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# Facilities Manager

The official publication of APFA: The Association of Higher Education Facilities Officers

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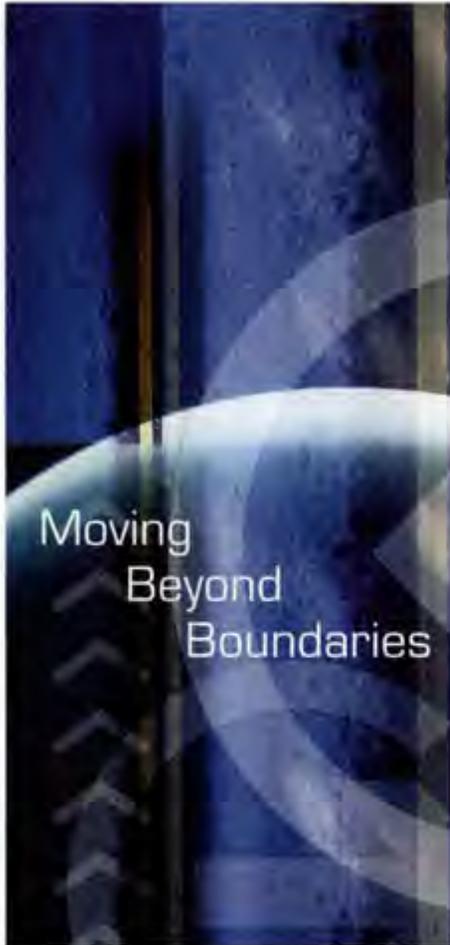
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# Facilities Manager

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## From the Editor

by Steve Glazner

### Gonzales Wins 2001 Rex Dillow Award



It is a true pleasure to announce that first-time contributor David Gonzales is the 2001 recipient of APPA's Rex Dillow Award for Outstanding Article in *Facilities Manager*. David's article, "It Takes a Revolution—A Case Study of Facilities Service Improvement at UCSB," appeared in the July/August 2000 issue of *Facilities Manager*.

David is the director of physical facilities at the University of California, Santa Barbara. His award-winning article first shares the fact that APPA had conducted a review in 1996 of the facilities maintenance and operations department at UCSB through the Facilities Management Evaluation Program. The FMEP report had, in David's words, "quite simply

hammered us." His article goes on to tell how the department and all its staff members worked together to redesign and improve their facilities services to the campus community.

The Rex Dillow Award is an annual recognition of the author of the best article published in *Facilities Manager* magazine during the previous calendar year. Eligible authors are those who are full-time employees of an APPA-member institution, and the award is selected by the Information Services Committee based on a rating scale. The award, first presented in 1987, is named for APPA member emeritus Rex O. Dillow, who contributed much to the development and improvement of APPA's publication and education programs during his active membership in the association.

For this year's award, there were 20 eligible articles published in 2000, five more than were eligible last year. You can read the full text of this year's winning article at [www.appa.org/resources/Facilities\\_Manager/000704/gonzales.html](http://www.appa.org/resources/Facilities_Manager/000704/gonzales.html).

Our congratulations to David Gonzales for receiving the 2001 Rex Dillow Award for Outstanding Article in *Facilities Manager*! 🎉

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APPA members can join **First Source Exchange** at no cost by logging into [www.firstsourceexchange.com](http://www.firstsourceexchange.com) and completing a simple, one-time registration form.

## PPCA Workshops

**T**he Physical Plant Craft Association (PPCA) is offering three upcoming conferences. The conferences will take place November 8-9, 2001 at the University of Idaho in Moscow, Idaho; March 7-8, 2002 at New Mexico State University in Las Cruces, New Mexico; and July 11-12, 2002 at the University of Southern California in Los Angeles, California.

Every PPCA conference is organized and hosted by one of its many

member institutions. Currently, there are over 30 institutions from 14 states. At the conference, attendees are given information and learn practices devised to improve maintenance operations and services for colleges and universities.

There is no limit to the number of employees each university can send to the conference, and employees do not need to be members. However, membership dues are only \$120 per year and support the conferences you may attend. Visit PPCA's website at [www.pcca.net](http://www.pcca.net) for more information, or contact Paul Herrera at 505-646-1598 or [pherrera@nmsu.edu](mailto:pherrera@nmsu.edu).

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## New Delivery Charges for APPA Publications

Effective June 1, 2001 the delivery charges for APPA publications are as follows:

- 10% of total purchase for domestic orders (\$15 maximum)
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Please keep this in mind if you are placing an order from an order form that was created before this change took effect. Your statements and billing charges will reflect the new charges. If you need further information or have any questions, please contact Cotrenia Aytch at 703-684-1446 ext. 235 or cotrenia@appa.org.

## Thinking About Performance Contracting For Energy Savings?

By Michael Besspiata  
Georgetown College  
APPA Board Member

Well, I have found the perfect place where you can find answers to any of your questions. I had the opportunity in April to attend a meeting of the Energy Services Coalition (ESC) in Louisville, Kentucky as a representative of APPA. The ESC has become an Affiliate member of APPA, and I had an opportunity to give a short history of APPA, explaining who we are and how we can benefit from a mutual exchange of information. I had never heard of this organization before this time, but I'm sure you will be hearing more about them in the future. They were formed in the Midwest in the mid 1990s as the Western Regional Coalition (WRC) but later changed their name to Energy Services Coalition to better reflect their purpose.

The ESC is a national nonprofit organization composed of a network of experts from a wide range of organizations working together at the state and local level to increase energy effi-

ciency and building upgrades through energy savings performance contracting. Energy savings performance contracting enables building owners to use future energy savings to pay for up-front costs of energy-saving projects, eliminating the need to dip into capital budgets.

You might be thinking as I did at first that this group is made up only of energy service contractors (ESCOs) who are only looking for contract opportunities. I was totally wrong on that view. At this meeting in Louisville were representatives from the state energy and finance office, federal government, K-12 schools, public and private universities, several ESCOs, and financial institutions.

I listened to Patrick Hughes (pj1@ornl.gov) from the federal government talk about their energy savings programs, of which one-third are done with geothermal heat pump systems. These projects are taking place at schools in low-income areas and many military installations. The Kentucky state energy and finance people spoke about the first public university (Western Kentucky University) project for performance contracting for energy savings in Kentucky. It has proceeded so smoothly that they have begun the process to complete a project at a second public university (Morehead State University). Representatives from CitiCorp were there to state that they will serve as financial backers for any ESCO projects.

ESC currently has members in 35 states, representing state energy offices, energy service companies, finance companies, energy engineering firms, vendors, building owners, federal agencies, and other public and private entities. ESC certainly offers a wide variety of resources to facilitate performance contracting projects, energy efficiency improvements, and building upgrades. They offer problem solving services on performance contracting and free educational and technical materials. These materials include standardized documents such as RFPs and contracts, a website that

contains case studies, service providers in each state, and a Web-based question answering service for the public. The ESC offers informative and interactive quarterly meetings at various locations across the country to provide a forum to address performance contracting issues and to develop business relationships. These meetings are similar to the educational sessions of APPA because they facilitate state-to-state information exchange on "best practices" in marketing and implementing performance contracting projects.

ESC was launched with support from the U.S. Department of Energy's Rebuild America Program (<http://www.rebuild.org/>), a Strategic Partner with APPA. ESC is also affiliated with the National Association of State Energy Officials (NASEO), the National Association of Energy Service Companies (NAESCO), the National Association of Housing and Redevelopment Officials, and the National Conference of State Legislatures.

The ESC has a website at <http://www.escperform.org> where you can research their history and find answers to your questions about performance contracting. This seems to be the one-stop-shop for anyone who is contemplating an energy performance contract. They want people to join their organization and there is a downloadable PDF file that includes a description of the ESC and a membership application. The executive director of ESC is Michael Army who is president of Leonardo Academy. He can be reached by e-mail at: [leonardo@leonardo-academy.org](mailto:leonardo@leonardo-academy.org). Another member of their Board of Directors is Rodger E. Oroke, university director of general services, University of Kansas. He can help with comments about how the ESC can help colleges and universities. His e-mail address is: [ro@co.wpo.ksu.edu](mailto:ro@co.wpo.ksu.edu).

Check out their website and make some contacts with their membership. I think you will be as impressed as I was. 🙏

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## President's Report

by John P. Harrod Jr.

[Ed. Note: The following reports are from APPA's 2000-01 officers for activities and services provided this past year. The officers are listed by their 2000-01 titles.]

Serving as APPA President has been an honor and a privilege. APPA has come to be recognized as a significant contributor and as a leader in the educational facilities arena. The opportunity to represent our association has been a rewarding personal and professional experience. I am truly grateful for the opportunity.

During this past year, we have traveled from coast to coast and across the Atlantic, meeting with the APPA membership, attending the annual meeting of the International Facility Management Association (IFMA), and signing a strategic alliance agreement with the Association of University Directors of Estates (AUDE) in the United Kingdom. Our association is alive and well. Creativity, enthusiasm, and a sense of professional commitment are all evident among our membership. Jane and I wish to thank each and every one of you for your personal contributions to the organization and for your gracious hospitality.

One of my favorite quotes comes from Will Rogers: "Even if you are on the right track, if you just sit there you will get run over." I believe APPA is on the right track! Since our July 2000 meeting, APPA has been aggressively "operationalizing" the strategic plan. Each vice president has aligned the work of their committee with the major components of the plan. APPA staff have also focused their efforts on addressing the initiatives of the association. Progress is being made and is reflected in the reports of the elected

officers and the executive vice president. I would be remiss if I were not to recognize and give a special thanks to the Executive Committee and the APPA staff for their dedication and commitment to aligning and, at times, realigning their energies and activities to the strategic plan.

This past fall, in addition to the regular business activities and educational programs, APPA staff initiated *Inside APPA*, our new biweekly e-mail newsletter. The timely "snippets" of information, with hotlinks and references to in-depth reports and studies, have been well received by the membership. Plus, in keeping with the "recognition" component of our strategic plan, press releases were distributed to the respective institutions of our elected officers highlighting the contribution each has made to the association and the profession.

Ray Richards, president of the Campus Safety, Health and Environmental Management Association (CSHEMA), and I established a joint task force to address the current EPA focus on higher education. The task force is co-chaired by John DeLaHunt, CSHEMA representative from Colorado College and Jack Dempsey, APPA member at the University of Illinois. Earl Smith from the University of Massachusetts/Amherst also represents APPA on the task force, which is scheduled to report to the membership in July 2001. A publication will follow in early 2002.

We were fortunate to have Mo Qayoumi, vice president of administration at CalState-Northridge, leading the GASB 34/35 awareness effort. He agreed to work with our friends at NACUBO to write a "white paper" on the issue for *Facilities Manager*; and to

give a presentation at the Educational Conference and Annual Meeting in Montreal.

APPA continues to investigate and develop collaborative relationships with other professional associations and organizations. A number of organizations have recognized APPA's contributions to and influence in the education environment.

Following the February 2001 Board meeting, the APPA presidents met with representatives from IFMA to share strategic plans and discuss the initiatives of the two organizations. We are looking to see if there is any merit in developing a strategic alliance.

APPA was one of 13 other organizations to sponsor the first Emergent Building Technologies Conference. Provocateur sessions, learning laboratories, and educational sessions provided a great learning opportunity for participants.

In April, Jane and I attended the annual meeting of the Association of University Directors of Estates at the University of Warwick in Coventry, England. Ian Barker was the host committee chair. At their business meeting, Victor Slater (AUDE President) and I signed a strategic alliance agreement between AUDE and APPA. Through such actions, we continue to provide additional opportunities for our members to experience the profession in an expanded international arena.

APPA's reputation continues to spread around the world. A group of facilities professionals from southern Africa made contact with me earlier this year. Initially, these individuals represented 17 universities and 14 technikons from the higher education environment of South Africa. Since

1989, they have been holding an annual conference, Tertiary Institutes Maintenance Conference (TIMCON). In 1996, the conferences expanded and representatives from Namibia, Botswana, Zambia, Zimbabwe, Mozambique, and Tanzania were all in attendance. Their organization is maturing and the participants want to develop a formal association. Many have suggested an alignment with APPA. The following is an excerpt from a letter I received from Ferdi Pieterse, Cape Technikon, Cape Town, South Africa:

*"We realise that whatever we do must be done for the African situation but with a global outlook. In this regard it makes no sense to recreate what already exists, but rather to make fuller use of the existing and adapt and specialise where required. It is in this context that we believe an African APPA can bring a wealth of knowledge and experience to the members."*

***APPA is known to many of our present members. The sense of 'belonging to' an association with your stature will give recognition to the organisation that will take decades to build on our own."***

We have a wonderful opportunity to assist the TIMCON institutions during their organizational and development process. Who knows what the future may bring?

Closer to home, facilities managers in the greater Dallas-Fort Worth area have been energized by the enthusiastic leadership of Kevin Folsom from Dallas Theological Seminary. He and a small group of colleagues have joined together to establish the Dallas-Fort Worth Chapter of APPA. The group is meeting on a regular basis and continues to grow as more professionals hear of their events and programs.

APPA's credibility has been recognized by the Advanced Technology Council (ATC), a nonprofit corporation advancing engineering

applications for natural hazard mitigation. The association, representing civil engineering associations from around the country, is under contract with the Federal Emergency Management Agency (FEMA) to prepare updates for the FEMA *Seismic Considerations Series* reports. We were asked to participate in a workshop focusing on the needs of building owners, managers, and administrators. Hildo Hernandez, California State University/Northridge; Don Guckert, University of Missouri/Columbia; and Brad Dillard, Southern Illinois University are the APPA representatives. They will share their experiences with the membership in the upcoming months.

APPA is fortunate to have Business Partner members who are interested and willing to share their time, talents, and financial resources. In an effort to make their participation more meaningful, feedback sessions during the annual meeting and a special partner's workshop were held. Obviously, the business community is looking to do business with our members and in turn is willing to financially support the association. Like all good businesses, they are looking for a "return on investment." As a professional association, APPA must remain neutral and not endorse any particular product or business.

We all agreed that recognition for financial support is appropriate and that levels of recognition would be established. A recognition hierarchy has been developed and is being shared with the business community. Businesses will know in advance what they must do to achieve a certain recognition level. A special thanks to Bill Bell and Michael Blades, Lerch, Bates & Associates; Steve Spiwak, Nalco; Herb Ohrt, Stanley Consultants; Michelle Tanem, Johnson Controls; James Delbridge, Cutler-Hammer; and Nadia Alhadri, Prism Software, for their contributions.

Lander Medlin and I have been working with representatives from the

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Staubach Company to establish criteria that will allow us to evaluate the cost of doing business in the Washington, D.C. area versus other locations in the United States. The report has been completed and is currently being evaluated. Further review and discussion is expected.

The Council of Higher Education Management Associations (CHEMA) meets in January and June of each year. Paid executive staff and elected officers met jointly and with their representative groups to discuss common issues and challenges facing associations today. All agreed that developing association leadership, addressing the needs of the "smaller institutions," membership retention, and association financing were common issues facing our associations. Sorry, no "cure all" answers were identified.

Based on current experiences, all agreed that continued collaboration was essential; for example, the NACUBO/APPAs joint annual meeting in 2003, the NACUBO/APPAs/SCUP joint annual meeting in 2006, the joint APPA/NRPA/PGMS publication of *Operational Guidelines for Grounds Management*, and the CSHEMA/APPAs task force. Based on my observations, APPA is not only doing things right, we are doing the right things! We are viewed as one of the industry leaders.

Again, I must say that it has been truly an honor and a privilege to represent APPA during the past year. As an association we have set in motion a number of initiatives that will benefit our member institutions and their representatives. We have continued our long-standing tradition of educational programming and professional excellence while continuing to maintain a fiscally responsible position in an ever-changing financial environment.

## Immediate Past President's Report

by Maggie Kinnaman

It is really hard to believe that 15 years of active involvement in APPA is about to come to an end. Where has the time gone? As I prepare my last Board report, the parting words of Past President Pete van der Have ring in my ears. The sentiments that he expressed two years ago touched me then and are shared by me today. What to do with the rest of my life? Fifteen years of active involvement in any activity constitutes a way of life, and for me that's about to change.

So, as I stand at this intersection, I can't help but look over my shoulder with a great sense of pride and satisfaction. The accomplishments have been many and the relationships that have been built along the way have been strong and supportive. Together we addressed the seemingly impossi-

ble and have lived to tell the story of our journey. These past 15 years will remain among my fondest of memories. My journey in APPA is coming to a close, but for many of you it's about to begin. I encourage you to step up to the plate boldly and embrace the many opportunities that have been created for you.

Let's take a look at APPA's evolving strategic plan and its focus on competence, collaborative relationships, and credibility. Some of you are probably saying, "So, why are these important?" Because you, the members, have stated that these are the desired outcomes that you hope to achieve by being an APPA member. You want the opportunity to participate in cutting-edge educational experiences, be connected to resources and tools that help you do your jobs, access to strategic partners so that you can better address the problems of your institution, and you want to enhance your credibility so

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that you become a sought after partner at the decision making table. From where I sit, the APPA team has made tremendous progress toward delivering programs that exceed those expectations. Let's see if you agree.

### **Competence**

Under the category of competence, our cup runneth over. Between the Institute, the Leadership Academy, the Institute for Facilities Finance, the Emergent Building Technologies Con-

ference, and the annual meeting, how could one not find an opportunity to enhance competence! In the tool and resource department, enhancing your competence is also all about understanding how to improve your operations. To help you manage that process, you could choose to contract an APPA peer review or FMEP. You could participate in the Comparative Costs and Staffing survey and the Strategic Assessment Model in order

to understand where your organization is, define where it should be, and develop a road map for getting there. While we're talking about competence, another way to stay abreast of best practices is to read and digest *Facilities Manager* magazine. Finally, the evolving Center for Facilities Research will be an excellent vehicle to increase member competence through the development of knowledge related to our profession.

### **Collaborative Relationships**

APPAs strategic alliances coupled with our evolving collaborative activities with other higher education associations such as NACUBO, EDU-CAUSE, and ACUTA are efforts at bringing new expertise, experience, and perspective to our APPA table. Why is this important? The solutions to the complex problems being faced by higher education cannot be solved by one area working alone. Effective strategies will only be developed when all parties within the campus community put their heads together, lay down their proprietary views, and see the world from a big-picture perspective. Diversity of perspective helps us to learn what we don't know and this is important when searching for a global solution. Our solutions need to be true solutions and not merely quick fixes in which one area is improved at the cost of another. Collaboration is an essential ingredient to any organization's viable future.

### **Credibility**

How better to establish credibility than to bring competence, campus support, and creative solutions to bear on the issues being faced by higher education. Increasingly, we need to be viewed as a profession that has a campus big picture in mind, and brings a perspective to the table that is not proprietary and parochial, but instead collaborative, creative, and visionary. We have to stay focused on the reason for our existence. We are not here to maintain buildings but to participate

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### **Getting the Job Done**

So much for the accomplishments, because they don't happen by accident. They are the results of the hard work of many committed, dedicated people focused on the same goal. In my years with APPA, I've been tremendously impressed by the level of expertise resident with our members and their willingness to share that expertise to improve the profession. Our work is truly a team effort of dedicated volunteers working closely with focused paid staff. As I walk out the door, I do so knowing that although my watch is drawing to a close, those who remain are competent, dedicated, and committed to making our vision a reality. This association could not have a better group of elected officers or staff, and I will miss each and every one of them.

My APPA experience has challenged me personally, created the opportunity for much information sharing, reaped numerous rewards for my institution, and put me in touch with some of the greatest folks I will ever have the privilege of working with. My work with APPA is not done and I will always treasure the many gifts that this organization has given me. You've helped me make a difference in many venues and I will be eternally grateful and committed to the forward momentum of our fine association. Your support and encouragement over the years will always be remembered, and I thank you for giving me such an incredible opportunity.

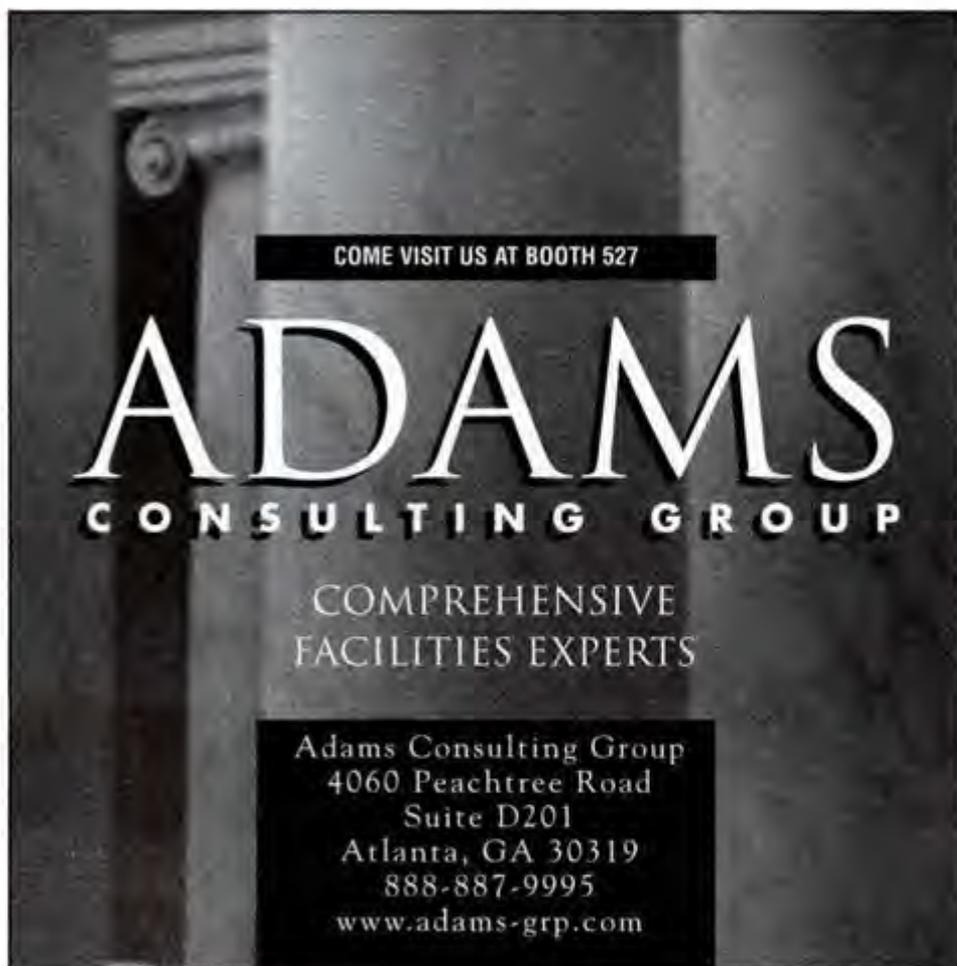
### **President-Elect's Report**

by Gary L. Reynolds

For more than a decade, APPA leadership has worked to provide direction for the association through long-range planning, through the development of vision and mission statements, by re-visiting our stated goals and objectives, and by developing products and services to meet those objectives. The focus, as set by the tone of the long-range plan of the late 1980s, has been on the development of the association and our members. The products and services we have created are centered upon the best estimate of the needs of the association and our members. The results can be seen in the revamped Institute for Facilities Management, the creation of the new Leadership Academy, new publications, and the overhaul of awards and recognition, to name a few.

More recently we have developed a set of three desired outcomes: competency, collaborative relationships, and credibility. These desired outcomes have been developed within the context of our vision statement—"Becoming a Global Partner in Learning." The vision is of immense importance in defining our role in higher education leadership. If in fact we are going to be a *valued* global partner, APPA and its members need to ensure that our role is in alignment with the needs of higher education in all aspects. In other words, we need to collaborate with all of higher education leadership in a competent way that will bring credibility to our members and to our organization.

Competency, that will truly allow credible collaboration, will only come if we prepare ourselves for where higher education is going or might go. So the question becomes, Where is higher education going and how can



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APPA prepare itself and its members for the many potential destinations? The answer lies in doing the research necessary to ensure that APPA's members are using the latest best practices.

### **The Center for Facilities Research**

Over the past decade significant progress has been made to strengthen APPA as a valued partner by addressing issues of education and recognition. However, the research effort has been spread across numerous committees (leadership, CCAS), task forces (SAM, Custodial, Grounds and Skilled Trades Guidelines, K-12), and personal efforts (*The Metering Guide for Managers*, leadership and continuous improvement). In addition, APPA is approached by various business partners, governmental agencies, and members with ideas for research projects. Without a structure, each of these ideas requires ad hoc attention to analyze the appropriateness, obtain and assign resources, and identify a dissemination venue.

In order to properly structure APPA's research efforts, a Center for Facilities Research (CFR) has been developed. The CFR will be staffed by volunteers (and supported by APPA staff) to provide the focal point for APPA's research efforts. The charge to the Center is "to create, expand, refine, and transfer the body of knowledge of facilities management and leadership to the APPA membership." The Center for Facilities Research will provide a central contact point and the necessary oversight for central coordination to ensure that resources are in alignment with APPA's desired outcomes, applied in a prioritized fashion with results produced and disseminated.

The CFR leadership will meet regularly to review research proposals, develop research topics, identify researchers and other resources, and ensure that information is moving forward and disseminated to our membership. The director of research will report to the vice president for

information services and will fill the at-large seat on the Information Services Committee that was recently created by the Bylaws approved in April.

The development of the Center will have an additional benefit. By providing meaningful research on multiple topics of importance to educational facilities management, APPA will grow and provide an avenue for broader participation by our members. I hope that we can develop pride in participation through appropriate presentations, publications, and recognition.

In some respects, the creation of the Center for Facilities Research is nothing more than a logical extension of what we have been putting in place over the last decade and a means of moving toward our mission of education, research, and recognition.

### **Progress Update**

Vickie Dewitt and the APPA office have been working to identify, select, and approach APPA members to fill the leadership roles in the CFR. The following people have agreed to serve:

Maggie Kinnaman – *Co-Director*

Gary Reynolds – *Co-Director*

Pete van der Have – *Assistant*

*Director for Energy and Utilities*

Harvey Chace – *Assistant Director*

*for Planning, Design, and*

*Construction*

Dave Cain – *Assistant Director for*

*Operations & Maintenance*

Doug Christensen – *Assistant*

*Director for Administration and*

*Management*

The first meeting of the Center leadership was in June 2001 focused on developing vision and mission statements, outlining policies and procedures, and developing the structure for the Center. Discussions are underway with a Business Partner member to sponsor a retreat that will involve the Center leadership, as well as others, to provide input on the policies, procedures, and so forth. We anticipate that the retreat will take

place sometime in November. A full progress report will be given at the February 2002 Board meeting.

### **Secretary-Treasurer's Report**

by Philip L. Cox

APPA enjoyed another successful fiscal year, which ended March 31, 2001. The first graph on page 14 depicts the revenues and expenses of our association over the past several years. We closed out the fiscal year with a net surplus of \$125,220, which was slightly less than budgeted, but it enables us to add the full (3 percent of budget) amount of \$100,000 to our reserves. This maintains our strategy to build an operating reserve of liquid assets equivalent to 25 percent of our operating budget; and a capital reserve equivalent to 10 percent of the estimated replacement value of property and equipment. Such targeted levels of reserves are considered responsible practice in the field of professional association management. Thanks to our financial successes over the past few years, at the close of FY 2000-01, we have achieved an 11 percent operating reserve and a 5 percent capital renewal reserve. A recent revision in our investment policy will allow APPA to be prudent stewards of this reserve, maximizing growth while safeguarding it for long-term needs.

A few factors had strong influence on our financial performance: Although programmatically very successful, the annual meeting in Fort Worth, Texas suffered financially. Likewise, our new Leadership Academy was tremendously successful educationally, but fell short of financial expectations in its first year of offering all three tracks at the same time and place. Our early initiatives in research and development required a greater upfront investment than anticipated. Fortunately, our efforts to nurture and grow membership and

*Continued on page 14*



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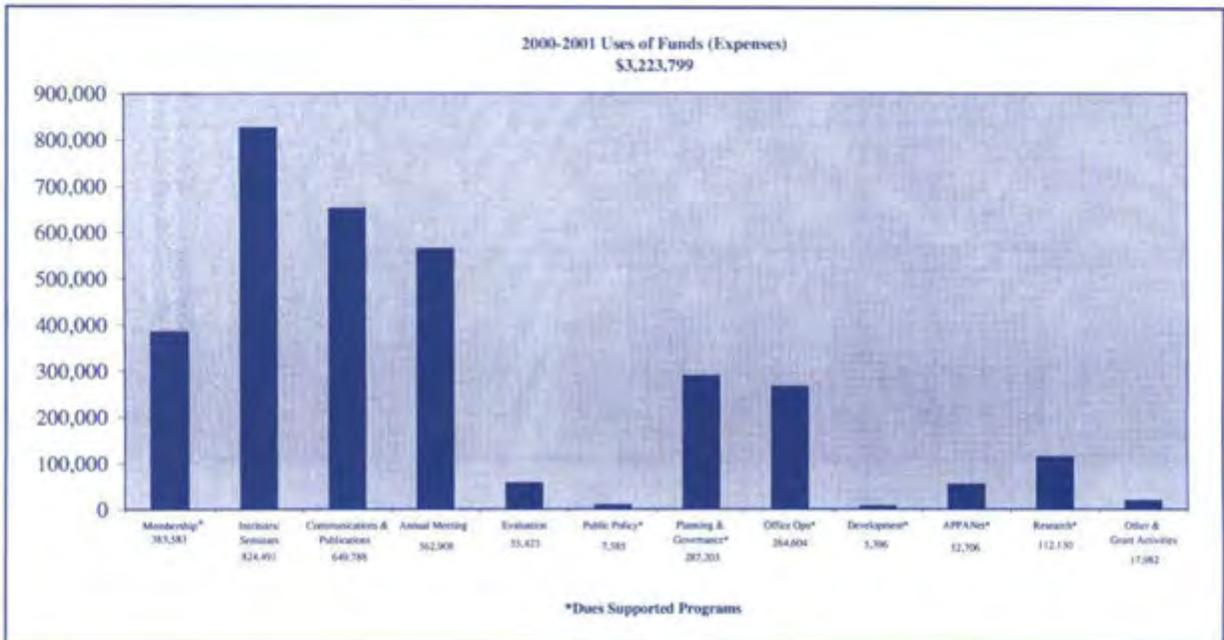
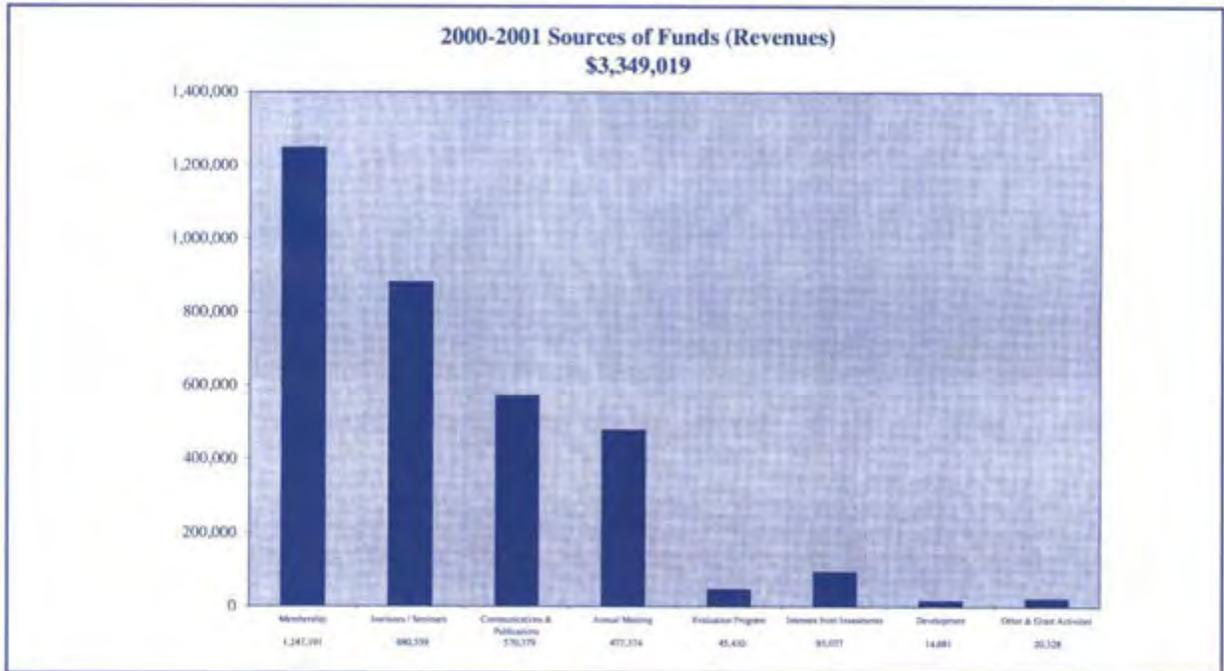
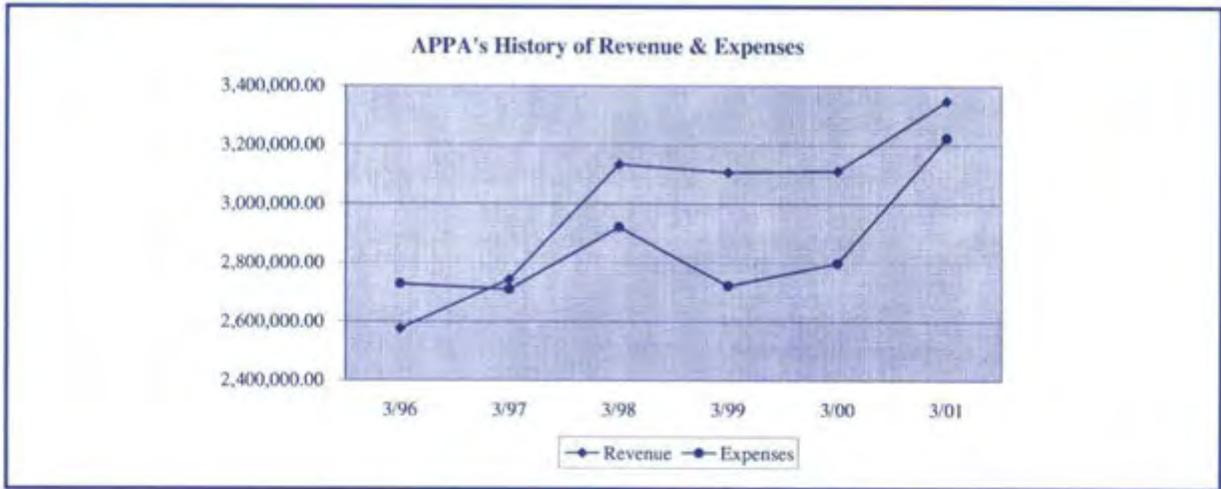
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publication sales, advertisements, and job listings are working well. The membership dues increase has also helped to offset some of the budget shortcomings.

The third graph indicates how funds are utilized by our association. Since our mission is to support educational excellence with quality leadership and professional management through education, research, and recognition, it is not surprising that the bulk of our spending is for institutes and seminars, membership services, the annual meeting, and communications (publications). Added emphasis on research is evident in the expenses over the past year and will continue as the Center for Facilities Research becomes established and matures.

Bylaws changes, approved by the membership, include: revisions to the Emeritus member status; establishment of Retired member and Individual member categories; and provisions for adding an at-large member to the Professional Affairs and Information Services committees.

For further details of APPA's activities, members may now find Board of Director meeting minutes on-line at [www.appa.org/about/minutes/](http://www.appa.org/about/minutes/).

### Vice President for Educational Programs

by Jim Roberts

Educational programs and APPA—for facilities professionals it is hard to say one without the other. It has been a pleasure to serve as the vice president responsible for this area because the staff is so professional and the members are so eager to participate. This combination makes our programs some of the best in the marketplace. We continue to develop programs to meet the desired outcomes of APPA's strategic plan. We have addressed competency, collaborative relationship building, and credibility. In all that we do, these desired outcomes are at the heart. Some

things you may look for in APPA's programs are: review and refinement, new opportunities, inclusion of regional input and participation, surveys, and recognition and celebrations. We want to be sure that the expectations of regional, state, and local chapters are in alignment with what we are providing. We want to continue to be viewed as a leader in education for facilities management professionals, as well as increasing the awareness of the facilities profession with senior institutional officers.

### Annual Meeting

At this writing, registration is under way and plans are solidly in place for an excellent meeting in Montreal. The location is fabulous and the educational programs are innovative. Without exception, the entertainment will be the best yet. Educationally, we have participation from institutions from all regions of the association including our neighbors across the

pond. I hope you are aware of all that goes into the preparation for this event.

The Education Committee includes, Christopher K. Ahoy, Iowa State University (MAPPA), Pat Apel, Maryville University (CAPP), Hildo Hernandez, California State University/Northridge, (PCAPP); Joe S. Hollander, Massey University (AAPP); Carol Trexler, Rutgers University (ERAPP); Mary Vosevich, University of New Mexico (RMA); and Travis Weatherly Jr., Georgia Perimeter College (SRAPP). These representatives selected the presentations for our annual meeting last November. This two-day event is the culmination of reading abstracts, contacting references, and debating topics in an effort to give the best programs possible. When you get the chance, thank your committee member for a job well done. Gilles Rousseau from Ecole De Technologie Superieure in



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Montreal chaired the Welcome Committee. He has set the bar at an unbelievable height for all welcome committees in the future. Special thanks to all who are contributing to this event.

### ***Institute for Facilities Management***

There have been some changes in the Institute during my tenure. Emily Wren of Indiana University-Purdue University in Indianapolis has taken over as the chair of the Institute Subcommittee. We have a new dean but a familiar face in Charlie Jenkins, past APPA president. That gives us a strong administration that also includes Don Guckert from University of Missouri/Columbia, Mo Qayoumi from California State University/Northridge, and, of course, Jay Klingel from the University of Virginia. This program continues to amaze me. It is by far the most popular program offered by APPA, and on-line registrations have made it more efficient and even quicker to fill each session. We have had wonderful programs in Pittsburgh and Newport Beach, filled to capacity with excellent reviews.

We are not resting on our laurels. With the infusion of new leadership, we have been challenged to update and review our core courses as well as our electives. We are looking forward to September 16-20 in Scottsdale, Arizona and January 13-19 in Tampa, Florida. I need to say thank you to the staff. Both Suzanne Healy and Andria Krug keep us on track and well organized. They make this event happen. This great staff makes us all look good. Hold on, the best is yet to come.

### ***Leadership Academy***

The best way to describe this program is professional, centered on leaders, first-class, and growing. The second session of the redesigned program was held June 17-21 in Ft. Lauderdale, Florida and we had an excellent turnout. Our thanks go to Doug Christensen, who chairs the

Leadership Subcommittee. With Bill Daigneau's and Gary Reynolds' support, the PLC meeting (in Scottsdale, Arizona in June 2002) is recognized as leadership training for education, not just facilities management.

### ***Other Programs***

Two other programs have been provided this spring in our effort to develop special programs adapting to changing conditions. One held in Washington was a conference on electricity deregulation, and joint venture with NACUBO, the Institute for Facilities Finance. It is important that we continue to provide different opportunities for the facilities profession.

### ***Closing Thoughts***

When organizations stretch to extend boundaries and reach for new horizons, they oftentimes become uncomfortable. This is not altogether bad. It causes our senses to heighten and pay close attention to all the factors that are involved in the decision-making processes. What am I talking about? Several years ago, the decision was made by the Board of Directors of APPA to locate our annual meeting and educational conference with NACUBO. We have proceeded with plans to make that happen twice in the coming five years—once in Nashville, Tennessee in 2003 and in Hawaii in 2006. We believe this is a good move.

Yes, it stretches our boundaries and puts us in a different type location than we are used to. However, we feel the benefits are well worth it. Our plan is to prepare cost comparisons with other Tier 1 locations. We hope to provide a benefit equal to the cost of attendance. It is possible that our attendance will not be as large as at some other locations. The important part is that the members have an opportunity to receive the educational programs we are striving to provide. If the location prohibits this then we, as an organization, are responsible to make appropriate arrangements. We want to hear from you. I look forward

to your comments. Please e-mail me at roberts@mailcenter.campbell.edu, and thank you for allowing me the opportunity to serve.

### ***Vice President for Information Services***

by Vickie DeWitt

**I**nformation Services has been diligent in our efforts to further revise the Comparative Costs and Staffing survey, explore additional electronic means for presenting information, keep up with the many new publications that are and will be available to our membership and the public, and recognize outstanding articles in *Facilities Manager*. I am particularly pleased that we have been able to get all of our stateside members together for each meeting. I recognize that this takes a considerable personal effort and institutional sacrifice. Many thanks to this year's membership: Mark Shively, University of Wyoming (RMA); Tom Dale, University of St. Thomas (MAPPA); Dennis Swartzell, University of Nevada, Las Vegas (PCAPP); Scott Turley, University of Arkansas (CAPP); Joe Lalley, Cornell University (ERAPP); C. R. Lyons, Florida Gulf Coast University (SRAPP); and Neville Thiele, University of South Australia (AAPPA). We also wish to acknowledge and thank our APPA staff liaison, Steve Glazner, for his guidance and advice, and we welcome Jennifer Graham as APPA's new publications manager.

### ***1999-2000 Comparative Costs and Staffing Survey***

This survey was released in October 2000, with a first deadline of December 15, 2000. Due to the new format, steady response rate, and our desire to involve as many respondents as possible, we extended the deadline to January 2, 2001. Our goal was to get the best return on our questionnaire possible without creating any problem

*Continued on page 18*

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Continued from page 16

with our goal to finalize and publish in Spring 2001. This report became available for purchase in book and CD-ROM format May 7, 2001.

This was our first attempt to collect information via our website. We feel that this format will become the easiest to use as it automatically loads the past survey's information and allows simple updates to areas that have changed. We will continue to survey using several methods for data collection, as we realize everyone may not be ready for the electronic version. To keep pace with this change and to make the report even more valuable to users, we intend to move forward using Web tools to allow customized reports. When we have determined which tools will be available on our website, we will add a chapter to the report explaining the use and value they bring to the report and data. Thanks to those who did respond to the survey, and we look forward to working with you again in the coming years.

### **APPA Website**

Found at [www.appa.org](http://www.appa.org), our website continues to be an excellent location for subject matter related to facilities and facilities' business. It becomes more user friendly with each update. Such items as the Buyers Guide, the Toolbox, on-line registration for programs, searchable resources, and an APPAinfo list archive make this your source for information on demand. The future will bring more search capabilities and more archived information. So much good information passes through our hands that we would like to be able to reach out for it on the day it is important to us as individual users. Check out new links such as Monday Headliners.

### **APPAinfo**

Anyone who has subscribed to this discussion list for facilities issues can tell you that it is thriving. Subscrip-

tions are up to 700, the highest ever. The questions and number of responses have increased significantly over this year. Members are taking the time to share their experiences on quite a number of problems and questions. If you have not subscribed and wish to be included, please go to [www.appa.org/resources/internet/appainfo.html](http://www.appa.org/resources/internet/appainfo.html).

Closely related to APPAinfo is APPA's new electronic newsletter, *Inside APPA*. This is a biweekly electronic news source, sent to all members via e-mail, for regional and international APPA events, programs, publications, and industry information. This is a member service, provided as a part of your APPA membership.

### **Facilities Manager**

*Facilities Manager* is our organization's professional magazine and is an outstanding source for excellent articles, written by members and others interested in the field of education and its many facets of operation. Steve Glazner is the editor and carefully orchestrates the articles so that they are timely and of the greatest value possible. Each publication has a theme focused on a specific facilities issue. Future articles will include a focus on different types of facilities and institutions. There will also be a readership survey to help us determine the needs and opinions of our readers.

Our appreciation goes out to those who have taken the time to make contributions and to the readers for their regular input. Our special thanks go to first-time *Facilities Manager* authors David Gonzales, University of California/Santa Barbara; Fred Gratto, University of Florida; Charles W. Leeds, Villanova University; George Harrell, East Carolina University; Hugh Jesse, University of Montana; Hildo Hernandez, California State University/Northridge; Chander Bhan, Howard University; Kevin Folsom, Dallas Theological Seminary; Brooks H. Baker III & Hope Duncan Ham-

monds, University of Alabama/Birmingham; and William Love, University of Cincinnati.

### **Publications**

Several exciting new publications are hitting the streets this year. We are extremely pleased to have a collection of short essays by Val Peterson, called *Communication is the Key*, which are related to personal and professional growth. *Operational Guidelines for Grounds Management* is the second book in our staffing guidelines series. This book has been long anticipated and the authors have done an excellent job! Among others to follow in 2001 are *Managing Facilities as Capital Assets*, *The Strategic Assessment Model*, second edition, *Trades Staffing Guidelines*, a planning, design, and construction anthology, and a monograph on electricity deregulation.

### **Center for Facilities Research**

The CFR is a group that will bring focus to APPA's efforts. The goal is to aid in the creation, expansion, refinement, and transfer of knowledge of facilities management to the APPA membership. The past decade has seen a significant increase in the amount of research being done by and through our organization. This research has been spread across many committees, task forces, and personal efforts. We find that we are frequently approached by various business partners, governmental agencies, and members with ideas for research projects. Our vision for the Center is to bring structure to these ideas, by analyzing their appropriateness, and assisting with resources and identification of dissemination formats.

The charge to the CFR is also to identify specific research projects that are important to the future health of facilities management in education. The director of research will report to the vice president for information services and will fill an at-large seat on the Information Services Committee. This group is just getting under way and we are quite excited about the

possibilities and structure it brings with it.

It has been quite an exciting year, and we look forward to further advances in the communication field, look forward to interacting with as many members as possible, and plan to keep useful and timely information and publications coming your way.

### **Vice President for Professional Affairs**

by Jack K. Colby

I am pleased to submit this report on the activities of the Professional Affairs Committee.

### **Facilities Management Evaluation Program (FMEP)**

The revamping of the FMEP process and evaluation criteria has been the primary task of the Professional Affairs Committee (PAC) over the past 12 months. The review process has the following goals:

- Evaluate APPA's sponsorship and justify demand and ROI.
- Review and update the program criteria considering other methods.
- Improve the process and streamline for institutions and evaluators.
- Mesh FMEP with Award for Excellence criteria

At the November 2000 PAC work session, the committee devoted a portion of its meeting to a discussion of how the new criteria can be implemented and the training needs for the team leaders, the site teams, and the participating institutions. The PAC will outline the training requirements for the new program based on input from past team leaders and site teams. The outline will be used by staff and/or a consultant to develop the actual training materials. A training session for future team leaders and site team members is anticipated.

### **Award for Excellence Program**

The new Award for Excellence program was rolled out to the mem-

bership at the 2000 annual meeting in the form of a very impressive brochure developed by APPA staff. Changes to the program include the following highlights:

- Submissions will be a maximum size to prevent evaluation biases.
- Submissions will include abstracts for each of seven primary criteria areas.
- Scoring of compliance with criteria will be point based.
- Scoring will determine if submission merits AFE.
- Supporting materials available at site for review by site visitation team.
- Moving to annual cycle with January 15 due date in lieu of open submission
- Eligibility will be on the institutional level.
- Recognition will be expanded at the international, regional, and institutional levels.

At the November 2000 meeting of the PAC, the final points of the evaluation process materials were completed to support the January 15 deadline for submissions. PAC members were briefed on the new rating system and scheduled to support the program milestones. This spring, three submissions were received under the new criteria. These were evaluated by the PAC with recommendations sent to the Board for endorsement.

### **Effective Practices Award Program**

The Effective Practices Award is a new addition to APPA's inventory of member recognition. Similar to the AFE, the program will be run on an annual cycle. Submissions will be evaluated against a set of criteria and points will be awarded for compliance. Multiple submissions are allowed for each member institution. Awards will be presented to the top five institutions based on total points. Corporate support for cash awards has been secured. Recognition will occur at all levels including the annual meeting, APPA publications, and

the website. All submissions will be added to the APPA website experience database. Program award recipients will be submitted for the CHEMA award program. The new program will be rolled out to the membership with the first submissions due in January 2002.

### **Award for Excellence Submissions for 2000-01**

Two institutions have submitted materials for evaluation by the PAC under the old criteria. The evaluations of these submissions, by the University of Cincinnati and Texas Tech University, have been completed and a recommendation was brought to the Board in February. Three submissions have been evaluated under the new criteria. Recommendations have been forwarded by the PAC to the Board for endorsement.

### **PAC Role for the Professional Leadership Center**

At its fall meeting, the PAC discussed possible roles for the committee in the governance processes being developed for the Professional Leadership Center. It is proposed that both the PAC and Awards & Recognition Committee have pertinent roles in the governance process. The PAC responsibilities are proposed as follows:

- Establishes and maintains application process
- Establishes criteria for qualification
- Monitors/reports progress of candidates
- Receives PLAC recommendation
- Evaluates "Fellow" application against criteria
- Makes recommendations to board
- Notification of candidate and institution

### **APPA Representative to the NACUBO Higher Education Achievement Award Evaluation Team**

This year, I served as APPA's representative to the NACUBO HEAP Award evaluation team. The team performs the annual evaluation of

submissions for NACUBO's award program. It is a great honor for APPA to be represented on this group. The HEAP committee met in April to finalize the selection of award recipients for 2001 to be recognized at the NACUBO annual meeting.

### **Goal Alignment with the APPA Strategic Plan**

The Professional Affairs Committee completed its tabulation of goals for 2000-01 that align with APPA's strategic plan. Committee efforts will be directed to tasks that support and enhance these strategic objectives.

### **Transition to New VP**

The PAC provided feedback on items considered important in the transition process to a new VP following the spring election. Information and materials will be developed to orient the new officer. The PAC meeting in Montreal will be jointly chaired by the new and old vice president.

The team efforts of committee members Mike Besspiata, Larry Quick, Brian Nielsen, Dan Johnson, Phil Garment, Ron Smith, Maurice Matthewson, and Medea Ranck are appreciated. I commend their work on these important tasks. I would like to express my appreciation to the APPA membership for the opportunity to serve as your vice president for professional affairs for the last four years. It has been a rewarding experience to make progress on these important issues through the efforts of a fine team of people.

### **Executive Vice President's Report**

by E. Lander Medlin

**A**PPA's financial success has been assured again this year thanks to your active involvement and participation in our educational offerings; your continued purchase of APPA's publications; your utilization of our magazine advertising and job posting opportunities; and

your strong support to the foundation of this association—your membership. Indeed, we achieved our budget target of a \$100,000 contribution to the operating and building reserves with a total year-end surplus of \$125,220. Equally important, we have moved the association to 45 percent of our long-term cash reserves goal in just three short years. We have also assessed our long-term investment strategy to ensure effective stewardship of our resources for APPA's long-term financial health and viability. This is especially significant in light of the recent down turn of the economy and the sharp rise in the cost of doing business. However, as demonstrated from your participation and regular feedback, our educational programs remain strong in both their content and appeal.

The availability and flow of relevant information through APPA's website, APPAinfo discussion list, and array of publications is setting industry standards. The connectivity of member services with your stated needs and expectations is hitting the mark in its value and responsiveness.

Our revised strategic plan is not only driving the association toward the achievement of the three desired outcomes of competency, collaborative relationships, and credibility, we are thriving as a result of its focus and direction, as well. Progress toward these three outcomes is focused ultimately on our ability "to increase the awareness of the facilities profession with senior institutional officers." In essence, this is what an international association can and should do on behalf of its members. A membership that is representative of both institutions and individuals.

This makes our approach two-fold: 1) to ensure that the institution's facilities department has the necessary tools, techniques, and informational resources and guidelines for its organizational development and continuous improvement; and 2) to

provide for the professional development and competency of individual facilities professionals who staff these organizations. Therefore, "to increase the awareness of the facilities profession with senior institutional officers" requires a focus on and support of both the institution/organization and the individual facilities professional. With this goal as our focus and these two constituencies as our target, how are we doing to date and where are we headed in the coming year?

An institution/organization must address the same questions: Where is the institution going? How is the organization doing? How best should the organization address getting there? APPA can assist by offering a framework for the planned vision, direction, performance measurement, and continuous improvement of the organization through the use of our Strategic Assessment Model (SAM). Through its application, you will be assured of collecting relevant data, reviewing strategic management information and reports, and using this information to make knowledgeable decisions, and to tell your story effectively to senior institutional decision makers.

Upper level management cannot appreciate nor understand the value that a facilities professional and its department brings if you are not effectively communicating your organization's products, accomplishments, improvements, and strategic direction. Frankly, the best way to compete is to have clearly defined products with demonstrable performance metrics.

APPA is serving its members and their institutions best by setting the guidelines and standards by which facilities management is measured. These guidelines and standards can be found in such tools and resources as SAM, the Comparative Costs and Staffing report, custodial, trades, and grounds staffing guidelines, and statistics from *A Foundation to Uphold*. The trick is setting out a plan to best im-

plement these standards and guidelines at your institution.

APPA can serve its individual members in this regard by providing various educational opportunities and venues to develop your expertise in their use and implementation. Our annual meeting, Institute for Facilities Management, Leadership Academy, and the new Institute for Facilities Finance represent a few of these important educational venues to increase your professional expertise.

Another organizational product that is proving immensely helpful for the institutions is the Facilities Management Evaluation Program (FMEP). The FMEP criteria have been significantly revised to align with the Award for Excellence in Facilities Management (AFE), reflecting components of the Strategic Assessment Model and the Baldrige criteria. More work is planned for the coming year to create a substantive training program to establish "qualified evaluators." This will provide a valuable service to both the institution and those facilities professionals who take advantage of it by ensuring more consistency in the application of the criteria.

As Gary Reynolds identified in his President-Elect's report, APPA is embarking on the design and development of a new Center for Facilities Research. It has never been more essential to have credible data and information, that is easily and readily accessible, with which to make knowledgeable and informed decisions for your institutions. The Center will serve as that structural mechanism for APPA to keep the flow of new information and effective and innovative practices coming so that we can stay abreast of the changing world in which we live.

As an international association located in the Washington, D.C. area, we have significant and fruitful opportunities to build and nurture strong ties with other associations and governmental agencies on behalf of our

member institutions. Our efforts in the coming year will continue to expand. First and foremost is our relationship with NACUBO, which has begun to flourish over the past couple of years. We experienced an extremely successful, collaboratively delivered Institute for Facilities Finance this past April, and plan to do so again in March 2002. In addition, the significantly revised edition of the former book titled *Managing the Facilities Portfolio*, will be published this year. It will be an essential monograph for your bookshelf. Delivery of electrical deregulation and energy strategies seminars will be coupled with our governmental strategic alliance partner, the Department of Energy/Rebuild America (DOE/RBA) program. Finally, we will continue to work diligently on our 2003 and 2006 annual meeting co-location plans with NACUBO and NACUBO/SCUP, respectively.

What institution couldn't use improved leadership skills and more effective communication across all departments? We will be taking small but deliberate steps in this direction by formulating the delivery of the Leadership Academy to at least two of our colleagues—NACUBO and ACUTA. We also expect to move ahead with the development of a collective leadership program for the CHEMA group (a group representing 34 professional associations across both the administrative and student affairs sectors of the institution). Individuals across all departments will gain immensely from the practical application of these essential people skills.

We plan to deliver an international symposia with the Office of Economic and Community Development (OECD, headquartered in Paris, France) that will focus on three separate but interrelated facilities management topics. The institution's leadership team will find these programs essential to their professional

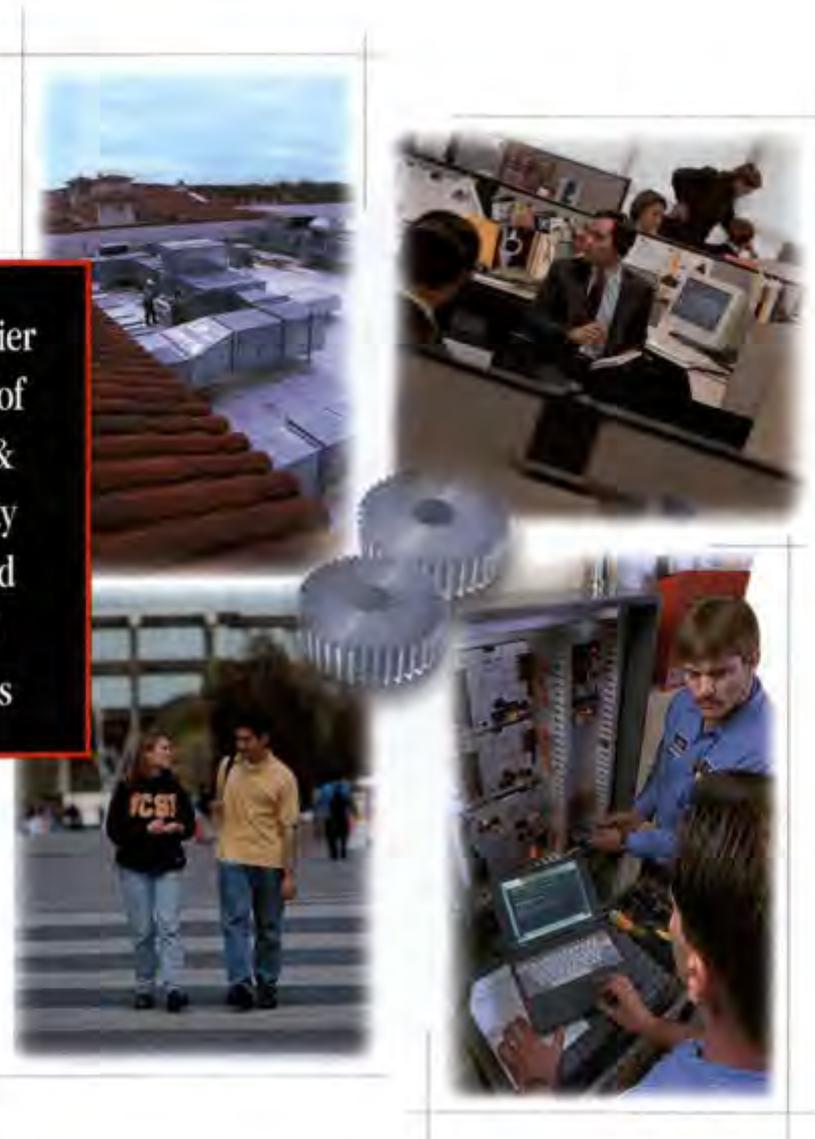
development. A publication of the findings and outcomes will be an important byproduct of the symposia as well.

Nevertheless, our only competitive advantage is the fact that you continue to choose to become members and remain members. Our dogged determination in retaining and further recruiting members is evident in all categories of membership. Very few associations can boast 90th percentile-plus retention rates and 5 to 10 percent growth rates. However, that said, our efforts could falter tomorrow if we do not continue to "reach out and touch you" in a myriad of different ways.

For example, we have engaged, and will increasingly do so in the future, in short feedback surveys, targeted focus groups, program evaluations, and specific survey research to determine future offerings and modify our delivery approaches. In fact, we will culminate our communications audit and begin implementing your recommendations for better communication and improved products and services. All of these activities taken together ensure our focus remains on you to further meet your needs and your expectations.

Maggie Kinnaman's beginning steps and John Harrod's final closure of our new strategic alliance with the Association of University Directors of Estates (AUDE), and the potential of a southern African APPA contingent of TIMCON are certainly representative of this year's Educational Conference and Annual Meeting theme: "Moving Beyond Boundaries."

From our present position of strength, we, too, will continue to press upon these boundaries to increase the active involvement and participation by individual members and the institutions and communities they serve. We are moving even closer to our vision of "becoming a Global Partner in Learning"—*building our children's future.* 🏛️



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## Where Has All the Talent Gone?

by Jack Hug

I have just finished a week of presiding over three retirements of key people in our Physical Plant Services Department. In stepping back and reviewing what has happened and looking to the future with some reluctance, the following facts and figures impressed me. In the course of the past 18 months our Physical Plant Services Department has lost 63 percent of its management team, with several others having given notice of their intent to leave within the next year. During the past six months, we have appointed 14 new supervisors. You could say that the Physical Plant Services Department is a department in transition...changing daily.

The facts and figures however, tell only the quantitative side of the story. It's the quality of the people who we are losing that underscores the significance of the situation. People who have been with the university for 15-20-25 years or more have left and others are planning to leave in increasing numbers; some for traditional retirement, some for self-selected early retirement, and some for other opportunities.

I must say that the loss of the investment that we have in these people and our inadequate preparation of others to follow in succession is disappointing. I have always taken great pride in the fact that we did a lot of training, education, and development of people throughout our facilities group. It is now obvious that we have

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not done nearly enough. Furthermore, the type of training we have sponsored (the curriculum) has missed the mark. Today's successful supervisor and manager still needs many of the old tried-and-true skills but in addition to this there is also a new skill set required...that is, if we are interested in improving support services to our institutions.

The loss of large amounts of talent in our support service sector, coupled with a continuously tight labor market and a history of underpaying for talent, have together increased the challenges for the facilities professional. I consider this a threat to the standards of service by which we are all being measured.

An interesting dilemma has emerged from our particular situation that I expect is occurring in other markets as well. For some time now I have made it a point to talk with every new employee coming into the department and every employee who leaves. For the new arrivals I ask each of them, "Why have you decided to join the Physical Plant Department?"

The answers are always the same: "For opportunities!" Interestingly enough when I talk with those who are leaving the department and ask, "Why are you leaving?" the answer is almost always the same: "For opportunities!"

Now doesn't it make sense that we should take a closer look at what is happening to people while they are with us and what we can do to provide internal opportunities? Why lose the investment made in preparing people to be successful in our distinct educational environment? Why can't we provide more opportunities from within the department so that we can achieve a return on our investment and ensure that we have a competitive internal pool of candidates when opportunities are available? These are the questions that will be occupying a larger space on the agenda of all of us as we move through the new growth period ahead.

Some campuses obviously have done a better job than others. I thought we were prepared but the sheer fact of the matter is that we have

dropped the ball in carrying out one of our most important responsibilities. Ensuring the successful handing off of responsibilities to well qualified and talented people who are properly and adequately prepared to take over and carry-on with the provision of successful facility services is a substantial challenge worthy of the highest level attention.

### **Focus on the Supervisor**

Lester R. Bittel in his early writings on "What every Supervisor Should Know" (first edition 1959, with additions in 1968, 1974, and 1992) writes that the book might well be called *THE TRUTH ABOUT SUPERVISION*. The facilities professional would be well advised to revisit the lessons so effectively articulated by Bittel and

improved and expanded by George B. Wright and a very small number of others who have worked a lifetime with supervisors.

What was true about supervision in the past is still true today. Those of us who consider ourselves leaders should keep in mind that the first task of leadership is to define reality. It seems to me that a critical require-

ment for successful facilities management departments today begins with defining the realities of the supervisory responsibility. It may be time for an intense review of how well we are providing this key link between management and the worker.

Today, it is easy to get caught up in the excitement of all the management tools, theories, and systems intended to help us improve our management. The menu of choices available to us is truly staggering. Sometimes it is necessary to revisit the basics and it seems more obvious to me that many of us need to go back to the foundation of supervisory and mid-management training in order to truly position the organization for a successful future.

There is a lifetime of requirements for supervisors to master and any facilities leader worth his or her salt will make the investment at this critical point in the organizational hierarchy.

So where has all the talent gone? Look around. There are a lot of new faces in APPA eager for opportunities within our organizations. For some, this acknowledgment may sound like a confession of missed opportunity. I will admit that we most certainly have taken our eye off the ball. The road to success for facilities management service organizations surely goes through the supervisors. So how are you doing? 📌



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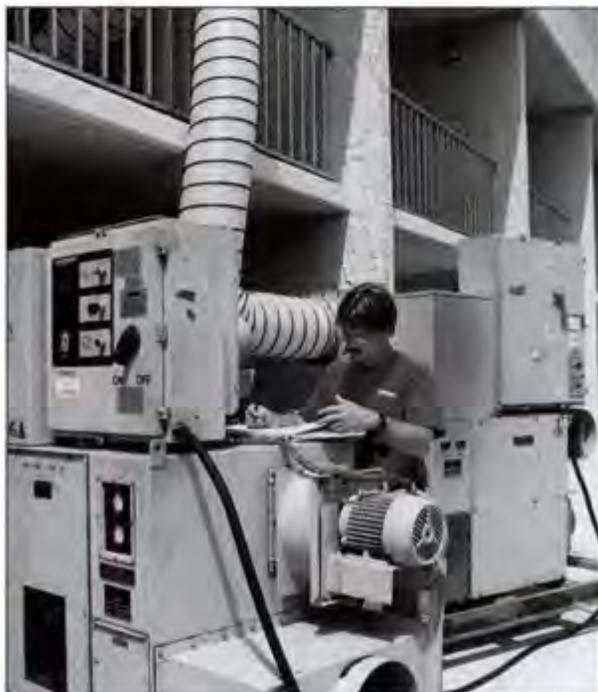
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## Welcoming All to APPA

by Dina Murray

The APPA Educational Conference and 88th Annual Meeting, July 22-24, 2001, at the Palais des Congres Montreal in Montreal Canada is a great place to throw out the word inclusiveness. It's tough being an outsider, looking into a sea of unknown faces. Think back to when you attended your first APPA or regional meeting. Were there friendly, welcoming faces or tight circles of different cliques? Most importantly, what impression of APPA or the regional meeting did you get and share with your colleagues?

While APPA wants all members to feel relaxed and at ease, special attention is directed to first-timers, new members, and international guests. At the annual meeting, first-time and new member attendees are invited to attend a welcome reception on Saturday, July 21st from 5:30 to 7:00 p.m. International guests likewise can look forward to recognition at the conference and are invited to attend the President's reception. These events are a great way to start your learning experience in Montreal, as well as meet other professionals, in a relaxed environment.

Another important focus for APPA is the younger members of the educational facilities profession. Employees classified as veterans or boomers, with years of expertise and a proficiency in subject matter, are valued whether on a campus or in a company, but younger employees classified as x'ers and nexters also have much to offer. Creativity and risk-taking are only two of the skills that younger employ-



ees possess. According to a study by Randstad North America in Atlanta, Georgia, differences do exist between generations of workers, but work ethics and values are the same for younger and older employees.

Last year at an APPA regional meeting, the president stood up during the business meeting and asked the members to look around the room. No explanation or reason was given and heads turned to see if there was anything that stood out in the crowd. Nothing was immediately noticeable or apparent other than noting that the majority of members in the room were men. The president then stated that the room was awash with gray hair. The audience laughed, but according to a survey conducted in December 1998 of 1,500 Board and volunteer members, current and expired members, and prospects, the average age of an APPA member is between 45-54.

All associations are facing a graying surge in their memberships. While these members are loyal, involved, and active in the association, their younger counterparts have different ideas about the importance of joining associations and organizations. Membership numbers for most groups are dropping due to the fact that younger people are not joining or staying in them as long as their parents or grandparents. The charge for APPA is to enhance the membership experience for younger members. The plan to recruit younger members into the organization is a long-range goal with many obstacles.

The Institute for Facilities Management is one of APPA's best vehicles for reaching out to younger members or those newer to the profession. Now offered twice a year in January and September, the Institute offers educational facilities professionals the opportunity to gain knowledge in the four competencies: energy and utilities; planning, design, and construction; general administration and management; and maintenance and operations. Besides increasing knowledge of the ever-changing industry, the Institute encourages networking and socialization in class as well as at meals and receptions. Registration for the September Institute in Scottsdale, Arizona, opened on APPA's website ([www.appa.org](http://www.appa.org)) June 1st. Registration for the January Institute in Tampa, Florida will open October 15th.

Mentoring is another way to reach out to younger employees and members. Recently I attended a seminar of association professionals where the topic of mentoring was enthusiastically discussed. Medical, law, trade, and professional associations all touted

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their mentoring programs for their younger or new members. Mentoring can be an experience in encouraging another person and in supporting their professional goals and objectives.

APPA's demographics have changed considerably since being founded back in 1914. Women have made strides in this profession, which was once traditionally all male. In 1993, the first female APPA President was elected: Diane Kerby of Berea College. Several years later, in 1999, Maggie Kinnaman from the University of Maryland, Baltimore was elected President. The country club mentality of many conservative and conventional associations and companies is hopefully a thing of the past. In order to stay vital as well as fiscally fit, associa-

tions must welcome all constituencies. APPA is focusing on small colleges, historically black colleges and universities, and groups affiliated with the K-12 arena.

Younger and new members should be proudly welcomed into the organization without hesitation. Without them, APPA's future would be solely based on current longstanding members, who are not only aging but also planning and looking forward to retirement from the profession. Encouraging younger members to join APPA does not have to be a documented recruitment plan, but it should be a concerted effort to talk to people in your workplace about APPA. While APPA is the association of choice for educational facilities professionals, younger people and those

new to the profession may not be aware of the benefits of APPA membership. Simply mentioning that you are a member of APPA could lead to someone new becoming a member.

What better time than APPA's 88th Annual Meeting and Educational Conference to bring these skills into practice? If you couldn't make it to the conference, make it a goal to reach out to a younger or new member this month. Let them know that APPA is here to support their professional goals whether it is through education, networking, publications, or helping to provide credibility and professionalism to a dynamic and changing industry. ▲

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## Opportunities Abound

by E. Lander Medlin

International APPA is uniquely positioned to align with and significantly influence our counterparts in the academic, administrative, and student affairs sectors of the higher education industry. In particular, our alignment with business officers, academic and administrative planners, information technology professionals, housing officers, and educational buyers is an important strategic initiative.

Our focus has been on: 1) the exchange and delivery of individual educational sessions at our separate annual meetings to include NACUBO, ACUHO-I, NAEB, and CSI; 2) delivery of joint educational programming such as the Institute for Facilities Finance with NACUBO, SCUP's PBS telecast on Technology-Driven Planning, and the Emergent Building Technologies Conference with five higher education association cosponsors; and 3) working closely with NACUBO to publish a revised edition of *Managing the Facilities Portfolio*.

International APPA has been able to focus its attention toward increased collaboration in part because of quality programming by a myriad of local/state chapters and the seven regions. Specifically, local/state chapters grow the membership at the grassroots level by creating individual, highly meaningful connections and networking opportunities, and offering educational topics that are both technical and supervisory in nature. The regions have become highly effective in their focus on both technical and managerial level training and development. Across this delivery chain, the chapters and the regions provide an essential set of services for the diverse and changing demands of the facilities professional.

So what can an international association do that the regions and local/state

chapters cannot? We have the opportunity to collaborate broadly with other associations and governmental agencies. These connections will further influence and increase the awareness of the facilities profession with senior institutional officers. Of special importance is our ability to co-locate our annual educational conference with some of our strategic association partners. I am pleased that the APPA Board of Directors chose to pursue this direction by approving co-location of our annual meeting with NACUBO in 2003 in Opryland, Nashville, Tennessee, and with both NACUBO and SCUP in 2006 in Honolulu, Hawaii. What an opportunity to deliver high-level general interest/plenary sessions, offer institutional team discounts for those institutions sending a team of finance, facilities, and planning professionals, and develop workshops targeting content across all three areas of responsibility!

So what is the value added for the business officer? Taken at face value, the physical infrastructure represents a \$500 billion dollar investment across the higher education enterprise—an investment four times that of the total endowment. Expenditures in this one sector of the campus alone far outweigh those in most of the other areas combined. No wonder there is such high visibility and exposure for those who represent or are associated with the facilities management profession.

As a significant area of responsibility, it is especially disconcerting for a business officer who may not be knowledgeable nor well-versed in facilities issues and concerns. Therefore, who would make a better partner than the business officer and the facilities officer (let alone the exceptional benefit the planning professional brings as

well) in increasing the shared understanding between colleagues and their professions.

Value added for the facilities professional has been aptly stated by Robert Kelly (an APPA board member representing the Australasia (AAPP) Region):

A joint meeting provides an opportunity to broaden one's perspective beyond our own areas and gain some insight into the issues affecting the higher education sector as a whole . . . our members can only gain from the cross-fertilization. And, there are a rapidly growing number of senior facilities management professionals who carry responsibilities for planning as well as operations.

Phil Cox, APPA's new President-Elect, said, "We are striving to become one of the key players who are invited as partners to the table where the important decisions are made for our institutions . . . I cannot think of a better way to raise the awareness of our facilities profession among our senior institutional officers."

After several meetings, all three associations agreed that the goals and benefits for a joint conference are:

- Share in quality education and joint programming;
- Provide program opportunities for cross-collaborative campus teams of attendees;
- Increase member/attendee value by broadening exposure to topics, speakers, networking, and trade show exhibitors at a single conference;
- Provide a three-in-one opportunity for smaller campuses where one person wears many hats;
- Outreach to international participants as attendees, potential new

members, and for program development;

- Build synergy and trust across the higher education community;
- Collectively increase ability to influence higher education;
- Focus on interdisciplinary team approach and offer discounted registration fees to teams;
- Pursuit of partnering and collaboration as key strategies in serving members;
- Build upon economies of scale;
- Opportunity to create add-on products such as publications and other tools and resources; and,
- Consider programs or events in conjunction with the University of Hawaii, Brigham Young University, Hawaii campus, and/or others.

So is the co-location venue of Hawaii an opportunity or an obstacle? After some expert research by our Vice President for Educational Programs Jim Roberts, we discovered that this is not an unprecedented move. Jim found that APPA's 60th Annual Meeting was

hosted in 1973 by the University of Hawaii. There were 218 attendees at that meeting with 36 booths. APPA had just achieved its goal of 1,002 total members, so nearly 22 percent of the membership attended the meeting in Hawaii. Will our attendance be down in 2006? Hard to say, but as Jim observed, we have plenty of time to plan for such a special opportunity.

It has also been said that Hawaii is an exotic location. I cannot and would not argue that point. However, the word "exotic" is usually followed by the immediate perception that Hawaii is not affordable.

According to airfare ticket wholesalers, and as confirmed by the Hawaii Convention Visitors' Bureau, the range in pricing for air travel to Hawaii from various mainland, regional-based launch points is as low as \$411 (PCAPPA) and as high as \$716 (SRAPPA) for weekday travel. To put this range in perspective, air travel to the West Coast (such as Seattle or Vancouver which was under consideration for

2005) from the other regions ranges from a low of \$331 (RMA) to a high of \$594 (SRAPPA).

On the average, hotel accommodations in Hawaii are less expensive than most first-tier mainland cities. Their large hotel inventory affords a wide range of hotel rate pricing of which we have taken advantage. The best comparison is with our present arrangement for 2006 at the Hilton Hawaiian Village (given a range of rooming options) which starts at \$165 (with the 5 percent standard annual increase clause) versus our present arrangement for 2004 at the Marriott-Wardman Park in Washington, D.C., which starts at \$155 (with the same 5 percent standard annual increase clause).

As for exhibitors, freight costs are higher (which normally represents 11 percent of total exhibitor costs), but those figures are offset by competitive hall rental rates, flexible hall labor policies, lower drayage costs, and lower-priced exhibit rental equipment and services. In addition, the Hawaii Convention Center is one of the most functional, high-tech centers in the nation. And, realizing that business is conducted and relationships are formed outside the meeting room, the designers of the convention center created several "networking" neighborhoods with inviting seating areas.

Hawaii is certainly strategically positioned between the largest economies of the east and west, offering an ideal location for a conference with a global focus. Since Hawaii is reasonably accessible to the national and international communities, this venue has much to offer APPA. What better way to actively engage our Australasian members and other international attendees, increase the awareness of the facilities profession with senior institutional officers, and move closer to our vision of "becoming a global partner in learning"—building our children's future. With a great deal of time to plan for such a special event, only the best is possible. 🏰

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# The Facilities Condition Index:

## *A Useful Tool for Capital Asset Planning*

By Don J. Briselden, P.E., and David A. Cain, Ph.D.



Imagine this scenario. A new vice president for finance and administration just returned from an annual NACUBO or SCUP conference and relates that he heard people discussing methods of forecasting capital asset funding. In those discussions people were comparing their institutions' Facilities Condition Index (FCI) as a useful measure of campus condition. The VP then turns to you and asks, "What is our FCI and how do we compare?" Of course, you are knowledgeable about your facilities and ready to provide the information requested. Or are you?

Let's respond to that question with a conversational definition of FCI. The technical definition is included later in this article. During a walking tour of any campus, a person with an eye cast toward the condition of buildings can form a judgment about their condition and can develop a sense of the existing maintenance liability. If one sees the paint peeling, indications of decayed surfaces, roofs that older than 20 years, you do not need to be an expert to realize that a sizable reinvestment is waiting. Often the outside condition reflects the

condition inside. Students, faculty, administrators, staff, and all other stakeholders form opinions and make judgments about the institution based on the appearance. These critical opinions fall into four intuitive categories of poor, fair, good, and excellent.

The FCI in practical terms has been a numerical rating system that translates what you see on your educational institution tour into a rational measure of the amount of deferred maintenance and provides a means of gauging the condition of the facility. The FCI is a metric that is used by numerous institutions as part of their capital planning process.

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### Facilities Condition Index

- ◆ Deferred Maintenance Deficiencies (\$) Divided By Current Replacement Value (CRV)
- ◆ Comparative Indicator of the relative condition of facilities

Figure 1. The Facilities Condition Index

We believe that the FCI is a useful assessment tool that should be in every facilities professional arsenal of tools. The FCI has been a feature of capital renewal and deferred maintenance (CRDM) planning for the past decade and is a generally accepted measure. More recently, the FCI was included as one of the key metrics within APPA's Strategic Assessment Model (SAM).

This article will provide a brief background of the development of the FCI, a few technical insights, and map the connection to the Strategic Assessment Model within the Financial Perspective. We will also offer the application of the FCI for the facilities professional.

### FCI Development and History

The FCI concept resides within the development of studies and models for capital renewal and deferred maintenance. For the past 40 years, institutions of higher education have struggled with their responsibilities for identifying their facilities needs and the responsibilities to fund the continuing renewal of systems and the correction of maintenance.

Many articles and publications are available as references. Two bookends that provide relevant information are: *Managing the Facilities Portfolio* (Applied Management Engineering and Sean Rush) and *Charting a New Course For Campus Renewal* (Rod Rose). *Managing the Facilities Portfolio*, published by the National Association of College and University Business Officers (NACUBO), provided the first conceptual framework for managing facilities assets. It was within that comprehensive framework that facilities professionals could see the value of the FCI as a measurement within a facilities renewal model.

More recently, the history of CRDM and the various funding models for capital renewal is documented by Rod Rose in *Charting a New Course for Campus Renewal*. That APPA publication brings forward a common vocabulary, defined processes, and helpful descriptions regarding capital renewal funding models. In those two documents, the facilities professional can find the information needed to establish a process for the campus.

The work to date has defined a common vocabulary and developed processes that are similar in content. The process for CRDM planning consists of these steps:

- Conduct a comprehensive campus-wide facilities audit.
- Assess the condition of each building.
- Determine the Current Replacement Value (CRV) for each facility or by types of facilities.
- Determine the Facilities Condition Index for each facility, by types of Apply the FCI within the institution's capital funding model.

The Facilities Condition Index (FCI) is a comparative indicator of the relative condition of facilities. The FCI is expressed as a ratio of the cost of remedying maintenance deficiencies listed in the deferred maintenance backlog to the

current replacement value. The FCI provides the facilities professional a method of measurement to determine the relative condition index of a single building, group of buildings, or the total facility (physical plant). This calculation also provides the facility professional a corresponding rule of thumb for the annual reinvestment rate (funding percentage) to prevent expansion of the deferred maintenance backlog.

The FCI can be defined in terms of the following equation:

#### • Facilities Condition Index (FCI) Defined:

$$\frac{\text{Deferred Maintenance } (\$)}{\text{Current Replacement Value } (\$)}$$

#### Deferred Maintenance Defined:

The total dollar amount of existing major maintenance repairs and replacements identified by a comprehensive facilities condition audit of buildings, grounds, fixed equipment, and infrastructure needs. It does not include projected maintenance and replacements or other types of work, such as program improvements or new construction; these items are viewed, as separate capital needs.

#### Current Replacement Value Defined

Current Replacement Value (CRV) is defined as the total amount of expenditure in current dollars required to replace the institution's educational and general facilities to its optimal condition (excluding auxiliary facilities). It should include the full replacement cost for all buildings, grounds, utility systems, and generating plants. Furthermore, it would meet the current acceptable standards of construction, and comply with regulatory requirements. It is recommended that the average total project cost per square foot, multiplied by the gross square footage of educational and general buildings be used for the building portion of current replacement value.

The cost to replace grounds, utilities and generating plant should also be include to the extent they support general educational facilities. There will likely require an apportionment of total replacement cost for these components that is consistent with the educational and general facilities they service and should exclude the auxiliary portion. Insurance replacement values or book values should not be used.

#### The Strategic Assessment Model and the FCI

APPA's Strategic Assessment Model, known as SAM, is an organizational excellence and continuous improvement model that is of high value to facilities professionals. SAM in its third and newest revision combines features of two performance models; the Malcolm Baldrige Quality program and Balanced Scorecard developed by Robert Kaplan of Harvard's Business School and David Norton of Renaissance Solutions, Inc. The Balanced Scorecard application within SAM has four perspectives—financial, internal processes, learning and growth, and customer service. SAM combines the features of the two models integrated into three components: The four perspectives of a Balanced Scorecard, the

quantitative performance indicators, and the qualitative criteria for determining the levels of performance. The FCI resides within the Financial Perspective. When one considers the CRDM model developed and explained in *Managing the Facilities Portfolio*, it becomes evident that the inclusion of the FCI within SAM is a logical step.

### SAM's Financial Perspective

Financial Perspective reflects the organization's financial performance in ensuring financial integrity and demonstrates stewardship responsibility for capital and financial resources associated with the operation and preservation of physical assets throughout the campus. Financial performance indicators are tracked to ensure that services are delivered in an efficient cost-effective manner. The Financial Perspective is linked to the other perspectives through the relationships between cost and the results in achieving the other scorecard objectives. For example: The facilities manager should understand how improving internal processes or customer satisfaction correlates with increasing or decreasing costs. Another application might be the determination of how financial benefits are derived from improvements in employee safety, absenteeism, and turnover. Primary services include those for operations and maintenance, energy and utilities, and planning, design and construction.

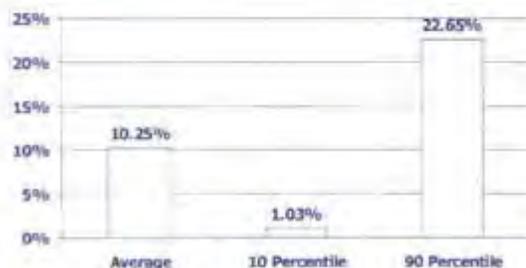
SAM enables the facilities professional to assess how the institution ranks within qualifying criteria at five levels of performance. The levels rank from the highest, Level 5 to Level 1. An institution at the highest level would have an established sound, systematic data collection, evaluation, and refinement program that was fully established which accomplishes overall perspective objectives. A Level 1 program applies to an institution where there is no systematic financial data collection program evident. Only anecdotal information is available on how well financial integrity and physical asset stewardship are satisfied.

A fully developed Level 5 institution would make full use of the FCI and have extensive documentation of the facilities conditions and use that information to support the CRDM funding model.

### SAM Survey Results and the FCI

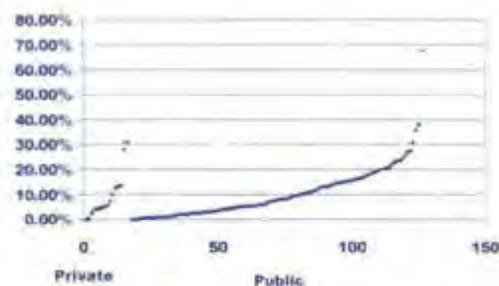
This past year, APPA's SAM Task Force has gathered, through an extensive institution national survey, a range of facilities related performance data. Illustrated here are the key graphs from the strategic assessment national data (FY 99).

### Facilities Condition (FCI) Index



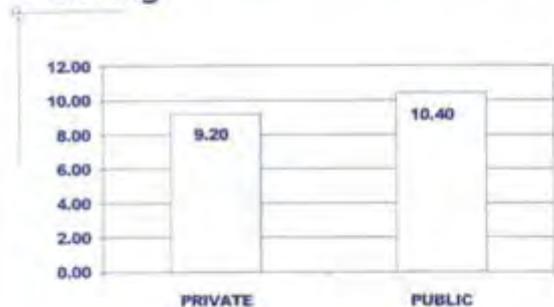
*This graph illustrates the average the average for the profession is 10.25%. When we remove the lowest and highest points on this distribution, 80% of data the points fall between 1.03% and 22.65%.*

### Facilities Condition Index By Funding



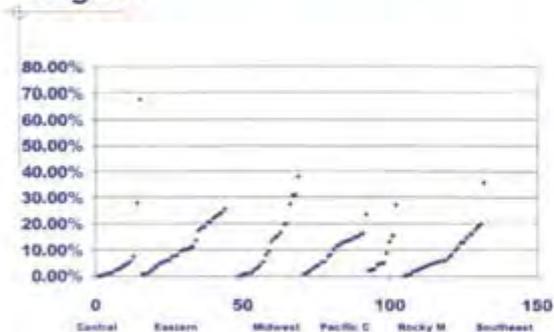
*Unlike some of the other performance measures, the private institutions have their data points spread almost over the full range of this index. What these charts show us is that there are a number of campuses with deferred maintenance within very tight boundaries, while there are others in deep trouble.*

## Facilities Condition Index By Funding



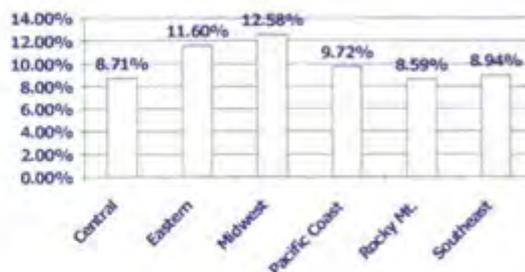
This shows the distribution between private and public institutions. When looked at in averages, 7.6% of the value of private institutions facilities and 9.2% of the value of our public institutions facilities are in need of maintenance. However, we note that our sample of private institutions is rather small and should not be considered statistically representative.

## Facilities Condition Index By Region



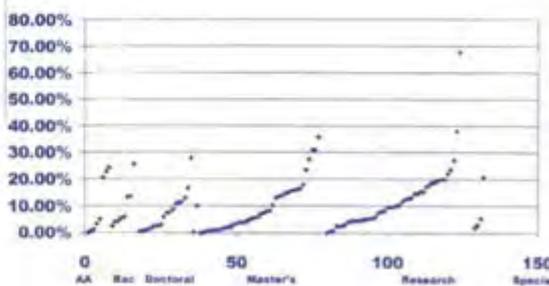
The data illustrates the FCI by regional index. We note the short range and the strong position of the central region.

## Facilities Condition Index By Region



This graph depicts the FCI percentage by region. The Rocky Mountain region has the lowest FCI while the Midwest region shows the largest percentage of need.

## Facilities Condition Index By Carnegie



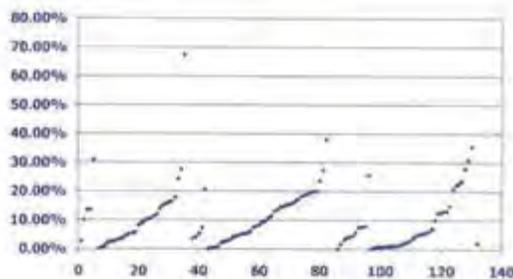
The data illustrates the FCI by Carnegie classification. The Doctoral Carnegie classification institutions seem to have the least high facilities condition percentages. Note that each of the Carnegie classifications go through the full range from low to high.

## Facilities Condition Index By Carnegie



This graph shows the relationship among classification types. In terms of averages, the K-12, and Doctoral Carnegie Classifications appear to have the better facilities conditions.

## Facilities Condition Index By Enrollment Range



This graph depicts the FCI associated with the institutions enrollment range. The 3,000-5,000-enrollment range shares the lowest FCI along with the 2,000-3,000 range, while the lowest enrollment range shares the highest FCI.

## Application for Facilities Professionals

The process of capital budgeting presents a full and useful kit of parts for the facilities professional. It is a process that can be adapted to fit the local situation. The FCI can be applied in a variety of ways. It is a key component in the planning process, as a calculation that brings insight to the campus facilities conditions, and as a comparative metric by which the facilities manager can see where the campus stands within a broader perspective.

Here are some thoughts about applying the FCI and a few insights into expectations. The Capital Renewal Model and the FCI, particularly its use within the context of SAM, provides leadership opportunities within the institutions financial and facilities planning structure. The facilities professional can utilize attributes of SAM and its included FCI to develop capital renewal recommendations for campus administrators and funding authorities. The FCI can be a valuable tool in planning specific renewal projects by providing insights into priorities. It can also be used to discern whether to continue to invest in capital renewal for a particular facility or look to new construction to replace the facility.

## Summary

This article may serve as a refresher to some who are aware of the FCI and SAM. It may very well be an introduction for others. We hope that it has shown that the FCI is indeed a useful and necessary tool that needs to be a part of every facilities professional's toolbox.

The new and improved model has just been published in a completely revised second edition of the APPA book, *The Strategic Assessment Model*. The application statistics about the use of the FCI will be available. We hope that the comparative measures will be useful to a wide range of facilities professionals.

Stay tuned and in touch. 🏠

## FOR ADDITIONAL READING ON THE FCI:

**APPA: The Association of Higher Education Facilities Officers.** *The Strategic Assessment Model*, second edition  
Alexandria, Virginia: 2001.

**Applied Management Engineering, P.C., and Sean C. Rush.** *Managing the Facilities Portfolio: A Practical Approach to Institutional Facility Renewal and Deferred Maintenance*.  
Washington, D.C.: National Association of College and University Business Officers, 1991.

**Rose, Rod.** *Charting a New Course for Campus Renewal*.  
Alexandria, Virginia: APPA, 1999.

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# A Fifty State Assessment of Capital Needs for PUBLIC HIGHER EDUCATION: POLICY OBJECTIVES

By Dr. Derrick Manns and Dr. Ron Opp



The capital renewal and replacement of the nation's public higher education facilities has been a growing problem for several decades. While the need for improved facilities has increased, access to high-tech research equipment is required. This expensive technical laboratory equipment and facilities must compete with other public priorities by federal and state policymakers. In 1990 Rush stated that most institutions have numerous capital improvement projects that are long overdue. As the age, size, and complexity of buildings continue to grow, so too does the amount of maintenance funding required to keep buildings in good working order.

Many believe that policy makers have understated the continuing decline in the state of America's educational facilities. A major national report released in 1989, *The Decaying American Campus: A Ticking Time Bomb*, painted a grim picture with enormous dimensions. This report estimated the total replacement value of U.S. higher education facilities to be \$300 billion. It further estimated that 20 percent of these facilities

required replacement and renewal at a cost of \$60 billion, and classified one-third of that as "urgent needs" (Rush & Johnson, 1989).

In terms of state tax appropriations for operating budgets, experts Edward Hines (Grapevine) and Thomas Mortensen (Postsecondary Education OPPORTUNITY) generally agree that public colleges and universities have been in a belt-tightening mode since the end of the Vietnam War and the baby-boom of the early 1970s. Some argue that managing restricted budgets makes educational institutions victims of their own success. Others argue that per-student expenditures are rising due to the increased costs associated with information technology. Clearly, as institutions grow to meet a dramatic increase in the size of the college-eligible pool during the first decade of the 21st century, so too will the demand for physical facilities. To address the lack of data regarding how states are meeting public higher education capital needs, a survey was undertaken in 1998 of State Higher Education Financial Officers (SHEFOs), with the formal endorsement of the Association of Higher Education Facilities Officers (APFA).

## METHODOLOGY

The purpose of this study was to assess and compare state efforts to fund public higher education capital needs. A panel of experts reviewed the instrument, which investigated the following issue areas related to capital needs: financing, planning, the decision-making process used in each state, available funding, and future policy directions. In addition, key variables were correlated to the Facilities Condition Index

*Continued on page 42*

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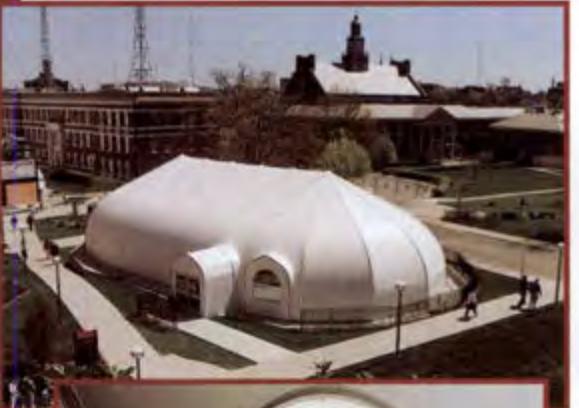


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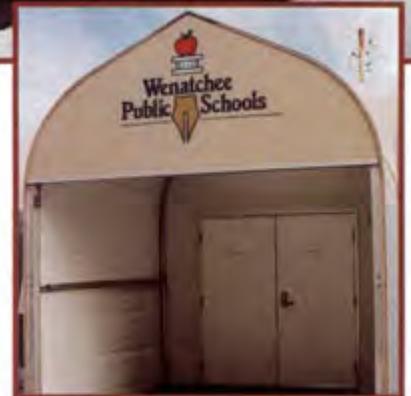
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**Table 1**

States responding to the survey

	Responding States	Non-Responding States	Total
Northeast	CT, IL, IN, ME, MA, NH, NJ, OH, PA, RI, VT, WI	MI, NY	12 of 14 86%
Southeast	AL, DE, GA, KY, MD, NC, SC, TN, WV	FL, MS, VA	9 of 12 75%
Northwest	AK, IA, ID, MN, NE, ND, SD, WY	MT, OR, WA	8 of 11 73%
Southwest	AR, AZ, CA, CO, HI, KS, LA, NM, NV, OK, TX, UT	MO	12 of 13 92%
Total:			41 of 50 82%

**Notes.** Some states have more than one state agency responsible for some level of higher education.

*Continued from page 39*

and the Deferred Maintenance Ratio, to explore the relative strength or weakness of the relationships. A second major goal was to develop a baseline of data that might complement the existing Grapevine database tracking public higher education operating budgets.

This study was limited to public higher education within the 50 U.S. states. The study was also limited by the time frame reviewed, the 1996-1997 fiscal year, which in most cases runs from July 1 to June 30. This fiscal year corresponds to the academic year that typically starts in August or September and ends in May or June. The year selected was the most recent for which complete state finance data was available. Surveys were mailed to the SHEFOs in each state, using similar methodology to that employed for over four decades by Grapevine. From the 50 states, 41 different states responded, representing 82 percent of the 50 states.

## SURVEY RESULTS

### *Primary Research Question*

1. What is the current status of state tax appropriations for public higher education capital needs, including new construction, rehabilitation, and deferred maintenance? The development of ratios and percentages that allow between-state comparisons was one of the major reasons for conducting this study. Assuming states provide hard data on capital appropriations, it is possible to compare them, by controlling for full-time equivalent enrollments, to produce meaningful comparisons, so that California, for instance, can be compared with Mississippi.

Data on capital budgets were obtained from the survey. Data for operating budgets were taken from the Grapevine database. The results show that a wide disparity exists between the states in terms of their operating and capital appropriations for public higher education.

Table 2 presents comparative data on higher education operating appropriations, state population, public higher

education enrollments, and spending per headcount student enrollment. Table 2 shows that, through the use of the Grapevine studies of state tax appropriations for public higher education operating budgets, an operating appropriations per headcount student enrollment figure for all 41 of the states responding to the survey could be calculated. This per student dollar figure is based upon the total operating appropriations divided by total headcount student enrollment in public higher education. The per student figure for operating appropriations ranged from a high of \$7,412 in Hawaii to a low of \$2,282 in New Hampshire, with an average across all states of \$4,470. A state ranking of these operating appropriations per headcount student enrollment was compiled, and is also presented in Table 2.

Table 3 shows that 33 of the 41 states responding to the survey instrument provided enough information to determine the capital appropriations per student headcount enrollment figure. This calculation yielded a per student dollar amount based on the amount of capital appropriations divided by the public higher education student headcount enrollment. The researcher then ranked states based on that figure. The per student figure for capital expenditures ranged from a high of \$2,515 in Connecticut to a low of \$0 in Wyoming, with an average among the 33 responding states of \$435.

Not surprisingly, state appropriations for capital needs are far less than appropriations for operating needs. This is not to suggest that these numbers should be the same, or even close to the same, since there are inherent differences in the uses of operating versus capital funds. Still, funds must be available for capital needs if instruction, advising, research, and other common functions in higher education are to take place.

### *Sample and Response Rate*

This exploratory national study assessed issues related to the planning, decision-making, and financing processes related to public higher education capital needs. The research instrument was developed in consultation with experts from APPA, State Higher Education Finance Officers (SHEFOs), and other persons knowledgeable about capital finance issues.

**Table 2**

**State Population, Enrollment, State Operating Appropriations, Operating Appropriations per Headcount Enrollment, and Rank (N = 41)**

State	1997 Population (thousands) <sup>a</sup>	Student Enrollment (Fall 1997 Headcount) <sup>a</sup>	State Operating Appropriations <sup>b</sup>	Operating Appropriations Per Headcount Enrollment	Rank
AL	4,319,000	196,531	967,749,000	4924	12
AK	609,000	27,828	172,011,000	6181	2
AZ	4,555,000	254,530	706,577,000	2776	39
AR	2,523,000	89,457	486,794,000	5442	7
CA	32,268,000	1,624,907	5,789,207,000	3563	34
CO	3,893,000	209,183	619,055,000	2959	38
CT	3,270,000	97,588	542,350,000	5558	6
DE	732,000	36,579	148,471,000	4059	25
GA	7,486,000	249,284	1,302,566,000	5225	9
HI	1,187,000	47,370	351,127,000	7412	1
ID	1,210,000	49,392	241,555,000	4891	14
IL	11,896,000	532,470	2,119,555,000	3981	29
IN	5,864,000	220,967	1,032,114,000	4671	19
IA	2,852,000	125,923	711,868,000	5653	5
KS	2,595,000	155,429	535,353,000	3444	36
KY	3,908,000	147,423	707,323,000	4798	16
LA	4,352,000	174,589	645,904,000	3700	33
ME	1,242,000	37,888	182,383,000	4814	15
MD	5,094,000	217,277	848,221,000	3904	31
MA	6,118,000	173,416	825,728,000	4762	17
MN	4,686,000	208,540	1,091,639,000	5235	8
NE	1,657,000	99,717	401,750,000	4029	26
NV	1,677,000	71,925	238,273,000	3313	37
NH	1,173,000	36,365	82,989,000	2282	41
NJ	8,053,000	264,596	1,343,849,000	5079	10
NM	1,730,000	97,630	487,390,000	4992	11
NC	7,425,000	302,939	1,852,013,000	6113	3
ND	641,000	36,765	153,815,000	4184	23
OH	11,186,000	405,339	1,770,185,000	4367	22
OK	3,317,000	154,381	616,700,000	3995	28
PA	12,020,000	335,181	1,649,324,000	4921	13
RI	987,000	37,487	132,358,000	3531	35
SC	3,760,000	148,363	906,325,000	6109	4
SD	738,000	28,564	117,401,000	4110	24
TN	5,368,000	194,097	919,211,000	4736	18
TX	19,439,000	838,091	3,191,337,000	3808	32
UT	2,059,000	114,195	457,516,000	4006	27
VT	589,000	20,139	54,868,000	2724	40
WV	1,816,000	74,755	342,178,000	4577	20
WI	5,170,000	244,628	966,966,000	3953	30
WY	480,000	29,994	135,034,000	4502	21

<sup>a</sup>From U.S. Bureau of the Census, Statistical Abstract of the United States: 1998, for public higher education.

<sup>b</sup>Data from Illinois State University (n.d.).

The methodological approach was modeled after the Illinois State University Grapevine studies of state tax appropriations for public higher education operating budgets, in order to (a) develop a comparable national data base, and (b) to lay the foundation for a longitudinal data base of state appropriations for capital needs that builds upon the strengths of the Grapevine methodology (ability to compare effort, capacity, etc.). A response rate of 82 percent, or 41 of the 50 states, was achieved, with response rates by region (Northeast, Northwest, Southeast, and Southwest) ranging from 73 to 92 percent. The overall response rate and the response rate by region were deemed sufficient for the analysis of data described below.

The study was designed to ascertain data about the status of new facilities construction, rehabilitation, renovation, and levels of deferred maintenance at the state level. Given that this research is descriptive, coupled with the fact that literature on this topic is quite limited, state level policy makers were asked to describe "what is" in relation to policy and funding for capital needs, so as to allow for a comparative analysis of the planning, decision-making, and financing of facilities for public higher education. The

*Continued on page 46*

**Table 3**

State Population, Enrollment, State Capital Appropriations, Capital Appropriations per Headcount Enrollment, and Rank (N = 33)

State	1997 Population (thousands) <sup>a</sup>	Student Enrollment (Fall 1997 Headcount) <sup>a</sup>	State Capital Appropriations FY 1997 <sup>b</sup>	Capital Appropriations Per Headcount Enrollment	Rank
AK	609,000	27,828	6,525,000	234	22
AZ	4,555,000	254,530	3,000,000	12	32
AR	2,523,000	89,457	8,800,000	98	29
CA	32,268,000	1,624,907	466,597,000	287	17
CO	3,893,000	209,183	173,200,000	828	5
CT	3,270,000	97,588	245,481,000	2515	1
HI	1,187,000	47,370	38,821,000	820	6
ID	1,210,000	49,392	7,700,000	156	25
IL	11,896,000	532,470	158,952,900	299	15
IN	5,864,000	220,967	111,000,000	502	10
IA	2,852,000	125,923	51,000,000	405	13
KS	2,595,000	155,429	20,000,000	129	27
KY	3,908,000	147,423	15,871,000	108	28
LA	4,352,000	174,589	45,000,000	258	20
ME	1,242,000	37,888	6,500,000	172	24
MD	5,094,000	217,277	147,155,000	677	7
MA	6,118,000	173,416	45,000,000	259	19
MN	4,686,000	208,540	90,100,000	432	12
NE	1,657,000	99,717	8,700,000	87	30
NV	1,677,000	71,925	65,000,000	904	4
NH	1,173,000	36,365	9,700,000	267	18
NJ	8,053,000	264,596	52,500,000	198	23
NC	7,425,000	302,939	183,000,000	604	9
ND	641,000	36,765	10,800,000	294	16
OH	11,186,000	405,339	273,300,000	674	8
SC	3,760,000	148,363	140,543,401	947	3
SD	738,000	28,564	565,000	20	31
TN	5,368,000	194,097	25,587,000	132	26
TX	19,439,000	838,091	844,000,000	1007	2
UT	2,059,000	114,195	50,000,000	438	11
WV	1,816,000	74,755	25,000,000	334	14
WI	5,146,000	244,628	59,000,000	241	21
WY	480,000	29,994	0	0	33

<sup>a</sup>From U.S. Bureau of the Census, Statistical Abstract of the United States: 1998, for public higher education.

<sup>b</sup>Data from Illinois State University(n.d.).



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results of this study are presented in the sections that follow: descriptive and inferential analyses.

### Summary of Findings

1. States face a major challenge with deferred maintenance in public higher education facilities. This study documents that higher education agencies are challenged to meet deferred maintenance needs, as evidenced by the large amounts of deferred maintenance reported by many states. Finding funds for physical plant maintenance can be quite a challenge, given the increasing competition for limited resources on many college campuses (Kaiser, 1996).

2. The majority of the states do not have long-range master plans for their public higher education facilities, nor do they conduct regular facilities audits. A majority of the states do not have a master plan for public higher education facilities, nor do they conduct facilities audits on a regular basis. Comprehensive master plans for public higher education capital needs, promoted as good practice for many decades by Halstead, Glenny, Kaiser, and others, simply do not exist in the majority of the states. The lack of statewide facilities master plans needs to be considered in the context of dramatic projected increases in student enrollments predicted over the next 10 years in a number of states. The higher education agency in Texas, for example, estimates room

will need to be found for over 500,000 additional students between 2000 and 2015 (Texas Higher Education Coordinating Board, 2000). Similar large growth in student enrollment is predicted for California, Florida, Arizona, Georgia, and New York (Gerald & Hussar, 1997). The influx of "Tidal Wave II" students predicted by Clark Kerr (1991) and others will serve to increase the demand for higher education facilities. Yet, neither California nor Georgia (Florida and New York did not respond) had master plans for facilities.

Federal and state policies to promote lifelong learning—for example, the federal Lifelong Learning Tax Credit—will also serve to increase demand for higher education facilities. The evolution in purposes for higher education has produced a major change in college participation rates. In a prior era, community college and public university enrollments would decline in good economic times, and rise as people needed "re-skilling" in bad economic times. Today, assisted by federal and state policies, college enrollments are rising even in states with fairly flat high school graduating class sizes. The simple fact is that there are more students starting and returning to the nation's publicly-controlled two- and four-year universities.

3. States use a variety of methods in the requesting and allocating funds for capital needs. Variability exists between states regarding processes by which they provide request and allocate for public higher education capital needs, as compared to

funding operating needs. The majority of states do not use funding formulae in requesting funds for capital needs. The majority of the states allocate funds for capital needs through their legislature, rather than through their higher education agency. It is clear that state legislatures view the role of the state higher education agency much differently when it comes to the allocation of funds for capital needs, as compared to operating budget needs. Legislators usually takes pride in the appropriations for capital needs because this is something they can point to as an achievement in their tenure.

4. Dollars appropriated for facilities vary considerably between the states. There is a wide variability in spending for facilities per headcount student between the states. The per headcount student figure for capital expenditures ranged from a high of \$2,515 in Connecticut to a low of \$0 in Wyoming, with a state average of \$435.

### Conclusions and Recommendations

1. The problem of facilities funding, particularly as it relates to deferred maintenance, is real. This study found that the central conclu-

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sion of both the 1989 and 1996 APPA-sponsored studies—that a ticking time bomb exists related to facilities—is true. Methodologically, the APPA studies assessed institutional data related to the Facilities Condition Index and the Deferred Maintenance Ratio using a representative sample of institutions, and then projected those results to the nation.

2. *The development of comprehensive strategies to address the deferred maintenance crisis and facilities backlog have not yet occurred at the state level.* It has long been generally accepted that state governing or coordinating boards should have master plans for the education of people beyond high school in their respective states. Such plans should be comprehensive in scope whenever possible, as Halstead has argued in the most in-depth treatment on the subject to date. In fact, the need for comprehensive planning across the entire state was consistently cited as a major justification and advantage for creating statewide coordinating boards and agencies in the first place. This comprehensive master plan should also include strategies for dealing with deferred maintenance in public higher education.

3. *While responsibility for funding public higher education facilities is shared between the state and the institutions, authority to solve the problem has not been clearly delineated.* The role of the governing board, the final authority for institutional governance, whose trustees are most often appointed by a process that involves governors, legislators, and local leaders, is specifically unclear as it relates to facilities. The board has responsibility for not only the academic entity, but for the physical plant as well (AGB & NACUBO, 1985). The multitude of methods by which facilities funding requests are developed and implemented in the request and allocation phases of the budgeting process would indicate that lines of authority and responsibility are not clearly defined between the institutions and the state, represented by the state higher education agency, governor, and legislature (Boyer, 1981).

4. *The lack of adequate master planning for facilities by states contradicts their own policies designed to promote access and lifelong learning.* Most states now have master plans in place that are designed to assist policymakers in meeting state higher education goals. Some of these plans are specifically tied to operating budget goals, with benchmarks to measure progress. Yet the majority of the states do not have comparable master plans for higher education facilities.

#### Recommendations

1. *A permanent longitudinal data bank of state tax appropriations for public higher education facilities should be established, supported by foundations concerned with facilities.* At this point there is no longitudinal database on facilities funding for public higher education to enable policy makers to determine changes over time. This study provided a single year "snapshot" picture of state tax appropriations for public higher education facilities. A longer-term view is clearly warranted. The U.S. Department of Education, the Education Commis-

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sion of the States, and the State Higher Education Executive Officers organization all have a vested interest to ensure that a longitudinal data set similar to that developed by the late Chambers, and continued by Hines and Palmer at Illinois State University, is established and continued.

With longitudinal data in hand, it may be possible to develop a set of "best practices" at the state level to assist state policy makers in legislatures, governor's offices, and higher education agencies in meeting capital needs. Due to the relative lack of literature on the subject, it is necessary to examine best practices at the institutional level, and project those to the state level. It is important to get beyond such "first order" analyses to a higher level of analysis, one that includes examination of funding formulae, actual case studies that examine the interplay of actors at the state level, and the interplay of operating and capital budgeting in both the request and allocation phase of the budget process.

2. *The role of the state higher education agency in collecting good facilities information should be strengthened.* State higher education agencies should routinely collect facilities data that informs their long-term state policy objectives related to access and lifelong learning.

3. *The role of institutional lay governing boards in facilities oversight should be strengthened.* That some states prohibit campus boards of lay governance from providing direct leadership for renewal of the physical plant would suggest the

primacy of the state role in the funding of capital needs. If states truly desire the decentralization of higher education and promotion of good institutional practice, they should create state policies that promote responsible and responsive institutional governing board oversight and leadership for campus facilities.

### **Concluding Thoughts**

New facilities constructed or upgraded today will likely be around in 2040, decades after any bond issue is retired. This is one of the best reasons for governing boards, the public, the business community and other interested parties to demand deployment of facilities funding. Higher education facilities will always be prominent in promotional materials, and a mainstay of campus tours. The trip to "Old University Hall" invites faculty, staff, students, and alumni to take a trip down memory lane.

Policy makers should consider a dedicated, permanent revenue stream to fund the construction, renovation, and rehabilitation of the public higher education physical infrastructure. Priorities currently in place assume an extremely limited amount of funding be allocated on an annual basis, and emphasize the improvement of existing space (patching), and deployment of limited resources now available to match available federal and private funds (attracting). Over the next several decades, the higher education enterprise will continue



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to require the construction, renewal and replacement of its facilities. Without adequate facilities, the academic enterprise will have difficulty meeting its fundamental societal purposes to develop talent and promote the cause of equity (Astin, 1985). Furthermore, developments in science and technology will require new investments in the research facilities on many college campuses. Because of these challenges to the physical infrastructure on two- and four-year college campuses, we recommend that the National Science Foundation and the National Institute of Health, in cooperation with APPA, SHEEO, NACUBO, and EDUCAUSE, commission a study to explore ways in which the federal and state governments can support the infrastructure needs of the American system of higher education.

Facilities will continue to be the backbone of American higher education: without buildings, research, teaching, and service cannot be conducted. Yet, public higher education in the United States has been under budget restraint and increasing public scrutiny. As a result, many state facilities budgets for public higher education have been cut or drastically reduced (Rush, 1990a). The capital renewal and replacement problem in public higher education can be solved, but it will require collaboration and coalition building among key stakeholder groups involved in public higher education at both the federal and state level. The capital needs of public higher education must be solved if the nation is to have the facilities necessary to meet the postsecondary educational needs of the 21st century (Rush, 1990b). ▲

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# REDISCOVERING THE SOUL OF SERVICE TO OTHERS

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By *Frederic J. Gratto*



I grew up in the 1960s and there are three things I know now that I wish I had known then. One is the value of hard work. I mean really hard work, in bad weather, with lots of adversity. My father had a sand and gravel business and my brother and I worked for him every summer and during school breaks. In the severe weather of upstate New York, we plowed snow, hauled rocks, gravel, sand, paved roads, cut pulp wood, operated backhoes, and moved earth. On those frequent occasions when the diesel equipment wouldn't start because of cold weather or when our fingers were frozen, we were inclined to give up and go home. But, my dad wouldn't allow this and fortified our resolve by saying: "Just do it." We heard this time after time and it finally sank in. Too bad I didn't write this down 30 years ago and tell somebody about it because we all know that this expression has brought Nike great financial gain and vast name recognition.

Another thing I wish I had known is the value of baseball cards. I had a shoe box full of them from the early days of Mantle, Maris, Koufax, Drysdale, Aaron, Clemente, Mays, Berra, and others that I just tossed in the trash when I left for college. The third thing I wish I had known about while growing up is the importance of service to others. This

knowledge would have made those days a lot easier and helped me understand my mother when she said that it's more blessed to give than to receive. I believe this now, and since I've been a father, I have tried to help my children understand the worth of serving others. I feel good that they've gotten the message and they feel good when they help others. Last summer, for example, my youngest son worked one Saturday at the local homeless shelter, spent a week in Mexico working on people's houses, and worked on a church in Texas for a week. One thing I have learned, for sure, is that the principles that bring about success in families are the same principles that lead to success in work environments. Whatever we do to shine at home can help us do well on the job.

Certainly, the rationale for investing in the lives of people at work is no different than the rationale for investing in the lives of family members. This investment pays big dividends because people who feel good about themselves produce good results. Since the people who work with us are important, we should spend a fair amount of time making them feel that way. This is a good idea because all people like to have their worth affirmed, even world leaders.

Consider this comment by Queen Victoria of England about Prime Minister William Gladstone, over a hundred years ago: "When I am with him, I feel I am with one of the most important leaders in the world." But, of Benjamin Disraeli she said: "He makes me feel as if I am one of the most important leaders in the world" (DeHan, 2000, p. 2).

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Likewise, as leaders, we can help people feel important and affirm their worth by acknowledging them, of course, and by serving them. I've discovered that when I use my position to be an advocate for the needs of the people who work with me, things get done faster and with fewer problems. In his handy little book, *The Heart of a Leader*, Ken Blanchard makes a similar point. He suggests that the traditional hierarchy is fine for goal setting, but once they are established, we should turn our organizational charts upside down. With this philosophy implemented, the role of the leader changes from being responsible to being responsive. Instead of people working for you, they are now working with you. This enhances relationships and allows an improved approach to leadership.

Blanchard states: "It becomes clearer to me all the time that leaders today have to start being cheerleaders, supporters, and encouragers, rather than judges, critics, and evaluators, (Blanchard, 1999, p. 93). I agree and think that part of being supportive is meeting the needs of others so I especially like this statement by Blanchard: "If you want people to be responsible, be responsive to their needs" (Blanchard, 1999, p. 42). In my experience, this approach to dealing with people works well. People appreciate those who help them. Besides, being of service feels good and it helps build relationships which means that jobs get done better and faster. Rick Pitino, the Celtics basketball coach, points out the utility of these relationships: "When you build bridges you can keep crossing them" (Pitino, 2000, p. 29).

### Leadership through service

According to the legend of King Arthur, the king died and a successor had to be chosen. There was considerable interest in how the process would take place. At this important time, someone discovered a huge rock with a sword stuck in it. Somebody with enough authority to make the proclamation decided that whoever could remove the sword would be declared king. Lots of strong people tried to pull the sword out of the rock but none could. Arthur was in the area helping a knight. The knight's sword happened to break and because Arthur had heard about the sword in the rock, he dashed off to get it to help the one he was serving. When he grabbed the sword and pulled, it easily slid from the rock. As a result he was proclaimed king. In trying to serve someone else, he had gained a kingdom. Likewise, today's leaders can accomplish any goal if we understand that our jobs are to help people do their jobs.

The best leader I've ever worked with, my dad, ran his business this way. He motivated others by finding out what they wanted and then he did his best to help them get it. Most of us take just the opposite approach. We first decide what we want, then try to persuade others to want the same thing. The fact is, though, that the quantity and quality of work that people do is impacted by their attitudes. I believe that attitude, for all of us, precedes effectiveness so I consider myself in charge of employee satisfaction.

Part of adjusting attitudes to help people feel satisfied on the job is to make sure they know how important they are. Buckingham and Coffman state: "In the world according to great managers, the employee is the star. The manager is the agent" (1999, p. 230).

Another thing I do to help people feel satisfied on the job is to make sure they know that I'm willing to do whatever I can to help them. This makes it easier for people to feel good about our organization, the worth of our mission, and the significance of their contributions. Coach Pitino said: "People have to know that they are an integral part of the group and that their success and the group's success is one and the same" (Pitino, 2000, p.58). When people really understand this concept, success in the form of improved customer satisfaction follows because people sincerely want to help each other.

Robert Greenleaf worked more than 40 years at AT&T and his second career as a consultant lasted 25 years. He made popular the idea of servant leadership in 1970 when he wrote *The Servant as Leader*. The idea of being a servant while being a leader was a result of his experience working with large organizations. However, the idea of servant leadership crystallized when he read a short novel by Herman Hesse, *Journey to the East*, an account about a mythical journey by a group of people on a spiritual quest.

Leo, the main character of the story, accompanies the group as a servant and his caring efforts help sustain them. Everything goes smoothly until the day Leo disappears. Soon there is confusion and the trip is abandoned because the group cannot function without Leo. Several years later the narrator of the story happens upon Leo and is invited into the religious order that sponsored the original expedition. There, he discovers that the man whom he knew as a servant is really the leader of the order. Greenleaf concluded that the central meaning of the story is that leaders must be willing to serve others.

True leadership comes from those who are motivated to serve others and this motivation determines success as a leader. Greenleaf's conviction is that leaders get commitment from others by giving it themselves and by serving others. This position is reinforced by the Bible; Mark 10: 43-44 states: "Whoever wishes to become great among you must be your servant, and whoever wishes to be first among you must become servant of all." This approach to leadership turns it upside down, which can be puzzling and challenging, but it does work well once the concept is understood. And, as is almost always the case, in serving others we get back more than we sow. I think that service to others is the gift that keeps on giving.

### No deposit/no return

The concept of servant leadership has left a lasting impression on those who are concerned about leadership issues, management, service, and personal growth. I'm interested in all of these. Service, for instance, is important because the



only reason facilities people are on campus is to serve others such as students, faculty, and staff. The issue of personal growth is another important matter to me because I'm trying to get a little bit smarter every day. Gradually, I'm discovering that my number one priority needs to be serving employees, others I work with, and the people in our school or university community. I know I can do this well because, unlike a lot of skills that require a fair amount of talent, anybody can be great because anybody can serve. All it requires is a feeling that it's good to be of help.

Probably most of us have this feeling, to an extent. We still open doors for others, still pause on a busy street to let others onto the road, still help with a heavy load, still find ways to help others. For example, in Physical Plant at the University of Florida, our Hope for the Holidays project at Christmas each year enables us to share our bounty with others less fortunate. Pam Walker coordinates this effort. Regarding it, she said: "It's wonderful to help the families of those we work with. Besides, it feels so good to do nice things."

Those who believe in servant leadership make a difference on the job by serving others so they can be satisfied, successful, and more likely to be servants themselves. People tend to think mostly about themselves so the transformation to thinking about others takes time. It's a different approach to life and work, one which has the potential to change organizations for the better because servant leadership emphasizes a sense of community, shared decision making, and a focus on customer service.

The premise of servant leadership is that leaders ought to be servants since the key people in any setting are the customers and the people who service the customers' needs. Therefore, investing in the success and lives of others is an effort worth making because it's the right thing to do and because it pays big dividends. Otherwise, our organizations will

be just like all the glass bottles along the roadside when I was a kid. This was printed on them:

No deposit/no return.

### Five characteristics of servant leaders

A word of counsel that points to a promising career as a servant may change someone's career. I feel certain about this because a good example and a few prophetic words from my father helped me understand the value of service to others and this knowledge impacts me everyday at work as well as at home. After many years of treating others as my father does and having read Greenleaf's book, I have identified some essential characteristics of a servant leader.

1. *Caring*: Based on what is reasonable and possible, ours is a low-caring society. The problem, I think, is mindset. Too many of us are too concerned about ourselves and our rights. Servant leaders, however, find it easy to think about the welfare of others and care enough to do something about it. They believe that people have worth beyond what they contribute as workers. As a consequence, servant leaders are committed to the personal, professional, and spiritual growth of everyone in the organization. On the job, this means establishing relationships, making opportunities available for training, and helping people establish priorities. Servant leaders are sincerely interested in those who work with them and care as much about the success of others as they do about their own. "To be a truly great leader you must give of yourself. You can't be selfish. You must convey a vision of partnership, that you not only care about the people who work for you, but it's important that they're successful too" (Pitino, 2000, p. 50). It's amazing how much you can learn by putting yourself in another person's shoes.
2. *Stewardship*: It's wonderful to be entrusted with the resources of an organization to get things done. Being a leader is a great opportunity. In fact, it's more than an opportunity. Roberts (1987, p. xiv) states: "Leadership is the privilege to have the responsibility to direct the actions of others in carrying out the purposes of the organization, at varying levels of authority and with accountability for both successful and failed endeavors." In Greenleaf's view, servant leadership is like stewardship because it means taking care of the human resources of an organization which, first and foremost, entails a commitment to meeting the needs of others.
3. *Listening*: Listening is powerful because it demonstrates a willingness to understand the unique needs and feelings of others. Therefore, leaders need to be especially good at listening. We can think faster than people can talk, so listening is not always easy to do. Sometimes, we're way ahead of the person talking, thinking of our own reply. To enhance communication, people need to believe that we really are listening to them and that what they say does matter. Communication is critical

to getting people involved, but it won't happen until people perceive that they really are involved. "Unless the employee feels that the immediate supervisor has the will and the latitude to involve that person in important decisional matters, then there really is no involvement in any meaningful sense. (Brady, 1989, p. 54).

4. *Empathy*: I've found that I can't move people to action until I first move them with emotion. The heart comes before the head so it's important to build relationships with people before asking them to follow. Knowing their needs, and meeting them, helps develop credibility and relationships. "When a leader has done the work to connect with his people, you can see it in the way the organization functions. Among employees there is incredible loyalty and a strong work ethic. The vision of the leader becomes the aspiration of the people. The impact is incredible" (Maxwell, 1998, p. 107).
5. *Creating Culture*: Servant leaders know that an organization's culture, like a person's character, guides behavior, provides a sense of identity, and determines expectations. The leader is the one with the greatest impact on the culture. "Leaders set the tone, leaders create the environment for growth, development, and performance; and leaders get out of team members or staff the effectiveness and the reinforcement that gives them the power to achieve" (Melrose, 1998, p. 286). My observation is that a workforce tends to take on the qualities of the supervisors and become an extension of them. This is very important because, in my opinion, the thing that motivates or discourages employees the most is the attitude of their supervisor. When we, as leaders, create a culture of service, supervision will extend the notion of helping others to those who do the real work of the organization. An emphasis on serving can become the expected way of doing things. By our acts we will have persuaded others to voluntarily follow because they believe our path is the right one. Here's another thing my dad told me: "You are the message."

### Manage an outpost, not a fortress

As colonial America was being settled and periodic wars raged, brave souls set out to establish some permanence and dominance on the frontier by building fortresses. Inside, there was a sense of accomplishment, some safety, and no more progress was needed, at least for a while. Outposts, on the other hand, were extensions of civilization where, perhaps, only even braver souls dared to go. By venturing out into new areas, they sought to gain more ground, accomplish more good deeds, and help more people. For those who operated outposts, the status quo wasn't good enough. They had a vision and felt compelled to get out and do more for others.

Servant leaders are probably a lot like those who worked at outposts. They want to extend themselves by doing as much as they can for others. This approach to leadership is worthwhile because of the results it brings.

There are at least three good reasons to be a servant leader. One is that it works. In their book *In Search of Excellence*, Peters and Waterman identified the impact of servant leadership and observed that a caring attitude toward employees pays big dividends. Another reason to be a servant leader it is that it's action oriented. There's always plenty to do because there's no end to the number of people who can benefit from your help. A third reason to be a servant leader is that by really caring for others, we show that we believe in and appreciate people and their potential.

### You can't catch fish in the sink

In order to catch fish you have to go where they are. Likewise, in order to help people you have to go see them and offer to be of help because most people usually won't ask for it. That's one of the funny things about human nature, I suppose. However, in a caring organization, one where servant leadership is part of the culture, people will expect help even if they don't ask for it. If employees know that help is always available they'll know that others feel the same way. This mindset encourages people to treat others, such as coworkers and customers, as they like to be treated.

Concentrating on service is just a matter of rediscovering the Golden Rule. The aim of treating people as we like to be treated honors them as inherently valuable and shows appreciation for their contributions in the workplace. Servant leadership helps us consider individuals in particular rather than people in general. It provides a framework within which we can improve the way we treat those who do the work on campus. When service to others is the first priority, success is a likely consequence. This is good to know because in the time that we have it is surely our duty as leaders to do all the good we can for all the people we can. 🏰

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# Occupancy Chargeback



an overview of different models and a glimpse of 'one' future

by Garry Bradley and Con Mozjerin

It is worth noting at the beginning that there is no general agreement in the Facilities Management area of Australian universities as to the benefits, or not, of adopting Occupancy Chargeback. At the AAPP Space Charging and Space Utilisation Workshops, held at the University of NSW in March 1999, the attendees were evenly split between those for and those against. Obviously, in presenting this paper, we are in favor and believe in the advantages. However, we do not seek to present Occupancy Chargeback as the panacea to accommodation problems. Each university and college must examine its own needs, its strategic directions, and the means of achieving them.

This paper will present a simple overview of what is behind the move in introducing Occupancy Chargeback on so many campuses; examine the two basic models with particular reference to RMIT University; what associated support mechanisms may be required; and, a glimpse at what the future may hold.

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## What is driving the move to chargeback ?

### 1. Government

"Universities should implement a space charging system to act as an incentive to ensure the economical use of existing properties and requests for additional space. In audit opinion, a charging system which seeks to allocate the full cost of space to user departments based on total existing property holdings will achieve the maximum benefits for the University"

*Victorian Auditor's General Report, May 1995*

### 2. University Governance

In the past decade there has been a much greater emphasis placed on management, leadership, accountability and financial responsibility within Australian universities. This has, in turn, led to the need to identify and understand the cost drivers within the 'business'

- to assist strategic decision making
- to better inform decisions on fee-paying courses, consultancy, etc.
- to enable universities to set their own student fees—should this occur

Capital Asset provision and maintenance is the largest non-salary component of overhead activity costs in universities

- the level of expenditure in Capital Assets needs to be related to overall revenues

### 3. Facilities Management

Within Facilities Management groups in Australian universities there is a desire to;

- encourage improved utilization of space,
- reduce capital resource requirements,
- improve the overall quality of accommodation,
- improve overall accommodation planning,
- make those occupying space cognizant of the cost of that space,
- give control of the resourcing of accommodation to those who are in occupation, and
- develop a client service culture

#### The 2 basic models of Occupancy Chargeback

The two basic models are:

1. Operational Cost Model
2. Capital Cost Model

#### 1. Operational Cost Model (RMIT University)

The model is based on 'operational costs' only. At RMIT it takes the Property Services Group's operational budget (approx. \$21m) and allocates this to users (e.g., Faculties and Administrative Groups).

The chargeback rate is based on the square meter or m<sup>2</sup> (UFA) that are occupied by the user. The Chargeback rate is made up from two elements:

- Direct operating costs: e.g., cleaning, utilities, direct maintenance
- Indirect operating costs: e.g., security, gardening, planning, leases

The charges were initially developed as a 'flat rate per m<sup>2</sup>' with the only differentiation being the campus, e.g. City, Bundoora, and Other.

Charges are based as much as possible on a 'pay as you use' basis. As such the centrally controlled space, such as the large lecture theatres, is charged by an hourly rate to users based on their booking of the space.

The 'model', as established at RMIT, was to be 'budget neutral' in the first three years of operation. It was intended to initially be simple to enable the concept of Occupancy Chargeback to be the focus rather than the means of calculating space charges, the distribution of funds, or the existing overall allocation of space. As such the allocation of funds and chargeback were based on the m<sup>2</sup> (UFA) that were occupied and a flat rate used. The intention was to develop chargeback once the concepts were understood and accepted.

The further stages were to include differentiation by space type (e.g., wet lab, office area, computer lab, etc.) and quality of the space. It was also intended that the 'security' of simply allocating the funds provided to the Property Services Group, within their annual budget, to the users would be replaced by the direct allocation to the users. The nexus between allocation and chargeback, provided by Property Services controlling both processes, would be broken.

Under the existing model allowance is made so that:

- If a Department vacated space they were area able to retain those funds associated with the space vacated. This was intended to provide an incentive for vacating poorly utilised space. Checks are in place so that the space vacated needs to be potentially 'usable' by other clients.
- If a Department wants additional space, they have to fund the charge unless the reason for the additional space requirement can be justified by reference to a University sanctioned profile change, etc.
- Vacant space is an overhead charged to all Departments

A single monthly statement is issued by Property Service Group with all charges including user pays charges (e.g., key cutting or removals). This statement includes any variations in level of service required by a client, such as a higher standard of cleaning, as specified within the Service Agreement between Property Services and the client.

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<b>Total Direct cost</b>		<b>39.64</b>	<b>38.06</b>	<b>15.82</b>
<b>Indirect</b>		\$	\$	\$
Security	Card access system, guarding and patrol, alarm maintenance, sprinkler systems—fire prevention, security patrol—contracts, fire prevention.	9.15	9.32	0.80
Gardening	Gardening contracts, ground staff, consumables.	0.48	7.94	0.28
Maintenance	Lift maintenance, plant preventative maintenance, plant—corrective maintenance, carpentry, engineering and mechanical engineering, plumbing, signage, electricians, asbestos, preventative maintenance, minor works, support staff—engineering and workshops areas.	30.63	12.05	6.74
Administration	Support staff, operating costs.	3.78	2.60	3.54
Planning & Policy	Planning and policy support, campus planning, space management, Group directorate and finance.	2.59	2.59	2.59
Leases	Rental, rates, insurance.	7.12	-	11.05
<b>Total Indirect cost</b>		<b>53.75</b>	<b>34.50</b>	<b>25.00</b>
<b>Total Space</b>		<b>93.38</b>	<b>72.57</b>	<b>40.82</b>
<b>Charge</b>				

## Charge per m<sup>2</sup> (UFA):

The Occupancy Chargeback rate used by RMIT in 2000, based on a charge per m<sup>2</sup> (UFA), is as follows:

### RMIT 'Operational Cost Model' - SWOT

In assessing the operation of the Operational Cost model used by RMIT the Strengths / Weaknesses / Opportunity / and Threats are seen as being:

#### Strengths

- Introduced without major disruption
- Education and cultural change has largely been achieved
- Service delivery focus established
- Property Services operations realigned on 'client service' basis
- Highlighted 'hidden' subsidization issues Opportunities

#### Opportunities

- Offers response to tight budgets
- Assists in moves to establish total cost of delivery
- Support for chargeback well established—can
- now move to further development/enhancement
- Introduction of 'Capital Costs' possible
- Need for better utilization and use of space accepted

#### Weakness

- Did not provide high incentives for more efficient use of space
- Capital costs not addressed
- Service standards are 'benchmarks' no punitive damage or quality improvement provided for
- Due to financial process—control still perceived as being vested in Property Services group
- Little real impact on utilization

#### Threat

- Can become too bureaucratic
- Can be seen as political rather than practical
- Loss of ownership if cultural/structural issues not addressed
- Potential to become dollar driven rather than service driven
- Perceived by some to be against the cultural tradition of a University
- Stimulates demand for access to quality facilities

## Capital Cost Model

Capital Cost Models use portfolio valuation and/or capital replacement costs as a basis in calculating an 'opportunity cost' for the space being occupied by a Department

E.g. Capital Replacement Cost	\$2,200 m <sup>2</sup>
Interest rate	7.00%
<hr/>	
Opportunity Cost	\$154.00 m <sup>2</sup>

Capital Cost model is normally used in conjunction with the Operating Cost model to identify the 'full cost' of providing accommodation

E.g. Operating Cost	\$ 75.00 m <sup>2</sup>
Capital Cost	\$154.00 m <sup>2</sup>
<hr/>	
Full Cost	\$229.00 m <sup>2</sup>

### Capital Cost Model - SWOT

Some of the Strengths/Weaknesses/Opportunity/and Threats are seen as being:

#### Strengths

- Covers full-cost
- Provides high incentive for more efficient use of space
- Similar to 'commercial' environment
- Subsidisation level fully exposed

#### Opportunities

- Requires differentiation between space types/quality
- Supports drive for quality
- Supports Capital Investment decisions

#### Weaknesses

- Radical change from current practice at most Australian universities
- Danger of over-pricing of space

#### Threats

- Seen by users as 'commercial' may stimulate demand for punitive damages by client for 'poor service performance'
- Likely to stimulate demand for quality space that may outstrip the ability to provide

## ***In summary .... What decisions need to be taken?***

1. Basis for calculation of the charge:
  - Operational - based on recovery of costs such as utilities, services, etc.
  - Capital - based on 'cost of space' - similar to commercial lease
  - Combination of the above
2. Method of charging:
  - Flat rate per m<sup>2</sup> regardless of use, space type or quality
  - Weighted rate based on space type, e.g., lab, office, classroom
  - Weighted rate based on quality, e.g., new high quality building
  - Combination of the above

## ***What else is needed to support chargeback?***

In establishing Occupancy Chargeback there was a need to address a number of related issues both to enable the introduction of chargeback and to ensure its operational success. Some of these issues were:

- Introduction of a negotiated Service Agreements with clients groups detailing the standard of service to be provided by Property Services:
  - bins emptied daily
  - no lift out of action for more than 24 hrs unless a major failure
- A major cultural change for the facilities area to a 'client service' basis—RMIT's Property Services Group was restructured
- To support 'client service' a Central Service Desk and Client Relations Managers were established to act as main points of contact and to ensure client satisfaction
- The requirement to monitor performance—BIEMS was implemented to track and record all works requests, response and completion times
- The need to know what you are managing—the requirement to ensure that there is a complete and accurate space database of the space being held by the University, including: accurate CAD drawings, coded by space type; and information on the occupant.
- To enable the client to make informed decisions on the management of space it was necessary to provide access to some basic 'tools', e.g., extensive utilisation studies have been undertaken, data on space occupied validated by users, service costs distributed, and service levels understood.

## ***The future?***

"To ensure the cost information needs of universities are kept current as strategies change to meet competitive pressures and opportunities, the framework for cost management needs to be continuously challenged. Institutions and their leaders need to understand how they create, maintain, or destroy value by their decisions and actions. Structuring information in an organised and methodical manner should assist all university staff to better understand their actions and decisions by focusing attention on those activities that create economic value."

*DETYA ABC Pilot Study at RMIT University  
June 1999  
Ernst & Young*

## ***Activity Based Costing***

- Activity Based Costing is an approach to costing that considers the resources consumed by activities in order to create and deliver a product or service. Whereas the underlying assumption of a conventional costing system is simply that products cause costs, an activity based costing system assumes that cost objects (e.g. a subject) creates the demand for activities (e.g. teaching), which in turn causes resources to be consumed (e.g. academic time, lecture space, etc.) and causes costs. Cost objects are the reason for performing activities, and activities are the processes or procedures that cause work and create costs.

ABC analyses costs from the perspective of the how much a particular activity costs, and the amount of resources consumed by the end product of the activity. Using activity based costing differs from traditional cost accounting in that the focus is on the activities that are required to produce an end product, rather than assuming that the volume of the end product is the only driver of costs.

- The study undertaken by the university focused on those costs associated with the use and maintenance of all property, buildings and grounds at the university for the twelve months to 31 December 1998. The reasons for selecting these costs were that the level of resources invested in land and buildings, and the associated annual cost required to utilize these assets are significant, and are an 'intermediate' or component cost in nearly all of the university's core activities.

Occupancy Chargeback concentrated on the end product, i.e., cost of space, activities were not reviewed, nor were considered influential in the process of determining costs

- Total of 46 activities were identified at high level that provided an opportunity to review the current practices and reveal actual costs associated with operation and maintenance of space. The cost of all relevant activities were assigned to cost objects using the most appropriate activity drivers available. These included the number of

work orders (for the provision of maintenance services); the number of room hours booked (for centrally controlled space) and the number of square meters occupied (for activities dependent on usage of space).

- An evaluation of the results of the project against the original objectives of the pilot study indicated that ABC can provide an effective cost management tool that can be readily applied and utilized within the higher education sector. In so far as investigating facility costs for a university, the methodology has given university managers

a new perspective on these costs and has highlighted suspected areas that require further review.

- The structure applied under the ABC methodology firstly identified the resources required to perform the activities which were costed and the costs applied to the end product. This was done by applying the activity drivers i.e., m<sup>2</sup>, No. of Works Requests, Hours of Usage of Teaching Space, were used to assign the cost of activities to the cost object—the cost of space.

<b>Resource:</b>	<b>Activity:</b>	<b>Cost Object:</b>
<b>Salaries &amp; Wages</b> > salaries > Salaries on-costs > salary related expenses  <b>Operating Costs</b> > communication > equipment > printing & stationery etc.  <b>Capital</b> > equipment/plant > buildings & infrastructure	<b>Direct</b> > cleaning > utilities > maintenance  <b>Indirect</b> > security > gardening > admin' etc.  <b>Capital</b> > opportunity cost > maintenance > refurb' & upgrades	<b>City campus</b> <b>Bundoora campus</b> <b>Other....</b>  <b># General space types</b> eg. lab, office, classroom, ancillary, etc. - cost m <sup>2</sup> per annum

A simple example of the above indicates how costs are determined under the ABC Model:

<b>Resource:</b>	<b>Activity</b>	<b>Cost Object:</b>
<b>Salaries &amp; Wages</b> - Carpenter - Plumber - Admin. Officer	\$1,000 \$2,000 \$1,500	<b>City Campus</b> \$7,500
	<b>Direct</b> - Maintenance \$3,500	

<p><b>Operating Costs:</b></p> <ul style="list-style-type: none"> <li>- Communications      \$1000</li> <li>- Consumables        \$1500</li> </ul> <p><b>Capital</b></p> <ul style="list-style-type: none"> <li>- Equipment            \$3000</li> </ul> <p style="text-align: right;"><b>\$10,000</b></p>	<p><b>Indirect:</b></p> <ul style="list-style-type: none"> <li>- Planning            \$1,000</li> <li>- Supervision        \$3,000</li> <li>- Administration    \$2,500</li> </ul> <p style="text-align: right;"><b>\$10,000</b></p>	<p><b>Bundoora Campus:</b></p> <p style="text-align: center;">\$2,500</p> <p style="text-align: right;"><b>\$10,000</b></p>
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**Resource Drivers**

(assigning of cost to activities)

**Activity Drivers**

(assigning of costs to cost objects)

### Conclusion

- Chargeback gives the 'controlling hand' to clients in terms of quality, cost effectiveness and determination of 'client satisfaction'.
- Facilities provision and academic planning should be much more closely aligned under chargeback.
- Potentially Cost Centers will be able to redirect former facility operating costs into other areas of their operation.
- There is a risk—facility groups may be required to operate with possibly significantly reduced funds (*international experience has shown this to be sometimes the case*).
- Expectation that total space provided will decline over time, utilization rates will improve, and that the quality of the remaining space will improve. 📌

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# Beyond "bricks and mortar"

A LEADERSHIP MODEL FOR COMMUNITY OUTREACH



By Jacqueline Hall Kelly and Dennis Cesari

*A good traveler has no fixed plans and is not intent upon arriving. A good artist lets his intuition lead him where it wants. A good scientist has freed himself of concepts and keeps his mind open to what is*  
—Lao-Tzu

Participation in the planning process for construction projects need not be limited to managers and administrators in the college or university environment. In fact, it must go beyond this environment to include the external community. Community outreach should be an integral component of the planning process. Administrators in colleges and universities, particularly in urban areas, operate in highly complex environments. These environments reflect diverse groups whose voices demand to be heard. Addressing these groups' concerns can prove problematic when their goals conflict with those of the owner (college/university). Yet, these communities cannot be ignored. Design and construction management is not merely about issues of physical structures, "bricks and mortar." It is also about communities—the people, their agenda, and their politics.

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This article shows how the leadership at the University of Missouri System not only addressed the technical and structural issues surrounding the construction of a \$50 million Performing Arts Center project at its St. Louis campus, but more specifically, the people and political issues in its community outreach initiative. This took place within a volatile political climate. On a segment of I-70, near the University of Missouri's St. Louis campus, a group of minority contractors and others obstructed traffic, protesting the Missouri Department of Transportation's underutilization of minority laborers and contractors. The protest, which occurred late summer (1999), received national attention. Given that political climate and the scope of the Performing Arts Center project, it was imperative that the University managed complexity, multiple stakeholder expectations and demands in an effective manner. The I-70 blockade was a presage for the University of Missouri. Tichy & Cohen (1997) stated that leaders of organizations must face reality, size up a situation as it really is, not as they would like it to be.

This article, therefore, provides a brief theoretical framework for viewing issues multi-dimensionally; secondly, it describes the highly successful leadership model that was the foundation for the university's community outreach initiative; thirdly, it addresses four critical issues faced by the university. Construction administrators at other colleges and universities can glean lessons from the University of Missouri's experiences.

## A Multi-dimensional approach

Much of the literature on leadership and managing change addresses the importance of viewing issues within an organization from multiple dimensions. Given the complex

environments in which leaders and administrators must operate, Bolman and Deal (1991) asserted that leaders and administrators must be able to diagnose their organizations and frame problems in a way that mirrors the complexity of their internal and external environments. Leaders and administrators in design and construction must draw not only from their own technical fields of expertise, but also from social sciences research. Bolman and Deal (1991) identified four frames (perspectives) that leaders can use in making decisions: structural, human resources, political and cultural.

They must be able to make decisions that take into account not only issues that deal with roles, responsibilities, policies, hierarchies (structural); employee needs, feelings, skills, motivations (human resources); but also issues relative to coalitions and conflicts, special interests, scarcity of resources, power (political); and symbols/meanings, norms, values, rituals, ceremonies (cultural). Bolman and Deal (1991) further remarked that only when administrators and managers can view decisions from all four frames (perspectives) are they likely to appreciate the complexity of an organization and make effective decisions. Success in leadership requires artistry, skill and the ability to see organizations as organic forms in which roles, needs, power and symbols must be combined to provide direction for decisions and thus shape behavior.

Similarly, Tichy (1984) compared organizational issues and managing change, metaphorically, to a rope with three strands: technical, political and cultural. These strands are interrelated; thus all must be addressed when making major organizational decisions.

### Leadership model

The planning process for the Performing Arts Center project at the University of Missouri's St. Louis campus was based on a leadership model that transcended the "walls" of the ivory tower. The model contained a major outreach initiative that included the external community, their input and participation. It required active listening to voices within the community, often listening with the "third ear." In its outreach efforts, the University conducted an informal, informational session for Minority Business Enterprises (MBEs) interested in the project. Minority contractors and suppliers provided input and suggestions on a number of issues, as well as expressed appreciation to the university for soliciting their input.

In response to their feedback, the university also held a networking luncheon for all contractors, minority and majority, interested in bidding the Performing Arts Center project. As a result, relationships were built, business cards were exchanged, and in some instances, discussions about partnering and joint ventures took place. These actions by the university resulted in overwhelming support and cooperation from the external community. Construction for the project began in April 2000. The anticipated date of completion is November 2002.

The university sought widespread participation from both minority and majority contractors and suppliers. Planning for the university's outreach initiative started long before the project's bid date, January 25, 2000. A minority-owned construction management firm was hired to identify minority subcontractors and suppliers interested in bidding the project. The Performing Arts Center project was widely publicized in minority-owned, as well as mainstream newspapers. Phone calls, personal letters, and faxes were sent to subcontractors in various construction trades, encouraging them to bid the project. The project was also promoted among minority contractors' associations and business councils. Project plans (drawings and program manuals) were distributed to plan rooms throughout the greater St. Louis metropolitan area.

The Performing Arts Center was not merely another project. It was to be a monument to the arts, the citizens of the state of Missouri, and the greater St. Louis metropolitan area. Because of the size, scope and the politics around the project, collaboration and teamwork were paramount. The momentum surrounding the project reflected the art, drama and excitement of a well-orchestrated live performance—one deserving of a standing ovation. Pivotal to the university's success in working effectively with multiple stakeholders was its ability to resolve four critical issues.

### Four critical issues

A number of issues had to be addressed by construction administrators and leaders at the University of Missouri, namely, the involvement of non-university constituency/stakeholders in decisions that were within the owner's (university) domain, the achievement of both quality and acceptance in decisions made, the resolution of conflicting expectations, and the lack of trust and communications between minority and majority contractors.

1. *Should key constituencies of the non-university community be included in construction-related decisions that are solely within the jurisdiction of the owner (university)? In other words, should the owner solicit input from special interest groups and individuals on decisions that are within its domain?*

The answer is an unequivocal "yes." Why? Construction administrators, who fail to recognize the significance of the non-technical aspects of their decisions, risk their effectiveness as leaders. Universities are not islands. They cannot exist independently of the larger (external) community. In addition, they need to be "good corporate citizens" who are equitable and whose decisions reflect participation by diverse groups. The University of Missouri solicited feedback from various groups during the planning phase of the Performing Arts Center project. Controversy often surrounds participation goals for minority and women-owned businesses on construction projects. There were spirited discussions and feedback from minority contractors and suppliers about the university's MBE participation goal.

The university eventually increased the goal, from 15 percent to percent. With everyone working together—contractors, contractors' associations and others, the goal was attained, thus creating a "win/win" situation. Actual participation achieved for minority and women-owned businesses on the Performing Arts Center project was 34.6 percent (18.1 percent and 16.5 percent respectively).

Morgan (1988) maintained that administrators have multiple responsibilities to a wide group of stakeholders, including employees, customers, distributors/suppliers, the community, politicians and special interest groups, whose expectations and demands often conflict. A major task confronting administrators is managing multiple expectations and demands. Morgan (1988), too, described the contemporary organization as a network, one that is managed as a system of interdependent stakeholders. Network management involves managing relations. The manager/leader of the future needs to be a good negotiator, capable of finding the unifying themes that allow fundamental conflicts between stakeholders to be resolved.

### 2. How should decisions be made so that both quality objectives and widespread acceptance are achieved?

Even decisions that are rationally conceived and meet quality criteria—cost effectiveness, technically correct—often go awry. The best-laid plans can be disastrous, unless there is "buy in" or acceptance. Generally, people support decisions in which they have input. Good decisions meet both criteria—quality and acceptance. In its community outreach efforts, the university involved a number of stakeholders. This was critical to the success of the planning process.

Morgan (1988) commented that organizations often attempt to simplify the planning process by eliminating the influence of potentially disruptive elements. That influence is usually delayed rather than removed. It surfaces later as opposition to implementation. Further, leaders and administrators must recognize the "stake" and potential contributions of stakeholder groups, adopt stakeholder perspectives in the planning process. Create an environment that encourages differences in opinions, trust and respect. They must show that they are sincere and are listening by their willingness to modify their decisions based on new information. The University of Missouri modified its MBE participation goal based on new information—the university's own research and that of the construction firm hired to identify minority suppliers and subcontractors. The revised MBE participation goal was accepted and supported.

### 3. How should issues of conflicting expectations between external groups and the college/university community be addressed?

Leaders and administrators in construction might reframe the problem to create new solutions or new potential for development. Engage in a group exercise where they identify (a) those things they can do, (b) those things they can do, but don't want to, and (c) those things they cannot do (policy/legal constraints). This exercise enables them to see new possibilities, to discover new opportunities and choices when their options initially seemed limited. They must be willing to see things differently, to check their views against reality. This illuminates additional opportunities and provides more "tools." As the adage goes, if a hammer is the only tool one has, the tendency is to see everything as a nail.

Construction leaders and administrators might survey other organizations with similar projects to see what their experiences have been. The University of Missouri contacted other institutions regarding their MBE participation goals for mega construction projects.

Fairhurst and Sarr (1996) remarked that if we communicate that we understand another's perspective, we show regard because we have taken the time to consider an alternative view. Consequently, others tend to be more favorably disposed toward us. Moreover, Morgan (1988) asserted that managers of the future will have to develop their ability to "read" and anticipate environmental trends, skills that facilitate proactive management; develop an ability to manage from "outside

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in"—forces within the external environment—and position and reposition their skills that will allow them to identify new opportunities. Specifically, they must find ways of reframing problems so that negatives become potential positives, opening new avenues for development.

4. *How should issues of trust and communications between minority and majority contractors be addressed?*

One alternative is to convene both groups in an informal and relaxed setting, one that is conducive to communications and building relationships. For example, prior to the official pre-bid meeting for the Performing Arts Center project, the University of Missouri convened minority and majority contractors for a networking/informational meeting. This occurred in response to specific feedback from minority contractors, a recognition about the tenuousness of relationships between contractors. As lunch was served in a roundtable format, everyone was introduced—contractors, consultants, suppliers and university personnel. Overall, there was a sense of camaraderie.

The university continually emphasized teamwork and cooperation for the success of the project. When people feel

comfortable with one another, communications and trust begin to build. Inevitably relationships are formed. Morgan (1988) suggested that in building bridges and partnerships among diverse organizations, it is necessary to recognize that differing values, opinions and ideologies are inevitable. The most robust relationships are built around recognition and respect for those differences. Not only must minority and majority contractors listen to one another, college and university administrators must also listen. Communication is everyone's responsibility.

## Summary

Given the exorbitant costs of construction projects, colleges and universities cannot afford to ignore community voices. Participation in the planning process need not be confined to the "walls" of the ivory tower. The University of Missouri System reached out to the community. Likewise, decisions should transcend the structural/technical issues surrounding construction projects, and include people, political and cultural issues as well.

Decisions should be made from multiple perspectives (frames), taking into account a range of issues. Administrators' approach to major issues should mirror the complexity of their environments; otherwise, they risk their effectiveness as leaders. Colleges and universities consist of multiple stakeholders. It behooves administrators to solicit the input of stakeholder groups, particularly those in the external community. As Robert Burns so aptly stated in his poem, "To A Mouse," "The best - laid schemes o' Mice an' Men, Gang aft a-gley" (often go awry). 🏰

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## Sharing Power: The Rules of the Game

by James E. Christenson

*Which way did they go?  
How many of them were there?  
How fast were they going?  
I must find them!  
I am their leader.*

—Author unwilling to  
provide name

Leaders cause change. But leaders need help to make change—or anything else—happen. There are many ways that such help can be obtained. Organizations are classified by the method the leader uses to get the help needed to cause or make changes.

Professors Kim Cameron and Robert Quinn have created an assessment instrument called Prism 4 to determine an organization's profile, which directly measures these leadership qualities, among other things. Members of an organization distribute a fixed number of points in response to competing statements about the characteristics of the organization, the leader, management of employees, organizational glue, strategic emphases, and criteria of success. The points are then totaled in four categories that lead to a quadrilateral plot determining the extent to which the organization leans toward each of the four competing organizational cultures: the clan, the adhocracy, the hierarchy, and the market.

Cameron and Quinn define these organizational cultures in some detail and then give each participant an opportunity to determine which profile the organization should move toward. Without going into too much detail, the first two cultures tend to

minimize control over people, while the latter two typically maximize that control. The anonymous leader who uttered the words at the beginning of this column, had created an organization with a strong emphasis on individual freedom. To a degree, that would be a good policy for, say a hi-tech development company. A typical, old-fashioned government agency would be heavy on hierarchy, and a good facilities organization would be market driven while encouraging staff member flexibility (a high level of adhocracy).

While different missions require different work cultures, most organizations have moved from hierarchy toward adhocracy. Unfortunately, in many cases this has happened without setting appropriate boundaries for people. The results are that morale is not improved (as hoped) and the organization also fails to accomplish its mission.

Let's review what has happened in the last few decades. The sergeants-become-foremen of World War II and the Korean War have retired. Their hierarchical supervisory style has slowly faded in most organizations. In the early 1980s, Ken Blanchard, and many other authors, suggested we ponder the fact that people get excited about bowling, fishing, gardening, and other after-work activities, but are rarely excited about what they do at work. It became apparent that people enjoy doing what they have control over and can see the results of. To the extent that people have no control or don't realize the difference their efforts make, they feel used. Employees are like robots; and they often act like it. For these people, the organizations they work for are known for their un-stated expectation that employees

leave their brains with their cars in the corporate parking lot.

Japanese manufacturers, guided in part by W. Edwards Deming, were the first to capitalize on cultural phenomena. Quality circles and various forms of total quality management are the result. In the last decade, most industrialized countries have belatedly awakened to the need to radically change the work culture in order to increase quality and productivity. The word "empowerment" is in everyone's lexicon and is now practiced, to varying degrees, in most viable organizations.

Kimball Fisher refers to empowerment as the second industrial revolution. Therefore, it is not a flavor of the month, but rather a competitive necessity. An amplified definition of empowerment adopted by the Plant Operations Division of the University of Michigan in 1995 was "...taking more personal control of your work life for the betterment of the organization. It means having the authority to take increasing personal responsibility, ownership, and accountability, within defined boundaries, for the what, how, and when of the job. This involves the freedom to make decisions, innovate, take risks, make mistakes (and correct them), without fear. It requires continuous learning as well as an open sharing of knowledge and innovation with co-workers, workers, and customers."

Unfortunately, in some organizations empowerment was interpreted to mean "no rules." Organizations moved at lightning speed from heavy hierarchy, replete with policies, procedures, and flowcharts to neutral, and finally to nothing. This created anarchy, not empowerment.

Those of us who have worked at changing the work environment, to

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one where each individual has more control over his or her own work, have realized, sometimes later than we should have, that empowerment does not work without boundaries and a lot of training. Empowerment—the sharing of power—is not a quick fix. It requires a major investment of time and energy, but the long-term dividends are well worth the investment.

The University of Michigan Plant Academy is the staff development arm of the university's Plant Operations Division. They define boundaries as "the framework that makes it possible to transform a workplace into a more empowered environment." Boundaries were further described as the start and end points of a task, the limits of what is and is not appropriate action. They are macro-managing rather than micro-managing. They use vision and principles to manage, more than policy and procedures.

This framework includes mission and guiding values of the organiza-

tion, the needs of customers, legal or government guidelines, budget, and so forth. Instead of restricting employees, boundaries define the territory within which individuals have complete freedom to operate and make decisions. Empowered people don't have to tell a customer "I'll have to ask my boss about that," because they own the territory and have the final word within their boundaries.

Empowerment causes casualties. The most common casualty is the first line supervisor. Empowerment demands a completely new role. Coaches and facilitators are needed, not bosses. The supervisor may need to arrange for or provide training in decision-making, dealing with difficult people, budget guidelines, and more. Moral support by the supervisor is critical. While most individuals enjoy exercising control over their work world, a few do not. The organization needs to determine whether there is still a place for staff members who want to be told what to do and

how to do it. And the organizational leader will have to determine what to do with supervisors who refuse to make the transition from bosses to coaches and facilitators.

In 1988, William C. Byham wrote a wonderful fable entitled *Zapp! The Lightning of Empowerment*. With the help of Ralph and his "Ralph-olator," which could inject people into the 12th dimension, a company, that believed in ultra-tight control, slowly became a great place to work and returned to competitiveness. After spending some time observing people from his 12th dimension vantage point, Joe Mode, a supervisor, wrote in his notebook that "When you have been zapped (given power), you feel like...

Your job belongs to you.

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You know where you stand.

You have some say in how things are done.

Your job is a part of who you are.

You have some control over your work."

That's what empowerment means to the person on the front line. That is the person who your customers see more than anyone else. There's a good chance that a "zapped" person will give the customer a much better impression of the facilities department than one who has been "sapped" (drained of power). The benefits compound. An empowered work force is self-directed and much more efficient. Fewer supervisors and managers are required. A complete layer of management can often be eliminated and retrained for other positions. The supervisors and managers who remain can concentrate on where the organization needs to go next and new ways to realize the vision. They can anticipate, rather than react.

Organizations can no longer be effective without shared control. With targeted training and boundary setting, any organization can be transformed. The difference in the campus community's perception of your organization's performance may surprise you. 🏠

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## Measuring Maintenance Performance

by Matt Adams, P.E.

Continuous improvement for the various service centers within the facilities management operation requires measurement. In the past, this measurement was largely based on the shared and exchanged expectations between the business office and the director of facilities management. This departmental measurement was contingent on personal chemistry and individual perceptions (and sometimes baggage), and highly vulnerable to inaccuracy. Two seasoned professionals could disconnect if for no other reason than a difference in terminology. Industry best practices now dictate that practical and easily discernable measurements replace the old system. APPA has assisted with this effort by publishing *The Strategic Assessment Model* (the second edition will be available July 2001). This model offers basic measurements that are common to all facilities management departments. Linking these and other unique measurements for each institution is the next step to continuous improvement through measurement.

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Currently, the first business practice used for measurement is "measurement of service output." This seems basic enough, but it can be very involved. For example, at Sinclair Community College, the administration has developed "measurement of outcomes," which measures service output, and coined them "key performance indicators." At Brookhaven National Laboratory they are called "critical outcomes." Other best practice institutions use a variety of names, but the designs of the tools have some basic similarities.

For the sake of this discussion, we will use the expression critical outcomes. The facilities management department must co-develop a small number of high-level outcomes that are priorities for the campus as well as the facilities department. They must be simple and meaningful to every level of the institution's administration. For example, five basic critical outcomes might be: capital investment strategy; financial performance; staff professional development; building and campus system reliability; and resource management. These

goals are high-level and consistent with the goals of many universities. In an integrated system of outcomes, the critical outcomes of each service center are designed in support of those at the next level within the institution. In this way, the measured goals of every management function and ultimately staff member are in support of the overall mission of the institution.

Metrics are used to measure critical outcomes. However, not all metrics need be empirical. In fact, many of the services and functions of a facilities management operation are more accurately described in terms of performance ranges within peer industry practices. The metrics can be brief, text-based measurements gauged by ranges of performance. Using the critical outcome, capital investment strategy, add example metrics. A typical metric could be: Systematic identification, measurement, and investment of the University's capital budgets to maximize building performance; facility serviceability; and increase support for the educational mission. A metric described in this text format serves as a common means of communication between the senior administration and facilities management department. A mutually understood text reference is required to enhance the measurement process. It clarifies any differences in terminology; but more importantly, this format clarifies mutual goals for facilities management and the university.

Metric performance ranges for this critical outcome can include financial and/or statistical ranges, but only in part. For each metric there are typically identifiable processes, characteristics, or policies that are directly related to the various ranges

of performance. Each of these identifiers are like gradients on the measurement scale. The scale starts from the most basic of peer performance levels to the department's goal or the industry's optimal best practices. At Sinclair Community College, Larry Blake, the director of facilities management, identifies the ranges of performance in one of three perform-

ance "buckets" or ranges: threshold, target, and maximum. For each of the metrics, Mr. Blake and the vice president for business operations share a common platform for evaluation of outcomes versus resources committed and expended.

Another approach to metrics based outcome measurement is the highly integrated process utilized by John

Eldert, vice president, business and financial affairs, at Babson College. Mr. Eldert applies a measurement process to the facilities management department that is highly effective for in-house or outsourced operations.

In his plan, the three levels of the measurement plan are coined: Strategic Plans, Tactical Plans, and Operations Management. The measurements or metrics are applied to the last level. However, unlike some measurement strategies, this one applies metrics compiled for the entire department to each of the major service centers within the facilities management department. Therefore, the outcomes of the department as a whole are reviewed in the context of each service center within the department.

In some ways, this is the next level of measurement and more specific than many peer benchmarks. In addition, the Babson measurements assess the variance between planned versus actual outcomes, and applies a process to either make adjustments to the operations, in order to achieve the desired outcomes, or critically review the viability of the planned outcomes.

While the implementation of these measurement programs might seem cumbersome to some managers, the results speak for themselves.

Creation of common ground to measure operational success is really the missing link for many professional facilities administrators. With these systems, there is no longer confusion over the services and goals of the facilities management department. In addition, clear definitions of success are mutually agreed upon and published. Again, this sounds simple, but most facilities administrators operate without a clear definition of what their university considers winning or losing performance. 🏆

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## Boundary Breaking

by Jennifer Graham

In Facilities Management, there are many boundaries—from school policies to government policies to EPA specifications to student needs, and so on. Moving beyond these boundaries is the theme for this issue.

How does one accomplish this? It seems as though to move beyond a boundary you would have to come up with a novel idea or a new invention; something groundbreaking that would test limits and remove boundaries. Well, sometimes that's true, but it is also true that boundaries can be broken by the small, individual efforts of a collective group of people, with common interest and goals.

Take yourselves for example. As members of APPA, you are participating and assisting in the collective effort of facilities managers, around the world, to move beyond the boundaries they face at their respective schools. And the APPAinfo list exemplifies this concept. Taking the time to reply to questions your colleagues have is a small effort, but, whether you realize it or not, you are helping someone else move beyond a boundary.

**Question:** *I have been in facilities for about 4 years now. I've been relying on others' building code knowledge. Now that I have the time I want to learn the codes for myself. How would you suggest I go about this?*

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- A great site is [buildingteam.com](http://buildingteam.com). They have a codes database that allows the user to check any codes and/or code authority. This site also includes Architects First Source product info broken down in the CSI format. This is an informative site and costs nothing to use.

**Question:** *We have a running track in our sports facility in which the runners have decided its okay to spit on the track as they are running or walking. Signs have no impact and we now are being asked to install the plumbing and fixtures for spit sinks. My experience suggests these become targets, but rarely do the "spitters" hit the mark and you end up with a consolidated mess instead on one spread through out the track. Neither option is compelling to me. How have others been successful in dealing with this problem in similar facilities?*

- We have a field house with a variety of athletic facilities including an indoor track and there are "spit" sinks in the facility. They are used, but my guess is we still have people spitting on the floor. I have seen the spit sink used during practices and athletic events and it is located near the drinking fountains where the frequency of spitting is the most common.

**Question:** *We are building a night maintenance capability on campus to handle after hours calls, accomplish work not easily done while employees and students are trying to concentrate during the day, and to begin a serious and consistent PM program. For those of you who run such an operation, how do you handle shop sharing, tool sharing, and vehicle sharing with the "normal" day crews?*

*My operations manager wants to give them their own shop, tools, supplies, vehicles, etc. In my opinion, that would be a total waste of resources since all the day stuff is just sitting there unused, so I am unlikely to approve that. However, there are valid concerns about accountability, pride of ownership, etc. Additionally, how do you transfer or coordinate "left-over" day work to the night crew? How do you handle the day crew saying "the night crew screwed it up they should fix it," and vice versa?*

- We just instituted this within the last 3 months. We're getting more sleep. We let them use vehicles that the day crew uses. The supervisor operates out of a shared office with a day supervisor. They have individual lockers. Small bags of common tools are individual, but would be individual for each day person too. They have access to the shops, but their work seldom requires them to spend much time there. Trade off of work is done by overlapping them with the morning shift. Also the supervisor has e-mail. Have a restful night. I'm sure you deserve it.

**Question:** *We are now in the design development stage of a new arts building and the issue about indoor air quality was brought up when discussing the ceramic studio. Apparently, the dust from the ceramic/pottery/kilns can be a problem. I would appreciate any information anyone might have on this issue that might help us specify the appropriate protocol and/or control system (i.e., exhaust fans, filtration, cleaning, etc.).*

- Some of the raw products and the clay that has been dropped on the floor and allowed to dry out are very high in silica. These can cause silicosis. The areas where the clay is stored and mixed require local collection system(s) to control stray dust. The ideal for controlling the dried clay problem is good housekeeping habits of the students and staff. If you drop it, pick it up before it dries out and gets tramped into dust.
- High levels of general ventilation will help to keep the dust levels down. Recirculating filtration units in the area is an alternative that can be moderately effective at typically lower operating costs than ventilation systems. There are also health issues with some of the glazes ranging from asbestos to heavy metals. Another area where a properly designed control/collection system may be appropriate. If you are building an

arts building, make sure your consultant has experience in industrial ventilation. Most HVAC designers cannot handle the design issues found in arts buildings. They are much closer to industrial facilities than office/classroom buildings.

- We've just been through all this. As part of the programming work for an art and dance facility that is now in construction, we engaged an art safety consultant who was very helpful. Ceramics has several issues, but the actual mixing of clay is key because it gets into OSHA silicosis problems. Our consultant recommended purchasing mixed clay, and outfitting the studios with very generous exhaust systems to deal with the pieces that hit the floor and dry. The artists countered that mixing the clay can be as much a part of the art as forming it, and that the students needed this

experience. So, everyone had good points, but the consultant report said that if the mixing choice was taken then all sorts of mechanical controls needed to be in place. We now have clay and glaze mixing in a discreet space in order to control dusts, tracking and so on. Glaze formulation can be a smaller but no less serious issue as many of the glazes contain heavy metals. It seemed to us that the engineers response to these sorts of issues was always to add an air-handler, but we sort of put our foot down on glaze and designed a slot vent at the work surface that will be hooked to a negative air HEPA machine, much like those used in asbestos containment, with a net savings of \$50,000. Mechanical issues in art will eat you up unless you convince faculty to change processes (and you can't but the dean might)! 🙏

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## Preventing Mercury Pollution

by Santo Manicone

The recent news reports concerning school closings due to mercury spills and the high costs of cleanups have sparked a major push by state and federal agencies to ban the use of mercury-containing material in schools. The same amount of mercury has existed on the planet since the Earth was formed. It is theorized that the Hatter in Lewis Carroll's 1865 book *Alice's Adventures in Wonderland* was mad as a result of mercury poisoning. Nitrate of mercury was used in the early production of felt, which was used to make hats. Mercury moves through the environment as a result of both natural and human activities.

Approximately 60 percent of the mercury releases to the atmosphere result from human activity. It is estimated that in the U.S., major combustion processes such as fossil-fuel-burning power plants and incineration processes such as municipal and medical waste incinerators contribute approximately 85 percent of the mercury emissions generated by unnatural sources. The other sources of atmospheric mercury include manufacturing processes and numerous non-point sources. Atmospheric mercury is ultimately deposited on

the earth's surface where it may enter terrestrial or aquatic food chains. Smaller amounts of mercury can also be directly discharged into waterways through various sources such as industrial and municipal wastewater.

The remaining 40 percent of mercury emissions are derived from natural sources such as volcanoes and wind blown dust.

The mercury management program is not a new one for Environmental Protection Agency (EPA). In fact, regulations have been into effect for over 15 years for the management and disposal of mercury containing material, and state and federal agencies are trying to mandate a high priority in the pollution prevention programs for mercury products. The two highest priorities of this pollution prevention program are, first, source reduction, which means not using mercury in the first place. For example, some states have banned the deliberate use of mercury in certain products for which alternatives are available. When adequate mercury alternatives are not available and mercury must be used in the schools, it may be possible to recycle it. Recycling is the second priority of the pollution prevention program. Disposal of mercury should be the last resort. It is expensive and increases the potential of mercury being dispersed into the environment.

Mercury is a unique metal that exists as a liquid at room temperature. The metal is widely used in hundreds of industrial and school applications. It conducts electricity, is used in the measurement of temperature and pressure, acts as a biocide, functions as a catalyst, and forms alloys with almost all other metals. Although mercury has many useful applications, scientists have found that some mercury compounds are potent neu-

rotoxins. Once in the environment, certain forms of mercury can adversely affect organisms that are exposed to it. In high concentrations, mercury is capable of damaging the adult central nervous system. Once in the environment, mercury accumulates in lakes and other water bodies where it is converted into toxic methyl mercury by bacteria. Methyl mercury may accumulate in living organisms and is passed along biological food chains such that it eventually accumulates in fish tissues. This process of increasing chemical concentration through the food chain is known as bioaccumulation. By the time humans consume the larger predator fish at the top of the food chain, the mercury concentration may have reached toxic levels. Thus, even low concentrations of mercury in water bodies may eventually cause the fish we eat to have unsafe, toxic levels of mercury in their tissues.

According to the U.S. Food and Drug Administration, continued consumption of fish with mercury concentrations exceeding 1 part per million poses a risk of nerve damage, brain damage, and birth defects in humans. In response to potentially dangerous mercury concentrations in fish, health authorities often issue a fish consumption advisory.

In most applications, however, manufacturers, schools and hospitals appear to be using less mercury, but it is still used in cases for which it is considered essential. Mercury usage in the U.S. school sector declined 63 percent, from 1,503 tons to 558 tons. The decrease in mercury consumption results largely from increased environmental regulation, the switch by these institutions to mercury-free processes and products, and a rapidly growing infrastructure for recycling spent

---

**Santo Manicone is president of Facility Support Services LLC, a national environmental and safety engineering consulting firm with office in Connecticut and Illinois. He has worked and assisted higher education facilities for over 16 years achieving federal and local compliance. He can be reached at support@snet.net.**

mercury-containing products. Despite the decrease in mercury consumption, releases to the environment are expected to continue to increase as fossil-fuel consumption increases and spent mercury-containing products come out of service.

When mercury spills in a school or in an industrial setting, there are several possible outcomes—none of them pleasant. The health of employees or students can be endangered. Schools may have to be closed up to several days during cleanup. Cleanup costs can strain budgets and cause major impact to the facility. Liability issues can raise their ugly heads and a lawsuit or two may even be headed in your direction. You may believe that the occasional broken thermometer in science class or students handling of mercury are essentially harmless, but think again. Mercury spills have plagued many schools, including contamination in student dormitories,

where a serious spill can be brought to other buildings on campus, either knowingly or unknowingly.

### Developing a Spill Response Plan

It is recommended that an emergency response procedure should be created for areas where spills of liquid mercury can occur. Spilled mercury should be collected promptly. It is much easier to clean up spills on floors that do not have cracks or seams. Rugs should not be used in areas where mercury can be spilled, because rugs can absorb substantial amounts of spilled mercury, which will slowly evaporate to contaminate the workplace air.

An effective spill response procedure should consider all of the items listed below. The complexity and detail of the plan will, of course, depend upon the physical characteristics and volume of materials being handled, their potential toxicity, and

the potential for releases to the environment.

1. Review Material Safety Data Sheets (MSDSs) or other references for recommended spill cleanup methods and materials, and the need for personal protective equipment (e.g., respirator, gloves, protective clothing, etc.)
2. Acquire sufficient quantities and types of appropriate spill control materials to contain any spills that can be reasonably anticipated. The need for equipment to disperse, collect, and contain spill control materials (e.g., brushes, scoops, sealable containers, etc.) should also be reviewed.
3. Acquire recommended personal protective equipment and training. For example, if an air purifying respirator or self-contained breathing apparatus are needed, personnel must be enrolled in the Respiratory Protection Program and attend annual training and fit testing.
4. Place spill control materials and protective equipment in a readily accessible location within or immediately adjacent to the laboratory.
5. Have available the following information:
  - Names and telephone numbers of individuals to be contacted in the event of a spill.
  - Evacuation plans for the room or building, as appropriate.
  - Instructions for containing the spilled material, including potential releases to the environment (e.g., protect floor drains).
  - Inventory of spill control materials and personal protective equipment.
  - Means for proper disposal of cleanup materials (in most cases, as hazardous waste) including contaminated tools and clothing.
  - Decontamination of the area following the cleanup.
6. Discuss the spill response plan with all employees in the area. Offer training for employees who work directly with chemicals and who are expected to respond

outside their work area to assist with spill cleanup.

### If a spill occurs:

- People not involved in the cleanup should leave the immediate area.
- Windows should be opened to help ventilate the area.
- Do not use a regular vacuum cleaner to clean up a spill; regular vacuum cleaners will spread mercury around the room and increase airborne contamination.
- Push small mercury beads together with a card, stiff paper, or squeegee to form larger droplets and then push them into a plastic dustpan or use an eyedropper to pick up the balls of mercury. Collect all mercury and ALL mercury-contaminated items into a leak-tight plastic bag or wide-mouthed sealable plastic container. Save the bag or container to take to a mercury-recycling center.
- Work from the outside of the spill area toward the center. Work over a tray or box that is lined or covered with plastic wrap when pouring mercury. Mercury's high density and smoothness cause it to roll fast.
- Use a flashlight to look all around in the areas of the spill. The light will reflect off the shiny mercury beads and make it easier to see them.
- Small spills may be picked up with adhesive tape or a hypodermic syringe.
- Sprinkle sulfur powder on the spill area after cleaning up beads of mercury; a color change from yellow to brown indicates that mercury is still present and more cleanups are needed.
- Sprinkle zinc flakes or copper flakes (available at hardware stores) to amalgamate (clump together) any small amounts of mercury which remain.
- After all visible mercury has been collected, the area should be washed with a calcium polysulfide solution (about 2-4 tablespoons of lime sulfur per gallon of water), then washed with a detergent solution, and rinsed.

- Following cleanup, the area should be monitored using a mercury analyzer device.

### Helpful Hints

- Safe work practices can greatly reduce your exposure to mercury. Store mercury in unbreakable containers in a cool, dry, well ventilated area away from heat.
- Do not heat mercury. When heated, liquid mercury evaporates more rapidly. Dangerous levels of mercury in the air may result.
- Engineering Controls: When possible, employers must use engineering and administrative controls rather than personal protective equipment to prevent overexposure. Engineering control methods include installing ventilation and changing the work process.
- Personal Protective Equipment: When engineering controls cannot sufficiently reduce exposures, a respirator must be worn and a respiratory protection program

must be developed by the employer, as outlined in OSHA regulations. The only respirators approved for protection against mercury vapor are supplied-air devices, in which compressed breathing-quality air is delivered to a facepiece or hood. An industrial hygienist or other knowledgeable person should be consulted to ensure that the equipment is appropriate and is used correctly.

- If skin or eye contact with liquid mercury is possible, other protective equipment such as gloves or face shields should be worn. Protective clothing should be made of a material resistant to mercury, such as rubber.
- As with any new program it is important to review all compliance information with facilities management, faculty, and other departments. It is important to assess the quantities purchased and material on hand prior to any program. 🏠

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*In re*

**ARMSTRONG WORLD INDUSTRIES, INC.,  
NITRAM LIQUIDATORS, INC., and  
DESSEAUX CORPORATION OF NORTH AMERICA,**

**Debtors.**

**Chapter 11 Case No.**

**00-4471 (JJF), 00-4469 (JJF),  
& 00-4470 (JJF)**

**(Jointly Administered)**

## Notice of Last Day to File Claims

PLEASE TAKE NOTICE THAT on April 18, 2001, the United States Bankruptcy Court for the District of Delaware (the "Court") having jurisdiction over the chapter 11 cases of Armstrong World Industries, Inc. (formerly known as Armstrong Cork Company) ("AWI"), Nitram Liquidators, Inc. (formerly known as Martin Surfacing, Inc.), and Desseaux Corporation of North America (collectively, the "Debtors") entered an Order Fixing Bar Date for Filing Certain Proofs of Claim (the "Claims Bar Date Order").

Under the Claims Bar Date Order, the Court established August 31, 2001 at 5:00 p.m. Eastern Time (the "Claims Bar Date") as the last date and time for each person or entity (except all holders of asbestos-related personal injury claims) to file a proof of claim against any of the Debtors.

### WHO MUST FILE A PROOF OF CLAIM

On December 6, 2000, each of the Debtors commenced a case under chapter 11 of title 11 of the United States Code (the "Bankruptcy Code").

You MUST file a proof of claim if (i) you have a claim (as defined in section 101(5) of the Bankruptcy Code) that arose prior to December 6, 2000 (including, but not limited to, any claim that arose from acts or omissions, based on indemnification and guarantees, environmental liabilities, and the sale of products by any of the Debtors), or pursuant to the rejection of an executory contract, and (ii) it is not one of the other types of claims described below. Acts or omissions of the Debtors that occurred before December 6, 2000 may give rise to claims against them notwithstanding that such claims may not have matured or become fixed or liquidated prior to such date.

Claims for property damage (including any claims for property damage arising from the presence of asbestos-containing products in buildings) or claims for contribution, indemnity, reimbursement or subrogation, even though such claims may or might arise directly or indirectly as a result of exposure to asbestos or asbestos-containing products, are subject to the Claims Bar Date. For more information on AWI's involvement with asbestos-containing products, call toll-free, 1-877-866-0655, or access AWI's chapter 11 web site at [www.awibardate.com](http://www.awibardate.com).

### WHO DOES NOT NEED TO FILE A PROOF OF CLAIM

You do not need to file a proof of claim if:

- You have *already* properly filed with the Clerk of the United States Bankruptcy Court for the District of Delaware or the AWI Claims Processing Center a proof of claim against the Debtors using a claim form

that substantially conforms to Official Form No. 10;

- Your claim is listed on the Debtors' Schedules and is *not* described there as "disputed," "contingent," or "unliquidated," and you do not dispute the amount or nature of your claim as set forth in the Schedules;
- You have an administrative expense claim in any of the Debtors' chapter 11 case under section 503(b) or 507(a) of the Bankruptcy Code;
- You are a Debtor or a subsidiary of a Debtor, and you have a claim against another Debtor or another subsidiary of a Debtor;
- You hold a claim that has been allowed by an order of the Court entered on or before the Claims Bar Date;
- You hold an asbestos personal injury claim (other than a claim for contribution, indemnity, reimbursement, or subrogation) OR
- You are a current employee of AWI and only have a claim for benefits or deferred compensation arising prior to December 6, 2000.

### WHEN AND WHERE TO FILE

Proof of claim forms must be filed so as to be *actually received* by mail or overnight courier on or before the Claims Bar Date of August 31, 2001 at 5:00 p.m., Eastern Time, at the following address:

**AWI Claims Processing Center  
c/o Trumbull Services, L.L.C.  
P.O. Box 1117, Windsor, CT 06095**

Please use the Court-approved Proof of Claim form available as indicated below.

### EFFECT OF NOT FILING A CLAIM

If, as described in this notice, you are required to file a Proof of Claim and do not do so on or before the Claims Bar Date of August 31, 2001, you will be forever barred, estopped, and enjoined from asserting any claim you hold or wish to assert against any of the Debtors (or filing a proof of claim with respect to such claim), each of the Debtors and their property will be forever discharged from any and all indebtedness or liability with respect to such claim, and you will not be permitted to vote on any plan of reorganization or participate in any distribution in any of the Debtors' chapter 11 cases on account of such claim, or to receive further notices regarding such claim.

To obtain additional information and a Proof of Claim form call:

**1-877-866-0655**

(Monday-Friday; 9:00 a.m. - 6:00 p.m. Eastern Time)

Or write to: **AWI Claims Processing Center, c/o Trumbull Services, L.L.C.  
P.O. Box 1117, Windsor, CT 06095**

Or access AWI's chapter 11 website at [www.awibardate.com](http://www.awibardate.com).

BY ORDER OF THE COURT, JOSEPH J. FARNAN, JR., UNITED STATES DISTRICT COURT JUDGE FOR THE DISTRICT OF DELAWARE  
PLEASE DO NOT CALL OR SEND REQUESTS FOR NOTICE TO THE COURT.

RICHARDS, LAYTON & FINGER, P.A., One Rodney Square, P.O. Box 551, Wilmington, Delaware 19899  
and WEIL, GOTSHAL & MANGES LLP, 767 Fifth Avenue, New York, New York 10153.  
Attorneys for Debtors and Debtors in Possession

Book Review Editor: Theodore J. Weidner, Ph.D., P.E., AIA

**M**oving beyond boundaries can be accomplished in several ways. This column presents two different approaches. The first describes how to lead changes in an organization, which is no simple task. The second is a massive handbook that details energy efficiency. While one is easier reading than the other is, both are valuable resources for the facilities officer working with limited resources and other constraints.

\*\*\*

**Leading Change**, by John P. Kotter. Cambridge, MA: Harvard Business School Press, 1996. 186 pp, hard cover.

Every one of us has been put in a position of leading a change; some more obvious than others, some more difficult than others. This book is focused on the elements necessary to effect obvious, difficult change. Changes that leads to marked, continuous improvements and efficiency; and change that affects an organization's culture not just a one-time issue.

The author, who is a noted professor of business, provides clear and

---

*Ted Weidner is the associate vice chancellor for facilities and campus services at the University of Massachusetts/Amherst. He is also the co-chair of APPA's Trades Staffing Guidelines Task Force and can be reached at [tweidner@admin.umass.edu](mailto:tweidner@admin.umass.edu).*



concise examples that are relevant or comparable to issues facing facilities officers. The book is brief and doesn't go into theory but looks at the practical issues of effecting change.

Those practical issues are described in eight stages. These stages must generally be followed in order, otherwise the change will not be long lasting. Examples are given that describe why the order is important and how some efforts to implement change regress when the order is not followed. Accompanying the various chapters that describe each stage are tables and figures, which further describe, in shorthand, what is needed at each stage. These exhibits make handy references for the change agent.

As a former leader of change, the book describes the stages that I went through to make changes; and those that I skipped, which made the change either difficult or a failure. As a current leader of change, I see what steps and preparations I have ahead of me in order to work toward the necessary changes that will allow my organization's future survival. This book is a valuable reference for me and for many other facilities officers,

whether a front-line supervisor or the CFO.

Change is constant and this book helps describe how to lead and deal with changes.

\*\*\*

**Energy Efficiency Manual**, by Donald R. Wulfinhoff. Wheaton, Maryland: Energy Efficiency Press, 2000. 1,536 pp, hard cover.

## When I was first

asked to review this book, I looked at it as a daunting task. It has over 1,500 pages and measures 9 inches wide by 11½ inches tall by 3¼ inches thick. I decided to take energy-related matters that happened during the workday and look them up in the evening. What I found is a very helpful manual full of tips and advice on how to address the energy used by the various systems contained within a facility. Want to know about induction units in air handling systems? It's there along with many other energy and utility related components. The book explains how the systems work and tips for maximizing their efficiency during the design and construction process as well as during retrofit and O&M. Despite its size, the book is concise and frank about the advantages and disadvantages of each system reviewed.

Mr. Wulfinhoff talks about the benefits of energy savings measures and also points out some of tricks that are frequently employed to save energy or resources. He also identifies those measures that have very little benefit; some of the so-called easy fixes he mentions we all have tried,

only to find out they were temporary at best.

This book approaches energy and resources with a more pragmatic view. If we make the user uncomfortable then an energy and resource conservation effort will fail. Instead, he gives advice about how to make the systems we have as efficient as possible, without sacrificing the comfort of the people living or working in the build-

ings we are controlling. It is very refreshing.

The manual covers all of the systems you would expect. Different types of chillers, air handling systems for heating and cooling, steam traps, water and sewer systems, and architectural systems. In the two months I had this manual, I found it very informative. As previously stated, the book gives an overview of the various

systems, what they are, how they work, what to look for during the design and construction phase, what to do when retrofitting an existing system, and how to maintain the system efficiently. There is a "selection scorecard" for each energy-saving measure indicating the degree of difficulty and potential savings.

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***There is one aspect of the manual that could be expanded. The author approaches the book from a facilities viewpoint, but mostly a single building view. Most of us are dealing with multiple buildings, tied together through distributed electrical, fire alarm, and steam and chilled water systems.***

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This manual is so comprehensive that I was expecting advice on district heating systems, demand limiting, or other ways to save energy and money through use of the diversity of the campus systems. That was missing, although with the comprehensive approach that Mr. Wulfinghoff takes toward this effort, it may become volume two.

As an engineer, I find it a good reference tool, but not a design tool. It gives you a direction to go to find out about a system, but in order to make the book understandable to non-technical people, the author had to do a lot of prose and very little calculus. Nonetheless, I would recommend this book as a desk reference for all facilities managers and their staff.

**Patrick S. Daly**  
Associate Director,  
Physical Plant,  
University of Massachusetts

# New Products

New Products listings are provided by the manufacturers and suppliers and are selected by the editors for variety and innovation. For more information or to submit a New Products listing, contact Gerry Van Treeck, Achieve Communications, 3221 Prestwick Lane, Northbrook, IL 60062; phone 847-562-8633; e-mail gvtgvt@earthlink.net.

**LightGuard** introduces its new, economical thermoplastic LED exit sign. By focusing on what customers want, LightGuard's engineering department was able to design the new Unison Series II without sacrificing exceptional features. Boasting a smaller design, easy installation, high performance electronics, and energy efficiency, the Unison Series II provides bright, even illumination. For additional information call LightGuard at 910-259-1131.



**Cleveland Faucet Group** launches easy to install Cornerstone faucets. Cornerstone is designed and engineered in America to U.S. specifications and is made from highly durable, high quality components to provide a superior product. All Cleveland Faucet Group products are ADA compliant. The line also features pressure balancing and non-pressure balancing in-wall valves for shower and tub/shower units. For more information call Cleveland Faucet Group at 888-450-4910.



**Lista International Corporation** announces its new line of Technical Workbenches. These modular workbenches are ergonomically designed and offer unlimited flexibility to accommodate changing or future needs. Lista's Technical Workbenches can be configured to a variety of heights and lengths with cabinet bases or legs to create a cost effective, custom workbench. To find out more about Lista's Workbenches call 800-722-3020.



**Wegner Corporation** introduces a new audience seating solution for arenas, performing arts facilities, and other multi-use venues, where flexibility and fast setup are desired. The innovative design of new Upper Deck Audience Seating makes it easy to install and reconfigure, while offering safe, reliable, and quiet operation. In less than two hours, a four-person crew can easily assemble Upper Deck seating for 200 people. And no tools are required for the interlocking riser components. For additional information contact Wegner at 800-733-0393.



**Racine Industries** announces a powerful four-stage vacuum, built into the Liberator, which optimizes power vacuuming efficiency and air filtration. The HOST Liberator Extractor Vac includes the choice of using paper or HEPA-type filters to trap soil and debris. The HEPA-type filters help trap allergens and respirable particulate (dust) while the self-propelled machine is in use. An LED light alerts operators when to clean or replace filters. To find out more call Racine Industries at 800-558-9439.



**GE Capital Modular Space** has designed a modular residence hall that helps colleges and universities respond quickly to changing housing needs. The design provides additional timesaving over and above that typically offered by modular construction. Modular residence halls based on the prototype can be completed in half the time of traditionally built dorms and, as a result, allow institutions to accommodate increased enrollments with permanent, high-quality dorms. More information is available by calling GE Capital Modular Space at 800-523-7918. 🏠



# Coming Events

## APPA Events

For more information on APPA seminars and programs, visit our website's interactive calendar of events at [www.appa.org](http://www.appa.org).

Sep 17-21—*Institute for Facilities Management*. Scottsdale, AZ.

Jan 13-19, 2002—*Institute for Facilities Management*. Tampa, FL.

Jun 10-14—*Leadership Academy*. Scottsdale, AZ.

Jul 21-23—*APPA 2002 Educational Conference & 89th Annual Meeting*. Phoenix, AZ.

Sep 8-12—*Institute for Facilities Management*. Norfolk, VA.

Jan 26-30, 2003—*Institute for Facilities Management*. Ft. Worth, TX.

## APPA Regional Meetings

Sep 13-15, 2001—*RMA Regional Meeting*. Tucson, AZ. Contact Paul

Smith, 520-206-4758 or [psmith@pima.edu](mailto:psmith@pima.edu).

Sep 29-October 3—*ERAPPA Regional Meeting*. Hershey, PA. Contact Ford Stryker, 814-865-4402 or [hfs2@psu.edu](mailto:hfs2@psu.edu).

Sep 30-Oct 3—*PCAPPA Regional Meeting*. Vancouver, BC, Canada. Contact John Wong, 604-432-8299 or [jwong@bcit.ca](mailto:jwong@bcit.ca).

Oct 7-10—*AAPPA Regional Meeting*. Australia. Contact Amanda Hart, [amanda.hart@anu.edu.au](mailto:amanda.hart@anu.edu.au).

Oct 10-14—*CAPPA Regional Meeting*. Cape Girardeau, MO. Contact Alvin Stoverink, 573-651-2214 or [amstoverink@semovm.semo.edu](mailto:amstoverink@semovm.semo.edu).

Oct 20-23—*SRAPPA Regional Meeting*. Roanoke, VA. Contact Bill Elvey, 540-231-4397 or [wmelvey@vt.edu](mailto:wmelvey@vt.edu).

Oct 28-31—*MAPPA Regional Meeting*. Madison, WI. Contact Kris Ackerbauer, 608-265-2758 or [orkackerbauer@fpm.wisc.edu](mailto:orkackerbauer@fpm.wisc.edu).

## Other Events

Jul 21-25—*2001: A Planning Odyssey (SCUP's 36th Annual Conference)*. Boston, MA. Contact SCUP, 734-998-7832 or [www.scup.org/36](http://www.scup.org/36).

Jul 28-31—*NACUBO 2001 Annual Meeting*. New York, NY. Contact National Association of College and University Business Officers, 425-636-1640 or 202-861-2500 or [www.nacubo.org](http://www.nacubo.org).

Aug 1-3—*23rd Annual SFT Energy and Telecommunications Seminar*. Oregon, OH. Contact Pamala M. Sullivan, 419-843-8200 or [psullivan@sftinc.com](mailto:psullivan@sftinc.com).

Aug 20-22—*National Construction and Maintenance Expo: Maintaining the Southwest*. Las Vegas, NV. Contact Michael Hopperton, 702-893-9090 or 800-859-9247.

Sep 6-8—*Restoration & Renovation Conference*. New Orleans, LA. Contact Restore Media, 800-982-6247 or 978-664-6455 or [www.restorationandrenovation.com](http://www.restorationandrenovation.com).

Sep 12—*The School Environment: Effects on Students' Well-Being & Learning*. Seattle, WA. Contact Barbara Day, 800.882.8846 x122 or [bday@carpet-rug.com](mailto:bday@carpet-rug.com).

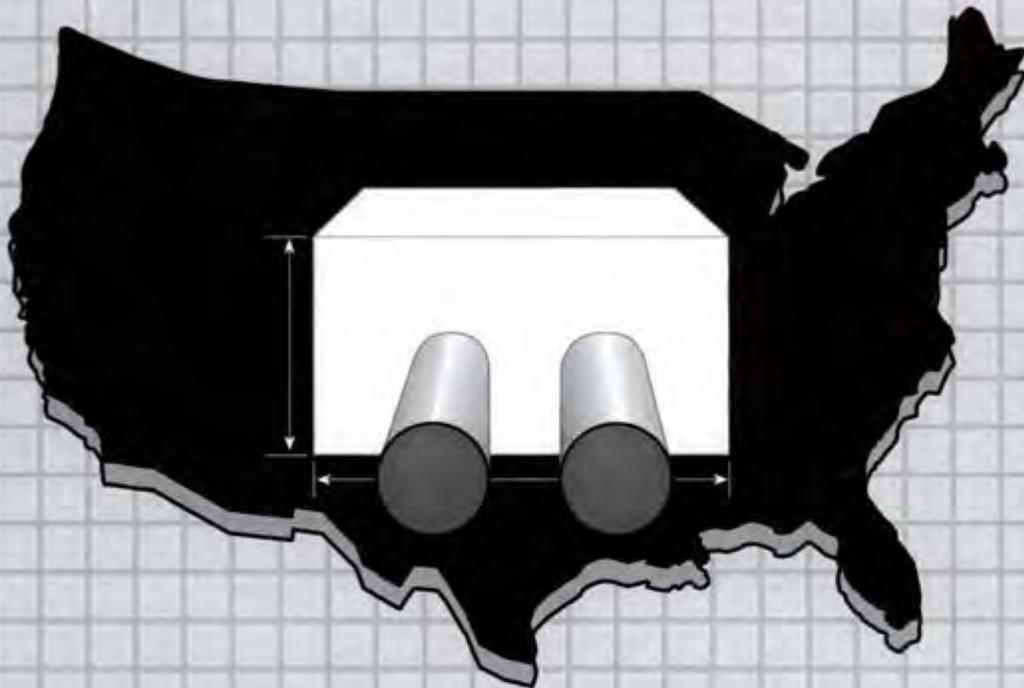
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