



Project 2

Analyze NYSE Data

Business Analytics Nanodegree Program
- Udacity -

Questions that will be answered in this presentation

01

**How many industries in health care sector are included in S&P 500?
How much does the number represent in percentage?**

02

Which industry of health care sector has the highest total revenues and its total revenue increases over years and which industry decreases its total revenues over the years?

03

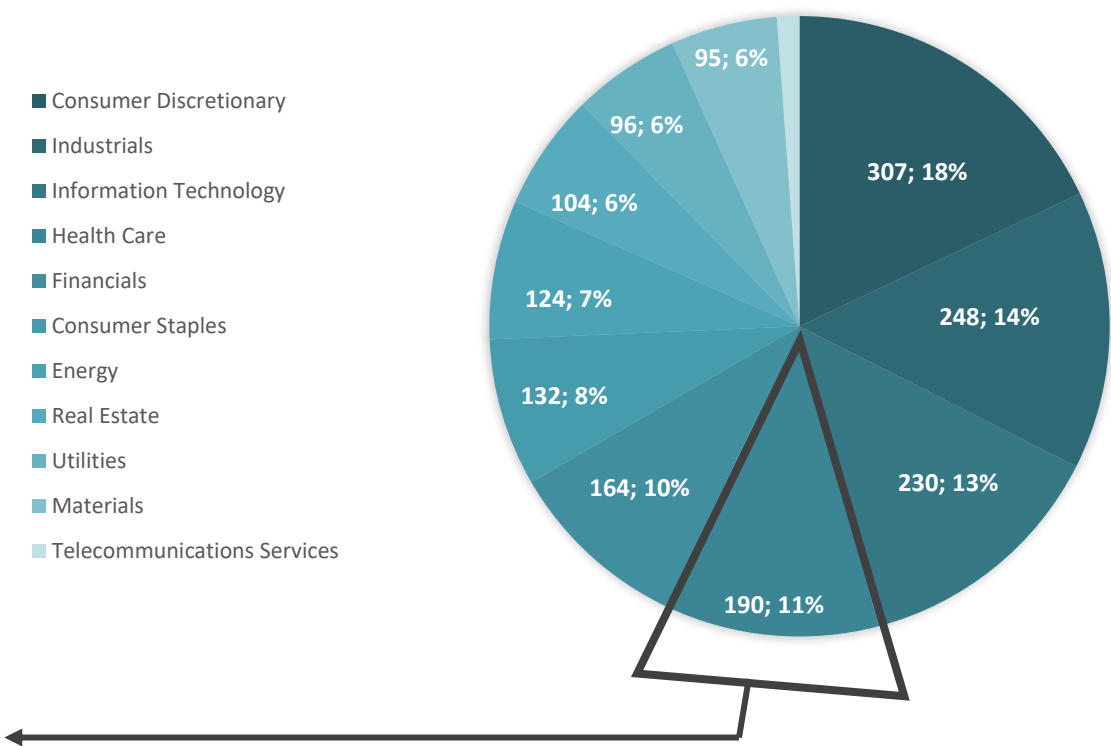
Which industry has the highest average revenue in the four years and which one is more volatile?

How many industries in health care sector are included in S&P 500?

How much does the number represent in percentage?

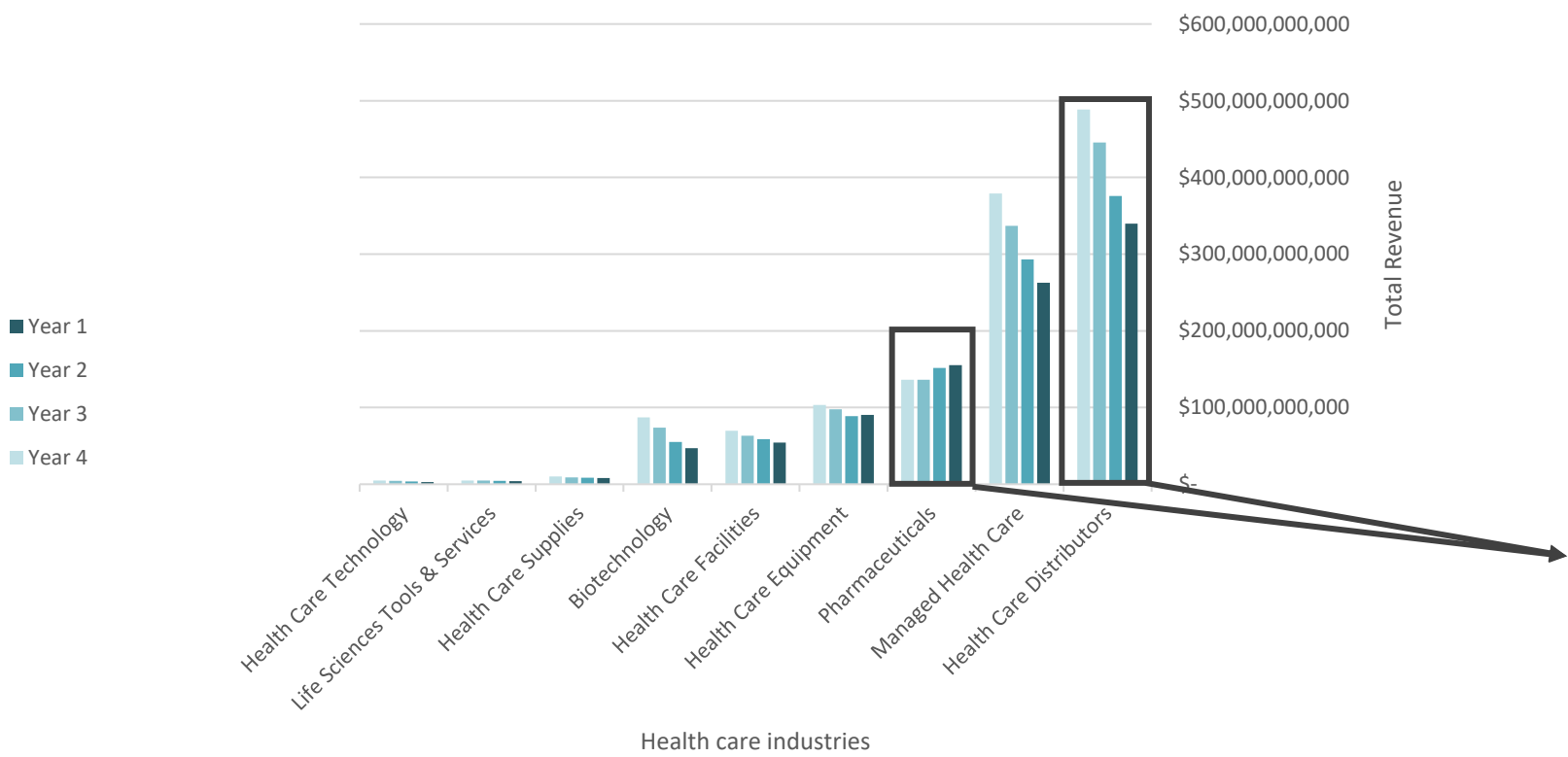
I plotted the whole Sector included in S&P 500 in a pie chart and that shows the total industries in each sector. As shown in the chart the total industry in health care industries is 190. The fourth sector in terms of the number of industries, after the Consumer Discretionary, Industrials, and IT sectors. The industries of the health care sector represent 11% of total industries.

TOTAL INDUSTRIES IN EACH SECTOR



Which industry of health care sector has the highest total revenues and its total revenue increases over years and which industry decreases its total revenues over the years?

Total Revenue for Health Care Sub-Industry



I plotted total revenue for sub-industry of the health care sector and as it shows that the total revenue of the health care distribution industry has the most total revenue over the four years and the revenue is increase over the years. As for Pharmaceuticals, the industry is the only industry that revenue decreases over the four years. So I choose these two industries to do my analysis on.

These histograms are for two industries in the Health Care sector (Health Care Distributors and Pharmaceuticals) shows the total revenue for both industries in four years. Both distributions are right-skewed or positively skewed which means the mean for each is higher than the median.

The Health Care Distributors has mean (about \$68 billion) more than Pharmaceuticals' mean (\$26 billion). The median for Health Care Distributors (\$52 billion) is double the Pharmaceuticals' median (\$21 billion). However, the Range for Health Care Distributors (\$189 billion) is higher than the Pharmaceuticals range (\$50 billion) that's tells us that the Health Care Distributors is more volatile.

Moreover, the standard deviation for Health Care Distributors (\$64 billion) is more than the standard deviation of Pharmaceuticals (\$17 million) which tells us that Health Care Distributors' revenue is more spread out and has more variability than Pharmaceuticals.

Which industry has the highest average revenue in the four years and which one is more volatile?

