EVALUATING THE NFL COMBINE

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WHAT IS THE NFL COMBINE?

SKILLS DISPLAY FOR NFL PROSPECTS

The NFL Combine is held annually and tests the athleticism of players who are eligible to enter the NFL.

NFL team scouts use combine metrics as a player evaluation tool in making draft-day decisions.

However, it's **reliability** is still highly debated.

MAKING AN NFL ROSTER

Getting drafted into the NFL has major implications for players that go beyond just making it into the league.

There are **financial** and **contractual** benefits: more guaranteed money and an extra guaranteed year in a player contract.

CAN WE PREDICT WHETHER A PLAYER GETS DRAFTED?

WHICH DRILLS ARE MOST IMPORTANT?

DATA & METHODOLOGY

SCOPE

The data we used contained individual drill metrics of combine attendees from **1987** to **2017**, giving us coverage of **30 years**

DRILLS

- 40 yard dash
- Bench press
- Vertical jump
- Broad jump
- 3 cone shuttle
- 20-yard shuttle
- 60-yard shuttle

DATA APPROACH

- Chose to narrow focus to **linemen** (offensive, defensive) due to availability of data and predictive power
- Resulting in **3098** total observations
- 60-yard shuttle dropped due to too many players not participating

RESULTS

	PREDICTED UNDRAFTED	PREDICTED DRAFTED
ACTUALLY UNDRAFTED	**0.13** (80)	**0.20** (124)
ACTUALLY DRAFTED	**0.10** (65)	**0.57** (351)

70% ACCURACY

74% PRECISION

Out of all the linemen that were drafted, our model correctly predicted 74% of them.

40 YARD DASH

MOST CRITICAL DRILL

- Designed to measure straight line speed

- Proved to be most significant metric by a factor of 4

- Run by 93% of participants

3 CONE SHUTTLE

STILL A VALUABLE DRILL

- Designed to measure short distance agility

- Proved to be 2nd most significant metric

- Participated in by 51% of participants

FINAL TAKEAWAYS

01   ATHLETICISM IS STILL VALUABLE IN NFL CIRCLES

02   THE COMBINE IS A FRUITFUL OPPORTUNITY FOR UNPROVEN TALENTS

03   MOST IMPORTANT DRILLS ARE THE 40 YD DASH AND 3 CONE SHUTTLE

FUTURE ACTIONS TO TAKE

INCLUDE COLLEGE STATISTICS

College statistics and performance are likely seen as the biggest indicator of NFL performance and achievement. Adding these to our model would improve its predictive power.

ATTEMPT TO PREDICT WHEN A PLAYER GETS DRAFTED

Segmenting further by draft day or round would give us more insight into round-by-round differences between players.

DETERMINE SPECIFIC DRAFT VALUE PER POSITION

To inform drafting strategy on the team side, it would be helpful to determine the relative value of each position per round. This would help NFL executives determine which positions to target in each round.

QUESTIONS?