

Colorado Rapids: Roster Efficiency & Player Value Report

1. EXECUTIVE SUMMARY

The Colorado Rapids' roster shows a high percentage of valuable players overall, but recent Designated Player investments have yielded concerning positive percent change values. The single greatest strength is the depth of hidden gems across multiple positions, particularly homegrown and Generation adidas players who provide strong negative impact at low salaries. The most urgent roster need is the 2025 Designated Forward (+16.7%) and the 2025 Designated Midfielder (+3.5%), both of whom make the team worse when on the roster.

2. PLAYER ABSENCE IMPACT METRIC

The *Player Absence Impact* metric, derived from the Lasso regression model, quantifies an individual player's marginal contribution to team performance. The process simulates the team's Pythagorean Expectation (PE) score with the player on the roster and then recalculates it after removing that single player.

The resulting **percent change** (% change) is the key indicator:

- **Negative percent change** (e.g., -10.9%) means the team's PE score *decreases* without the player, identifying a **valuable** asset.
- **Positive percent change** means the team's PE score *increases* without the player, identifying a **replaceable** or potentially harmful contract.

This metric allows the front office to evaluate roster construction efficiency by isolating each player's true on-field impact.

3. ROSTER HEALTH OVERVIEW

- **Genuinely Impactful (Percent change < -5.0%): 19.1%** (27 of 141 player-seasons). These players significantly hurt the team if removed.
- **Not Impactful / Replaceable (Percent change > 5.0%): 14.2%** (20 of 141 player-seasons). The team performs better without these players.

Team Summary (from team_summary.csv):

- Total player-seasons analyzed: 141
- Percentage of roster that is valuable (percent change < 0): **46.8%**
- Average percent change across all players: **-0.11%** (slightly net-negative, meaning on average the team is marginally better with these players)
- Average impact magnitude: 3.8%

4. DESIGNATED PLAYER ROI AUDIT

Player	Year	Salary	PE % change	Value Verdict
2021 M	2021	\$1,271,000	-8.44%	Core
2022 F	2022	\$1,550,000	+22.32%	Harmful
2023 F (Intl.)	2023	\$1,800,000	+16.30%	Harmful
2023 F	2023	\$1,427,708	+7.75%	Harmful
2023 D (Intl.)	2023	\$1,292,500	+15.69%	Harmful
2024 F (Intl.)	2024	\$1,950,000	+12.55%	Harmful
2024 M	2024	\$1,675,000	-3.13%	Core
2024 F (Intl.)	2024	\$1,449,600	+7.34%	Harmful
2025 M	2025	\$2,228,063	+3.53%	Harmful
2025 F	2025	\$1,449,600	+16.72%	Harmful

- **Flagged (Percent change < 0 - Valuable):** Only 2 of 10 Designated Player seasons show negative percent change (2021 M, 2024 M).
- **Flagged (Percent change > 0 - Harmful): 8 players** – a pervasive and serious issue. The Rapids have consistently failed to extract value from DP slots since 2021, with the 2022-2025 DPs showing positive percent change ranging from +3.5% to +22.3%.

5. ALLOCATION MONEY EFFICIENCY (TAM / U22-INITIATIVE)

- **TAM Contributors (Negative Percent change):** TAM players show mixed results but generally trend positive (harmful). Valuable TAM contributors include a 2024 D TAM (-1.09%), 2024 D TAM (-1.27%), and a 2025 D TAM (+3.75% - *positive*). However, several TAM players show strongly positive percent change: 2024 D TAM (+5.30%), 2025 D TAM (+7.54%), 2025 D TAM (+4.10%), 2025 GK TAM (+7.71%), 2025 D TAM (+5.36%).
- **U22-Initiative Impact:** U22 slots are a clear strength, with all U22 players showing negative percent change:
 - 2024 M U22: -7.40% (valuable)
 - 2025 M U22: -5.12% (valuable)
 - 2025 F U22 (Intl.): +2.89% (marginal - *positive, exception*)
 - 2025 M U22: +1.71% (marginal - *positive, exception*)

Top 3 TAM "Steals" (Most Negative Percent change):

1. **2024 D TAM** (\$862,500, -1.09%) - marginal but best among TAMs
2. **2024 D TAM** (\$841,500, -1.27%) - marginal but best among TAMs

3. No TAM players show strong negative impact; this is a concern.

6. HOMEGROWN PLAYER EVALUATION

Player	Year	Salary	PE % change
2025 M Homegrown	2025	\$114,833	+1.80%
2025 D Homegrown	2025	\$106,500	-0.71%
2025 GK Homegrown	2025	\$106,500	+7.31%
2025 M Homegrown	2025	\$80,622	+0.97%
2024 D Homegrown	2024	\$150,000	-1.09%
2024 D Homegrown	2024	\$130,000	-1.11%
2024 M Homegrown	2024	\$105,375	-1.31%
2024 D Homegrown	2024	\$92,216	-2.06%
2023 D Homegrown	2023	\$125,000	-3.46%
2023 M Homegrown	2023	\$96,277	-7.10%
2022 D Homegrown	2022	\$90,250	-0.65%
2022 F Homegrown	2022	\$72,866	-8.04%

- **Ready for Roster Promotion (Negative Percent change + Low Salary):**

- **2023 M Homegrown (\$96,277, -7.10%):** Excellent negative impact from a low-cost midfielder.
- **2022 F Homegrown (\$72,866, -8.04%):** Strong negative impact from a supplemental forward.
- **2023 D Homegrown (\$125,000, -3.46%):** Solid value approaching elite threshold.
- **2024 D Homegrown (\$92,216, -2.06%):** Consistent depth contributor.

7. INTERNATIONAL SLOT OPTIMIZATION

Player	Year	Pos	Salary	PE % change	Justifies Slot?
2023 F	2023	F	\$1,800,000	+16.30%	No
2023 D	2023	D	\$1,292,500	+15.69%	No
2024 F	2024	F	\$1,950,000	+12.55%	No
2024 F	2024	F	\$1,449,600	+7.34%	No
2024 M	2024	M	\$522,400	+3.44%	No
2024 D	2024	D	\$97,750	-2.06%	Yes
2025 D TAM	2025	D	\$1,392,500	+7.54%	No

Player	Year	Pos	Salary	PE % change	Justifies Slot?
2025 D TAM	2025	D	\$1,200,000	+4.10%	No
2025 F U22	2025	F	\$592,950	+2.89%	No
2025 M	2025	M	\$542,400	-5.19%	Yes
2025 M	2025	M	\$806,22 (supp.)	+0.97%	No

- **Flagged Slot Misuse (Percent change > 5%):**
 - **2023 F (\$1.80M, +16.30%)** – severe misuse
 - **2023 D (\$1.29M, +15.69%)** – severe misuse
 - **2024 F (\$1.95M, +12.55%)** – severe misuse
 - **2025 D TAM (\$1.39M, +7.54%)** – significant misuse
 - **2025 GK Homegrown (\$106.5K, +7.31%)** – misuse of homegrown international slot

8. POSITIONAL DEPTH AUDIT

Position	Senior Count	Supplemental Count	Critical Upgrade Need?	Strength Area?
F (Forward)	12	6	Yes	No (DP forwards are consistently harmful; only a few supplemental forwards provide value)
M (Midfielder)	18	7	No	Yes (2021 DP valuable; homegrown midfielders strong; U22 midfielders excellent)
D (Defender)	23	7	No	Yes (TAM defenders are mixed; homegrown defenders consistently provide negative impact)
GK (Goalkeeper)	6	4	No	Mixed (2025 GK TAM is harmful; supplemental GKs are neutral)

- **Critical Need:** Forward position. The Rapids have not had a valuable Designated Forward since at least 2021. The 2022-2025 DP forwards are all harmful (+7.3% to +22.3%).
- **Strength:** Midfielder and Defender groups contain multiple homegrown and U22 players with consistent negative impact.

9. SALARY vs. VALUE MATRIX

Quadrant	Definition	Players (Top 5 or All)
CORE ASSET	% change < 0 & Salary > \$500K	2024 M DP (\$1.68M, -3.13%), 2021 M DP (\$1.27M, -8.44%), 2024 M U22 (\$850K, -7.40%), 2025 M U22 (\$850K, -5.12%), 2025 M (\$542K, -5.19%)
HIDDEN GEM	% change < 0 & Salary ≤ \$500K	2024 F (\$127K, -25.84%), 2024 F Gen. adidas (\$72K, -27.35%), 2023 F (\$435K, -9.27%), 2023 F (\$462K, -6.38%), 2022 F Homegrown (\$73K, -8.04%)
OVERPAID	% change ≥ 0 & Salary > \$500K	All in this quadrant: 2025 F DP (\$1.45M, +16.72%), 2023 F DP (\$1.80M, +16.30%), 2023 D DP (\$1.29M, +15.69%), 2024 F DP (\$1.95M, +12.55%), 2025 D TAM (\$1.39M, +7.54%), 2025 GK TAM (\$1.00M, +7.71%), 2024 F DP (\$1.45M, +7.34%), 2022 F DP (\$1.55M, +22.32%)
REPLACEABLE	% change ≥ 0 & Salary ≤ \$500K	Most senior midfielders and defenders with marginal positive percent change, several TAM players, and a number of supplemental players with positive change.

10. YEAR-OVER-YEAR TRENDS

- **Designated Player ROI: Catastrophic and persistent decline.** The 2021 M DP was valuable (-8.44%). From 2022 through 2025, every DP except one (2024 M, -3.13%) has shown positive percent change. The 2025 F DP (+16.72%) continues this troubling pattern. This suggests systemic issues in DP scouting, targeting, or contract structure.
- **TAM Efficiency: Poor and worsening.** Early TAM players (2024) showed marginal negative impact. 2025 TAM players are predominantly positive (harmful), with several exceeding +5% impact.

- **U22 Efficiency: Excellent.** All U22 players show negative percent change, with two exceeding -5% impact. This is a clear organizational strength that should be expanded.
- **Homegrown Impact: Strong and consistent.** Across 2022-2025, homegrown players consistently show negative percent change, with several exceeding -5% impact. This is a clear organizational strength.
- **Forward Position Trend: Persistent failure.** The Rapids have not had a valuable Designated Forward since at least 2021. Every DP forward from 2022-2025 is harmful, representing a critical area for front office reevaluation.

11. SUMMARY FIGURES

Figure 1 - Designation Analysis
(Negative % = Team Gets Worse Without Player = Valuable Player)

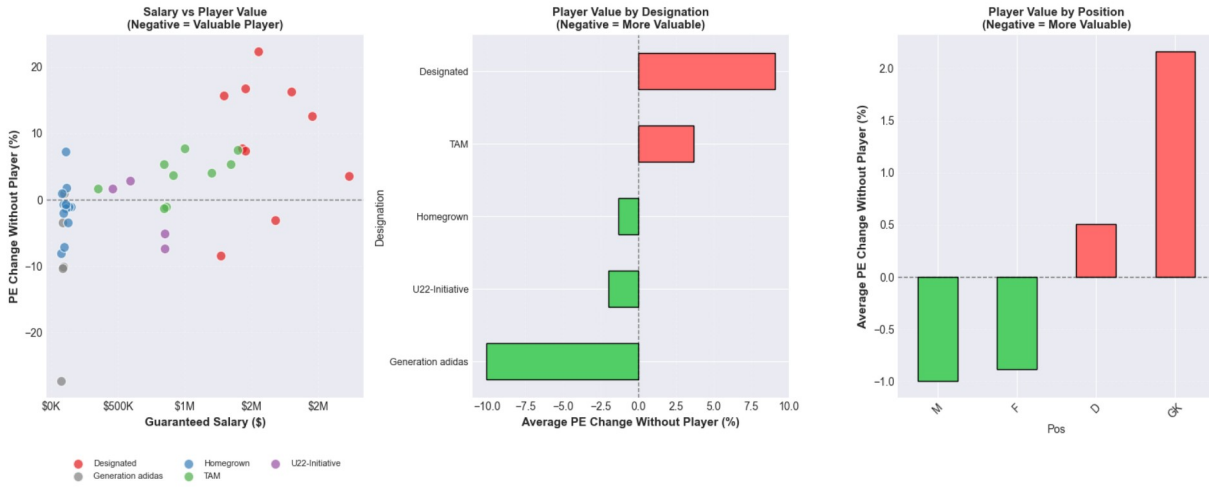


Figure 2 - International Analysis
(Negative % = Team Gets Worse Without Player = Valuable Player)



Figure 3 - Senior/Supplemental Analysis
(Negative % = Team Gets Worse Without Player = Valuable Player)

