

FACILITIES PERFORMANCE INDICATORS

FROM THE FACILITIES CORE DATA SURVEY

by Laura T. Long

Data module that contains all of the usual overview questions about survey contacts and campus statistics. Once completed, it is used for all APPA surveys that are offered during that fiscal year.

After the General Data module is completed, the user can choose to participate in any number of survey modules in any sequence. There is the tried-and-true Operating Costs survey module that our facilities managers rely upon for gross operational measurements as well as the popular Personnel Data



and Costs survey module showing comparative salary and staffing information. Professionals interested in the more strategic planning measures can select the Strategic Financial Measures module and find out how their campus measures up in its maintenance of the campus physical assets.

Managers looking to benchmark their business practices can complete the Internal Processes, Innovation & Learning, and Customer Satisfaction survey modules along with the performance management self-evaluations. There is also a module for recording recommendations about the APPA Facilities Core Data Survey website.

Perhaps the biggest innovation on the Core Data survey website is its new instant report capability. Upon marking certain modules as "completed," the user is offered a preliminary

APPA's new Facilities Core Data Survey had its debut in early 2005. The stimulating APPA survey website presented more options and tools than APPA has offered in the past and the reports being constructed from the new database have a fresh approach on how the information is displayed as well as offer new ranks of information.

APPA staff and the Information and Research Committee members were pleased (and relieved) when users encountered very few program problems for the first-time shakedown of the new survey site. However, one problem surfaced as a result of the new APPA institutional ID number assignments. The handshake between historical entry data and the user failed in about half of the cases but this will be fixed before the next round of Core Data surveying starts this fall.

A total of 203 institutions tested our new survey, which encompasses 12 data modules. The first of these is General

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report on their own data. For instance, when the Operating Costs module is marked completed, the user can print out a report showing their operating costs per gross square foot for Administration, Construction, Custodial Services, and other functional areas. There are a number of these reports, including one that computes a rough hourly rate for facilities functions based on the operating costs and FTE (full-time equivalent) staffing recorded in various survey modules.

These instant reports serve two purposes. The first is to give feedback to the persons entering data in a format that quickly shows questionable entries that might need to be corrected. For instance, the GSF and operating costs data points might look reasonable, but a cost/GSF may signal a problem that couldn't be seen by just looking at the data points. So, the first purpose is to allow the user to evaluate their information and give them an opportunity to make necessary corrections. The second purpose is to provide preliminary measurements that the facilities professional can use while waiting for the APPA finalized Core Data reports.

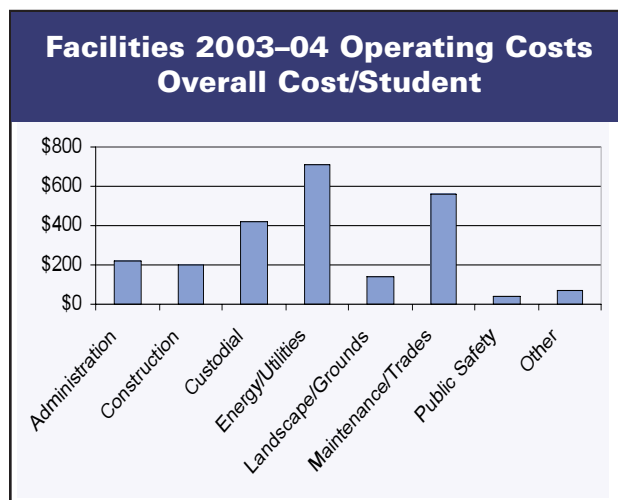
This year's participants from the United States, Canada, and one Australian campus are 10 two-year colleges, 35 four-year universities offering up to a Baccalaureate degree, 40 universities at the Master's level, 22 universities that have a limited number of Ph.D. programs, 56 universities with full Ph.D. and research programs, 12 campuses with specialized programs, and 28 K-12 schools, many of which are private.

The Information and Research Committee members were delighted to have this varied mix of schools contributing statistical information to our membership. In addition to the many APPA member institutions that participated, we thank the staff and members of the Canadian Association of University Business Officers, the National Association of College and University Business Officers, and the National Business Officers Association for their support and marketing of the survey to a broader cross-section of educational institutions.

The survey reports (to be published in August as *Facilities Performance Indicators*) are not completed yet at press time, but we can share a few glimpses of what the information will show you. It will come as no surprise that operating costs have incrementally increased between 2002 and 2004. No

doubt there are a number of underlying causes of upward cost trends. One factor—labor costs—is demonstrated in the average salary historic bar charts. The chart below on Administrative salaries over the last ten years illustrates a consistent upward trend.

While we can't report on all the survey results in this short article, we would like to explore a new view of operating costs. One perspective that hasn't been explored by our APPA reports is how the cost of facilities operations relates to the campus student population. We understand that this is a "gross" measurement that doesn't filter out costs attributable to programs other than teaching. First we take a glimpse of the overall Core Data statistics reflecting the total survey population of K-12 schools through Doctoral/Research Extensive universities:

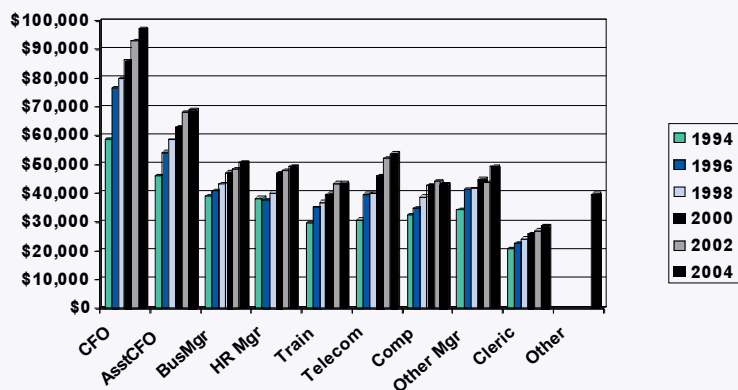


Facilities 2003-04 Operating Costs

	Overall Cost/ Student	Percent
Administration	\$ 218	9.2%
Construction	\$ 203	8.6%
Custodial	\$ 420	17.8%
Energy/Utilities	\$ 712	30.1%
Landscape/Grounds	\$ 144	6.1%
Maintenance/Trades	\$ 558	23.6%
Public Safety	\$ 41	1.7%
Other	\$ 67	2.8%
Total	\$2,363	100.0%

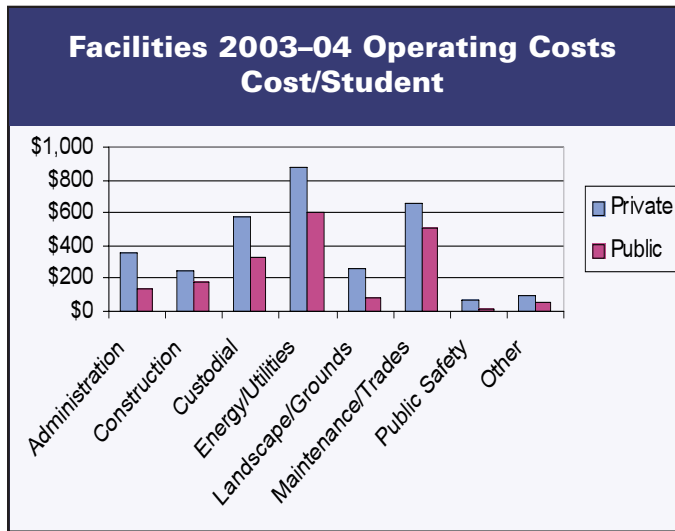
It might be surprising to realize that if all the facilities costs were to be burdened on students, the overall average cost would be \$2,363/year. One-third of that goes for heating/cooling buildings, providing water, electricity, and other energy/utilities functions. Nearly a quarter of the expense is incurred in maintenance and 17 percent in custodial services. The remaining 30 percent of costs is divided among facilities

Average Annual Salaries Administration



administration, managing the construction program, landscaping and grounds maintenance, public safety, and other tasks.

Here is a view of facilities costs/student between private and public institutions:

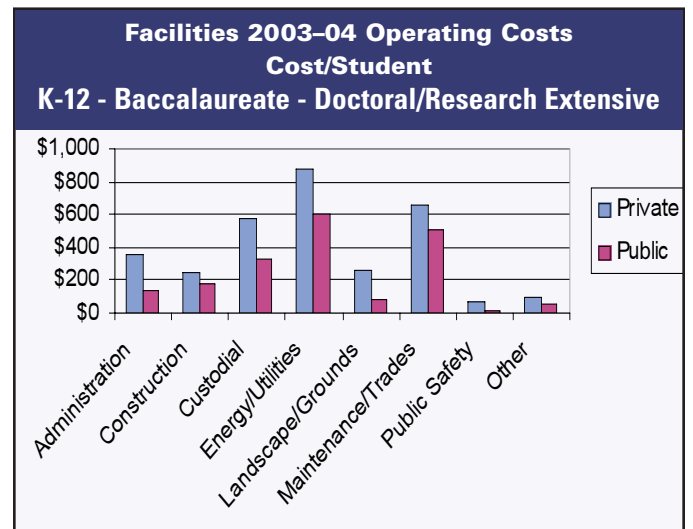


Facilities 2003-04 Operating Costs

	Private	Public
Administration	\$ 354	\$ 134
Construction	\$ 249	\$ 180
Custodial	\$ 575	\$ 328
Energy/Utilities	\$ 881	\$ 601
Landscape/Grounds	\$ 257	\$ 76
Maintenance/Trades	\$ 656	\$ 501
Public Safety	\$ 65	\$ 20
Other	\$ 95	\$ 53
Total	\$3,132	\$1,893

Even though the private institutions have a greater reliance on student fees than public institutions, their costs are higher, not lower than the operating costs/student of public institutions. Of course the private institutions have a tradition of quality grounds and facilities and in many cases the burden of historic buildings. In this Core Data survey group, the student building use ratio of private schools is 20 percent lower than that of public institutions (442 GSF/Student for private institutions in this Core Data universe as versus 563 for public institutions). That means the private schools have a smaller base for amortizing operational costs when costs are compared to student FTE.

Here is another interesting view of this statistic:



Facilities 2003-04 Operating Costs

	K-12	Baccalaureate	Doctoral Research Extensive
Administration	\$ 590	\$ 262	\$ 88
Construction	\$ 369	\$ 179	\$ 103
Custodial	\$ 519	\$ 587	\$ 289
Energy/Utilities	\$ 816	\$ 926	\$ 769
Landscape/Grounds	\$ 360	\$ 234	\$ 81
Maintenance/Trades	\$ 742	\$ 608	\$ 336
Public Safety	\$ 195	\$ 24	\$ 31
Other	\$ 124	\$ 106	\$ 67
Total	\$ 3,715	\$ 2,926	\$ 1,764

This displays the K-12 group (28 schools, 89% of which are private), the 35 Baccalaureate colleges (74% of which are private), and 56 Doctoral/Research Extensive universities (86% of which are public). It is a snapshot of three distinct levels of educational institutions and a comparison of mostly private K-12 and Baccalaureate against mostly public Doctoral/Research Extensive schools.

The K-12s have the highest operating costs/student. Compare the administrative \$590/student cost of K-12 schools to the \$262/student average cost for Baccalaureate colleges and the \$88/student cost in Doctoral/Research universities. The fixed expenses of administration (the need to fill certain facilities management positions regardless of the size of the student population) appears probably is one of the factors of higher costs.

Management of the construction program, building maintenance, and landscaping/grounds maintenance also show a stepped cost pattern. The exception to this pattern is where

Baccalaureate colleges have higher custodial costs/student than those of K-12.

It is interesting to see that energy/utilities operating costs/student are about equal among the three categories of educational institutions. We will watch this statistic in future years to see if a more of differentiation is shown.

Core Data Reports/*Facilities Performance Indicators*

The Core Data reports are being put together as this article is being written. The CD will knock your socks off! It gives the participants that agreed to share their identity a wonderful tool for comparing their information with those of other participants and for mining out causes of differences.

The CD contains three reports; Operating Costs, Buildings & Space, and Personnel Data & Costs. There are display tables, bar charts, a text report, and downloadable files for each of these reports. The user will be able to toggle from one report to another with ease.

The CD takes a new approach to displaying Core Data information. When the new report format was being designed, the question was asked: "What does a professional need to know to evaluate statistics on their operation?" The answer was a number of things. The "need to know" was only being partially met, so the challenge was to come up with a new design that addresses a broad range of information interests. The description below uses the Maintenance function in the Operating Costs Report to illustrate new functionality found on the Core Data report CD.

- In-depth analysis will occur at a function level.
 - ❖ The reports are organized around function (Administration, Construction, Custodial Services, etc.) rather than shown as tables by a type of measurement (Cost/GSF by Funding, by Carnegie, by Enrollment Range, etc.)
- There is a strong need to compare one's campus ratios/measurements against specific schools in the study.
 - ❖ Data on any three participant campuses (that have given permission to release their identity to other participants) can be displayed at one time and the choices can be changed at will.
- It is important to see related measures to judge whether there is a consistent pattern and to evaluate the relationships among ratios/measures.
 - ❖ The user will see many operational perspectives for a function. For instance, the ratios/measurements for the maintenance function has the following string of ratios/measurements in a row:
 - Total Operating Cost/GSF
 - Labor Cost/GSF
 - % of All Functions' Operating Costs (without Purchased Utilities)
 - % of All Functions' Operating Costs (with Purchased Utilities)
 - % Total Facilities Expenditures

- Maintenance GSF/Maintenance FTE (1)
- Maintenance Cost/Student
- % Maintenance Costs are Contract Services

- Institutional performance is judged against pertinent group averages.

- ❖ The group averages for the Maintenance function measurements that can be selected are:
 - Overall (all participants)
 - Funding (public/private)
 - Carnegie Classification
 - APPA Region
 - Enrollment Range
 - Auxiliary Service Expenses Included or Excluded
 - Average Building Age Range
 - Percent of Maintenance Contracted Range

You will notice the introduction of summaries that offer new insights. For instance, if the average age of your campus buildings is 65 years, you may be interested in seeing the average maintenance costs for campuses with buildings in the age range of 50+ years old.

- There are significant data points that formed the measurements or show the story behind the figures.
 - ❖ The row of significant data points for the Maintenance function are:
 - GSF
 - In-house Labor
 - In-house Non-labor
 - Contract Costs
 - Repair & Spare Parts Costs
 - Total Operating Costs
 - Staffing FTE
 - Average Benefits %
 - Number of Campus Buildings
 - Average Age of Buildings

All three CD Reports have the same characteristics as described above, but the Personnel Data & Costs Report has unique displays so that one can view salaries, FTE, and collective bargaining representation as well as measurements and group summaries by facilities function. The CD can be a primary source of comparative cost and statistical information for facilities operations.

Join the next Facilities Core Data Survey this fall so you too can use this new, prized APPA tool. You no longer will be wondering how to answer questions about your facilities operation—the answers will be a toggle away on the *Facilities Performance Indicators* CD! 🏰