



# Salary Trends in Facilities Management

# A Dozen Frontline Jobs

*Eight-Year Salary Trend*

This is the third annual article to be published in *Facilities Manager* addressing salary analysis for facilities management 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) Annual Compensation Survey, the national *Consumer Price Index (CPI)*, and the national *Employment Cost Index (ECI)* to perform trend analysis on the health of your facilities management 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 in this series, “Salary Trends in Facilities Management: Senior Leadership” (*Facilities Manager*, July/August 2015), 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. These figures are posted on the APPA website at <http://www.appa.org/documents/SalaryReportFigureswithText.pdf>, and the second article is found at <http://www.appa.org/files/FMArticles/38-45.pdf>.

In this article I will drill down into the personnel salary data of the FPI Report and focus on a dozen frontline jobs that represent the direct labor full-time equivalents (FTEs) reported on most often and in the most quantity. By “frontline jobs,” I mean jobs in which people perform the main function of the facilities management organization, such as trades and service workers. These are the wrench-turning, floor-sweeping, mower-pushing, oil-changing, belt-tightening, hammer-swinging, in-the-ditch, getting-your-hands-dirty jobs, without which the facilities management world as we know it would cease to exist.

With the current national debate on the minimum wage, the lack of raises for most U.S. workers over the last several years, and the discussions and frustrations regarding pay disparity between the average worker and executives, it should not be surprising that salary is likely in the forefront of the minds of our frontline workers. Though limited salary budgets make it difficult to address salary concerns, reliable and accessible salary data and trend analysis can help facilities management professionals seize and/or create opportunities that otherwise might be missed.

I hope this article will add to the facilities management professional’s ability to address salary concerns and issues from a data analysis perspective. In the interest of space, I will minimize description of methods, procedures, and definitions that have already been included in the first and second articles.

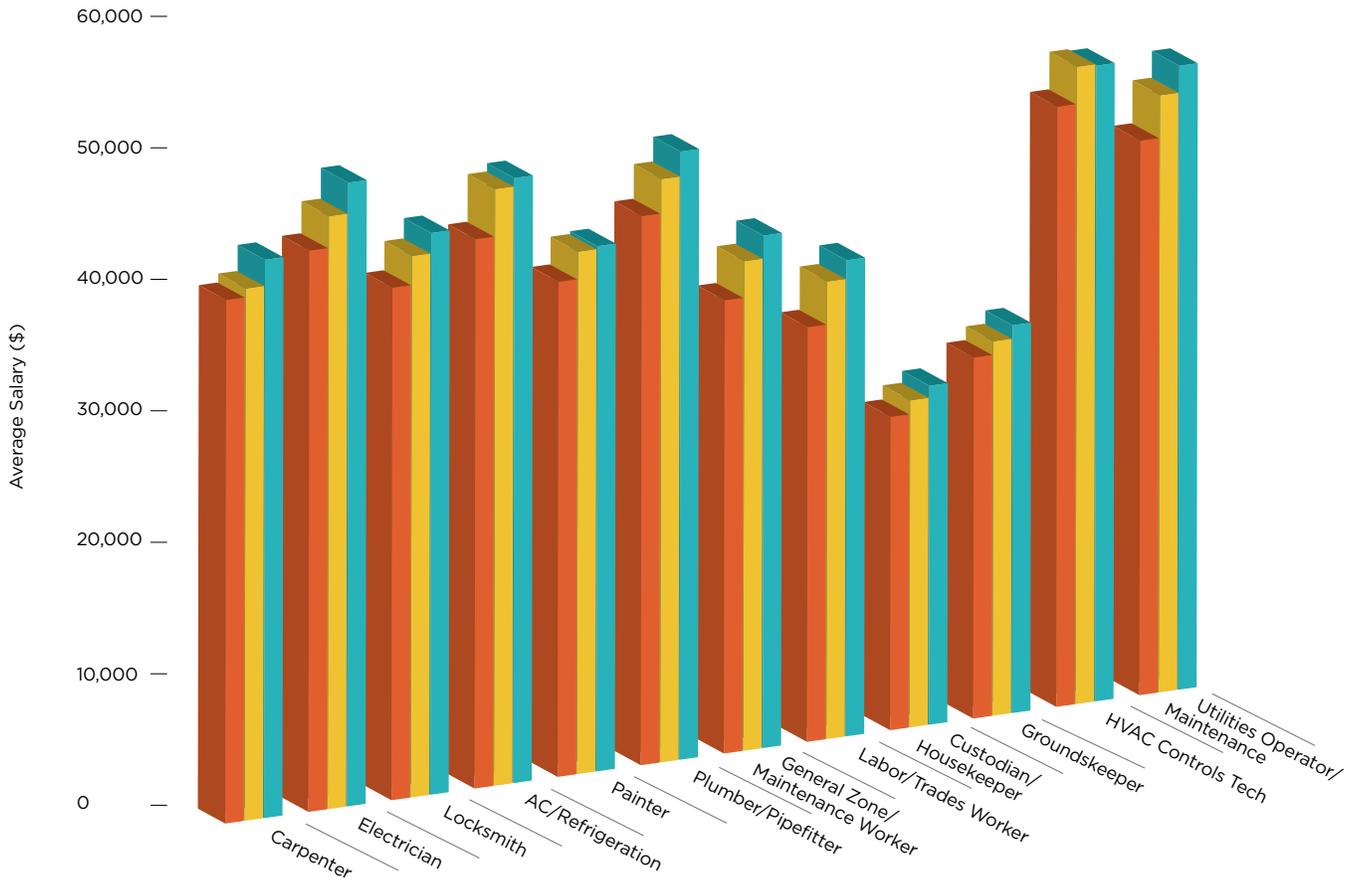
#### A SNAPSHOT OF THE FRONTLINE JOBS

Let’s get started with our look at frontline jobs. We first built a data model that downloads salary and FTE data from the FPI Report, starting with FY 07-08 as our base year. We looked at a snapshot of the most recent year compared to the base year to see how much change had taken place in average salaries.

In the second article we took the same snapshot of the most recent year, but also retained the previous year’s snapshot comparing the most recent two years of data with the base year. Thus here we are comparing the most recent two years of data with the base year for frontline jobs only, as shown in Figure 1. You can also compare the most recent two years with each other to get a feel for the most recent salary changes.

To understand how to interpret Figure 1, let’s compare the FY 13-14 and FY 14-15 average salary with the base year to gauge how much the average salary changed for the 12 jobs listed as

**Figure 1: Salary Change Comparison for 12 Frontline Jobs**



FPI Frontline Workers	FY 07-08		FY 13-14			FY 14-15		
	No of FTEs	Avg Salary	No of FTEs	Avg Salary	Salary Change	No of FTEs	Avg Salary	Salary Change
A	B	C	D	E	F	G	H	I
Carpenter	870	\$43,644	521	\$44,381	1.02	508	\$46,554	1.07
Electrician	1,496	\$46,780	904	\$49,436	1.06	790	\$52,001	1.11
Locksmith	357	\$42,722	224	\$45,148	1.06	225	\$46,832	1.10
AC/Refrigeration	1,234	\$45,795	838	\$49,756	1.09	759	\$50,438	1.10
Painter	642	\$41,267	405	\$43,564	1.06	365	\$43,788	1.06
Plumber/Pipefitter	974	\$45,764	620	\$48,645	1.06	632	\$50,701	1.11
General Zone Maintenance Worker	1,462	\$37,772	1,083	\$40,818	1.08	1,138	\$42,724	1.13
Labor/Trades Worker	540	\$34,565	294	\$38,158	1.10	343	\$39,692	1.15
Custodian/Housekeeper	12,475	\$26,113	11,268	\$27,276	1.04	9,645	\$28,256	1.08
Groundskeeper	2,151	\$30,088	1,739	\$31,225	1.04	1,728	\$32,326	1.07
HVAC Controls Tech	431	\$50,021	216	\$53,142	1.06	262	\$52,996	1.06
Utilities Operator/Maint	1,205	\$46,221	887	\$49,793	1.08	915	\$52,018	1.13
<b>Total &amp; Weighted Average per FTE</b>	<b>23,837</b>	<b>\$33,243</b>	<b>18,999</b>	<b>\$33,694</b>	<b>1.01</b>	<b>17,311</b>	<b>\$35,453</b>	<b>1.07</b>

compared to the base year. The "Salary Chg %" column indicates how much more or less the FY 13-14 and FY 14-15 reported average salary changed compared to FY 07-08. For example, for "Carpenter," the FY 13-14 average salary is 2 percent more than FY 07-08, and the FY 14-15 average salary is 7 percent more than FY 07-08. You can conclude that for "Carpenter," the reported average salary is only 7 percent higher than it was eight year before the most recent report.

Since the FPI Report has a different number of participants each year, the number of data points will also vary. Columns B, D, and G of Figure 1 show the number of FTEs reported on that generated the reported average salary. As can be seen for "Carpenter," the FY 07-08 average is based on 870 FTEs, FY 13-14 is based on 521 FTEs, and FY 14-15 is based on 508 FTEs.

Now for an explanation of the last line in the Figure 1 chart. Borrowing a technique used by the BLS to compute the Employment Cost Index (ECI), we create a composite representation of the 12 frontline jobs by weighting the reported average salaries by the reported FTEs. This provides us with a composite or weighted average per FTE for the three years in Figure 1. So if we want to draw a conclusion about the weighted average salary per FTE for the 12 frontline jobs as a composite group, we can conclude that the most recent year is coincidentally 7 percent higher than it was eight years prior. The weighted average salary value can sometime be confusing, but it will be useful when conducting composite trend analysis (to be discussed later in this article).

Probably the most relevant use for Figure 1 is for you to compare your current frontline workers' average salaries with those in the table and see where you fall. This may give you an indication of where you should dig deeper into the FPI data and your own historical salary data. As always, you must keep in mind that the averages in Figure 1 for all FPI survey participants include Canadian participants and all APPA regions, and do not include fringe benefits. Firm conclusions always require drilling down deeper into the data and ensuring that you are including only subsets relevant to your own local situation.

### SALARY TRENDS IN 12 FRONTLINE FM JOBS

Rather than repeat the preamble to trend analysis, I would refer you to the first and second article so we can get directly to trend analysis for the 12 frontline jobs. Figure 2 depicts salary trends

for the 12 most common FPI frontline job titles as reported in the FPI Report for the last eight years. A quick glance will reveal that the reported average salary for each frontline job title is relatively flat over the eight-year period, with all average salaries only slightly higher than they were eight years prior.

You might find some interesting indicators in creating a similar chart from your historical salary data for your frontline workers. It's possible that some positions have unintentionally fared worse than others, prompting you to make adjustments in pay scales to promote pay equity and avoid adverse impacts on employee retention.

The data in Figure 2 provides insight into average salary trends for frontline job titles as reflected in the FPI report. However, let's see how the trends compare with the *Consumer Price Index*<sup>1</sup> and the *Employment Cost Index*<sup>2</sup>. The CPI tracks an element of the cost of living, and the ECI tracks the cost to employers of one hour of labor, thereby representing salary trends for the United States' entire workforce. By normalizing the CPI, ECI, and the APPA FPI data using FY 07-08 as the base year, we are able to compare the frontline job title salary trends with these two national economic indicators. In other words, we are analyzing the change in eight years compared to the base year of FY 07-08. These normalized results are displayed in Figure 3.

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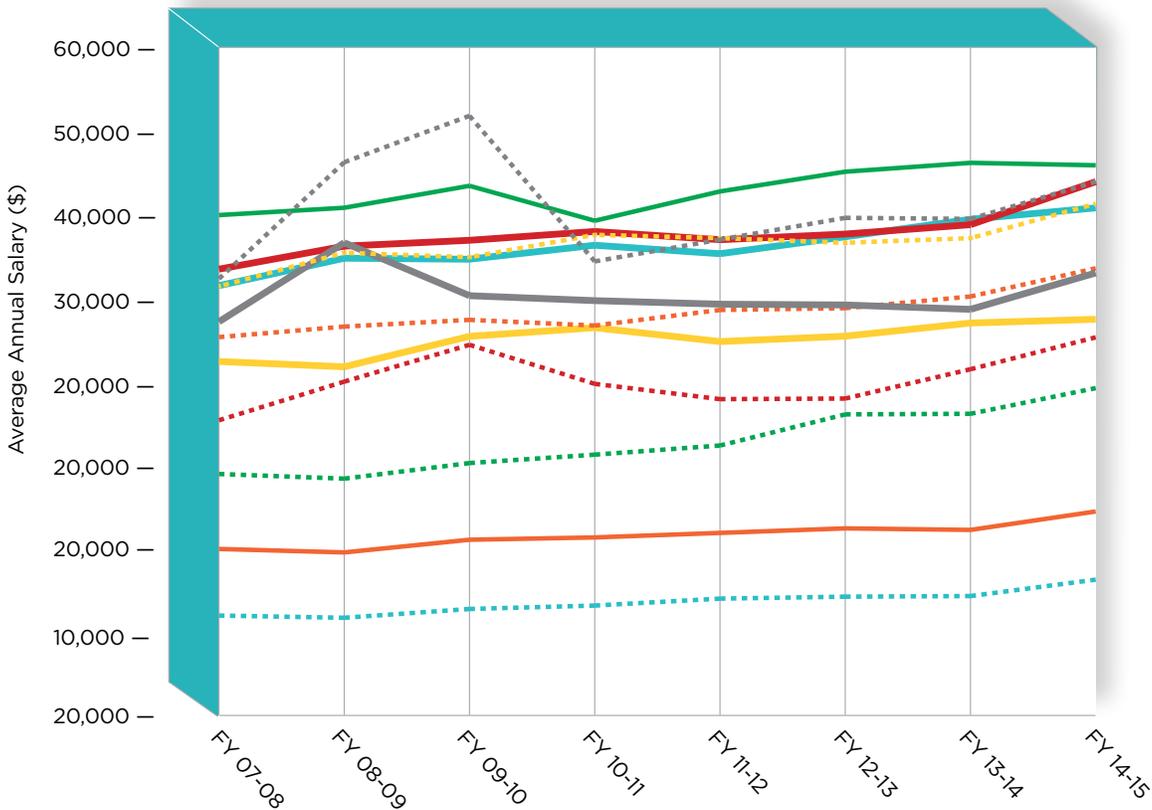
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**Figure 2: FPI Frontline Jobs—Eight-Year Average Salary Trend**

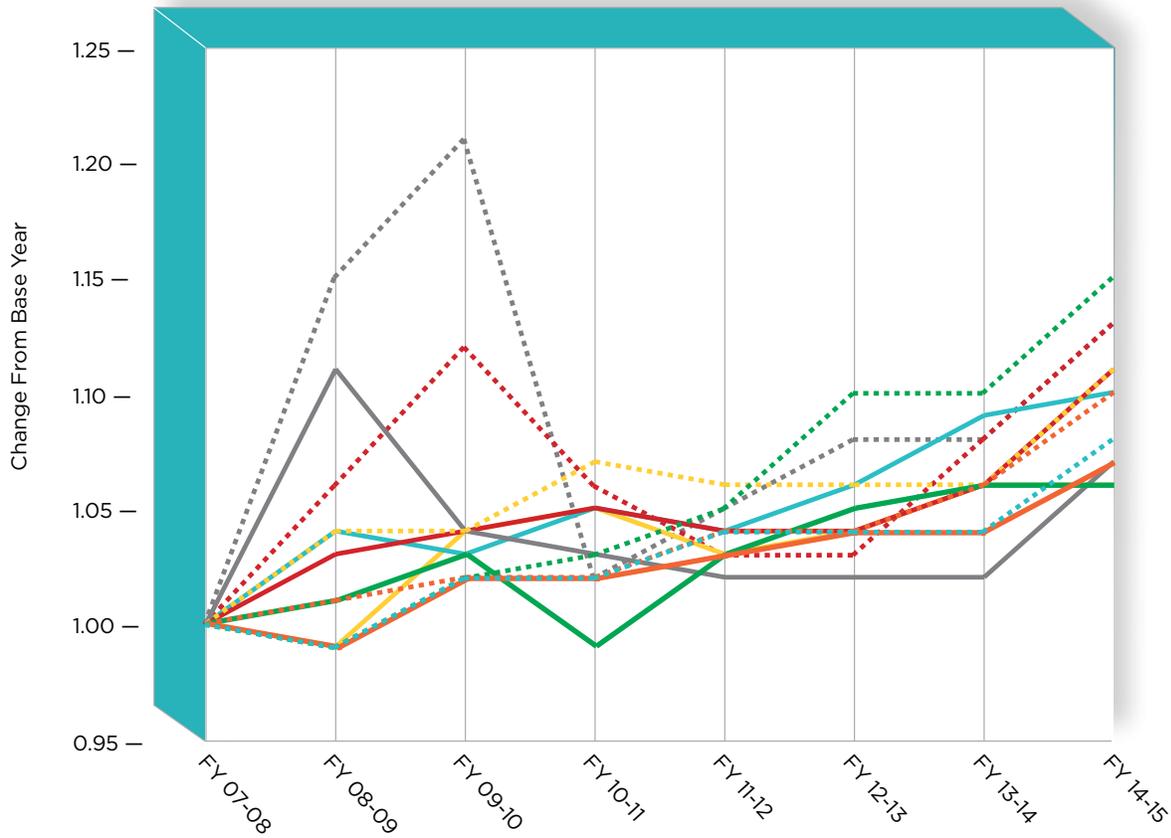


	FY 07-08	FY 08-09	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15
Carpenter	\$43,644	\$48,359	\$45,196	\$44,900	\$44,689	\$44,643	\$44,381	\$46,554
Electrician	\$46,780	\$48,153	\$48,503	\$49,030	\$48,538	\$48,875	\$49,436	\$52,001
Locksmith	\$42,722	\$43,351	\$43,753	\$43,413	\$44,344	\$44,451	\$45,148	\$46,832
AC/Refrigeration	\$45,795	\$47,433	\$47,373	\$48,208	\$47,701	\$48,713	\$49,756	\$50,438
Painter	\$41,267	\$40,950	\$42,769	\$43,286	\$42,456	\$42,779	\$43,564	\$43,788
Plumber/Pipefitter	\$45,764	\$47,773	\$47,508	\$48,842	\$48,646	\$48,367	\$48,645	\$50,701
General Zone Maintenance Worker	\$37,772	\$40,078	\$42,277	\$39,945	\$39,033	\$39,068	\$40,818	\$42,724
Labor/Trades Worker	\$34,565	\$34,286	\$35,217	\$35,719	\$36,265	\$38,123	\$38,158	\$39,692
Custodian/Housekeeper	\$26,113	\$25,980	\$26,505	\$26,709	\$27,123	\$27,240	\$27,276	\$28,256
Groundskeeper	\$30,088	\$29,882	\$30,638	\$30,776	\$31,046	\$31,318	\$31,225	\$32,326
HVAC Controls Tech	\$50,021	\$50,459	\$51,769	\$49,684	\$51,434	\$52,612	\$53,142	\$52,996
Utilities Operator/Maint	\$46,221	\$53,176	\$55,948	\$47,257	\$48,559	\$49,857	\$49,793	\$52,018

The normalized view provided by Figure 3 is more effective in displaying the slight increases and decreases in average salary over the eight-year period for each of the frontline job titles. The tan and blue lines denoted in the graph represent the normalized CPI and ECI. The CPI and the ECI have had a steady mild growth rate for the eight years analyzed, with the normalized

CPI climbing 13 percent and the normalized ECI climbing to 16 percent over their FY 07-08 value. A generalized conclusion from this observation might be that an aspect of the cost of living is 13 percent more than it was eight years prior, while the nation's workers in aggregate are making 16 percent more than they were eight years ago.

**Figure 3: FPI Frontline Jobs—Normalized Salary Trend (Base Year = FY 07-08)**



	FY 07-08	FY 08-09	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15
Carpenter	1.00	1.11	1.04	1.03	1.02	1.02	1.02	1.07
Electrician	1.00	1.03	1.04	1.05	1.04	1.04	1.06	1.11
Locksmith	1.00	1.01	1.02	1.02	1.04	1.04	1.06	1.10
AC/Refrigeration	1.00	1.04	1.03	1.05	1.04	1.06	1.09	1.10
Painter	1.00	0.99	1.04	1.05	1.03	1.04	1.06	1.06
Plumber/Pipefitter	1.00	1.04	1.04	1.07	1.06	1.06	1.06	1.11
General Zone Maintenance Worker	1.00	1.06	1.12	1.06	1.03	1.03	1.08	1.13
Labor/Trades Worker	1.00	0.99	1.02	1.03	1.05	1.10	1.10	1.15
Custodian/Housekeeper	1.00	0.99	1.02	1.02	1.04	1.04	1.04	1.08
Groundskeeper	1.00	0.99	1.02	1.02	1.03	1.04	1.04	1.07
HVAC Controls Tech	1.00	1.01	1.03	0.99	1.03	1.05	1.06	1.06
Utilities Operator/Maint	1.00	1.15	1.21	1.02	1.05	1.08	1.08	1.13

In theory, one might say that after factoring in the cost of living represented by the CPI, the nation's workers as a whole have only received a net 3 percent raise in an eight-year period. However, the average salaries for all frontline jobs lagged behind the ECI. Only two frontline jobs (General Zone Maintenance Worker and Utilities Operator/Maint) kept pace with the CPI, and only one (Labor/Trades Worker) exceeded it, but only by 2 percent—all other frontline jobs lagged behind the CPI. Thus another generalized conclusion might be that over an eight-year period, the salary growth of the 12 frontline facilities management jobs failed to keep pace with the mild salary growth of the rest of our nation's workers, and for the most part failed to keep pace with the cost of living. One could conclude that the frontline workers as a group have taken a theoretical pay cut over the eight-year period.

In order to further illustrate how the frontline jobs have fared as a composite group, we computed the weighted salary averages as weighted by the reported FTEs for each frontline job for each of the eight years. We normalized the results against the base year to create the FPI Frontline Jobs Composite Salary Trend values in the same manner as we did for all 52 FPI jobs to create the FPI All-Jobs Composite Salary Trend values. We compared these values to the CPI Normalized Trend values and the ECI Normalized Trend values as displayed in Figure 4.

Comparing the FPI Frontline Jobs Composite Trend with the FPI All-Jobs Composite Salary Trend, you can conclude that the frontline jobs have fared no better or no worse than the composite of the 52 FPI jobs, since the trend lines follow almost the exact pattern. They both end up 7 percent above the base year and below the 13 percent normalized CPI as well as below the 16 percent normalized ECI.

Unfortunately, this leads to the conclusion that while the nation's workers as a whole have received a modest net 3 percent raise during the eight-year period studied, the facilities management frontline workers reported on in the FPI have actually received a net 4 percent *pay cut* when comparing salary growth to the CPI.

## CONCLUSION

Having analyzed salary trends for the third time in this latest article, it is clear to me that budget pressures and general economic conditions have suppressed salary growth as reported by institutions participating in the FPI Report over an eight-year period. The scarcity of funding for salaries to keep pace with inflation makes it even more critical for facilities professionals to gain detailed knowledge about their facilities management or-

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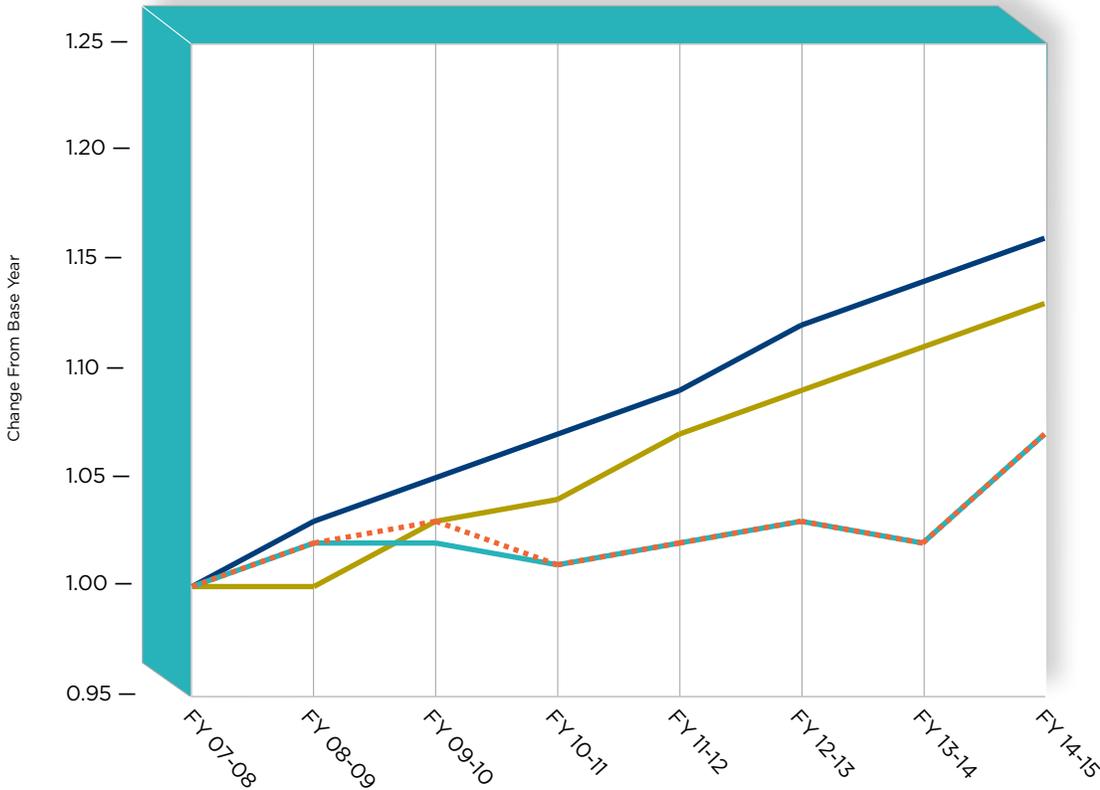
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**Figure 4: FPI Frontline Jobs—Composite Salary Trend (Base Year = FY 07-08)**



	FY 07-08	FY 08-09	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15
FPI Frontline Jobs Composite Salary Trend	1.00	1.02	1.03	1.01	1.02	1.03	1.02	1.07
FPI All-Jobs Composite Salary Trend	1.00	1.02	1.02	1.01	1.02	1.03	1.02	1.07
CPI Normalized Trend	1.00	1.00	1.03	1.04	1.07	1.09	1.11	1.13
ECI Normalized Trend	1.00	1.03	1.05	1.07	1.09	1.12	1.14	1.16

ganization’s salary and compensation program. Such knowledge would improve the chances that whatever scarce salary funding is available would be deployed in an effective and balanced manner throughout the workforce.

**Consumer Price Index (CPI):** see [www.usinflationcalculator.com/inflation/consumer-price-index-and-annual-percent-changes-from-1913-to-2008/](http://www.usinflationcalculator.com/inflation/consumer-price-index-and-annual-percent-changes-from-1913-to-2008/)

**Employment Cost Index (ECI):** see [www.bls.gov/web/eci/echistrynaics.pdf](http://www.bls.gov/web/eci/echistrynaics.pdf)

Additionally, these analyses reinforce the notion that facilities management professionals cannot rely on pay alone to attract and retain a high-quality workforce. While every effort should be made to continue to improve the pay of our invaluable facilities management workers, effort must also be made to ensure facilities management workers are working in a high-quality environment where employees are truly valued and respected, as demonstrated by innovative and positive programs, policies, and practices that offer value to the employee and to the organization. ☎

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