

## Methodology/Disclaimer

### Introduction & Summary

**ERI Salary Surveys** is operated under license from **ERI Economic Research Institute, Inc. (ERI)**, including license for use of Patent Nos. 6,862,596 and 7,647,322, the "system and method for retrieving and displaying data, such as economic data relating to salaries, cost of living and employee benefits." **ERI Salary Surveys** reports contain unique participant data analyses complemented by two of four distinct salary survey data collections for either management or non-management families. The result is up to three survey analyses for a job. The four data sources essentially have a fifth participant source added to make a survey report with five surveys in one. Participant data is that contributed by survey participants during the present and prior year (with no data incorporated less than 90 days old, per FTC/DOJ Regulations). Hardcopy reports show all four or five source datasets. Rates of error are either calculated from illustrated data or are reported from the leased or non-copyrighted sources. Population counts directly correlate with graphic distributions and represent real data. Names of organizations and the actual position titles used are presented if this data is in the public domain, as are participating organizations' identities. Due to formatting constraints, up to 811 participating organizations may be listed per report. **ERI Salary Surveys'** participant inputted data is not keyed at entry to personal names or addresses, and participants are assured of confidentiality by this survey construct. **ERI Salary Surveys** reports are available in a PDF and hardcopy.

With the exception of the benefits surveys, the report has a one job per front/back page presentation and is most likely used for salary planning. **ERI Salary Surveys** reports include five sources, while ERI's **Assessor Series** represents thousands of sources. The latter is by far the more robust analysis, but may not satisfy some governmental regulations' definition of a "survey." That said, over ten thousand organizations use ERI's **Assessor Series** analyses annually to plan salaries.

This survey's averages, deciles, medians, etc., are calculated and may vary remarkably from time to time because organizations included in any particular survey population may change. This is different from ERI's **Assessor Series** that presents the results of year-to-year consistent polynomial regression analyses for any position based on the analysis of thousands of surveys and data sources for many years, with some jobs going back to 1977. These **ERI Salary Surveys** surveys can be considered single *pure surveys* developed from **ERI Survey** and **Assessor Series** databases for any particular year, along with their complementing participant-only data lines. They are created for use by those who must see *real data*, when survey participants and sources must be disclosed, where data and survey reports need to be archived, and where lower cost, non-analytic extracts are required. These surveys are not subscriptions that expire, but rather a purchase of PDF or hard copy reports that can sit on a shelf or within a computer directory indefinitely.

The four (or five) distinct data sources are:

#### 1. Compensation data for executives in tax-exempt/public organizations

Information is from public domain IRS Form 990 EOs/EZs/PFs and is obtained by ERI's optical character recognition (OCR) or digitization of these forms. Over 2.5 million observations are added each year, and there are now compensation amounts for over 26 million nonprofit employees/directors in the **ERI Survey** database. Data is, in part, also leased for perpetual use from the Urban Institute and GuideStar and may contain industry assignment and other errors. Standard errors are calculated from the distribution of the data and may be reproduced by observation. Survey populations are counts of actual data points, all of which may not always be shown on graphic presentations as some outliers may be "off the chart." The full dataset is available with the purchase of any ERI **Nonprofit Comparables Assessor & Tax-Exempt Survey (CA+)** subscription. This software enables many powerful analyses as it contains a wide range of management jobs, years 1992 to the present, for all US geographic areas/addresses, and with all available information categorized by industry, size, year, and geographic location. Used by various State Attorney General Offices, with dozens of subscriptions from the national IRS TEE Office, extracts of this data can suffice as an "independent survey" as defined in IRC 4958 Intermediate Sanctions. One might consider **CA+** to be more a 100% census rather than a survey of all available executive compensation information. **CA+** includes round dots where a cursor click will retrieve for-profit source documents,

just as clicking on square dots will retrieve nonprofit source documents.

## 2. Compensation data for executives in publicly-traded or for-profit companies

Information is digitized from US SEC 10-K, proxies, and 8-K filings. Canadian data is provided under agreement from SEDAR; UK/EU data is digitized manually from publicly available annual reports; and other financial data is leased. ERI Salary Surveys has no control over any third-party data errors and further note that digitization is not a perfect science. Survey populations, rates of statistical errors, and source documents are calculable and available for review with an Internet connection. The full dataset for all industries is available with the purchase of any ERI **Executive Compensation Assessor & Survey** subscription, with many powerful analysis capabilities, years 1994 to the present, and all geographic areas/addresses for the for-profit sector. The **Executive Compensation Assessor & Survey** dataset and program have been used by the US IRS National Appeals Office since the 1980s and is often used in Federal Tax Court in reasonable compensation cases.

## 3. Compensation data for non-executive jobs in tax-exempt/public organizations

Information is principally from government and nonprofit organizations, using composite results of the US OES Occupational Employment and Wage Survey. The word *composite* refers to ERI's reporting data from over 600 US metropolitan and state areas surveyed by the OES. Reported with the OES' relative standard error and job family populations, ERI parses the family data into specific jobs using three eDOT Skills Project methodologies developed for its **Occupational Assessor** (Disability Determination Module) and graphically displays a probable distribution. Relative salaries by position within a job family are profiled based upon competitive ranking for these jobs found within ERI's **Salary Assessor**. The full dataset for all industries, all jobs, and all areas is available from PAQ's Salary Expert **Global Salary Calculator**. The latter includes data leased from Statistics Canada and the UK National Statistics Office, covering 190 countries in all. US data is used for H-1B visa applications related to immigration, visas, and work permits and is updated in the late spring quarter of every year.

## 4. Compensation data for non-executive jobs in publicly-traded or for-profit companies

This information on primarily for-profit company employees is from ERI patented online, interactive salary surveys and **Assessor Series** databases. In the past, only individual report pages could be purchased or were provided on a complimentary basis to a survey contributor. This survey has been collecting data since the late 1990s from online participants, with over 1.3 million entries to date. With the acquisition of **PAQ Services, Inc. (PAQ)** in 2004, ERI started incorporating data from over one million field job analyses, many of which included salary survey information. In addition, salary data by postal code is collected in the PAQ **eDOT Skills Project** from 300,000 web visitors per month. **ERI Salary Surveys** also includes web services data from loan and employment interview applications, where veracity of input is tested. ERI assigns a size and industry designation, matching employers found in ERI's **Occupational Assessor's** Potential Employer database.

ERI also collects job and task descriptions, counts of jobs identified, related physical and mental capacity requirements, and posted starting salaries or ranges from a review of job boards as allowed. Over 1.5 million job postings are collected and archived each month, 19.8% containing salary data. Web service tests contribute data to the ERI Survey database; job board data is still being tested and is not now included. These millions of line entries are only surpassed by nonprofit incumbent data, with some twenty million jobs' data being leased from GuideStar alone. While errors in assignments may exist, they should be random, allowing the Central Limit Theory to apply. Data from leased third-party surveys may also be incorporated. Population counts pertain to individual data contributed from all these sources. Standard deviations are calculated from this collected data. Like nonprofit data in the public domain, standard deviations may be graphically profiled and disclosed in the case of job board postings as and if allowed by those job boards' Terms of Use or under specific agreement with PAQ and ERI. The majority of this information reflects private sector employees' pay. Beginning in 2007, **ERI Salary Surveys** data has been incorporated in the **Assessor Series** databases.

## 5. Survey participant data from ERI Salary Surveys traditional online and hardcopy survey questionnaires

This survey information is prepared the old-fashioned way with questionnaires sent out to past or requesting participants via the mail. Online input is also available, as is the downloading of a PDF for printing and manual input. Purchased in 2007 by **ERI** and included in this family of survey input variations (OCR, digitizing, web-service verification, job board data mining, PAQ field job analysts, Internet visitors, etc.), **Abbott, Langer Association Surveys** has been collecting and reporting data since 1967. A third source line will be shown for both executive and non-executive jobs representing this fifth source of survey data if sufficient data exist.

Comparison of for-profit and nonprofit data will reveal a wide variance in pay. Charities have long been recognized as lower paying, government entities often focus on and favor both their health benefit and qualified retirement plans (not shown in this survey) over cash pay, and the US OES job family approach skews medians toward the lower end. Conversely, **ERI Salary Surveys** finds that input from Internet visitors and job boards leads to values that are higher than **Assessor Series** norms, which **ERI Salary Surveys** believes to be the best representation of competitive pay, for the for-profit sector. Even with the exclusion of outliers, which **ERI Salary Surveys** calculates based on a +/- 2.0 standard deviation test, real compensation norms derived from for-profit and nonprofit domains may differ remarkably. To protect against extremes in hard copy/PDF presentations where for-profit data higher than ERI's **Salary Assessor & Survey's** norms are calculated, reported data is that of the latter, though incumbent population counts and rates of error may reflect the former.

ERI has provided competitive compensation data since 1987 and PAQ since 1974. The combined **ERI Survey** databases have grown to include input for over 50,000,000 jobs, over 14,000 publicly-traded or reporting companies, thousands of salary and executive compensation surveys, all presently reporting UK and European publicly-traded companies (~2,300), Canadian SEDAR data (~1,400 companies), and over 20,000,000 Forms 990/PF/EZ returns from 1994 to the present. Used by professionals for over twenty years, some 10,000 subscribers depend on ERI **Assessor Series** analyses as one of their survey sources. This survey provides raw number analyses and its results will most likely differ from either those found in the **Salary Assessor & Survey, Executive Compensation Assessor & Survey**, and/or **Nonprofit Comparables Assessor & Tax-Exempt Survey**. Again, this is a survey report that adds and averages numbers; it is not a polynomial analysis of long streams of data like that found in the **Assessor Series**.

This survey report utilizes licensed technologies and data as part of the **ERI Economic Research Institute, Inc.** family of affiliate salary surveys. ERI is an Authorized User of selected Statistics Canada data under Agreement Number 6184; SEDAR data leased under Copyright, HER MAJESTY THE QUEEN IN RIGHT OF CANADA, as represented by the Minister of Industry, Statistics Canada. UK data may be in part from New Earnings Survey; National Statistics Descriptions are Crown copyright material and reproduced with the permission of the Controller of HMSO. Other data may be leased from Philanthropic Research, Inc. ([www.guidestar.org](http://www.guidestar.org)). ERI's intellectual property rights include Patent Nos. 6,862,596 and 7,647,322, "system and method for retrieving and displaying data, such as economic data relating to salaries, cost of living and employee benefits" made available to ERI Salary Surveys.

To summarize: These **ERI Salary Surveys** reports are not *analyses* like those provided to ERI **Assessor Series** subscribers. Rather, they are reports of actual data points collected and calculations of simple averages, percentiles, counts, and rates of error with options to review the data, in many cases, on a graph and with access to the source documents, if in the electronic form with an Internet connection available. No attempt is made to alter the data as collected, reported, and/or graphically displayed other than to normalize collected compensation amounts to a common date. This is a compensation survey.

## Definition of Terms

**ERI Salary Surveys** reports combine four (or five) distinct salary survey data collections of *real data* in one direct compensation survey report. Not all sources have exactly the same definitions or constructs. For example, proxies report unique salary and bonus values for executives, while Form 990s report only direct compensation (the combination of the two). Where differences exist, they are described below:

## Position Title

**ERI Salary Surveys** utilizes a file of 100,000 ERI job titles found in the US, Canada, and UK. Many of these are alternate titles where the PAQ eDOT number (a nine digit coding system used in the US since 1939) is the same, for example, for CEO and Chief Executive Officer. Industry surveys will not show all of the ERI **Occupational Assessor** job titles since not all jobs exist in any one industry, nor has sufficient data been collected on all jobs to report valid averages or other measures. Typically, a hard copy report will show one to two hundred position titles. However, the Board of Director & Trustees Survey Report may show only three or four job titles. Alternate titles may be shown to assist HR managers who must deal with line managers who will not accept that a "Cost Accountant" is an alternate survey title to that of a "Budget Accountant."

In compliance with FTC regulations, the survey will not report data for non-executive positions with less than five respondents. For executive positions that come from square or round dots derived from IRS Form 990 EOs/EZs/PFs (nonprofit positions' square dots) or US SEC 10-K, proxy, and 8-K filings (for-profit positions' round dots), the source documents are part of the public record. Executive positions with under five incumbents will be displayed with that source data being retrievable via the Internet using ERI Executive Compensation Assessor and/or ERI Nonprofit Comparables Assessor software.

### **Pay Category**

Pay category describes the compensation, element, or source used. In the hardcopy or PDF print editions, a direct compensation (base salary and incentive/bonus) report is sometimes called direct cash. It does not include health benefits, retirement, stock options, or other indirect pay or non-cash mechanisms or perquisites that can greatly influence total remuneration.

### **Number of Incumbents**

Up to two values will be shown: those profiled by the data from Tax-Exempt/Public Databases and those sourced to For-Profit Databases. Neither of these sources may be clearly identifiable as one or the other for non-executive positions. The number of incumbents is reported only from the source materials so that double counting does not occur.

### **Mean**

The mean or average is the result of dividing the sum of two or more quantities by the number of quantities. For example,  $(a + b + c)/3 = \text{the average}$ .

### **First Decile**

The first decile represents one of nine points, which divides a series of ranked scores into ten equal parts from the lowest to the highest. Each part, therefore, represents one-tenth of the series. The first decile represents the bottom ten percent of the population, often termed the tenth percentile.

### **First Quartile**

A quartile is a value in a ranked continuum that is divided into four parts. The first part is 25%, the second part is 50%, the third part is 75%, and the fourth part is 100%. The first would represent the range of population from zero to 25%, often termed the 25th percentile.

### **High**

The High Range for compensation is found with government-supplied source data and refers to the 67th percentile.

### **Low**

The Low Range for compensation is found with government-supplied source data and refers to the 17th percentile.

## **Median**

Median compensation is the estimated 50th percentile of the distribution of remuneration. Fifty percent of incumbents in an occupation earn compensation below, and 50 percent earn compensation above the median earnings.

## **Third Quartile**

A quartile is a value in a ranked continuum that is divided into four parts. The first part is 25%, the second part is 50%, the third part is 75%, and the fourth part is 100%. The third would represent the range of population from zero to 75%, often termed the 75th percentile.

## **Ninth Decile**

The ninth decile represents one of nine points, which divides a series of ranked scores into ten equal parts from the lowest to the highest. Each part, therefore, represents one-tenth of the series. The ninth decile represents 90% of the population, often termed the 90th percentile.

## **Rate of Error**

Each position will have a rate of error displayed for each applicable database. Compensation levels paid may differ remarkably between these categories. Rather than combine these databases, this survey provides each separately to allow the user to make his/her own determinations. Each database is reported with its own rate of error

### **1. 990 Tax-Exempt Database**

Data is shown on the PC program using a power curve (polynomial regression analyses). A standard error is reported based upon the actual data shown in this survey data population.

### **2. Public Databases**

Information is principally from government and nonprofit organizations, using composite results of the US OES Occupational Employment and Wage Survey. This US Government survey reports a Relative Standard Error which is reproduced for the year, area, and job family requested.

### **3. U.S. Proxy & ERI Executive Databases**

Data is shown on the PC program using a cubic spline curve through both observed and survey data. The standard error is calculated only from measurements of variance from predicted mean displayed.

### **4. ERI Industry Database**

This information on primarily for-profit company employees is from ERI patented online, interactive salary surveys, and Assessor Series databases. Because data is collected for individual jobs and not reported by either years of experience, level, or compared to an organizational size dimension (as is the case with Assessor Series presentations), the calculation provides a Standard Deviation measure.

### **5. Survey Participant Database**

Standard deviations are calculated via the traditional summing of variances, squaring, dividing by n-1, and taking the square root. This is a pure conventional standard deviation calculation.

A rate of error will not be shown where more than one source of data exists. The mixing of OES Relative Standard Error from nonprofit/public sources, regression derived Standard Errors, and ERI's Standard Deviations does not allow the presentation of a meaningful, defensible statistical measure as it might combine three different types of error measure. If shown, the rate of error is derived as described above from the one data source reported.

## **Total (Direct) Annual Compensation**

The Total (Direct) Annual Compensation is the sum of Annual Salary and Incentive/Variable Pay. For tax-exempt executive pay, it is the sum of Direct Compensation and Allowances and Benefits.

### **Annual Salary**

The Annual Salary is the calculated wage and/or salary for a position divided by its weighted survey employment. Annual salaries are straight-time, gross pay, and are exclusive of premium pay. Included are base rate, cost-of-living allowances, guaranteed pay, hazardous-duty pay, on-call pay, but not incentive pay, including commissions and production bonuses or rewards from variable pay plans and/or retirement or benefit plan matches.

### **Incentive/Variable Pay**

The annual Incentive/Variable Pay includes annual bonuses, commissions, and production bonuses or rewards from variable pay plans.

### **Direct Compensation**

Direct Compensation includes salary, fees, bonuses, and severance payments paid, along with payments of amounts reportable as deferred compensation.

### **Allowances & Benefits**

Allowances & Benefits include all welfare benefit plan payments, all other forms of deferred compensation and future severance payments, both taxable and nontaxable fringe benefits, expense allowances, and reimbursements that recipients must report as income.

### **Demographic Data**

Selected Characteristics of Occupations or work measures are derived from **PAQ's eDOT Skills Project**, a cybernetic job analysis system utilizing, in part, **ERI's Occupational Assessor**. For more information, visit [www.erieri.com](http://www.erieri.com) or [www.paq.com](http://www.paq.com). This data is available only for US occupations when a subscriber has elected to include the data at the time of purchase.

### **Census Data**

Estimated racial and gender makeup are derived from **ERI's Geographic Assessor** (Consultant Edition) and are available only for US profiles. For more information, see [www.erieri.com](http://www.erieri.com). As with Demographic Data, the default is not to include the data unless requested at the time of purchase.

### **Organization Size**

The **ERI Salary Surveys** databases of job titles adjust for two organization sizes in terms of revenue: small (\$100,000 to \$10,000,000) and large (\$10,000,000 to \$1 billion).

### **Summary for ERI Assessor Series Subscribers**

Non-participant survey results in the top two sections in this survey are from ERI Economic Research Institute databases. They represent an "archive" of **Assessor Series** values (slight differences will exist because ERI databases are constantly updated and these survey reports are generated in "real time.")

Executive data is drawn from ERI's for-profit SEC digitizing of 10-Ks, 8-Ks and proxies, SEDAR-leased Canadian data, and UK/EU Annual Reports. Results will differ from ERI's **Executive Compensation Assessor & Survey** in that the latter are studies of 500 executive job titles over time and include other sources, such as web-services and other licensed databases and surveys. This survey cuts a power curve, or regression line, through the data shown for the size, industry, and geographic area's grouping of data points, which are displayed as dots. Nonprofit analyses represent power curves through Form 990/EZ/PF data digitized by ERI or leased from GuideStar.

Neither is a study of a job function over time; both illustrate regression curves through real data. This survey report's results are reflections of practices in only one of 1,400 industries found in ERI's **Nonprofit Comparables Assessor & Tax-Exempt Survey**. Data from 14,000 for-profit and 485,000 tax-exempt organizations has been digitized, making these survey databases the largest ever for executive compensation surveys. Both the **Executive Compensation** and **Nonprofit Comparables Assessors** allow for city area, rather than state-wide analyses, for data planning dates other than 31 March, and unlimited industry sub-sector analyses.

Non-management data is drawn in a similar fashion for for-profit entities from ERI's **Salary Assessor & Survey** and its 4,000 job titles. It is also a study of jobs over time so that no single year's data collection is allowed to distort results, typically created by a vagary in a survey sample population. Nonprofit and public pay levels are derived from data leased from national statistics offices, such as National Statistics in the UK and Statistics Canada; US nonprofit and public data is from the non-copyrighted OES area wage surveys. This latter survey's data typically run 10-15% higher than private industry norms.

Participant data "is what it is." Data inputs greater than three standard deviations are eliminated before averages, deciles, and other statistics are computed.

### **Combined Survey Sources & Survey Producer**

This survey has been produced by **ERI Salary Surveys**.

Data related to position titles and descriptions have been provided under license from **PAQ Services, Inc.**

Use of the patented online interactive survey methodology, access to executive and non-executive databases, and audit checks via the **Assessor Series** have been provided under license from **ERI Economic Research Institute, Inc.** ERI primarily serves private industry, while the public sector, the IRS, and libraries comprise approximately 20% of our subscribers. ERI salary structure analyses have been in use since 1974, the PC software to extract competitive wage and salary rates since 1987, and our cost-of-living analyses since 1989. ERI does not provide consulting services. FEIN 33-0356443, Duns # 60977744, CAGE code OXP39, FedLink LOC04C7067.

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