their back turned to him.

The Chiefs desire to play tight man coverage, the quality of the 49ers pass catchers, and Purdy's scrambles in the NFC Championship Game make this a schematic point to watch.



# Biggest Questions

## What Will Happen When Brock Purdy Extends Plays?

Kyle Shanahan's quarterbacks are largely known for executing the master plan as written. Brock Purdy strays from that a bit and has shown the ability to extend plays while looking down field or scrambling for needed yards. This year Purdy had a 0.29 EPA/play on plays when he moves out of the pocket, 2nd best behind only Josh Allen. Purdy found success scrambling in the NFC Championship Game and has thrown touchdowns on the move as well.

On the other side, the Chiefs defense allows a -0.20 EPA/play when the quarterback moves out of the pocket, 2nd best behind only the Baltimore Ravens. The Chiefs have defensive backs that close windows and throwing late across the middle of the field is dangerous against this group. This is a good-on-good aspect of this matchup that is hard to plan for but will be fun to watch.

## Will San Francisco's Rushing Attack Be Too Much for Kansas City's Defense?

The San Francisco 49ers are built around interchangeable parts that threaten every blade of grass. Whether it is Christian McCaffrey or Deebo Samuel, the 49ers lean heavily on a run game that stretches a defense both horizontally and vertically. McCaffrey was near the top in almost all meaningful running back stats and unlocks this offense through his excellent vision and ability to create yards after contact.

The Chiefs defense is strong in the secondary but ranked 28th in EPA/rush this regular season. They struggled from both light boxes and the heavy boxes we would expect them to deploy in this game. Because of Christian McCaffrey and their usually heavy personnel groupings, the 49ers see heavy boxes on 66% of rushes – 5th highest in the league. The Chiefs play heavy boxes 60.2% of the time on run plays but rank 32nd in EPA/rush allowed and success rate allowed on defending runs from light boxes according to FTN data. Kyle Shanahan may look to take advantage of this by spreading out his offense more than usual on the way to running the ball.

Shanahan will enter this game with an extended play sheet of runs that forces Kansas City into situations they have not faced before. Steve Spagnuolo can use multiple personnel groupings on defense, but the 49ers rushing attack may encourage Spagnuolo to use more defensive linemen and linebackers on a snap-to-snap basis. That may expose the defense in the pass game.

# Biggest Questions

## **Will Steve Spagnuolo Have Success Blitzing Brock Purdy?**

Brock Purdy has been one of the most productive quarterbacks against the blitz this season. He has had a 0.42 EPA/play when blitzed (best in the NFL) compared to a 0.24 EPA/play when not blitzed (2nd best). When blitzed, his average depth of target (ADoT) rises to 9.58, which is the 4th highest mark in the league and much higher than his ADoT when not blitzed.

Brandon Aiyuk has received 29 targets when Purdy is blitzed with a 16.4 ADoT and a 0.65 EPA per target. Deebo Samuel and George Kittle have seen 21 targets each when a blitz has been sent with a 9.5 ADoT and a 0.80 EPA per target combined. Christian McCaffrey has been used as a checkdown as well but not as often as the others. It is the intermediate passing concepts like digs and outs that the 49ers offense has excelled at when they see extra pass rushers.

Enter Steve Spagnuolo and a Chiefs defense that blitzes on 31.7% of quarterback drop backs, the 5th highest rate in the league. When the Chiefs blitz, opposing offenses have had a -0.22 EPA/play, which is the 3rd lowest in the league. Spagnuolo may look to disguise his pressures or only send 4 rushers while dropping a defensive lineman into coverage. How quickly Purdy processes the blitz will be important in this matchup.

## **Can San Francisco Protect Against Kansas City's 4 Player Pass Rush?**

Along with being a top offense in multiple metrics and causing headaches for defenses all year, the San Francisco 49ers have allowed pressure at the 9th lowest rate of any team this season. This number looks good, but San Francisco has had some struggles up front. In the Conference Championship game against the Lions, pressure over Brock Purdy's right side led to an interception. Steve Spagnuolo creates pressure through his blitzes, but he can also manipulate pass protection by sending a defensive back on a blitz while dropping a defensive lineman away from the new fourth rusher. These blitz paths result in a 4 player pass rush that does not vacate an area of the pass coverage.

Even if Spagnuolo wants to rush with 4 defensive linemen, the Chiefs should have an advantage where Chris Jones has once again performed well in the postseason. Jones and George Karlaftis have lined up on the same side of the line at different points this season and with Charles Omenihu out with an ACL injury, the Chiefs may look to isolate the 49ers offensive line away from Trent Williams.

# Biggest Questions

## Which Defense Will Limit Yards After the Catch?

Both the offenses playing in this game have specialized in yards after catch this season. The 49ers have had 6.4 yards after catch per reception, good for 1st in the league. The Chiefs have had 6.16 yards after catch per reception, good for 2nd in the NFL. In the regular season, Rashee Rice led all wide receivers with 654 YAC while Deebo Samuel and Brandon Aiyuk both ranked in the top 20. For tight end's, George Kittle and Travis Kelce were 3rd and 4th in YAC respectively. The bottom line is both of these teams can turn completed passes into big plays, often. This begs the question of how well these defenses will do stopping that.

Though obvious, yards gained after catch can only occur when a pass is completed. The Chiefs defense only allowed a completion on 61.5% of passes (7th best) and once adjusting for the difficulty of the pass they allowed, had a -3.8% Completion Percentage Over Expected (CPOE) against (5th best). The 49ers defense allowed a completion percentage of 66.3% (21st best) and had a 0.5% CPOE against (15th best). Once that completion happens and you adjust for situation, the Chiefs have given up the 4th least amount of YAC over expected while the 49ers sit at 8th. Overall, both defenses have been good at tackling when the pass has been completed, and the Chiefs have an edge at forcing incompletions. The fundamental aspects of tackling will be highlighted in this game for better or worse as both teams look to turn short passes into long gains.

## Whose In-game Management Will Be Better: Andy Reid or Kyle Shanahan?

Andy Reid and Kyle Shanahan are two high level offensive coaches. They have designed systems around their players and have had success at multiple stops throughout their careers. In a game that is all but certain to have the thinnest of margins, in-game management could be the difference between winning and losing.

This year, Andy Reid has had a sizable edge over Kyle Shanahan in our Win Probability Added Over Expected metric (3rd versus 19th, good for over half of a win over the season). Shanahan has been more aggressive on 4th downs than times in the past, but Reid still outpaces him. Hidden yardage in the kick return game, conserving timeouts early in the game for later situations, and how each coach decides to handle end of half possessions may be critical factors in deciding who hoists the Lombardi trophy.

# Biggest Questions

## Who Will Win the Screen Game?

Patrick Mahomes led the NFL in percentage of passes that were screen passes at 15.7%. It was warranted as the Chiefs receivers tried to gain their footing on the way to the 3rd highest EPA/pass on screen passes this season. On the other side of the ball, the 49ers defense ranks 15th in EPA/pass allowed against screen passes. The Chiefs mainly go to Rashee Rice on screens as he's had 30 screen targets and a 60.0% success rate when targeted. Isiah Pacheco also has had 17 screens for a 52.9% success rate. When in the red zone, the Chiefs could also look to Travis Kelce on screens.

The 49ers have also been very good when throwing screens and have the highest EPA/pass when doing so. San Francisco concentrates almost all of their screens on Christian McCaffrey (18 targets, 50% success rate) and Deebo Samuel (17 targets, 76.5% success rate). This means that the Chiefs will need great tackling from the likes of L'Jarius Sneed and Trent McDuffie on the outside while the linebackers look to clean those plays up.

## How will the 49ers' Pass Defense deal with the Chiefs' Plan of Attack?

The 49ers defense is known for their 4 player pass rush that allows for 7 players to be in pass coverage. They lean on zone coverage and play it at a 62.8% rate (4th highest in the league) as they close passing lanes. The Chiefs, with Travis Kelce and Rashee Rice leading the way at a 21.4% and 18.4% target share respectively, have struggled this season in finding a third pass catching option. They have had a hard time winning one on one matchups at times with a 42.9% success rate against man coverage, 19th best in the NFL.

It would be surprising for the 49ers to drastically change their identity and play a majority of man coverage in this game, even if they felt comfortable with how they match up against Kansas City's skill position players. Instead, Travis Kelce's unique feel for the soft spots in zone coverage will be tested as Fred Warner patrols the middle of the field. Kelce has a 62.0% success rate against zone coverage, a 20.9% target share, and has made a Hall of Fame career out of finding the voids in the defense. The 49ers desire to play zone coverage and the Chiefs ability to find the soft spots in those zones will be critical on need to have it passing downs.

# Biggest Questions

## Will Brandon Aiyuk have Success Against L'Jarius Sneed?

The Kansas City Chiefs gave up 127.5 yards per game to wide receivers in the regular season, good for 5th best in the NFL. What is even more impressive is that they've given up only 43.8 yards per game to the opposing offense's #1 wide receiver option (determined by target share per game). This is a testament to how good of a season L'Jarius Sneed has been having as the Chiefs #1 corner. In the regular season, the most yards the Chiefs allowed to a WR1 was 73 yards to Davante Adams.

These are some stat lines from notable WR1's against the Chiefs this season:

<b>Week 2</b>	Calvin Ridley	32 yds	0 TDs
<b>Week 3</b>	D.J. Moore	41 yds	0 TDs
<b>Week 5</b>	Justin Jefferson	28 yds	0 TDs
<b>Week 9</b>	Tyreek Hill	62 yds	0 TDs
<b>Week 11</b>	A.J. Brown	8 yds	0 TDs
<b>Week 14</b>	Stefon Diggs	24 yds	0 TDs
<b>Week 16</b>	Davante Adams	4 yds	0 TDs
<b>Divisional Round</b>	Stefon Diggs	21 yds	0 TDs

Enter Brandon Aiyuk, who finished the season 3rd in yards per route run and is one of the best separators in the NFL. We could look for Kyle Shanahan to use motion and different alignments to get Aiyuk into advantageous positions so that he can find space. He is not used much on behind the line of scrimmage passes, but we could see that as a wrinkle as well.

# Biggest Questions

## **Is This the Last Hurrah for This Version of the 49ers?**

The 49ers have either made the NFC Championship Game or lost 10 or more games every season since 2015, and every season but one since 2011. This is the quintessential boom or bust team, which is characteristic of a team that relies more on complimentary players than they do on a star quarterback. However, this version of the 49ers is weaker than most, especially in some key spots. Aside from Trent Williams, the offensive line is not as strong as it once was. Charvarius Ward, a former Chief, has been very good since signing in free agency in 2022, but aside from him, the 49ers secondary has had defections and injuries that have hurt them.

San Francisco is over the 2023 cap, and after factoring in roster holes, are more than \$11 million over effectively, per OverTheCap. They have pending free agents Chase Young, Randy Gregory, Javon Kinlaw, and Tashaun Gipson. Executive Adam Peters moved to Washington this offseason to be their general manager, and they haven't had a first-round pick since 2021. That pick, Trey Lance, isn't even on the roster anymore. Decisions will have to be made on Brandon Aiyuk, who will play 2024 on his fifth-year option, and eventually Brock Purdy, who will make around a million dollars next year. This may be hard to execute with five non-quarterbacks earning a cap hit of more than \$20 million in 2024.

The Seahawks and the Cardinals have exciting head coaches in Mike Macdonald and Jonathan Gannon, while the Rams showed everyone this year what Sean McVay and Matthew Stafford are still capable of. This is a season the 49ers have been building for, and failing to cash in would be a dramatic letdown.

# Prop Bets

Based on the analysis of the SumerSports Research & Development team, there are certain edges to be had in the prop bet market and some of those are identified below.



## Patrick Mahomes

↓ UNDER 0.5 Interceptions

Good To  
**-120**

Mahomes in market right now has an expected pass attempts number around 36.5, which is partly due to the Chiefs high rate of passing and the fact that they are underdogs in the game. Under such expectations, we make this number about –105 or so. However, given the fact that the Chiefs, per our metrics, are a top rushing team in the league – after adjusting for context and weighing more recent performances more heavily – and the 49ers are more of a middling team there, we can expect the Chiefs to throw less than normal, which puts this more at –120.



## Marquez Valdes-Scantling

↓ UNDER receiving yards

Good To  
**17.5 -110**

“Dad, what was playoff MVS like?” Valdes-Scantling has averaged 11.35 yards per target in his postseason career, with two 100-yard games in Conference Championship games. He put an exclamation point on the Chiefs’ upset of the Ravens with a game-sealing 32-yard catch. His only other 100-yard game as a Chief was actually against San Francisco last October, when the 49ers challenged the Chiefs with more single-high looks than they were used to seeing, and MVS burned them deep a couple of times. All this said, MVS is also very good at disappearing, even when he gets a lion’s share of the snaps. In last year’s Super Bowl, he was shut out on just one target. This is the side we would bet on in this game.



## Jake Moody

↑ OVER field goals made

Good To  
**1.5 -120**

The 49ers have the best series success rate per our numbers after adjusting for context and weighing more recent games more heavily. The Chiefs are middle of the pack in this number defensively, despite being 2nd in the NFL during the regular season in scoring defense and giving up just 41 points during the AFC playoffs. To us, this should lead to moving the ball and more field goal attempts for San Francisco.

# Prop Bets



## Harrison Butker

↑ OVER field goals made

Good To  
**1.5 -125**

The Chiefs' offense has struggled more this season than any other year of the Andy Reid/Patrick Mahomes era. However, they have still been able to move the football, and Butker has converted 33 field goals this year, his most since 2019. The Chiefs are surprisingly a top five team in terms of our adjusting rushing efficiency, while the 49ers are a middle of the pack team there, which could lead to more field goal attempts.



## Patrick Mahomes

MVP

Good To  
**+120**

This is the most well-rounded Chiefs team of the Patrick Mahomes era, so there is a leak in the "if the Chiefs win, Mahomes will win the MVP" narrative. However, if we take the moneyline price at face value, the Chiefs are a little under a coin flip to win the game, making a price like +130 at FanDuel (43% breakeven) a value if you disagree at all with the market's handicap of the game and are willing to fade the narrative that Travis Kelce is more likely to win the award because of Taylor Swift's inclusion in the event.



## Nick Bosa

↓ UNDER sacks

Good To  
**0.5 -130**

Bosa had a sack or more in eight of 19 games this year and had two games where he had half of a sack. Patrick Mahomes, despite breaking in two new tackles in 2023, trailed only Josh Allen in terms of sack avoidance (89.6%) on pressured drop backs. Against an average quarterback, this number makes some sense, but against Mahomes it might be difficult for any 49ers player to get home, let alone Bosa at this price.



## Shortest Touchdown

↑ OVER 1.5 yards

Good To  
**+100**

The average NFL game had a one-yard touchdown a little over a third of the time in 2023. The Chiefs and 49ers aren't average teams though, with their games having a one-yard score a little under half of the time. You're getting prices much, much better than this in market, with some places like BetOnline around +115 to the over. This is a good plus-priced prop to take advantage of during Super Bowl week.



# Prop Bets

## **Noah Gray** **FIRST** touchdown scored

Good To  
**+4000**

After finishing fifth on the team in receptions in 2022, Gray finished fourth in 2023. He's an integral part of Kansas City's offense, having played 969 snaps this season, including 62 in the Conference Championship round. The 49ers and the Chiefs both often defer when they win the toss, so there's no asymmetry here. Gray earned a target in the red zone in five of the last eight games in 2023 and could benefit from increased attention on Travis Kelce, who has scored three touchdowns the last two games.

## **Elijah Mitchell** **ANYTIME** touchdown scored

Good To  
**+900**

This number varies a ton around the market, and for good reason. One interesting thing that happened at the end of the NFC Championship Game against Detroit was Christian McCaffrey nursing an injury or two after his 25-yard run set up Mitchell for the decisive score in their 34-31 win. Mitchell even took the carries on the final drive as the Niners were eating up clock. This is a good hedge against a couple of other plays here too, including the shortest touchdown prop and the Mahomes MVP prop.

## **Tommy Townsend** **OVER** longest punt

Good To  
**54.5 -120**

These are always fun because the Chiefs usually play their playoff games outdoors until the Super Bowl, so special teams statistics (e.g., touchback percentage and punt distances) are skewed towards the end of the season. Tommy Townsend has struggled some as of late, failing to generate an average of 50 or more yards per punt in all but one of the last eight games (and that was a game against the Bengals, where he had just one punt). He's also missed this number in two of the last three games. However, both games were in bad weather, which will not be an issue in Super Bowl LVIII. We should get at least one boomer from the Chiefs punter in this one.

# Prop Bets



## Patrick Mahomes

↑ OVER rush yards

Good To  
**27.5 -110**

In his NFL career, Patrick Mahomes has average 20.3 rushing yards per game in the regular season. That number rises to 26.9 rushing yards per game in his 17 playoff games. On top of that, Mahomes has increased his scramble rate from 6.8% to 8.0% last season to this season and has had 29.9 scramble yards per game, which is 2nd to only Lamar Jackson. If the 49ers decide to play more man coverage than they usually do, this could be a good bet.



## Kansas City Chiefs

1st Drive Result: Field Goal

Good To  
**+300**

Out of the 20 first drives the Chiefs have had this season, 6 of them have ended in a field goal, 8 of them have ended in a punt, 5 of them have ended in a touchdown, and 1 has ended in a turnover. This means that on 30% of their opening drives, they end up kicking a field goal. On top of that, the 49ers defense forces the opposing offense to kick a field goal on 25% of their opening defensive drives. There should be anywhere between a 25-30% chance for the Chiefs opening drive to be a field goal, which means that getting +300 or longer odds should give value.



## Kansas City Chiefs

↑ 1st Sack Recorded

Good To  
**-170**

Patrick Mahomes is one of the best quarterbacks in the NFL at avoiding sacks and has only taken a sack on 4.3% of his drop backs this season. He hadn't taken a single sack in the playoffs until the 2nd half of the AFC Championship. Contrast that to Brock Purdy who had a good sack rate relative to the league but still takes a sack on 6% of his drop backs. On top of that, the Chiefs defense led the league in sack rate at 8.8% while the 49ers ranked 18th at 6.8%.

# Prop Bets



## Richie James

 **MOST** punt return yards

Good To  
**-120**

There is a bet available comparing Ray-Ray McCloud to Richie James for most punt return yards in the game. On face value, Richie James of the Chiefs seems to be the punt returner who should be favored here due to having 234 punt return yards on the season compared to Ray-Ray McCloud having 203. However, the 49ers have also not had a single punt return since the playoffs have started, which might be their way of decreasing variance. Last year in the Super Bowl, we saw how big it was for the Chiefs to have the Kadarius Toney punt return and they could try to lean into that again.



## Deebo Samuel

  **UNDER** longest reception

Good To  
**21.5 -115**

The key to this Super Bowl outcome is the strength on strength matchup between the 49ers yards after catch ability and the Chiefs success in limiting those same yards after the catch. It would take an absolutely brilliant performance from Brock Purdy out dueling Patrick Mahomes for the 49ers to emerge victorious without getting a handful of explosive plays from their yards after the catch ability.

Both the 49ers and Chiefs know this, and it will be a focal point for both units all week in the lead up to the Super Bowl. Steve Spagnuolo had a masterclass of a game plan against Lamar Jackson and the Ravens and will have plenty of time to prepare for this 49ers attack.

Deebo Samuel has just a 17.7% air yards share in this 49ers offense and has the 17th lowest air yards per route run among wide receivers who ran at least 300 routes this season. Expecting him to go over his longest reception prop will take plenty of yards after the catch underneath. With him being the focal point for the Chiefs defense, expect this to be shutdown on their scripted play set and an under to cash as long as the Chiefs are sound at tackling.

# Wrap Up

## Thanks for reading.

The SumerSports Big Game Breakdown utilized multiple data sources to put together something that all fans can use heading into the final matchup of the 2023-2024 season.

Whether your team is playing in the Big Game or not, we hope this is something that helps you prepare as we all find out who will win the Lombardi Trophy.

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Stay tuned for more coverage of free agency, the 2024 NFL Draft, and the 2024-2025 season.

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# Glossary

## A

### **ADoT (Average Depth of Target)**

The average distance down the field at which a quarterback is targeting a pass catcher down the field. It is the average of the amount of air yards the ball traveled on each pass in the specified time frame.

### **ADot (Average Depth of Target) Against**

Average Depth of Target against the defense. A higher ADoT Against suggests defenses are being tested further downfield, while a lower ADoT Against indicates an emphasis on shorter passing attempts by opponents.

### **Air Yards**

The total distance the football travels through the air from the quarterback to the receiver on a passing play. Air Yards provide insights into the vertical passing game, showing how far downfield quarterbacks are targeting receivers.

### **Average Separation When Targeted**

The average distance in yards between a receiver and the nearest defender at the time a pass arrives. A larger average separation means good route running and the ability to get open, while a smaller separation suggests tight coverage by defenders.

## B

### **Blitz %**

How often a defense sends more than 4 pass rushers or how often an offense faces more than 4 pass rushers from the opposing defense (as charted by FTN Data).

### **Blitz EPA/Play**

The defense's expected points added (EPA) per dropback when a blitz occurs. The offense's expected points added per dropback when facing a blitz.

# Glossary

## C

### **Catchable Pass Rate**

Measures a quarterback's performance in throwing catchable passes as charted by FTN Data. A catchable pass is characterized as a pass that a receiver should be able to catch. This can be used in conjunction with completion percentage.

### **Completion % (Rate)**

The ratio of completed passes to total pass attempts, expressed as a percentage. It serves as a fundamental measure of a quarterback's accuracy in passing, with a higher percentage indicating greater precision.

### **CPOE (Completion Percentage Over Expectation) When Targeted**

CPOE when targeted applies to both Wide Receivers and defensive players. Using game situation, air yards and more it estimates the probability of a pass being completed and assigns the difference between what actually happened and what was expected to the wide receiver/defender using the average in the timeframe.

### **Dropback**

Plays where the quarterback drops back to either attempt a pass, scramble or take a sack.

## E

### **Efficiency (Expected Points Added)**

Measures the impact of a play by comparing the expected points of the drive before and after that play. A positive EPA indicates that a play has increased the team's chances of scoring, while a negative EPA suggests the opposite.

### **EPA Allowed**

The defense's average EPA against in the specified timeframe. A higher EPA Allowed suggests that a defense is allowing more points than expected, while a lower EPA Allowed indicates a more effective defensive performance in limiting the opponent's scoring opportunities.

# Glossary

## **EPA Allowed/Pass**

Average Passing Expected Points Added (EPA) allowed on pass plays. Lower values signify better performance in restricting opponent scoring on passing plays.

## **EPA Allowed/Play**

Total Expected Points Added (EPA) allowed divided by total plays. Lower values signify better performance in restricting opponent scoring.

## **EPA Allowed/Rush**

Average rushing Expected Points Added (EPA) allowed on scrambles and designed rushes. Lower values signify better performance in restricting opponent scoring on rushing plays.

## **EPA/Pass**

Average Passing Expected Points Added (EPA) on pass plays by the offense

## **EPA/Play**

Total Expected Points Added (EPA) divided by total plays for an offense

## **EPA/Rush**

Average Rushing Expected Points Added (EPA) on scrambles and designed rushes.

## **Explosive % (Rate)**

The rate at which the offense has 18+ yard passing plays or 12+ yard rushing plays (defined as the top 10% of each type of play).

# F

## **Frequency %**

How often a rush occurs against a light box (6 or less charted defenders) or a heavy box (7+ charted defenders).

# Glossary

## M

### **Motion Rate (%)**

The percentage of offensive plays that involve a player shifting before the snap (as charted by FTN Data).

## N

### **Non-Blitz EPA/Play**

The defense's expected points added (EPA) per dropback when they do not blitz. The offense's expected points added per dropback when not facing a blitz.

## P

### **Pressure %**

Pressures are charted by FTN Data and are defined by when the pass rusher affects a quarterback before the pass is thrown. It can be applied to offensive lines, offensive linemen, defensive lines and defenders.

### **Pressure to Sack %**

Calculated by dividing the number of sacks taken by the quarterback by the total pressures faced on passing plays. A lower percentage may suggest a quarterback's skill in avoiding sacks, while a higher percentage could indicate vulnerability under pressure.

### **PROE (Pass Rate Over Expected)**

How often a team passes relative to game situation variables (win probability, down, distance, etc.). If an offense has a positive PROE, it means they're passing more than an average offense would in their situations.

## R



# Glossary

## RPO (Run-Pass Option) Rate

The percentage of plays where a Run-Pass Option was called (as charted by FTN Data).

## Rushing Share

A rusher's amount of carries divided by the team's total amount of carries on the season.

# S

## Sack %

Sacks divided by total dropbacks. A lower sack rate is generally preferable for an offense, while a higher sack rate is generally preferable for a defense.

## Scramble %

The number of scrambles divided by total dropbacks by a quarterback.

## Snaps %

The number of snaps this player participated in as defense divided by their team's total defensive snaps.

## Success Rate (%)

Rate of getting a positive EPA on a play.

# T

## Tackle %

The number of tackles done by this player divided by total amount of snaps. This metric provides insight into the player's effectiveness in making tackles relative to their time on the field.

## Target Share

Shows what portion of the team's passes go to a player. Calculated by dividing a player's targets by the total team passing targets.

# Glossary

## **TFL %**

Rate of tackle for loss on a play. A higher percentage signifies a defensive player's greater effectiveness in disrupting plays behind the line of scrimmage.

## **Time to Pressure**

Measures the time it takes (seconds) for a defensive player to apply pressure to the quarterback from the start of a play, as charted by FTN Data.

## **Time to Throw**

Time it takes (seconds) for the passer to release the ball from the start of the play, as charted by FTN Data

## **Total EPA**

Total Expected Points Added (EPA) over the season to date.

## **Y**

### **YAC/Rec (Yards After Catch per Reception)**

The amount of yards a pass catcher accumulated after the catch per reception.

### **YAC/Rec (Yards After Catch per Reception) Allowed**

The amount of yards a pass catcher accumulated after the catch per reception allowed by the defense.

### **Yards Per Attempt (YPA)**

Passing yards divided by passing attempts for the quarterback. Doesn't include what happens on non passing plays (sacks, scrambles, etc.)

### **Yards After Contact (YAC)**

Total yards after the rusher made first contact with a defender, showcasing a player's ability to break tackles and gain extra yardage.