Hobart Basketball Advance Analytical Breakdown (2019–2025)

Executive Summary

As the use of data and analytics has grown in basketball, so too have the metrics and formulas used to evaluate team performance and strategy. Today, we have access to advanced analytical tools that allow us to break down nearly every aspect of the game.

By leveraging box score data—often found in a simple PDF printout—we can apply advanced metrics that offer deeper insight into a team's tendencies and efficiency. The goal of this section is to apply some of these formulas, many of which are widely used in the NBA, to Hobart's performance over the past five seasons. Through this lens, we aim to develop a more statistical understanding of the program's strengths and areas of advantage. Please note that a glossary is attached that details what each of these advanced metrics is measuring. Insights are supported with graphics for clarity and professional presentation.

These graphs were made with the assistance of TheBricks.

1. Dean Oliver's Four Factors: A Key to Understanding Winning Basketball

One of the most impactful frameworks in basketball analytics is Dean Oliver's *Four Factors*. These metrics, derived from box score data, have been statistically shown to correlate most closely with winning outcomes. They offer a lens into both a team's offensive and defensive performance, revealing strategic strengths and areas for improvement.

The Four Factors are:

- **Effective Field Goal Percentage (eFG%)**

- **Turnover Percentage (TOV%)**

- **Offensive Rebound Rate (OREB%) / Defensive Rebound Rate (DREB%)** *(opponent)*

- **Free Throw Rate (FTR)**

These indicators form the foundation of modern basketball analytics and provide a clear, data-driven way to evaluate team efficiency and style of play.
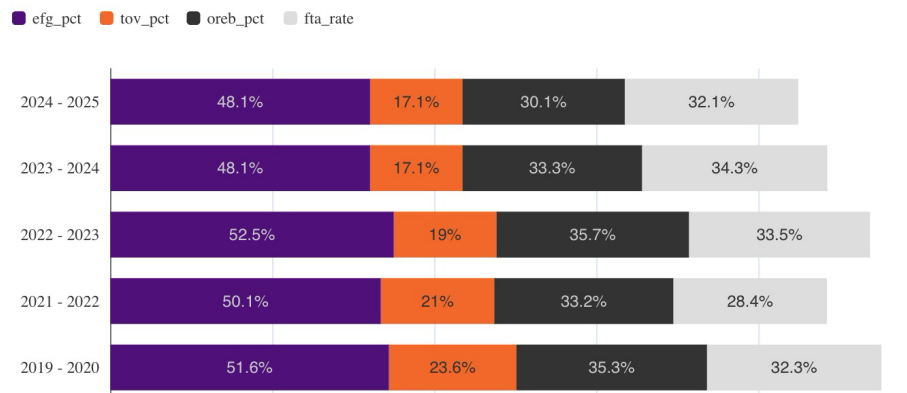
"While these are the four essential factors that decide who wins and loses in the NBA, the factors do not carry equal weight. Dean Oliver has found the following weights:

1. Shooting (40%)
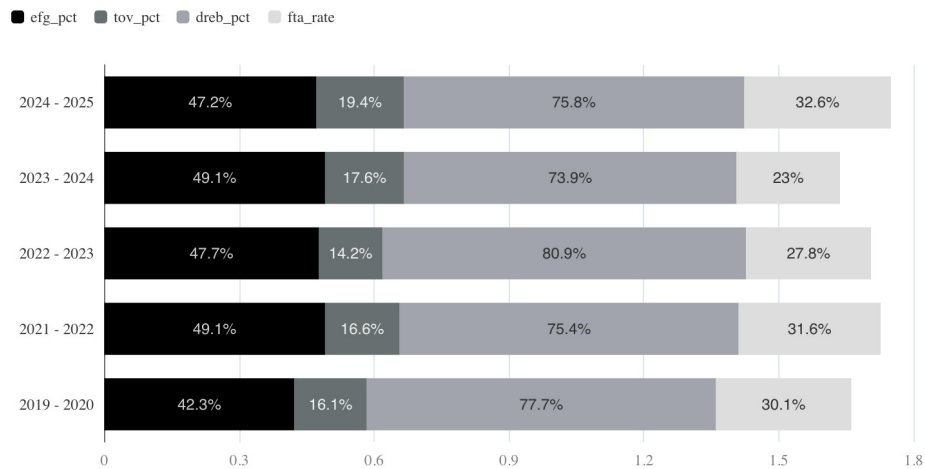2. Turnovers (25%)
3. Rebounding (20%)
4. Free Throws (15%)"

Each factor reflects a unique skill set. While shooting carries the most weight, strong performance across all four categories is key to consistent success. Teams may compensate for weaknesses in one area by excelling in another—for example, dominating the offensive glass on a poor shooting night.

Following this framework, we assign proportional weight to each factor to better understand their relative impact. A team doesn't need to be perfect across all metrics, but a strong combination of the four is essential for sustained, competitive success.

"Dean Oliver's" Four Factors Breakdown (2019-2025)

■ efg_pct   ■ tov_pct   ■ oreb_pct   □ fta_rate

Season	efg_pct	tov_pct	oreb_pct	fta_rate
2024 - 2025	48.1%	17.1%	30.1%	32.1%
2023 - 2024	48.1%	17.1%	33.3%	34.3%
2022 - 2023	52.5%	19%	35.7%	33.5%
2021 - 2022	50.1%	21%	33.2%	28.4%
2019 - 2020	51.6%	23.6%	35.3%	32.3%

"Dean Oliver's" Four Factors Breakdown Opp. (2019-2025)

Legend: ■ efg_pct ■ tov_pct ■ dreb_pct ▪ fta_rate

Season	efg_pct	tov_pct	dreb_pct	fta_rate
2024 - 2025	47.2%	19.4%	75.8%	32.6%
2023 - 2024	49.1%	17.6%	73.9%	23%
2022 - 2023	47.7%	14.2%	80.9%	27.8%
2021 - 2022	49.1%	16.6%	75.4%	31.6%
2019 - 2020	42.3%	16.1%	77.7%	30.1%

(x-axis: 0, 0.3, 0.6, 0.9, 1.2, 1.5, 1.8)

When evaluating the charts above, we see that Hobart held an advantage in **Effective FG Percentage** in four of the last five seasons. Over the past two years, the program also improved its edge in **Turnover Percentage**, creating a positive margin in that category.

In terms of **Free Throw Rate**, Hobart had the upper hand in three of the five seasons when compared to its opponents.

2. Shooting / Scoring

season	ts_pct	off_rating (PPP)	play_pct
2019 - 2020	55.7%	102.66	41.3%
2021 - 2022	53.4%	100.66	42.1%
2022 - 2023	55.0%	107.4	46.1%
2023 - 2024	52.4%	103.66	43.6%
2024 - 2025	50.8%	99.32	41.7%

The next set of data points addresses some of the more advanced offensive shooting metrics tracked over the past five seasons. When analyzing **True Shooting Percentage (ts_pct)**, **Offensive Rating (PPP)**, and **Play Percentage (play_pct)**, the **2022–2023** season stands out. That team led all seasons in both **offensive rating** and **play percentage**, indicating it was the most efficient and productive offensive unit in recent years.

While each of these metrics plays a valuable role in assessing team performance, **Play Percentage** deserves particular attention. As noted in the glossary, this stat

captures how often a team successfully ends a possession with a made shot, while adjusting for offensive rebounds and turnovers. It reflects not only shooting efficiency, but also how consistently a team executes in live possessions.
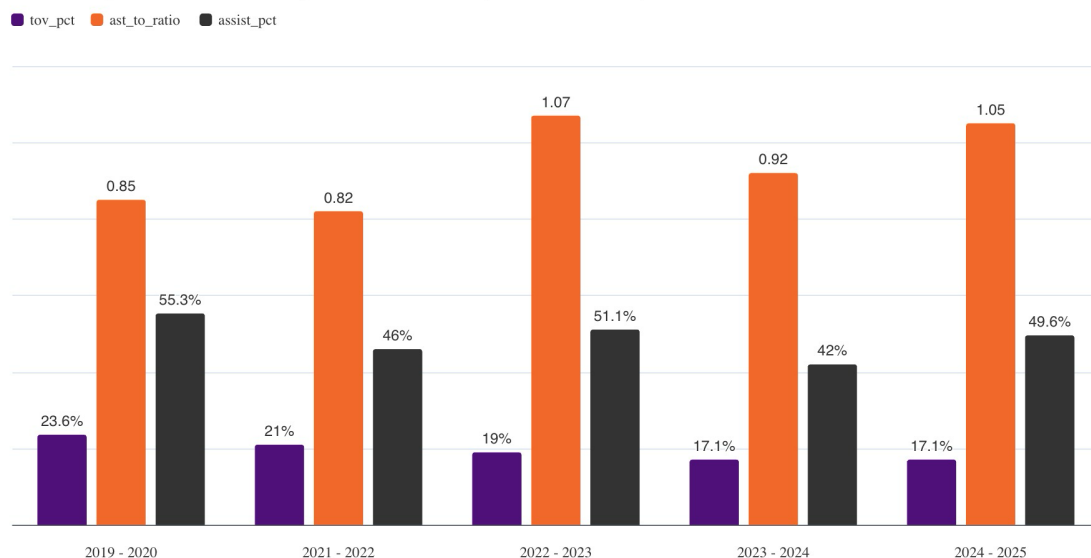
Interestingly, while the **2022–2023** team didn't post the highest **True Shooting Percentage** (that honor goes to the **2019–2020** team at 55.7%), it still achieved the highest **Offensive Rating** (107.4) and **Play Percentage** (46.1%). This suggests that although their shot efficiency was slightly lower, their overall possession management and ability to finish plays was elite. In short, they squeezed more out of every opportunity.

Meanwhile, the **2024–2025** season showed the lowest values in all three categories, pointing to a notable drop in offensive performance and efficiency compared to earlier years.

3. Ball Security

An important quality of any effective offense is the ability to share the ball and make smart decisions while limiting turnovers. The chart below highlights three key metrics—**Turnover Percentage (TO%)**, **Assist-to-Turnover Ratio (AST/TO)**, and **Assist Percentage (AST%)**—to evaluate Hobart's passing and ball security from 2019 to 2025.

Passing / Ball Security Breakdown (2019-2025)

■ tov_pct ■ ast_to_ratio ■ assist_pct

	2019 - 2020	2021 - 2022	2022 - 2023	2023 - 2024	2024 - 2025
tov_pct	23.6%	21%	19%	17.1%	17.1%
ast_to_ratio	0.85	0.82	1.07	0.92	1.05
assist_pct	55.3%	46%	51.1%	42%	49.6%

Over the past three seasons, Hobart has shown meaningful improvement in Assist-to-Turnover Ratio, along with a noticeable reduction in Turnover Percentage, indicating more efficient ball movement and decision-making. Notably, the 2019–2020 and 2022–2023 seasons stand out as leaders in Assist Percentage, reinforcing the earlier finding that both were among the program's most productive offensive years. These trends suggest that Hobart's most successful offenses weren't just built on scoring, but also on effective ball distribution and control.
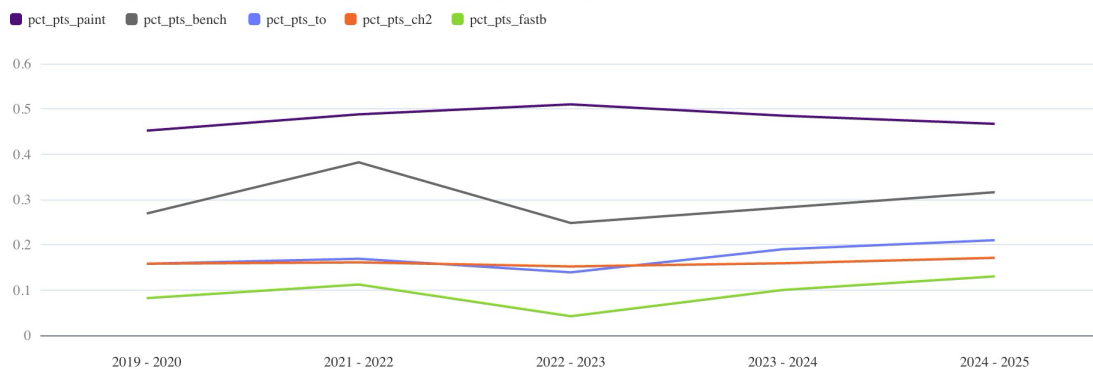
4. Special Categories

Most box scores include a section—often at the bottom or off to the side—that highlights five "special" scoring categories. These stats go beyond traditional metrics tied directly to players or team efficiency and instead offer insight into how points are generated in specific game contexts.

In this advanced analytics section, we calculate the **percentage of total points** that come from each of these five special categories:

- **Points in the Paint** (pts_pct_paint)

- **Bench Points** (pts_pct_bench)

- **Points Off Turnovers** (pts_pct_to)

- **Second Chance Points** (pts_pct_ch2)

- **Fast Break Points** (pts_pct_fastb)

Percentage of Points - 5 Special Categories (2019-2025)

Unsurprisingly, **Points in the Paint** stands out as the most dominant contributor across all five seasons. This suggests that a significant portion of Hobart's offense is consistently generated close to the basket—a reflection of either interior-focused play or aggressive drives to the rim.

It's important to note that a single basket may fall into multiple categories (e.g., a bench player scoring in the paint off a turnover contributes to three categories). Even with this overlap, the trends are still valuable for understanding broader team tendencies.

One of the more interesting takeaways is the fluctuation in **Bench Points**. The **2021–2022** season shows a sharp spike, with over **40%** of total points coming from non-starters, likely indicating a season of strong depth or rotational emphasis. In contrast, other seasons ranged from roughly **25% to 33%**, pointing to more top-heavy scoring distributions.

Lastly, **Second Chance Points** remained the most consistent of the five categories, hovering between **15% and 17%** across all five years—suggesting a steady contribution from offensive rebounds and put-backs.

5. Margins – The Separating Factor

Similar to the previous section, this analysis focuses on *margins*—comparing Hobart's statistical performance directly against their opponents. Looking at percentage-based differences allows us to better understand where Hobart creates separation or faces disadvantages.

Below are three categories where Hobart held the **largest positive margins**, as well as three where they showed **negative margins** compared to their opponents.

group_name	pct_pts_ch2	fta_rate	play_pct
Hobart	16.00%	32.10%	43.00%
Opponent	11.60%	29.00%	39.20%
Margin	0.044	0.031	0.038
%_Margin Diff.	37.93%	10.69%	9.69%

These positive margins reflect Hobart's gritty, physical playing style. The team consistently creates second-chance opportunities and gets to the free throw line more often than opponents—two signs of an aggressive, multi-effort approach.

group_name	tov_pct	pct_pts_3pt	pct_pts_to
Hobart	19.60%	27.60%	17.30%
Opponent	16.80%	30.10%	20.80%
Margin	0.028	-0.025	-0.035
%_Margin Diff.	-16.67%	-8.31%	-16.83%

On the flip side, Hobart has struggled with ball security, posting a significantly higher Turnover Percentage than its opponents. The team also generates fewer points off turnovers, suggesting less capitalization on defensive pressure. Additionally, Hobart scores a lower percentage of its points from beyond the arc—highlighting a contrasting offensive style compared to many of its opponents.

Conclusion

Over the past five seasons, Hobart Basketball has built a clear statistical identity rooted in physicality, inside scoring, and offensive rebounding. Through advanced metrics, we can now quantify many of the team's tendencies and better understand the areas where they consistently perform well—and where there's room for improvement.

The data shows that Hobart has excelled in second-chance points, free throw rate, and play percentage, all of which suggest a team committed to effort-based possessions and high-efficiency opportunities around the rim. The 2022–2023 season, in particular, stands out as a model of offensive balance, leading the way in multiple efficiency categories.

However, there are also consistent challenges that emerge from the data. Turnover percentage has remained a persistent issue, and the team's reliance on interior scoring has come at the expense of perimeter production—trailing opponents in both 3-point scoring and points off turnovers.

By applying these advanced metrics, Hobart's staff and players gain a clearer picture of what drives success and where the next competitive edge may lie. As analytics continue to evolve in the sport, the ability to measure, interpret, and act on this kind of data will be key to sustaining excellence and staying one step ahead.

Hobart Basketball Advanced Analytics Glossary

This glossary outlines the 21 advanced basketball metrics calculated for each season in the Hobart Basketball performance analysis. These metrics provide a deeper understanding of team efficiency, scoring distribution, ball control, and rebounding effectiveness.

possessions – Estimated Possessions

Total team possessions per game, adjusted for FGA, OREB, TO, and FTA.

efg_pct – Effective Field Goal %

Adjusted shooting efficiency — gives extra weight to 3-pointers.

ts_pct – True Shooting %

Overall scoring efficiency including 2s, 3s, and free throws.

off_rating – Offensive Rating

Points scored per 100 possessions — team scoring efficiency.

tov_pct – Turnover Percentage

How often the team turns the ball over per possession.

ast_to_ratio – Assist to Turnover Ratio

Number of assists per turnover — measures ball security vs. playmaking.

assist_pct – Assist Percentage

Percentage of made field goals that were assisted.

oreb_pct – Offensive Rebound %

Share of total team rebounds that are offensive.

dreb_pct – Defensive Rebound %

Share of total team rebounds that are defensive.

pct_pts_3pt – % Points from 3-Pointers

Share of total points that came from 3-point shots.

pct_pts_ft – % Points from Free Throws

Share of total points that came from made free throws.

pct_pts_bench – % Points from Bench Players

Share of scoring contributed by bench players.

pct_pts_paint – % Points in the Paint

Portion of points scored in the paint — close-range or post play.

pct_pts_fastb – % Fast Break Points

Portion of points scored in transition before the defense is set.

pct_pts_ch2 – % Second Chance Points

Points scored after offensive rebounds — effort and hustle metric.

pct_pts_to – % Points Off Turnovers

Share of points that came from forcing opponent turnovers.

fta_rate – Free Throw Attempt Rate

How often the team gets to the line — FTA per field goal attempt.

fga3_rate – 3-Point Attempt Rate

Proportion of total shots that are 3-point attempts.

play_pct – Play Conversion Percentage

How often a possession ends in a made shot, adjusting for OREB and TO.