

Pacers Offseason Target Recommendation

2023-2024 Summer Internship
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Methodology:

Web Scraping and Data Cleaning:

- ❑ Gathered data from NBA.com and Spotrac.
- ❑ Ensured data consistency through rigorous cleaning processes.

Pacers Player Log Regression Modeling:

- ❑ Developed regression models to assess the impact of individual player statistics on team success.

Prediction of Player Impact:

- ❑ Utilized regression models to predict all NBA players' potential impact on winning with the Pacers.

Analyze Value:

- ❑ Leveraged predictions of player impact and current player salaries to analyze potential free agents and undervalued players.

Datasets Used:

Pacers Data:

- ❑ NBA.com's Tradition Box Score, Advanced, Hustle, and Scoring statistics for all Pacers games during the 2023-2024 season.

Player Statistics:

- ❑ All NBA player statistics for the 2023-2024 season sourced from NBA.com.

Spotrac Free Agents Tracker:

- ❑ Identified free agents for the off-season and examined their current contracts for analysis.
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Pacers Analysis Through Regression

Logistic Regression Results:

Significant Predictors (p-value < 0.1):

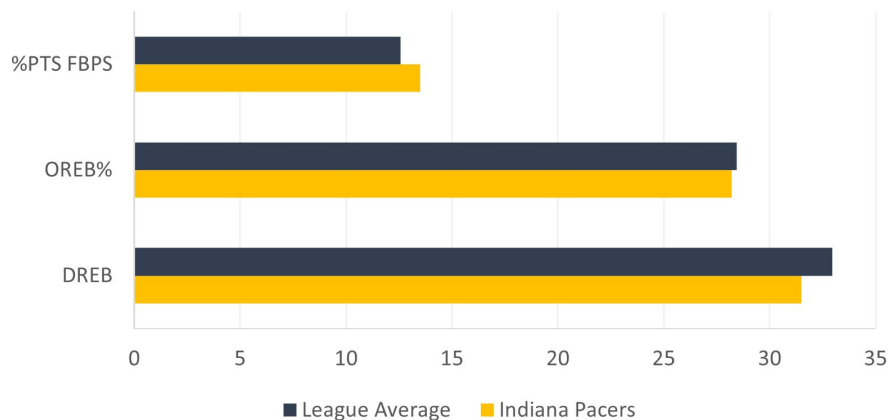
- ❑ OREB (Offensive Rebounds)
- ❑ DREB (Defensive Rebounds)
- ❑ STL (Steals)
- ❑ OFFRTG (Offensive Rating)
- ❑ DEFRTG (Defensive Rating)
- ❑ %OREB (Percentage of Offensive Rebounds)
- ❑ %PTS FBPS (Percentage of Points from Fast Break Points)
- ❑ %PTS OFFTO (Percentage of Points from Turnovers)

* Yellow: positive coefficient = positive impact on winning

Model Evaluation for Prediction:

- ❑ Utilized 5-fold cross-validation to assess the model's performance.
- ❑ Accuracy achieved: **0.667**

Pacers Winning Predictors vs League Average



Strength: **Percentage of points from fast break**. Pacers are above league average in this positive winning predictor.
Weaknesses: **OREB%** and **DREB**. Pacers are below league average in these positive winning predictors.

Free Agent Target



Svi Mykhailiuk SG 6'7

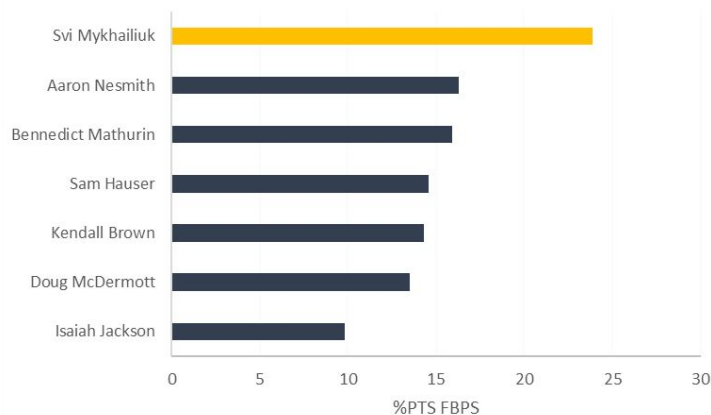
2024 Free Agency: Unrestricted

Why he fits the Pacers:

- %PTS FBPS: 23.2%
- NETRTG: 14.2
- Career 3P%: 35.9 on 3.5 attempts
- Age: 26 fits the timeline of the current core

MIN	FG	FG%	3PT	3P%	FT	FT%	REB	AST	BLK	STL	PF	TO	PTS
8.8	1.1-2.9	36.3	0.8-2.4	33.8	0.1-0.2	57.1	1.1	0.6	0.0	0.3	0.4	0.3	3.1

Svi Mykhailiuk Fast Break Points Percentage compared to Pacers SG and SF



Svi Mykhailiuk is a top 5 player analyzed through the Pacers Winning Probability Model with a winning probability of 0.692. He also has the highest %PTS FBPS compared to current Pacers SG and SF

Under Valued Player



Armoni Brooks G 6'3

Two Way Contract

Pacers Winning Predicted Probability:

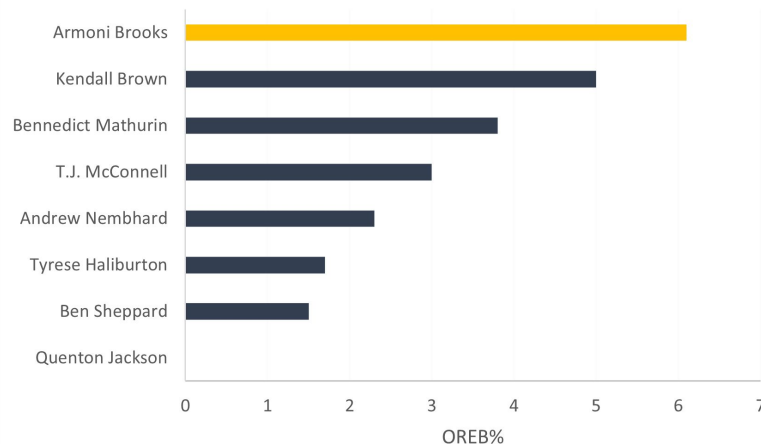
0.759 (#1 compared to all players)

Strengths:

- OREB%: 6.1%
- %PTS FBPS: 19%
- NETRTG: 13.7

MIN	FG	FG%	3PT	3P%	FT	FT%	REB	AST	BLK	STL	PF	TO	PTS
10.4	1.5-4.6	32.6	1.1-3.2	34.4	0.1-0.2	50.0	1.8	0.5	0.1	0.1	0.3	0.3	4.2

Armoni Brooks Offensive Rebound Percentage
Compared to Pacers Guards



Brooks has the best offensive rebounding percentage compared to current Pacers guards

Under-Valued Player



Sam Hauser SF 6'7
2024 Club Option

Why is he undervalued:

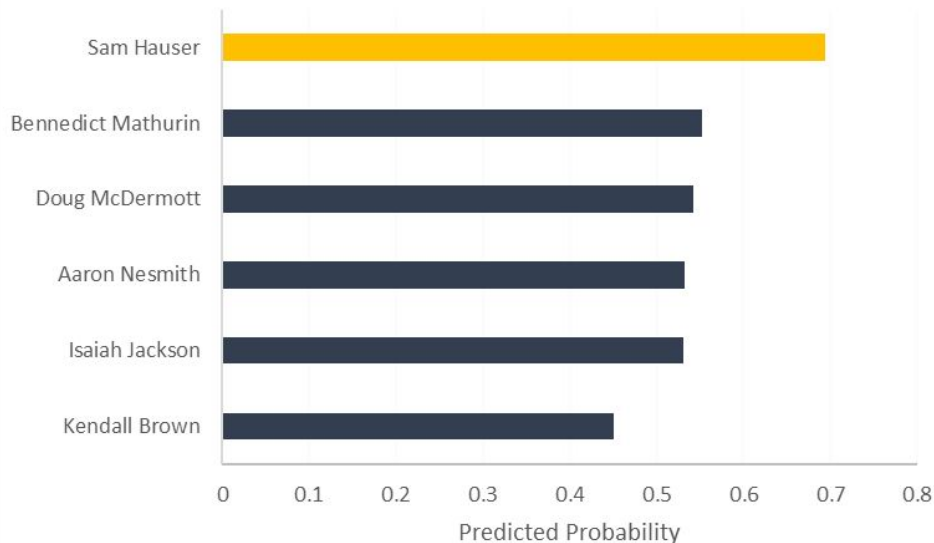
2024-2025 Base Salary: \$2,092,344

Pacers Winning Predicted Probability:
0.692 (top 5 compared to all players)

3P: 40.3% on 4.8 Attempts

MIN	FG	FG%	3PT	3P%	FT	FT%	REB	AST	BLK	STL	PF	TO	PTS
21.2	2.9-6.4	45.6	2.4-5.6	43.0	0.2-0.3	88.2	3.4	0.9	0.3	0.4	1.3	0.4	8.5

Sam Hauser Pacers Predicting Winning Probability
compared to current SG and SF



References

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Appendix

Code utilized in this analysis:

- Web scraping
- Analysis

Included in the Google Drive