d. hilton associates inc.

The Impact of Geography on Compensation

Introduction

The Importance of Fomalizing a Pay Philosophy

Employees expect to earn a fair wage. They routinely assess their compensation with other job opportunities. Before any decisions can be made about a system of salary administration, a board of directors must establish the role compensation will play in the achievement of organizational objectives. A credit union has three options:

- **Be a Pay Leader Among Its Peers** This tends to attract the best and brightest talent while serving as an effective retention tool. This strategy is the most expensive plan of action.
- **Pay the Market Based on Peer Comparisons** This tends to allow an organization to retain present employees but can create difficulties in attracting top talent to make a lateral move.
- **Underpay According to Peer Comparisons** This strategy only works when an organization's staff perceives that internal equity exists among positions and job satisfaction levels are high. Employees know they could make more money elsewhere but choose to remain with the organization due to other factors. This strategy is the least expensive option, but the weakest retention strategy.

In choosing a pay philosophy, a credit union must decide which philosophy will work best to help achieve the organization's long-range strategies. What is right for one credit union is not necessarily right for another.

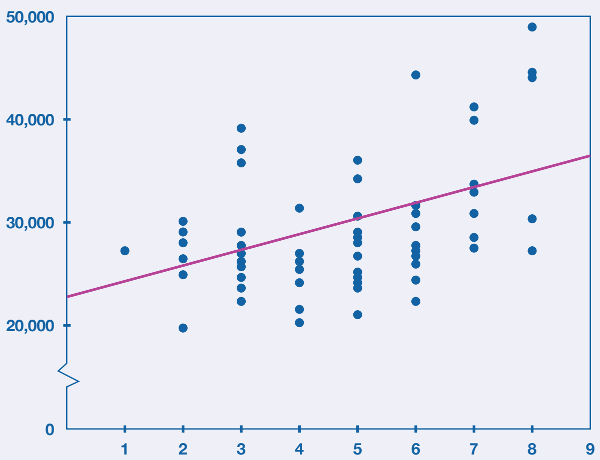
Interpreting Salary Data: Regression Analysis

To ensure external equity in a pay system, compensation professionals often turn to salary surveys to validate their recommendations. By examining what other organizations pay their employees, a credit union can determine the going market rate for wages, and then decide whether it is paying its employees above, below, or near the market level. Salary survey data is often presented in tables depicting averages, medians, and percentiles for certain categories.

While traditional salary survey tables present averages, medians, and percentiles, a more accurate estimation of market prices can be determined using regression analysis. In this report, regression values are presented for hiring salaries, average base salaries, salary range minimums and salary range maximums. Regression analysis is a statistical technique for analyzing the relationship between two variables, such as cost of living and salary, along a continuum for each variable. This allows the researcher to make full use of all the data collected.

If the position of senior collector is taken as an example, a comparison of average salaries against regression values can be made. The figure on the next page illustrates the relationship between senior collector salaries and the cost of living for each credit union examined. A regression line is plotted through the data. The regression line can be used to predict senior collector salaries for a given cost of living.

[1]Regression analysis was developed by Karl Pearson roughly 100 years ago. The problem he was trying to solve was predicting a father's height from the daughter's height, like our problem of trying to estimate staff salary based on cost of living.



Cost of Living Rating

- **1:** cost of living **well below** the national average
- **2:** cost of living **below** the national average
- **3:** cost of living **just below** the national average
- **4:** cost of living **equal** to the national average
- **5:** cost of living **just above** the national average
- **6:** cost of living **above** the national average
- **7:** cost of living **well above** the national average
- **8:** cost of living **far above** the national average

One way to analyze the data in the preceding figure would be to list the average salary for each cost-of-living category, as can be seen in the table below.

Average Salary for a Senior Collector	
Cost of Living Rating	**Average Salary**
Well Below	$27,040
Below	$26,660
Just Below	$27,355
Equal to National Avg.	$24,365
Just Above	$27,449
Above	$28,334
Well Above	$31,517
Far Above	$38,068

Because of random fluctuations, the average salary for credit unions with a cost of living equal to the national average is less than the average salary for credit unions below the national average. If a credit union places itself in the equal–to–the–national–average category, which value should it choose from the table above? The answer is not clear. Using averages and/or percentiles can lead to this kind of counterintuitive finding.

With regression analysis, salaries increase as the cost of living increases. The regression line provides the best estimate of senior collector pay at each level of cost of living. The advantage of using regression analysis is that the entire data set is used to estimate what senior collectors are paid in each cost of living category. The results of the regression analysis appear in the table below.

Estimated Salary for a Senior Collector	
Cost of Living Rating	**Regression Estimate**
Well Below	$24,192
Below	$25,397
Just Below	$26,273
Equal to National Avg.	$27,040
Just Above	$27,916
Above	$29,558
Well Above	$32,186
Far Above	$35,800

Cost of Living vs. Organizational Size as a Determinant of Pay

D. Hilton Associates has found that the best determinant of executive salaries in the credit union industry is organizational size. Organizational size is measured in three ways: asset size, membership size, and number of employees. The table below depicts the average correlation between the base salaries of nine credit union executive positions and organizational size measures, the size of the city of the credit union's primary location, and the cost of living in the credit union's primary location.

Average Correlation with Executive Salaries	
Asset Size	.67
Employees	.60
Membership	.59
City Size	.25
Cost of Living	.20

Of the five determinants listed above, the three measures of organizational size are by far the best predictors of executive salaries, with asset size ranking first. The cost of living is the least effective of the five. The best way to explain the numbers in the above table is with an example. Consider two hypothetical CEOs. One is the CEO of a credit union with $500 million in assets in Small Town, Mississippi, a small city with a low cost of living. The other is the CEO of a credit union with $50 million in assets in Gotham City, New York, a large urban environment with a high cost of living. Which CEO receives the largest paycheck? The CEO in Small Town, Mississippi, probably receives the largest paycheck. CEO salary is more a function of asset size than cost of living or city size.

For this study, D. Hilton collected salary data on 27 staff positions, from tellers to loan officers. The table below depicts the average correlation between the base salaries of the staff positions and organizational size measures, the size of the city of the credit union's primary location, and the cost of living in the credit union's primary location. Unlike executive positions, cost of living was the best determinant of staff salaries.

Average Correlation with Staff Salaries	
Asset Size	.19
Employees	.07
Membership	.04
City Size	.10
Cost of Living	.32

To explain the discrepancies between the table above and the table on the previous page, imagine the two hypothetical credit unions from the example on the previous page. One credit union has $500 million in assets and is in Small Town, Mississippi, a small city with a low cost of living. The other credit union has $50 million in assets and is in Gotham City, New York, a large urban environment with a high cost of living. While the CEO of the larger Mississippi credit union probably makes more than the CEO of the smaller New York credit union, the tellers at the small credit union in Gotham City likely make more than the tellers in Small Town, Mississippi, although the latter credit union is larger. This is because staff salaries, unlike executive salaries, are more a function of cost of living than of organizational size.

Cost of living plays a greater role in determining staff salaries because credit unions compete in the local labor market for staff positions. For executive positions, on the other hand, credit unions compete in a national labor market. When looking for a new CEO, a credit union will advertise nationwide. When looking for a new teller, a credit union will advertise locally. Also, a prospective CEO candidate will be more likely to consider moving from one part of the country to another for a CEO job. Applicants for a teller position, on the other hand, are less likely to make a cross-country move to accept the position.

[2]The concept of correlation was developed by Sir Francis Galton over 100 years ago. Galton was interested in measuring relationships between quantifiable phenomena, for example, the relationship between fathers' heights and the heights of their adult sons. In 1896, Galton's student, Karl Pearson, developed the correlation coefficient, the statistic we use today to determine the strength of a relationship between two quantitative variables.

Region and City Size: Factors Related to the Cost of Living

The cost of living is higher in some regions of the country and lower in other regions. For example, the cost of living is higher in the West and in the Northeast than in the South or the Central part of the country. The table below illustrates how an accounting clerk and head teller's salaries differ by region.

Region	Accounting Clerk Average Salary	Head Teller Average Salary
West	$22,100	$25,439
Northeast	$23,290	$23,978
Central	$20,450	$22,739
South	$19,628	$22,211

Because of these differences, some publications present a tabular breakdown of salaries by geographic region, like what is seen in the table above. Other publications advocate adding or subtracting a given percentage from each reported salary, depending on where the organization is located. While differences between regions exist, these solutions are inappropriate because they incorrectly assume that regional differences can be generalized across an entire region. The table on the next page illustrates the wide variation in the salaries of accounting clerks and head tellers that are found within each region.

Region	Accounting Clerk Lowest Average Salary	Accounting Clerk Highest Average Salary	Head Teller Lowest Average Salary	Head Teller Highest Average Salary
West	$15,000	$29,592	$18,054	$33,727
Northeast	$17,000	$30,528	$16,500	$30,763
Central	$16,640	$24,183	$15,000	$29,725
South	$14,726	$27,000	$15,502	$31,294

Within each region, some accounting clerks make almost twice as much as other accounting clerks. The same can be said of head teller salaries within each region. Different credit unions have different pay philosophies. Some pay above the market, and some pay below the market. Some credit unions value their head tellers more than other credit unions. The accounting clerks at some credit unions have more responsibilities than accounting clerks at other credit unions. These differences between credit unions provide a partial explanation for the wide range of salaries within each region. Another explanation is that the cost of living is far from uniform within a region.

Take the Northeast region, for example. The city of New York has the highest cost of living in the country. Other urban areas in the Northeast also have a high cost of living. Examples include Boston, Philadelphia, and Hartford. The cost of living in Baltimore, on the other hand, is much lower than the cost of living in New York, Boston, Philadelphia, and Hartford. Many rural areas of the Northeast also have a cost of living that is far below New York, Boston, Philadelphia, and Hartford. To use the same Northeastern average to represent credit unions from Altoona, Pennsylvania, to New York City would be inappropriate.

Most people assume that the cost of living is higher in large cities than it is in small towns. This tends to be true within a particular region. For example, in the Northeast, the cost of living in Philadelphia is much higher than the cost of living in Altoona, Pennsylvania. In the South, the cost of living in Memphis, Tennessee, is higher than the cost of living in Cookeville, Tennessee. However, when comparisons are made across regions, the generalization that urban environments have a higher cost of living than rural environments breaks down. For example, the cost of living in Altoona, Pennsylvania, is higher than the cost of living in Memphis, Tennessee, even though Memphis is more than ten times larger than Altoona.

The cost of living is a complex variable that is influenced by geographic region, population density, and many other factors. City size and geographic region are one-dimensional variables. Its greater complexity helps the cost of living to be a more effective predictor of differences in salaries across the country. That is why D. Hilton recommends using the cost of living to determine a credit union's staff salaries.

Implications for Compensation Administrators

The purpose of salary surveys is for credit unions to be able to accurately assess credit union salaries against the market. The question to be answered is whether the credit union's salaries are above, below, or equal to the market. But how does one define the market? Against which credit unions should the credit union compare itself? D. Hilton's research suggests that credit unions of comparable size provide the best standard for executive positions. Large credit unions need to compare themselves to other large credit unions, and small credit unions need to compare themselves to other small credit unions. While cost of living plays a role in determining executive pay, its importance is minor when compared to organizational size. In addition to organizational size, another important determinant of executive pay in credit unions is whether the executive is a member of the senior management team. A top human resources executive who is not on the senior management team is usually paid less than one who is, all other factors being equal.

For staff positions, on the other hand, organizational size is less of a factor in determining pay. Credit unions in areas that have the same cost of living provide the best standard for comparison. The credit union across the street from your credit union may be ten times bigger, but the two credit unions will be competing in the same local labor market for a teller, a collector, or an accounting clerk.

When a credit union purchases salary survey data that breaks down salaries by asset size, geographic region, and several other factors, the reader needs to be aware of which breakdowns are most appropriate. A breakdown by asset size or membership size would be appropriate for pricing a chief financial officer position but would not be the correct table to use when pricing a member service representative position. For the latter position, a table that breaks down the data according to the cost of living would be more appropriate, as D. Hilton has done in this report.