An FPI Salary Analysis

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Six-Year Salary Trends for Facilities Professionals

[*Ed. Note: The following is one of an occasional series of articles and reports that mine data and results found in APPA's annual Facilities Performance Indicators (FPI) report. The salary trends and analysis report will become an annual feature published in the July/August issue of* Facilities Manager.]

As facilities professionals we are responsible to our institution for optimally managing resources placed in our charge. Since many of us have technical backgrounds, our personal attention tends to gravitate toward those resources that require technical solutions to their management challenges.

We expend extreme effort to learn all there is to know about the latest leading-edge mechanical systems being considered for the new science building we are about to construct. We conduct exhaustive studies and weeks of analysis to determine the energy consumption trends and financial payback of the energy conservation projects being pitched by the sustainability committee. Numerous debates will ensue in technical meetings, regarding the merits of central power plants over package power systems when considering expansion to a remote undeveloped site. And we will spend many hours in management team meetings discussing numerous technical performance indicators and their trends.

All of the above mentioned technical effort, study, analysis, and debate is important and absolutely necessary, because it directly impacts the facilities professional's ability to properly manage tangible and highly valuable institution resources.

BUT WHAT ABOUT THE STAFF?

While the catchphrase "people are our most important resource" is probably over used, there is no other area where it is more true than the facilities management profession. Without the electricians, for instance, we would find ourselves figuratively and literally in the dark. Such a statement could be made about the people that perform every job in the facilities management organization.

So, people truly *are* our most important resource. But this resource is supported by other important tangible and intangible resources. The intangibles include but are not limited to proper leadership, high-quality work environments, non-monetary award and recognition programs, training, and motivation activities—just to name a few. Employee compensation, made up of salaries and benefits, is the most tangible and significant resource that facilities professionals must manage. Benefits are usually set at the institution level, and the facilities organization has little direct impact on this resource. Salaries, on the other hand, are typically managed by internal facilities management organization policies and practices.

SALARIES ARE A BIG TICKET ITEM

Salaries typically make up the largest percent of the facilities management operating budget. In APPA's *Facilities Performance Indicators Report (FPI) 2011-12*, participants reported a combined Annual Operating Expenditure (AFOE)[1] of $4,208,404,200, purchased utilities of $1,899,947,343, and salaries without benefits of $1,114,456,245. As can be seen from these numbers, salaries represent 26 percent of the annual operating budget excluding purchased utilities.

The sheer magnitude of the salary budget coupled with the significant intangible impact salaries have on employees, suggest that facilities professionals should devote just as much effort, study, analysis, and debate to our employee compensation policies, practices, and trends as we do to the more exciting and comfortable technical challenges of our profession mentioned at the beginning of this article.

Therefore, armed with the realization that acquiring knowledge about employee compensation is critical and necessary, where can you, the facilities professional, turn to for assistance? By participating in, and customizing the data available through APPA's FPI report, we hope to give you

Figure 1-a: All APPA Average Salaries

	FY 07-08		FY 12-13		
Administration	No of Employees	Avg Salary	No of Employees	Avg Salary	Salary Chg
Chief Facilities Officer	181	$127,288	149	$135,316	1.06
Assoc/ Assist Dirctr	317	$87,904	233	$96,539	1.10
Bus/ Budget Mgr	212	$63,792	175	$65,222	1.02
Human Resources Mgr	50	$59,217	56	$57,101	0.96
Training Officer	44	$52,942	36	$57,701	1.09
Telecom Specialist	18	$43,303	6	$50,321	1.16
Computer Programmer/Analyst	196	$54,922	160	$58,244	1.06
Other Administrative Managers	305	$59,670	218	$63,450	1.06
Secretary Clerical	1,142	$34,743	662	$36,249	1.04
Other Administration Positions	481	$46,323	366	$42,880	0.93

Figure 1-b: All APPA Average Salaries

	FY 07-08		FY 12-13		
Maintenance Group 1	No of Employees	Avg Salary	No of Employees	Avg Salary	Salary Chg
Shop Supervisor/ Foreman	986	$56,675	745	$57,410	1.01
Carpenter	870	$43,644	504	$44,689	1.02
Electrician	1,496	$46,780	906	$48,538	1.04
Locksmith	289	$42,722	242	$44,344	1.04
Machnist/ Welder	109	$46,252	87	$46,715	1.01
AC/ Refrigeration	1,234	$45,795	909	$47,701	1.04
Mason	144	$44,839	71	$43,338	0.97
Painter	642	$41,267	394	$42,456	1.03
Plumber/ Pipefitter	974	$45,764	665	$48,646	1.06
Roofer	92	$39,530	77	$39,366	1.00

Figure 1-c: All APPA Average Salaires

	FY 07-08		FY 12-13		
Maintenance Group 2	No of Employees	Avg Salary	No of Employees	Avg Salary	Salary Chg
Sheetmetal Worker	156	$50,458	57	$50,043	0.99
Other Trades Positions	512	$43,271	514	$43,328	1.00
Chief Superintendent Maintenance	194	$75,460	186	$75,583	1.00
General Zone Maintenance Worker	1,462	$37,772	1,164	$39,068	1.03
Elevator Mechanic	66	$55,188	52	$68,416	1.24
Vehicle/ Equipment Mechanic	277	$43,261	152	$43,577	1.01
Storekeeper/ Expediter	255	$35,755	211	$36,179	1.01
Labor/ Trades Worker	540	$34,565	357	$38,123	1.10
Other Maintenance Positions	493	$38,540	319	$44,401	1.15

the tools necessary to gauge, compare, and, when needed, make a case for salary increases based on salary trends in the industry.

JUST THE SALARY

For this article, we will focus on the largest and most tangible component of the compensation equation—salaries *excluding benefits*. Benefits can be just as impactful as salaries on the success of a facilities management organization's compensation program. However, we will focus only on salaries and will leave the subject of benefits for another time.

Since the word "salary" could mean different things to different people, for the purpose of this article we define salary as the annualized amount paid to and individual excluding fringe benefit, as reported in the annual APPA FPI survey and as collected by the U.S. Department of Labor Bureau of Labor Statistics (BLS) Annual Compensation survey.[2] We will explore a method for judging the health of a facilities organization's salary program using the salary data from the APPA FPI report and data collected by the BLS and made available to the public.

A common method of evaluating salaries is to conduct a compensation study. A compensation study can be conducted by in-house staff or outsourced to a firm specializing in such studies. A common method involves collecting salary data from multiple external sources and performing comparative analysis.

A formal compensation study can be time consuming and costly as it involves formally collecting job description and salary information from willing employers in the local area. So before embarking upon a formal compensation study, it would be wise to take advantage of readily available data in the FPI and BLS databases.

PUTTING FPI DATA TO USE

One of my first major projects after becoming the physical plant director at the University of Texas at Austin over 12 years ago, was to conduct a compre-

hensive review of salaries for close to 1,100 employees working in over 200 different job titles. My first step was to compare our salaries to the APPA FPI report. I was able to complete the study for the leadership jobs using only the FPI data and data from several other public sources. The comparative analysis with the FPI report helped to validate the need to hire a firm to conduct a formal compensation study for the non-leadership jobs.

The end result of this effort was that we brought the salary ranges into balance among jobs based on the skill requirements and in line with prevailing salary ranges for our area. Most employees experienced a pay increase since both studies clearly validated that the current salaries were below market. The items put in place as part of the two studies are still serving the facilities department in managing its salary after over ten years in use. For a smaller organization it may be possible to conduct an adequate salary study using just the FPI report and BLS data.

CUSTOMIZING FPI DATA: YOUR FPI EXPERIENCE

WHAT YOU CAN DO

As an APPA member, you have access to all of the data in the FPI. If you are a participant, access to the data is free. If you don't participate, you can still access the data, run reports, and use the information for a fee (however, you won't see the names of the other participants, just their data).

WHAT SALARY DATA IS COLLECTED

There are six modules in the FPI survey representing the six facilities management core functions: *Administration*, *A&E/Construction*, *Custodial*, *Energy/Utilities*, *Landscape/Grounds*, and *Maintenance*. The survey collects salary data for 52 different jobs, grouped by the core function that they are associated with. Figure 1, shown in several sections, is a list of the 52 jobs and the average salary reported for them in the FY 07-08 and FY 12-13 FPI survey. The "*Chg*" column indicates how much more or less the FY 12-13 value is compared to FY 07-08. For example for Chief Facilities Officer, the FY 12-13 salary is 6 percent more than FY 07-08. You can use Figure 1 to make a quick comparison of salaries for jobs in your organization with similar job titles. However, you must keep in mind that the averages in Figures 1a-f are for all FPI survey participants including Canadian participants and all APPA regions, and they do not include benefits.

Figure 1-d: All APPA Average Salaires

A&E/Construction	FY 07-08		FY 12-13		
	No of Employees	Avg Salary	No of Employees	Avg Salary	Salary Chg
Architect	178	$79,883	146	$83,657	1.05
Engineer	251	$75,409	155	$79,595	1.06
Facility Planner	160	$68,130	109	$68,414	1.00
Construction Manager	246	$73,123	126	$78,445	1.07
Estimator/Scheduler	63	$51,545	51	$56,338	1.09
Project Coordinator/Manager	485	$62,502	375	$63,574	1.02
Other Construction A&E Positions	432	$48,152	396	$47,800	0.99

Figure 1-e: All APPA Average Salaires

Custodial	FY 07-08		FY 12-13		
	No of Employees	Avg Salary	No of Employees	Avg Salary	Salary Chg
Custodial Superintendent/Manager	176	$59,818	159	$64,994	1.09
Custodial Supervisor/ Foreman	705	$41,663	651	$42,948	1.03
Custodial Crew/Team Leader	1,068	$32,082	905	$32,672	1.02
Custodian/ Housekeeper	12,475	$26,113	10,229	$27,240	1.04
Other Custodial Positions	570	$30,260	334	$32,835	1.09

JUST FOR YOU

For a more customized comparison, you can generate the table in Figure 1 for only the participants in your region, as salaries are significantly impacted by regional job markets. Using the online Excel files (once downloaded and formatted,) you can produce the equivalent of Figure 1 for a variety of different groupings and subsets of the FPI dataset, thereby refining the comparison based on characteristics of your institution. For example, if your institution is a mid-size master's degree-granting university located in the Midwest region, then you could use Excel's auto-filter and subtotal features to select other institutions with similar characteristics to create the averages in Figure 1.

Note: At this time, a certain degree of expertise in Excel is needed to produce these reports, but work is being done to make this process easier for users to generate customized reports in the future.

TRENDS IN FM

Comparing your current salaries with the salaries in Figure 1 will give you a snapshot of how your organization's salaries stack up against FPI salaries for the current year. However, in some instances it is helpful to conduct a trend analysis of your organization salary history compared to trends of other external salary data and related indicators.

The BLS publishes the *Consumer Price Index (CPI)*[3] and the *Employment Cost Index (ECI)*[4]. The CPI tracks an element of the cost of living and the CPI tracks the cost to employer of one hour of labor, thereby representing salary trends for various groups of workers.

Figure 2 shows the normalized trend lines for the composite trend for the six FPI job groups. The graph show that all FPI job groups followed a similar trend, except that the Administration group experienced a

sharper increase in FY 08-09 and FY 09-10, but retreated back down in FY 10-11 and ended in FY 12-13 only slight above all other groups. We can also note that the A&E/Construction group took an upper trend along with the other groups for FY 08-09 and FY 09-10, but took a downward turn falling below the base year for FY 10-11 and FY 11-12, ending up in FY 12-13 just slightly above the base year.

Using the same method used by BLS, for each year we generated a composite trend line for the 52 jobs in the FPI that we will refer to as the *FPI All-Jobs Normalized Salary Trend*. This is done by computing the total salary amount reported for each job (average salary times the number of FTEs), summing the results and dividing by the number of FTEs reported in the FPI survey.

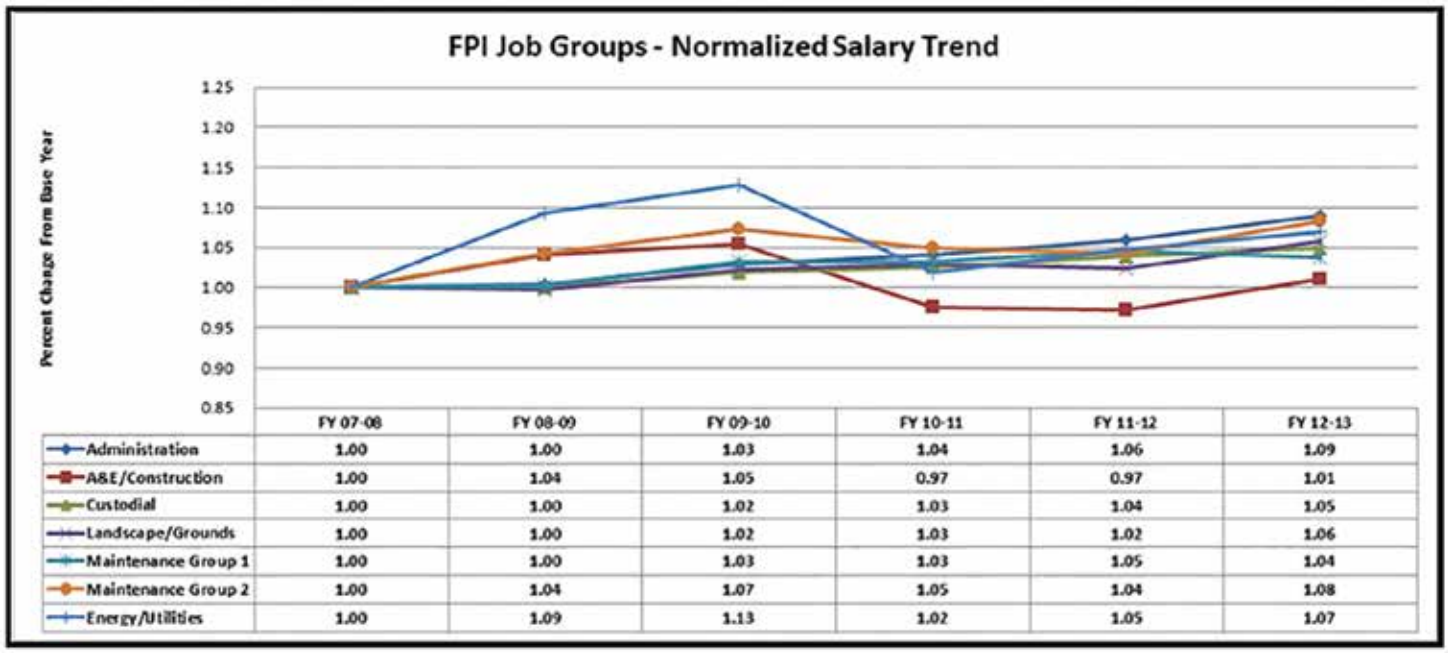
Figure 1-f: All APPA Average Salaires

	FY 07-08		FY 12-13		
Landscape/Grounds	No of Employees	Avg Salary	No of Employees	Avg Salary	Salary Chg
Grounds Superintendent/Manager	123	$62,945	105	$66,228	1.05
Grounds Supervisor/ Foreman	258	$45,599	227	$46,216	1.01
Grounds Crew/Team Leader	402	$37,204	331	$37,640	1.01
Groundskeeper	2,151	$30,088	1,719	$31,318	1.04
Other Grounds Positions	510	$31,710	412	$34,591	1.09

Figure 1-g: APPA Average Salaires

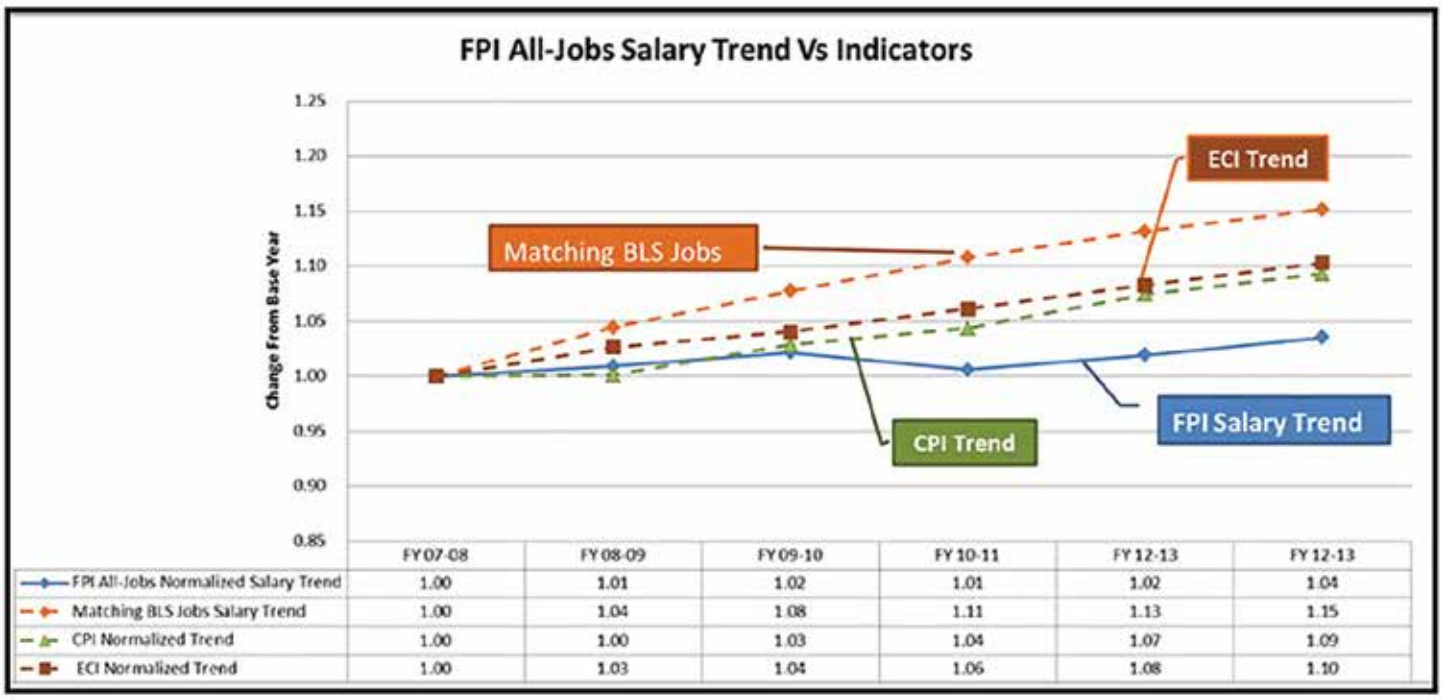
	FY 07-08		FY 12-13		
Energy/Utilities	No of Employees	Avg Salary	No of Employees	Avg Salary	Salary Chg
Director of Utilities	48.2	$92,128	44.7	$96,197	1.04
Utilities Supervisor/Mgr	183.8	$64,167	167.8	$66,458	1.04
Energy Engineer/ Mgr	84.1	$68,769	77.5	$72,752	1.06
HVAC Controls Tech	430.6	$50,021	204.8	$52,612	1.05
Utilities Operator/ Maint	1,205.2	$46,221	919.5	$49,857	1.08
Other Enrgy/ Util Positions	155.0	$51,624	158.2	$48,074	0.93

Figure 2: FPI Job Group—Normalized Salary Trend



	FY 07-08	FY 08-09	FY 09-10	FY 10-11	FY 11-12	FY 12-13
Administration	1.00	1.00	1.03	1.04	1.06	1.09
A&E/Construction	1.00	1.04	1.05	0.97	0.97	1.01
Custodial	1.00	1.00	1.02	1.03	1.04	1.05
Landscape/Grounds	1.00	1.00	1.02	1.03	1.02	1.06
Maintenance Group 1	1.00	1.00	1.03	1.03	1.05	1.04
Maintenance Group 2	1.00	1.04	1.07	1.05	1.04	1.08
Energy/Utilities	1.00	1.09	1.13	1.02	1.05	1.07

Figure 3: FPI All—Jobs Trend vs. Indicators



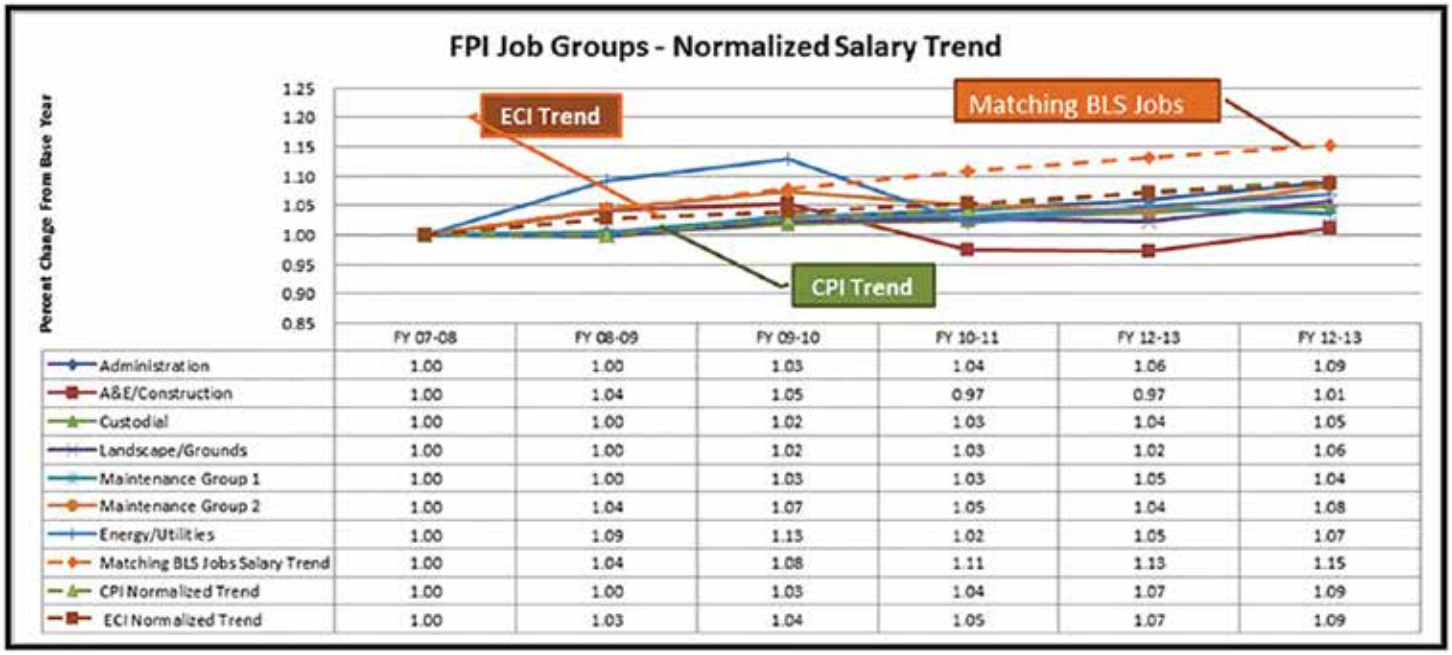
	FY 07-08	FY 08-09	FY 09-10	FY 10-11	FY 12-13	FY 12-13
FPI All-Jobs Normalized Salary Trend	1.00	1.01	1.02	1.01	1.02	1.04
Matching BLS Jobs Salary Trend	1.00	1.04	1.08	1.11	1.13	1.15
CPI Normalized Trend	1.00	1.00	1.03	1.04	1.07	1.09
ECI Normalized Trend	1.00	1.03	1.04	1.06	1.08	1.10

By normalizing this composite trend data we are now able to compare the result with the *CPI* and the *ECI* and other normalized indicators. We also used the BLS *May 2012 National Occupational Employment and Wage Estimates*[5] and identified 93 jobs with similar job title as those in the FPI survey. We created a composite normalized trend line for what we will refer to as *Matching BLS Jobs*.

By comparing the FPI trend lines with the *Matching BLS Jobs* trend lines, we can draw general conclusions about how FPI participants salary trend compare with national trends for matching jobs. As shown in Figure 3, we now have normalized trend lines for three indicators that we can overlay over any of our own data to see how we compare.

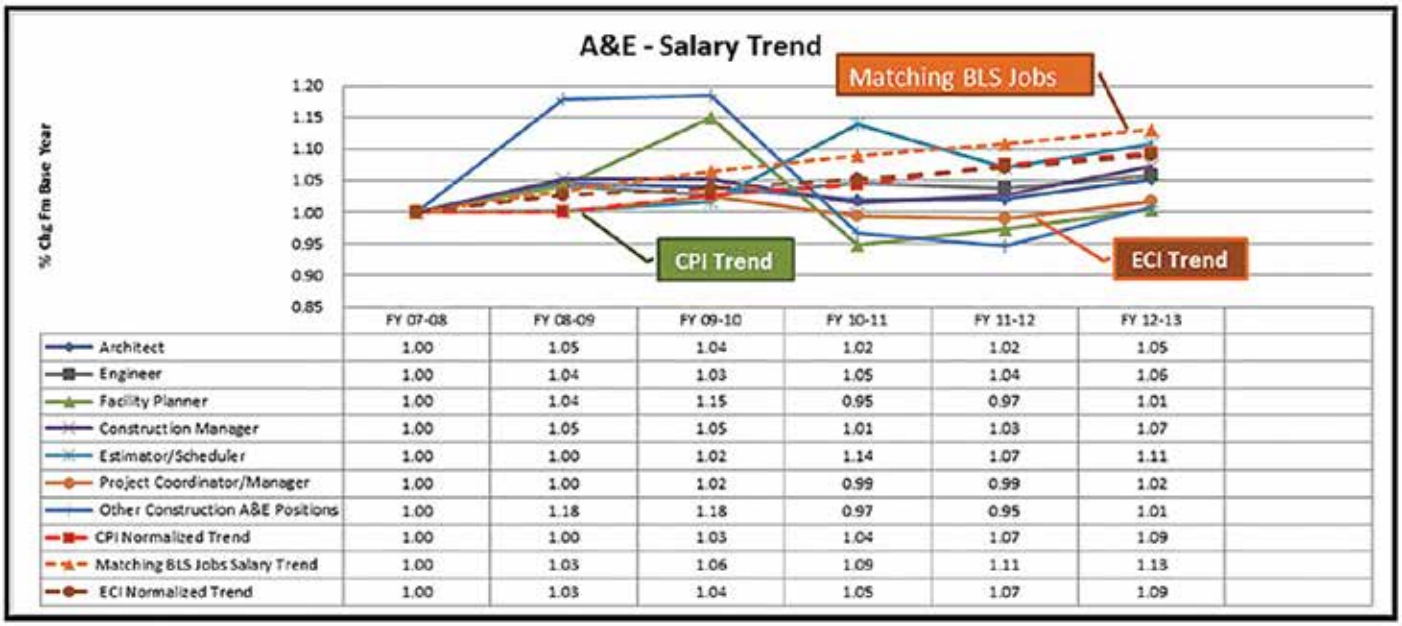
A closer look at Figure 3 reveals that the composite salary

Figure 4: FPI Job Groups vs. Indicators



	FY 07-08	FY 08-09	FY 09-10	FY 10-11	FY 12-13	FY 12-13
Administration	1.00	1.00	1.03	1.04	1.06	1.09
A&E/Construction	1.00	1.04	1.05	0.97	0.97	1.01
Custodial	1.00	1.00	1.02	1.03	1.04	1.05
Landscape/Grounds	1.00	1.00	1.02	1.03	1.02	1.06
Maintenance Group 1	1.00	1.00	1.03	1.03	1.05	1.04
Maintenance Group 2	1.00	1.04	1.07	1.05	1.04	1.08
Energy/Utilities	1.00	1.09	1.13	1.02	1.05	1.07
Matching BLS Jobs Salary Trend	1.00	1.04	1.08	1.11	1.13	1.15
CPI Normalized Trend	1.00	1.00	1.03	1.04	1.07	1.09
ECI Normalized Trend	1.00	1.03	1.04	1.05	1.07	1.09

Figure 5: A&E Jobs vs. Indicators



	FY 07-08	FY 08-09	FY 09-10	FY 10-11	FY 11-12	FY 12-13
Architect	1.00	1.05	1.04	1.02	1.02	1.05
Engineer	1.00	1.04	1.03	1.05	1.04	1.06
Facility Planner	1.00	1.04	1.15	0.95	0.97	1.01
Construction Manager	1.00	1.05	1.05	1.01	1.03	1.07
Estimator/Scheduler	1.00	1.00	1.02	1.14	1.07	1.11
Project Coordinator/Manager	1.00	1.00	1.02	0.99	0.99	1.02
Other Construction A&E Positions	1.00	1.18	1.18	0.97	0.95	1.01
CPI Normalized Trend	1.00	1.00	1.03	1.04	1.07	1.09
Matching BLS Jobs Salary Trend	1.00	1.03	1.06	1.09	1.11	1.13
ECI Normalized Trend	1.00	1.03	1.04	1.05	1.07	1.09

trend for all FPI jobs fails to keep pace with the CPI, the ECI, and the 93 *Matching BLS Jobs*. The salary spent per FTE for the 52 FPI jobs is only 4 percent higher in FY 12-13 compared to FY 07-08, while the CPI is 9 percent higher, the ECI is 10 percent higher, and the trend for the *Matching BLS Jobs* is 15 percent higher.

It should be understood that Figure 2 and Figure 3 are general comparisons made at the very highest level against composite data and therefore should not be used to draw firm conclusions.

However, they can be used as indicators of areas suggesting further "drill down" or additional analysis. For example, Figure 4 overlays the three indicators over the graph from Figure 2, thus drilling down one level to the job group level. This allows

Process Overview

Starting with six years of salary data from the files downloaded from the FPI report on the APPA website, we also downloaded the employee cost index, consumer price index, and occupational employment and wage data files from the Bureau of Labor Statistics website. We built an Excel data model integrating the data from all those sources. Then, using the same method used by BLS, we created composite indicators to represent groups of jobs.

We normalized the data against the FY 07-08 base year for data compatibility and "apple-to-apple" comparisons. In addition to comparing current average salaries we also reviewed salary trends and compared them with trend for three external salary related indicators.

observations similar to the ones we made above regarding the FPI All-Jobs trend to be made about each job group.

While the comparisons in Figure 4 are one level less general than those in Figure 3, further drill down is still needed in order to make firm judgments about individual jobs.

We can't drill down for each of the 52 FPI jobs in this article. So, for the purpose of illustration, we drilled down for the A&E/Construction group to determine what is contributing to the composite trend in Figure 4. The trend lines for each job in the A&E group are shown in Figure 5.

As can be seen, the other Construction A&E positions and the Facility Planner jobs trend up for FY 08-09 and FY 09-10 but take a sharp downward turn and ends in FY 12-13 below all other jobs and all three indicators. *Note*: The *Matching BLS jobs* are a subset of the 93 jobs with job title similar to the FPI A&E job titles (17 of the 93 *Matching BLS jobs*).

CONCLUSION

The APPA FPI report can be customized to your organization. By applying the same methodology outlined in this article, facilities professionals can explore the jobs in their institution to aid in making decisions regarding salaries, policies, and practices.

ENDNOTES

1 Annual Operating Expenditure (AFOE): Total expenditures for activities required for ongoing, routine operations and maintenance of the campus excluding purchased utilities.
2 Department of Labor National Compensation Survey: see *http://www.bls.gov/*
3 Consumer Price Index (CPI): see *http://www.bls.gov/*
4 Employment Cost Index (ECI): see *http://www.bls.gov/*
5 May 2012 National Occupational Employment and Wage Estimates: see *http://www.bls.gov/*

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SCAN FOR MORE INFO.

All performance testing was performed December 2013 by independent agency ATS, Marietta Georgia. For calculating fuel economy and annual fuel costs, vehicles were tested with driver plus cargo — 650 lb (294.8 kg) total weight — on rolling hills. Fuel cost were based on 5000 miles per year, and fuel cost of $3.50 per gallon. For hill climb speed, vehicles were tested with driver plus cargo 1200 lb (544.3 kg) on a 15-17% grade. Go to www.clubcardealer.com/hardworkinghero for competition data. Your results may vary.

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