

1014-M1-1466 **Joshua Travis Hale*** (jthale@mail.utexas.edu), 1406 Richmond Avenue #335, Houston, TX 77006. *Using Theil's T Statistic to Explore Salary Inequality in Professional Sports: New Tools, New Questions, New Answers.* Preliminary report.

The purpose of this paper is to show how Theil's T Statistic can enhance analyses of salary inequality, using examples from Major League Baseball. Most existing scholarly studies of salary inequality use the Gini coefficient, the coefficient of variation or top-to-bottom ratios to measure inequality. Indeed, these measures are often adequate for making comparisons between teams. However, these methods, unlike Theil's T Statistic, cannot easily parse inequality among groups and individuals. This paper will explore this and other properties that make Theil's T Statistic an appropriate measure for studying salary inequality. As a simple example, using several years' salary data for a baseball team, we can see not only if salary inequality is increasing or decreasing, but how much the pitchers are contributing compared to the position players. There are many such ways to partition the data, and in exploring them, we can examine what types of salary inequalities help predict team performance over time. In addition to these empirical questions, this research will discuss the strengths and weaknesses of Theil's T statistic compared to other inequality measures in this context, with emphasis on potential classroom applications. (Received September 28, 2005)