Big East Revenue Sharing & Player Acquisition

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Agenda

- Goals + Data Sources
- Our Findings So Far
- Models
- What’s next

Objectives of the Project

- We wanted to determine whether Big East programs would gain a competitive advantage over Power 4 schools that must divide revenue-sharing funds with their football teams
- Since we couldn’t answer this question with the limited data currently available, we shifted our focus to examining how NIL and emerging financial rules are reshaping the college basketball landscape

Data Foundation

- **VIP Data.xlsx**: Team×Year panel (2022–2025): recruiting Score/Rating/Stars, NIL totals, Win%, SOS, Top-25, Conference
- **d1_cbb_returning_stats_2015_2024.xlsx**: % Returning Minutes/Points (continuity; sometimes by position)
- **Bart_data_Start.xlsx**: Barthag/T-Rank, Talent, Experience, Transfer metrics (controls)
- **team_rankings_2019_2024_by_conference(_update).xlsx**: conf-split rankings, for C(Conference):C(Year) FE and quartiles
- **Revenue Share info.xlsx**: projected MBK rev-share pools, Open scholarships, New signings % ➔ slot budgets

We scraped all this data from sources like 3M, 247 Sports, Basketball reference, and Bart Torvik

Initial Findings

Initial Regression Analysis

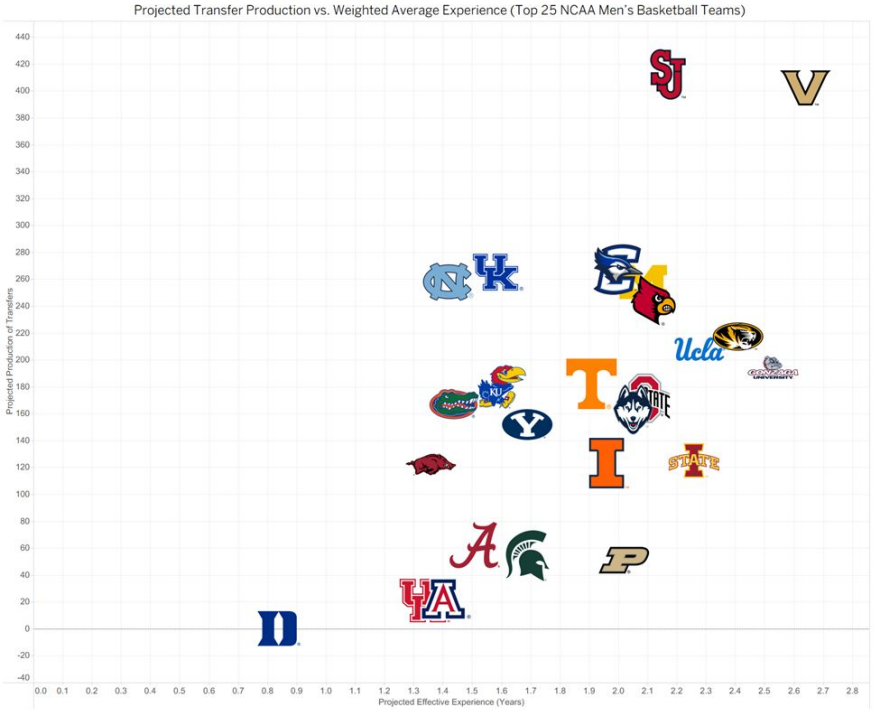
- Wanted to see the effect of recruiting, money, and roster construction on Team Win %:
  - Y: Win %
  - X: Previous Years Recruiting, the available NIL Money, % returned scoring, and SOS
- Also found that NIL Money has an effect on the Recruiting Score (p-value = ~0.004)

	Coefficient	P-Value
LAG Recruiting Score	0.004637	0.046642
LAG Total NIL Money	2.04E-08	0.024109
Scoring Returned (%)	0.001438	0.000618
Strength of Schdeule	0.002975	0.199983

Qualitative Analysis

Strategy	Explanation
Experience-Heavy / Multi-Year Build	Accumulating upperclassmen and players with experience overtime to build continuity and improve cohesion rather than relying on freshmen development (NBA Approach)
Transfer-Portal-Driven Reloading	Aggressively using the transfer portal to replace lost players, recruit proven college-level talent instead of unproven freshmen to quickly reload
Hybrid Experience + Transfer Mix	Combining some experience-level stability with of portal/transferred talent — ex: keeping a backbone of returnees + filling gaps via transfer portal
Youth / Freshman Talent with High Upside	Still leveraging traditional high-school recruiting and freshmen

Roster Construction Differences of the Top 25



Regression Analysis on the Season Thus Far

- Ran regression in late November:
  - Y: Win %
  - X: Weighted Avg. Experience, Projected Transfer Strength, and SOS

	Coefficient	P-Value
Weighted Average Expeirence	-1.967691335	0.18866
Projected Transfer Strength	-0.00353783	0.465153
Strength of Schedule	-0.114486741	0.362049

Models

Key Model Questions

Key questions:

1. **Edge:** Do Big East programs gain a recruiting advantage by directing more rev-share to MBB?
2. **ROI:** What is **+$1M → ΔScore/ΔRank** (team level)?
3. **Targets:** How do **slot budgets** shift **P(sign)** for specific recruits/transfers (by tier/position)?

Player Acquisition Model

Unit: one row per **player–school** option (player's real choice set). Label `signed=1`.

Core features:

- **Slot budget** (rev-share → new-signings → minutes-weighted slots)
- **Position need** (minutes vacated at player's position)
- **Prior success** (T-Rank/Barthag), **distance**, **contact strength** (offer/visit/top-list), **tier**

Illustrative Scenario (Providence, 2025)

Player (Tier/Pos)	School	P(sign) Base	P(sign) +$1M	ΔP
Top-50 Wing (SF)	Providence	0.31	0.39	+0.08
Stretch-5 (C)	Providence	0.22	0.27	+0.05
Combo Guard (G)	Providence	0.18	0.23	+0.05

Top-1 (test) $= 0.54$, **Log-loss** $= 0.62$, $n = 178$

Elasticities (avg): Top-50 ≈ 0.27, Starter ≈ 0.18, Depth ≈ 0.10.

Team Level Calibration

Purpose: quantify the ROI of dollars at the program level: “If a school increases MBB revenue-share/NIL by $X, how much does its Recruiting Score (and implied Rank) improve?”

Why it’s needed (complements acquisition):

- The Player-Acquisition model answers who you can land when you move slot budgets; it’s granular but data-hungry (choice sets, contact strength, visits).
- The Team-Level model is lighter-weight and stable: it uses Team×Year aggregates (NIL, continuity, priors) with fixed effects to deliver a clean, communicable “+$ → ΔScore → ΔRank”. Admins understand this immediately.

Efficiency & practicality:

- Fewer data requirements, no complete offers/visits needed.
- Fixed effects soak up hard-to-observe program traits (brand, coaching, facilities).
- Fast to estimate (OLS with FE/within transform), easy to re-run as data refreshes.
- Scenario-ready: bump NIL, recompute Score, map to Rank, and report ΔRank.

What it doesn’t do: it doesn’t tell you which specific player signs (that’s the choice model). It gives the macro uplift that frames your overall recruiting power, which then feeds/anchors the micro target probabilities.

Next Steps

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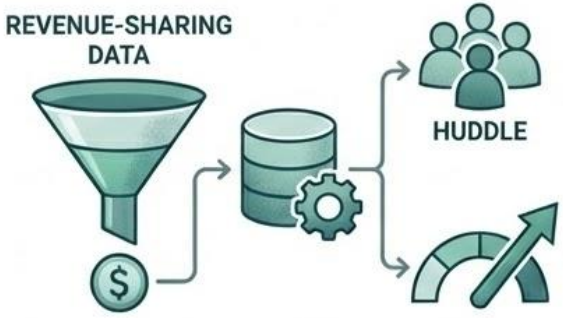
1. Roster Strategy & Win %

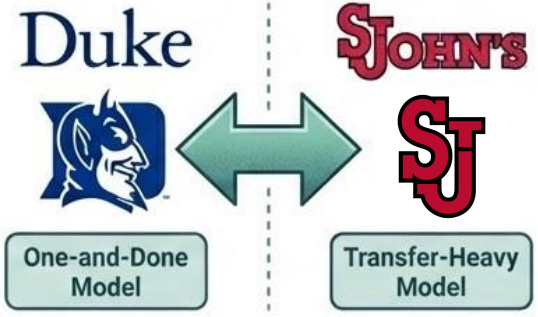
Analyze how roster-construction strategies impact win % (esp. in conference play)

2. Revenue-Sharing Data Integration



Incorporate revenue-sharing data once released to measure its effect on roster building and performance

3. Comparative Case Studies



Conduct case studies (e.g., Duke, St. John's) to compare contrasting roster-construction models