Project Findings Report

Male vs Female Pay Disparity within Professional Sports

Sydney Rudny
12-15-2020

Background

Since the latter half of the 20th century, women began to be represented in the workforce more and more. Today women are represented in every field possible. While outside factors such as differing industries, experience, and hours worked cause a pay gap, gender-based pay discrimination is still evident in every single industry. Based on 2018 Census data, white women made $0.79, black women made $0.62, Hispanic women made $0.54, Asian women made $0.90, and American Indian made $0.57 all to the equivalent of $1 of a white man. (Bleiweis, 2020) The United States Women's National Team for soccer has recently grabbed the attention of many while filing a lawsuit against U.S. Soccer as they were paid less than their male counterparts (USMNT) while being more successful, World Cup Champions, and overall, more popular. (staff, 2020) Many people argue the women's pay gap exist strictly because women's sports just aren't as popular as men's but some teams like USWNT are fighting against that idea. This project dived into other popular sports to analyze pay gap disparity when comparing athlete's salaries to the leagues they play in revenue.

Hypothesis

There will be a pay gap between men and women's sports. While accounting for revenue brought in by the different leagues, the gap between the male and female pay will exist in each sport in favor of the men, however to different degrees.

Methodology

Salary data was pulled from spotrac.com using Python. Revenue data was pulled from multiple different sources. See Data Analysis Application in Appendix for more data information. From there data was pulled into RStudio for data analysis.

Results

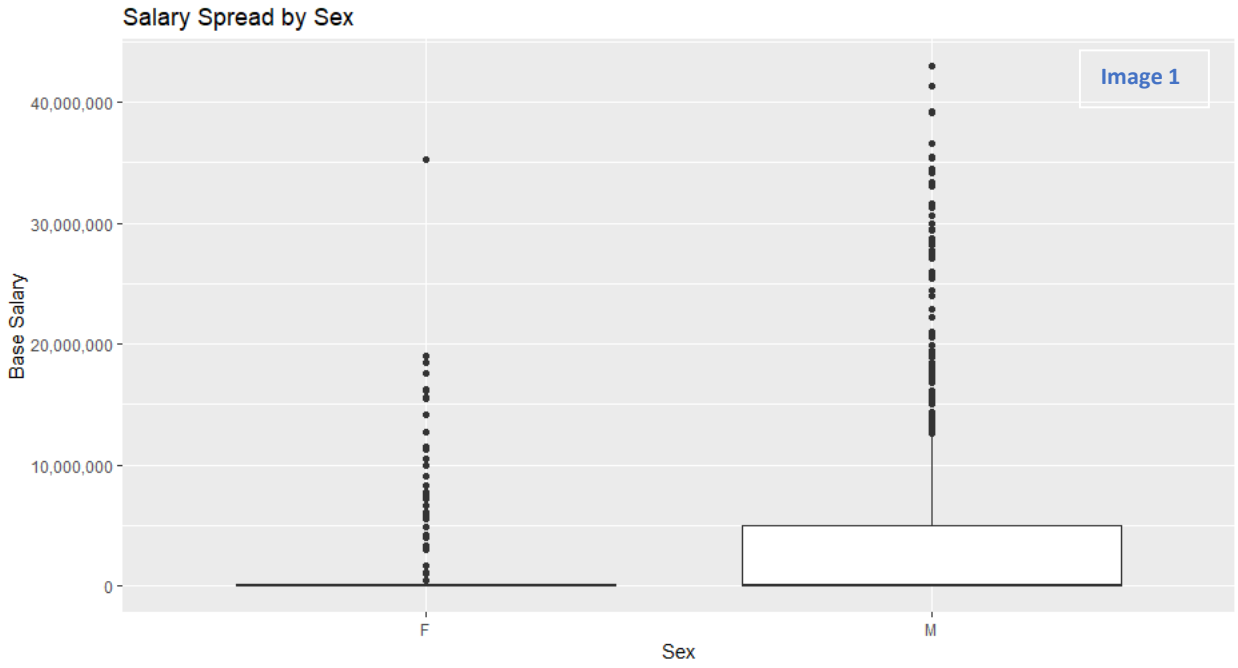
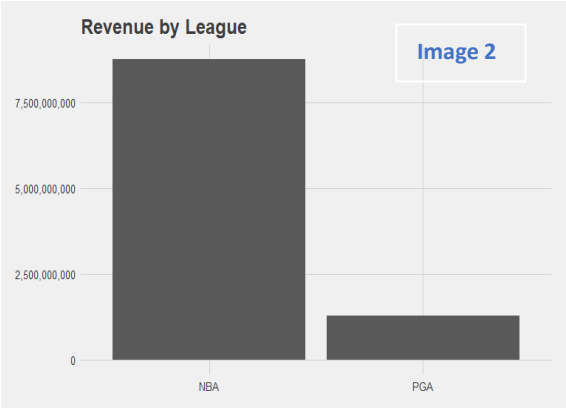


Image 1 shows us a general overview of the data set by showing the spread of salaries between male and female. From this we can see majority of female athletes make significantly less money than most male athletes. There are also more male outliers that make more than their average male counterparts.



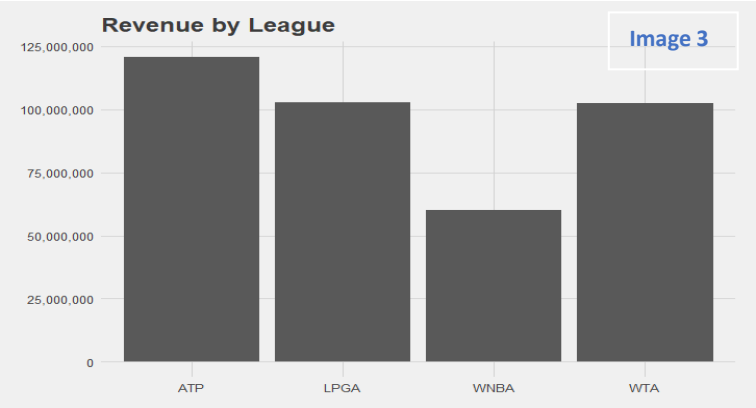


Image 2 and **Image 3** both display total revenues made by each league. Depending on data available, some leagues track revenues as total revenues and others yearly revenues. Since the NBA and PGA make substantially more than the other leagues, they were put on a different scaled graph in **Image 2** for better visibility for the other four leagues displayed in **Image 3**.

Basketball

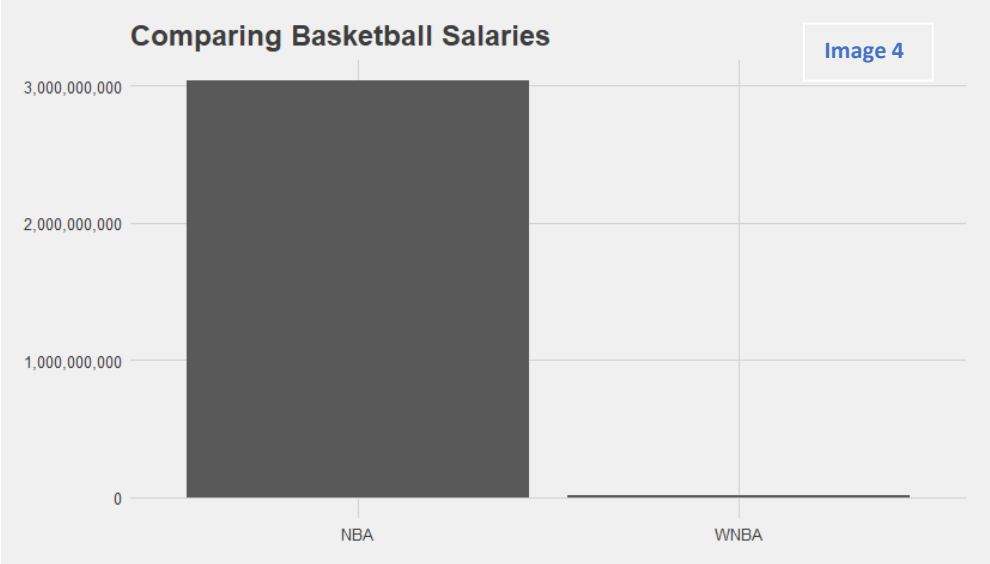


Image 4 gives a general overview of the amount of money that goes into the NBA and WNBA yearly salaries. It is evident that the NBA can afford to have billions of dollars put into salaries while the WNBA does not.

Note: The NBA has 30 teams while the WNBA has only 12 therefore more salaries are being paid. This graphs purpose is to show up some initial information on the salaries in basketball.

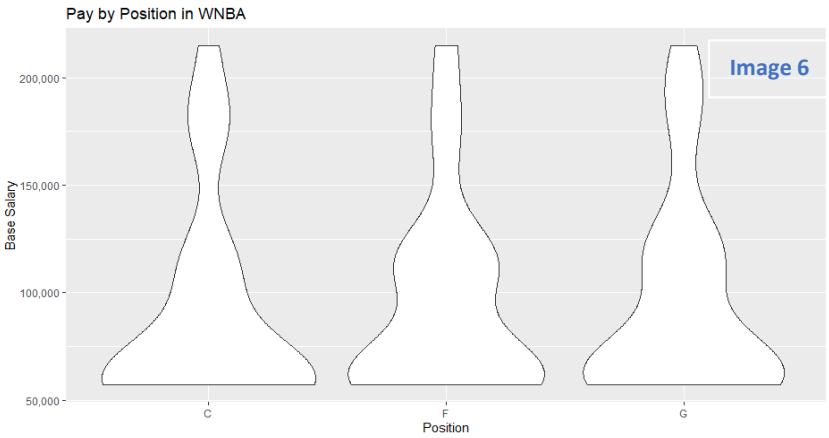


Image 5 and Image 6 show the distribution of salaries in the professional basketball leagues by position. Image 5 shows NBA salary data. Majority of players make millions of dollars. Guards also tend to get paid higher than any other position. The highest paid player makes around $40,000,000. Image 6 shows

the WNBA salary data. All positions seem to be equivalent on how much they get paid. The highest paid players make upper $200,000.

Revenue to Salary Comparison:

The past season the NBA saw over $8 billion in revenue and the WNBA saw about $60 million. This makes WNBA's revenues only about 1% of the NBA's. The average salary for an NBA player is $12,348,611 while a WNBA player is $94,727. So, for every $1 an NBA player makes their female counterparts would make $0.01 based of the ratio of their average salaries. Since revenues of the WNBA make up 1% of the NBA, their salaries are equated when comparing it to league revenues.

Tennis

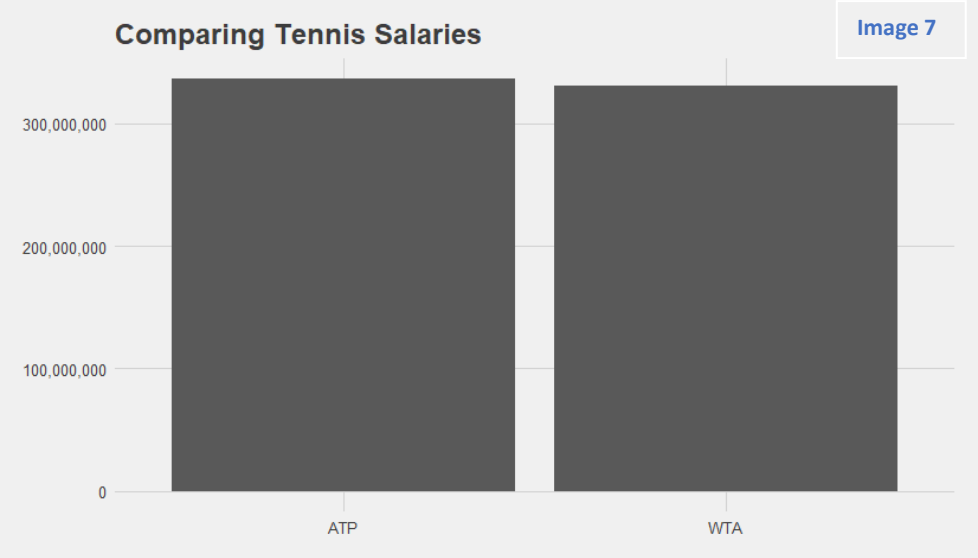


Image 7 gives a general overview of the amount of money that goes into the ATP and WTP salaries. Both leagues have close to the same amount of money put towards salaries.

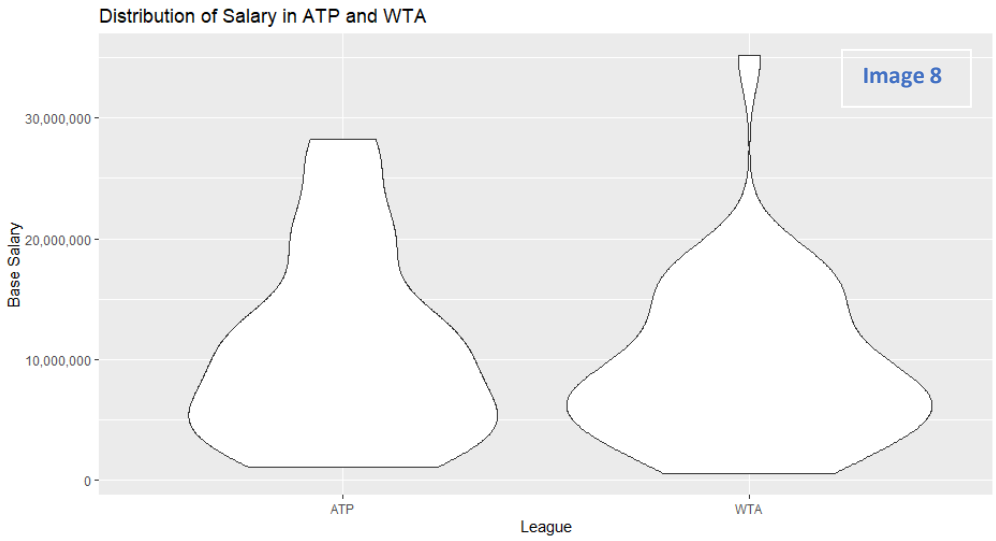


Image 8 shows the distribution of salaries in both tennis leagues. Both leagues seem to have a the same distribution of salaries with the female side having a few very successful athletes compared to the ATP having more density with athletes making $25,000,000.

Revenue to Salary Comparison:

The ATP saw revenues of $120,960,000 while the female side of WTA saw $102,564,888. Although close in revenues, the WTA makes up around 84% of the ATP. The average base of a player in the ATP is $10,862,072 while a WTA player is $9,451,524. So, for every $1 an ATP player makes, a WTA player makes about $0.87. This puts female tennis players at a higher pay than their revenue comparisons.

Golf

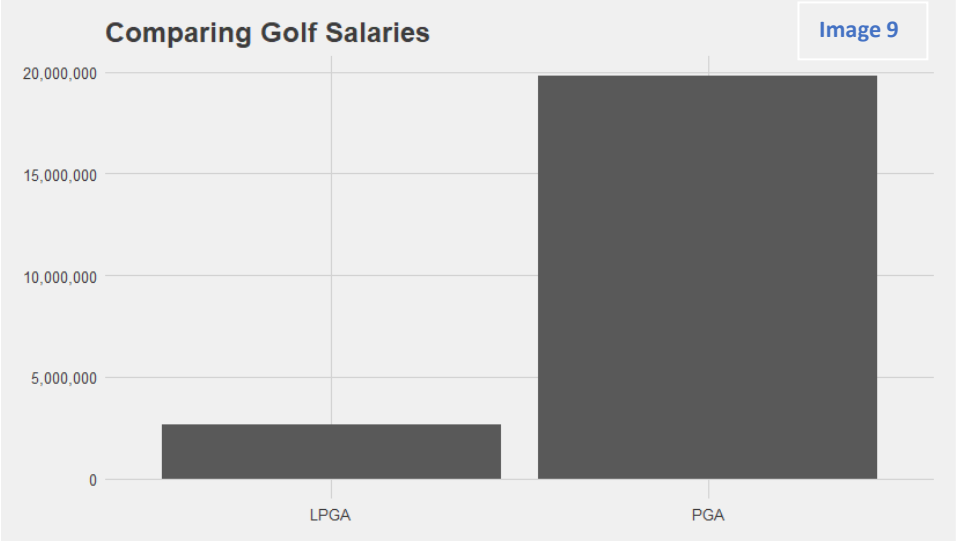


Image 9 gives a general overview of the amount of money that goes into the PGA (men's) and LPGA (women's) salaries. The PGA has a lot more money put into base pay than the LPGA.

Note: The PGA could have more golfers than the LPGA. This graphs purpose is to show up some initial information on the earnings in golf.

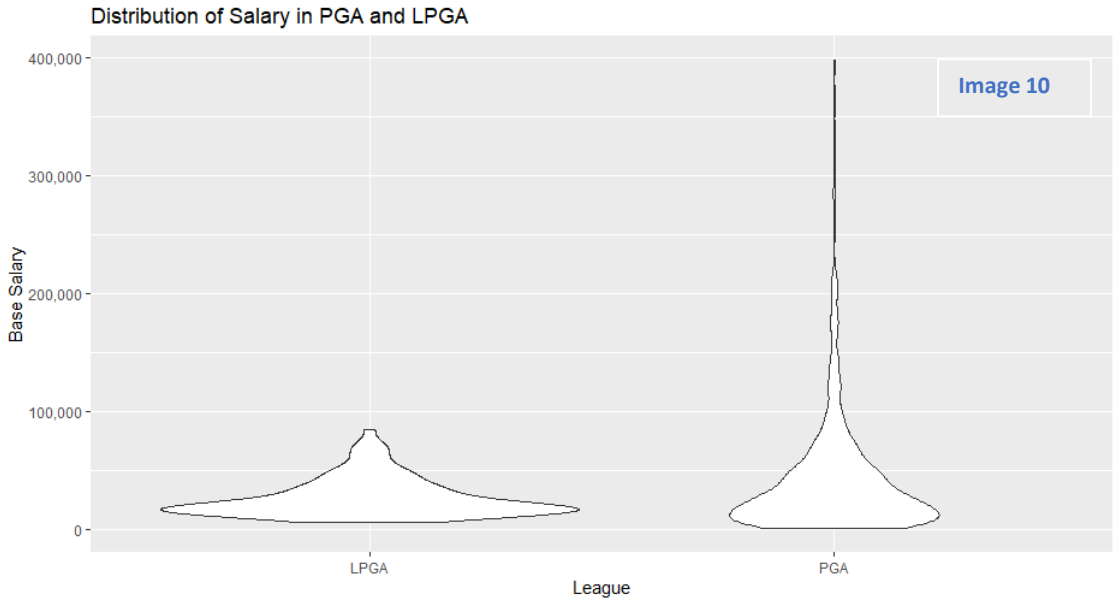


Image 10 displays the distribution of golf earnings for each league. Both leagues have a large density of players paid under $100,000. However, most of the PGA's high earnings are through a select few players who are paid substantially more. The thin line on the PGA indicates that there aren't many players who make the higher salaries.

Revenue to Salary Comparison:

The PGA saw revenues of $1,280,000,000 while the female side of LPGA saw $102,800,000. The LPGA's revenue makes up about 8% of the PGA's. The average base (average $ made per event) of a player in the PGA is $43,440 while a LPGA player is $26,855. So, for every $1 a PGA player makes, a LPGA player makes about $0.61. This puts female golf players at a significantly higher pay than their revenue comparisons.

Conclusions

When comparing male and female pay compared to league revenues, women athletes are compensated fairly. In golf, women in the LPGA are paid much more than their revenues compared to the PGA. However, without looking at revenues, females make significantly less money than their male counterparts (except for tennis leagues). Since revenue drives most of what leagues can pay their athletes, we, as a society, must recognize the gender discrimination between men's and women's sports. Some solutions to equating revenues can start by providing equal facilities to both genders to train, promote female athletics and competition, and get rid of common stereotypes around the difference in abilities and competition level of female sports.

References

Bleiweis, R. (2020, March 24). *Quick Facts About the Gender Wage Gap*. Retrieved from Center for American Progress: https://www.americanprogress.org/issues/women/reports/2020/03/24/482141/quick-facts-gender-wage-gap/

staff, E. (2020, June 3). *USWNT lawsuit versus U.S. Soccer explained: Defining the pay gaps, what's at stake for both sides*. Retrieved from ESPN: https://www.espn.com/soccer/united-states-usaw/story/4071258/uswnt-lawsuit-versus-us-soccer-explained-defining-the-pay-gapswhats-at-stake-for-both-sides

Appendix & Resources

1. Data Analysis Application
2. Project Proposal
3. Data
4. GitHub link to project: https://github.com/srudny/AthletePayDisparity