

# Salary Comparison of WNBA and NBA Based on Performance

## Metrics

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### Question

Are WNBA players being paid fairly? Does performance play a factor in the wage gap?

- Comparison of WNBA and NBA Base Salary
- One of the Largest Examples of Gender Pay Gap
- Performance Metrics on Individual Basis for Top 100 Earners in Both Leagues

### Methods

- Multiple Regression Equations to Compare Impact of Performance on Salary in Each League
- Equations:

$$\log \text{Salary}_{i,j} = \beta X_i + \epsilon_i,$$

where  $i$  is the top 100 players,  $j = \{\text{WNBA or NBA}\}$ , and  $X_i$  includes the performance metrics,

*Field Goals Attempted, Field Goals Made, Field Goal Percentage, 3 Pointers Attempted, 3 Pointers Made, 3 Pointers Percentage, Free Throws Attempted, Free Throws Made, Free Throw Percentage, Rebounds, Assists, Blocks, Steals, Personal Fouls, Points*

- Below are figures that show the relationship between base salary and important performance metrics.

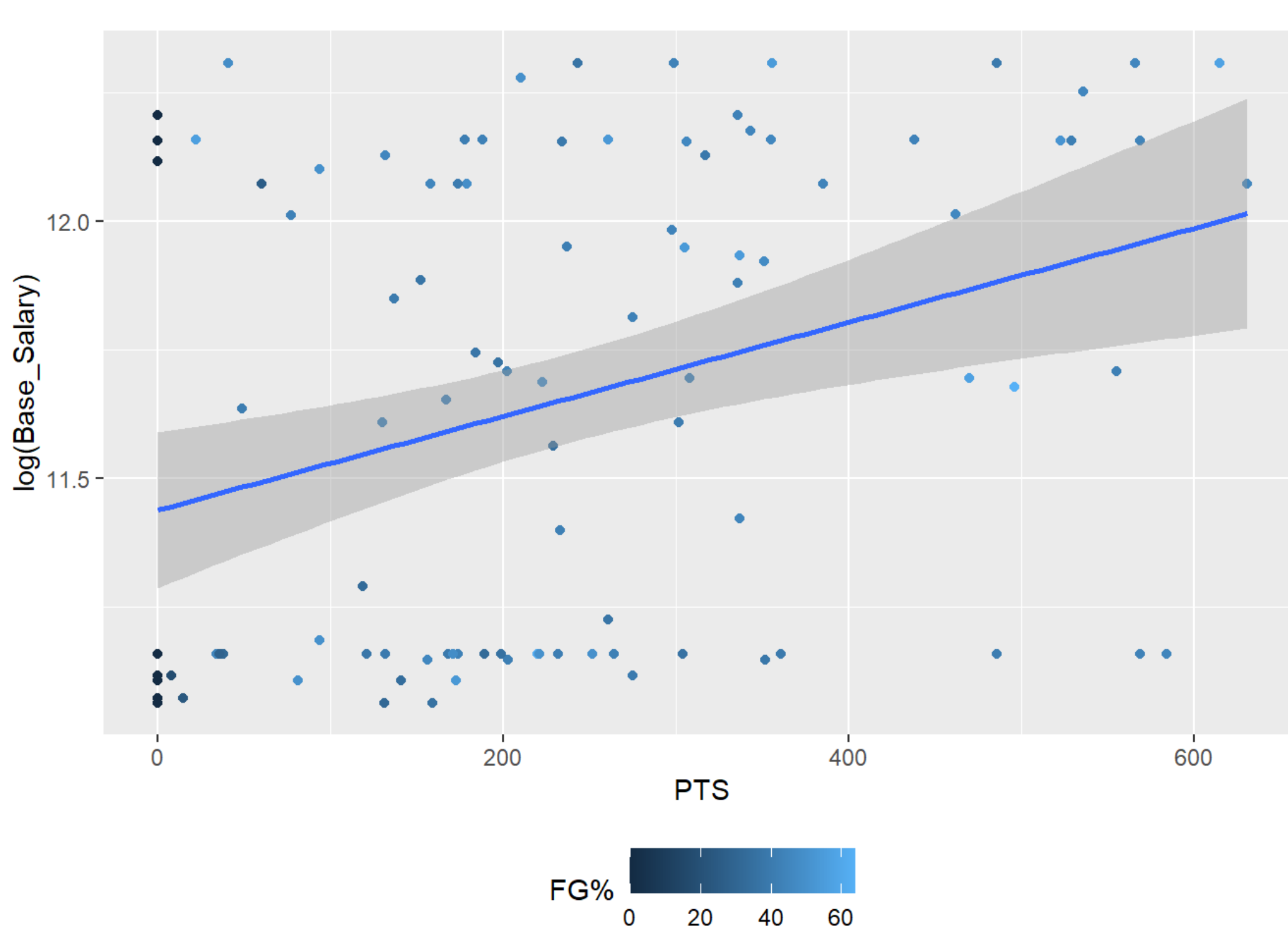


Figure 1: WNBA Salary by Scoring Metrics

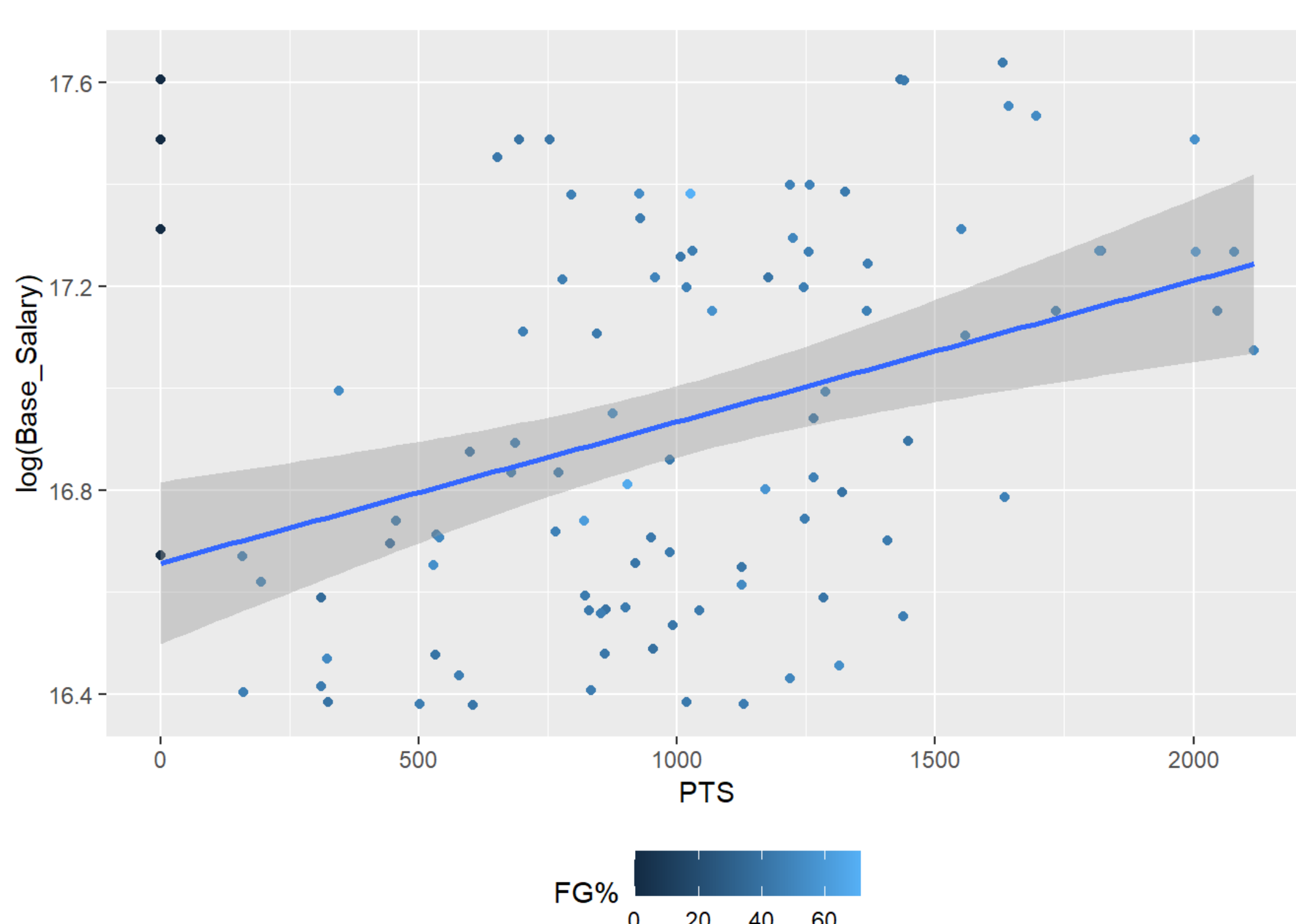


Figure 2: NBA Salary by Scoring Metrics

### Regression Model Estimates

	Dependent variable:	
	WNBA	NBA
FGM	0.009* (0.005)	-0.022 (0.035)
3P%	0.001 (0.003)	-0.012** (0.005)
REB	-0.001 (0.001)	-0.001 (0.0003)
AST	0.004*** (0.001)	0.001*** (0.0004)
BLK	0.002 (0.006)	0.004** (0.002)
STL	-0.003 (0.005)	-0.004** (0.002)
PF	-0.011*** (0.003)	-0.002* (0.001)
PTS		0.012 (0.017)
Constant	11.399*** (0.129)	17.249*** (0.149)
Observations	100	100
R <sup>2</sup>	0.350	0.452
Adjusted R <sup>2</sup>	0.243	0.354
Residual Std. Error	0.402 (df = 85)	0.301 (df = 84)
F Statistic	3.276*** (df = 14; 85)	4.623*** (df = 15; 84)
Note:	$p < 0.1$ ; $p < 0.05$ ; $p < 0.01$	

As you can see, WNBA players are being paid much less despite performing at a similar level as NBA players.

This method was chosen because it allows for comparison of performance from the top 100 highest paid athletes in both the WNBA and NBA based on factors that are statistically related to the level of pay.

### Data

The data for Figure 1 was compiled from Across the Timeline's "WNBA Stat Finder", Basketball Reference's "WNBA Statistics and History", and Spotrac's "WNBA Rankings".

The data for Figure 2 was compiled from ESPN's "NBA Player Salaries - 2021-2022" and "NBA Player Stat Leaders, 2021-2022 Regular Season".

Additional resources used for qualitative purposes are listed to the right.

### Results

The table above shows the regression model estimates that indicate the relationship between variables and ultimately, the value of pay per league.

The results indicate that assists, a statistic attributed to the ability to create scoring opportunities for teammates, is

significantly related to salary in both the WNBA and the NBA.

The playing style of women's basketball often focuses on performing as unit whereas the playing style of men's basketball typically takes a "superstar" approach.

### Conclusion

The takeaway from this research is on basis of performance alone, WNBA players are not being compensated fairly in comparison to NBA players. This means the gender pay gap present in professional basketball is not related to the players' job performance, rather the external environment. Possible explanations to this matter are sexism/misogyny, low fan interest, and a lack of support and investment. Unfortunately, this pay gap affects more than just WNBA players, but female athletes at all levels of basketball by reflecting that women are not valued in sports.

### References

1. Across the Timeline. "WNBA Stat Finder." WNBA Stat Finder Across the Timeline Stats, Facts, and Memories from the Storied History of Women's Basketball, 2021. <https://acrossthetimeline.com/wnba/stat-finder.html>
2. Basketball Reference. "WNBA Statistics and History." Basketball Reference, 2023. <https://www.basketball-reference.com/wnba/>.
3. Bell, David R., Lindsay DiStefano, Nirav K. Pandya, and Timothy A. McGuine. "The Public Health Consequences of Sport Specialization." Journal of Athletic Training 54, no. 10 (October 1, 2019): 1013–20. <https://doi.org/10.4085/1062-6050-521-18>.
4. Burton, Laura J. "Underrepresentation of Women in Sport Leadership: A Review of Research." Sport Management Review 18, no. 2 (April 1, 2015): 155–65. <https://doi.org/10.1016/j.smr.2014.02.004>.
5. Eime, Rochelle, Jack Harvey, Melanie Charity, and Hans Westerbeek. "Longitudinal Trends in Sport Participation and Retention of Women and Girls." Frontiers in Sports and Active Living 2 (April 16, 2020). <https://doi.org/10.3389/fspor.2020.00039>.
6. Eime, Rochelle, Melanie Charity, Jack Harvey, and Hans Westerbeek. "Five-Year Changes in Community-Level Sport Participation, and the Role of Gender Strategies." Frontiers in Sports and Active Living 3 (October 8, 2021). <https://doi.org/10.3389/fspor.2021.710666>.
7. Ellentuck, Matt. "WNBA Roster Cuts 2023: A Running List of Who Was Waived." The Gaming Society, May 19, 2023. <https://thegamingsociety.com/articles/wnba-training-camp-roster-cuts-2023>.
8. ESPN. "NBA Player Salaries - 2021-2022." ESPN, 2022. <https://www.espn.com/nba/salaries>.
9. ESPN. "NBA Player Stat Leaders, 2021-2022 Regular Season." ESPN, 2022. <https://www.espn.com/nba/stats>.
10. DiCicco, Hailey. "Hoop Dreams: An Empirical Analysis of the Gender Wage Gap in Professional Basketball" (2020). Business and Economics Summer Fellows. 8. [https://digitalcommons.ursinus.edu/bus\\_econ\\_sum/8](https://digitalcommons.ursinus.edu/bus_econ_sum/8)
11. NBA. "Statistical Minimums to Qualify for NBA League Leaders." NBA Advanced Stats, 2023. <https://www.nba.com/stats/help/statminimums>.
12. Spotrac. "WNBA Rankings." Spotrac.com, 2021. <https://www.spotrac.com/wnba/rankings/2021/base/>.
13. WNBA. "Statistical Minimums." WNBA Stats, 2023. <https://stats.wnba.com/help/statminimums/>.