

Fantasy Football Rankings Analysis

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I. INTRODUCTION

The objective of our project is to determine the relative value of fantasy football positions in order to declare a draft strategy for an individual as well as help their strategy throughout the season. Many people place more value to Quarterbacks when they draft, others place more value on having great running backs and wide receivers. Our analysis will gather data from the past decade of NFL seasons to truly determine the value of each fantasy position. Several of our members are currently in the middle of the fantasy football season and would love to discover new trends and strategies when prioritizing certain positions.

II. DATA

A. Retrieving the Data

We will use Yahoo fantasy football API to retrieve data from the past 10 fantasy football seasons. Looking at the points scored by each position over this era will hopefully yield a trend in positional value that users can utilize in order to make knowledgeable plays throughout the season.

B. Data Constraints

We will assume a 12 team league with ppr scoring that consists of 2 QB, 2 RB, 2 WR, 1 TE, 2 Flex starter positions. With that being said, in this specific league on average each team will roster 2.5 QBs, 5 RBs, 6.5 WRs, and 2 TEs. Therefore, when multiplying this average by the total teams of the league, it will yield the next available replacement value. Therefore, the replacement values will be QB 31, RB 61, WR 79, and TE 25.

C. Analysis

We will determine the value of a player by subtracting the replacement value from that position (e.g. subtract the points produced by TE 25 from TE 2 to determine the points above replacement for TE 2). Then, we will give each team in the league a certain amount of money (200 dollars is standard in auction formats) to spend on players. We will add up the total points above replacement, and then divide by the total amount of money to determine the points to dollar ratio. We then multiply this ratio by each position ranking's points above replacement to arrive at a value for that position ranking.

III. TEAM RESPONSIBILITIES

Team Lead: Trent Florey

A. Gathering Data

This will be performed by Caitlin and Jake. They will use Yahoo Sports API to retrieve the necessary data needed to perform the analysis.

B. Performing Analysis

Once the data has been retrieved, Parker and Jacob will perform our specified analysis using our replacement value methodology.

IV. TIMELINE AND MILESTONES

A. Week 1

Determine objectives and show all team members the purpose of the project

B. Week 2

Gather data from sports API

C. Week 3

Convert data into values above replacement

D. Week 4

Perform calculations to determine dollar value of position rankings

E. Week 5

Convert these calculations to excel sheet to analyze trends

F. Week 6

Build charts of this data to visually represent the trends we found

G. Week 7

Present findings in human readable format (jupyter notebook) to show what has been learned.

V. EXPECTED OUTCOME

We want to determine the relative value of each position in fantasy football; moreover, we hope to determine the value of the rankings within each position. In order to do this, we will create value charts for rankings within position groups. We will do it visually via graphs or charts in order to show clear and visible trends. Some example questions we could answer using this data could include; which position should I draft in the first round of a fantasy football draft? How do players in fantasy football acquire points? Is the difference between a 1 ranked tight end and a 5 ranked tight end linear, exponential, or neither? How much more valuable is the top running back compared to the top tight end or quarterback? Is there a difference in the value of these positions? We will likely display this data in a Jupyter Notebook for readability for the user. We can also look at how these values have changed over time because we will be looking at a stretch of 10 years of fantasy football data.