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Facilities Manager

The Official Publication of APPA: The Association of Higher Education Facilities Officers

Volume 14 Number 1

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Facilities Manager

PRESIDENT: Pieter J. van der Have,
University of Utah

EXECUTIVE VICE PRESIDENT:
Wayne E. Leroy, Alexandria, Virginia

EDITOR: Steve Glazner

ASSOCIATE EDITOR: Medea Ranck

ASSISTANT EDITOR: Alycia Eck

SUBSCRIPTIONS: Cotrentia Aytch

CREATIVE DIRECTION:

Corporate Design

PRINTING: Corporate Press, Inc.

EDITORIAL OFFICE:

703-684-1446 ext. 236

FAX: 703-549-2772

E-MAIL: steve@appa.org,

medea@appa.org, alycia@appa.org,

cotrentia@appa.org

WEB: www.appa.org

ADVERTISING:

Gerry Van Treeck

Achieve Communications

3221 Prestwick Lane

Northbrook, Illinois 60062

Phone: 847-562-8614

Fax: 847-562-8634

E-mail: gerryvt@concentric.net

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From the Editor

Steve Glazner

Reinvention and

continuous improvement are traits that identify APPA's educational programs. Following the successful launching this month of the redesigned Institute for Facilities Management, APPA continues its advancement of professional development opportunities for facilities professionals with the development and introduction of our new Professional Leadership Center.

In its essence, the Professional Leadership Center (PLC) takes the three previously disparate executive programs—Foundations of Leadership, Executive Institute at the University of Notre Dame, and the Institute for Facilities Finance—and recasts them as complementary parts of an integrated program designed to advance and elevate the facilities professional's knowledge, application, and value to his or her organization. In addition, the Professional Leadership Center will incorporate a research component and provide the opportunity for participants to become APPA Fellows.

The Professional Leadership Center is being developed under the direction of Doug Christensen of Brigham Young University and Bill Daigneau of the University of Texas M.D. Anderson Cancer Center. Other key players include Vice President for Educational Programs Gary Reynolds, APPA Past President Charlie Jenkins, Marriott's Deb Naughton, and APPA staff members Lander Medlin and Kathy Smith. Many more individuals are participating in the ongoing development of the Professional Leadership Center, and they will be recognized in future issues of the magazine.

Many of the details of the Professional Leadership Center are still in the planning stages and are

discussed in the articles in this issue of *Facilities Manager*. The authors and coordinators welcome the input and feedback of anyone who wants to contribute. The first programs are coming up soon: March 29-April 3 for the first Individual Effectiveness Skills Program, and April 19-24 for the first Organizational Skills Program. Watch your mail for a full brochure, or you can read the details on APPANet at www.appa.org. For further information, contact Kathy Smith, director of education, at 703-684-1446 ext. 231, or by e-mail at ksmith@appa.org.

This issue marks the start of the second year of publishing *Facilities Manager* on a bimonthly basis. We ran theme issues on energy deregulation, deferred maintenance, grounds management, and the campus of the future; a full index of 1997 articles and authors begins on page 47. I want to thank all the columnists, book reviewers, feature authors, and APPA staff members who contributed to the success of the magazine in 1997. You all did a great job.

And we're planning new features for 1998. We're excited to be publishing James and Susan Coles' Strategically Planning column on APPANet within the next month or so. Theme issues of *Facilities Manager* will include planning, design, and construction; assessment and evaluation; pathways to the future; K-12 and community college facilities; and space management and utilization. If you have an article idea and would like to contribute to a future issue of *Facilities Manager*, please contact me at 703-684-1446 ext. 236, or by e-mail at steve@appa.org.

All of us at APPA wish our members and readers a safe, happy, and successful 1998. Thank you for your continued support and involvement. 🙏

Eastern Region

Theresa C. Jordan

ERAPPA Newsletter Editor

Close your eyes for a moment and imagine, picture perfect 70 degree weather, a city with a European flair for the arts and building design, and the most hospitable people in the world. You have just had a mini preview of Toronto. This is one place that invites a return and soon. Bob Carter and committee promised the ERAPPA membership an excellent educational program, 50 business partners participating and discussing their services and products, special events, an exciting spouse/significant other program, and an exciting city to explore. From my perspective,

"What's New on the Horizon" was an outstanding effort. Congratulations and many thanks for a job well done. For those of you who were not able to attend ERAPPA '97, you definitely missed out.

The educational sessions were fantastic, filled with information of what is to come in facilities management. First Time Attendees had an opportunity to attend the first First Time Attendees Program, conducted by Maggie Kinnaman, Joe Rubertone, and Earl Smith. This program is power packed with information about APPA and ERAPPA resources, educational opportunities, and professional development initiatives. For those individuals who have belonged to the

organization for some time, this session is an excellent refresher and could be adopted at the chapter level in part or as a package. Contact Earl or Maggie if you are interested in using the program. Better yet, when a Board Member visits your chapter meeting, invite them to present the program. Maurice O'Callaghan's keynote address "Giants and Champions" set the stage for what was to follow. Education Program Tracks included *Administration: TQM* (great if you let the organization shape the model); *Standard for World Class Maintenance* (need a common standard with which to compare); the *Miracle at Vimy Ridge* (common sense leadership principles teamwork, trust



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and sacrifice, secrets to success); Outsourcing (wanting heaven and preventing hell); identifying funding strategies for growing your organization. *Plant:* Painting the Campus with Light (interesting case study on master planning projects); Energy (a hot topic these days especially as we face deregulation); Princeton's presentation on Campus Landscape offered IPM methods and practices to sustain campus landscapes. *Technical:* Classroom Audit provided a road map for integrating technology within classrooms; new and innovative installation on trenchless technology; meeting the diversity needs in labs and classrooms. *Vendor:* Prism Computer Corporation presented a case study that implemented Computerized Maintenance Management System; Diversy Water Technologies provided up-to-date information on the capabilities of an On-Trak water management and control system; Phoenix Controls Corporation addressed maximizing safety/efficiency in new and retrofit lab projects. Beyond these sessions, David Broadfoot kept the audience in stitches at the banquet, and Professor David Foot's Boom, Bust and Echo provided much food for thought. A tremendous meeting!

Special events included walking across the Sky Dome, the marvelous dinner at the CN Tower, the theater and city tours, and the body shop living machine.

Highpoint at the Annual Banquet was the presentation of the Norman H. Bedell Distinguished Service Award to Fred Klee, Ursinus College. Dot Bedell, our honored guest, was on hand to present. This award honors the memory of a giant who walked among us and was given to an individual who today walks in the giant's footsteps. Thank you, Dot, for sharing and joining us. Congratulations to Fred for setting a fine example to the membership.

Jack Knee led ERAPPA this past year and will continue as Junior Representative on the APPA Board. His tenure provided valuable contributions and dedication. Congratulations to Bob Bertram, new ERAPPA President. You have set the stage with energy, enthusiasm, and a spirit and plan of moving the organization forward. Best of luck as you embark on this journey.

* * *

Southeastern Region
Sam L. Polk Sr.
SRAPPA Newsletter Editor

The 46th Annual Educational Conference and Trade Show of SRAPPA '97 was held September 27- October 1 and was hosted by the University of Miami. Michael White, UM's physical plant director, and his staff did an outstanding job in conducting the conference. Nothing but high kudos were heard

regarding this meeting—the largest member and vendor participation to date. Special guests included our APPA staff liaison, Steve Glazner; APPA President Pieter van der Have; and E. Lander Medlin, APPA Associate Vice President.

The educational sessions were interesting, informative, and consistent with the theme, "Broaden Your Horizons: A Marketplace for Ideas." This year, vendors were guest speakers at all meal-time functions and participated in all conference activities.

The vendor exhibit consisted of 100 booths arranged in a pattern that seemed to never end which drew tremendous interaction and fellowship. Vendors donated excellent and continuous door prizes. The annual T-shirt exchange was a great complement to the pool-side barbeque, which was held inside due to the weather.

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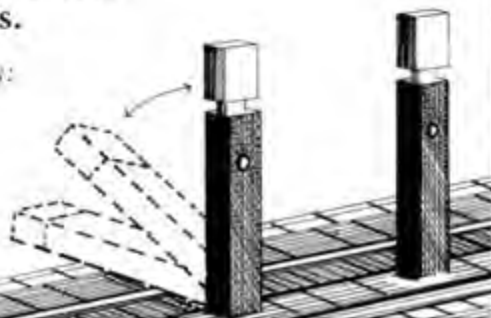
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The conference included a campus tour, with emphasis on Miami's new Business School Complex, spouse/guest activities, island luau dinner, a dinner and gaming "Cruise to Nowhere," an after-meeting cruise, and a tailgate party and football game at the Orange Bowl.

The annual banquet speaker was George B. Wright of George B. Wright Company. He gave an enlightening and soul-stirring presentation on "Measuring Your Progress." Special kudos were presented to both members and vendors for accepting and responding to the awesome challenges of supporting our various institutions.

The business affairs of SRAPPA are financially sound and have made great progress under the leadership of President Joel Chatelain. The gavel was passed to the 1998 president, David C. Girardot, who accepted the challenge of leading this great and exciting association.

The success of this meeting has us excitedly looking forward to SRAPPA '98, which will be hosted by Brooks Baker and his staff at the University of Alabama/Birmingham.

* * *

Midwest Region
Becky Hamilton
MAPPa Newsletter Editor

The 1997 MAPPa Educational Conference and Annual Meeting was held in Columbus, Ohio from October 12-15, 1997, and was hosted by The Ohio State University. Approximately 200 people attended the conference this year, which was supported by more than 50 vendors.

The theme of this year's conference was "Building the Future on the Foundation of Our Past." This theme was emphasized throughout the conference with campus tours, experience exchanges, and panel discussions.

On Sunday, October 12, those who did not attend the golf outing had the opportunity to go on a construction

site tour of the Fisher College of Business Complex, which is directly across the street from the hotel on the Ohio State campus. The first two buildings of this complex will be completed in mid-February, which enabled the participants to get a first-hand look at an example of a building for the future. Tours were conducted through the stock market rooms with the electrical boards in place for real-time reporting from three exchanges, interview rooms designed specifically for video conferencing, and state-of-the-art classrooms and offices in varying stages of completion. They were also given a project overview ahead of time explaining the design and construction logic and process.

Monday morning, a stimulating keynote address was given by James O. Cole from CommTech Transformations, Inc. From the eleventh floor conference room overlooking the campus, Cole talked about "Daily Challenges: Coping with

Past, Present, and Future." Members broke into groups to share their own experiences.

Monday afternoon there were three simultaneous experience exchanges on What Influences Our Actions and What is Working: Learning from the Past, Operating in the Present, and Preparing for the Future. The campus tours that followed were used as the basis for Tuesday's experience exchange:

** Learning from the Past:* A historical tour of the campus that identified growth, restoration, infill, and tradition, with a tour of one of the oldest campus buildings, Orton Hall, where the chimes were rung especially for this tour.

** Operating in the Present:* A visit to McCracken Power Plant, which was first constructed in 1918 and completed in 1938. In addition to the boilers, a new chiller plant is nearing completion. This tour also included utility tunnels, box trench, utility mapping,

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* *Preparing for the Future:* This tour highlighted specialized program spaces to provide the very best care for horses and plants.

* *Grounds Tour:* Visited a number of outdoor areas, both old and new, that treat the space as more than a path between buildings.

Monday evening, participants were treated to a "tailgate" party under a tent on the roof of the hotel parking garage. The highlight of this event was listening (and yes, some were even dancing) to the music of the Danger Brothers, a band from Columbus. This group is famous (or rather infamous) for playing before each Ohio State home football game at "Hineygate" (purported to be the largest and best tailgate party in the country). The band—with the weather's last minute cooperation—succeeded in getting everyone acquainted.

Tuesday began with the annual business meeting breakfast where Greg Fichter was confirmed as President-Elect and Terry Ruprecht was re-elected Secretary. During breakfast, MAPPA members were treated to the wit and wisdom of Ohio State President E. Gordon Gee.

Tuesday's technical sessions began with the "Past," "Present," and "Future" experience exchanges followed by a series of panel discussions including such topics as exterior lighting, electronic archives, marketing the physical plant, basis of regulatory codes, personnel recruitment for retention, and indoor air quality.

In addition, on Tuesday afternoon, members were enlightened by a moving and informative presentation on "Crisis Management: The Oklahoma City Federal Building Bombing" by District Chief John Long of the Oklahoma City Fire Department.

The Tuesday evening banquet was intertwined with a murder mystery written specifically for our group called "Facilities Phil and the Project of Doom." Ohio State University Engineer Phil Soule was particularly intrigued with the title but claims no credit for any project by that name.

The evening culminated with the gavel being passed from now Past-President Jim Christenson to new President Joe Kish. We all thank Jim for his service and pledge our support to Joe as he begins his new term.

A special thanks to the Program and Host Committees for making this year's MAPPA conference one to remember. Next year's conference will be held October 4-7, 1998 in the Twin Cities and hosted by the University of St. Thomas and a host of other Minnesota schools.

* * *

Central Region

Tom Jones

CAPPA Newsletter Editor

CAPPA's 45th Annual Membership Meeting was held in Omaha, Nebraska, October 17-21, 1997 and was hosted by Ed Bogard, University of Nebraska Medical Center. There were a total of 352 attendees (members, spouse/guests, and vendors) who enjoyed excellent presentations, great food and fellowship, and terrific weather! This marked the second time that CAPPA has met in Omaha—the first being in 1965 when Clarence Lefler of the University of Omaha hosted the Annual Meeting.

Prior to the actual beginning of the meeting, the Executive Committee held its semi-annual business meeting. This was followed by a Texas Scramble golf tournament at the beautiful Indian Creek Country Club where 33 golfers had a great time. All CAPPA members may not be professional golfers, but what they may lack in golf skills they more than make up for it in friendship, laughter, and downright outstanding fellowship—where everyone is a real professional!

The educational sessions were excellent and addressed the following topics: Energy Deregulation; Punching Up the Presentation; Custodial Services in a Changing World; Computers, Technology, and Software; Memory Magic; Healthcare for the Future; New Trends in Educational Facilities; Motivation and Conflict Resolution; Construction Management; Deferred Maintenance Funding; Partnering, The Construction Process; Grounds Maintenance; CFCs and the Future; Campus Recycling; Information Science Technology and Engineering Building; Contracts, Contracting, and the Law; and Commissioning of Facilities.

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session and 11 hours spent with the vendors, it was a great learning experience for all attendees.

While the "working" attendees were involved in the above educational sessions, a spouse/guest program provided a tour and shopping time in the Old Market area, a tour of Boys Town, lunch at the Greek Isle Restaurant, and a tour and lecture at Borsheim's Fine Jewelry.

In addition, all attendees enjoyed a barbeque dinner at Mahoney State Park; tours of the University of Nebraska Medical Center and the University of Nebraska Omaha; lunches with the vendors; great times at the hospitality suites; dinner at the Treetop Restaurant; tours of the Leid Jungle and the Henry Doorly Zoo; and the opportunity to be thoroughly entertained by Roger Welsch at the annual banquet. Altogether, the 45th Annual CAPP Meeting provided a very "full plate" for all attendees.

CAPP's 46th Annual Meeting will be held in Little Rock, Arkansas, October 3-6, 1998. The host will be CAPP's First Vice President, Jerrel Fielder of the University of Central Arkansas. Jerrel is already planning and preparing for the meeting which will undoubtedly be another excellent learning experience for all attendees. All are cordially invited to Little Rock next October to participate in this enjoyable, educational opportunity! (Incidentally, Jerrel promises that attendees will see that his campus is, in fact, half way between Toad Suck and Pickles Gap, Arkansas.)

* * *

Rocky Mountain Region Wayne White RMA President

The RMA's regional conference was hosted this year by Utah State University in Logan, Utah. As a host committee, we met several times to develop a program and visualize the conference as we wanted it to happen. Our first, most

important task was to select our theme. We chose to focus on "Leadership Through Change." We realized that everyone and every institution—regardless of amounts available in square footage, student enrollment, annual budget, or workforce—is faced with change. It is a common fact that if we aren't changing we become stagnant, thereby missing out on opportunities. The two areas of change addressed at our RMA conference were "Change Within" and "Organizational Change." The next decision was to choose a setting. Jackson Hole, Wyoming was thought to be the ideal location.

To set the mood and prepare conference participants for the next two days we arranged to spend Thursday in spectacular settings. Members either toured the Tetons on a guided bus tour, thrilled to a whitewater run down the Snake River over such falls as the "Lunch Counter" and the "Big Kahuna," or serenely floated down a calmer section of the Snake observing wildlife in its natural state and enjoying the changing of the seasons. There were a few, however, who chose to chase little white and yellow balls around a carefully groomed course in pursuit of prestige and notoriety. I don't know about prestige, but a few came pretty close to being notorious. For the first time in RMA, we set up a Sponsor's Hall where our general meetings and meals were held. In all, 43 vendors participated in this exhibit. This encouraged exchange between our members and the sponsors on whom we rely to bring us the best products industry has to offer.

On Friday, September 19, we focused on personal issues of change. The morning was spent in sessions with Marion T. Bentley from Utah State University and John Walker from Salt Lake City. Marion Bentley addressed the subject of transformational leadership including balance, self-awareness, responsibility, and

integrity from the perspective of both the individual and the organization. John Walker, founder of Janitor University and author of ISSA's "310 Cleaning Times," reviewed cleaning strategies. Friday afternoon was spent with Charles Farnsworth, educational vice president with Franklin-Covey Leadership Center, who gave a four-hour presentation on Principles, Paradigms, and Processes to the entire body of members, companions, sponsors, and guests.

Saturday started with concurrent sessions on the topics of Electrical Deregulation, Teton & Yellowstone Maintenance, and Employee Diversity. A panel discussion including a power marketer, two utilities, and an energy consultant discussed the electrical market transition from monopoly to deregulation and customer planning both short-term and long-term. Tim Hudson and Cam Hugie, from Yellowstone and Teton National Parks respectively, with responsibilities for



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maintenance of roads, buildings, trails, vehicles, and utility systems, addressed concerns they are faced with in a national park arena. Valcris Ewell, who served as deputy assistant secretary of the army, addressed the issue of employee diversity in the workplace and the benefits that are derived from caring about the individual. George B. Wright of the George B. Wright Co. was assigned the daunting task of closing the educational portion of the conference with his address on Saturday afternoon to the entire body of attendees. George touched on key issues of Planned Performance Measurement linking long-term strategy with short-term goals/action.

The majestic setting of the Teton mountains was the perfect backdrop for our conference. In that setting, one can visualize the changes that have occurred over many centuries to create such breathtaking scenery. Change is not easy and leaves many of us feeling queasy, but change is

inevitable whether we are willing participants or are swept along in the tumultuous current. Powerful change requires tenacity and flexibility on our part. Tenacity is necessary to hold on to the best of what we now enjoy, and flexibility to help us see and adapt to what is better. We hope that our conference participants came away with the desire to look forward to change and to be active participants in molding the future state of our institutions.

* * *

Pacific Coast Region

Johnny Torrez

PCAPPA President-Elect

Many of our regional members attended the 46th annual PCAPPA conference at the end of September in San Francisco; those who didn't missed a really wonderful conference. More than 200 people gathered from throughout the western states to explore how PCAPPA members could "Bridge Reality and Vision" at their respective institutions. All participants seemed to agree that the conference was a wonderful opportunity to learn and share information, meet and mingle with our peers, and enjoy the finest of what San Francisco has to offer.

Many at the conference were particularly impressed with the Covey Leadership Series that was incorporated into the several days of seminars and presentations. The message of excellence and integrity conveyed by these presentations was an inspiration for so many of us, applicable both to our private and work lives.

Another highlight was the Sunday evening bay cruise and dinner in Sausalito. What better way to enjoy the beautiful bay than from a jaunty cruise ride at twilight? The weather definitely cooperated with a nice breeze and a stunning sunset over the Golden Gate Bridge.

The next day, many enjoyed the lovely and informative tour of the UC

Berkeley campus, the host institution for the 1997 conference. For those interested in golf, the tournament proved a fun event where just about everyone won, or at least had a good time. The workshops, the setting, the social events, and the organization and staffing of the conference all got high marks from those attending. Vendors were on hand to talk to attendees, answer questions and participate in quite a few raffles, prize drawings and giveaways. San Joaquin Chemical wasn't just satisfied to be the conference platinum sponsor; they also raffled the last ten years' logo-embellished watches and windbreaker jackets. And at the awards banquet, they donated an additional \$5,000 for PCAPPA to use as it saw fit, which the Board immediately initiated a scholarship fund for PCAPPA attendance at APPA training. San Joaquin Chemical, in turn, was honored with a presidential award.

We thanked and bid farewell to the outgoing president, Ron Hicks, and welcomed our new president, Darrell Buffalo. A special thanks goes out to our vendors, and in particular, San Joaquin Chemical, for being so supportive of our conference efforts. We couldn't have offered the quality we did in this conference without their collective help. Thanks also to all those folks from the UC Berkeley staff who worked for well over a year on planning and realizing this conference. We had a great time; we're glad you did, too. And, of course, Jim Hansen reminded us that we get a year to rest, but get the chance to do it all over again next year in San Bernardino.

* * *

Australasian Region

Sam Ragusa

AAPPA Board of Directors

The Australasian Region has experienced a year of regrouping following the sudden decision by President-Elect Arthur

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Bradley to leave the higher education sector literally a few days before he was due to assume office as President of the region. Denis Stephenson boldly stepped into the breach and has led the region throughout 1996-97 giving the organization some new enthusiasm.

During this period, the association has developed a new strategic plan and has vigorously pursued a membership drive to increase the participation of staff from member institutions. The efforts have been directed towards increasing the number of Associate members, bringing them into the association and developing a potential pool of talent to lead AAPPA in the future. This has been extremely successful with over 300 members being listed in this way.

The AAPPA Management Development Program, run in conjunction with the Institute of Administration at the University of New South Wales, was again very successful with over 20 participants from Australia and New Zealand. All participants in this course acknowledge the value of this program towards their professional development.

Between 15 and 17 September, the AAPPA Annual Conference was held in Sydney, Australia in conjunction with the Conference of the Association for Tertiary Education Management. In all, close to 500 participants enjoyed the event with over 100 AAPPA members participating.

AAPPA President-Elect Joe Spoonmore and his wife Sandy joined us for this event during which 18 presentations were made in the facilities management stream of the conference, which was held together by plenary presentations of common interest. [Editor's Note: See Joe Spoonmore's full report of his trip in this issue.]

The Annual General Meeting, held in conjunction with the conference was the occasion when the new office bearers of the association took up office. 🏢

APPA Staff Listing

Wayne Leroy, Executive Vice President, leroy@appa.org

Chief staff officer of the association. Responsible for planning, organizing, and directing staff in advancing the policies, objectives, and services of the association. Primary liaison to the APPA Board of Directors.

Lander Medlin, Associate Vice President, lander@appa.org

Assists the Executive Vice President with all responsibilities. Oversees program development. Contact for the Facilities Management Evaluation Program (FMEP), public policy initiatives, and the Awards for Excellence program. Serves as staff liaison to the Central region.

Cotrenia Aytch, Communication Services Manager, cotrenia@appa.org

Oversees publication sales, subscriptions, and advertising billing for *Facilities Manager* and *Job Express*. Coordinator of *Job Express*. Handles registration for educational programs.

Chong-Hie Choi, Director of Budget & Fiscal Planning, choi@appa.org

Oversees financial and daily accounting functions of the APPA office. Serves as staff liaison to the Pacific Coast region and as financial liaison to all regions.

Alycia Eck, Publications and Web Manager, alycia@appa.org

Editor of *Inside APPA*. Provides technical and editorial support for *Facilities Manager*, APPA books, Web publications, and marketing efforts. Manages APPA's website.

Steve Glazner, Director of Communications, steve@appa.org

Plans and manages book and periodical content and development. Editor of *Facilities Manager*. Responsible for research projects and the development of APPA's Strategic Assessment Model (SAM). Serves as the staff liaison to the Southeastern and Australasian regions. Liaison to the Information Services Committee.

Andria Krug, Meetings & Conference Manager, andria@appa.org

Assists in the planning and development of seminars, institutes, and annual meetings. Contact for the Institute for Facilities Management and other programs. Works with the Educational Programs Committee.

Stephanie Legette, Accounting Assistant & Accounts Receivable Manager, slegette@appa.org

Supports accounting function of the association. Contact for membership invoices/payments.

Maxine Mauldin, Member Services Manager, mmauldin@appa.org

Manages administrative functions of member services and contact for membership corrections and requests.

Melissa Mills, Office Manager, melissa@appa.org

Executive assistant to the Executive Vice President and Associate Vice President. Oversees general office maintenance and support. Works closely with the Board of Directors and Executive Committee.

Tina Myers, Director of Member Services, tina@appa.org

Oversees membership recruitment and retention. Responsible for APPA's membership directory. Serves as liaison to the Eastern region. Liaison to the Membership Committee.

Medea Ranck, Director of Marketing & Outreach, medea@appa.org

Directs the association's marketing and outreach efforts. Contact for press releases, advertising in *Facilities Manager* and the membership directory, and sponsorships. Serves as staff liaison to the Rocky Mountain region. Liaison to the Professional Affairs Committee.

Kathy Smith, Director of Education, ksmith@appa.org

Directs and develops all educational programs. Contact for Upward Bound Mentoring Program. Exhibit coordinator for annual meeting. Serves as the staff liaison to the Midwest region. Liaison to the Educational Programs Committee.

Executive Summary

U.S. Commission on Higher Ed Costs: A Call to Leadership

by Wayne E. Leroy, CAE

Constrained financial resources, increased bureaucratic structures, and public pressure for accountability have led to a general widespread concern to review the effectiveness and efficiencies of the educational enterprise. One of the outcomes of assessing education, specifically higher education, has resulted in the establishment of a bipartisan joint commission to look into the costs associated with obtaining a college degree.

On August 11, 1997 the members of the U.S. National Commission on the Cost of Higher Education were named. Republican congressional leaders picked six, Democrats selected four, and the Secretary of Education chose one. William E. Troutt, president of Belmont University (Tennessee) was named chairman, and Barry Munitz, chancellor of California State University System, was selected to serve as vice chairman. Most of the 11 members are college presidents.

The commission is charged with finding creative ways for that the government could help rein in the growing cost of attending colleges. Because facilities are a significant portion of college expenditures, the outcome of the commission's efforts may have significant impact on the role of facilities professionals. Consider the following educational facilities statistics (these are U.S. numbers only):

- \$35 billion per year is spent on maintenance and operations

Wayne Leroy is APPA's executive vice president. He can be reached at leroy@appa.org.

- More than \$17 billion per year is expended on new and renovation construction activities

- Educational facilities represent 8 billion square feet of space

- Education has an inventory of more than 280,000 individual buildings

- On a daily basis educational facilities touch the lives of 70 million students, faculty, and staff

Other than the teaching faculty, the largest group of institutional personnel on the campuses of most schools and colleges is the facilities staff. More than 500,000 people are employed in the tasks of providing building and grounds care, maintenance and repair of buildings and equipment, and countless other activities required to keep the educational enterprise operating effectively and efficiently. It is virtually impossible to deliver quality education without quality facilities.

While the final report was not available by press time, reactions to a preliminary report released in early December gave clear indication of times ahead. This initial report was met with sharp criticism from its Congressional backers because it concluded that, overall, public perceptions of runaway college costs are based more on ignorance of federal aid. The committee has since backed down from this position, and the final report is expected to focus on efforts colleges can make to keep costs down.

The initial draft report—which opposed government imposed price controls—did identify several suggestions for reducing costs:

1. Control costs that drive up tuition charges, such as construction expenditures, facul-

ty salaries, and technology outlays.

2. Higher education associations would develop "self-review" models that member institutions could use to identify cost-saving measures on their campuses.
3. The government should remove unnecessary and duplicative federal regulations and distribute information about trends in college costs more widely, so that policy makers and the public could better understand the issue.
4. The government should undertake a broad public-information campaign about the availability of federal student aid and tax breaks on tuition.

We will have to wait for the release of the final report before we can truly assess the future implications for higher education facilities. One thing is clear, however; we have a duty to ensure quality facilities to maximize educational delivery. To continue doing so will require that we become knowledgeable not only on daily operational issues, but also on the broader questions in higher education. We must be able to see the future in order to make shrewd business decisions now, and lead our institutions toward that future.

APPA will keep everyone apprised as to the commission's report and the impact on higher education facilities. As the public policy debate continues regarding the outcomes expected from our educational enterprise, one thing remains very clear: without quality educational facilities, we cannot deliver quality education. 🏛️

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One of the most frustrating responses a person can have to a reported problem or need is for someone to tell them, "That's not my job," or "That's not in my department." The person making the call is usually already feeling some urgency about the matter or they wouldn't have bothered to call in the first place. Obviously, in such a case, there is a perceived problem and there are expectations that the problem will be resolved.

If you are doing the job right, the facilities management department should be the "problem solver" on campus and not a part of the problem itself. There's a feeling on most university campuses that "if you don't know who to call, call Facilities Management." People look to Facilities Management to solve any and all facility-related problems. And, if it is obvious that something needs to be done, we need to assist people in getting the job done, even if it isn't our job.

The old-line way of thinking saw work as a sort of a job-in-a-box. Employees were expected to handle assigned duties, get along with coworkers, and not cause problems. It was just "get your job done and be a good soldier"—do that, and you'd get by. For the most part those days are dead and gone.

Employees need to stop thinking of themselves as just being paid to do a "job." They need to realize that it's not

enough to merely put in their hours, pick up a paycheck, and call it a day. We need to instill within them a broader consciousness. They must be taught the importance of making a visible contribution beyond the boundaries of their immediate assignments. We need to structure the organization so that apart from the duties that typically go with specific job titles, employees should feel they are responsible for making the organization what it needs to be overall. Employees should be held personally accountable for the success of the whole department. Everyone in the organization must see themselves as agents of the total department.

Why?

Employees who work in this manner will be pleased to find themselves operating with more power, more information, and better tools. It puts them in a far better position than ever before to influence the total operation. And since most of our organizations must adjust to accelerating change, with even bigger challenges, we need the help of every single employee.

It's important for every employee to keep in mind that they are the organization. It is all of us. Employees are the brains. They are the department's energy. They represent the department's only ability to cope with change, its only chance to provide quality customer service. Employees are the people who must make sure that the customer is satisfied. Employees are the ones who need to prepare the organization to measure up tomorrow.

When something needs to be done, a good employee—at whatever level—doesn't wait to be told to do it. If it's in their domain and they have

the authority, they should simply go ahead and do it. If there's any doubt whether they have the authority to act, they should point out the problem, suggest action, and ask for approval. If it's completely out of their area, they should recommend action to those who do have authority—tactfully, of course.

The point is, if something needs to be done, the person with initiative feels a personal responsibility to do what he or she can to get it started. The person without initiative may be just as willing to work hard, and just as able, but they don't have the spark to start action on their own. A person who has to be told each and every thing to do throughout the day is not a very valuable employee.

Why do some people hesitate to take the responsibility for changing anything or for starting in new directions? There are many reasons, one of which is fear of being blamed if the project fails. Another reason—and perhaps the most unfortunate one—is that they simply don't see the problem as part of their job.

Good employees have to be self-starters. They anticipate the needs of their jobs and don't expect their supervisors to do it for them. They see what needs doing and do it without waiting to be prompted. They accept responsibility for developing new ideas and methods—within the limits of their authority—without waiting to be prodded.

An employee who wants to be successful, particularly if they are interested in advancement, must realize that they are paid to think and to take care of those things that show up wherever their job takes them. That's what being a good employee is all

Val Peterson is director of facilities management at Arizona State University, Tempe, Arizona, and a past APPA President. He can be reached at valpeterson@asu.edu.

about. It's what the university, the boss, coworkers, and everyone else looks to them for. If they don't do it, they aren't doing their job.

Well, all this is good and reasonable, but how does the theory get put into practice? Whose job is it to make sure these things happen? I would submit there are only three ways to make it happen: commitment at the

top, consistent emphasis of its importance, and proper training of staff.

Let's not get so specialized in what we do that we can't take the necessary action, whenever and wherever needed, to get the things done that need to be done. Let's be the solution, not the problem! 📢

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by George H. Emert

It is a pleasure to be here with you today in such a spectacular setting. I know that physical settings—both natural and human—do not escape your attention. Spending as much time as I do on campus, I am grateful for the work you do on my behalf and on behalf of thousands of faculty, staff, and students in the Rocky Mountain region.

It is appropriate that the Rocky Mountain Association of Physical Plant Administrators is here in such a setting, not only for rejuvenation but hopefully for inspiration and to share knowledge and ideas. As John Lubbock once said, "Earth and sky, woods and the sea, are excellent schoolmasters, and teach some of us more than we can ever learn from books."

What are some of the things we can learn from this setting? I can think of at least five attributes and qualities that make Jackson Hole a special place for residents and visitors and are worth emulating on our own campuses. These characteristics are change, natural beauty, space, planning, and protection.

Change as a Constant, Natural Process

Change has been a big part of this region. A scant 150 years ago it was bare except for small bands of American Indians and a few fur trappers who lived here only during the

Dr. George Emert is president of Utah State University, Logan, Utah. This article is excerpted from his keynote address to the 1997 RMA annual meeting, which was held in Jackson Hole, Wyoming.



Dr. George H. Emert

summer and fall. Homesteaders eventually trickled in and established ranches in Jackson Hole (hole is trapper slang for a mountain valley). But its future began to take shape when some of these homesteaders realized that dudes (rancher slang for summer tourists) were easier to keep than cattle.

Today Jackson Hole has more than 3 million tourists annually and is a very different place. It is a year-round vacation destination and a gateway to such natural splendors as Yellowstone and Grand Teton National Parks.

Beyond this human history, its geological history attests to even greater changes. These alterations began 5 to 9 million years ago. The western edge of Jackson Hole, the line where the valley meets the base of the Teton Range, was originally higher than the Tetons! Jackson Hole con-

tinues to sink along the Teton Fault, putting tremendous pressure on the molten layer far below. The sinking valley displaces the molten rock, which in turn pushes the Teton Range up, on the average, one inch for every four inches the valley floor drops.

The Tetons teach us that powerful change requires tenacity and flexibility. Change is not easy, and I commend you on your theme of "Leadership through Change." Indeed, effective change can only occur through strong, capable leadership.

We know that change is the one constant. Unlike geologic time, which is measured in millions of years, facilities management time is measured in months and even days. Look at your own facilities practitioners. How many of you were using pagers, e-mail, or cellular phones just ten years ago? These new technologies demonstrate that you do not fear change. This flexibility is essential on today's campuses.

The July/August 1997 issue of *Facilities Manager* listed what's currently "in" and what's "out" in your industry:

<i>Out</i>	<i>In</i>
Outsourcing	Cosourcing
Computer Aided Facility Management Information Systems	Facility Management Systems
Standard Operating Procedures	Standard Operating Guidelines
Hard Work	Results
Before Hire Training	Lifelong Learning
Loyalty	Career Growth
Narrow Focus Experts	High Performing Generalists
Departmentalization	Teamwork
Traditional Manager	Strategic Leader

I am pleased that lifelong learning is in. To help keep up with change, it is vital that the acquisition of knowledge becomes a lifelong pursuit. Colleges today are seeing a large influx of nontraditional students returning to campus to retool their careers. It should be no different for those in your discipline. Continuing education results in better workers, greater efficiency, happier customers, and, ultimately, more dollars saved.

Natural Beauty Attracts and Inspires

While Utah State University's backdrop may not match the striking beauty of the Tetons, the pristine mountain valley of northern Utah nevertheless helps make our campus one of the most beautiful in the country. Natural beauty can be found on every campus. Your challenge has always been to accentuate that beauty and do nothing to distract from it. Every season of the year you perform miracles by maintaining and presenting the beauty of our campuses. What a tough but essential task that is.

Our campuses are some of the best environments around—beautiful trees, green grass, interesting architecture, and all that youthful exuberance! I can look out my office window and see a magnolia tree, which I'm sure most of you know does not grow naturally in northern Utah. Someone, some time ago, planted a couple on our campus, and our physical plant people have kept them alive. For a man who spent much of his life in the South, these trees are a real treat; for the many young people from Utah who have never seen a magnolia, I like to think, as John Lubbock suggested, it's a nice addition to their book learning.

The physical plant staff not only has the awesome responsibility of making our campuses beautiful—which in much of the arid West is no easy task—it also has to keep them open and accessible when the cold

winds and snows of winter come our way. Many of us probably take much of what you do for granted. Teachers only have to worry that they are prepared to teach, researchers only have to worry about their experiments, and students only have to worry about their next date and maybe a little about whether they completed last night's assignment.

The physical plant staff may be unheralded, but I assure you, it is not unappreciated. Every couple who has strolled hand in hand through campus appreciates your contribution to their romance, every professor who enters a warm and comfortable classroom appreciates your contribution to the students' attention spans, every participant in campus activities from athletic events and dances to plays and dorm room bull sessions, knows that you are out there.

Space Symbolizes Order

The grandeur of the Teton mountain range is enhanced by the valley that spreads below—a level space carpeted with silvery-green sagebrush shrubs that forms its foreground. Unlike the Teton Valley, our college campuses do not have the luxury of millions of acres but must make do with much smaller spaces. Parking at USU takes up more than 12 percent of the campus' 450 acres. At the same time, enrollment has increased 5.4 percent annually for the last ten years; the square footage of space per student has declined because of the lack of funding for new space. In response, a more holistic space management approach has been attempted in the last two years, including the addition of space inventory and reporting, space utilization analysis, anticipation and planning for space needs, assignment of permanent space, and scheduling for use of space.

The space between our buildings is equally at a premium. It is no accident that memorable campuses possess a clear sense of spatial order

and hierarchy. The May/June 1997 issue of *Facilities Manager* describes the value of well-ordered sequences of space. Proportion communicates levels of importance. Do we have definable centers to campuses, so that when one says "meet me in the center of campus," no further explanation is necessary? Or have our campuses become merely collections of unrelated spaces?

Tom Richman, in the October 1995 issue of *Marketing Higher Education*, also discusses campus space. He writes that the gateway between acceptance and denial for prospective students is the entrance exam—an exercise on which students expend a great effort to ensure they perform well, knowing that it will make a difference in which institution they attend.

Richman believes that there is also another kind of entrance exam—the examination that prospective applicants make when they visit our campuses. Writes Richman, "Often prospects will tour a series of institutions, traveling hundreds or thousands of miles with the entire family in tow, to see their short list of favored schools firsthand. And just like prospective house hunters entering a driveway, these institution hunters drive up to the entrance of the campus and immediately form their first—and strongest—impression."

Do our institutions pass this other entrance exam? Richman suggests that universities design entryways from the public street to the campus in such a way that they create a passage from the realm of commerce to the realm of ideas. "This passage is an opportunity to express your institution's unique character and charm," he writes.

Whether or not such suggestions are physically and economically feasible, it is instructive to consider the tremendous ramifications of space usage decisions. Entryways that lead

to parking lots and not to the heart of campus certainly communicate a message. Likewise, the spacing of buildings and use of green space sends other messages to students and visitors that cannot be ignored or discounted.

Planning and Protecting our Environment

The heart and soul of facilities administration is anticipating the future physical needs of our campuses and protecting our interests. It was the future that the first Jackson Hole visitors had in mind when vast tracts of land were set aside. Protecting requires planning. Although Grand Teton National Park was originally established to protect the Teton Range and six of the piedmont lakes, Jackson Hole Valley was later included in the national park designation. National park status signifies that a place is special and contains unique scenery or wildlife that deserves perpetual preservation.

Our state legislators have bestowed similar status to our campuses, for they too are unique and deserve perpetual preservation. You are the ones assigned to be ever vigilant, to assure that this preservation process continues.

A congressional mandate is not enough to ensure this preservation continues, even for a region with as much natural beauty as Jackson Hole. It requires concerned people joining together and making a plan. In 1980, such a group of people began meeting in Jackson Hole, and, soon after, the nonprofit Jackson Hole Trust was founded. Its mission is both grand and simple: protecting Jackson Hole and preserving forever its open spaces, scenic beauty, wildlife habitats, and ranching heritage. Since its founding, the trust has protected more than 7,000 acres comprising extraordinary views, critical wildlife habitats and nearly five miles of Snake River riparian zone. Despite these successes, the trust still has much work

ahead as looming real estate taxes and the high demand for real estate subject ranchers and landowners to development pressure.

Our campuses are threatened by similar forces. At Utah State University, for example, almost one-third of the building space (1 million square feet) is more than 40 years old and has never undergone major renovation. Major remodeling is needed for at least 8 percent of our buildings.

While President Clinton may not have used the term "deferred maintenance" when he outlined his ten major focal points for education, he understands its effect when he called it "a serious national concern." In higher education, it is a concern of 3,600 institutions affecting more than 14.5 million students each year. APPA's recent report, *A Foundation to Uphold*, stated, "The estimated \$26 billion in total costs to eliminate deferred maintenance, of which \$5.7 billion is urgent needs, represents a threat for higher education's facilities to support college and university missions." The author cited a study that identified five factors that significantly influence campus success in combating accumulated deferred maintenance. These five influences, and their success ranking, are 1) priorities of top administrators (80 percent); 2) support of trustees or legislators (73 percent); 3) budgetary and/or financial strategies (59 percent); 4) financial condition of the institution (47 percent); and 5) state appropriations (24 percent).

Bear these factors in mind as you address deferred maintenance. Prioritize and communicate your needs to top administrators. Let them go to bat for you. This is how USU successfully convinced our legislators to fund the design and construction of a new chemistry building. We are planning major renovations for all our outdated science laboratories and have included them in the capital development and improvement lists.

Projects of this magnitude must be funded by the state and will occur as the legislature responds to the continual requests of the university—the top administrators—and regents.

The USU plant staff continue to be a leading influence in focusing on operations and maintenance funding as state priority. Facilities managers have set a statewide precedent by including operating costs in any new facilities funding. This past year, the concept was finally accepted by the Utah Board of Regents and legislature. We must now gain the legislators' recognition of the accrual of the deferred maintenance and motivate them to address the problem.

These advances cannot occur without strategic planning. Facilities administrators are the planners, which makes you the vanguards of our campuses. This concept of planning for, and perpetually preserving, that which is unique—be it Jackson Hole Valley or our college or university campuses—is an integral part of our civilized life.

Yet such goals do not come easily or quickly. It takes time but in the process yields meaningful and even spectacular results. Remember the Tetons—it took some 9 million years to get them where they are today. Earth and sky, woods and fields, lakes and rivers, the mountain and the sea, are excellent schoolmasters. They teach some of us more than we can ever learn from books. I would add campus grounds and buildings to this list (and include cleanliness, lighting, sound systems, heating and cooling, and landscaping). In this way, you contribute to our young people's education every bit as much as a teacher does. Without you the education would be much slower. And it would be a lot plainer without the beautiful grounds and buildings you provide. 🏡

Introducing APPA's Professional Leadership Center



by Douglas K. Christensen

Every student is entitled to a conducive learning environment composed of safe, clean, comfortable, modern facilities. APPA firmly believes that the quality of the educational environment directly affects the quality of the educational experience.

In support of this belief, APPA has focused its efforts on two main long-range goals: 1) to raise awareness of the association and its work, and 2) to develop leadership within the facilities profession. By strengthening the educational facilities profession, APPA will increase the importance placed on the physical components of the educational environment. This, in turn, enhances the overall quality of education for all students.

Establishing the Professional Leadership Center as proposed in this article will significantly advance APPA's progress toward these goals.

History

As APPA worked to develop its vision for the association, another issue was prevalent in the members' feedback:

Doug Christensen is director of Brigham Young University's Capital Needs Analysis Center, Provo, Utah. He is a past APPA President and is cochair of APPA's Professional Leadership Center.

"How do we become better leaders in our profession?"

While APPA offers some leadership training in conjunction with its Institute for Facilities Management, there is no organized, focused educational effort in this direction.

During my term as APPA President, I and member Bill Daigneau (of the University of Texas M.D. Anderson Cancer Center) conducted an in-depth review of professional leadership development issues for the association. The results of their review were presented in a preliminary study, which also outlined the initial meetings and proposed focus for a professional development center.

From this preliminary study, the APPA Board of Directors agreed to a proposal in February 1997 to further develop the Professional Leadership Center. The following is a proposal that has evolved from discussions with members and from research relating to the issues of professional leadership development.

The Professional Leadership Center Concept

APPA's ultimate goal is to create a "center" for education, research, information dissemination, and recognition that will develop and expand facilities management strategies for education, especially as new information technologies reshape traditional forms



of learning. The center will provide enhanced programs and opportunities to fulfill five major goals:

1. Encourage broader thinking about facility issues, helping facilities managers to develop and facilitate the application of new and novel solutions.
2. Help professionals view issues from the perspective and needs of users/stakeholders.
3. Research "best of class" practices in and out of higher education.
4. Identify the variables affecting higher education and their possible results on the future.
5. To unite by inviting facilities professionals and education stakeholders throughout the world to study leadership issues together for a better aligned future.

The center will focus on the individual to develop leadership skills that will enable them to participate at a higher level and contribute meaningfully to their institution. The Professional Leadership Center will be made up of members and volunteers who are interested in further developing leadership within the facilities profession. Participation in the Professional Leadership Center is open to all who are interested.

Framework and Focus

In order to accomplish this vision, APPA foresees a need for four major components. All four collectively comprise the Professional Leadership Center. The following paragraphs describe the four components and how they provide a framework and focus for the Professional Leadership Center.

The four components are:

1. Leadership Skills Academy
2. Facilities Research Group
3. Leadership Learning Resource Center
4. "Fellow" Recognition

1. Leadership Skills Academy

The Leadership Skills Academy will focus on the need of leadership education in higher education facility professionals. The institute will emphasize the development of three core skill areas: personal effectiveness, organizational, and professional skills in leadership. These core skills were selected based on outside research which reveals that leaders from widely varying fields share a common set of skills and abilities.



The academy will have appeal and relevance beyond the facilities profession. We feel that such groups as business, personnel, housing, student centers, special events, auxiliary groups, and other similar groups on campus as well as other facilities professional organizations can benefit from learning leadership skills together as partners in this center.

The role of the Leadership Skills Academy will be to create the skills needed to deal with change. All of the activities will be designed to reinforce and provide an environment in which learning can be maximized. We hope to receive I.N.P.U.T. about the various elements that are being put together now to develop this institute. Any of your ideas or suggestions will help to add value to the creation of the institute. For more information on the Leadership Skills Academy, see the following article.

2. Facilities Research Group

To further the research and development of skills and issues, we plan to establish a research group that will give direction to those issues that are of highest priority within our profession. APPA would sponsor a core group of higher education and facilities professionals to form a Facilities Research Group. The Executive Vice President of APPA, who will serve as the host for this group, will invite the group to meet annually. The EVP will make a proposal to the board each year as to who will be part of the Facilities Research Group. It will be important for APPA to get the most influential people who can identify and deal with the issues of higher education and the facilities profession. The Facilities Research Group will accomplish the following:

1. Identify a **principal investigator** as well as a **sponsor** who will fund the research team and its direction. Proper recognition in all APPA publications concerning the result of the research will give APPA a way to recognize the sponsor, as well as the research completed.
2. Meet yearly to review and prioritize issues relating to higher education and facilities practices.
3. Meet to suggest **research methodology** and **team members** that could be used to give professionalism to the solution of these issues once the issues have been prioritized.

The Facilities Research Group will be a key part of the professional leadership development. It will give us an opportunity to team together in not only the issues, but the

learning of the day. This will also give APPA an opportunity to show its leadership in the profession by taking steps to further clarify and give direction to the other members of the association. This annual activity, with a number of issues being researched and reported, should add interest and new knowledge in relationship to how we deal with the future.

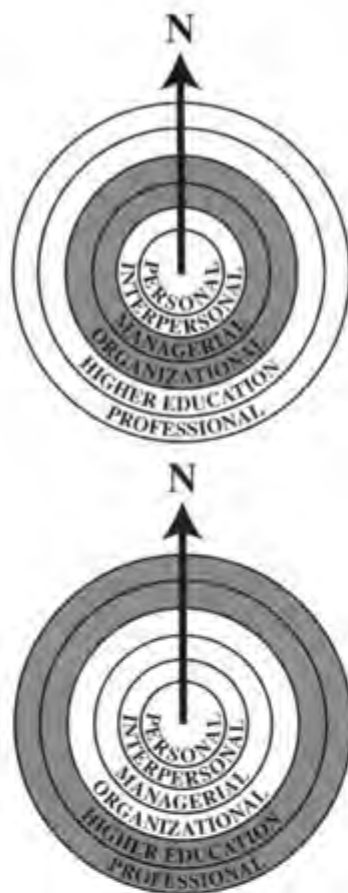
To research "best leadership practices" through alliances with any partner that can add value and stretch the current leadership understanding of the profession will be important for the future. This effort will focus on providing opportunities for members to learn and partner with the best. The leadership research and development focus will take a leadership problem or need, research what has been learned and published about the need, and then set up professional opportunities to be exposed to what is being learned.

3. Leadership Learning Resource Center

To develop the kind of relationships and networking that need to take place as we learn and study more about leadership, we would establish on the APPA website a way to access current information and resources that are available in the area of leadership. The purpose of this leadership center will be to provide a leadership resource to anyone at any time based on their need, in order to network the needs, experiences, and learning of all stakeholders interested in leadership and its issues. This resource will also give information about what is being researched, studied, adapted, and learned.

This will take some volunteer effort to help us research past articles or past information and evaluate its importance and value to the members. Once this network is developed, it should be a way of communicating not only leadership problems, but solutions. It will also be an opportunity to develop a directory of people who have dealt with various kinds of issues and challenges, whether in research or adaptation on campus, so that they can be an information source and resource to the membership.

The Leadership Learning Resource Center will help us to communicate, and it could become a focused library and focal point for the membership as we continue to research and develop issues relating to leadership.



4. "Fellow" Recognition

As we proceeded to complete the strategies and vision of the association, it became obvious to us that there was a need to recognize the achievements of our professionals in an appropriate way. Therefore, we propose that as part of the Professional Leadership Center, criteria be established to recognize a professional who has completed certain requirements as an "APPA Fellow." These criteria may include, among others:

1. Completion of the Leadership Skills Institute.
2. Successful research in a leadership area.
3. A presentation made at an APPA educational conference or an article published in one of APPA's publications.

At the completion of these criteria, APPA would then recognize the individual as a Fellow. There would be additional requirements in order to maintain that status by doing other kinds of work related to leadership. We feel that the Fellow recognition is an effective way in which we can recognize leaders.

Conclusion

We are looking forward to developing this center in a way that will add continuous learning to the profession, to higher education, and to any who would join us on our search for quality leadership. We must find ways to be proactive in leading our institutions through the change that is consistent and extreme. We must find ways to work together with common skills and direction so to take advantage of the many who have found wonderful solutions to difficult problems.

We will need all the help we can get to have the Professional Leadership Center add value to each of you. I would ask for your help and support as we begin this journey. We need your I.N.P.U.T. as you get ideas or as the real needs of the job require new solutions. We need to know, and we are all in this together.

There will be future announcements and solicitations for your help in achieving these objectives. It would be our hope that you would get involved and accept the challenge. May we all become "Fellows" in this unique and rewarding work. ▲

LEADERSHIP ACADEMY

Skills to Learn

The following is a list of skills that will be taught in the academy. The learning model will be show, tell, and do. The goal of the academy will be to develop skills needed to deal with change:

INDIVIDUAL EFFECTIVENESS SKILLS

Skill Levels of Leadership

- Organizational level - Alignment
- Managerial level - Empowerment
- Interpersonal level - Trust
- Personal level - Trustworthiness

Private Victory Skills (Independence)

- Be Proactive
- Begin With the End in Mind
- Put First Things First

Public Victory Skills (Interdependence)

- Think Win/Win
- Seek First to Understand, Then to be Understood
- Synergize

Presentation Skills

- Verbal
- Written
- Media

Vision & Mission Statement Skills

- Find
- Develop
- Update

Performance Cycle Skills

- Pathfinding
 - Analyzing stakeholder needs
 - Defining mission, vision, and strategy
 - Developing and inspiring interdependent missions
- Aligning
 - Structures and systems
 - Mission and strategy
 - Culture (behaviors)
- Empowering
 - Individuals
 - Teams

360 Degree Feedback Skill

- Personal profile

ORGANIZATIONAL SKILLS

This section will focus on topics already in the Notre Dame program. The emphasis will change to skills and will focus on the following kinds of skills.

Style and Team Building Skills

- Myers & Briggs

Organizational Structure Skills

- Shared and aligned mission
- Shared vision
- Assign resources
- Organizational design

Strategic Planning Skills

Benchmarking and measuring skills Performance

Process Improvement Skills

Human Resource Skills

- Hiring
- Developing
- Labor negotiations
- Human performance
- Consensus building and dispute resolution

Financial Skills

- Plan
- Develop
- Manage
- Present

Marketing Skills

- Triangle approach

Information System Skills

A review of the current program could change the emphasis.

PROFESSIONAL SKILLS

First Day - Focus on Issues of Profession and Higher Education

- Higher ed issues
- Professional issues
- Legislative issues
- Regulatory issues
- Any issue needed to talk about

Scenario Planning Skills

Customer/Stakeholder Relations Skills

Risk Taking and Management Skills

- Areas of control
- Areas of influence
- Areas of concern

Political Skills

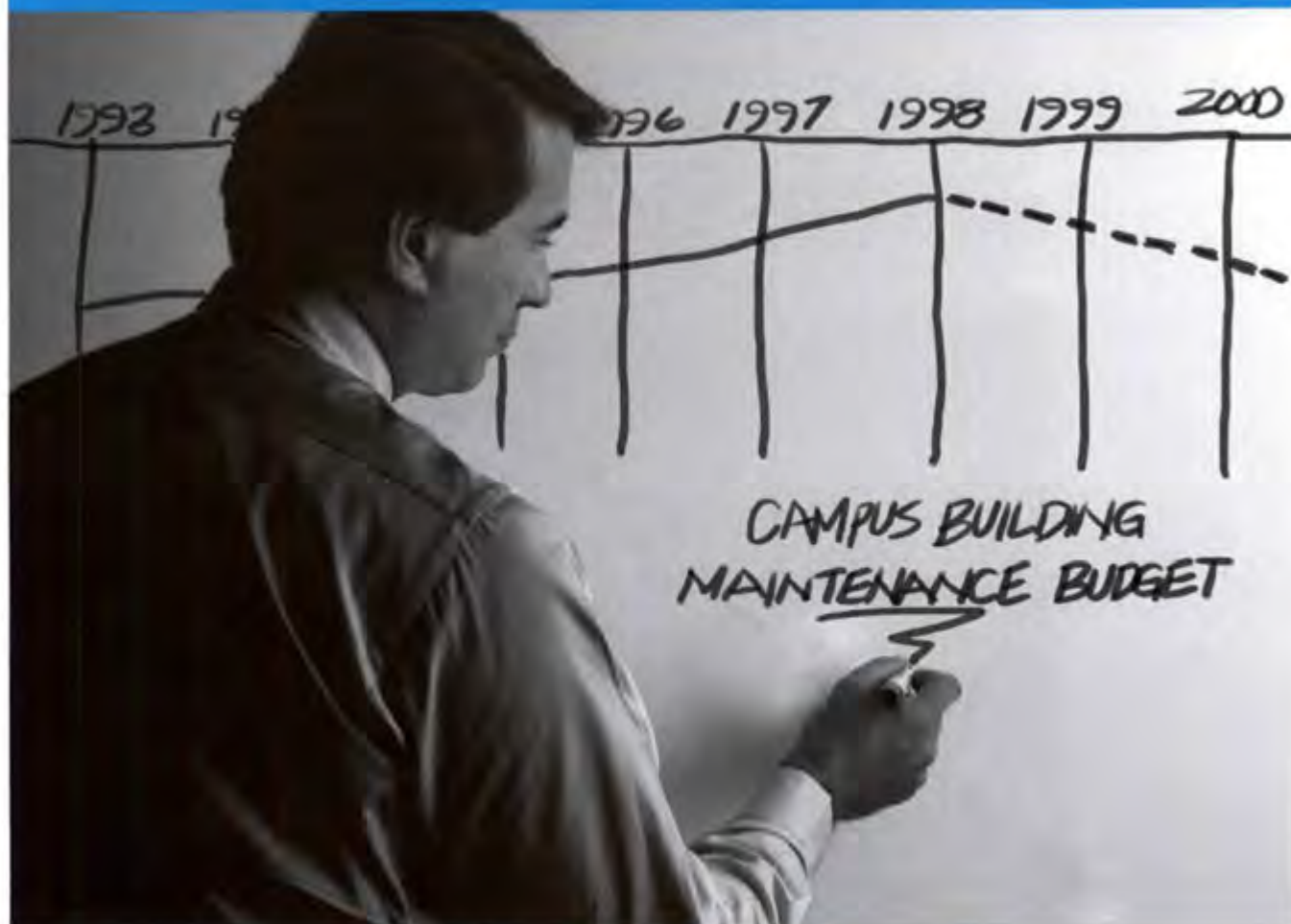
Forecasting Skills

- Business Skills
- Planning
- Process management

Change Skills

- S.W.O.T. analysis
- System thinking
- Best practice search
- Benchmarking analysis
- Research issues and change
- Transition skill

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by Douglas K. Christensen

The Leadership Skills Academy is the educational part of APPA's new Professional Leadership Center, which is described in the previous article. The purpose of the Leadership Skills Academy will be to prepare each individual in areas of personal effectiveness, organizational leadership skills, and professional skills. These three core skill groups were selected based on outside research that revealed that leaders from widely varying fields shared a common set of skills and abilities.

The Leadership Skills Academy is fashioned after the four levels of leadership used by the Franklin-Covey Leadership Center to teach us about the various levels in which leadership skills can affect an organization. The concept is centered around the idea that everything starts with the individual. Therefore, the personal and interpersonal levels will be part of the learning that takes place in the Individual Effectiveness Skills Program. The managerial and organizational levels will be focused on in the Organizational Skills program.

The higher education and professional skill levels will be focused on in the Professional Skills Program. This will allow us to ensure that the things taught at the personal level will be related to and have an impact on how we deal with our role as leaders in the profession. The Covey concept of True North suggests that everything we do will be focused toward our knowing what True North is. Accompanying each one of

Doug Christensen is director, capital needs analysis center, at the Brigham Young University, Provo, Utah. He is a past APPA President and currently a cochair of the APPA Professional Leadership Center.

APPA Launches Leadership Skills Academy

these skills sets will be principles that we will use to help emphasize and identify the basic responsibilities that we have at each level of responsibility.

Discovering and learning what True North can be will require leadership skills. In partnership with the Franklin-Covey Leadership Center, we proceeded with a journey to better understand the framework needed to initiate a Leadership Skills Academy that would add value to our profession and give us direction needed to be good leaders. Whether these skills come naturally, or whether they need to be learned and understood will be what the Leadership Skills Academy is all about. The academy will focus on those skills and areas of improvement which will help identify and deal with those issues and directions that point to True North. To learn what True North is will be the challenge of each person who goes through the Leadership Skills Academy.

The Leadership Skills Academy Mission:

To provide an environment for learning that will enable individuals to be skilled in the area of leadership.

In order to accomplish its mission, the Leadership Skills Academy is dedicated to providing an opportunity for those who participate to learn or improve current leadership skills.

Sessions

The core leadership skills will be taught in three week-long sessions each year, with each session emphasizing a separate area of skills.

Locations

We have identified three locations where the skills will be taught. The intent is to establish permanent locations at which we can create a professional environment that will encourage the development, risk-taking, and reinforcement needed to learn these kinds of skills.

Learning Objectives

The objective of the Leadership Skills Academy is to teach skills that strengthen the self-confidence of professionals in dealing with change and participating in the leadership of



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their institution or company. The program will focus on quality of learning, not quantity of information.

Our goal is for each of these skills development sessions to be carefully outlined in order to take measurements, meet our objectives, implement lesson plan concepts, and ensure that learning takes place in a number of ways and a variety of styles. This will guarantee that all kinds of adult learning can take place as we teach these skills. Skills requirements will be reevaluated and changed if needed as the program evolves and we better define the needs of the profession.

Cohort

To maximize interaction and strengthen collegiality among academy students, the academy will be structured on a cohort or class system similar to that used in education. The system matches groups of people who will stay together in the program year after year until they graduate. Such systems lay the groundwork for peer networks which are vital to the continuing development of individuals. We will encourage these systems in three ways:

1. Encourage members from the same institution to go through the three weeks of skill training together. An effort will be made to keep these teams together.
2. Recommend groups of people in a region that may get together and want to go through this as a cohort team.
3. Advocate groups of professionals within the association that want to meet and go through this process together.

There are many ways in which cohort groups can be organized and designed. It will be our attempt to encourage and assure that continuous learning can take place once they go through the Leadership Skills Academy.

Pre- and Post-Program Activities

Surrounding each week's activities will be some information gathering in order to take advantage of the week together and maximize the time as a learning environment. Following the week's activities there will be follow-up with each participant to see how the skills learned are being further developed. It is our hope that the pre- and post-program activities associated with each week will assist individuals in clarifying the skills learned.

Case Study

It is our intent in time to develop a case study that will allow students who go to the Leadership Skills Academy to clarify and apply the skills they learn to a hypothetical setting or situation. We hope that this will provide additional insights and further the skills learning.

Profile and Commitment

Each new person entering into the Leadership Skills Academy should complete a profile which identifies some of his or her responsibilities, objectives, goals, and other reasons for attending the academy. This will help us tailor the format of the academy to the needs of those who attend. In

addition, we will ask the individual to make a commitment in three areas:

1. To help others learn these skills.
2. To do something creative that will demonstrate leadership at their institution.
3. To give feedback concerning the changes that are needed in higher education or in the profession through the APPA continuous improvement process called I.N.P.U.T.

We feel that all of these activities will add value to the association in exchange for the effort it has taken in developing the leadership skills of each individual.

Summary

The goal of the Leadership Skills Academy will be to create the skills needed to deal with change. All of the activities will be designed to create and reinforce an environment in which learning can be maximized. We hope to receive input and feedback about the various elements that are being put together now to develop this Academy. Any ideas or suggestions will help add value to the creation of this academy.

The academy programs will be developed around three key programs that have been functioning within the APPA organization for years. The first is the Foundations of Leadership program, which has been part of the twice-yearly Institute for Facilities Management. The second program will be the Executive Institute offered at the University of Notre Dame. The third will be the Institute for Facilities Finance, which has been a cosponsored program with the National Association of College and University Business Officers (NACUBO) to help facilities professionals and business officers to deal with issues relating to how to finance and fund the facility activities of universities.

The following pages describe ways in which these three programs will be changed in order to support the overall direction of the Leadership Skills Academy.

Foundations of Leadership Becomes Personal Effectiveness Skills Program

Skills emphasis: Personal and Interpersonal

Skills Principles emphasized: Trust and Trustworthiness

Location: Stanford University, Stanford, California

Place: Schwab Residential Center

Time of year: February/March

Date: March 29-April 3, 1998

Skills sets to be taught:

Foundation Concepts:

Four levels of Leadership (w/ exercise)

Emotional Bank Account

Productivity & Productivity Capacity

See - Do - Get Cycle

continued on page 32

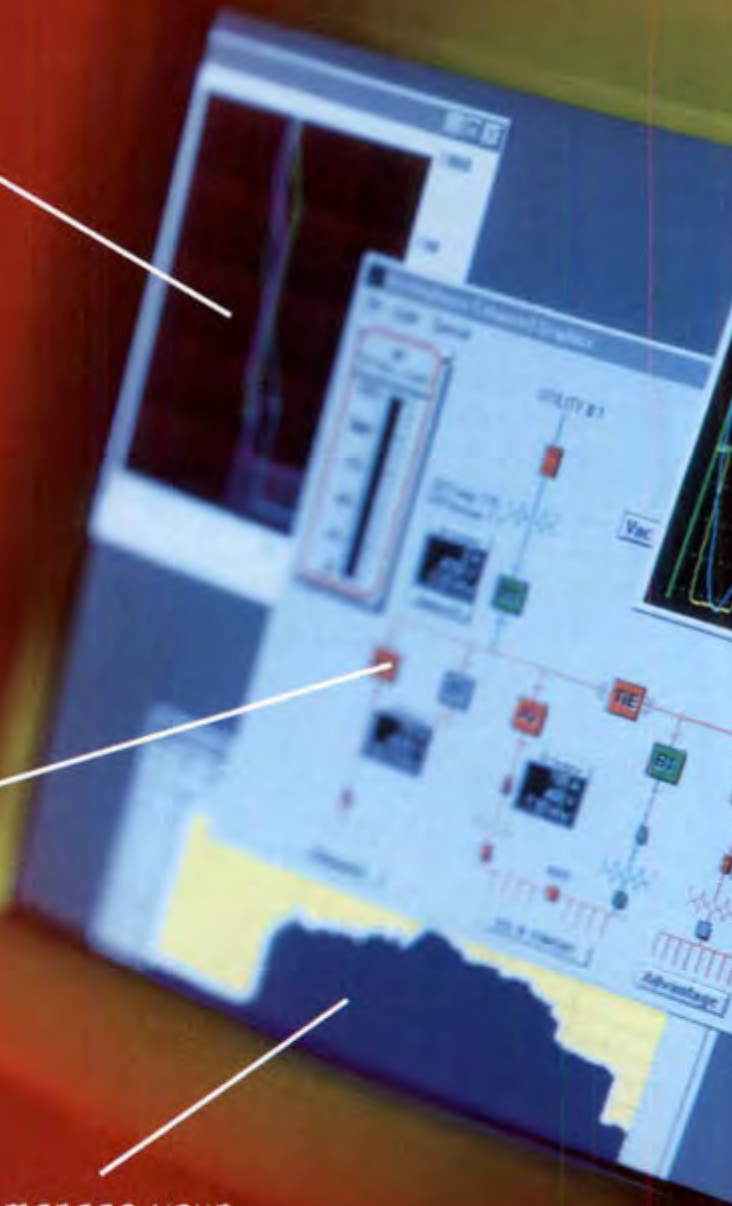
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continued from page 27

Principles & Values
Paradigms
Three person Teaching
Maturity Continuum

Skills:

Private Victory Skills

"Be Proactive" (Personal Vision Statement)
"Begin with the End in Mind" (Personal Leadership)
"First Things First" (Personal Management)

Public Victory Skills

"Think Win-Win"
"Seek First to Understand, Then to be Understood"
"Synergy"

Win-Win Agreement Skills

Renewal Skills

Sharpen the Saw
Profile Action Plan

Modeling Skills

Principles & Concepts

Principle Centered Leadership Overview

With the feedback and success that we have had in the Foundations of Leadership, it was felt that we needed to focus on those skills that are critical to personal and interpersonal success in the leadership arena. For this reason we have added time and cut down on the number of skills that we want to teach so that we can focus on quality teaching. We will be using Franklin-Covey Leadership Center materials to help formulate the Personal and Interpersonal skills needed. Anyone who has completed the Foundations of Leadership will be credited as having completed the Individual Effectiveness Skills part of the Leadership Skills Academy. However, we would encourage those who want additional learning and specifics in certain leadership skills to attend the Individual Effectiveness Skills Program again.

Executive Development Becomes Organizational Skills Program

Skills emphasis: Managerial and Organizational Skills

Principles emphasized: Empowering and Alignment

Location: University of Notre Dame, Notre Dame, Indiana

Time of year: April

Dates: April 19-24, 1998

Skills sets to be taught:

Models:

Performance Cycle Model

Cause and Effect of Key Organizational elements

Leadership Model

Pathfinding
Aligning
Empowering

Skills:

Organizational Structure Skills

Shared & Aligned Mission
Shared Vision

Organizational Design

Strategic Thinking & Planning Skills

Style & Team Building Skills

Myers & Briggs

Performance Measuring Skills

Benchmarking Skills
Measuring Techniques
Strategic Assessment Model—SAM I & II
Stakeholder Information System Skills

Process Improvement Skills

Methods
Systems & Procedures
Information Systems

Human Resource Skills

Hiring & Retention
Developing
Labor Negotiations
Consensus Building
Dispute Resolutions

Financial Skills

Plan
Develop
Manage
Present

Marketing Skills

Internal - Triangle Approach
External - Media Relations

One key of the Organizational Skills Program will be to show how the Personal and Interpersonal Skills transfer to the Organizational Skills. Emphasis will be given to making sure the principles carry through and are understood at this level. In teaching the Organizational Skills, we will utilize the faculty of the University of Notre Dame as well as APPA professionals to facilitate transferring the information learned to the profession and to show how it will relate to your own leadership skills. We will assume that those who have completed APPA's Executive Institute at Notre Dame have gained the learning for this skills set. However, we would encourage those who are interested in developing their Organizational Skills further to attend the Organizational Skills Program.

Facility Finance Institute Becomes Professional Skills Program

Skills emphasis: Higher Education and Facilities Profession

Principles emphasized: Stewardship

Time of the year: October/November

Skills sets to be taught:

First Day—Focus on Issues of Higher Education and the Facilities Profession

- Higher Education Issues
- Profession Issues
- Legislative Issues
- Regulatory Issues

Other Issues S.W.O.T. Analysis of Current Environment

Scenario Planning Skills (A process that will put current issues into perspective)

Customer/Stakeholder Relations Skills

- Surveying
- Feedback Tools
- Risk Taking & Management Skills
- Areas of Control
- Areas of Influence
- Areas of Concern

Facilitator Skills

Forecasting Skills

- Predicting
- Resource Areas
- Trend Analysis
- Benchmarking

Information-use Skills

- Technology Tools
- Retrieval Skills
- Current Levels of Use

Business Plan Skills

- Resource Planning
- Strategic Planning
- Horizon Planning

Change Skills

- S.W.O.T. Analysis
- System Thinking
- Best Practice Search
- Benchmarking Analysis
- Transition Skills

Summary of All Skills

- Effectiveness Skills
- Organizational Skills
- Professional Skills

The importance of the Professional Skills Program will be to bring issues that need current attention and awareness within Higher Education and the Facilities Profession. Depending on the kind of mix that we have, we may add other topics of interest that will affect those who may be attending this Program.

The purpose is to discover what the current issues are, find where we are at within our own issues, and then finding ways to implement and deal with change in a proper way. The value of this week will focus on how we can address and deal with the issues of the day as a team. The results of this week's work each year will be focused toward the Facilities Research Group information, which is discussed as part of the Professional Leadership Center.

We assume that those who have completed the Institute for Facilities Finance will have qualified for completion of this skills set. Because this part of the program has changed the most, it may be important to repeat the Professional Skills Program in order to add some of the skills sets that have not been part of the Institute for Facilities Finance previously. We would encourage those who are interested in further developing their Professional Skills to attend the Professional Skills Program.

"Fellow" Recognition Program

To help emphasize the importance of completing these skills sets and allowing the individual to be recognized for accomplishment, it is our intent to set up standards that will reward those who complete the Leadership Skills Academy. Although the criteria are not yet finalized, individuals will have to complete the Leadership Skills Academy and perform research on a leadership issue which affects their organization and adds understanding to the skills which they have learned. This will allow us to recognize those individuals who have shown dedication and achievement in learning these leadership skills. Further information concerning the "Fellow" status will be presented at a later time.

Summary

The Leadership Skills Academy is a major step forward for APPA in becoming a "global partner in learning." For us to be the association of choice, we need to provide to professionals at all levels an opportunity to develop leadership skills. It is our true belief that leadership happens at all levels within the organization, and is not focused solely on positions of leadership at each institution.

We encourage organizations that are interested in learning more about leadership to take advantage of these programs. Over time these programs will be flexible enough to meet individual needs and requirements. These leadership skills are essential for facilities professionals to survive the ever-changing environment that surrounds us. We hope everyone takes advantage of these programs and seeks to add value so that we can continue to strengthen higher education, the facilities profession, and those who choose to partner with us in this endeavor to learn and better understand what leadership skills are about. ▲

Preparations Underway for Effectiveness Skills Program

by Charles W. Jenkins and Deb Naughton

During the last week of October 1997, we joined three other APPA colleagues in a profound experience. We use the word profound because Webster says that it means "having intellectual depth and insight" and is "characterized by intensity of feeling or quality." Our experience was both of those things.

Along with Doug Christensen, Lander Medlin, and Santalynda Marrero, we spent a week becoming certified facilitators for the Franklin-Covey company's workshops on *The Seven Habits of Highly Effective People*, *Principle-Centered Leadership*, and *First Things First*. We are now licensed, through APPA, to present these programs at APPA educational sessions. Why did we do this, some of us on our own time?

In 1994, APPA presented the first Foundations in Leadership workshop concurrently with the Institute for Facilities Management. It was repeated five times and each time was well-received. In fact, it has since been requested several times over. All of these sessions were facilitated by a Franklin-Covey employee (when it was known as the Covey Leadership Center). Through liaison with the Covey people, APPA staff arranged for five association members to become

certified facilitators and for APPA to become a licensed organization.

Because of our mission and our previous association with them, the Franklin-Covey Company reduced our cost as compared to what a for-profit commercial corporation might pay. The cost for the initiative was underwritten by APPA. Subscribing member Marriott Education Services which, by the way, has made it possible for years for our members to attend the Foundations of Leadership sessions at greatly reduced cost.

All this activity was to fulfill a part of APPA's strategic initiative for developing a Professional Leadership Center, described elsewhere in this issue. The Individual Effectiveness Skills program is designed to be the first of three week-long seminars which, separately and in the aggregate, will help participants develop their personal and organizational leadership talents. Based extensively in *The Seven Habits of Highly Effective People*, the week will teach the inside-out approach to interpersonal effectiveness with bridges at appropriate points to organizational effectiveness.

During our week together in October, the five of us worried that our dedicated APPA members might be reticent to seek university funding to attend an educational session that touts personal improvement. First, we submit that the university will benefit greatly by having a more effective person in the key staff position which warranted sending him or her in the first place. Secondly, we've assured that the curriculum

Charlie Jenkins is facilities administrator at Saint Mary's University, San Antonio, Texas, and a past APPA President. Deb Naughton is Vice President of Business Development at Marriott Education Services, Downers Grove, Illinois



will draw an organizational parallel to every significant personal paradigm which the course teaches. We hope to assure that both the individual and the organization receive full return on the investment made by attending the Individual Effectiveness Skills Program.

A number of APPA members have attended, either at their own or university expense, commercial workshops on *The Seven Habits, Principle-Centered Leadership, or First Things First*. Others have received the training when their universities have adopted the program as an institutional growth initiative. Few have failed to find the ideas and concepts extremely beneficial. Multitudes of corporations have used the programs to improve productivity, workplace harmony and the bottom line. In a recent survey of its subscribers, *Corporate Executive* magazine found that the two most significant business books of the twentieth century were Covey's *The Seven Habits of Highly Effective People* and *In Search of Excellence* by Peters and Waterman. APPA has truly selected a winner as the foundation for the Leadership Skills Academy.

So, what was so profound about our week of training as facilitators? First and foremost, it was about much more than learning when to show what video and how to get group activities organized. Throughout the week, we found ourselves constantly returning to and renewing the values and commitments to excellence we made when we first became Seven Habits practitioners. In addition to the five of us in our workshop, there were participants from both federal and state governments and from industry.

During the course of our training we learned from each other's experience, but we also developed bonds that will serve us for the rest of our lives. Each participant identified a personal coach from among the others; someone who promised to be available to counsel and advise when questions or indecision arise while facilitating. During the Individual Effectiveness Skills Program, which will be conducted in a retreat setting similar to APPA's Executive Institute, we expect just such bonding and interaction to occur among participants. The facilitators will certainly make the opportunity available.



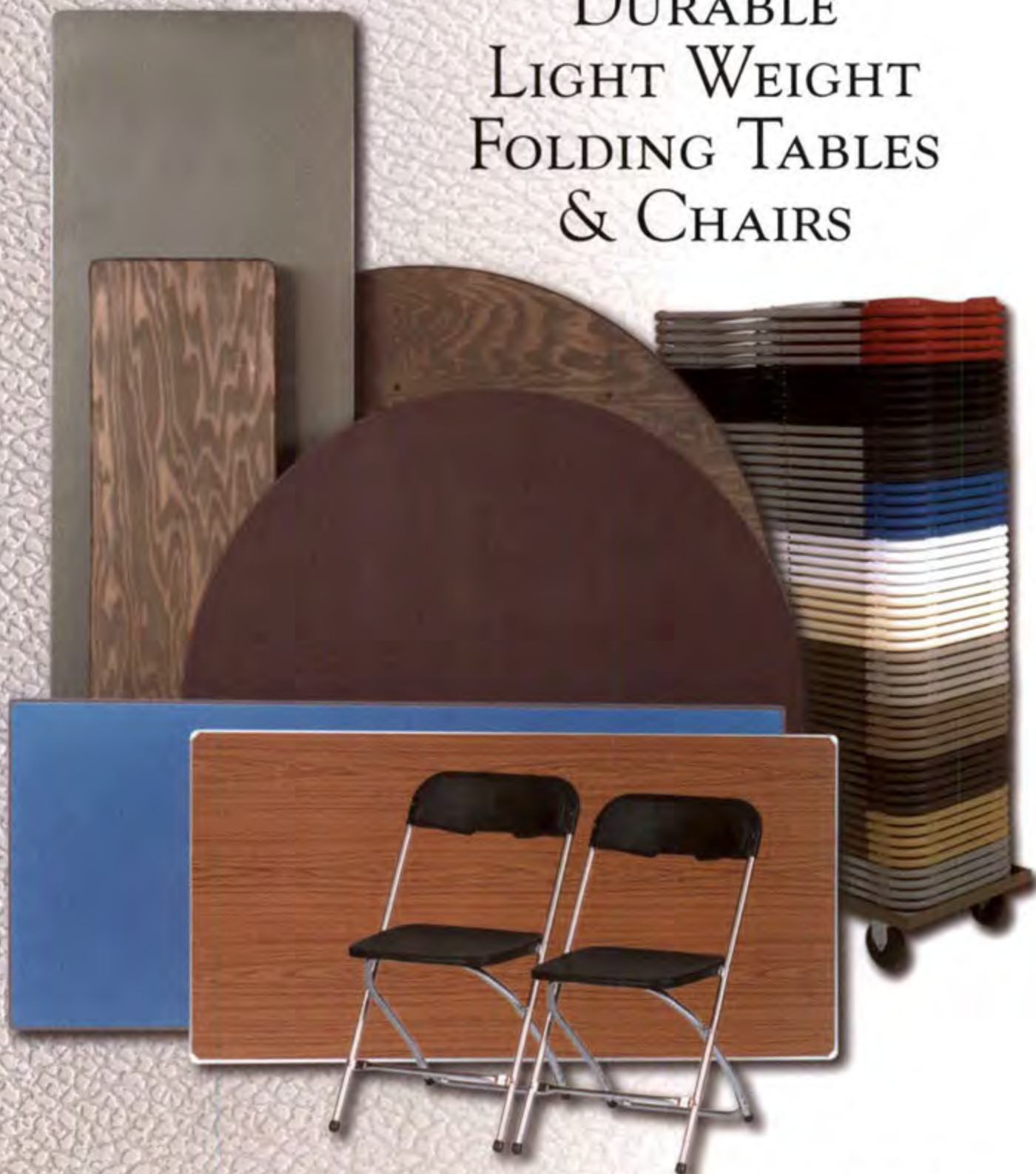
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LEADERS AND ETHICS:

WHAT THE CONTEMPORARY EXPERTS SAY

by Charles W. Jenkins

Ethics - the discipline dealing with what is good and bad and with moral duty and obligation; a set of moral principles or values.

Webster's New Collegiate Dictionary

Business ethics - an oxymoron.

George Carlin

In recent years, I've become an interested observer and student of contemporary wisdom on the topic of leadership. In my studies, I've learned that I identify more with the ideas of some modern-day leadership scholars than others.

In recent days, the topic of business ethics has also been on my mind. It seemed a natural and interesting thing to do, then, to see what my favorite leadership writers had to say about the interface between leadership and ethics. Is there an interface? Must and should leaders be ethical? The intuitive response is "yes, of course." My search to discover if my intuition was confirmed by the scholars was interesting, educational, and fun.

Charlie Jenkins is facilities administrator at St. Mary's University, San Antonio, Texas. He is a Past President of APPA.

Drucker and Greenleaf: The Early Contemporaries

Years before the antics of Ivan Boesky, Ollie North, and Jimmy Swaggert inspired the quote by George Carlin and focused the national consciousness on ethical behavior or its absence, Peter Drucker and Robert Greenleaf were addressing the issue for managers and leaders. Drucker is considered the manager's manager. Pragmatic and practical, his writings contain methods and strategies for maximum efficiency in using time and material resources. He doesn't overly concern himself with the interpersonal relationships which are essential to excellent stewardship of the human resource.

Robert Greenleaf, on the other hand, coined the idea of servant leadership from which much of today's thought emanates. Greenleaf may yet become acknowledged as the father of "touchy-feely." Editors Frick and Spears said this about Greenleaf in their introduction to a compilation of his essays and papers:

The times are finally catching up with many of Greenleaf's ideas. Management and organizational thinkers like Max DePree, Peter Senge, Peter Block, and Stephen Covey, among many others, emphasize the importance of an ethical base for organizations, the power of trust and stewardship, and the personal depths that authentic leaders must have as they empower and serve others.¹

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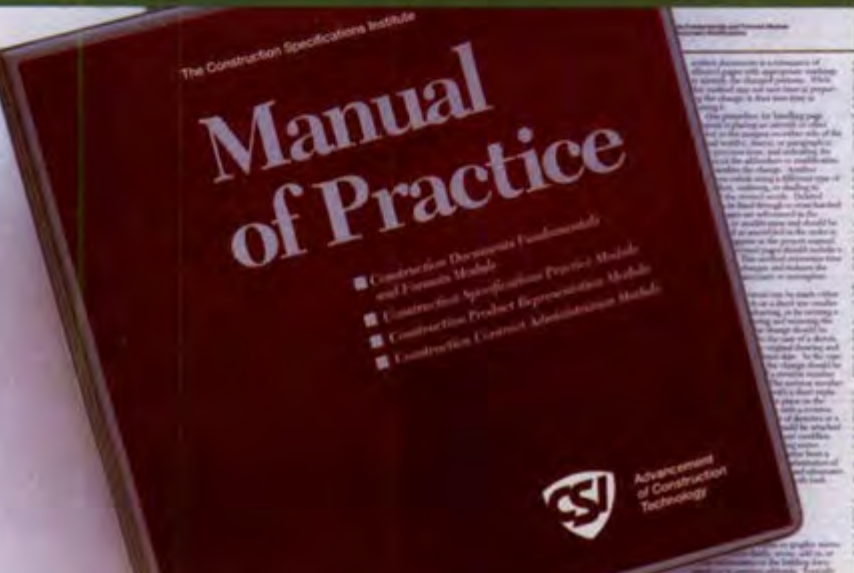
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In the 1960s and early 1970s, both of these authors cited impeccable ethics as an absolute prerequisite for business success. Drucker simply states his contention that the Latin phrase *primum non nocere*, the basis for the physician's Hippocratic Oath, is equally applicable to all of professional ethics. Writes Drucker, "Primum non nocere, not knowingly to do harm, is the basic rule of professional ethics, the basic rule of an ethics of public responsibility."² Greenleaf, for his part, likens ethics to strength. He wrote:

I have chosen to view the ethical dilemma of the average person facing a practical problem as the need for strength. Strength is defined as the ability to see enough choices of aims, to choose the right aim, and to pursue that aim responsibly over a long period of time. The building of strength and everything that supports it is an ethical requirement. In a tradition-poor society, I see no alternative but to enlarge the meaning of ethics to include the nurturing of strength and to judge as ethically deficient those who do not put adequate effort into the pursuit of strength.³

Warren Bennis: The Cerebral Philosopher

Years ago, someone recommended to me the book *Why Leaders Can't Lead* by Dr. Warren Bennis. That book created in me a great appetite for more insight into leadership. Bennis, a former university president and now Distinguished Professor of Business Administration at the University of Southern California, has been referred to as the "guru of modern management." In 1988, at the height of insider trading scandals, erring television evangelists, and other such aberrations, he wrote an article entitled "Ethics Aren't Optional." He closes the piece with the following assertion:

It is time, then, to face this ethical deficit or America will end in shambles. Ethics and conscience aren't optional. They are the glue that binds society together—the quality in us that separates us from cannibals. Without conscience and ethics, talent and power amount to nothing.⁴

Stephen R. Covey and Blaine Lee: Change from the Inside Out

The Seven Habits of Highly Effective People is a book that changed my outlook on life, as it has for many others since its publication in 1989. The author, Stephen R. Covey, subtles the book "Restoring the Character Ethic." I was especially interested, then, to see what Covey had to say about ethics in general. Imagine my surprise and dismay to find...nothing. Only once in Covey's books, and there are three which have at one time or another been best-sellers, will you find the word ethics mentioned. That is in a single sentence which decries leaders who practice situational

ethics. Covey prefers instead to center on what he refers to as principles. Writing in 1994, he observed:

I don't talk much about ethics and values because to me those words imply situational behaviors, subjective beliefs, social mores, cultural norms, or relative truths. I prefer to talk about universal principles and natural laws that are more absolute. I've observed that if people never get centered on principles at some time in their lives, they will take the expedient political-social path to success and let their ethics be defined by the situation. They will say, "business is business," meaning they play the game by their own rules. They may even rationalize major transgressions in the name of business, in spite of having a lofty mission statement.⁵

Covey reports in *The Seven Habits of Highly Effective People* that for the first 150 years of America's existence the writings he refers to as "success literature" focused on the "character ethic" as the foundation of success. Successful people practiced "integrity, humility, fidelity, temperance, courage, justice, patience, industry, simplicity, modesty, and the Golden Rule." He mentions the autobiography of Benjamin Franklin as an excellent example of this kind of literature. After World War II, Covey writes, there is a shift in the theme of the literature from the character ethic to the "personality ethic." Success, it is reported, is more a function of "personality, of public image, attitudes and behaviors, skills and techniques, quick-fix influence techniques, power strategies, communication skills, and positive attitudes." This sets the tone for the entire book, and indeed for all of Covey's advice, which encourages each individual to change from the "inside out," from practicing the personality ethic to the character ethic.

Blaine Lee is a Covey Leadership Center vice president and a noted speaker, counselor, and coach in his own right. In his 1997 book *The Power Principle* he proposes that leaders may choose to exercise one or more of three distinct forms of power. They are: 1) *coercive power*—the power to do something to someone, 2) *utility power*—the power to do something for someone, and 3) *principle centered power*—the honor extended to you from others and by you to others. As you might guess, Lee favors the third. He writes, "Principle centered power encourages ethical behavior because followers feel free to choose based on what they want most, what they want in the long term, rather than what they merely want now."⁶

The Ethics of Mentoring

As a reasonably senior manager and a person approaching retirement, I take pride and pleasure in mentoring those younger associates who are interested in being mentored. I was impressed by the following passage from Chip R. Bell's

book *Managers As Mentors*. Speaking of his father and first mentor, Bell writes,

One very important lesson I learned from him was this: mentoring is an ethical act. Effective mentors must be clean in their protégé dealings, not false, manipulative, or greedy. Competent mentors must be honest and consistent in their communications and actions. They must not steal their protégés' opportunities for struggle or moments of glory. Great mentors refrain from coveting their protégés' talents or falsifying their own. They honor the protégé, just as they honor the process of mutual learning.⁷

Ethical Lapses

What penalty is imposed when the leader falls victim to human frailty and relaxes her ethical standards, even for an instant? It can be as severe as loss of one's livelihood and even time in jail, or as lenient as a good laugh. In an article entitled "Ethical Fitness,"⁸ John DePauw reports two occasions when major defense contractors found themselves in possession of a competitor's proposal for a pending contract. In the first instance, the document was studied, copied, and analyzed meticulously before a more ethical executive ordered the copy shredded and the original delivered to the agency which had solicited the proposal. The agency investigated the incident and declared that no harm had been done. Nonetheless, the CEO who had authorized the copy publicly resigned his position.

By contrast, in the second instance the contractor, immediately upon determining what the document represented, turned the data over to the requesting government agency. He then called his competitor to apprise him of the incident. The honest contractor lost that particular bid but, because of his obvious honesty, subsequently received many times over its amount in sole-source business.

I'm reminded of an incident reported to me by a vendor who supplies paint to a university in another state. He had called on the facilities officer of that institution for years and a cordial relationship had developed between them. On one occasion, it seems, the vendor was visiting the facilities officer in his office, seeking clarification of the specification for a large paint order which was to be competitively awarded within a few days. On the corner of his host's desk he noticed a copy of the university's standard bid form. Being quite familiar with the form, he quickly discerned that it was his competitor's bid for the order he was discussing with his host. The space which contained the bid amount, however, was covered by a can of cocktail peanuts which served as a paper weight.

His host excused himself and left the office momentarily. After a short but intense struggle with his conscience, the vendor succumbed to curiosity and lifted the can of peanuts

just enough to quickly scan his competitor's bid. Only it wasn't a can of peanuts. It was a peanut can with the bottom cut out and filled with BBs. At the sound of the BBs rolling across his desk and hitting the floor, the facilities officer, who had been lurking outside the office door, burst into the room howling with laughter. He had perpetrated a huge practical joke. The vendor, however, had failed a major test of his ethics. He never forgot it.

Ethics as a Competitive Necessity

John Akers, chairman of the board of IBM, suggests that ethical behavior is not only a requisite to leadership, but also an essential ingredient to a thriving and vigorous economy. Writing in 1991 he stated:

Ethics and competitiveness are inseparable. No society will compete long or successfully with people stabbing each other in the back; with people trying to steal from each other; with everything requiring notarized confirmation because you don't trust the other fellow; with every little squabble ending in litigation; and with government writing reams of regulatory legislation, tying business hand and foot to keep it honest. That is a recipe not only for headaches in running a company; it is a recipe for a nation to become wasteful, inefficient and noncompetitive. There is no escaping this fact; the greater the measure of mutual trust and confidence in the ethics of a society, the greater its economic strength.⁹

So, Charlie, What's Your Point?

My research confirms my initial hypothesis. Ethical behavior is essential to effective leadership. Having determined that, how do I now apply it to my everyday behavior as a facilities officer, both on the job and off? The opportunities are virtually limitless, but a checklist of the most frequent and important ones might read as follows.

Am I scrupulously honest in my stewardship of university resources, both physical and human. Do I refrain from using university material or labor-hours, regardless of how insignificant, for personal benefit? Do my dealings with vendors and suppliers avoid not only a conflict of interest, but also the appearance of a conflict of interest?

For example, recently I approached a local contractor who was working on campus and sought to hire him to work on my home. He offered to do the work, which amounted to less than a day's activity for him, at no cost to me. It would be, he said, his expression of appreciation for the cordial, partnering relationship he enjoyed with our department and the university. He expected nothing in return for his gesture and I was sure that it would earn him no preferential treatment. Despite his feelings and mine, however, I insisted on paying for the work. Why? To avoid the appearance of conflict of interest.

Shall I accept a luncheon invitation from an engineering consultant whose fellowship I very much enjoy? Sure, but next time lunch is on me.

At my university, that portion of my annual operations and maintenance budget devoted to salaries and benefits easily exceeds that which is devoted to supplies and parts. This makes the human resource the most expensive one entrusted to my stewardship. It is certainly the most precious. How ethical am I in that stewardship? Am I honest and forthright with all my associates in the department? Do I, as Blaine Lee suggests, "extend honor" to them? When dealing with external stakeholders, do I behave in a way that makes my associates proud of me and proud to be in our department? Do I expect from my associates a level of respect that borders on subservience? Is my behavior so crude and my language so foul as to insult and embarrass them? Am I cognizant of and sympathetic toward the extraordinary demands placed on working parents, particularly mothers, by young children? Or on older workers by elderly parents in their homes? Do I make every effort to ease the burden of this work-family conflict? Finally, if I can answer all these questions correctly, do I insist that the other leader/managers in the department follow my example?

The checklist can go on and on. Add items to fit your own situation. The point is, we all have myriad opportunities, every day, to let our ethical nature shine—or not.

The guidelines are clear.

The choice is ours—yours and mine.

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AAPPA TRIP REPORT



by L. Joe Spoonemore

From September 1-21, 1997, I had the very real pleasure of visiting university properties on the "island continent" of Australia and the "south island" of New Zealand. The purpose of the trip was to represent AAPPA to the regional members of AAPPA, the Australasian Association of Physical Plant Administrators. The culmination of the trip was the presentation of a paper at the XXI ATEM (Association of Tertiary Education Managers) Conference, which incorporated the 1997 AAPPA Conference in Sydney on September 17. The ATEM group, of which some 500 (out of a total of 650) attended the conference, is more or less the equivalent of the NACUBO association in the United States.

From the outset it was my intent to visit as many Australian and New Zealand universities as possible, compare facilities performance measures, impart noteworthy progress in the USA, and assimilate innovative techniques as practiced by our counterparts from "Down Under." The trip was underwritten by AAPPA as a responsibility of the office of the AAPPA President-Elect for 1997-98. The AAPPA and ATEM associations heavily subsidized the in-country costs. I wish to also thank Washington State University for generously authorizing my absence for the duration of this trip.

AAPPA President-Elect Joe Spoonemore is director of special projects, facilities management, at Washington State University, Pullman, Washington.

Before launching into the trip details, a brief geography review may be in order. The continent of Australia is approximately the same area (3 million square miles) as the contiguous 48 U.S. states. The population, however, is only 18 million people and is concentrated in the cities of Sydney (3.8M), Melbourne (3.25M), Adelaide (1.1M), Brisbane (1.5M), and Perth (1.3M). There are six states: Western Australia, South Australia, Victoria, Tasmania, New South Wales, and Queensland. Approximately 77 percent of the population is concentrated in New South Wales, Victoria, and Queensland. They also have two territories: Northern Territory and the ACT (Australian Capitol Territory), where-in Canberra is located. The population is concentrated heavily on the east coast and is limited to a relatively narrow coastal band.

The weather is very mild and ranges from tropical in the north to very Northwest-coast-like on the south coast. My visit was in their early spring, which was warm in the north and somewhat chilly in the south.

As for New Zealand, the land mass is approximately the size of Great Britain but with a population of only 3 million people, as compared to some 60 million in the British Isles. New Zealand is a separate sovereign country and is not to be considered a part of or confused with Australia. The weather in the South Island is very cool in September with the ski slopes going full tilt. The city of Christchurch is the jumping-off port for almost all travel to the Antarctic, which is a relatively short flight to the south.

Australian Perspective on Education

Australian academics view themselves as full partners in the national economic development role. Their perspective extends well beyond their geographical border to the Pacific Rim and beyond. You frequently hear the terms globalization, internationalization, and international marketplace. They need no persuasion to be convinced that education, technical/vocational skills, and intellectual activity factor heavily in the ability of the nation to survive in a climate of global competition and accelerated change.

I was informed that the Asia Pacific area is the fastest growing in the world. Clearly, Australia is uniquely geographically and philosophically positioned as an education provider, especially since the English language is viewed as the lingua franca and the nation appears to be moving from an industrial-based to a knowledge-based economy. Currently the university-system-owned independent, international education and professional development organization has a network of 34 offices in 20 countries (including the U.S.) and actively recruits "full fee paying" students for the Australian education system. In addition to student recruitment the IDP/Education Australia promotes fellowships, student loans, international education conferences and exhibitions, English language teaching and testing, as well as sophisticated multimedia material on education opportunities in Australia.

One of the more serious concerns expressed is the increased dependence of higher education on private sector funding. All public higher education institutions are funded from the federal government. The dilemma that this has created is that as universities move inexorably toward dependence on private sector funding, the position of universities as free and open thinkers may become compromised. The tendency, of course, is to direct academic research toward areas that are dictated by the benefactors. This may or may not be perceived as in the best interest of society and the general advancement of knowledge. The issue of funding is not an uncommon international concern as higher education becomes viewed evermore from a market-oriented, business sector perspective.

Australian Tertiary Education

The entire university system was subjected to a major realignment in the first part of this decade. Their system of 46 colleges and 19 universities was reformed into 38 universities, all funded from the federal government. The current funding level from Canberra is approximately 66 percent, compared to the 33 percent fraction that WSU receives from the State of Washington. Funding in Australia is generally based on the student population, which makes attracting students very competitive. Foreign students are especially attractive in that they pay "full fee" and bring revenue into the country. It is estimated that education is the fifth largest

export with 53,000 overseas students. This figure has doubled in just this last decade to where overseas students represent some 10 percent of the total student population.

I had the good fortune to visit 15 university sites while on the trip. The oldest and largest in Australia is the University of Sydney, which was established in 1851 and currently entertains some 26,000 EFTSU (equivalent full-time student units) on nine individual campuses. The architecture is largely classical-Gothic.

The newest university visited was the University of South Australia's City West Campus in Adelaide, which began serving some 24,000 students last March. It is located in downtown Adelaide and was constructed in an older commercial area. From the street the new construction is most unobtrusive in that the original street-side walls are retained as much as possible. This is a mandated practice in Australia. The other 13 campuses visited were constructed largely in the 1960s and 1970s either from scratch or from smaller "seed-institutions." Across the board the size of campus student populations varied from 1,200 FTE to more than 30,000 students.

As an example of the realignment of public universities, the Deakin University system is now responsible for the central campus at Geelong as well as the Waurnambool, Burwood (Melbourne), Woolstores (Geelong), Toorak (Melbourne), and Rusden (Melbourne) sites. The campuses are located all the way from Melbourne to Waurnambool, a distance of some 265 km.

The TAFE system (Technical and Further Education) supplements the university system and is more or less the equivalent of our community/technical college system and offers courses leading to certificates, associate diplomas, diplomas, and advanced diplomas. Currently about 1 million individuals are receiving instruction in over 200 locations.

General Observations

The following observations help define the business of facilities management in Australia:

- There is serious and very innovative competition for students.
- Under the "Higher Education Contribution" scheme, student loans may be paid off after a salary is established.
- The 1996 iteration of the AAPPA "Benchmark Survey Report" has been published. The number of participants has increased from 36 to 35. A significant amount of discussion is taking place as to whether the results are actually "benchmarks" or simply "performance indicators." When making comparisons the variation in campus age, geographical location, assignment ratio, funding level, labor cost, utilities cost, etc., must receive due consideration. In one institution

the funding level in the last five years has declined 30 percent, while the space maintained has increased by 35 percent.

- The campus facilities are generally much newer than in the U.S. and the climate generally much more mild. Both of these factors have contributed to deferred maintenance balances that are relatively low. An FCI (facilities condition index) of greater than 0.98 is not uncommon. The highest is, not surprisingly, at the oldest facility, the University of Sydney, which has a deferred maintenance and rehabilitation level in the order of 30 percent of the capital replacement value.
- There is a concerted effort to eliminate air conditioning systems in new buildings in moderate climates. The theory being that if open windows and cross-ventilation is not sufficient, then it is more cost effective to furlough the staff when unusual, short-term conditions are inhospitable.
- From the AAPP benchmarking survey it appears that stated costs for maintenance is on par with costs in the U.S.

Refurbishment expenditures as a percentage of CRV (capital replacement value) is also, on average, very similar to what we experience in the U.S.

- Cleaning (custodial) is largely outsourced (60%) and staffing ratios average 33,000 sq.ft./cust. By comparison, the U.S. average for public/research institutions is 30,200 sq.ft., and the ratio at WSU currently exceeds 45,000 sq.ft. Cleaning costs in Australia average \$10.36US/sq.m, while U.S. public/research schools are \$10.23US/sq.m.
- Partnerships with other university departments are encouraged whereby "extra services" are negotiated and paid for by the department.
- Outsourcing is vigorously pursued in capital construction (99%), minor works (90%), maintenance (75%), and security (31%). Owing to the variability, relative to seasonal changes, etc., of the character of grounds maintenance it tends to be done by in-house forces.
- The cost of electricity is very high compared to the Northwest U.S. where we continue to enjoy rates of 3.5 cents/kwh. The cost in Australia ranges from 3.8 up to

a high of 23.3 cents/kwh! To compensate, and in some ways take advantage of these very high energy costs, some institutions have constructed cogeneration facilities with some very impressive returns to the operating budget.

- Consistent with the continuing pressure to become evermore cost competitive, there are noteworthy initiatives to not only contract services on campus but to form university units that not only do work on campus but also sell services to off-campus customers. In one university the facility manager is encouraging competition for space by offering facilities to university departments on a cost/sq.ft. basis. Should the space not be spoken for, the same offer is extended to non-university customers.
- The University of Melbourne recently offered to franchise its 142-year-old name to the first-ever private university "to grow out of a public institution." The first school in Melbourne University Ltd will be the graduate school of energy and the environment. As I

understand it this would be only the country's third private university. A good deal of resistance has been voiced over the prospect so final plans are forthcoming.

Potential Applications for Other Institutions

As with all opportunities to visit other university settings I have always been vigilant to take advantage of potentially applica-



The University of Melbourne

ble innovative techniques, operating systems, equipment, or procedures. My introduction to 15 Australian/NZ institutions, as well as the programs offered at the annual ATEM/AAPP conference, was no exception. Potential applications for other institutions include the following:

- The Australians and New Zealanders invite the participation of the physical plant staff in project development, construction, and commissioning to a much greater extent than in the U.S. The results appear to be far fewer changes in the work, fewer violations of standards, fewer punch list items, and fewer start-up complications.
- Partnerships with the athletic and other departments for supplementary custodial assistance are growing in popularity and effectiveness.
- The in-house craft-level staff are empowered in some situations to participate in work scheduling and are

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- Contracting (tendering) techniques appear to be more innovative than in the U.S. One such option that has some real potential is the sharing of profit. A profit sharing scheme is created by setting up a profit schedule on the basis of Key Performance Indicators. The more time that is saved, the fewer the accidents, the more reliable the final product, then the more savings that can be shared.
- Formal plant services brochures and guides are common and apparently well accepted.
- Deakin University is currently engaged in an innovative organization structure in which there is a minimum of layering and a maximum of interdepartmental association. They call it "the Wheel of Future" in which all departmental functions revolve around a "corporate leader" which, incidentally, is not the director of buildings and grounds. This, of course, is the relationship that we all strive for but to my knowledge have seldom shown in diagram form. The primary thrust is that wheel cannot function without the full competency and support of each spoke. This is a process that I will be following closely to monitor its development.

Summation

I was very pleased to have had the opportunity to visit our counterparts in Australia and New Zealand and bear witness to their innovative progress as individual institutions and as an association. I continue to observe AAPPAs mutual support via their active listserv and am pleased with their acceptance of the suite of APPA publications.

The most important lessons that I have learned is that we are not isolated by geography, philosophy, or potential. We are truly a "Global Partner in Learning," and Australia / New Zealand is showing us the way to take advantage of the information/technology age and prosper. 🏠

by Steve Glazner

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Facility Asset Management

Considering the Zone

by Matthew C. Adams, P.E.

During the course of a recent customer survey for a large campus in the South, a wide variety of faculty, staff, and even students were queried about building maintenance. This college has several campuses and in many ways is arranged like a school district. Such a setup is often quite a challenge. Some of the customers work or occupy areas that are near maintenance "hubs," while others are located in more remote space without on-site maintenance support. The customers shared one of two opinions regarding maintenance—maintenance is too expensive or maintenance is not timely.

The issue for the maintenance management then becomes one of competing priorities. Is there an arrangement of staff and shops that will meet the timeliness requirements of the customers while not creating excessive costs? The problem of delivering the right maintenance at the right time and cost to multiple schools or campuses is a logistical issue. Simply put, when does it make sense to make maintenance resources

Matt Adams is president of The Adams Consulting Group, a management/engineering consulting firm located in Atlanta, Georgia, specializing in the facility maintenance and management within higher education, school districts, and other institutions. He is the author of the recent APPA publication, Strategic Funding Strategies for Facility Renewal. He can be reached at mc.adams@facinet.com.



stationary and when does it make sense to transport them?

In the school and college maintenance business, the first issue overlooked by many professionals is identifying their customer and their needs. The maintenance department and senior stakeholders ultimately require the long-term technical approach to maintenance that prevents system failure and extends facility life and performance, which includes both preventive and planned capital maintenance. This maintenance is often costly on a per unit basis, but provides a great return on the institution's investment.

However, we must admit that few, if any, customers know how, why, or when this maintenance is executed. As such, it is intellectually important

only to the institution's administration and maintenance staff that planned/preventive schedules and cycles are maintained. On the other hand, the large majority of the customers require daily service for unplanned system failures, minor repairs, and small projects. Often this daily work is given priority among all maintenance staff, regardless of technical trade or service center thereby occupying an inordinate percentage of the available resources of the maintenance department.

In fact, the customers unwittingly steal resources from the long-term preservation of the institution's facilities preservation. Nevertheless, it is most often the lay customers who voice subjective judgments of the maintenance department. In the end,

the customers must be served professionally but not at the expense of all else. Better service delivery is key.

The scope of maintenance is linked to the customers and the maintenance service that they require. Vast majority of customers with short-term needs:

- Minor repair, paint, hot & cold calls, leaks, moves, door hardware, light preventive
- maintenance
- Quick response
- Work with short duration
- Entry level trade-staff, trades-helpers, general maintenance workers, small material
- budgets, relampers
- Large quantities of inexpensive items

Senior Administrator and long-term interest in facility preservation:

- Deep technical preventive/planned maintenance, system-wide capital renewal, technical
- contractor management
- Scheduled response/delivery
- Project with long duration
- Journeyman, Licensed, and Master trade-staff or senior staff
- Leased or rented technical equipment, complex and costly repair items

At the University of Miami, Vic Atherton and Mike White have worked with the university's industrial engineering students on the campus each year. The students break down the various activities of the maintenance staff for typical days. The maintenance department uses the data to tweak its logistical approach to service delivery.

When the process was first initiated, it was determined that as much as 30 percent of each day was spent traveling. While all traveling cannot be eliminated, clearly excess travel reduces response time and increases the cost of service delivery. The issue then becomes one of determining the balance between placing resources near the customers and centralizing

those that are too costly for decentralized locations. As travel time is reduced, more time is created for maintenance delivery.

The "zone" is a term that is used often in maintenance planning. The typical zone has a critical mass that is loosely based on a mini-maintenance department with most trades represented. These mini-shops are applied

easily in the typical campus setting. However, multiple schools and satellite campus buildings require modification to this logic. A modified zone in this dispersed geography has a smaller critical mass. Utilizing zones offers at least one benefit to the institutions in the form of reduced travel costs. It is intuitive that with the staff located near the buildings

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needing maintenance, the travel time will be reduced. However, in delineating wider zones as required by school districts and multiple satellite campuses, there is a logistical balance between zone size, staffing, and costs.

Multiple sites are reviewed on a district planimetric map for proximity relationships. Obviously, natural boundaries are clear factors in grouping sites into zones. Beyond natural boundaries, the zone design takes on the elements of a "traveling salesman" problem. In this problem, the route of the salesman is designed to minimize travel and maximize customer time. In maintenance within large zones, many of the same issues apply. Travel between any of the sites within a zone should take no longer than 30 minutes. In this arrangement, a maintenance person can respond in person to any emergency work request within one hour and keep the customers happy. Moreover, the time spent on the road during a given day is normally below 25 percent. This is estimated by considering that the typical day consists of two to four work requests coupled with planned and preventive maintenance. In other words, a maintenance person travels at most 30 minutes for each request in an eight hour day. On average, the time spent traveling is less than 25 percent of the day. More travel than this amount increases the cost through lost productivity and reduces customer satisfaction.

Once the zones are created, they are staffed. In creating the zone, travel distances are minimized so as to increase productivity for high frequency projects. That is to say, the benefits of the proximity are realized for the typical work request projects. The general level maintenance staff person can serve several of these projects in a given day. The staff level for each zone is determined by the historical load of light maintenance and light preventive maintenance for the included facilities. If historical

records are not present, the staff is determined initially by industry heuristics and adjusted as productivity and response data is collected. A good starting point is one general maintenance person for each 300,000 gsf.

Zoning is not as beneficial for maintenance staff who are utilized to complete complex preventive/planned maintenance or work request projects that will take longer than one day to complete. Assuming that the central maintenance shops are located within one hour of the zones, travel for the senior trades staff is acceptable. The projects that require the master-tradestaff are normally not related to the daily issues of the institutional customers. This staff resource can be scheduled and directed in a manner that is most productive for the main-

tenance department. In this arrangement, the senior staff can plan and execute preventive maintenance "sweeps" as well.

The location of resources for maintenance departments is always a difficult decision. The resources of the department are deployed to minimize customer response time and maximize productivity. At the same time, the resources of the department must be allocated to allow for the long-term asset preservation maintenance. The senior or master tradestaff is best utilized in executing the longer duration preventive and planned projects that have little or no impact on the daily interest of the average customer. Once a balance is created, it is possible to keep the customers happy and serve the best interests of the institutions as well. ■

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by Howard Millman

How would you like to be on the side of the angels? I don't mean up there, I mean here and now.

One BIT At A Time Guide to Process Improvement (One BIT), a CD-ROM based manual from Bloodworth Integrated Technologies, clearly identifies the people and political phases of successfully managing important projects. Logically arranged and factual, this online "how to" product combines attractively formatted text and graphics.

Admittedly, during my 17 years as a facilities manager for Columbia University, I never met anyone who admitted they might need help in project management. Yet, I did meet a lot of people who got constantly mouse-trapped by procedural issues during the course of a project.

One BIT is designed to help minimize that. It emphasizes the people and procedural aspects instead of flow charts and progress graphs that we usually associate with project management products. That's why the vendor calls it Process Improvement (PI). Facilities professionals hoping to advance or finetune their project management/process improvement skills will appreciate having this comprehensive collection available as a

Howard Millman operates the Data System Services Group, a problem-solving consultancy group based in Croton, New York that helps universities and university hospitals automate their facility management process. He can be reached at 914-271-6883 or by e-mail at hmillman@ibm.net.



checklist before and during the project's life.

The project management information and advice is first rate, if occasionally a tad obvious. For example, consider my favorite: "...it's not that people don't like to change; people don't like to be changed." Yup.

Easy Reading

The online book uses Adobe's Acrobat to make finding and reading information easier by adding visual appeal and logical organization. One BIT skillfully exploits Acrobat's hyperlinks. For example, by clicking on

words highlighted in red, you jump to a more detailed discussion of that topic. Click on blue highlighted words and the word's definition appears. A glossary and acronym list simplifies finding the meaning of the book's buzzwords. Despite the excellent integration of the topics, the product could have used more multimedia elements, such as audio segments and maybe even short video clips.

For acronym lovers, One BIT bases much of its recommendations on the work of an independent group, the Software Engineering Institute (SEI). Accordingly, it uses SEI's five-step PI hierarchy—"IDEAL" (Initiate, Diagnose, Establish, Act/Implement, and Leverage).

The book's comprehensive content includes a general description of process improvement, overviews of various types of Capability Maturity Models (a process applicable to software system engineering), templates for common process improvement efforts criteria for determining when to bring in a consultant—and an online brochure for BIT's services.

A word of caution, One BIT elevates project management/process improvement from the realm of a vague art to something of a science. Consequently, you will have to acquire, and hopefully use, a considerable knowledge of management principles, definitions, and buzzwords. Use them to your advantage, but don't harp on them.

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Coming Events

APPA Events

For more information on APPA's educational programs, contact the APPA Education Department at 703-684-1446, ext. 230 or ext. 231.

Mar 29-Apr 3 Individual Effectiveness Skills Institute. Stanford University, Stanford, California.

Apr 19-24—Executive Institute/Organizational Skills Institute. University of Notre Dame, Notre Dame, Indiana.

Apr 22-24—1998 Virginia APPA/Virginia Higher Education Facilities Management Group Annual Conference. James Madison University, Harrisonburg, VA. Contact vaappa-helmg@jmu.edu for information.

Aug 2-4, 1998—APPA Educational Conference & 85th Annual Meeting. San Jose, California.

Aug 31-Sep 3—AAPPA Annual Meeting. Darwin, Northern Territory, Australia.

Sep 16-19—RMA Annual Meeting. Yavapai College, Prescott, AZ. Contact Charles Andersen at 520-776-2181.

Oct 2-6—CAPPA Annual Meeting. Little Rock, AR. Contact Jerrel N. Fielder Sr., University of Central Arkansas, 501-450-3196.

Oct 4-7—MAPPA Annual Meeting. St. Paul, MN. Contact Thomas Dale, University of St. Thomas, 612-962-6530.

Oct 4-8—PCAPPA Annual Meeting. Palm Springs, CA. Contact James Hansen, California State University/San Bernardino, 909-880-7206.

Oct 16-20—SRAPPA Annual Meeting. Birmingham, AL. Contact Brooks Baker, University of Alabama/Birmingham, 205-934-4427.

Nov 1-4—ERAPPA Annual Meeting. Providence, RI. Contact Norman Young, University of Hartford, 860-768-7924.

Other Events

Feb 3-5—Telecommunications Infrastructure Planning. Charleston, SC. Contact Kalista Bernardi, Washington State University Conferences, 800-942-4978.

Feb 10-12—The Effective Operation, Maintenance, and Management of Wastewater Pump Stations. Las Vegas, NV. Contact the Division of Continuing Education, UNLV, 702-895-3707.

Feb 22-28—National Engineers Week. Contact the Construction Specifications Institute, 800-689-2900; www.csinet.org.

Mar 4-6—Telecommunications Infrastructure Planning. Sacramento, CA. Contact Kalista Bernardi, Washington State University Conferences, 800-942-4978.

Mar 29-Apr 1—ACUI Annual Conference. Anaheim, CA. Contact the Association of College Unions International, 812-855-8550.

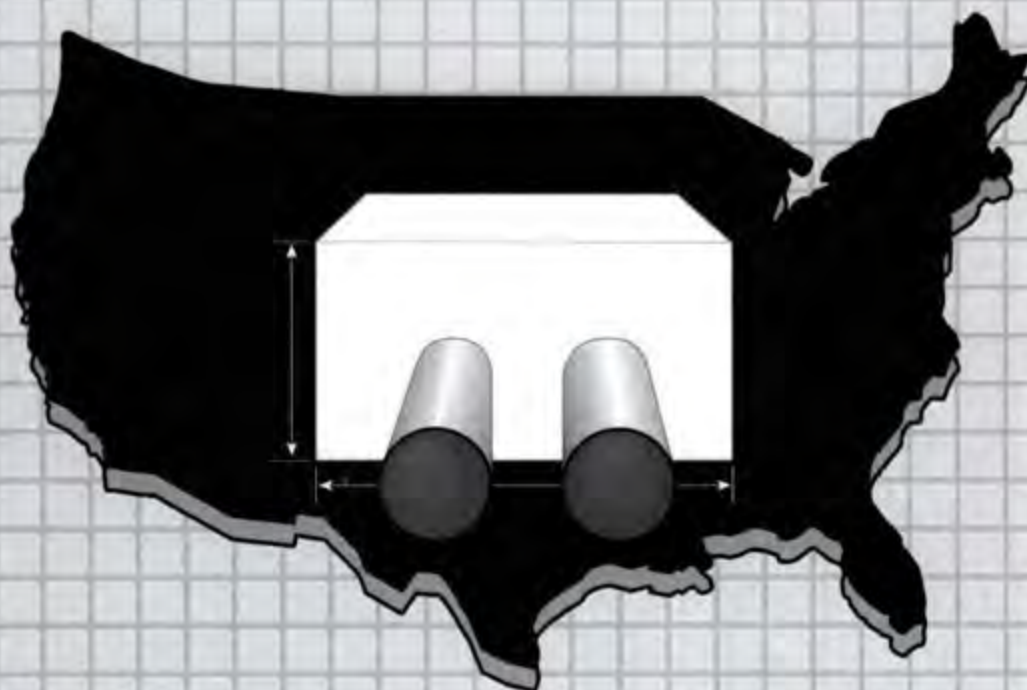
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