

## Operating Income Statistics and Distribution

These descriptive statistics cover Operating Income for S&P 500 Industrials in all years in the dataset.

50% of industrial companies had operating income less than \$1,094,500,000 (the median) but the mean was \$2,089,050,633.

Since the distribution is positively skewed, mean > median > mode.

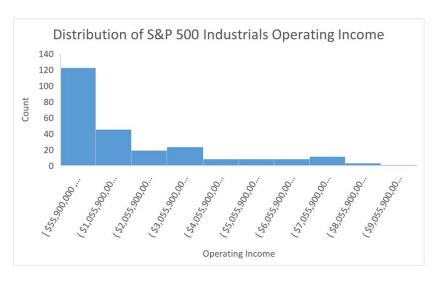
The standard deviation is greater than the mean which indicates that the data points have a high degree of dispersion.

Data dispersion can also be seen in the very large range of data. The maximum Operating Income is 177 times the minimum value, leading to a range of \$9,537,100,000.

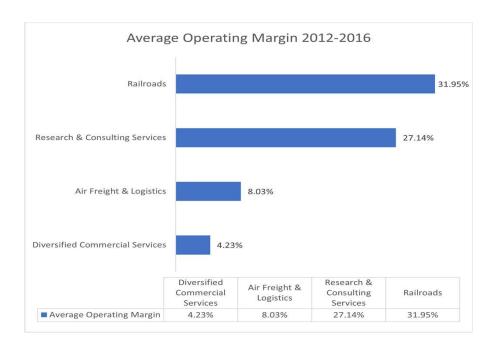
This high level of variability in the dataset, combined with the positive skewness, make the mean a poor representation of the data. It is better to use the median as a measure of central tendency in this case.

With a kurtosis of 1.43, this distribution is relatively flat compared to a normal distribution.

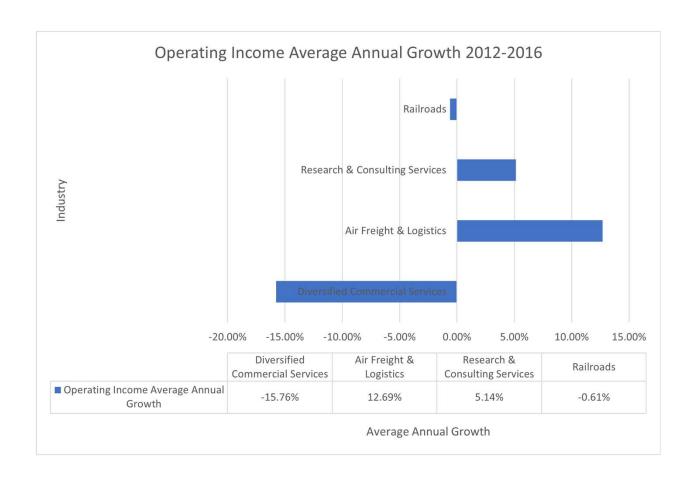
Mean	\$2,089,050,633
Median	\$1,094,500,000
Mode	\$1,053,000,000
<b>Standard Deviation</b>	\$2,161,646,919
Kurtosis	1.43
Skewness	1.55
Range	\$9,537,100,000
Minimum	\$55,900,000
Maximum	\$9,593,000,000
Count	248



## Winners & Losers



Based on Average Operating Margin from 2012-2016, Railroads and Research & Consulting Services were the top two performers; while Air Freight & Logistics and Diversified Commercial Services performed the worst.



Among the top two, Railroads industry has a very high Operating Margin of 31.98% which is twice the industrial sector average of 15.8%, but the industry seems stagnant with -0.61% annual growth in Operating Income. Research & Consulting Services numbers paint a rosier picture; with a very high 27.14% Operating Margin and 12.69% annual growth rate in Operating Income.

A similar pattern appears among the two underdogs. Diversified Commercial Services is a declining industry with a very low 4.23% Operating Margin and an annual growth of -15.76%. While Air Freight & Logistics is on the rise with 12.69% annual growth which should increase its Operating Margin of 8.03% in later periods.

## Growth patterns are easier to grasp with this line graph.

