



# Charting the Future:

By William A. Daigneau

## A Research Agenda for APPA

What a dilemma! Sandwiched between the faculty and students who rely upon them to provide the best possible environment for learning, and the chief business officer whose mission is to balance limited revenues with ever increasing expenses, facilities managers' loyalties have been severely tested. On the one hand the higher education facilities executive intimately understands the critical importance of modern, well-designed and operated facilities to a quality educational experience. On the other, as responsible captains for a major expense line in every college or university's capital and operating budget, facilities managers have been challenged to continually reduce expenditures in order to free resources to support growing expenses in other areas such as student services, new technologies, or regulatory compliance.

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In the late 1970s, facilities managers became alarmed over the deteriorating condition of campus facilities. In his seminal piece entitled *Crumbling Academe*, Harvey Kaiser openly questioned higher education's practice of balancing the books by under-investing in capital assets. Yet while the prescription to address this problem was self-evident (provide more funds for plant), its actual execution was nonetheless elusive. While some gains have been made over the past two decades, the problem still remains for many colleges and universities. This has led some facilities managers to the conclusion that a fundamental reexamination of higher education's administrative practice and decision-making structure is needed. Somehow the daily needs of students and faculty must be better integrated with the longer-term issues of providing the space needed to conduct the educational process.

With the encouragement of Gary Reynolds, APPA's vice president for educational programs, an effort was initiated to find ways to gather the information and tools necessary to help APPA and its members assume a more effective leadership role in higher education. Led by Doug Christensen of Brigham Young University and myself, APPA's Task Force on Leadership Programs undertook a work session in April 1997 to explore the future of higher education and the leadership



role that facilities managers should play in that future. A group of senior facilities managers, higher education administrators, and industry representatives met and identified several driving forces that would most likely shape higher education's future. The product of that work session was detailed in a September/October 1997 article in *Facilities Manager* magazine, "The Future of Facilities Management." The major driving forces the group identified were:

- **Information Technology.** This single issue may dramatically impact higher education in ways yet unimagined and unexpected.
- **Resource Scarcity.** Higher education will continue to compete for resource allocation amongst a host of societal needs and wants.
- **Societal Changes.** The growing diversity of national and world populations will place new demands on who and what we teach.
- **Role of Government.** Increasing oversight and involvement of government (federal, state and local) will steer higher education to address the above-mentioned changes in society.
- **Environmental Issues.** The need to extract more benefits with less waste and damage to our earthly environment will continue to grow in importance.

The Atlanta work session also identified various areas in which facilities managers themselves must become knowledgeable if they are to provide critical leadership for higher education in the future. These issues included improved knowledge and skills in Information Technology, Operational Effectiveness, Strategic Planning, Partnering, and Asset Management. In addition, facilities managers of the future must have executive level skills in order to function well as a member of an institution's executive team.

This led to a very profound but troublesome realization. While APPA's programs of the past had prepared facilities managers to function well in their traditional supportive role, APPA was not well equipped to help its members rise to a new level, that of leadership within higher education.

The Task Force subsequently determined that a new, three-prong initiative was needed. First, it proposed a revamping of APPA's programs in Executive Development and Facilities Finance into a three-session institute structure teaching skills in Personal, Organizational, and Professional Leadership. Second, it suggested development of a Fellows program to encourage and recognize facilities management leaders. And third, it determined that APPA must undertake the discovery and evaluation of new information that would lead to improved higher education management practices, particularly as they pertained to capital assets. This latter element, one of *researching* new information methods, was vital to provide facilities managers, and higher education with the information needed for innovative and improved decision-making and management.

The question then arose as to research what? To address this question, the Task Force once again convened a work group. Composed of representatives from higher education and industry, and supported by a generous grant from Nalco Chemical Company, the work group spent two days in Chicago addressing the following fundamental questions:

- What information might help higher education prepare for the impact the above forces might have over the next decade?
- What knowledge would help us improve facilities management practices?
- Which management tools or techniques, if available, would materially improve the ability of higher education to better manage or prepare their institutions for the future, as it pertains to capital assets.

In an effort to address these questions, the work group developed a more specific list of problems or issues. This list of problems/issues forms the potential research agenda for APPA over the coming years. This was the primary product from the Chicago meeting.

In total, the work group developed a list of 20 potential research topics. For each topic (all of them posed in the form of a question) the group defined the objective of gaining more knowledge or information in this area, and the hoped for result if that information did become available. These topics were then prioritized on their degree of importance (in the view of the workshop participants) to higher education and facilities managers. The group worked both enthusiastically and tirelessly. One could sense the growing urgency amongst the members as they discussed and debated the implications of the various topics. As in Atlanta, I was impressed with the power of a diverse group of educated and informed professionals to grasp and then tackle very complex issues, given the proper conditions and tools.

Space does not permit us to print the entire list of research topics developed by the group. A brief sampling of some of them, however, will give you an idea of the types of topics the Chicago group felt worthy of further research.

Under the category of Information Technology, the following question was posed:

#### **How do we integrate information technology with the facilities infrastructure?**

Several years ago, many of us installed telephone switches that were capable of handling data as well as voice. Before we could get the final equipment inspections completed, we found ourselves laying broadband cable and fiber optics alongside the phone cable we had just installed. Why? Information Technology is fundamentally altering its platform every five to seven years, much faster than we can build or change the infrastructure to support it. How do we anticipate such change in the built environment? What should we be doing today to better respond to a technology that may radically reshape the face of higher education? Can we avoid the terrible costs of major mistakes, like the money we paid for



those high tech, but quickly obsolete telephone switches? The objective of researching Information Technology is to develop information which will lead to more sustainable infrastructure design and longer-term effectiveness. This in turn might lead to the better delivery and incorporation of information technology services and systems in our educational infrastructure.

In the area of Strategic Management, several intriguing questions were developed:

1. What are the elements of a facilities strategy/strategic plan?
2. How do you develop a facilities strategy without an overall institutional strategy?
3. How does the facilities management team prepare for the future challenges?

On this last question, the group's discussions centered on how we would determine which emerging issues would truly be mission critical. For example, given the myriad of details and management issues with which most higher education facilities managers must deal, which of those are most important to the short term and long term success of their institutions? Should we be preparing our management team for the impact of information technology, or should we be better equipping them to deal with resource scarcity and maximization of objectives in an environment of long term capital rationing? What strategy should we employ today to deal with the uncertainties of the future? Research in this area would hopefully provide us with better management tools to translate higher education issues into facilities strategies.

The Industry Partnership category raised two particularly interesting questions:

1. How do we align the objectives of the institution with an industry partner?
2. What are the partnership opportunities for facilities management and which ones have proven beneficial?

Partnering as discussed by the group is more than simply outsourcing. We traditionally have maintained close long-term relationships with many external suppliers of goods and services and have relied on their innovation and technical expertise to help us solve our problems. How can we in higher education better integrate these for-profit providers in our quest for better facilities management practices and outcomes without compromising our ethics and honesty, or the oft-unproductive

relationships of our usual "arms-length" transactions? Research in this arena might help us discover ways to better tie their fate with ours.

The growing need for improved Asset Management practices raised this question with the group:

**What are the methods and criteria for measuring asset productivity and utilization?**

If we were managing office buildings or hotels for profit, one measurement we would check daily is our occupancy rate. Higher education however has rarely examined its utilization factors once a building is built. This has raised the impression with many business-minded legislators and

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trustees that higher education administrators are prone to build too much space for their needs. This is simply because they are unable to show how effectively or ineffectively current space assets are used. The development of good measurement tools can help establish how past investments in buildings are performing, and to what extent new investments are warranted. Such tools could provide both quality and economic benefits to higher education.

Under the category of Operational Effectiveness under conditions of continuing Resource Scarcity, the group thought the following information would be helpful:

1. What are the distinctions between outsourcing, out-tasking, contracting, privatization, or strategic alliance?
2. How does a facilities management organization structure promote the following: responsive and timely services delivery; consumer feedback; and communicating results?

The latter question takes a deceptively interesting angle. We have traditionally organized ourselves around production efficiency. But what would be the changes if we organized around a customer service focus? Would we have the same structure? What are the compromises to efficiency, if any, to develop a structure which puts the customer first?

The outcome of such research might be the development of alternative organizational models and processes, each perhaps designed to optimize specific, but differing objectives.

Several topics for research were provoked in the area of Executive Development:

1. What are the core competencies required for an effective facilities manager?
2. How do we attract and retain the right people?

All of us are confounded by the scarcity of high-quality, innovative facility managers. Colleges and universities have a unique set of facility issues which requires a good dose of creativity, communication skills, and intelligence. Identifying the core skills which lead to success in this often difficult environment, and the identification and development of a pool of managers possessing such skills, will continue to be an imperative if we are to successfully lead higher education in the next millennia. Research in this area may help guide us and our colleagues in human resource management.

Besides the above six areas, the group also identified Personal Effectiveness as an area where facilities managers must excel in the future. To do so, the following topic was believed worthy of increased investigation:

**How do we create a learning organization to promote and lead change?**

The future will undoubtedly challenge us to adapt our processes and organizations to meet a changed world. How can we lead such change without the incumbent upheaval and the personal toll that rapid change often incurs? While we must of course have a focus on doing what is necessary to

help higher education itself adapt, we cannot do it callously, leaving in our wake ruined lives and damaged attitudes. Further investigation of the techniques that promote change and encourage healthy organizations will be increasingly important to our success as leaders in higher education.

Of course, there are many additional questions in all of the areas discussed that will come to mind to those reading this article. Obviously, the list of topics developed by the Chicago work group is not an exhaustive list. To expect such would be unrealistic. But the point of this is not whether they have thought of every issue imaginable, but whether or not this is a good place to start. One must ask, "Are not these important issues to address for the future of higher education, and if addressed, will the information gained help us improve the management of facilities?" If the answer is "yes," then our next task is to determine how to gather the information and test various theories in order to address this list, or any other list, of research topics.

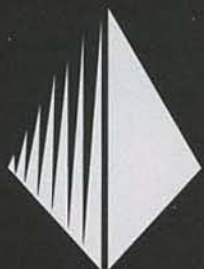
The Chicago work group did discuss how a program to encourage research on the various topics might be implemented. One thought was to contract with governmental agencies, or partner with industry to pursue some of the topical areas. Another was to create a separate entity within APPA to sponsor and conduct such research, sort of like an internal think tank. But the most promising idea was to tie the research program into the development of an APPA Fellows program. To receive recognition as a facilities leader, the group reasoned that a candidate should do original research into a topic of interest to the profession. While this would not be the sole source of our research fellows component (in conjunction with the other ideas), it would be a valuable and steady source of information and could stimulate the entire research effort.

It was also thought that APPA should play a number of critical roles in initiating such a research program. First, APPA is in a key position to manage the overall research effort. This role would consist of identifying researchers and prioritizing topics, setting standards and formats for the research, conducting edits and peer reviews, and providing a database of information and references sources. In addition, APPA is in the best position to identify and solicit research interests with governmental agencies, private foundations, and industry. This might include either funding or the conduct of the research itself. Finally, APPA should be the primary communicator and disseminator of the results of the research, not only to APPA's members, but also to higher education in general.

Armed with a list of potential research topics which could significantly benefit higher education and facilities management, and with some ideas on how to implement such an effort, what are the next steps? The Leadership Task Force and APPA's Executive Vice President discussed with the APPA



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Board of Directors the development of a more detailed proposal for the creation of the Fellows program. In addition, final preparation for the third leg of the Leadership Institute, the one dealing with professional development, is underway with the University of Maryland. Further details of the research program are now under discussion by the Task Force. All members of APPA are encouraged to share their ideas and suggestions with APPA's officers, Doug Christensen, or myself.

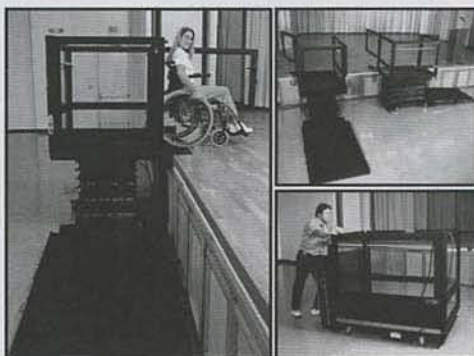
We all recognize that the first cornerstone of Leadership is to have the will and the ability to lead. Through the three newly designed leadership institute sessions, APPA is attempting to equip facilities managers with the skills needed to lead. But the second cornerstone, that of research, is the area that requires major work and must be the focus of our next efforts. The underlying importance of Research is the need for any profession to constantly improve itself through innovation. Innovation itself is spurred by knowledge. And knowledge is derived from systematic investigation into the fundamental workings of a system, in our case, higher education and facilities management.

The fundamental method of such investigation is research. Therefore, if we are to truly lead, we must do more to foster research, which hopefully will provide the knowledge on which future innovation and improvement will be based. That is the key not only to the future of higher education, but to our futures as well. 🏛️

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