College Sports Data Management

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Abstract

The objective of this study is to construct, develop and analyze a database of annual financial reports provided by division 1 universities and their sports departments. This task will be capable of providing the answers to questions the public has yet to ask by providing an important level of transparency not previously embraced by most of these universities. By collecting this data and running basic statistical analyses, we will be able to bring to light discrepancies in the financial data of these universities to discover things such as wage inequality, underfunded departments, and just how much universities value their sports over their educative duties. Unfortunately, certain private universities withhold the right to keep their financial data private, which means that they are exempt from the study, but any layer of transparency, especially on a scale this large can mean great changes for how institutions decide how to spend their money. The hope for this research is to hopefully only discover small bureaucratic errors in these reports, but more than anything, it is to ensure that schools are held responsible for the financial decisions they make. The study will use the Microsoft Excel and other statistical programs, such as STATA to thoroughly compile and analyze the vast amount of data we receive.

Introduction

In any public decision process, transparency has value. It is especially valuable in any discussion of the proper level of public resources devoted to activities at public universities. There is no such transparency concerning college sports finances. As a result, there is a significant lack of information to allow for proper debate between supporters and detractors of college sports. Over the past few semesters, we have been developing a vast database of FBS-level of college sports revenues and expenses. Data are required for transparency between the public and their universities. With the transparency provided by this data, there are tremendous possibilities for assessment and guidance for these departments. These data can give us insight to possible gender discrimination present in these departments and hopefully start to influence change. We can determine what financial policies are effective and how colleges might alter their spending so that students and the institution as a whole can thrive.

Methods

Our research utilizes financial reports provided by various Division I universities and their sports departments. Due to the nature of our research, our work does not have many tools. Primarily, Adobe Acrobat, Gmail, Microsoft Excel, and Google Sheets were vital in the compilation and analysis of our data. Furthermore, the data we received and analyzed provided insight to multiple aspects of these sports departments such as expenses, revenue, and even the amount of students attending the university. As a result, most of our data is recorded as U.S. Dollars, but other data is recorded in the number of students or employees. In order to conduct our research, our mentor, Dr. Rodney Fort, would collect reports of data from multiple sports departments for multiple years and send it to us via email. We would then polish the files and extract the desired data into a template in Microsoft Excel. From here, we compiled multiple years worth of financial data and sent it back to Dr.Fort to ensure that the data was correctly compiled and to add to a master file which held all of the processed data sets that we had completed. Once, most of the data was collected and compiled, we were given copies and created formulas in Microsoft Excel and Google Sheets to calculate important data that was not directly addressed in the file such as profit or the proportion of the coaches' salaries to the revenue generated by the teams they coached. We then submitted reports of anomalies or any interesting data points we could find. Due to the unique nature of our research, the data that we receive is limitless and we do not have a definitive end for our research. However, we compiled an immense amount of data and analyzed multiple anomalies in our data which is exactly what we hoped for while we were conducting our research.

Results
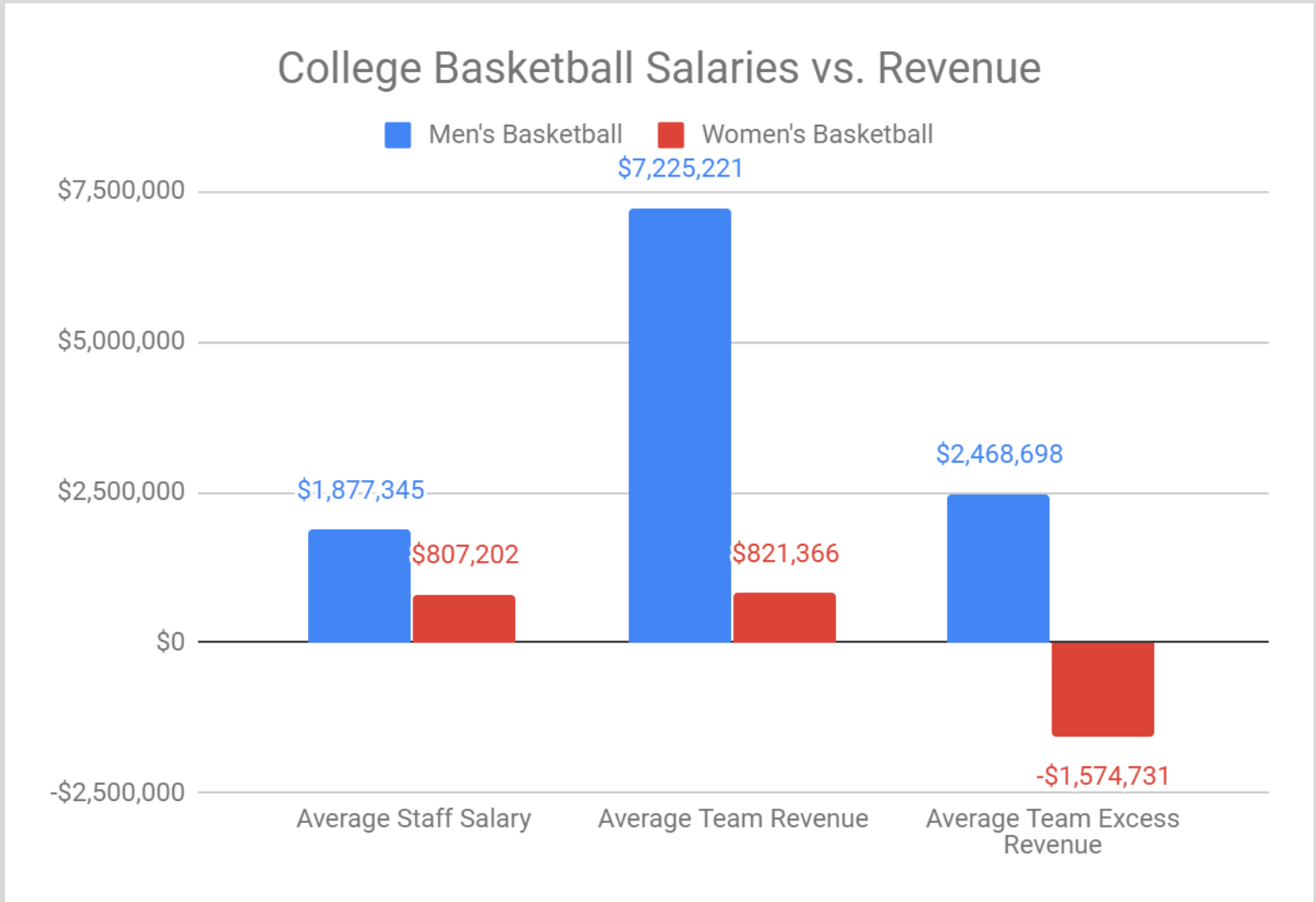
The data displayed above is an example of a discovery that was made by using excel to find the average salaries that staff on the men's and women's basketball teams earn based on the financial data we compiled. We also calculated how much revenue each of these teams generate on average and how much excess revenue they generate after considering the teams' expenses. We found that staff get paid a fraction of the revenue that the men's basketball team generates which is reasonable. The team also generates an average of about 2.5 million each year which means the team generates substantially more than they cost. For the women's basketball team, the staff gets paid a large portion of the total revenue the team generates. This helps to explain why on average, the teams do not generate more revenue than their expenses. Based on this data, we can see that while there is a prominent difference in wages between men's basketball staff and women's basketball staff, it seems that the difference is more than justified as the men's basketball team is responsible for much more revenue in the sports department.

Conclusions and Future Work

Our research is unique in that it is continuously being built on as more data is added. We hope to compile a large enough database to discover consistent results. Some points of interest include gender pay differences, sports revenue differences, and overall profit. With minimal analysis, we found tremendous wage gaps between head coaches' salaries depending on their university. We expect to see significant differences in sports revenues as division 1 football attracts by far the most amount of viewership and would therefore generate more revenue. We also expect to see vast differences in wages between genders since male sports tend to generate significantly more viewership and revenue. Our database of financial reports should however be able to help find a reasonable proportion between profits generated for each sport and the amount the head coaches get paid. This will hopefully give us a fair idea of whether or not other factors are involved in the decisions for wages in these sports departments. Finally, an interesting analysis could involve observing the trend of each departments profit over the years. This discoveries will be most indicative of the success of each university's sports department.

Our goal behind conducting this research was mostly to establish a resource which analysts could utilize to finally answer important questions revolving around college sports and finances. We were able to compile, polish, organize, and clean an immense amount of data to create the tools needed to definitively analyze the financial tendencies of college sports teams. The beauty of our work lies in the fact that our work has unlimited potential in that it could be used to discover many issues or even successful aspects of sports departments from a financial aspect. Our database shines a light on important financial anomalies which has potentially an enormous impact on how these universities manage their money. Furthermore, this research is important as it is impartial evidence that develops a much needed layer of transparency for viewers, investors, and everyone involved with college sports. It is our hope to continue to develop our database to include as much data as possible by updating it annually when we receive more reports as well as hopefully expanding to beyond just division 1 schools. Overall, the research we were able to uncover has incredible potential to influence the financial landscape of college sports.