

EDA Livecase Presentation

FROM COURT TO CASH

How NIL Is Reshaping NCAA Performance

Group 1D

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NIL: Game-Changer or Distraction?

With the introduction of NIL policy, NCAA athletes are allowed to monetize Name, Image, and Likeness (NIL).

This change raises critical questions for **UMN and Dinkytown Athletes**:

What more can we do to help more student athletes secure NIL deals?



Are there any
game performance shifts
post NIL that is caused by NIL?



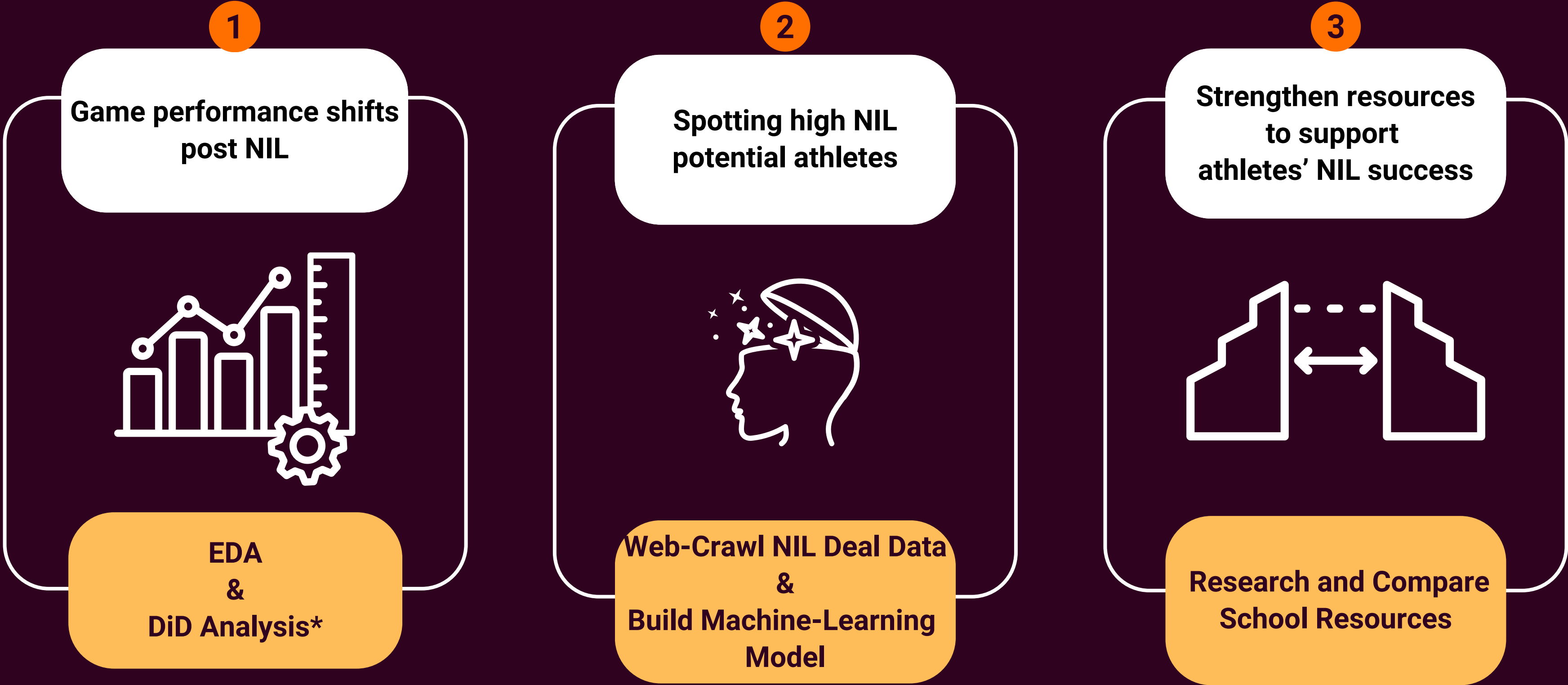
How do we **spot athletes with**
higher potential to get NIL deals
based on their game performance?



Compared to competitors,
where can UMN & Dinkytown Athletes
strengthen their resources to better
support athletes' NIL success?

Methodology Overview

What more can we do to help more student athletes secure NIL deals?



*DiD: Difference in Differences; EDA: Exploratory Data Analytics
*NIL deals data source : Web crawling from <https://nilcollegeathletes.com/athletes>

Key Insights



Game performance shifts post NIL

- Both men and women athletes showed an increase in WS.40 post NIL.
- Both athletes with and without NIL deals showed an increase in WS.40 post NIL.



Spotting high NIL potential athletes

- Our predictive Random Forest model achieved an AUC* of 0.8 across both men's and women's athletes.
- Shooting metrics (FGA, 3PTA, FTA) emerged as the top predictors of NIL-deal probability.
- Our current model drew exclusively on on-court performance data.



Strengthen resources to support athletes' NIL success

- Among universities with athletes who received NIL deals*, about 72% landed less than 3 deals. UMN sits in the mid-tier.
- UMN stands out with strong media support and alumni involvement.
- UMN falls behind in academic integration and formal legal/brand partnership support.



**What differences did we see post NIL
and is NIL the cause of these changes?**

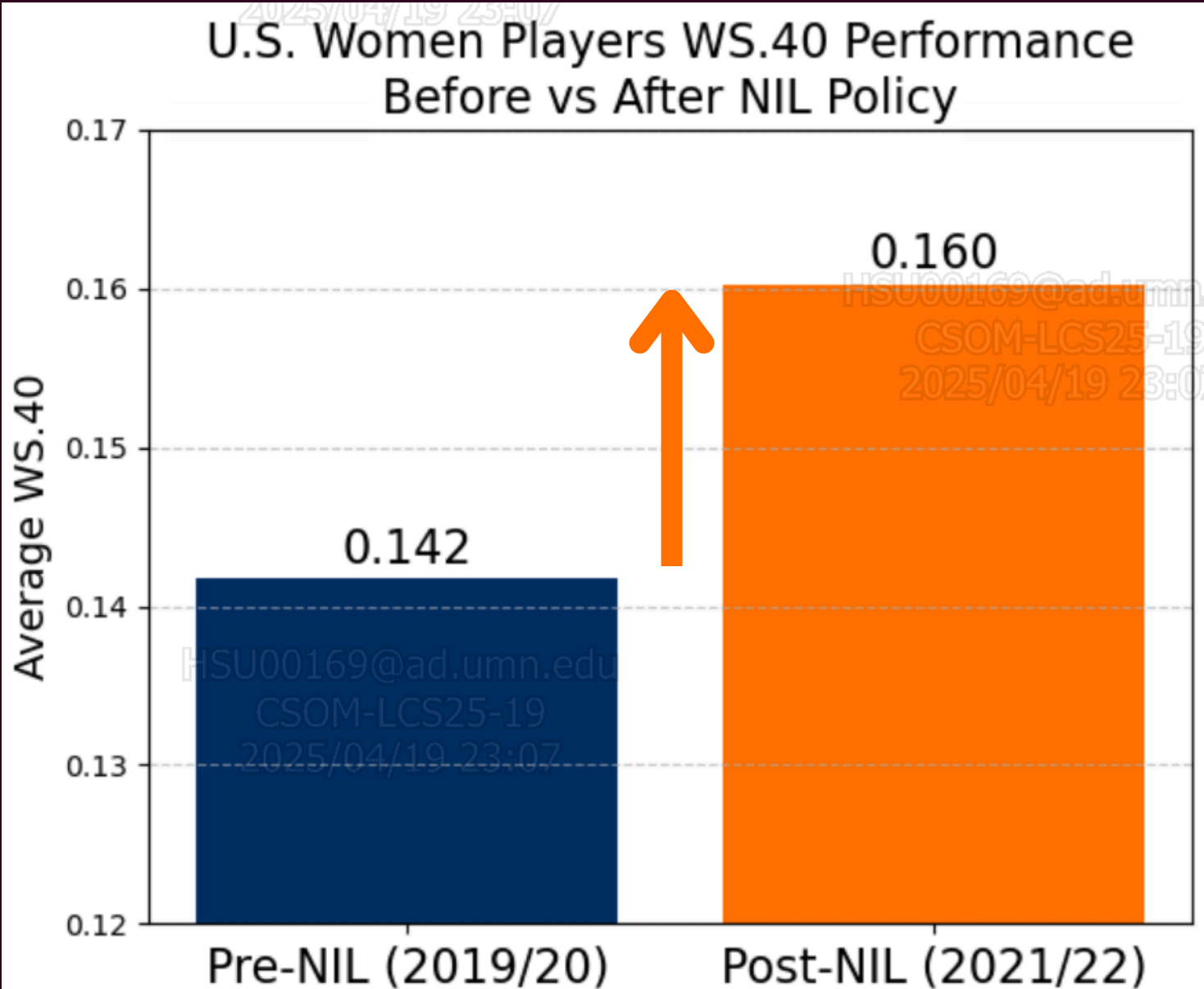
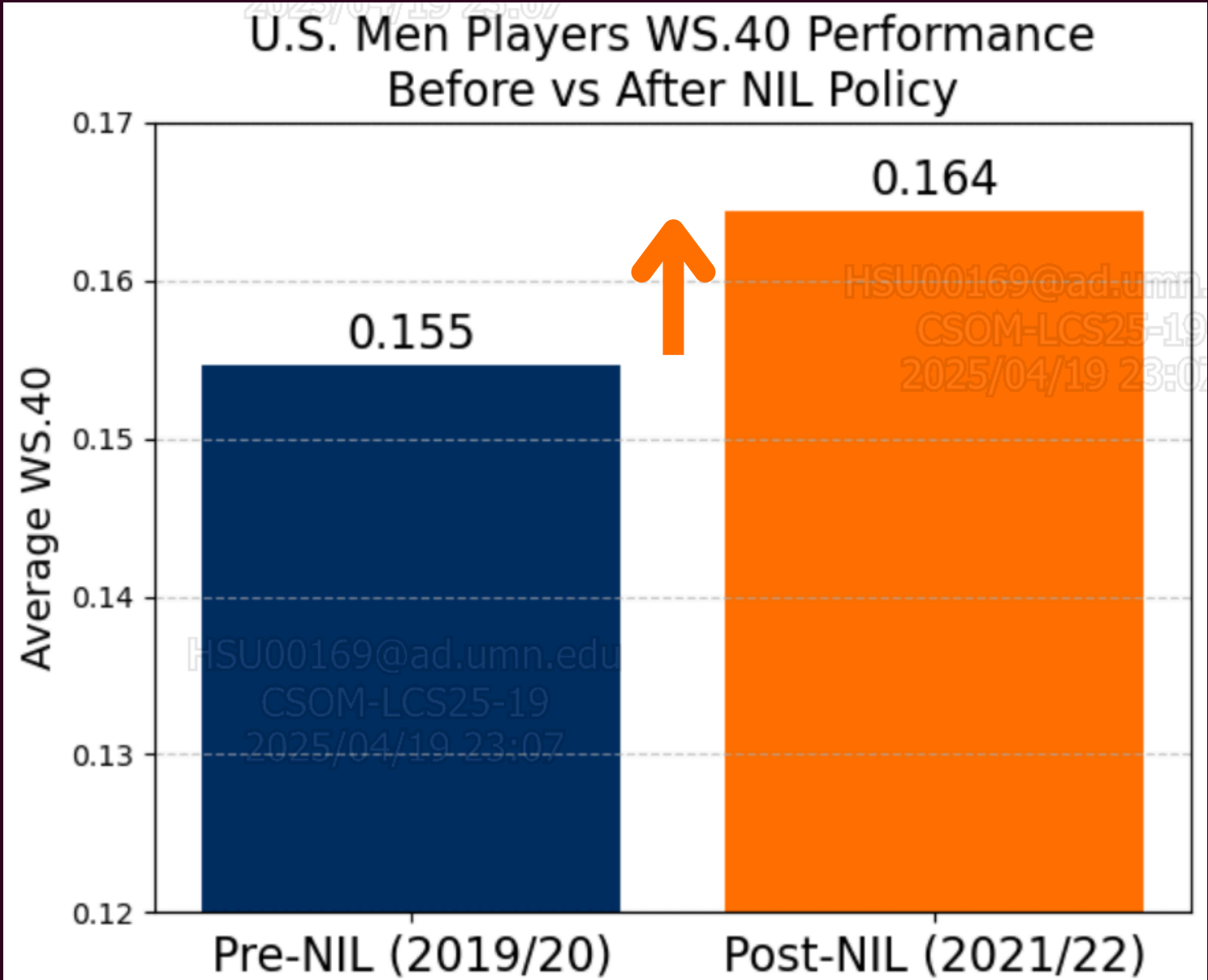
Athletes got better performance post NIL

Evaluation Metrics

WS.40

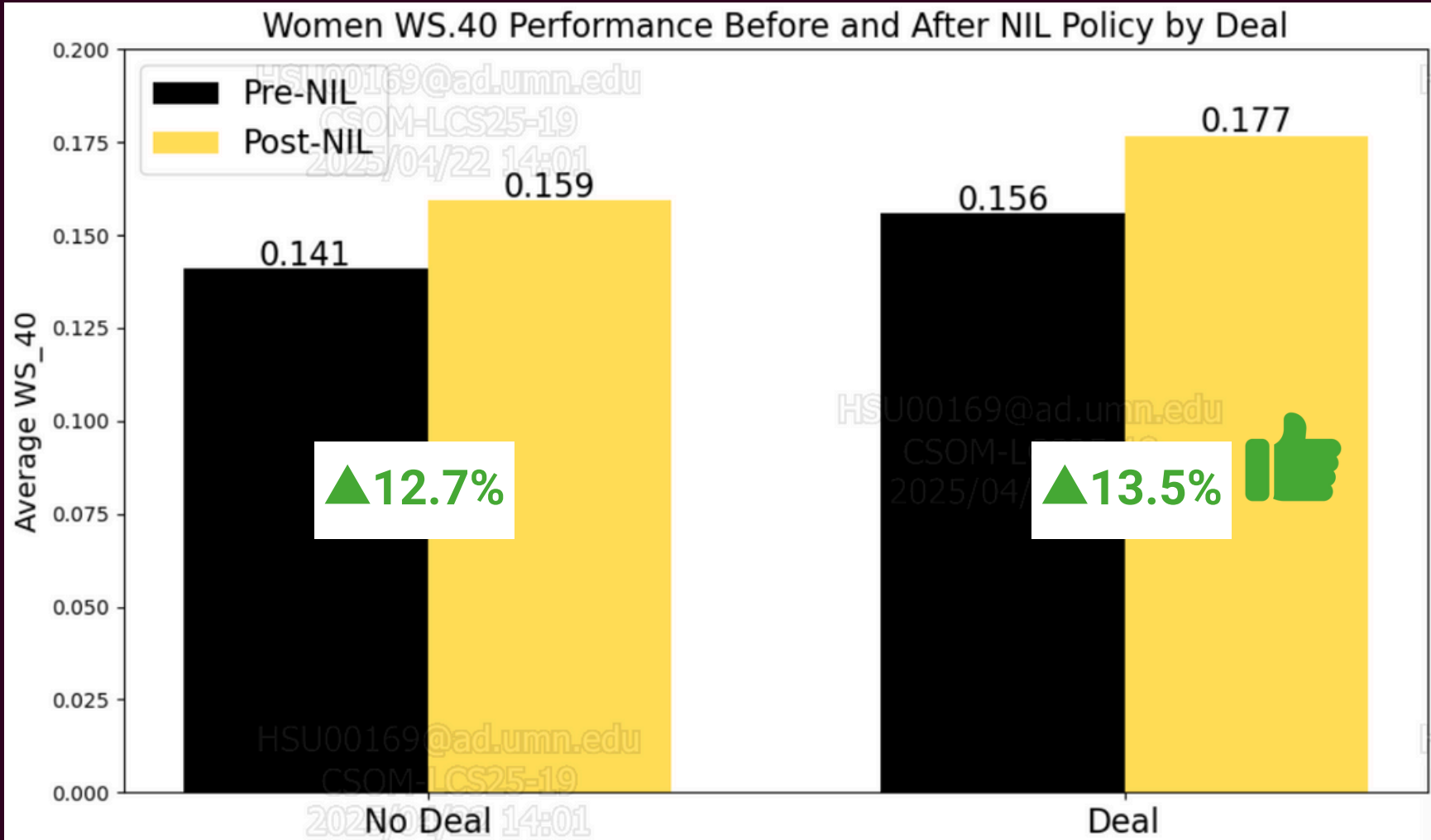
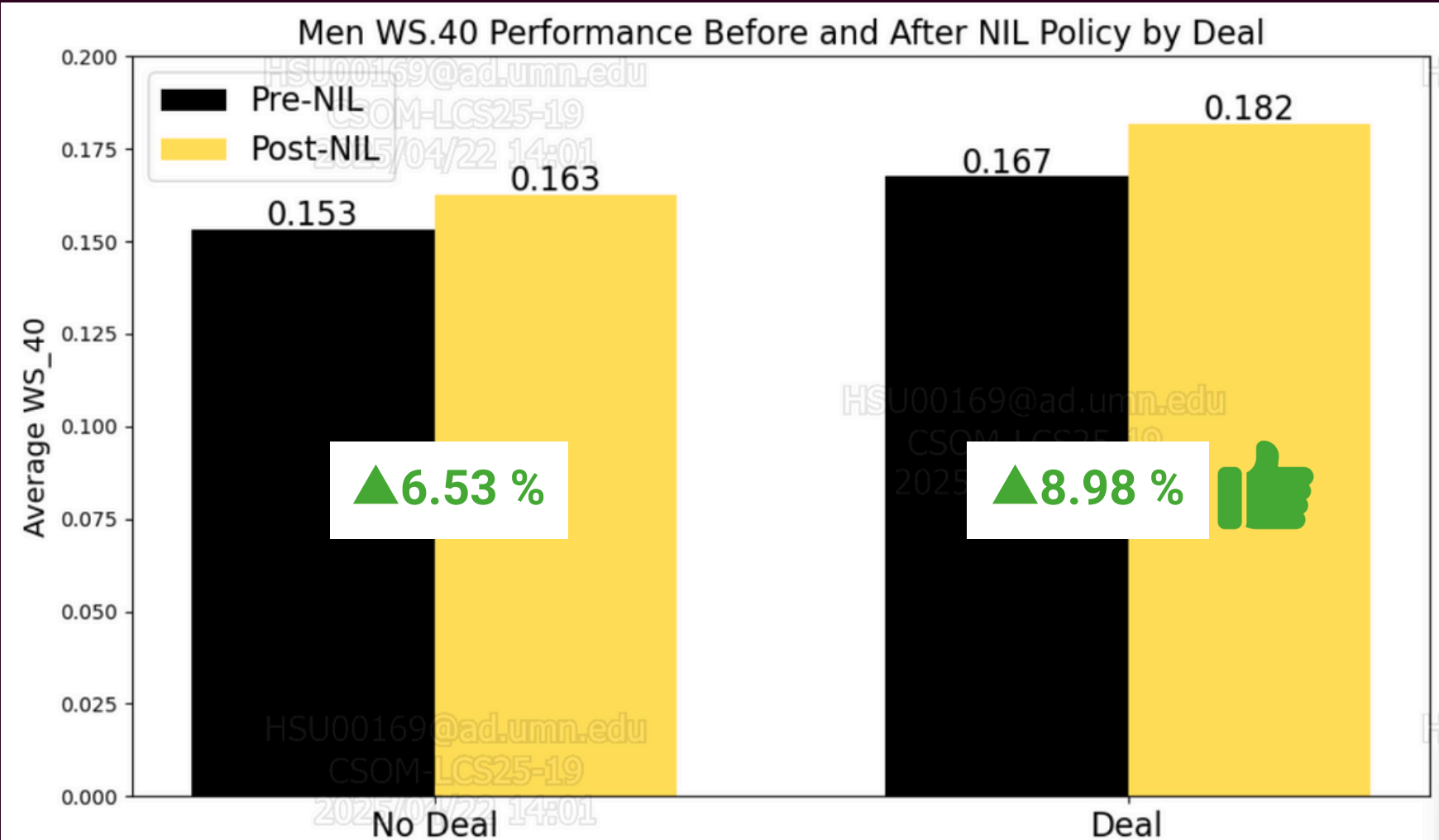
Estimate how much athletes contributes to their team's wins per 40 minutes of play

- ✓ Focuses on student athletes who participated both pre- and post-NIL
- ✓ Captures both offensive and defensive contributions



Both deal & non-deal athlete improved on performance

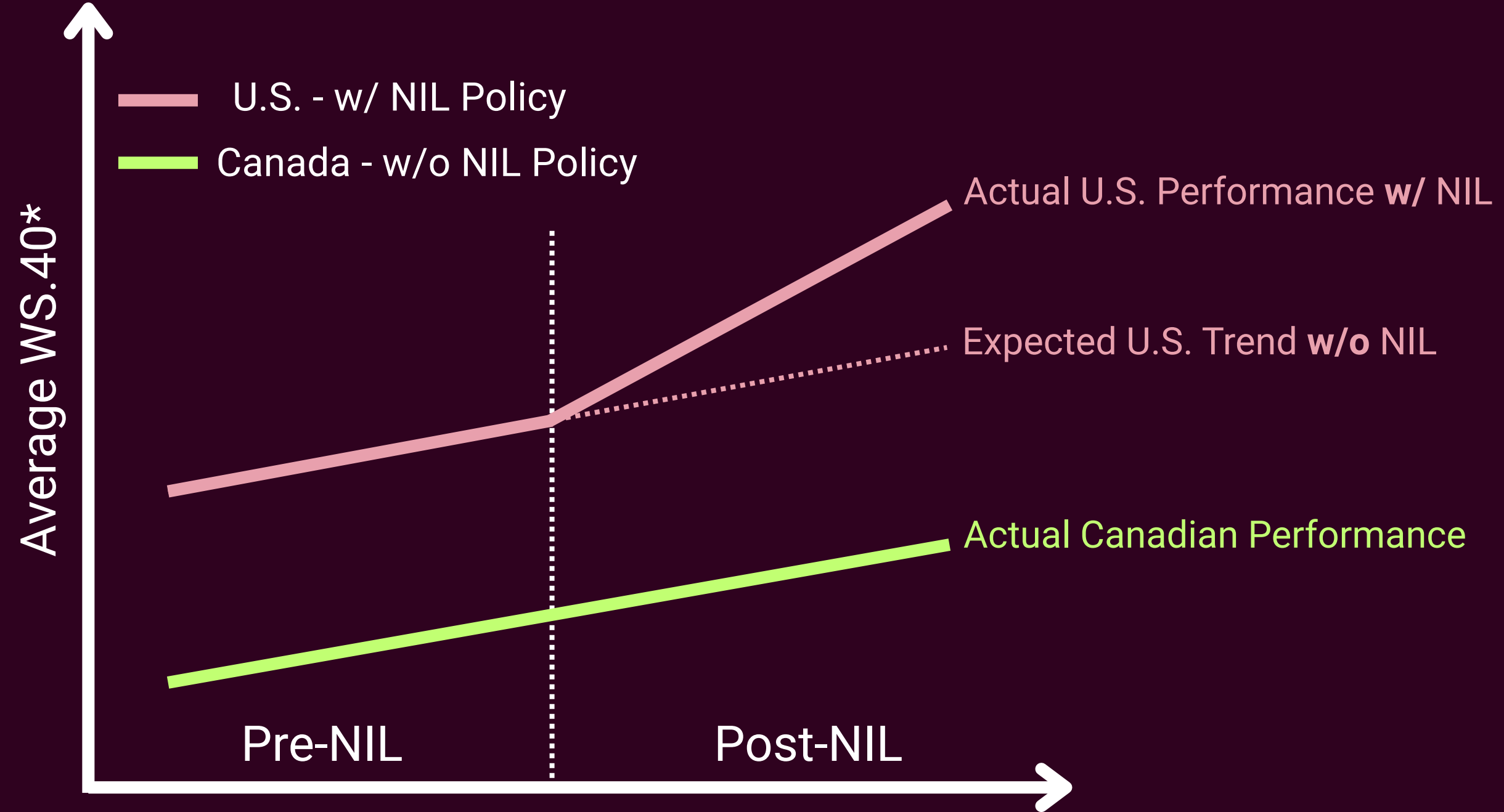
Following NIL policy introduction, both athletes with and without deals showed an increase in WS.40, with stronger gains among recipients.



*WS.40 = Win Shares per 40 minutes

NIL policy linked to performance growth in U.S. athlete

Difference in Difference (DiD) Analysis



DiD Explanation

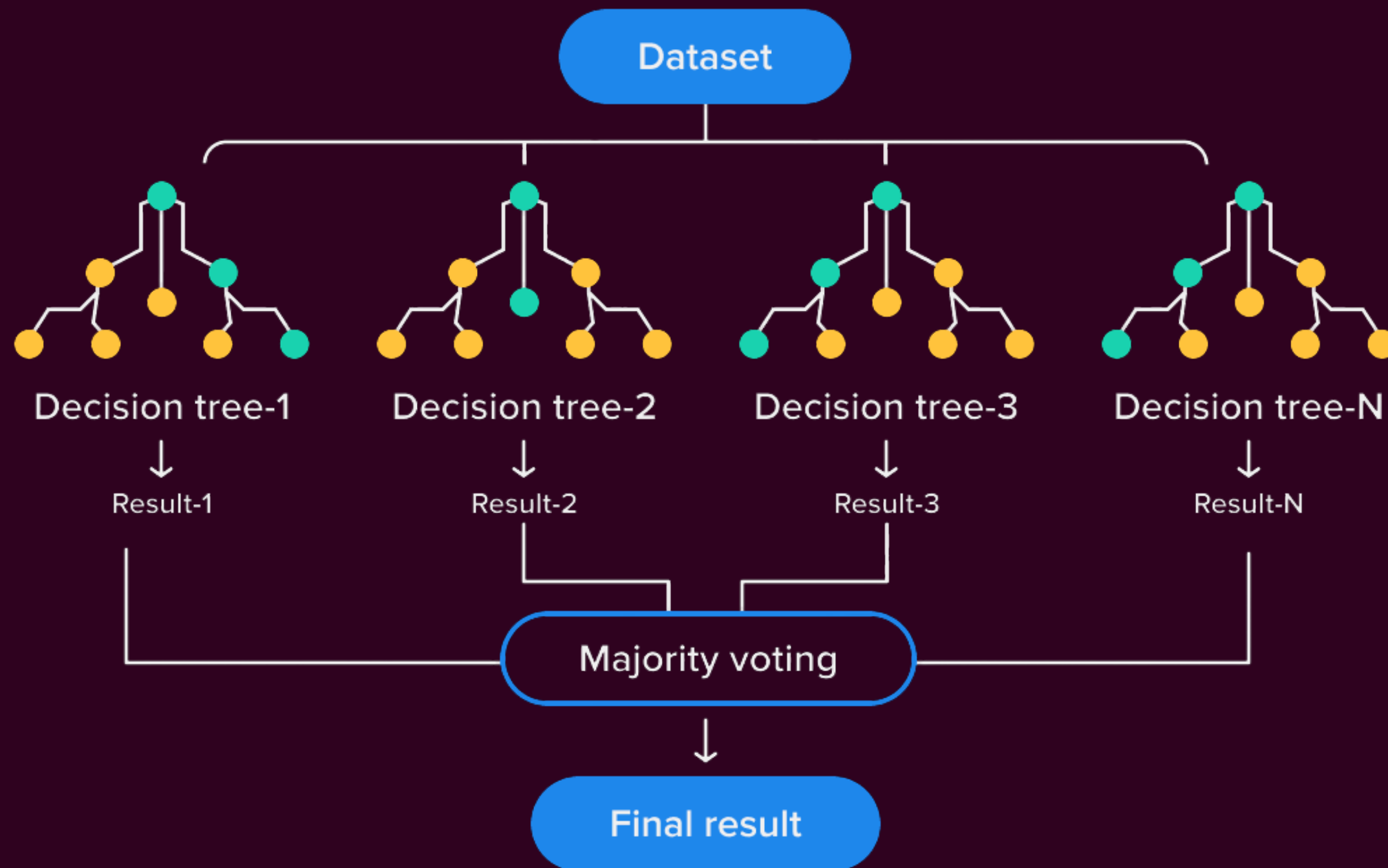
- Assumption : Canadian athletes share similar characteristics with U.S. athletes
- Rationale : Compared U.S. to Canadian athletes, to isolate the effect of NIL on performance.
- Result : NIL caused a performance increase of +0.016 (male), +0.0085 (female) on U.S.athletes

*WS.40 = Win Shares per 40 minutes



How can we identify athletes with higher potential to get NIL deals based on their on court performance?

Prediction Model on NIL Deal Talent - Random Forest



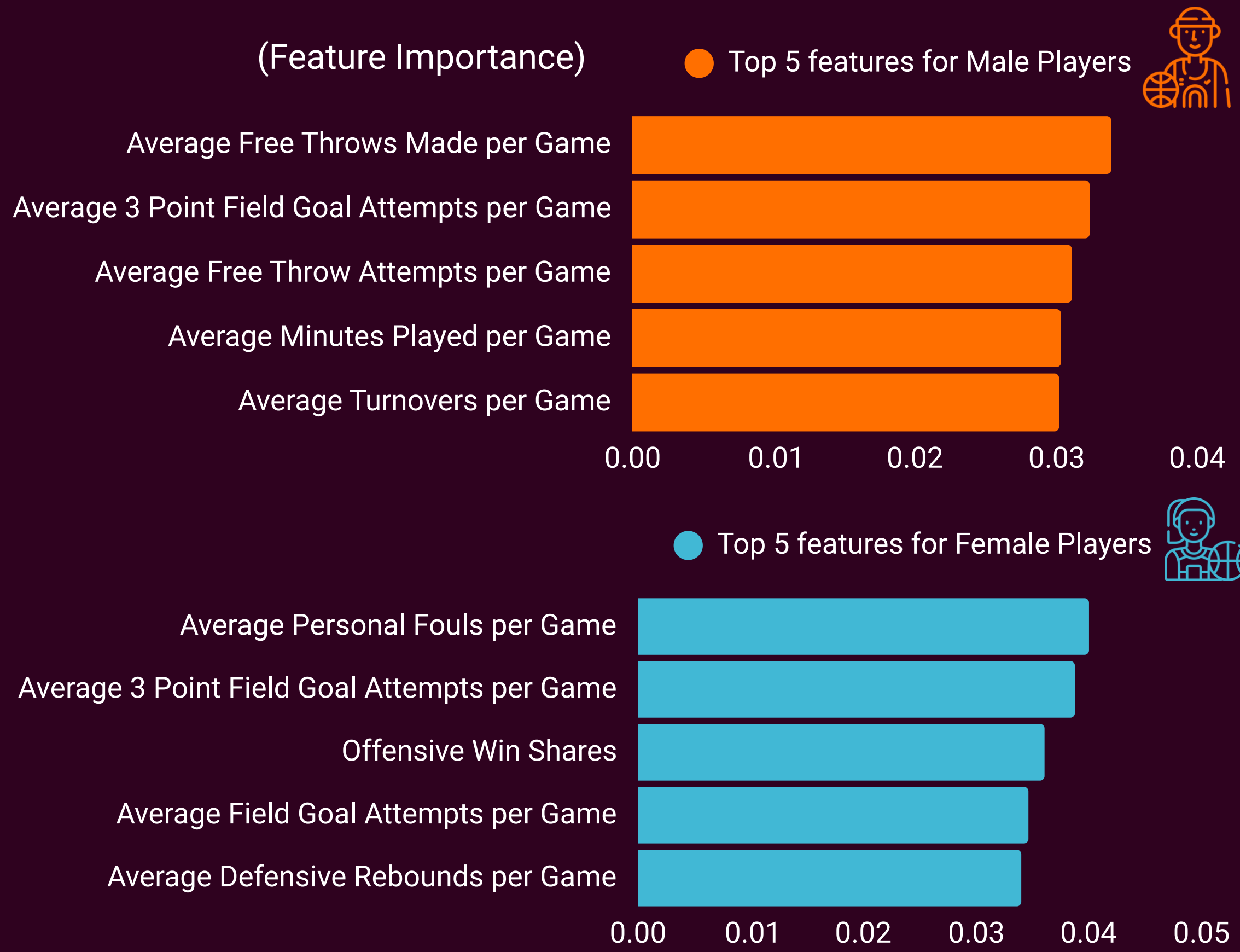
Random Forest Classifier

- High Accuracy
- Handles Missing Values & Outliers
- Feature Importance & Interpretability
- Works Well with Large Datasets

Who's Next?

- Predicts whether an athlete will receive NIL deal, based on game stats & background information
- Identify athletes who **have not received a deal** but have **high potential**

How Can Random Forest Model Help?



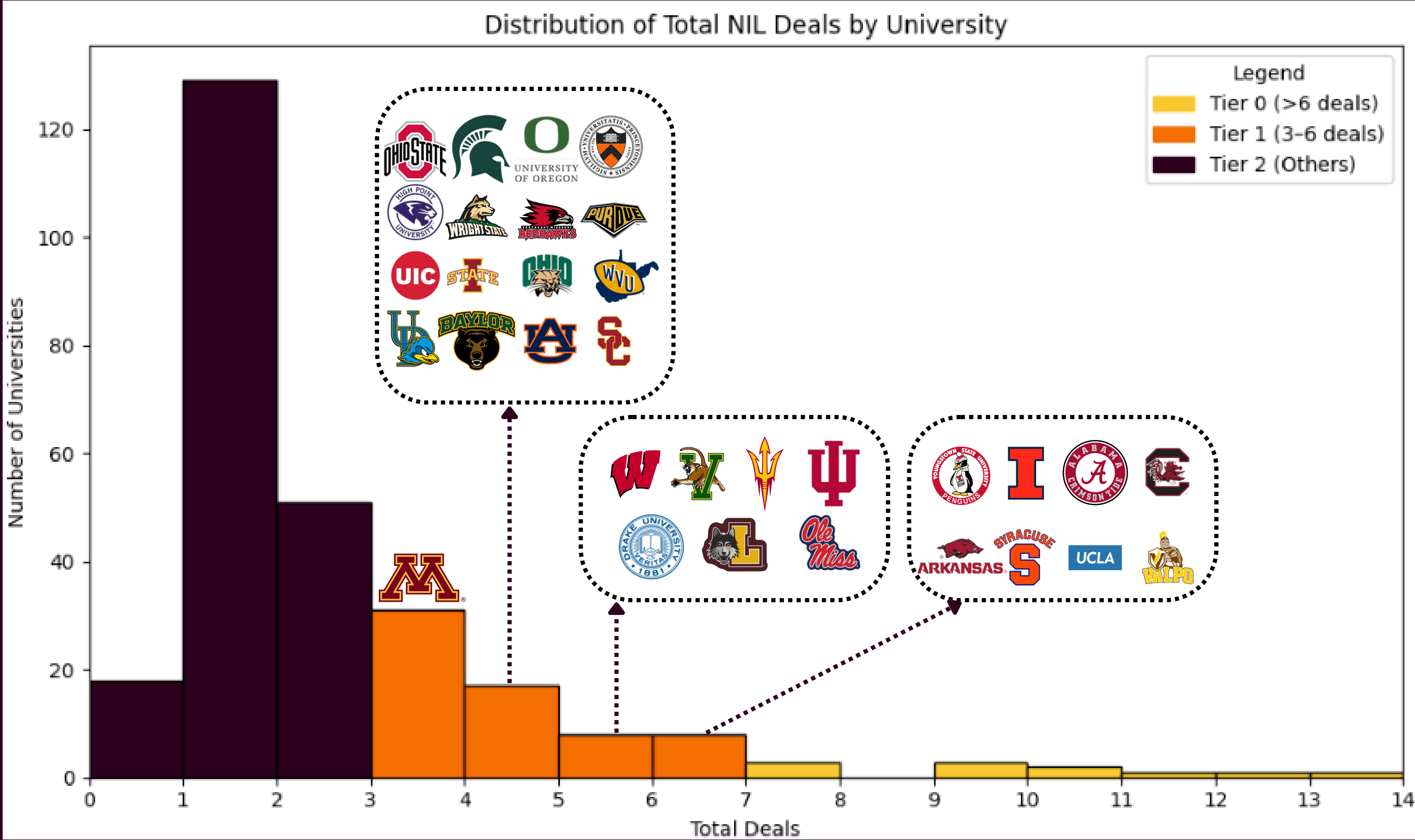
What To Look For?

- The model lists top factors that determine deal likelihood
- While feature rankings differ between male/female players, shooting metrics (FGA, 3PTA, FTA) emerged as important predictors of deal probability



**What are some other resources
we can provide to help student athletes
get more NIL deals?**

What Resources Are Peer Schools Providing?



University Aspect

- No dedicated NIL course via Carlson School
- No entrepreneurship classes tailored for student-athletes

Agency Aspect

- Less formal legal/contract support visibility
- Expand national brand partnerships in sports where UMN perform strongly

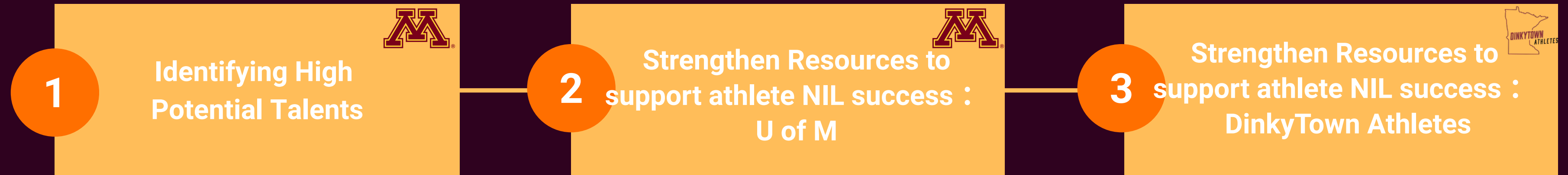
*14.6% NIL deal rate in our dataset v.s. 15.4% NCAA benchmark([Sl.com](https://sl.com)), data source : <https://nilcollegeathletes.com/athletes>



Recap and Next Steps

A Win-Win Approach: Performance & Potential

We recommend to build a systemized pipeline :



- Leverage prediction models to surface strong on-court performers

- Enhance models with social media and visibility metrics to reflect off-court influence

BONUS

- Launch NIL business course with Carlson school to align with top schools like Illinois

- Formalizing legal/contract support and expand national brand activation efforts





Thank You