



Cleveland Browns Kicker Analysis, 2015

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Recommendations

- ☐ **Bring in free agent competition**
 - ☐ **Travis Coons likely has below-average accuracy as a field-goal kicker, particularly at longer kick distances**
 - ☐ **We should also expect Coons to continue to struggle with blocked field goals**
- ☐ **Screen kicking candidates by advanced metrics**
 - ☐ **Expected points added**
 - ☐ **Adjusted field-goal percentage**

Traditional Kicking Statistics - 2015

	Travis Coons	League Average
Field Goal Percentage	87.5%	84.5%
Extra Point Percentage	91.7%	94.0%
Touchback Percentage	38.2%	58.3%

Advanced Metric #1

Expected Points Added

- ☐ **Assign an "expected points" value at the start of each play based on the game situation**
- ☐ **Expected points added is the difference in expected points before and after the play**
- ☐ **Expected points enable player comparisons and can be calculated for all phases of the game**

Expected Points Added (EPA) - 2015

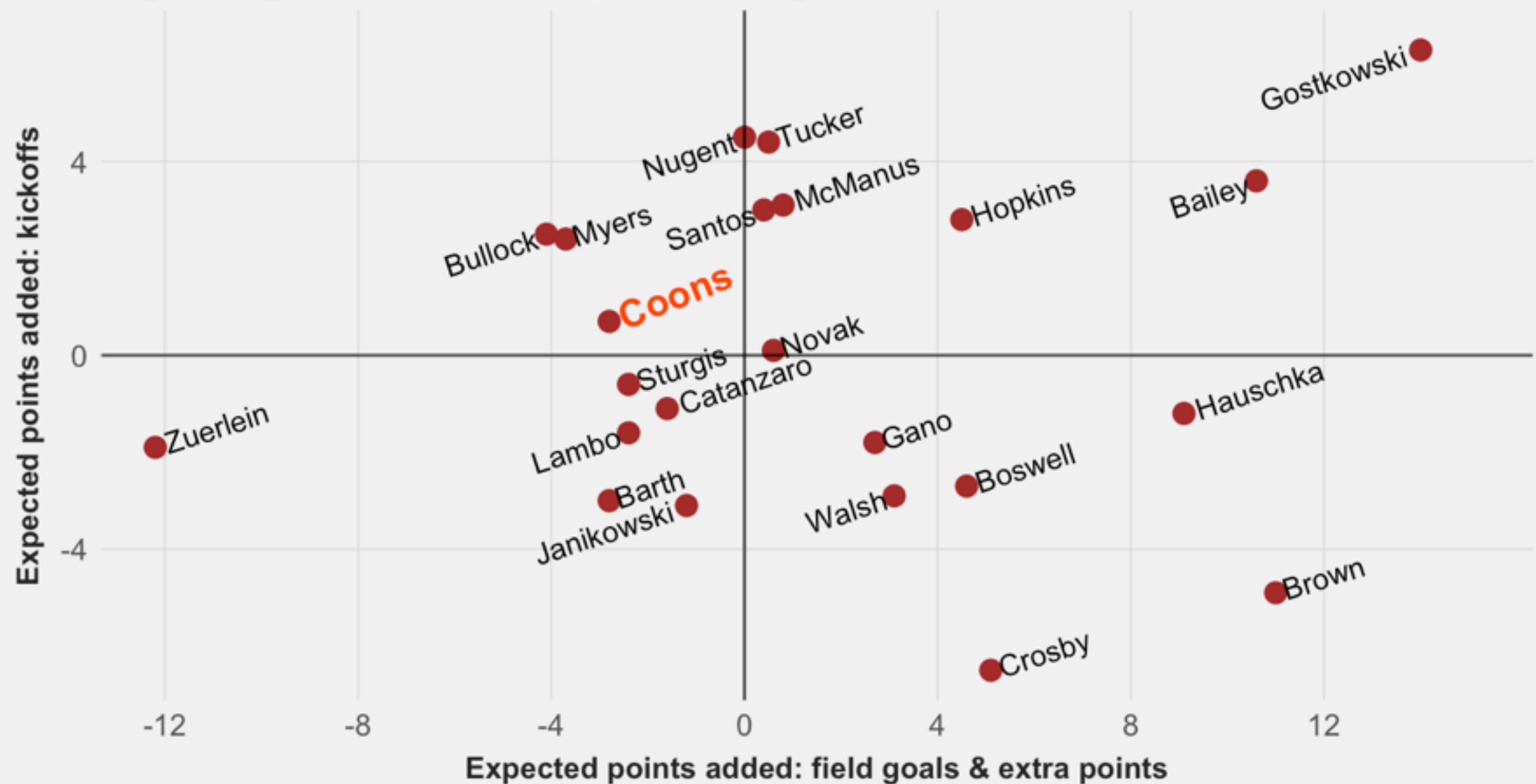
Travis Coons

	Travis Coons
Field Goal EPA	-2.2 pts
Extra Point EPA	-0.6
Kickoff EPA	+0.7
Total EPA	-2.1

Comparing Coons to Other Kickers

Kickers can add significant value

Expected points added: field goals, extra points and kickoffs, 2015



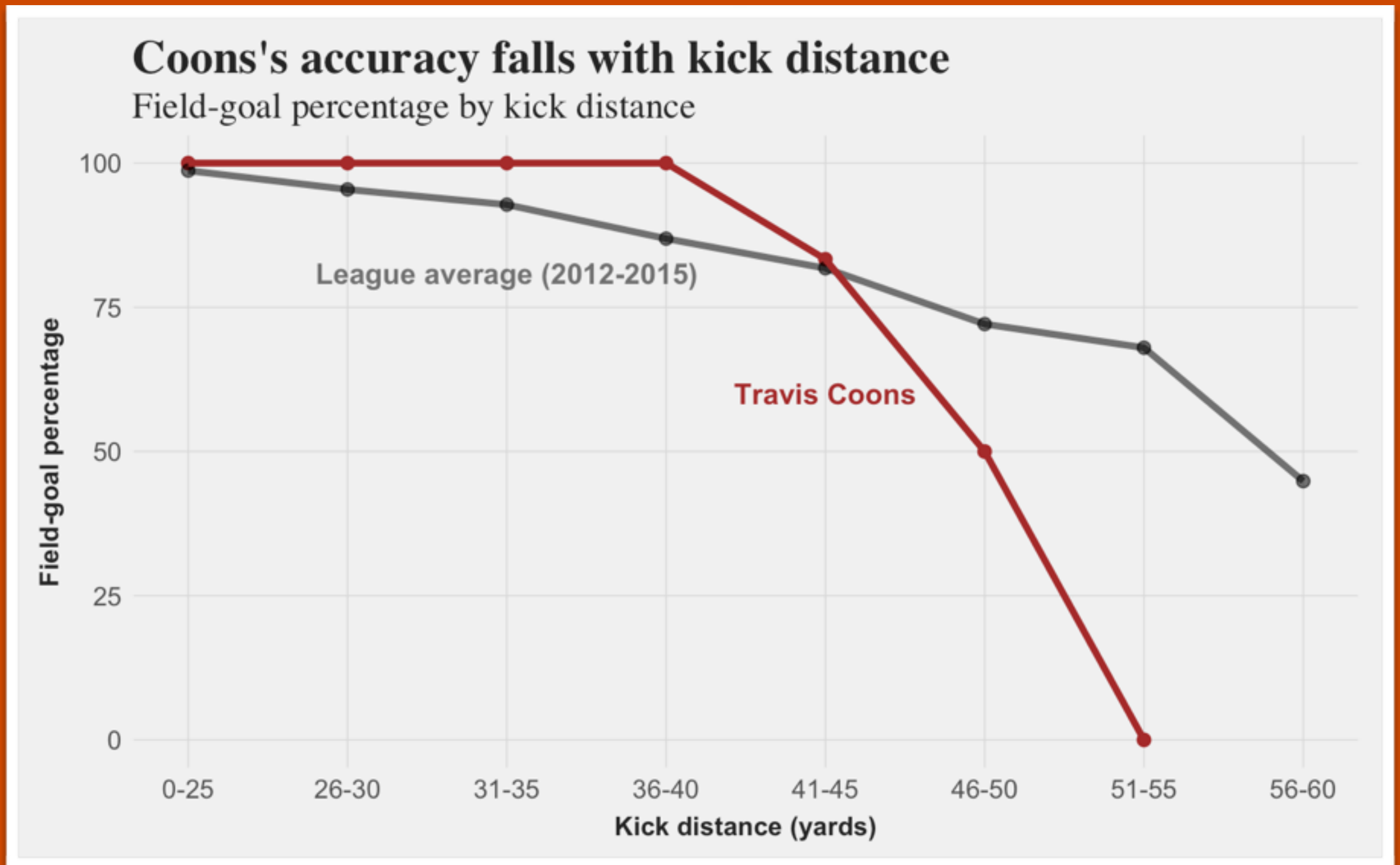
Data: Browns & Armchair Analysis

Advanced Metric #2

Adjusted Field-Goal Percentage

- ☐ **Traditional field-goal percentage ignores kick difficulty**
- ☐ **Adjusts each kicker's distance distribution to league average**
- ☐ **Allows better kicker-to-kicker comparison**

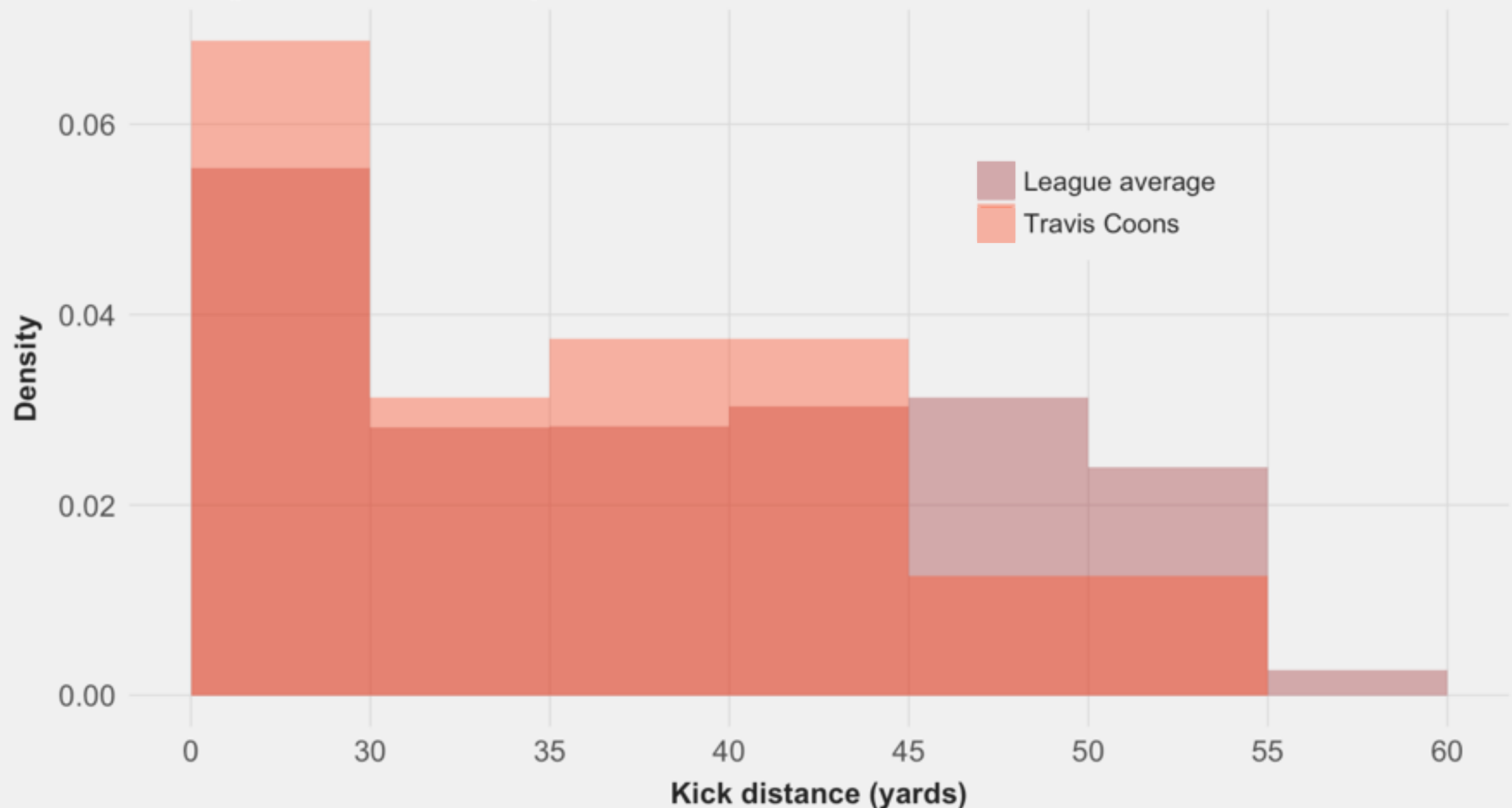
A Deeper Look at Coons's Performance



A Deeper Look at Coons's Performance

Coons's attempts are concentrated at shorter distances

Field-goal distribution by distance, 2015



Advanced Metric #2

Adjusted Field-Goal Percentage

	Field-Goal Percentage	Adjusted FG Percentage
Travis Coons	87.5%	76.4%
League Median	84.1%	

Forecasting Coons's Performance - 2016

☐ Bayesian statistics

Initial belief (All NFL kickers)

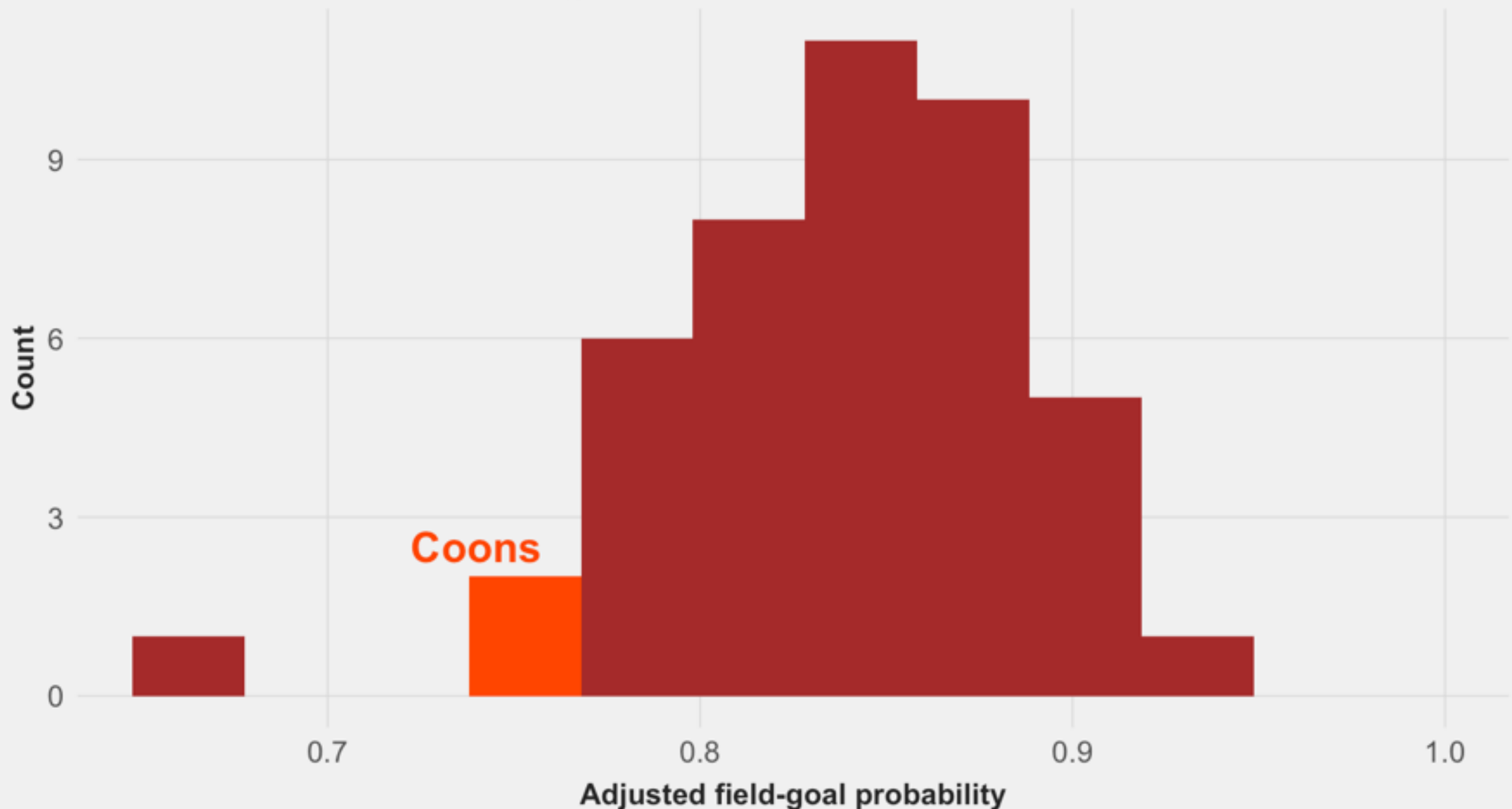
+ Evidence (Coons's adjusted 2015 performance)

= New belief (2016 forecast)

Adjusted Field-Goal Probability Distribution

Coons is near the bottom in adjusted field-goal probability

Minimum 30 field-goal attempts, 2012-2015



Forecasted Adjusted Field-Goal Percentage

	Travis Coons	All NFL Kickers
Expected Value: “Best Guess”	81.2%	83.4%
90th Percentile: “Upside”	86.0%	88.9%
10th Percentile: “Downside”	76.1%	77.5%

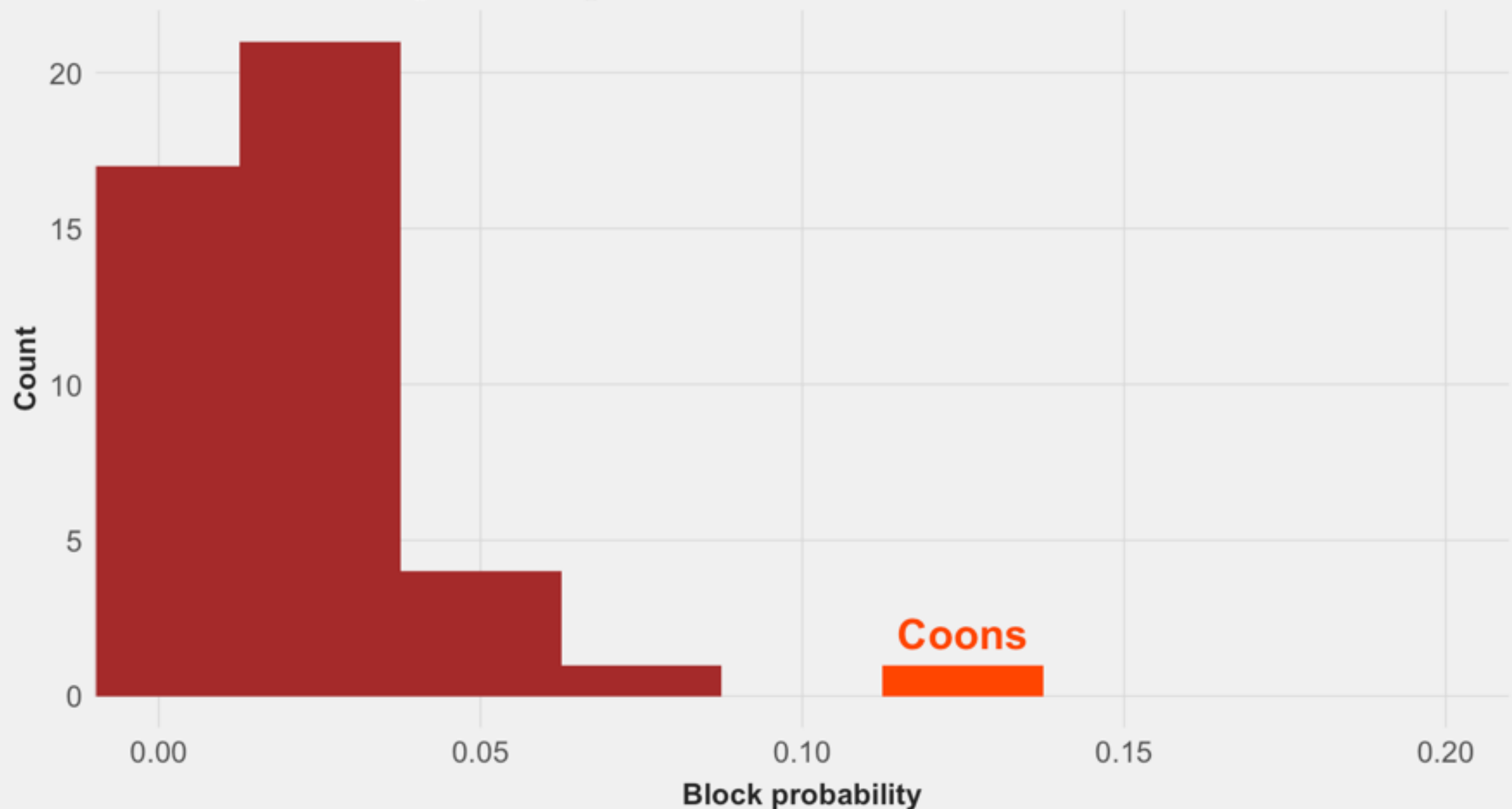
Forecasted Expected Points Added

	Travis Coons	All NFL Kickers
Expected Value: “Best Guess”	-2.0 pts	+0.2
90th Percentile: “Upside”	+2.8	+5.8
10th Percentile: “Downside”	-7.2	-5.8

Does Travis Coons Have a Block Problem?

Coons is an outlier to the high side in block probability

Minimum 30 field-goal attempts, 2012-2015



Forecasting Performance - Block Percentage

	Travis Coons	All NFL Kickers
Expected Value: “Best Guess”	6.7%	2.2%
90th Percentile: “Upside”	3.3%	0.2%
10th Percentile: “Downside”	10.7%	5.2%

Forecasting Performance - Kickoffs

- ☐ **2016 rule change moving touchback to the 25-yard line takes effect complicates forecasts**
- ☐ **Touchbacks should go from positive expected points added to negative**
- ☐ **Coons's below-average touchback percentage still relevant, but less of a negative**

Which Free Agent Kickers Have the Best Advanced Metrics?

	Date Released	2012-2015 FG Attempts	“Best Guess” Adjusted FG Percentage	“Best Guess” EPA
Robbie Gould	9/4/2016	106	85.5%	+2.3 pts
Connor Barth	5/2/2016	77	84.4%	+1.2
Cody Parkey	9/3/2016	40	83.9%	+0.7
Patrick Murray	5/19/2016	24	83.7%	+0.5