Correlating Facilities Impact Study with FPI Data

by Gary L. Reynolds

In promoting leadership in educational facilities, APPA has conducted surveys of its members to provide benchmark data for comparative purposes. A biennial survey, *Comparative Costs and Staffing Report,* was the mainstay of APPA's survey efforts for many years and included basic data on costs per square foot for custodial, maintenance, utilities, etc. More recently, APPA recognized that additional measures are important to provide a strategic picture of institutional facilities. Thus, over the past several years APPA made changes to the survey instrument with strong influences on the redesign coming from the Strategic Assessment Model (SAM) and the Balanced Scorecard.

The redesigned survey, *Facilities Performance Indicators* (FPI), now includes Facilities Operating Expenses (FOE), Current Replacement Value (CRV) of facilities, and General Institution Expense (GIE), as well as the usual costs for custodial, maintenance, and utilities.

Findings from the recent CFaR project on the Impact of Facilities on the Recruitment and Retention of Students came from survey results of more than 16,000 students from 46 institutions across the U.S. and Canada. Of those 46 institutions, eight of the schools also participated in APPA's FPI survey. Thus, there is an opportunity to explore correlations between student responses and financial measures.

Seven measures from the FPI (data from FY05-06) include custodial, maintenance, and total costs per gross

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square foot (GSF) as well as normalized ratios such as FOE/CRV, FOE/GSF and FOE/GIE. From the student survey (completed in Spring 2005) there were several questions asking for student satisfaction such as, "Overall, how satisfied are you with the quality of the facilities on your college campus?", "How would you rate the quality of maintenance of your college/university?" and "How would you describe your overall feelings about your college or university?"

The data was prepared by taking the average of all the student responses for each of the eight schools for each of the three questions noted above. The data was then combined with the FPI data in a common SPSS database (the

same data analysis software used for previously reported results). A number of multiple linear regression models were run with various dependent (student responses) and independent (FPI data) relationships. Of all the analysis completed, a student's perception of the *quality of maintenance* is the most strongly correlated to FPI data, with the strongest relationship to the two ratios of FOE/GSF and FOE/GIE and with a weaker correlation to FOE/CRV.

Research shows that students are evaluating an institution, in part, on their perceptions of the quality of the maintenance at the college or university they are considering. The results also showed that approximately 1 in 6 students rejected an institution if they perceived that the institution was poorly maintained. This follow-up research (admittedly based on a small sample size) shows that there is a positive statistical correlation between students' perception of the quality of maintenance and the facilities operations expenditures per gross square foot (FOE/GSF).

The sum of these two pieces of research indicates that an institution's operation and maintenance expenditures have a direct and strong statistical correlation with the ability of an institution to recruit students. ▪

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