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Tracking Your Facilities Vital Signs

This is the fourth annual article to be published in Facilities Manager addressing salary analysis for campus facilities management (FM) organizations. The first article, "Six-Year Salary Trends for Facilities Professionals" (Facilities Manager, July/August 2014), looked at all 52 jobs reported on in the APPA Facilities Performance Indicators (FPI) Report, and introduced the idea of using the FPI Report, the Department of Labor Bureau of Labor Statistics (BLS) National Compensation Survey, the national Consumer Price Index (CPI), and the national Employment Cost Index (ECI) to perform trend analysis on the health of your FM salary program. You can review the first article on the APPA website at http://www.appa.org/files/FMArticles/44-53.pdf.

The second article (Facilities Manager, July/August 2015), "Salary Trends in Facilities Management: Senior Leadership," looked at the 11 senior leadership jobs reported on in the FPI Report, and provided an update on the change in average salaries for all 52 FPI jobs. You can review the second article at http://www.appa.org/files/FMArticles/38-45.pdf.

## A Look at the Cost of Fringe Benefits

The third article, in the July/August 2016 issue, looked at a dozen frontline jobs that represent the direct labor full-time equivalents (FTEs) reported on most often and in the most quantity in the FPI Report. You can review the study at https:// www.appa.org/files/FMArticles/(40-49)\ FM_JA16_F3\  REVISED.pdf.

In this fourth article, using methods previously described in the first three articles, I will explore several other aspects of employee compensation beyond salaries and wages.

## BENEFITS VS SALARIES

Benefits are usually set at the institutional level, and the facilities organization has little direct impact on this resource. However, benefits can be just as impactful as salaries on the success of an FM organization's compensation program. I will start out by looking at the cost of fringe benefits versus the cost of salary and wages as reflected in the FY 15-16 FPI Report.

During my conduct of FM assessment projects at various
colleges and universities recently, I am finding that some FM organizations are being required to budget for the cost of fringe benefits. Below is an excerpt from the FPI "Detailed Data Report" section, defining "benefit cost" and noting the answer to a frequently asked question about fringe benefits.

Definition: Total facilities administration benefit cost (insurance, retirement, etc.) excluding the cost of sick leave and vacation. This percentage may be available from the institution's human resources department or budget office.

FAQ Reply: Typically, the benefit percentage will vary by facilities job description or department, and the benefit percentage is generally larger for lower salaried employees.

Fringe benefits often include items such as medical, dental, and vision insurance coverage; education financial assistance; retirement plan contributions; and fitness assistance/access-

and the cost of providing these items continues to increase. In the face of increasing fringe benefits costs, salaries and wages in higher education FM organizations have stagnated over the past several years. In my employee focus group discussions during assessment projects, I consistently find that employees say they stay with their institution because of the fringe benefits and in spite of the low wages. These discussions provide anecdotal evidence supporting the fact that fringe benefits play a major role in the recruitment and retention of FM employees.

Most facilities professionals generally do not know the true cost of fringe benefits for the various work groups in their organization. When I ask for the fringe benefits rate, I am often given a general percentage rate calculated by the institution's human resource department, based on the entire institutional workforce. As noted earlier, the benefit percentage is generally larger for lower salaried employees. In actuality, the benefits rate is only relevant if it helps us compute the cost of fringe benefits. If you already know the actual cost of the fringe benefits and the actual salary or wage cost, then you don't really need the fringe benefits rate.

However, you can compute the fringe benefits rate by dividing the actual cost of fringe benefits by the actual salary cost. In the FPI, and for this article, the fringe benefit rate is expressed as a percentage of the salary and wages amount. In some uses outside of the FPI and this article, the fringe benefits rate may be expressed as a percentage of the total compensation. You should make sure you know which method is being used before you use the rate for any analysis.

RESULTS FROM FPI REPORT
Now let's turn to the FY 15-16 FPI Report and see how many participants reported on labor cost and fringe benefits rates, and what they reported. There were 282 participating institutions in the FY 15-16 report. Participants had an option to report labor cost and fringe benefits rate for the seven employee groups. A total of 142 participants reported labor cost and fringe benefits rates for at least one of the seven employee groups, as shown in Table 1. There were 46 participants who reported labor cost and fringe benefits rates for all seven employee groups. Table 1 shows a profile of how many employee groups were reported on by how many participants, with a large majority of the participants reporting on four or more employee groups.

Table 2 shows a profile of the FY 15-16 FPI participants reporting by employee group. Every employee group is represented by a sufficient number of data points to be useful to us in our look at fringe benefits cost.

Each reporting participant reported their total labor cost and the fringe benefits rate for one or more of the seven employee groups. In order to derive an aggregate representation of the data, I computed the cost of fringe benefits and the salary cost for each individual reporting participant based on the reported total cost of labor and the reported fringe benefits rate. I then summed the fringe benefits cost and the salary cost for each of the seven employee groups as displayed in Table 3.

Chart 1 is a graphical representation of the aggregate fringe benefits cost, and aggregate salary cost for each of the seven employee groups for the population of participants who reported labor cost and fringe benefits rates.

Table 1: Number of Participants by Number of Employee Groups Reported

| Number of Employee <br> Groups Reported On-> | One | Two | Three | Four | Five | Six | Seven | Total |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of Reporting <br> Participants | 10 | 4 | 8 | 20 | 19 | 35 | 46 | 142 |

Table 2: Number of Reporting Participants

| Employee Group-> | Administration | Custodial | Maintenance | Energy | Construction <br> A \& E | Crounds | Other |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of Reporting <br> Participants | 126 | 122 | 126 | 97 | 94 | 130 | 70 |

Table 3: Total Aggregate Salary Cost and Fringe Benefits Cost for FPI Reporting Participants

| Employee Group | Cost of Benefits | Cost of Salary/ <br> Wages | Total Cost of Labor |
| :--- | ---: | ---: | ---: |
| Administration | $\$ 46,328,150$ | $\$ 108,911,566$ | $\$ 155, \mathbf{2 3 9}, \mathbf{7 1 6}$ |
| Custodial | $\$ 143,316,741$ | $\$ 347,720,966$ | $\$ 491,037,707$ |
| Maintenance | $\$ 119,205,918$ | $\$ 338,857,414$ | $\$ 458,063,332$ |
| Energy | $\$ 33,526,326$ | $\$ 95,051,500$ | $\$ 128,577,826$ |
| Construction A \& E | $\$ 27,936,547$ | $\$ 86,749,937$ | $\mathbf{\$ 1 1 4 , 6 8 6 , 4 8 4}$ |
| Grounds | $\$ 37,266,973$ | $\$ 99,115,254$ | $\mathbf{\$ 1 3 6 , 3 8 2 , 2 2 7}$ |
| Other | $\$ 12,339,693$ | $\$ 37,188,717$ | $\mathbf{\$ 4 9 , 5 2 8 , 4 1 0}$ |
| Total | $\$ 419,920,346$ | $\$ 1,113,595,356$ | $\mathbf{\$ 1 , 5 3 3 , 5 1 5 , 7 0 2}$ |

Chart 1: Salary and Wages vs Benefits by Employee Group


To compute the aggregate fringe benefits rate, I divided the aggregate cost of fringe benefits by the aggregate cost of salary as reflected in Chart 2. I have also added the BLS U.S. Civilian Workers group, which will be discussed later in this article. As can be seen, the overall aggregate benefits rate for the FPI participants is 37.5 percent, with Administration, Custodial, and Grounds in the top three as expected. However, the aggregate data suggests that the fringe benefits rate being reported is likely not being computed at the employee-group level by all participants. It would seem that the rate for custodial and grounds would be much higher relative to the other groups.

Some participants are likely reporting their overall institutional fringe benefits rate or their departmental fringe benefits rate
instead of the rate computed for the employee group. In fact, 27 participants reported the same fringe benefits rate for all seven employee groups, which is an indication that they reported their overall institutional fringe benefits rate or their departmental fringe benefits rate.

Despite the variation in the way participants are reporting, the fringe benefits rate in the FPI Report provides valuable insight to users on how others institutions are allocating their compensation budget between salary and benefits. I would like to use this article to encourage FPI participants to report their benefits rate computed from the actual dollar cost of salary and wage, and the actual cost of benefits for the specific employee group.

## Chart 2: Aggregate Fringe Benefits Rate by Cost, FPI Employee Group



Keep in mind that the fringe benefits rate is simply a compact way to represent the value of benefits provided to employees above and beyond salary and wages. However, in most analyses, the FM professional is interested in an accurate representation of the true cost of compensation. That is to say, in most instances the actual dollar cost of fringe benefits is more useful than the fringe benefits rate.

For example, suppose you were trying to make a business case to your chief financial officer (CFO) to purchase pieces of highcost, labor-saving equipment. And let's say you have a proven method of determining the number of labor hours the equipment will save over the life cycle of the equipment, and your CFO accepts the labor-hours savings as credible. So the business case now depends on the life-cycle cost of the equipment compared to the true cost of the saved labor hours.

Of course, the true cost of the labor hours is based on the hourly salary or wage rate and the actual fringe benefits cost. If you know the actual dollar cost of fringe benefits, then the fringe benefits rate is not important. Unfortunately, in some analyses, a fringe benefits rate that has been computed based on a larger population of the workforce is inappropriately applied to a smaller employee group with a different salary profile. This leads to a misrepresentation of the true cost of labor.
So what is the best way for FM professionals to determine the fringe benefit cost and rate for the different employee groups in the FM organization? The best way is to ask your human resource or payroll department to produce a report for the previous year for the entire workforce that lists each employee by title, work unit, and any other identifying data that will afford the flexibility necessary to group employees according to the requirements of various analyses. The report should include the actual cost of each employee's salary and wages and the actual cost of their fringe benefits. From such a report, you can know the true cost of labor for your workforce. If you must produce a fringe benefits rate, you can compute it based specifically on the data for the employee group for which it is to be applied.

An article in this series would not be complete without a peek outside educational FM and into the larger U.S. workforce. As usual we will turn to the BLS and review their bulletin, "Employer Costs for Employee Compensation—December 2016," found at https://www.bls.gov/news.release/pdf/ ecec.pdf. The excerpt in red text at left summarizes the data presented in the bulletin for the entire U.S. civilian workforce.

Tables 4a-4d use the FTE data reported by the 142 FPI participants for each employee group to compute the total cost of labor per hour and the fringe benefits cost per hour, in order to compare

Table 4a: FY 15-16 FPI Participants Total Labor Cost Per Hour

| Employee Group | FPI FTEs | FPI Total Labor <br> Cost Per Hour | Total Labor Cost <br> Per Hour |
| :--- | :---: | :---: | :---: |
| Administration | 2,151 | $\$ 155,239,716$ | $\mathbf{\$ 3 4 . 7 0}$ |
| Custodial | 11,257 | $\$ 491,037,707$ | $\mathbf{\$ 2 0 . 9 7}$ |
| Maintenance | 6,490 | $\$ 458,063,332$ | $\$ 33.93$ |
| Energy | 1,664 | $\$ 128,577,826$ | $\mathbf{\$ 3 7 . 1 6}$ |
| Construction A \& E | 1,365 | $\$ 114,686,484$ | $\$ 40.39$ |
| Grounds | 2,681 | $\$ 136,382,227$ | $\mathbf{\$ 2 4 . 4 5}$ |
| Other | 803 | $\$ 49,528,410$ | $\mathbf{\$ 2 9 . 6 5}$ |
| FPI Overall | 26,410 | $\$ 1,533,515,702$ | $\mathbf{\$ 2 7 . 9 2}$ |
| BLS U.S. Civilian Workers |  |  | $\mathbf{\$ 3 4 . 9 0}$ |

Table 4b: FY 15-16 FPI Participants Fringe Benefits Cost Per Hour

| Employee Group | FPI Cost of <br> Fringe Benefits | Fringe Benefits <br> Cost Per Hour |
| :--- | :---: | :---: |
| Administration | $\$ 46,328,150$ | $\$ 10.36$ |
| Custodial | $\$ 143,316,741$ | $\$ 6.12$ |
| Maintenance | $\$ 119,205,918$ | $\$ 8.83$ |
| Energy | $\$ 33,526,326$ | $\$ 9.69$ |
| Construction A \& E | $\$ 27,936,547$ | $\$ 9.84$ |
| Grounds | $\$ 37,266,973$ | $\$ 6.68$ |
| Other | $\$ 12,339,693$ | $\$ 7.39$ |
| FPI Overall | $\$ 419,920,346$ | $\$ 7.64$ |
| BLS U.S. Civilian Workers | $\$ 11.03$ |  |

Table 4d: FY 15-16 FPI Participants Fringe Benefits Rate

| Employee Group | Fringe Benefits <br> Rate |
| :--- | :---: |
| Administration | $\mathbf{4 2 . 5 \%}$ |
| Custodial | $\mathbf{4 1 . 2 \%}$ |
| Maintenance | $\mathbf{3 5 . 2 \%}$ |
| Energy | $\mathbf{3 5 . 3 \%}$ |
| Construction A \& E | $\mathbf{3 2 . 2 \%}$ |
| Grounds | $\mathbf{3 7 . 6 \%}$ |
| Other | $\mathbf{3 3 . 2 \%}$ |
| FPI Overall | $\mathbf{3 7 . 7 \%}$ |
| BLS U.S. Civilian | $\mathbf{4 6 . 2 \%}$ |
| Workers |  |

Table 4c: FY 15-16 FPI Participants Fringe Benefits Cost Per Hour

| Employee Group | FPI Salary and <br> Wages Cost <br> Per Hour | FPI Salary and <br> Wages Cost <br> Per Hour |
| :--- | :---: | :---: |
| Administration | $\$ 108,911,566$ | $\mathbf{\$ 2 4 . 3 5}$ |
| Custodial | $\$ 347,720,966$ | $\mathbf{\$ 1 4 . 8 5}$ |
| Maintenance | $\$ 338,857,414$ | $\mathbf{\$ 2 5 . 1 0}$ |
| Energy | $\$ 95,051,500$ | $\mathbf{\$ 2 7 . 4 7}$ |
| Construction A \& E | $\$ 86,749,937$ | $\mathbf{\$ 3 0 . 5 6}$ |
| Grounds | $\$ 99,115,254$ | $\mathbf{\$ 1 7 . 7 7}$ |
| Other | $\$ 37,188,717$ | $\mathbf{\$ 2 2 . 2 6}$ |
| FPI Overall | $\$ 1,113,595,356$ | $\mathbf{\$ 2 0 . 2 7}$ |
| BLS U.S. Civilian Workers | $\mathbf{\$ 2 3 . 8 7}$ |  |

Chart 3: FY 15-16 FPI Participants Cost per Labor Hour vs BLS U.S. Civilian Worker

the FPI cost per hour and FPI benefits rates with the BLS data for the entire U.S. Civilian Workers group as of December 2016.

Chart 3 is a graphical presentation of the FPI salary and wage cost per hour, and the FPI fringe benefits cost per hour compared to the same data in the same format for the entire BLS U.S. Civilian Workers group as reported by the December 2016 benefits-cost survey bulletin.

## OBSERVATIONS ON BENEFITS

There is a wealth of observations we can make about the data in Chart 3. However, before doing so, let's note that the BLS U.S. Civilian Workers group is made up of the Private Industry group and the State and Local Government group. These two major groups are made up of Occupational groups and Industry groups. The bulletin contains data broken out by these groups that would allow us to create a chart such as Chart 3 to compare the FPI data with the data on any group or collections of groups. Then, of course, individual institution facilities professionals can compare their own data with the combined FPI and BLS data.

Now for observations about Chart 3. Obviously the $\$ 34.90 /$ hour total cost of labor for the U.S. Civilian Workers group is significantly higher than the $\$ 27.92 /$ hour for the FPI Overall group. All FPI total labor cost/hour are lower than the U.S. Civilian Workers group, except those of the Construction A\&E group. The $\$ 11.03 /$ hour fringe benefits cost ( $46.2 \%$ fringe benefits rate in Chart 2) for U.S. Civilian Workers is higher than all FPI employee groups.

As with the previous three articles, the objective of this article has been to provide useful information, as well as to provide an illustration of how FM professionals can endeavor to harvest data and turn it into information to better understand and advocate for their organizations. (5)

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