



d. hilton associates inc.

# Variables That Impact CEO Pay

## Drivers of Executive Pay

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### **D. Hilton Associates conducted a study to identify and quantify the best determinant of CEO compensation in the credit union industry.**

D. Hilton Associates' experience in the industry suggests many factors that are associated with variations in CEO compensation; these include credit union asset size, employees, members, city population, and cost of living. One might assume that each of the factors affects compensation in a "linear" fashion.

To explore the causal relationships of such factors, D. Hilton Associates assembled data on the underlying variables of interest. A database was created for the independent variables by gathering information from the NCUA for asset size, employees, and membership of all credit unions, population estimates of all MSAs from the American Community Survey, and the Cost of Living (COL) index numbers from The Council for Community and Economic Research. D. Hilton Associates used internal compensation data for the dependent variable in creating a sample of 422 credit unions with an asset size of greater than \$500 million to run in the analysis. Next, simple regression was employed to estimate the quantitative effect of each independent variable upon the dependent variable. D. Hilton Associates also assessed the "statistical significance" or degree of confidence of the estimated relationships.

Out of this study, D. Hilton Associates found that the three measures of organizational size (asset size, employees, and members) are the best predictors of CEO compensation, with asset size ranking first. Cost of Living is the least effective of the five, with a difference of 30 basis points lower than the influence of asset size. This was based on the beta coefficients that resulted in the regression report. The beta coefficient tells you how strongly the independent variable is associated with the dependent variable on a range from -1 to 1. It is equal to the correlation coefficient between the two variables and the further from 0, the more influential the predictor variable. From these results, D. Hilton Associates would conclude that the larger the organizational size of the credit union, the higher the CEO compensation. D. Hilton Associates also assumes that the cost of living index is not as an important factor in predicting increases in compensation based on its low score.

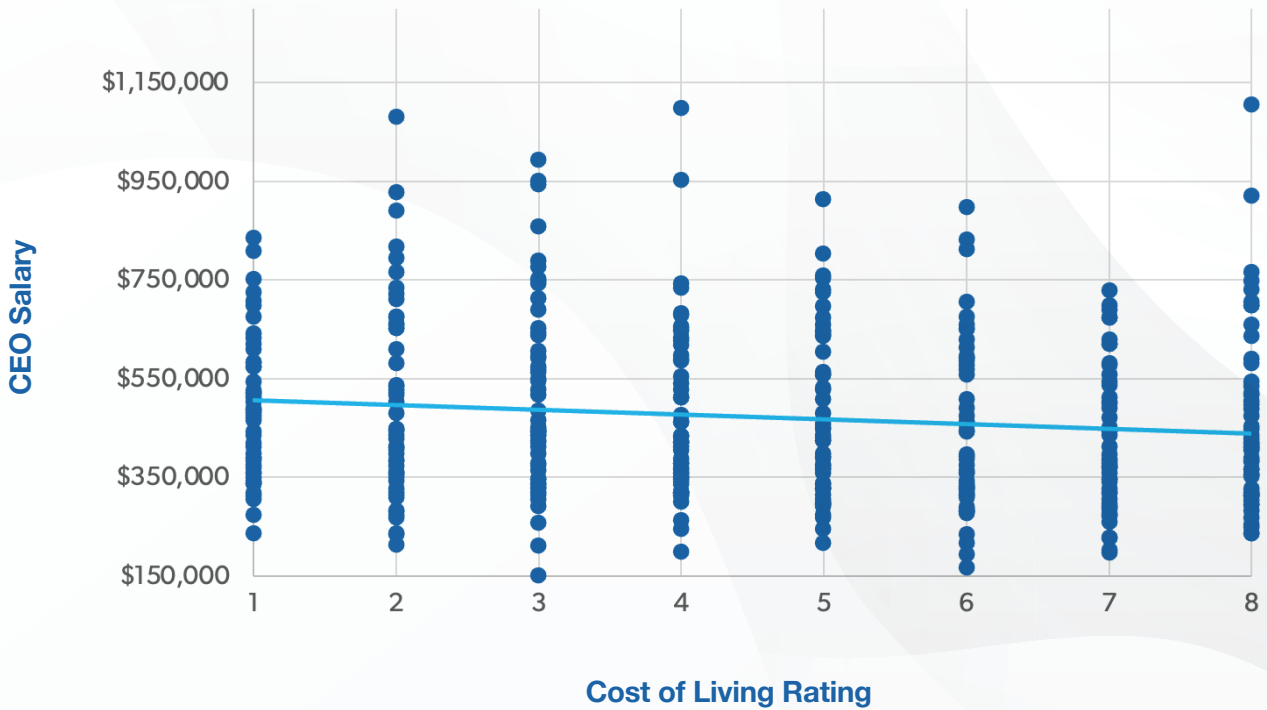
Additional regression analysis was conducted to test the influence of return on assets, capital ratio, and operating expenses on CEO compensation. The results showed that operating expense and return on average assets were the highest but still showed a weak correlation. Credit Union Capital did not have any correlation with a CEO's salary.



## Cost of Living

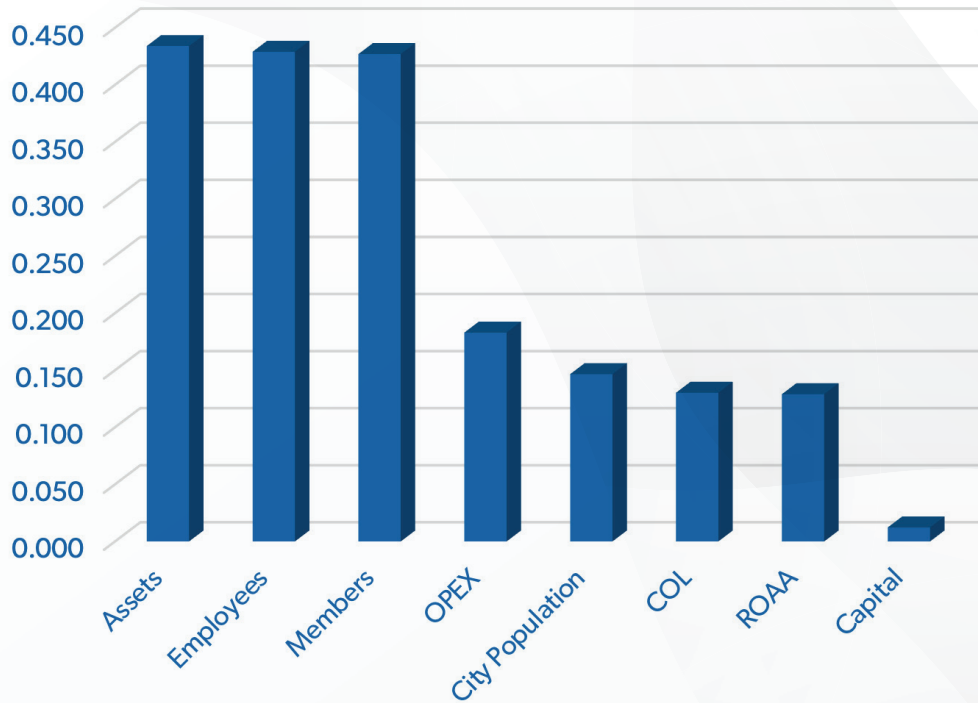
The cost of living rating was sorted into eight separate ranges, each containing a different range for COL, and all with the same number of data points. Listed in the table below are the different ranges used for each group. The graph shows that despite the COL, there is little correlation between the COL and CEO salary. The graph also proves that even the lowest COL range can result in a higher CEO salary than the highest COL range. This evidence is exactly why D. Hilton does not recommend adjusting national data for CEO salary by any cost-of-living factor.

Cost of Living Rating	Average	Cost of Living
Code	Salary	Range
1	\$488,690	208 - 146
2	\$501,205	146 - 127
3	\$514,141	127 - 108
4	\$476,057	108 - 99.8
5	\$474,445	99.8 - 97.2
6	\$444,948	97.2 - 93.8
7	\$424,422	93.8 - 90.06
8	\$457,882	90.06 - 80.05



## Average Correlation with CEO Compensation

Asset Size	Employees	Members	OPEX	City Population	COL	ROAA	Capital
0.434	0.429	0.427	0.183	0.147	0.130	0.129	0.012



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