

# Kaggle New York Stock Exchange S&P 500 Dataset Analysis in Healthcare Pharmaceutical Industry



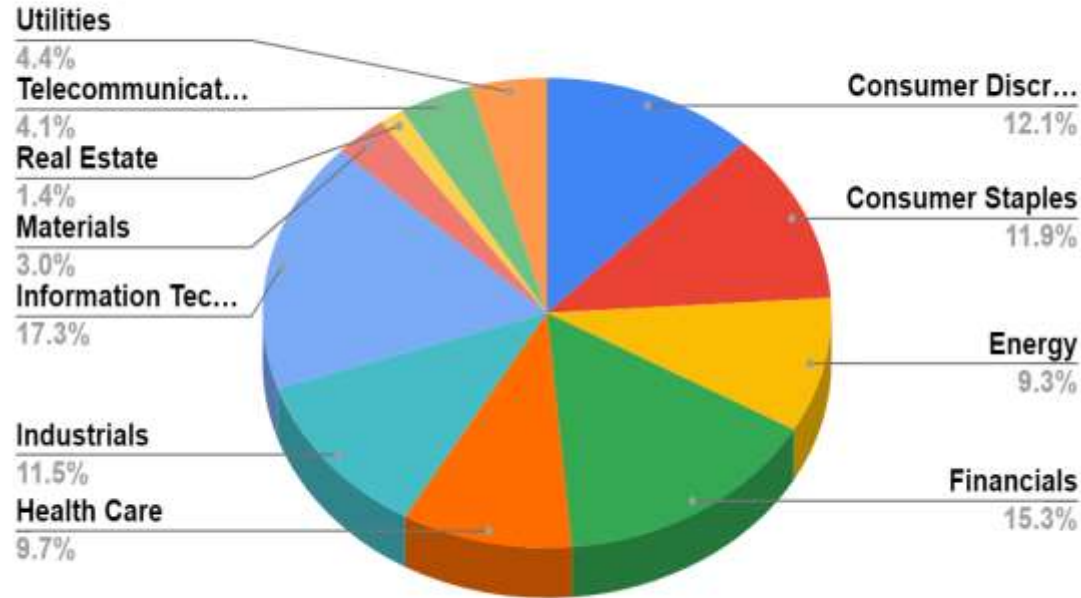
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# WHAT ARE THE OPERATING INCOME RATIOS OF ALL SECTORS?

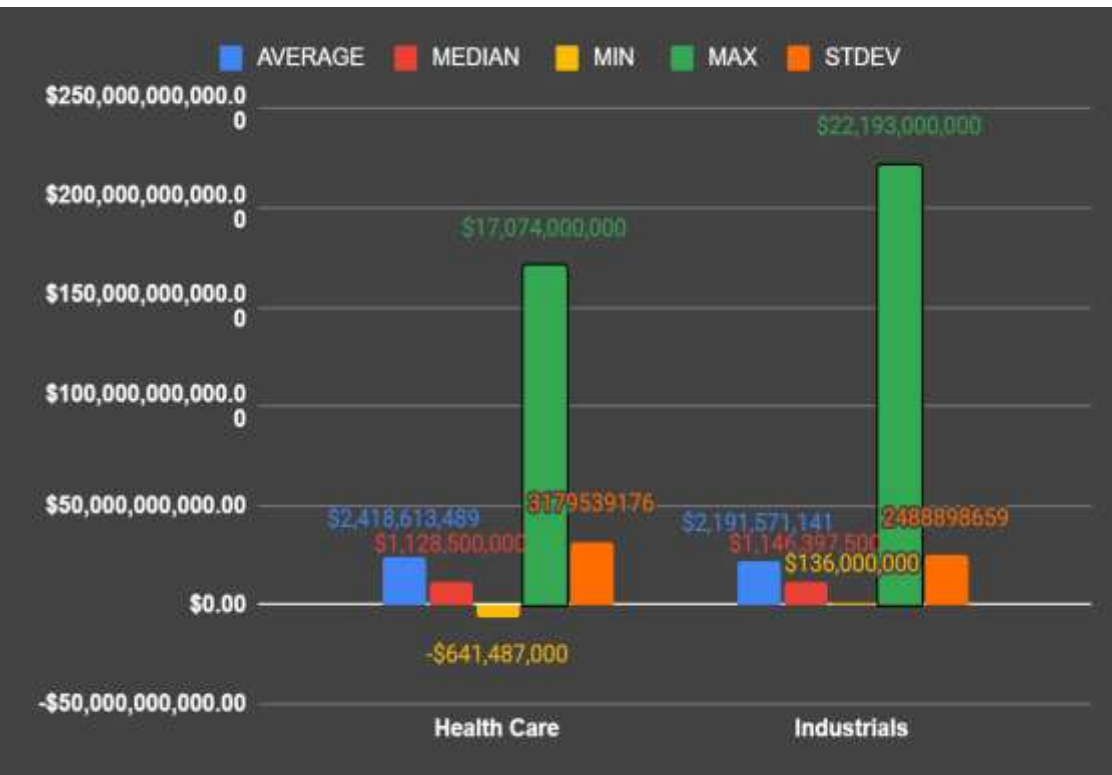
SUM of Operating\_income



When we look at sectors of income distribution;

- Highest share sector %15.3 Financials,
- Smallest sector %1.4 Real Estate,
- Health Care sector is %9.7.

# What Are The Operation Income Distributions of Health Care and Industrial Sectors?



As the sector, we see how big they are as well as health and industrial sectors, which are two sectors with high income.

The controlled median value was \$1,128,500,000 for healthcare and \$1,146,397,500 for industry. We see that these companies have operating income averages \$2,418,613,489 and \$2,191,571,141.

We can see that the income gap in the two sectors is so high that the competition is high for companies. Therefore, we see that the standard deviation of the health

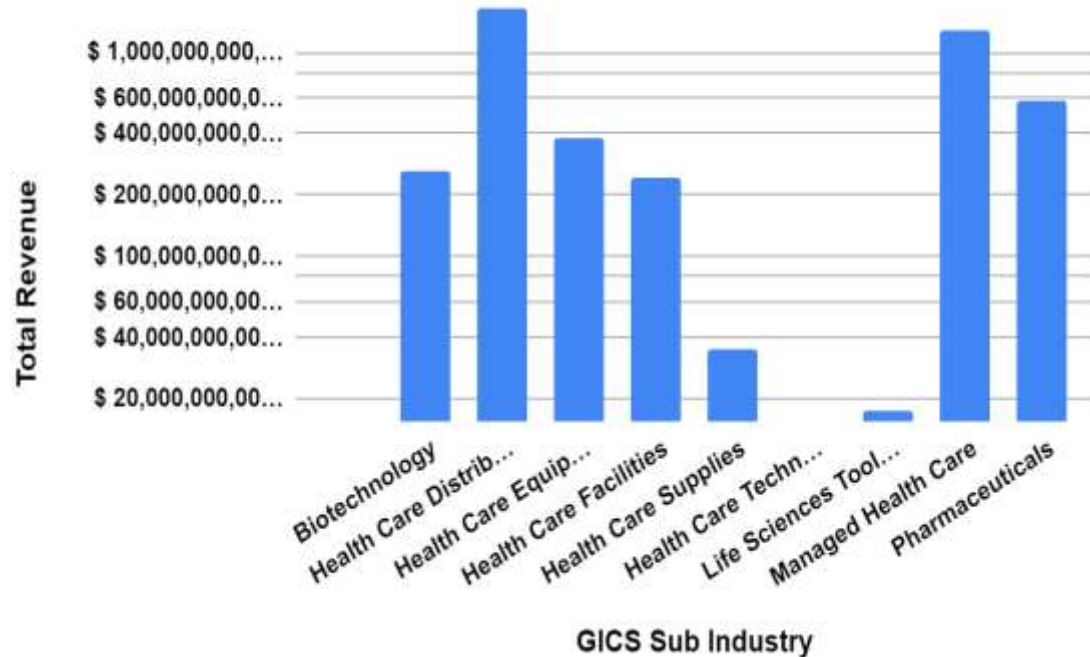
3,179,539,176 and industry

2,488,898,659 sectors is very high and exceeds the average.

Although the average income of the health sector is higher than the industry sector, it is seen that the data in the industrial sector show a more normal distribution.

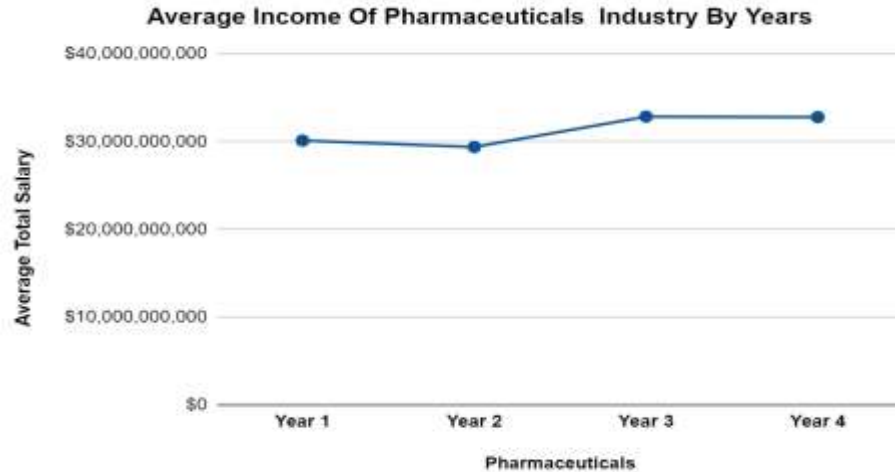
# What Are The distribution of total revenue in health care sector over sub industries?

Total Revenue vs. GICS Sub Industry



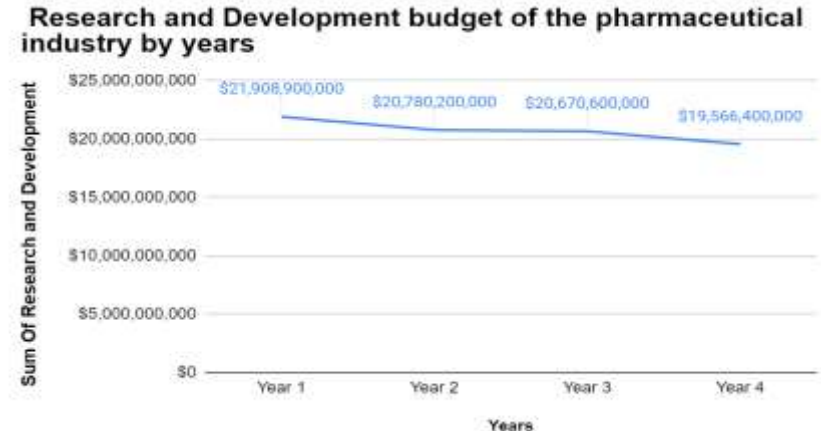
- The industry with the most income is Health Care Distributors (\$8,249,185,205,000).
- The industry with Least income is Health Care Technology (\$77,675,955,000).
- Pharmaceutical industry that we are interested in the health sector (\$2,895,798,500,000).
- Although there are industries where it has more income than the pharmaceutical industry, the share of the pharmaceutical industry in the health sector is substantial.

# WHAT ARE AVERAGE REVENUES OF THE PHARMACEUTICAL INDUSTRY IN HEALTH CARE SECTOR BY YEARS?



- The fact that the average income of the pharmaceutical industry has not increased over the years reminded us that there may not have been much budget allocated to research and development.

- There has been no significant change in the average total income in the pharmaceutical industry over the years but slightly fluctuating between 29 billion and 33 billion.



# WHAT IS THE COMPARISON OF THE OPERATING INCOME OF TWO REMARKABLE COMPANIES IN THE PHARMACEUTICAL INDUSTRY WITH THE MAX, AVERAGE, AND MEDIUM VALUES?



- PFE company's average operating income \$14,978,750,000 , median \$14,932,500,000 and standard deviation 2,042,482,374 .
- MRK company's average operating income \$7,943,000,000 , median \$7,606,000,000 and standard deviation 1,361,623,541.
- The average and the media close to PFE company show that the company does a good work and appears outstanding performance than MRK company.
- When looking at the max and mini values, MRK company's range is 3,194,000,000\$ and PFE company's is 4,098,000,000\$; because MRK company has lower operating income than PFE company, it is considered to have a small range than PFE company.