



Cost Study Manual

Executive Summary

This Cost Study Manual documents the procedures for preparing a Cost Study to compare the cost of a contractor's employee benefits to the industry average from a broad-based national benefit cost survey. The annual Employee Benefits Cost Study Comparison (Cost Study) assists with the analysis of contractors' employee benefits costs. The Contracting Officer (CO) may require corrective action when the benefit cost as a percent of payroll for health-related benefits or the benefit cost as a percent of payroll for Other Employment Benefits (OEBs) exceeds the comparator group by more than the percentage threshold established by the Head of Contracting Activity (HCA). This manual contains examples based on a threshold of five percent (5%). Health-related benefits include health insurance and Post-Retirement Benefits (PRBs). OEBs include paid time off, life and disability insurance, and retirement and savings benefits. For example, if the threshold is 5% and OEB costs as a percent of payroll for the comparator group are 20%, the threshold for the contractor's OEBs as a percent of payroll would be 20% plus 5%, or 25%. If the threshold is 5% and the health-related benefit costs as a percent of payroll for the comparator group are 14%, the threshold for the contractor's health-related benefits would be 14% plus 5%, or 19%.

In 2010, a Department of Energy (DOE) Cost Study template was developed by the Department and the Contractor Human Resources Council (CHRC) using tables published by the U.S. Department of Labor's (DOL's) Bureau of Labor Statistics (BLS). The template produces results that meet the contractual requirements to perform the annual Cost Study by using data from the DOE Compensation and Benefits Report (CABR) and comparing benefits costs to a benchmark developed using BLS tables. Contractors may use alternatives to the DOE template to meet the contractual requirements with prior approval from the CO. Once a survey tool is selected, contractors must use the same tool in subsequent years unless a change in methodology is approved by the CO.

Cost Study Data

The DOE Cost Study template uses data for all active employees, including exempt, non-exempt non-bargaining, and bargaining, that is exported into a spreadsheet from the CABR. Benefit costs are converted to percent of payroll costs by dividing benefit costs by the payroll. The cost study payroll is the same as the CABR payroll. The BLS industry averages a percent of payroll are used for comparison. The payroll and benefits from the most recent calendar year should be used.

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Benchmark using BLS Tables

The CO needs to review and analyze the methods for selecting the comparator group to make a decision on whether or not to approve the use of the comparator group. The comparator group may be determined by an independent national benefits, actuarial, or management consulting firm with expertise in developing cost studies; or it may be based on the BLS tables, as in the DOE template. The BLS publishes a broad based national survey of Employer Costs for Employee Compensation (ECEC). If the comparator group is not from the BLS tables, then the same guidelines related to selecting and updating the comparator group for the Benefit Value Study apply to the Cost Study.

Calculations of Cost Ratios

The benefits included in the Cost Study ratios are paid leave, health insurance, life and disability insurance, retirement and savings benefits, and post-retirement benefits (PRBs). Paid leave is included in the benefits and in the payroll. Legally required payments (Social Security, Medicare, Unemployment, and Workers' Compensation) are excluded.

The OEBs measured as a percent of payroll from the BLS tables are subtracted from the OEBs measured as a percent of payroll for the contractor to determine if the threshold established by the HCA is exceeded. For example, if the threshold is 5% and the BLS Tables have OEBs that cost 20% of payroll, and the contractor's percent is 24%, the excess is 4%, which is within the 5% threshold. If the BLS Tables have OEBs that cost 20% of payroll, and the contractor's percent is 26%, the excess is 6%, which is over the 5% threshold. The spreadsheet also displays the results by adding the excess to a baseline of 100% to show if the benefits exceed the established threshold. For example, if the threshold is 5% and the excess is 4%, the template will display 104%, which is within the 105% threshold.

The health-related benefits measured as a percent of payroll from the BLS tables are subtracted from the health-related benefits measured as a percent of payroll for the contractor to determine if the threshold established by the HCA is exceeded. For example, if the threshold is 5% and the BLS Tables have health-related benefits that cost 14% of payroll, and the contractor's percent is 18%, the excess is 4%, which is within the 5% threshold. If the BLS Tables have health-related benefits that cost 14% of payroll, and the contractor's percent is 20%, the excess is 6%, which is over the 5% threshold.

Development of Cost Study Template

Most DOE contracts include a provision requiring contractors to conduct an employee benefit cost survey comparison annually. Prior to 2009, DOE contractors, for the most part, used the United States Chamber of Commerce (US COC) Annual Employee Benefits Survey to fulfill this contractual requirement. The US COC presented cost and frequency data on over 30 different benefits based on a voluntary survey that typically had responses from 400 to 1,000 employers each year. The survey detailed spending on legally required payments (Workers' Compensation, FICA, etc.) and a wide variety of benefit categories (including medically related benefits, payments for time not worked, and retirement and savings contributions). Costs for medically related benefits included costs for retiree medical insurance as reported by the survey participants and were shown as a percent of payroll for active employees. Benefit costs to employers and employees were covered. In 2009, the US COC ceased publication of this survey.

In 2010, DOE and the Contractor Human Resources Council Cost Study Working Group collaborated to find an alternate to the US COC Survey by forming the CHRC Cost Study Subcommittee. Participants included representatives of the following organizations: Mission Support Alliance, Hanford, Brookhaven National Lab, Savannah River Remediation, DOE Headquarters, Savannah River Nuclear Solutions, Wackenhut Services, Savannah River, Argonne National Lab, Wackenhut Services, Oak Ridge, Oak Ridge Institute for Science & Education, UT-Battelle, Oak Ridge National Lab, Bechtel BSII, and CH2M-WG Idaho. The subcommittee developed a contractors' Cost Study template that contractors could elect to use to prepare spreadsheets for the annual Employee Benefits Cost Study Comparison. The original template showed health-related benefit costs on a per capita basis per FTE and OEBs as a percent of payroll, and compared them with costs reported by the U.S. DOL's Bureau of Labor Statistics (BLS). The template was revised in 2017 to show both OEBs and health-related benefit costs as a percent of payroll and compare them with costs reported by the U.S. DOL's Bureau of Labor Statistics (BLS) Employer Costs for Employee Compensation (ECEC) report with a geographic factor adjustment. In 2019, the geographic factor adjustment included a weighting for a secondary census division if applicable; and contractors have the option to prepare a cost study for non-bargaining unit employees only.

The CO may require corrective action when the OEB cost as a percent of payroll or the health-related benefit cost as a percent of payroll exceeds the comparator group by more than the threshold established by the HCA. Responsibilities of the CO include documenting if the results are over or within the threshold established by the HCA; documenting if corrective action is required or not; and documenting the corrective action or documenting why no corrective action was required, if applicable.

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Cost Study Data

The data source for contractor data is the CABR data as of December 31st that is entered and approved by mid-March. The CABR Defined Benefit (DB) plan contributions are overridden by the DB plan target normal cost on a not-at-risk basis which is found in the Pension Management Plan for the same plan year as the calendar year of data. The DB plan target normal cost measures the value of pension benefits earned by active employees for one year. The DB plan contributions in the CABR could be greater or less than the normal cost. The CABR other post-retirement benefits (PRBs) including retiree medical, dental, vision, prescription, and other benefits are overridden by the PRB plan service cost from the financial reporting for the fiscal year that ends in the calendar year of the CABR data. The PRB service cost measures the value of benefits earned by active employees for one year, and the CABR amount for PRBs is the pay-as-you-go cost for retirees and beneficiaries.

BLS Tables



The Bureau of Labor Statistics (BLS) is part of the U.S. Department of Labor (DOL). The BLS publishes the Employer Costs for Employee Compensation (ECEC), a product of the National Compensation Survey (NCS). The NCS is based on an unbiased set of sample employers and represents over 100 million private industry employees. The ECEC measures the average cost to employers for

wages and salaries and benefits per employee hour worked. ECEC data on total compensation, wages and salaries, and benefits in private industry are produced annually for 15 metropolitan areas. The survey months are March, June, September, and December. The December tables are available by mid-March.



BLS Tables used in Template

For calendar years 2010 through 2020, the Cost Study template used Supplementary Table 2 of the Employer Costs for Employee Compensation Supplementary Tables published by the BLS in December of each year.¹ Supplementary Table 2 had employer costs for workers in manufacturing industries. The title of Supplemental Table 2 is “Employer costs per hour worked for employee compensation and costs as a percent of total compensation: Private industry workers in manufacturing industries, by occupational group, establishment size and bargaining status.” A 40% weight is given to the costs for the occupational group including management, professional, and related. A 60% weight is given to the costs for an establishment size of 500 workers or more. The weights were determined by the CHRC Cost Study Subcommittee as the weights that were the best fit for the typical DOE contractor. The BLS stopped updating the

¹ Contractors could choose to replace Supplemental Table 2 with a table that is a better fit for their workforce when submitting the Cost Study. Contractors using a different table should describe which table was used and explain in detail why it is appropriate. Different tables and different weightings need CO prior approval.

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Supplemental Tables after the June 2021 Supplemental Tables were published. The level of detail previously only found in the Supplemental Tables was added to the regular tables.

Starting in calendar year 2021, the Cost Study template uses the benchmarks for the manufacturing industry from Table 4 and Table 6 of the Employer Costs for Employee Compensation published by the BLS in December of each year.² Table 4 has employer costs by occupational and industry group. Table 6 has employer costs by size and industry group. A 40% weight is given to the Table 4 costs for the occupational group including management, professional, and related occupations in the manufacturing industry. A 60% weight is given to the Table 6 costs for an establishment size of 500 workers or more in the manufacturing industry.

Starting in 2017, geographic adjustments are made by comparing costs by census division in BLS Table 7 to the costs for all private industry workers in BLS Table 5. The manufacturing industry was selected because the North American Industry Classification System (NAICS) codes under manufacturing are the best match for the typical DOE contractor, as shown in the following table. The template updates the BLS tables annually. The use of alternative BLS Tables or weights requires prior approval from the CO.

Manufacturing industries (NAICS Codes)

| NAICS Code | Manufacturing Industry |
|------------|---|
| 332410 | Nuclear reactors manufacturing |
| 332420 | Petroleum storage tanks, heavy gauge metal, manufacturing |
| 332420 | Nuclear waste casks, heavy gauge metal, manufacturing |
| 325180 | Nuclear fuels, inorganic, manufacturing |
| 333414 | Solar energy heating equipment manufacturing |
| 334511 | Search and detection systems and instrument manufacturing |
| 334516 | Electron microprobes, laboratory-type, manufacturing; Particle beam excitation instruments, laboratory-type, manufacturing; Particle size analyzers manufacturing |
| 335999 | Linear accelerators manufacturing; Atom smashers (i.e., particle accelerators) manufacturing; Fuel cells, electrochemical generators, manufacturing |
| 333611 | Windmills, electric power, generation-type, manufacturing |

² Contractors may choose to replace Table 4 and Table 6 for the manufacturing industry with a table that is a better fit for their workforce when submitting the Cost Study. Contractors using a different table should describe which table was used and explain in detail why it is appropriate. Different tables and different weightings need prior CO approval.

Geographic Factor Adjustments Using the BLS Tables

BLS Table 7 shows employer costs per hour worked for employee compensation and costs as a percent of total compensation for private industry workers in transportation and warehousing industries, by establishment size and bargaining status. BLS Table 5 shows employer costs per hour worked for employee compensation and costs as a percent of total compensation: private industry workers in wholesale trade industries, by occupational group and establishment size. The geographic factor adjustments are derived by subtracting the BLS Table 5 benefit costs as a percent of payroll for all private industry workers from the BLS Table 7 benefit costs as a percent of payroll for the census division. A positive geographic factor adjustment increases the benchmark and decreases the Cost Study result. A negative geographic factor adjustment decreases the benchmark and increases the Cost Study result. The census divisions are defined as follows: New England: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont; Middle Atlantic: New Jersey, New York, and Pennsylvania; South Atlantic: Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, and West Virginia; East South Central: Alabama, Kentucky, Mississippi, and Tennessee; West South Central: Arkansas, Louisiana, Oklahoma, and Texas; East North Central: Illinois, Indiana, Michigan, Ohio, and Wisconsin; West North Central: Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota; Mountain: Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming; and Pacific: Alaska, California, Hawaii, Oregon, and Washington.

If 10% or more of the employees are in a secondary census division, the geographic adjustment factor will include a weighting for the secondary census division. If over 90% of the employees are in the same census division, the primary census division geographic factor adjustment will be used.

Minimum Standards for Alternatives to the Cost Study Template and BLS Tables

The Cost Study template and the BLS tables should only be used by contractors who have concluded that both the template and BLS tables provide a reasonable approach to comparing benefit costs of comparable organizations in similar industries and size. Those contractors who conclude that the Cost Study template and BLS tables do not provide a reasonable comparison of organizations in similar industries and size should use an alternative comparator group or an alternative to the template, or both. In those circumstances where the contractor does not believe use of the Cost Study template or the BLS table is a viable option, the contractor should use another cost study approved by the CO in fulfillment of its contractual requirement. A Cost Study report developed by a consultant must show the benefit costs for the major categories (i.e., paid leave, life and disability insurance, health insurance, retirement and savings, and post-retirement benefits), and must show each category as a percent of payroll and show both Cost Study indexes, one for OEBs and one for health-related benefits, as a percent of payroll. Changes to the formulas or methods in the template, other than changes to the rounding method, require prior CO approval.

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Additionally, the consultant must identify cost elements included in each benefit category, compensation elements included in the payroll, number of the comparator group companies, a description of comparator companies (i.e., names of companies, category of industry, and company sizes), and a summary of the methodology used. The comparator group must consist of no more than 20% of DOE contractors. If the comparator group already reflects geographic factor adjustments, an additional geographic factor adjustment should not be used.

Benefits Included in the Cost Study

The Cost Study benefits are equal to the benefits in the CABR, excluding legally required payments, retiree life and health benefits, displaced workers medical benefits, defined benefit plan contributions, and other benefits; and adding the defined benefit plan normal cost and PRB service cost. The costs are calculated for the employer-paid portion of benefits for active employees, shown as a total cost, and are not split for grandfathered and non-grandfathered employees, or incumbents and new hires.

Both the Cost Study and the BLS tables include the following benefits for active employees: paid time off; insurance; and retirement. Benefits included in the BLS tables but excluded from the calculations used to produce the Cost Study results are supplemental pay and legally required benefits. Severance pay is included in the CABR other benefits and excluded from the cost study.

The BLS tables exclude costs for PRBs because the BLS Tables measure costs for active employees and PRBs are typically funded on a pay-as-you-go basis for retirees. The Cost Study includes costs for PRBs using the service cost which is a measure of the cost of benefits accrued in one year for active employees. In the absence of PRB costs from a broad based national benefit cost survey, the Cost Study compares the contractor PRB service cost to a benchmark using the weighted average of all DOE contractors, with the annual percent of payroll equal to the total PRB service cost for all DOE contractors divided by the total active employee payroll for all DOE contractors.

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Paid Time Off

Paid time off or paid leave includes vacation, holidays, sick leave, personal leave, parental leave, and other paid leave.

Health Insurance

Health insurance includes the employer cost for insured or self-insured medical, dental, prescription, vision, and miscellaneous medical costs.

Life and Disability Insurance

Life and disability insurance includes the employer cost for life insurance and death benefits, short-term disability, and long-term disability.

Retirement and Savings

Retirement and savings benefits include employer costs for defined benefit plans and defined contribution plans. The cost for the defined benefit plan is the target normal cost for the year including expenses and excluding interest, not the cash flow for funding that is entered in the CABR. Exclusions are benefits for retirees such as retiree medical and retiree life insurance and pay-as-you-go disbursements.

Post-Retirement Benefits (PRBs)

PRBs include insured and self-funded retiree medical, dental, vision, prescription drugs, HRAs, stipends, and other retiree health benefits. The cost for the PRB plan is the service cost from the financial statements for the fiscal year ending in the calendar year of the Cost Study data. The service cost is used instead of the cash flow for funding PRBs that is entered in the CABR.

Submitting Cost Studies

All cost studies along with any supporting documentation, including an explanation of the methodology if it differs from the standard, are to be sent electronically from the contractors to the COs. For cost studies using the template, it is not necessary for the contractor to have their actuary or benefits consultant certify the results. If the Cost Study uses the template with an alternative BLS table for the comparator group, actuarial or benefits consultant certification is not necessary, but the documentation should include a detailed explanation of why the alternative BLS table is a better fit for the contractor's workforce. For cost studies that are not based on the template or that do not use BLS tables for the comparison, the submission should include a communication from the actuary or benefits consultant certifying the validity of the results. When the benefit costs as a percent of payroll exceeds the comparator group by more than the threshold established by the HCA, the Contractor shall submit a corrective action plan to the CO for approval, when and if required by the CO.

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Field Office Review and Corrective Action Plan

When the cost of the contractor's employee benefits, as a percent of payroll for OEBs or as a percent of payroll for health-related benefits exceeds the DOE Program Office standard of a Cost Study index of no more than the threshold established by the HCA, the CO may, no later than 60 calendar days after receipt of the Cost Study, notify the contractor to submit a corrective action plan (CAP). The notification letter shall require the contractor to develop and submit an acceptable CAP for the CO's review and approval no later than 60 calendar days after the date of the CO notification letter. Within two years, or as agreed to between the contractor and the CO, of the CO acceptance of the contractor's corrective action plan, the contractor shall align employee benefit programs with the benefit value and the cost as a percent of payroll in accordance with its corrective action plan. When the benefit costs as a percent of payroll exceeds the comparator group by more than the threshold established by the HCA, the Contractor shall submit a corrective action plan to the CO for approval when and if required by the CO. Either before or after the CO's notification, the contractor may submit a request for a waiver of the CAP requirement by providing justification for exceeding the threshold established by the HCA. The CO shall determine whether a CAP waiver is warranted.

If the contractor fails to submit an acceptable CAP or CAP waiver request during the 60-day submission period and the CO determines that there is a legitimate reason for the contractor's delay, the CO may allow a 30 calendar day extension for the contractor to submit an acceptable CAP. The CAP extension letter shall include the following language: "DOE reserves its right to implement a corrective action by withholding DOE reimbursement of the appropriate portion of the total employee benefits cost, if (the contractor) fails to submit an acceptable CAP by the conclusion of the extension period."

Should the contractor fail to submit an acceptable CAP by the end of the extension period, the CO shall issue a final notification letter to advise the contractor of DOE's intent to withhold the reimbursement of the portion of employee benefits cost attributed to the Cost Study score net over the DOE standard index. 30 calendar days from the date of the final notification letter. This net Cost Study score represents the level of benefits above the threshold established by the HCA.

In calculating the non-reimbursable portion of the employee benefits costs attributed to the net Cost Study score, the CO should request alternative Cost Study scenarios that would align the contractor's benefits most closely to the threshold established by the HCA. The request for alternative Cost Study scenarios should be included in the final notification letter. Alternative scenarios should be prepared by an independent benefits professional with an opinion on the impact on cost reduction. If scenarios are not provided, by the end of the 30 day notification period, the CO may consider unallowable costs based upon the results of the Cost Study report.

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DOE policy recognizes there are circumstances when DOE may not require a CAP. Although Departmental policy gives the CO full discretion in when to require a CAP, the following circumstances are some examples of when the CO may not require a CAP.

Deviation is statistically insignificant. When the contractor's Cost Study index exceeds the DOE standard by less than 1%, the CO may consider the difference to be "statistically insignificant" and approve the contractor's request for a CAP waiver. For example, using a threshold of 5%, a Cost Study index of 105% does not represent average cost of benefits. The average is 100%. A Cost Study index of 105% means that the contractor's cost of benefits is 5% greater than the average value of the total benefits of the comparator group.

Costs are deemed allowable under FAR for a Collective Bargaining Agreement (CBA). Pursuant to FAR 31.205-6, Compensation for Personal Services, compensation costs (which include benefit costs) are reasonable when they are established under labor management agreements negotiated according to the terms of the National Labor Relations Act (NLRA) unless the costs are unwarranted by the character and circumstances of the work or discriminatory against the Government. If the contractor can demonstrate that benefit costs under a CBA were established according to the NLRA and that the non-CBA portion of its benefit costs would otherwise meet the threshold established by the HCA, the CO may waive the CAP requirement. The contractor may demonstrate this by providing a Cost Study report which excludes the CBA-related benefit costs and payroll.

Total benefit costs as a single percent of payroll are within the threshold established by the HCA. When the total of the OEBs and the health-related benefits as a percent of payroll do not exceed the threshold established by the HCA, the CO may not require a CAP. For example, if the threshold is 5% and the benefit index for OEBs is 108% and the benefit index for health-related benefits is 96%, the benefit index as a single percent of payroll is 104%, based on 108% plus 96% minus 100%, and is within the 105% threshold as a single percent of payroll. However, if the benefit index for OEBs is 108% and the benefit index for health-related benefits is 104%, the benefit index as a single percent of payroll is 112%, based on 108% plus 104% minus 100%, and exceeds the 105% threshold as a single percent of payroll, the CO may require a CAP.

The elements of a contractor's CAP should include a description of benefit changes, a projection of initial and ongoing cost savings, and documentation of cost savings projections that have been verified by the contractor's benefit provider or an actuary, and implementation dates. The corrective action must be implemented within 2 years or as agreed to between the contractor and the CO.

Sample Tables

Reconciliation of CABR Benefits and Cost Study Benefits ³

| | Dollar Amount |
|---|-------------------|
| CABR Total Benefits | 49,347,838 |
| Legally Required Payments | -8,558,798 |
| Displaced Worker | -17,670 |
| Post-Retirement Benefit (PRB) Service Cost | 3,778,600 |
| PRB Contributions | -3,566,490 |
| Defined Benefit Plan Normal Cost | 6,860,000 |
| Defined Benefit Plan Contributions | -7,334,760 |
| Pay-As-You-Go Plan Disbursements | -0 |
| Retirement Expenses | -401,540 |
| Other Benefits | -227,430 |
| Cost Study Benefits | 39,879,750 |

³ Color coded numbers on the above chart correspond to the color coded numbers on the following chart.

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Sample CABR Data ⁴

| Types of Expenditure | CABR Benefits | Cost Study Benefits |
|--------------------------------------|-------------------|---------------------|
| Paid Time Off: | 13,951,320 | 13,951,320 |
| Legally Required Insurance: | 8,558,798 | N/A |
| Life/Death Benefits: | 336,300 | 336,300 |
| Medical/Medically Related: | | |
| Insured Active Medical: | 3,652,560 | 3,652,560 |
| Self-Insured Active Medical: | 5,186,580 | 5,186,580 |
| Dental Active: | 784,890 | 784,890 |
| Vision/Prescription-Active: | 858,990 | 858,990 |
| HSAs/HRAs Active: | 0 | 0 |
| Misc. Medical-Active: | 33,630 | 33,630 |
| PRB Service Cost | | 3,778,600 |
| Insured Retiree Medical: | 1,057,350 | N/A |
| Self-Insured Retiree Medical: | 1,695,750 | N/A |
| Dental-Retiree: | 231,420 | N/A |
| Vision/Prescription-Retiree: | 490,770 | N/A |
| HSAs/HRAs Retiree: | 0 | N/A |
| Misc. Medical-Retiree: | 91,200 | N/A |
| Short-Term Disability: | 220,590 | 220,590 |
| Long-Term Disability: | 246,810 | 246,810 |
| Displaced Worker: | 17,670 | N/A |
| Retirement: | | |
| Defined Contribution: | 3,969,480 | 3,969,480 |
| Defined Benefits: | 7,334,760 | 6,860,000 |
| Disbursements: | 0 | N/A |
| Expenses: | 401,540 | N/A |
| Other: | 227,430 | N/A |
| TOTAL BENEFITS | 49,347,838 | 39,879,750 |

Sample BLS Table

The following sample BLS table with DOE PRB costs shows that the comparator group's Cost Study OEBs are 19.1% of payroll, including 11.1% for paid leave, 0.7% for life and disability insurance, and 7.3% for retirement and savings. The health-related benefits are 13.9%, including 12.1% for health insurance and 1.8% for PRBs. The thresholds in these examples are based on the BLS table percent plus 5%. A contractor's OEBs would be within the 5% threshold if the benefits did not exceed 24.1% of payroll. A contractor's health-related benefits would be within the threshold if they did not exceed 18.9% of payroll. The BLS data is entered on the BLS tab of the spreadsheet template, and the results from the BLS tab are linked to the results tab.

⁴ Color coded numbers on the above chart correspond to the color coded numbers on the previous chart.

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**U.S. DOL's Bureau of Labor Statistics Employer Costs for Employee Compensation
Table 4 and Table 6 for the Manufacturing Industry, weighted average:
Management, professional, and related (40%) & 500 workers or more (60%)
Including DOE PRB Costs**

| | OEBs Percent of Payroll | Health- Related Benefits Percent of Payroll |
|---|----------------------------|---|
| A. PAYROLL | 100.0% | 100.0% |
| B. PAID LEAVE | 11.1% | |
| C. LIFE AND DISABILITY INSURANCE | 0.7% | |
| D. HEALTH INSURANCE | | 12.1% |
| E. RETIREMENT AND SAVINGS | 7.3% | |
| F. POST-RETIREMENT BENEFITS (PRBs) | | 1.8% |
| G. COST STUDY BENEFITS | 19.1% | 13.9% |

Sample Geographic Factor Adjustments

The following table shows sample geographic factor adjustments derived from the BLS Tables based on the census division. The OEBs for the Mountain census division in Table 7 are 13.2% of payroll. The OEBs for all private industry workers in Table 5 are 13.9% of payroll. The OEB geographic factor adjustment is -0.7%, which lowers the BLS OEB benchmark from 19.1% to 18.4%. The health-related benefits for the Mountain census division in Table 7 are 8.1% of payroll. The health-related benefits for all private industry workers in Table 5 are 9.5% of payroll. The health-related benefit geographic factor adjustment is -1.4%, which lowers the BLS health-related benefit benchmark from 13.9% to 12.5%.

**U.S. DOL's Bureau of Labor Statistics Employer Costs for Employee Compensation
Table 5 and Table 7**

| | OEBs Percent of Payroll | Health- Related Benefits Percent of Payroll |
|--|----------------------------|---|
| A. BLS Table 7 – Mountain Census Division | 13.2% | 8.1% |
| B. BLS Table 5 – All Private Industry Workers | 13.9% | 9.5% |
| C. Geographic Factor Adjustments | -0.7% | -1.4% |

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Sample Cost Study Results

The following table using a 5% threshold as an example shows the percent of payroll Cost Study results for a contractor with OEBs of 25.1% of payroll compared to a BLS percent of 18.4% (19.1% minus 0.7%), and health-related benefit costs of 14.2% compared to the BLS percent of 12.5% (13.9% minus 1.4%). The contractor's OEBs as a percent of payroll are 6.7% higher (25.1% minus 18.4%) than the BLS percent of payroll, resulting in a contractor benefit index of 106.7%. The contractor's health-related benefits as a percent of payroll are 1.7% higher (14.2% minus 12.5%) than the BLS percent of payroll, resulting in a contractor benefit index of 101.7%. The sample contractor is over the 5% threshold for OEBs as a percent of payroll and within the 5% threshold for health-related benefits as a percent of payroll. As a single percent of payroll, the contractor's total benefits of 39.3% of payroll (25.1% plus 14.2%) exceed the total BLS benchmark of 30.9% of payroll (18.4% plus 12.5%) by 8.4%. The contractor is over the 5% threshold as a single percent of payroll (106.7% plus 101.7% minus 100% equals 108.4%).

OEBs as a Percent of Payroll Comparison

| | Dollar Amount | Contractor's Percent | BLS Percent | Pct. Above Average |
|---|----------------------|----------------------|---------------|--------------------|
| A. PAYROLL | \$101,609,340 | 100.0% | 100.0% | |
| B. PAID LEAVE | | | | |
| Vacation | \$5,582,580 | 5.5% | 5.6% | -0.1% |
| Holidays | \$3,789,930 | 3.7% | 3.2% | 0.5% |
| Sick and Personal | \$4,578,810 | 4.5% | 2.3% | 2.2% |
| TOTAL B | \$13,951,320 | 13.7% | 11.1% | 2.6% |
| C. INSURANCE | | | | |
| Life | \$336,300 | 0.3% | 0.2% | 0.1% |
| Health | \$10,516,650 | | | |
| Short-Term Disability | \$220,590 | 0.2% | 0.2% | 0.0% |
| Long-Term Disability | \$246,810 | 0.2% | 0.3% | -0.1% |
| TOTAL C | \$11,320,350 | 0.7% | 0.7% | 0.0% |
| D. RETIREMENT AND SAVINGS | | | | |
| Defined Benefit Normal Costs | \$6,860,000 | 6.8% | 4.2% | 2.6% |
| Defined Contribution | \$3,969,480 | 3.9% | 3.1% | 0.8% |
| TOTAL D | \$10,829,480 | 10.7% | 7.3% | 3.4% |
| E. POST-RETIREMENT BENEFITS (PRBs) | \$3,778,600 | | | |
| F. GEOGRAPHIC FACTOR ADJUSTMENT | | | -0.7% | 0.7% |
| G. COST STUDY RESULTS | \$39,879,750 | 25.1% | 18.4% | 6.7% |
| Contractor's Benefits Index | | | | 106.7% |
| Baseline plus 5% | | | | 105.0% |
| Excess of Benefit Index Over 105% | | | | 1.7% |

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Health-Related Benefits as a Percent of Payroll Comparison

| | | Dollar Amount | Contractor's Percent | BLS + PRB Percent | Percent Above Average |
|----|-----------------------------------|---------------|-------------------------|----------------------|-----------------------------|
| A. | PAYROLL | \$101,609,340 | 100.0% | 100.0% | |
| B. | PAID LEAVE | | | | |
| | Vacation | \$5,582,580 | | | |
| | Holidays | \$3,789,930 | | | |
| | Sick and Personal | \$4,578,810 | | | |
| | TOTAL B | \$13,951,320 | | | |
| C. | INSURANCE | | | | |
| | Life | \$336,300 | | | |
| | Health | \$10,516,650 | 10.4% | 12.1% | -1.7% |
| | Short-Term Disability | \$220,590 | | | |
| | Long-Term Disability | \$246,810 | | | |
| | TOTAL C | \$11,320,350 | 10.4% | 12.1% | -1.7% |
| D. | RETIREMENT AND SAVINGS | | | | |
| | Defined Benefit Normal Costs | \$6,860,000 | | | |
| | Defined Contribution | \$3,969,480 | | | |
| | TOTAL D | \$10,829,480 | | | |
| E. | POST-RETIREMENT BENEFITS (PRBs) | \$3,778,600 | 3.8% | 1.8% | 2.0% |
| F. | GEOGRAPHIC FACTOR ADJUSTMENT | | | -1.4% | 1.4% |
| G. | COST STUDY RESULTS | \$39,879,750 | 14.2% | 12.5% | 1.7% |
| | Contractor's Benefits Index | | | | 101.7% |
| | Baseline plus 5% | | | | 105.0% |
| | Excess of Benefit Index Over 105% | | | | -3.3% |

Formulas using a 5% threshold as an example

Paid Leave = Vacation + Holidays + Sick and Personal

Life and Disability Insurance = Life + Short Term Disability + Long Term Disability

Retirement and Savings = Defined Benefit + Defined Contribution

Cost Study OEBs Measured as a Percent of Pay
= Paid Leave + Life and Disability Insurance + Retirement and Savings

Cost Study Health Related Benefits = Health Insurance + PRBs

Cost Study Results = $\frac{\text{Cost Study Benefits}}{\text{Payroll}}$

*Percentage Points Above Average = Contractor's Cost Study Results –
BLS Cost Study Results*

Percentage Point Method

If (Percentage Points Above Average) ≤ 5% then Contractor's Cost within 5% of Comparator

If (Percentage Points Above Average) > 5% then Contractor's Cost over 5% of Comparator

Benefit Index Method

Contractor's Benefits Index = 100% + Percent Above Average

Baseline plus 5% = 105%

*If (Contractor's Benefit Index – (Baseline plus 5%))
≤ 0% then Contractor's Cost within 105% of Comparator*

*If (Contractor's Benefit Index – Baseline plus 5%)
> 0% then Contractor's Cost over 105% of Comparator*