

# THE 3-PEAT BLUEPRINT

A Data-Driven Strategy for the LA Dodgers Championship Excellence

By: Dylan Brown

Capstone Project Final Presentation



# THE '3-PEAT' PROBLEM STATEMENT

## SUSTAINING CHAMPIONSHIP EXCELLENCE



### THE CHALLENGE

World Series winners often face 'championship hangover' or roster regression in subsequent seasons.



### THE GOAL

Identify specific elite targets for 2025 to ensure statistical dominance and sustained excellence.



### THE CLIENT

Dodgers Front Office  
(Executive Audience)

# THE DATA STRATEGY (OUR SOURCES)

## MOVING BEYOND THE BACK OF THE BASEBALL CARD



### DATASETS

Aggregated 2024-2025 MLB Statcast data covering both Hitters and Pitchers for comprehensive analysis.



### THE NOISE

Traditional stats like AVG and ERA can be influenced by luck and small sample sizes.



### THE SIGNAL

Focus on raw mechanics: Exit Velocity, Whiff Rates, and other predictive metrics.

# DEFINING THE 'GOLD STANDARDS'

## METRICS THAT PREDICT THE FUTURE



### XWOBAA (EXPECTED WEIGHTED ON-BASE AVERAGE)

Measures contact quality for hitters based on launch angle, exit velocity, and batted ball type. More stable than traditional batting average.



### K% (STRIKEOUT PERCENTAGE)

Measures pure dominance and high-leverage reliability for pitchers.  
Stabilizes faster and predicts postseason success better than ERA

Why? These metrics stabilize faster and are better predictors of post-season success than traditional statistics.



# METHODOLOGY: THE PREDICTIVE ENGINE

## MODELING ELITE PERFORMANCE

### MODEL SELECTION

Random Forest Regressor chosen for its ability to handle complex non-linear relationships in player performance data.

### PROCESS

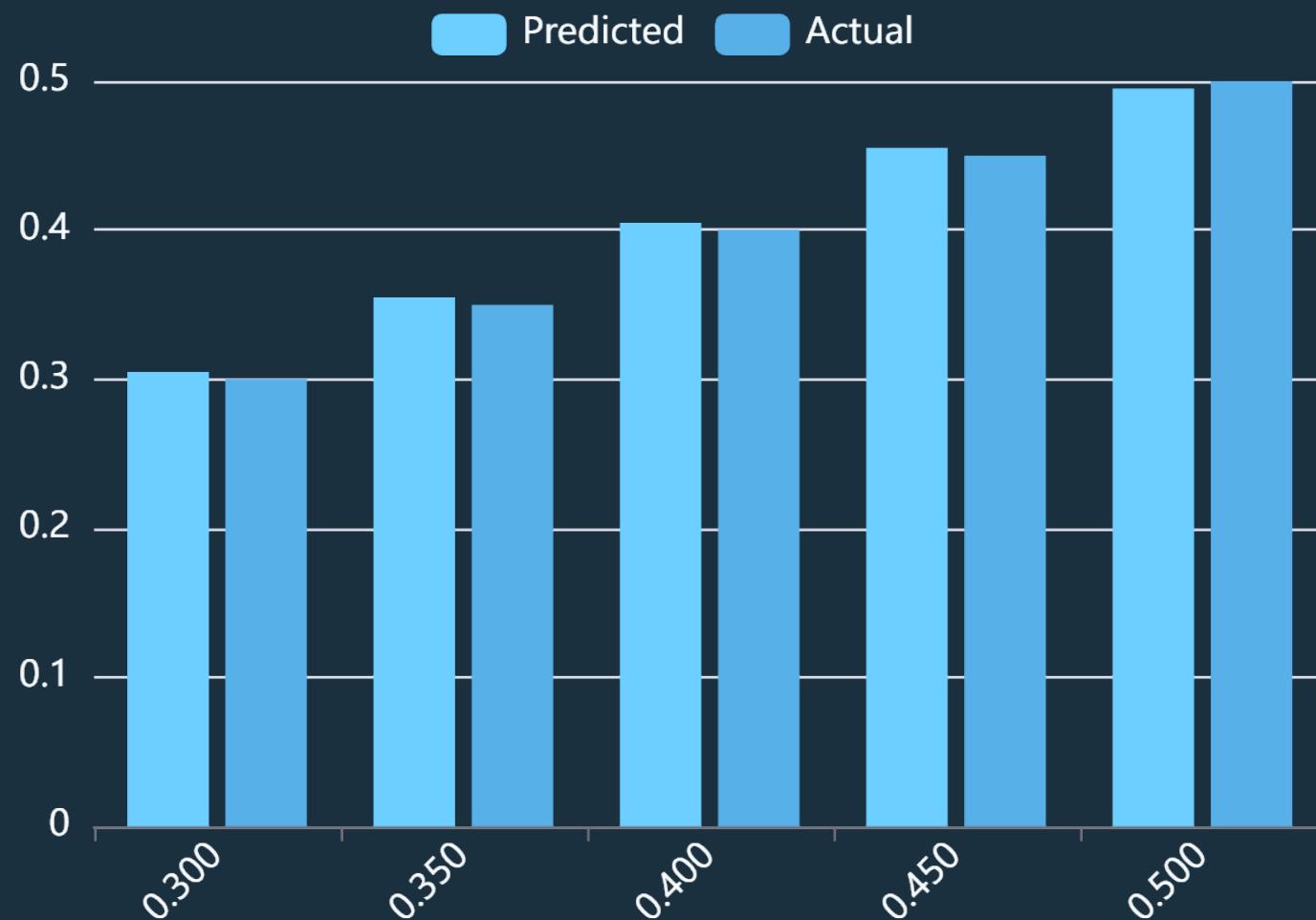
Used mechanical inputs (Barrel%, Launch Angle, Bat Speed) to predict a player's 'true talent' xwOBA beyond surface-level results.

### VALIDATION

80/20 Train-Test split to ensure we aren't just memorizing old stats but predicting future performance accurately.

# MODEL PERFORMANCE (THE PROOF)

Predicted vs Actual xwOBA



## HIGH PRECISION

MAE: 0.0436 - The model is accurate within approximately 4% of actual xwOBA values.

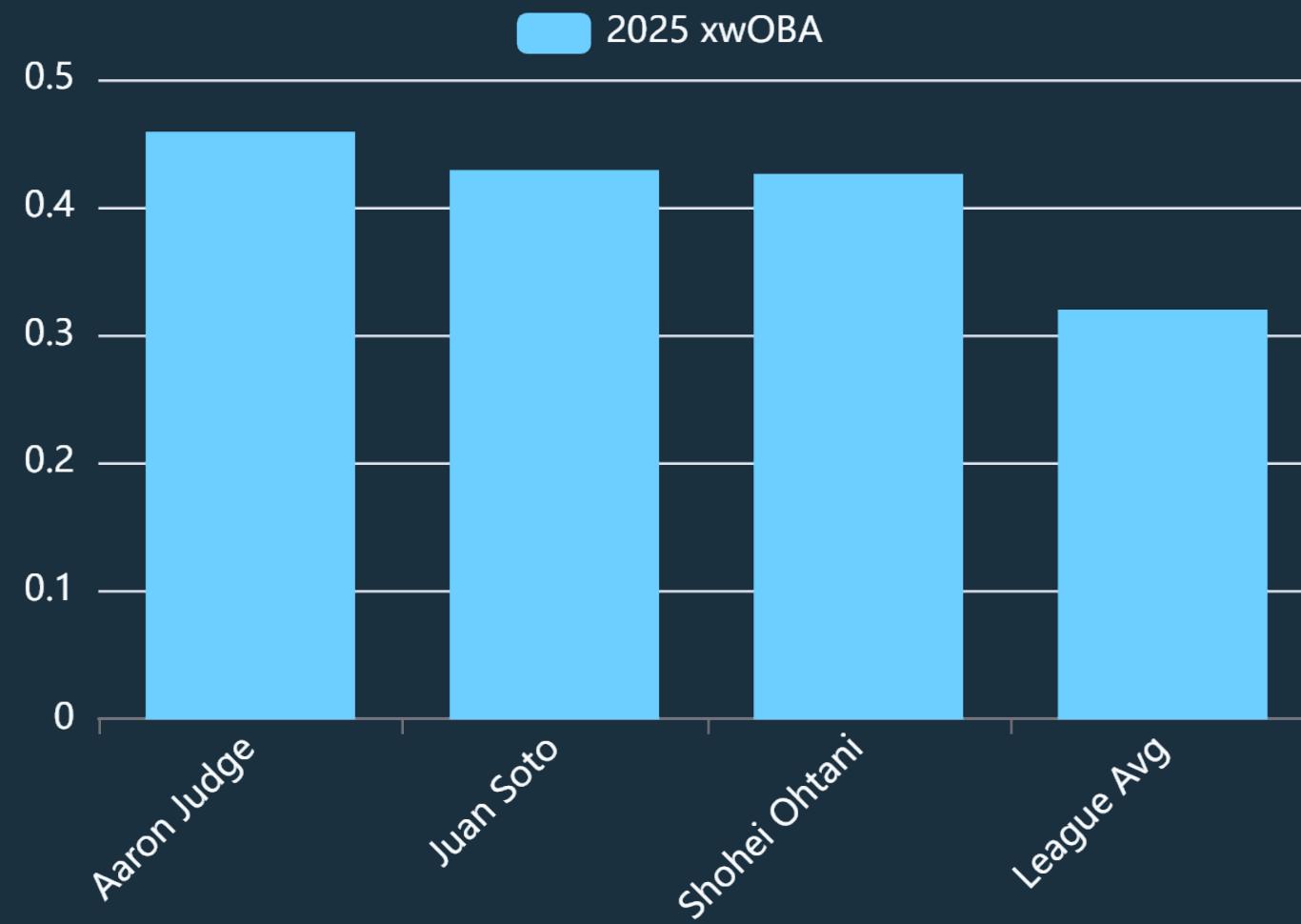


## STRONG PREDICTIVE POWER

R<sup>2</sup> Score: 0.6139 - Over 61% of performance variance is explained by the raw mechanics tracked.

# 2025 HITTER TARGETS

## Top Elite Hitters by xwOBA



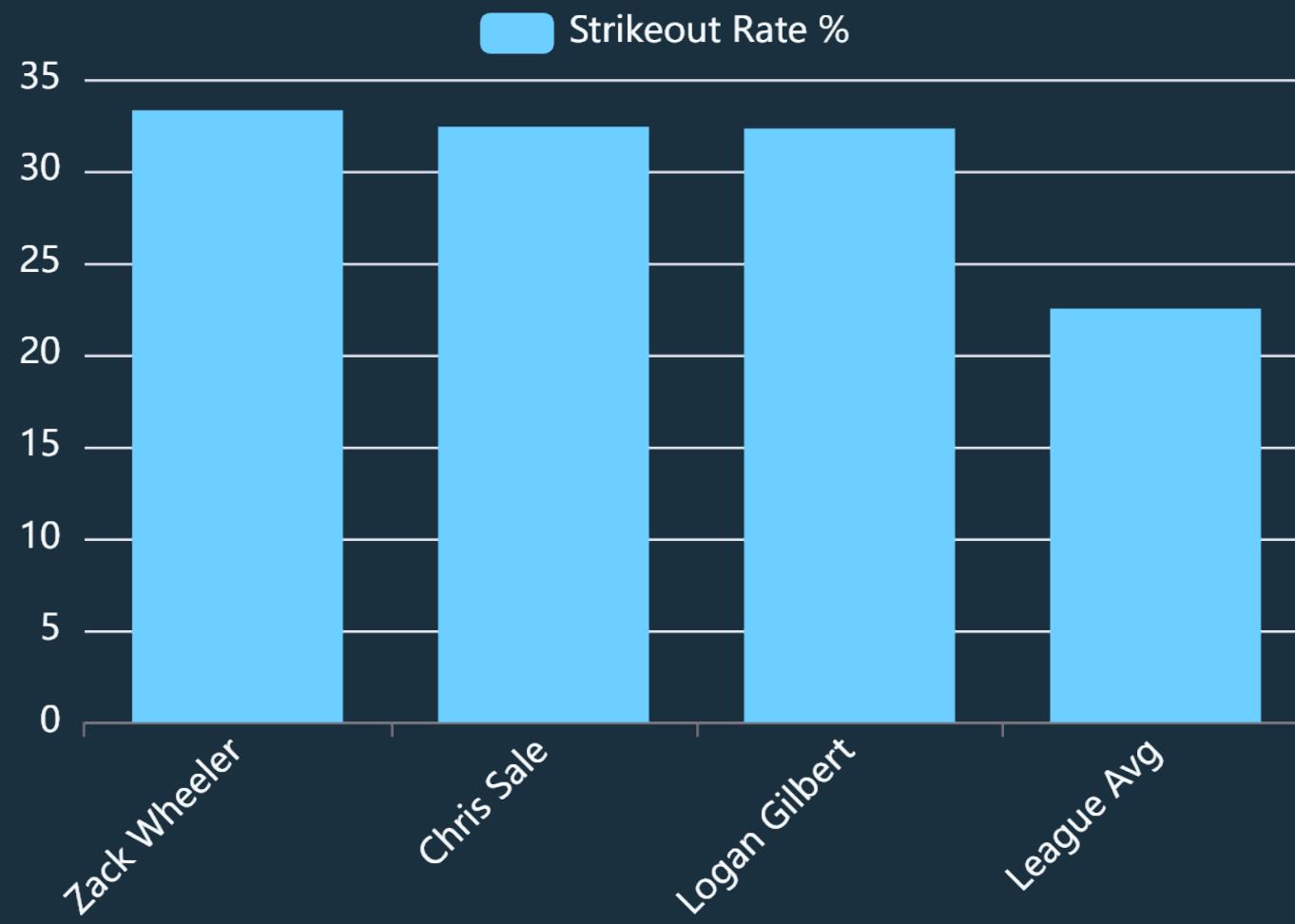
## THE ELITE OFFENSIVE FLOOR

These three players represent the highest echelon of offensive production based on contact quality metrics. Their xwOBA values significantly exceed league average, providing championship-caliber offensive insurance.

- Aaron Judge: 0.459 xwOBA - Elite power and contact quality
- Juan Soto: 0.429 xwOBA - Superior plate discipline and barrel rates
- Shohei Ohtani: 0.426 xwOBA - Dual-threat elite offensive production

# 2025 PITCHING TARGETS

## Top Elite Pitchers by K%



## NEUTRALIZING THE OPPONENT

Elite strikeout pitchers reduce bullpen stress during playoff runs and provide consistent high-leverage performance. These three arms represent the highest K-rates in baseball, ensuring postseason dominance.

- Zack Wheeler: 33.3% K-Rate - Ace-level whiff generation and durability
- Chris Sale: 32.4% K-Rate - Elite swing-and-miss stuff with playoff experience
- Logan Gilbert: 32.3% K-Rate - Emerging ace with elite strikeout capability

# STRATEGIC RECOMMENDATIONS

## ACTIONABLE INSIGHTS FOR THE FRONT OFFICE



### PURSUE A 'MEGA-OUTFIELDER'

Signing Soto or Judge provides an outlier offensive floor that protects against Ohtani/Betts regression and ensures lineup depth for October baseball.



### THE 'WHIFF' ROTATION

Prioritize Zack Wheeler to ensure the bullpen isn't overworked during the playoffs. Elite K-rates reduce defensive stress and provide postseason reliability.



### DATA-FIRST SCOUTING

Use the xwOBA predictive model to evaluate internal prospects before trading them. Identify undervalued talent based on mechanics, not luck.



## QUESTIONS FOR THE FRONT OFFICE?

DATA ISN'T JUST FOR SPREADSHEETS; IT'S THE INSURANCE POLICY FOR A 3-PEAT.