Shifting Courts: Pay Equity Between the NBA & WNBA in a Changing Economic Landscape

Indy Workman

Data Analytics 401-02: Seminar

Professor Matt Lavin

November 11, 2025

The gender pay gap in professional basketball continues to raise important questions about fairness and equality in sports. This project looks at what factors help explain the differences in pay between the NBA and the WNBA, focusing on how player performance and league revenue affect salaries. My hypothesis is that NBA players will still remain making much more money than WNBA players, mainly because of the NBA's larger size, higher revenue, and history. However, I expect WNBA salaries to be more evenly distributed since the league has a smaller payroll and stricter limits on salaries. I also predict that the share of league revenue going to player pay has increased in both leagues since 2019-2020 with a bigger improvement for the WNBA as it has gained more attention, fans, and sponsorships in recent years.

The data for this study come from multiple public sources that report professional basketball salaries and league financials. For the NBA, I collected player and team salary data from Spotrac[1], and for the WNBA, I used information from HerHoopStats[2]. My dataset includes the following variables: league, player, team, salary, and year. From these, I calculated additional measures such as average and median salaries, both nominal and adjusted for inflation using 2025 dollars based on the Consumer Price Index from the U.S. Bureau of Labor Statistics[3]. I also included variables for total payroll, league revenue, the payroll share, the Gini coefficient to measure salary inequality, the CBA (Collective Bargaining Agreement)[4] era, and the number of players per league. The variables are available for easy access and definition in figure 1. These variables were selected to give a full picture of both player earnings and league level economic conditions, allowing for comparison between the NBA and WNBA over time.

---

[1] Spotrac, "2024 NBA Player Contracts – NBA Salary Database," Spotrac, https://www.spotrac.com/nba/contracts.
[2] Her Hoop Stats, "2024 WNBA Salaries by Player – WNBA Salary Cap Database," Her Hoop Stats, https://herhoopstats.com/salary-cap-sheet/wnba/players/salary_2024/stats_2023/.
[3] Bureau of Labor Statistics, "Consumer Price Index (CPI) — Home," U.S. Department of Labor, https://www.bls.gov/cpi/.
[4] Women's National Basketball Association (WNBA). The 2020 WNBA Collective Bargaining Agreement. New York: WNBA and Women's National Basketball Players Association (2020): https://wnbpa.com/2020-wnba-cba/. 70-108.

Variable	Description
Team	Team Name
Player	Player Name
Salary	Base Salary per Individual
Year	Season Year
League	NBA or WNBA
Total Payroll	Sum of all Player Salaries per Leagu
League Revenue	Total League Revenue per Season
Average Salary	Mean Player Salary per League
Mean Salary	Median Player Salary per League
Gini Coefficient	Salary Inequality Index
Real Salary	Player Salary x Inflation Adjustment
Salary Gap Ratio	Avg WNBA Salary / Avg NBA Salary
Revenue Gap Ratio	WNBA Revenue / NBA Revenue
Number of Players	Total Number of Player per League
CBA Era	Pre or Post CBA

Figure 1. Data variables and descriptions.

For the quantitative analysis, I used summary statistics and inequality measures to describe and compare pay structures between the two leagues. This approach builds on Elle Baker's 2020 study, "A Comparison of NBA and WNBA Player Salaries"[5]. Her study provides a baseline for analyzing the 2019-2020 season, but I extend it by incorporating more recent 2024-2025 data and adjusting for inflation and revenue. Using descriptive metrics like the Gini coefficient and payroll share allows for a standardized comparison of salary inequality and revenue distribution across leagues of different sizes. Visual tools like percentile distributions and Lorenz curves were chosen because they clearly communicate how concentrated player earnings are within each league. Together, these methods provide both a numerical and visual understanding of salary and create a good foundation for future statistical testing of what drives the gender pay gap in professional basketball.

The first part of my analysis focuses on how player salaries are distributed within each league to identify differences in income inequality between the WNBA and the NBA. Understanding how much of each league's total payroll is concentrated among the highest paid

[5] Baker, Elle. A Comparison of NBA and WNBA Player Salaries. Coles College of Business, Kennesaw State University, Center for Markets and Economic Opportunity, 2020. https://www.kennesaw.edu/coles/centers/markets-economic-opportunity/docs/baker-elle.pdf.

players provides insight into the broader economic structure of each organization and how equitably compensation is shared.

Figure 2 presents the percentage of total league payroll earned by different groups of the highest earning players in the NBA.

Percentage.of.highest.earning.NBA.players <chr>	Earnings <chr>	Percentage.of.total.league.payroll <chr>
Top 5%	$1,171,446,379	23%
Top 10%	$2,034,794,205	39%
Top 20%	$3,147,639,653	61%
Top 30%	$3,814,479,942	74%
Top 40%	$4,276,359,494	83%
Top 50%	$4,586,159,270	89%

Figure 2. Percentile Table of NBA player salaries.

The NBA data reveal a very unequal pay structure. The top 5% of players earn 23% of the total payroll, and the top 10% account for 39%. By the time we get to the top 50% of players, 89% of all NBA salary dollars are concentrated among them. This pattern reflects the league's superstar driven economy where a few elite players have extremely large contracts due to their individual marketability, television draw, and influence on team success. The NBA's higher revenues allow for much larger maximum contracts, widening the pay gap within the league.

Figure 3 shows the same percentile breakdown for the WNBA, allowing for direct comparison of how the league's payroll is distributed among players.

Percentage.of.highest.earning.WNBA.players <chr>	Earnings <chr>	Percentage.of.total.league.payroll <chr>
Top 5%	$1,628,238	11%
Top 10%	$2,884,676	20%
Top 20%	$5,464,467	38%
Top 30%	$7,728,617	53%
Top 40%	$9,365,117	65%
Top 50%	$10,665,469	74%

Figure 3. Percentile table of WNBA salaries

The results show that salary inequality exists in the WNBA, but to a more moderate degree than in the NBA. The top 5% of WNBA players earn about 11% of the league's total payroll, while the top 10% earn 20% and the top 50% earn 74%. This indicates that although top

players do receive significantly higher salaries, the overall pay distribution is relatively balanced. Since the WNBA's has a smaller financial scale and stricter salary caps under the Collective Bargaining Agreement (CBA), teams have less room to offer extremely high contracts. As a result, earnings are more evenly distributed across players, with fewer dramatic gaps between the highest and lowest paid athletes. The difference between the two leagues illustrates how economic scale and revenue potential shape salary inequality.

To better visualize these differences, I plotted Lorenz curves for each league, which graphically represent how evenly salaries are distributed. A perfectly equal salary distribution would follow the 45 degree line, while curves that bend farther below this line show greater inequality.

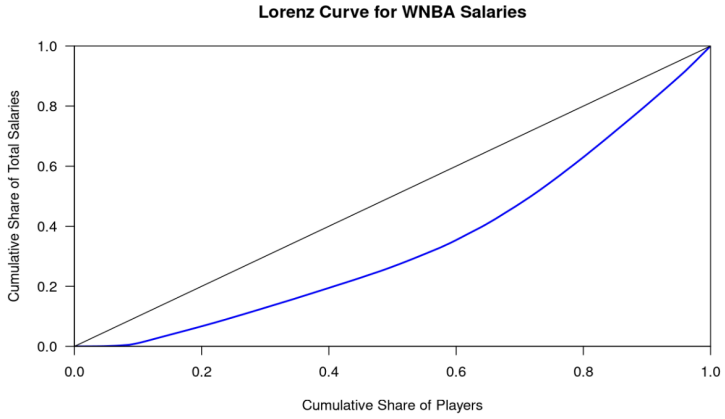

Figure 4. Lorenz curve of WNBA salaries.

The Lorenz curve for the WNBA lies closer to the line of equality, confirming that salaries are more evenly distributed among players. While some inequality is still present, the WNBA's salary structure appears less concentrated at the top, which supports the findings from the percentile table. This is consistent with the WNBA's collective bargaining framework, which prioritizes balanced team rosters and limits the influence of individual stars on payroll structure.

The next figure shows the corresponding Lorenz curve for the NBA.

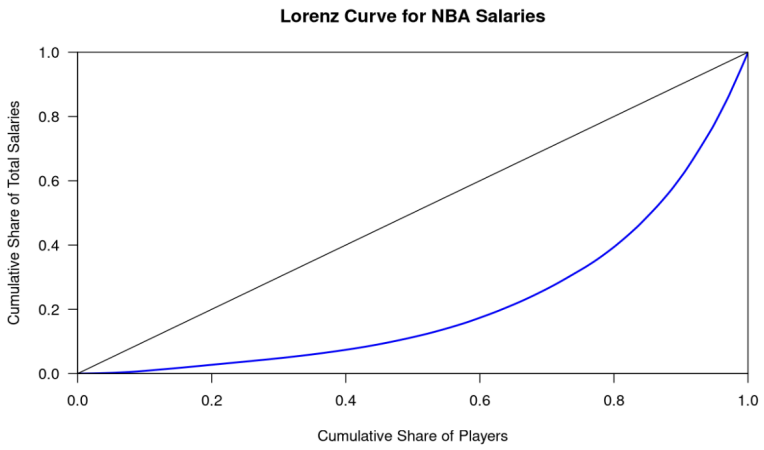

Figure 5. Lorenz curve of NBA salaries.

The NBA Lorenz curve, figure 5, bends significantly away from the equality line, showing a much steeper imbalance between top and lower earners. This visualization reinforces the percentile data showing a small share of elite players earn a disproportionately large share of total income. The high curvature of the NBA curve reflects the league's reliance on star driven marketing and the significant financial rewards available to its most visible players. Together, these two Lorenz curves provide a clear comparison of the much higher income inequality present in the NBA compared to the WNBA.

Finally, I compared how much of each league's total revenue is allocated to player salaries in both the 2019-2020 and 2024-2025 seasons.

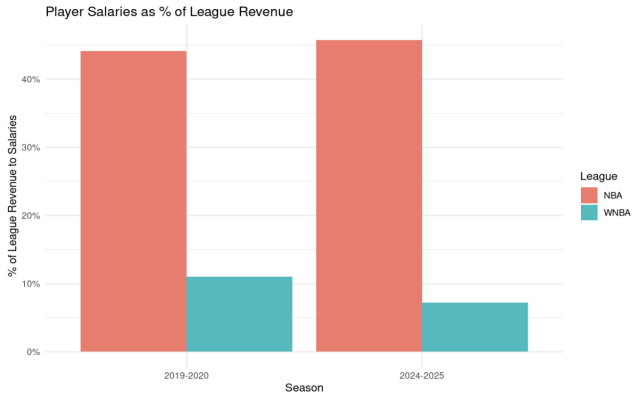

Figure 6. Double bar graph of player salaries as percentages of league revenue.

Figure 6 highlights a major structural difference between the two leagues. In 2019-2020, NBA players received approximately 44% of total league revenue in salaries, while WNBA players received about 12%. By the 2024-2025 season, the NBA's percentage remained relatively stable, but the WNBA's share decreased to around 8%. Although the difference between leagues remains large, the downward trend for the WNBA shows progress lost in player compensation relative to league revenue. This likely reflects the league's growth in viewership, sponsorships, and broadcasting deals over recent years. While the WNBA as a league is growing, the compensations and salaries towards its players are not.

This study examines why a significant pay gap persists between the NBA and the WNBA, focusing on how league revenue, salary distribution, and player performance relate to compensation. My early results show that while WNBA salaries are more evenly distributed across players, the total share of league revenue that goes to player pay remains much lower than in the NBA. These findings suggest that the gender pay gap in professional basketball is shaped not only by league size and revenue, but also by structural and economic factors that influence how income is shared. In the next stage of my research, I plan to move from describing these pay differences to analyzing the reasons behind them. Specifically, I will test whether the same performance metrics, like points, assists, and rebounds affect pay equally across leagues using regression models. I also plan to estimate fixed effects models to control for unobservable factors like player popularity or talent This will allow me to isolate how changes in performance and league economics influence salary growth over time. These next steps will help determine whether the observed pay gap reflects true performance differences or deeper structural inequalities within professional basketball.

References

https://github.com/indyworkman/Workman_401

Baker, Elle. A Comparison of NBA and WNBA Player Salaries. Coles College of Business, Kennesaw State University, Center for Markets and Economic Opportunity, 2020. https://www.kennesaw.edu/coles/centers/markets-economic-opportunity/docs/baker-elle.pdf.

Bureau of Labor Statistics. "Consumer Price Index (CPI) — Home." U.S. Department of Labor. https://www.bls.gov/cpi/.

Her Hoop Stats. "2024 WNBA Salaries by Player – WNBA Salary Cap Database." Her Hoop Stats. https://herhoopstats.com/salary-cap-sheet/wnba/players/salary_2024/stats_2023/.

Spotrac. "2024 NBA Player Contracts – NBA Salary Database." Spotrac. https://www.spotrac.com/nba/contracts.

Women's National Basketball Association (WNBA). The 2020 WNBA Collective Bargaining Agreement. New York: WNBA and Women's National Basketball Players Association (2020): 70-108. https://wnbpa.com/2020-wnba-cba/.