Analyzing Punters Using Expected Points

By Jackson Downs

Introduction:

In NFL history, there has only been 1 punter to have made the Hall of Fame: Ray Guy, who retired in 1986[1]. Despite the specialized punter position existing for at least 50 years, the position seems forgotten and unimportant, even more than kickers. There is no applause or cheer when a punter comes on the field as it's willingly giving up possession after a failure of a drive. Some teams, like FCS Presbyterian, don't even punt the ball at all[2]. Despite this, punts can be critical for field position such as Brett Kern's 58-yard boot in 2020 AFC Wildcard matchup between the Tennessee Titans and New England Patriots which effectively ended the game as the Patriots were forced to start on their own 1[3].

I had always wondered two things. First, is there a way to use expected points to evaluate punters more effectively. Second, do the best teams have the best punters? Or do they just look the best because of their situation? Today, we will analyze each NFL punter from the 2022 season using expected points statistics, which will be explained in the end note below[4], and rank them in tiers. Additionally, we will study whether there's a correlation between winning football teams and elite punters.

Background:

There are a host of ways to analyze punters, but we'll use Football Reference to see the main statistics for punters. In looking at a punter's profile, we can see there is only one table for punting. Pictured below is Brett Kern's profile (since I mentioned him before, and he didn't have enough punts in 2022 to qualify for the analysis)

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[1] Ray Guy Stats, Height, Weight, Position, Draft, College | Pro-Football-Reference.com

[2] https://www.washingtonpost.com/sports/2021/10/27/kevin-kelley-coach-never-punts-presbyterian-college/#:~:text=After%20several%20state%20championships%20at%20the%20high%20school,and%20always%20onside%20kicking%20to%20the%20college%20game

[3] Wild Card - Tennessee Titans at New England Patriots - January 4th, 2020 | Pro-Football-Reference.com

[4] NFL - Explaining the expected points metric - ESPN

					Games		Punting												
Year	Age	Tm	Pos	No.	G	GS	Pnt	Yds	Y/P	RetYds	Net	NY/P	Lng	TB	TB%	In20	In20%	Blck	AV	Awards
2008	22	DEN	P	1	16	0	46	2150	46.7	330	1740	37.8	64	4	8.7%	13	28.3%	0	3	
2009	23	2TM	P		16	0	64	2910	45.5	249	2461	38.5	67	10	15.6%	27	42.2%	0	2	
		DEN	P	1	6	0	27	1245	46.1	194	931	34.5	64	6	22.2%	9	33.3%	0	1	
		TEN	P	6	10	0	37	1665	45.0	55	1530	41.4	67	4	10.8%	18	48.6%	0	1	
2010	24	TEN	P	6	16	0	77	3302	42.9	214	3008	39.1	68	4	5.2%	24	31.2%	0	2	
2011	25	TEN	P	6	16	0	86	3747	43.6	221	3386	39.4	64	7	8.1%	31	36.0%	0	2	
2012	26	TEN	P	6	16	0	81	3855	47.6	405	3350	41.4	71	5	6.2%	30	37.0%	2	3	
2013	27	TEN	P	6	16	0	78	3386	43.4	210	3136	40.2	63	2	2.6%	32	41.0%	1	1	
2014	28	TEN	P	6	16	0	88	4118	46.8	350	3628	41.2	**79**	7	8.0%	28	31.8%	1	3	
2015	29	TEN	P	6	16	0	88	4175	47.4	605	3550	40.3	61	1	1.1%	34	38.6%	0	3	
2016	30	TEN	P	6	16	0	77	3402	44.2	347	2975	38.6	71	4	5.2%	32	41.6%	0	2	
2017*	31	TEN	P	6	16	0	75	3728	**49.7**	286	3342	44.6	74	5	6.7%	28	37.3%	0	4	AP2, PB
2018*	32	TEN	P	6	16	0	74	3483	47.1	296	3127	42.3	62	3	4.1%	39	52.7%	1	3	PB
2019*+	33	TEN	P	6	16	0	78	3672	47.1	269	3363	43.1	70	2	2.6%	37	47.4%	0	3	AP1, PB
2020	34	TEN	P	6	13	0	37	1695	45.8	100	1535	41.5	66	3	8.1%	22	59.5%	0	2	
2021	35	TEN	P	6	14	0	47	2105	44.8	185	1900	40.4	59	1	2.1%	18	38.3%	0	1	
2022	36	PHI	P	13	4	0	10	408	40.8	42	366	36.6	53	0	0.0%	1	10.0%	0	0	
Career					**223**		**1006**	**46136**	**45.9**	**4109**	**40867**	**40.6**	**79**	**58**	**5.8%**	**396**	**39.4%**	**5**	**34**	
13 yrs		**TEN**			**197**	**0**	**923**	**42333**	**45.9**	**3543**	**37830**	**41.0**	**79**	**48**	**5.2%**	**373**	**40.4%**	**5**	**30**	
2 yrs		**DEN**			**22**	**0**	**73**	**3395**	**46.5**	**524**	**2671**	**36.6**	**64**	**10**	**13.7%**	**22**	**30.1%**	**0**	**4**	
1 yr		**PHI**			**4**	**0**	**10**	**408**	**40.8**	**42**	**366**	**36.6**	**53**	**0**	**0.0%**	**1**	**10.0%**	**0**	**0**	

This is punter Brett Kern's Football Reference Punting Statistics page

You can see the common statistics such as punts and yardage which aren't great indicators for punters since they depend on situations. A punter punting from his own 40 consistently will have less yardage than one who punts from his own 20 consistently.

Some enticing statistics are Punt Return yards by opposition (RetYards), Touchback percentage (TB%), Inside the 20 Percentage (In20%) and Approximate Value (AV). The touchback percentage and Inside the 20 Percentage are interesting because it sets the 20 as a baseline and ignores the situation. A punter on a bad team may have a worse Inside the 20 Percentage because he's punting from deep inside his own territory. A punter on a good team may have more touchbacks because he's punting closer to the end zone. Additionally, coaches' aggression on 4th down needs to be accounted for as well. We'll touch on this in some respect, but both these statistics ignore situations.

RetYards falls into a similar problem due to situations. However, I feel it's slightly better because the punter can use hang time and punting the ball out of bounds as ways to avoid returns. However, it isn't perfect as punters on bad teams will be backed up more often which means they'll be more susceptible to returns.

Approximate Value is probably the best way to evaluate a punter out of the statistics but even then the creator admits it isn't an end all be all statistic[5]. According to Football Reference, the statistic is based on gross punting average and ability to avoid blocked punts. While I said this is a good way to evaluate punters, it ignores situations and the fact that some blocked punts are a blocking breakdown and not the punters' fault.

For my analysis, I will strive to look at a statistic that always encompasses situations and avoids outlier events that may be out of the punters control (blocks, TDs, fumbles). Expected points manage to do this.

[5] https://www.pro-football-reference.com/about/approximate_value.htm

Lit Review:

Before my analysis of punters, I went in search of previous papers and resources that have looked at punters through an analytic lens.

The first article I read from 2014 investigated a rating system for punters[6], using net average punt length and percentage of punts inside the 20. While good punters tend to have better numbers in these statistics, a punter can be affected by his situation.

Diving deeper, I found a paper that addressed the same concerns as me. A Liberty University Honors Senior Thesis[7] admitted that punt effectiveness can be affected by skill of an offense or punt coverage, so they attempted to look at more objective statistics, along with accounting for uncontrollable factors like long returns. In this analysis, the author looked specifically at Expected Points Added, EPA, as a main statistic. This is what I'll be looking at today and I find it interesting that punting has already been studied to this degree. However, this analysis was back in 2013 when tracking NFL play by play data was much more difficult. The author even mentions on page 11 that they had to use the NFL web service to make sure they didn't miss any penalty data (Note: Penalties happen quite a bit on punt returns). Therefore, the updated analytics in 2022 could create a clearer picture with expected points and consistency.

Finally, I was intrigued upon this topic from a YouTube video labeled "Does Punting Even Matter?" by FivePoints Vids which got over 77,000 views. The user asked two questions: How valuable is good punting & Is it the difference between winning and losing? FivePoints also used EPA to evaluate how much good punting correlates to victory. He cited a study from the blog Fieldgulls that said every yard of punt placement is worth 0.4 points per game allowed on defense. This would mean even a 10-yard difference between punters on average would be worth 4 points. FivePoints went pretty in depth in analytics, but his video seemed more to compare punters to other positions and success rather than to each other. We will touch on the correlation between elite punters and winning teams but look more in-depth at individual punters and teams than the video did.

Key Assumptions

Now that we have an idea on the history of punting analysis, we can delve into my project. In my analysis and collection of data, I made two key assumptions that I'll elaborate on below:

- I did not include any punts that were blocked, fumbled, or returned for Touchdowns.
- A punter must have a minimum of 20 punts to qualify for my analysis

These plays are major outliers for expected points, so I thought it'd be best to not include them. While it's true punters can affect whether a punt will be fumbled, blocked, or returned for major yardage, I want to look solely at a punter's performance punting the ball. If a punter gets consistently blocked or returned for long yardage is something different, this is something we can evaluate in another paper.

As for the second assumption, every punter except Eagles backup Brett Kern qualified for this analysis. This is because I did not want a punter to skew the tier lists on a low sample size.

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[6] WoroszyloT_2014-3_BODY.pdf (bsu.edu)

[7] The Effectiveness of Professional Punters (liberty.edu)

Data Collection

Moving onto Data Collection, Football Reference has Play by Play data with the Expected Points for the team you are viewing after each play. Therefore, you can see the Expected Points Before and After a punt, and what exactly happened on a punt. An example is below:

Quarter	Time	Down	ToGo	Location	NWE	GNB	Detail	EPB	EPA
1	5:11	4	18	GNB 45	3	0	Jake Bailey punts 45 yards, touchback.	0.270	-0.280
1	2:31	4	16	NWE 46	3	0	Pat O'Donnell punts 38 yards, fair catch by Marcus Jones at NE-8	0.200	0.380
1	1:14	4	8	NWE 10	3	0	Jake Bailey punts 59 yards, returned by Amari Rodgers for 4 yards (tackle by Brenden Schooler). Penalty on Brenden Schooler: Horse Collar Tackle, 15 yards (accepted)	-2.490	-2.260
2	10:03	4	9	NWE 38	3	7	Jake Bailey punts 62 yards, touchback.	-0.850	-0.280
2	8:59	4	8	GNB 22	3	7	Pat O'Donnell punts 38 yards out of bounds. Penalty on Cody Davis: Illegal Blindside Block, 15 yards (accepted)	-1.900	-0.610
2	5:48	4	1	GNB 46	3	7	Jake Bailey punts 37 yards, fair catch by Amari Rodgers at GB-9	0.200	0.380
2	3:35	4	3	GNB 31	3	7	Pat O'Donnell punts 48 yards, returned by Marcus Jones for 29 yards (tackle by Patrick Taylor)	-1.310	-2.260
4	4:03	4	9	NWE 26	24	24	Jake Bailey punts 31 yards out of bounds	-1.630	-1.800
4	2:02	4	13	NWE 45	24	24	Pat O'Donnell punts 43 yards downed by Keisean Nixon	0.270	0.380
4	0:13	4	1	NWE 11	24	24	Jake Bailey punts 44 yards, returned by Amari Rodgers for 7 yards (tackle by Mack Wilson and Matthew Slater). Penalty on Tariq Carpenter: Offensive Illegal Block Above the Waist, 10 yards (accepted)	-2.490	-1.730
OT	8:26	4	7	GNB 28	24	24	Pat O'Donnell punts 43 yards, returned by Marcus Jones for 20 yards (tackle by Isaiah McDuffie)	-1.500	-2.190
OT	6:54	4	5	GNB 46	24	24	Jake Bailey punts 36 yards, fair catch by Amari Rodgers at GB-10	0.200	0.380

These were all the punts in the Packers 27-24 win over the Patriots on October 2, 2022.

I marked down each individual punt without an outlier play, 2145 to be exact. While this may have seemed like a strenuous task. A lot of the expected points for certain field positions are repetitive, such as a 0.38 EPA, for any punt inside the 10-yard line. Over the course of a month, I documented each punter's individual punt. You can see each punt in the Excel dataset below:

Excel Dataset: Punting Analysis.xlsx

Data Discussion

Now that I have talked about Data Collection, we can get into statistics, because there is more than one and I'd like to explain what each of them means and why I included them.

1. Expected Points Added Per Punt (EPAPP)

This is the main statistic I'll be using to evaluate the punters today. It's created by taking their total Expected Points Added divided by Total Punts. This statistic should help me evaluate which punter is adding the most expected points to their team every time they go onto the field to punt. However, there are still other variables that affect Expected Points out of a punter's control, so there are other statistics I will use as well.

2. Percentage of Punts with Positive Expected Points Before (PEPB)

This statistic looks at the percentage of a punters' punts that had positive expected points before the punt. Since the highest expected points you can get from a punt (that isn't a fumble) is 0.38, a punt from positive expected points is much less likely to yield many expected points. In simpler terms, punting from positive expected points hurts punters because they can't gain as many expected points. For example, punting from 4th and 20 on your own 10 is better for a punter than punting on 4th and 2 from the 50 as you can gain

more expected points. The higher a punter's percentage is in this category, the more he is being hindered by his coach's conservative play.

3. Percentage of Punts with Negative Expected Points (PNEP)

This statistic measures the percentage of punts that lead to negative expected points after the punt. For example, if a team's expected points before a punt is -1 and Expected Points After a punt is -1.5, that would mean the punt had -0.5 point expected points. Obviously, it's not ideal when a punt decreases your expected points so the lower the percentage, the better for a punter. However, this statistic must be used in tandem with the one above (PEPB). This is because it's much easier to have a punt with negative expected points when you're punting from a positive Expected Points Before position. Use this statistic in tandem to see if a punter is erratic or a coach is putting them in difficult situations.

Analysis

In my analysis, I will use each of the prior statistics in conjugation to evaluate a punter's situation. There will always be other factors that are difficult to control for such a punt coverage; however, using these statistics, I will rank all punters using a tier list.

Part 1: Punter Tier List

In the beginning of the analysis section, I will tier the punters in categories from elite to worst. This will be a combination of the previous statistics provided and my subjective analysis on them. No outside statistics such as the ones mentioned in the Background section will be considered.

Tier 1: The Elite Punters

- Tommy Townsend (Chiefs)
- Johnny Hekker (Panthers)

These were the top two punters in terms of EPAPP, but the reason they stand on a tier of their own is consistency. Townsend only had 15% of his punts as negative and Hekker at 14%, while the league average was 19%. These guys were able to consistently add over 0.7 expected points per punt with above average consistency. Interestingly, Townsend only had 53 punts as he was on the best offense in the league while Hekker had 81 on the struggling Panthers. Additionally, both were neither helped nor hindered by their coaches as they were slightly above league average in terms of PEPB. This means they punted less from promising positions, helping their numbers slightly.

Townsend was given first team All-Pro in 2022 which speaks to the punting community understanding his value[8]. However, Hekker received nothing despite emulating Townsend' statistics on a far larger sample

[8] 2022 All-Pro Team: Travis Kelce, Justin Jefferson, Sauce Gardner highlight roster (nfl.com)

size. Hekker is regarded as an elite punter, though most of the time he is lauded for his passing ability on fakes as well.

Punter	Number of Punts	**Expected Points Added Per Punt (EPAPP)**	**% of Negative EP Punts (PNEP)**	**% of Punts with Positive EPB (PEPB)**
Tommy Townsend	53	**0.75**	**15%**	**11%**
Johnny Hekker	81	**0.72**	**14%**	**11%**

Tier 2: The Great Punters

- Ryan Stonehouse (Titans)
- Michael Dickson (Seahawks)
- Sam Martin (Bills)

Right below the best two punters in the NFL last season, we have the great punters. These guys were fantastic, but not perfect. Stonehouse has a EPAPP of 0.71, only 0.01 behind Hekker and 0.04 behind Townsend despite putting up 90 qualified punts, second in the NFL. So why is the All-Pro Second Team Punter not elite? Consistency. His 18% PNEP is slightly below league average but 3-4% off both punters in the elite tier. I may be nitpicking, and I originally did have Stonehouse in the elite tier, but I feel like an elite punter is one who delivers and is more consistent than the league average punter. I think the statistics have him as the clear third best punter in the league, but I subjectively thought he was great last season, not elite.

Sam Martin, like Stonehouse, had a great EPAPP of 0.68 but struggled with consistency. His PNEP of 20% is above league average and a bit worrying. However, his 45 punts are a low sample size even if it came over the course of the season. In fact, he had the lowest number of punts out of a punter who was named the starter for every single game. The Bills didn't even give Martin a chance to punt against the Rams in their season opener. While I believe Stonehouse was better than him this season, Martin having half the number of punts means his PEPB might not be as bad as first thought.

Lastly, we have the Seahawks' Michael Dickson, who had a very admirable EPAPP of 0.69 and PNEP of 11% of the overperforming Seahawks. In simplest terms, Dickson was great as his number indicates a very consistent punter who put up great EPAPP numbers. He doesn't sit in the elite tier because his EPAPP numbers just aren't elite like Hekker and Townsend. You can make a case for the elite tier, but I must draw the line somewhere. I believe he's closer to Martin than Stonehouse but comfortably in Tier 2.

One thing to note about all three of these punters is that their coaches were "punter friendly" as I'd call it. Their PEPB's were all below league average, meaning their coaches didn't punt from positive EPA positions which could hurt their statistics. This was especially the case for Sam Martin's Bills' who only punted from 9% of Positive EPA positions.

Punter	Number of Punts	**Expected Points Added Per Punt (EPAPP)**	**% of Negative EP Punts (PNEP)**	**% of Punts with Positive EPB (PEPB)**
Ryan Stonehouse	90	**0.71**	**18%**	**10%**
Michael Dickson	64	**0.69**	**11%**	**11%**
Sam Martin	45	**0.68**	**20%**	**9%**

Tier 3: The Very Good Punters

- Ryan Wright (Vikings)

- Logan Cooke (Jaguars)
- Cameron Johnston (Texans)

Before I start, I need to mention that the difference between Tier 2 and Tier 3 is big, much bigger than Tier 1 & 2. There are a clear top 5 punters and then the best of the rest. Ryan Wright and Logan Cooke have the highest EPAPP's in this tier but it's still 0.05 lower than Sam Martin. That isn't huge but makes a great difference when comparing great vs very good.

Wright and Cooke are the two best punters in this tier. Wright is consistent and was slightly aided by an aggressive coach. On the surface, it seems like Cooke is more inconsistent with a 19% PNEP but this is skewed by the fact that the Jaguars are one of the most conservative teams in the NFL. A 21% PEPB shows that Cooke's statistics are being hurt by his coach significantly. Only Jake Bailey had a higher PEPB and he had a much smaller sample size (23 less punts). I believe Cooke is better than Wright, but the difference in EPAPP is still too big to be in Tier 2.

Like Wright, Johnston is a very good punter but is a little behind Cooke and Wright. Johnston has an impressive 0.61 EPAPP on 85 punts with fantastic consistency (13% PNEP). He did allow one punt return TD by Donovan Peoples-Jones of the Browns. The return is linked here so you can make your own judgments but I don't believe it was Johnston's fault.

Punter	Number of Punts	**Expected Points Added Per Punt (EPAPP)**	**% of Negative EP Punts (PNEP)**	**% of Punts with Positive EPB (PEPB)**
Ryan Wright	71	**0.63**	**14%**	**10%**
Logan Cooke	58	**0.63**	**19%**	**21%**
Cameron Johnston	85	**0.61**	**13%**	**12%**

Tier 4: The Solid Punters

- AJ Cole III (Raiders)
- Bryan Anger (Cowboys)
- Tress Way (Commanders)
- Jake Camarada (Buccaneers)
- Jack Fox (Lions)
- Jamie Gillan (Giants)
- Blake Gillikin (Saints)

Tier 4 is our biggest tier with 7 punters, mainly because I thought there were a lot of punters better than average but not very good. This tier consists of mainly inconsistent punters with respectable EPAPP's.

For the high EPAPP but inconsistent, we can start with AJ Cole III who had an EPAPP of 0.62, higher than Johnston's in the tier above, but a PNEP of 22%, much higher than Johnston's. Cole's 9% PNEP meant he was way more likely to have a negative EPA punt. This dropped him to Tier 4.

Similarly, Bryan Anger had an impressive 0.60 EPAPP and solid 16% PNEP. The Cowboys put him in a lot of fantastic positions as only 7% of his punts were negative (PEPB) and for me this was the reason he's in Tier 4 rather than Tier 3.

Other inconsistent punters include Jake Camarda, Jack Fox and Jamie Gillan. All these guys had solid EPAPP's (0.57 or 0.58) and high PNEP's (20-21%). Only Gillan punted for a more conservative coach, the

Giants punter had a 14% PEPB slightly above league average. However, he is so close to that league average mark I don't think his PEPB was affected that much.

Finally, we look at our more consistent punters that didn't have the necessary EPAPP to be in Tier 3: Tress Way and Blake Gillikin. Tress Way was better with a respectable 0.59 EPAPP, 13% PNEP despite playing on a slightly more conservative team. His statistics are in between solid and very good, but I think his low EPAPP moves him down into Tier 4.

Meanwhile, Gillikin is the back marker of this tier. His consistency was impressive with a 16% PNEP. His EPAPP numbers are average at 0.56, but the Saints were super conservative with a 20% PEPB, so I gave Gillikin the benefit of the doubt.

Punter	Number of Punts	**Expected Points Added Per Punt (EPAPP)**	**% of Negative EP Punts (PNEP)**	**% of Punts with Positive EPB (PEPB)**
AJ Cole	59	**0.62**	**22%**	**8%**
Bryan Anger	67	**0.60**	**16%**	**7%**
Tress Way	80	**0.59**	**13%**	**15%**
Jake Camarda	79	**0.58**	**20%**	**9%**
Jack Fox	51	**0.57**	**20%**	**12%**
Jamie Gillan	72	**0.57**	**21%**	**14%**
Blake Gillikin	76	**0.55**	**16%**	**20%**

Tier 5: The Average Punters:

- Riley Dixon (Rams)
- Trenton Gill (Bears)
- Drue Chrisman (Bengals)
- Corliss Waitman (Broncos)
- JK Scott (Chargers)

Next up, we have our average punters. Most of these punters had rather pedestrian numbers around the league average EPAPP of 0.53 or were extremely inconsistent.

To start, Riley Dixon has very similar statistics to Blake Gillikin in the tier above, but his numbers were helped by Sean McVay's aggressive play style and a 10% PNEP (opposed to Gillikin's 20%). Hence, why I have Gillkin in Tier 4 and Dixon in Tier 5.

Behind Dixon, we have four punters who I would say are all slightly below him. Firstly, Drue Chrisman only had 28 punts this season, so he was barely eligible. In his punts, he had an average 0.53 EPAPP with an impressive 11% PNEP in the Bengals aggressive offense (11% PEPB). Overall, his low sample size made him an easy choice for average.

Gill, Waitman and Scott all have a much larger sample size. Waitman had an incredible 94 punts for the Broncos with a league average 0.53 EPAPP with a solid 14% PNEP. JK Scott statistics were extremely similar with a 0.53 EPAPP and 15% PNEP. While Scott had less punts and 9% higher PNEP, it seemed like their large sample sizes show their numbers were rather pedestrian.

Finally, we have Trenton Gill whose numbers were like Waitman and Scott (0.54 EPAPP and 14% PNEP) and around league average PEPB (14%). These numbers are around average.

Overall, this tier mainly consisted of consistently average punters and one solid inconsistent punter, Riley Dixon. Overall, these guys were helpful to their teams, but average compared to their counterparts.

Punter	Number of Punts	Expected Points Added Per Punt (EPAPP)	% of Negative EP Punts (PNEP)	% of Punts with Positive EPB (PEPB)
Riley Dixon	70	**0.56**	**16%**	**10%**
Trenton Gill	64	**0.54**	**14%**	**14%**
Drue Chrisman	28	**0.53**	**11%**	**11%**
Corliss Waitman	94	**0.53**	**14%**	**9%**
JK Scott	71	**0.53**	**15%**	**18%**

Tier 6: The Below Average Punters

- Braden Mann (Jets)
- Bradley Pinion (Falcons)
- Thomas Morestead (Dolphins)
- Matt Haack (Colts)
- Andy Lee (Cardinals)
- Pressly Harvin III (Steelers)

We now move into the Below Average punters, who for one reason or another fall short of the league average.

We can first look at Braden Mann and Bradley Pinion who have EPAPP's of 0.53 which is league average. In Mann's case, he has a PNEP of 19% which is league average and 9% PEPB indicating the Jets' aggressiveness helped him. This seems to be league average numbers, but Mann did allow two of the three punts returned for TDs this season including one against Patriots that decided the game

4	0:26	4	3	NYJ 32	3	9	Braden Mann punts 52 yards, returned by Marcus Jones for 84 yards, touchdown		-1.240	-7.00

As you can see, Jones' TD had an EPA value of -5.76 which is huge. I say all this because this is also separate from the listed statistics and I believe it to be significant, hence why he's below average. For Pinion, he's in the below average tier due to his terrible 26% PNEP despite being in a favorable punting system. Over a quarter of Pinion's punts were negative, and his horrible consistency lands him in this tier.

The other four punters here just have below average numbers. Each of them had a EPAPP between 0.49 and 0.5 and a PNEP between 16% and 20%. All four had between 61 and 69 punts and none were overly conservative with the highest PEPB being Morestead with 15%. If anything, Andy Lee was helped extremely by the Cardinals aggressiveness with a PEPB of 6%. Overall, all these guys sported below average EPAPP's and were average at best in other areas. So, they land in Tier 6.

Punter	Number of Punts	Expected Points Added Per Punt (EPAPP)	% of Negative EP Punts (PNEP)	% of Punts with Positive EPB (PEPB)
Braden Mann	81	**0.53**	**19%**	**9%**
Bradley Pinion	62	**0.53**	**26%**	**10%**
Thomas Morstead	61	**0.50**	**16%**	**15%**
Matt Haack	69	**0.50**	**20%**	**9%**
Andy Lee	67	**0.49**	**16%**	**6%**
Pressley Harvin III	69	**0.49**	**17%**	**14%**

Tier 7: The Awful Punters

- Jordan Stout (Ravens)
- Pat O'Donnell (Packers)
- Arryn Siposs (Eagles)
- Corey Bojorquez (Browns)

We enter Tier 7, which I regard as the Awful Punters. These punters actively decrease their team's chances at winning relative to league average.

Jordan Stout had the highest EPAPP at 0.50, which is below average. However, he had a dismal 25% PNEP and was significantly hurt by his team's play style (16% PEPB). Stout's inconsistency drops him into Tier 7.

The other three punters all had dismal EPAPP's of 0.47. O'Donnell is the only one to have a PNEP at league average, 19%, and was somewhat hindered by his team's style, 19% PEPB. However, his PNEP is too low to be considered in the below average tier.

The interesting thing I find about this tier is that these punters were on rather successful teams. While Siposs missed some of the season through injury, he was on the dominant Eagles and Stout as on the playoff bound Ravens. Even O'Donnell and Bororquez were on teams that stayed out of the basement of the NFL. However, their team's success doesn't hide these punters from their awful statistics.

Punter	Number of Punts	**Expected Points Added Per Punt (EPAPP)**	**% of Negative EP Punts (PNEP)**	**% of Punts with Positive EPB (PEPB)**
Jordan Stout	56	**0.50**	**25%**	**16%**
Pat O'Donnell	52	**0.47**	**19%**	**19%**
Arryn Siposs	44	**0.47**	**23%**	**14%**
Corey Bojorquez	60	**0.47**	**28%**	**17%**

Tier 8: The Worst Punters

- Mitch Wishnowsky (49ers)
- Kevin Huber (Bengals)
- Michael Palardy (Patriots)
- Jake Bailey (Patriots)

Finally, we arrive at the worst four punters in the league. None of these punters posted an EPAPP above 0.33 and I'll dissect each.

Mitch Wishnowsky had the best EPAPP of the group at 0.33, which is still 0.14 from the bottom of Tier 7. That's the same distance in EPAPP between Cameron Johnston (Tier 3) and Corey Bojorquez in Tier 7. EPAPP isn't everything as Wishnowsky was hindered by his coaching with a 20% PEPB. However, I don't think that excuses his 27% PNEP and terrible EPAPP. Worst of all, he has a much larger sample size than anyone else in this tier with 59 punts, so this could be indicative of his ability.

Kevin Huber is 37 and reaching the end of an impressive career that has over 1000 punts and a pro bowl appearance. Unfortunately, his statistics this year were terrible with an EPAPP of 0.31 and PNEP of 26%. Unlike Wishnowsky, Huber had favorable coaching as well, he just no longer is a serviceable punter. The Bengals realized this as well as after Week 9 and 31 punts, he was benched for Drue Chrisman, who is in the average Tier/Tier 5[9]. Just a few weeks later, Huber was released by the Bengals[10]. An unfortunate but logical move for a Cincinnati legend.

[9] Kevin Huber 2022 Game Log | Pro-Football-Reference.com
[10] Bengals make roster moves after Hayden Hurst injury, Kevin Huber cut (usatoday.com)

Finally, we have the two worst statistical punters in the NFL and they both play for the New England Patriots. Jake Bailey, who is only 25 and was an All-Pro in 2020, had the worst EPAPP in the league at 0.14 with a PNEP of 37%. While the Patriots PEPB when he was punting was 29% which is noteworthy for a small sample size of 35 punts, the number is still atrocious. After Week 9, Bailey was placing on the Injured Reserve with a back injury that ended his season[11]. Could this have been why he struggled? Possibly, but he can't regress any further.

Meanwhile, the Patriots replaced him with Michael Palardy who was marginally better. He had an EPAPP of 0.27 and 32% PNEP which only looks good compared to Bailey. Overall, it's unsurprising that the Patriots let Bailey leave for Miami and didn't extend the 30-year-old Palardy's contract.

Punter	Number of Punts	**Expected Points Added Per Punt (EPAPP)**	**% of Negative EP Punts (PNEP)**	**% of Punts with Positive EPB (PEPB)**
Mitch Wishnowsky	59	**0.33**	**27%**	**20%**
Kevin Huber	31	**0.31**	**26%**	**10%**
Michael Palardy	41	**0.27**	**32%**	**12%**
Jake Bailey	35	**0.14**	**37%**	**29%**

Part 2: Regression:

For Part 2 of the analysis, I wanted to look at the correlation between a football team's success and punter's success. For the football team's success, I looked at a team's win total. I could have used other advanced statistics to get closer to a team's true ability, but win total is the most realistic way to evaluate a team's success. For punter success, I looked at EPAPP and PNEP. I excluded PEPB because that is affected more by coaches than punters.

One key regression statistic to note is Adjusted R Squared. At the bottom of this article, I have a very in-depth explanation of Adjusted R Squared; however, to explain in concise terms, a higher adjusted R Squared will say that EPAPP and PNEP strongly predict their team's wins. A strong Adjusted R Squared is usually above 0.3. The result of the regression is below:

Regression Statistics	
Multiple R	0.158582
R Square	0.025148
Adjusted R Square	-0.03775
Standard Error	3.124779
Observations	34

The adjusted R Squared is -.03, which is an insignificant amount. According to this regression, punters' success and NFL success have little correlation. This ignores a small one season sample size or other statistical tests that could look at the correlation. However, this was an interesting avenue to investigate.

[11] Patriots place P Jake Bailey on injured reserve, sign P Michael Palardy – Boston Herald

Conclusion:

In this paper, we got to go through a comprehensive analysis of punters. We used some new EPA statistics to evaluate and tier them. Overall, we found Johnny Hekker may be the best and Jared Bailey the worst. But does it even matter? Our regression found that a good punter might not matter at all. We'll have to do a future analysis to see if that's true.

Limitations and Areas to Improve

In addition to this conclusion, there are some limitations that should be noted. To start, while game by game expected points data was readily accessible on Football Reference, there isn't any comprehensive or yearlong data on expected points. This made gathering data rather difficult and I was unable to do past years and explore whether the All-Pro awards were correct because of this.

Additionally, every punt analysis will be different. There are so many factors you can control for as I decided to exclude punts that had fumbles for touchdowns but included those with penalties. This was a subjective decision which I explained, but the amount of control makes it difficult to compare studies with each other. Which one is correct, and which one is incorrect? You can control for punt coverage and the team's offensive ability as well, which affects punters' performance. There are so many factors that the punter doesn't have control over that affect his punting performance. It is impossible to account for all of this, but acknowledging it is important. The goal is to one day have a future study where all these factors can be successfully controlled.

Other Areas of Discussion:

There are many other areas I could have explored with my analysis. To start, the difficulty in gathering data made it impossible to look at past years. Hopefully someday the data will be more comprehensive so someone can analyze whether perceptions of past punters' success are justified, and All-Pro awards are correct.

There are other statistics we can look at such as spin and hang time. We can look at the process of what makes a punt successful rather than the result, which only I explore. This can include subjective points like looking at the best punters styles, release times and the personnel and coaching behind them. We can even see if specific special teams' coaches are better with elite punting teams or if they don't matter at all.

Additionally, we can look at other statistics to correlate with punting success. Does punting success correlate with SRS or Expected Wins? My regression analysis was rather simple due to the extensive tier list, but this is another area of discussion.

Appendix:

Adjusted R Squared Explanation:

What is Adjusted R Squared?

Adjusted R Squared is a modified version of R-Squared that accounts for predictors that are not significant in a regression model. R-Squared is used to explain the degree to which predictor variables explain the variation of output variables. In our analysis, R-Squared would be based on how Wins, SRS, Points/Goals/Runs For, Stadium Age and Payroll explain the variation in Attendance Percentage Capacity. If R-Squared is 0.9, it indicates 90% of the variation in Attendance Percentage capacity can be determined by the five predictor variables I just mentioned. The higher the R-Squared, the more your predictor variables explain the output variable. For Adjusted R-Squared, it shows whether adding additional predictors improves a regression model or not.

Why Do We Use Adjusted R Squared?

If you add more variables to a regression model, the R Squared will stay the same or improve because of how it's calculated mathematically. This means that even if there's no relationship between the predictor and output variable, the R-Squared may improve.

This is where Adjusted R Squared comes in. Adjusted R Squared is adjusted for the number of predictors in a model. Therefore, adding more variables doesn't automatically make a model look better.

What is a good Adjusted R Squared Value?

A good Adjusted R Squared value is a difficult question because it depends on the field and opinion. In my analysis today, I'll be using tiers to separate adjusted R Squared. In these tiers, I'll consider any model with an Adjusted R Squared of below 0.3 insignificant. This is due to my past experience in analysis, but the number does tend to move around a lot based on the industry and data.

Links:

- Adjusted R-squared - Overview, How It Works, Example (corporatefinanceinstitute.com)
- How to Interpret Adjusted R-Squared (With Examples) - Statology