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News Ways to compare NFL players, using Model Building.

An adaptation of a calculus project allows precalculus students to use a new way to compare NFL wide receivers. Model building will be demonstrated, and the same analysis will be conducted using rectangles and trapezoids.

Calculus students analyzed a quantitative analysis comparing the career statistics of Jerry Rice and Warren Wells. They created a model for each player by graphing a piecewise defined function connecting ranks and then used integration to find the area under the piecewise linear curves. Similarly, precalculus studenta will use the same data, but the areas will be computed for rectangles and trapezoids. The results inspired a question. The students asked, "Why hasn't Wells been considered as a nominee to the Hall of Fame since he ranks No. 1 in two of the seven categories in the quantitative study?" Wells, for example, has ranked No. 1 in two categories for about 38 years, indicating that the numbers tell a story and that some players statistics have stood the test of time.

The graphs give a clear picture of the strengths and weaknesses of each wide receiver, pointing out that cumulative data is not always sensitive to the strength of a player in a subcategory. This method allows for more insight in a comparative study. (Received August 13, 2008)