



News

Vol. 15 - February 1999

From the President



Dennis Jones
NCHEMS President

NCHEMS has consistently sought to make its organizational mark by providing policymakers in postsecondary institutions and agencies with practical help in addressing the constantly evolving set of issues with which they must deal. In times past, we focused on assisting in the design and development of the information systems needed to support strategic decision-making, in rationalizing the conversation about accountability, and in developing new approaches to budgeting and resource allocation. We are now grappling with the search for ways to help institutional and state agency leaders cope with a rapidly changing environment.

We start with the observation that some form of postsecondary education and access to opportunities for lifelong learning are increasingly important to a variety of higher education's clients—to individuals seeking improved incomes and enhanced quality of life, to employers seeking employees who can contribute in an increasingly complicated workplace, to communities who understand the difficulty of being economically competitive without a gateway to "just-in-time" education, and to the larger

society that needs a citizenry able to participate in the resolution of the complex issues facing our democratic society. The realities are that the demands for postsecondary education are becoming increasingly local, what with more and more students being placebound and with communities clamoring for local service. The net effect is that education must go to the clients more frequently and expect the clients to come to institutions less often.

The paradox is that, while demand is becoming more local, instructional offerings are becoming more global—witness the emerging partnerships between content providers and telecommunications companies, the incorporation of a subsidiary of the British Open University in the United States, and the rapid evolution of organizations such as the Western Governors University. All of these developments challenge the old order. State borders are no longer barriers to competition, and an orientation to client needs rather than provider preferences is gaining credence.

The consequences of these environmental changes are creating enormous problems—and opportunities—for leaders of institutions and state agencies alike. When policy has to shift to reflect the client perspective as well as the needs of states' primary intellectual assets, the old templates no longer fit. When institutions are no longer protected from direct competition by the assignment of geographic service areas or the specification of unique missions (the prevention of competition in the name of avoiding unnecessary duplication), the managerial imperatives can change dramatically. It is one thing to lead an institution that is a monopoly provider in a given region; it is quite another matter to be assigned responsibility for seeing that the full array of needs in the region is served

with an understanding that only **some** of the content will be provided by your institution.

The specific questions that emerge when one starts to seriously think about the changing environment in which we are all working is indeed daunting. We have tried to catalogue the key questions in a paper entitled *The Challenges and Opportunities Facing Higher Education: An Agenda for Policy Research*, prepared for the National Center for Public Policy and Higher Education (NCPPE). This paper has been published and we are making arrangements to ensure that it is widely distributed. Since it is viewed as a work in progress, we would very much like to have your comments on this paper. We also want you to know that we have no intention of being satisfied with a good list of questions. We are much more interested in developing a sound set of answers. That quest has started, and you will be seeing—and being asked to comment on—a series of papers that proposes new conceptual frameworks and new ways of thinking about the leadership of educational institutions and agencies. We hope you'll find these papers useful contributions to your reading list.

I want to end this column on a personal note. After 22 years of extraordinary service to NCHEMS, Paula Dressler has left our organization. She and her husband have moved to Montana, where Boyd has a faculty appointment at Montana State University. She leaves behind a set of friends who will be forever grateful for her many contributions to our individual lives and to NCHEMS. She also leaves behind a reputation as a document-producing demon, a hard act to follow for any successor. Happily we have found someone who is up to the challenge. We welcome Jay Reeves to our family and hope that she will enjoy us as much as we are enjoying her.

Managing Faculty Assets to Accommodate New Realities

Introduction

As institutions of higher learning, both public and private, anticipate the arrival of increasing numbers of students in the next decade, the configuration of faculty roles and responsibilities must adapt as well. The increase in students pursuing postsecondary learning opportunities will result from not only projected population growth—in births as well as in new immigrants—but from segments of the population not currently interested in higher education cultivating a demand. Many people will want to take advantage of new economic opportunities that require them to improve their skills or to learn new ones (the welfare to work movement will catalyze much of this). Other people regret not having taken education seriously when they were younger; now they want to fill out degree requirements and complete certifications that they may have abandoned earlier without having understood the consequences of their decisions. Students who swell the ranks of postsecondary education in the future will be far from “traditional,” requiring a non-traditional response both in the structure of teaching and learning and in faculty roles and responsibilities.

As states and individual institutions work to meet the increasing demands made on them, they also realize that it must be done without increasing the cost of education significantly. Already citizens—regardless of ability to pay—are concerned about the costs of higher education. While some future students will be able to pay for their education, others will not. Nevertheless, no one expects that additional students can be accommodated tomorrow at the average costs that government, students, and institutions pay for a college education today. How will this paradox be resolved? Possibilities include limiting access to higher education by raising admissions standards or increasing tuition and fees—very few political leaders who want to remain in office will choose these options.

The next level of response is already occurring in several states. As funding from usual sources can't keep pace with growing expectations, political leaders seek to improve productivity in postsecondary education. They

want to squeeze more out of existing resources and they intuitively understand that faculty time is important. One result has been state-mandated faculty workloads. But political leaders have found, as have those who must respond to their mandates, that the notion of “improving productivity” is hard to grasp in postsecondary education where “products” are not just widgets rolling off an assembly line but individual humans with minds and wills of their own. What remedy can improve faculty productivity as well as enhance individual student learning? The latest answer has been technology. Missing at both the policy and institutional levels, however, has been new thinking about how these ingredients go together and how, when mixed, they can yield fundamentally different ways of thinking about faculty time.

At NCHEMS we talk about faculty as **assets**. This notion tends to anger some people, but we've found that when examined closely it seems to make sense to most people. The major permanent investment that any college or university has made—whether consciously or unconsciously—is in building its faculty. However, how that asset is used is changing in light of the increased demands on postsecondary education. A business analogy is that financial resources, equipment, plant and people define a corporation's net worth. It is also true that the appropriate deployment of these assets to create products of value to the marketplace is what makes for financial success. But any savvy businessperson also knows that depreciating assets by pursuing outdated modes of production is costly in the long run. Legislative mandates of faculty workload imply that each faculty member will have to “produce” more students without sacrificing quality. But the mandated result is nearly impossible under current conditions, given that faculty already work nearly sixty hours a week with most of that devoted to preparation, class time, grading, and remaining up-to-date in their particular field. Furthermore, mandates have been imposed rather than negotiated causing faculty to respond with angry resistance rather than willing cooperation. The key to shaping an intelligent response, we believe, is to carefully distinguish the quite different functions that faculty engage in when they “deliver instruction” to a given group of

students. Some functions might be completed through the judicious use of technology in certain situations. Others might involve a finer or more deliberate division of labor among faculty themselves. Still others might entail creating new kinds of instructional staff or valuing and deploying current instructional staff in new ways.

Under most conditions, five distinct activities comprise “delivering instruction.” They are:

- **designing** the course or curriculum;
- **developing** the course or curriculum by selecting appropriate course materials, instructional methods, etc.;
- **delivering** instruction through class meetings that “cover” the subject matter previously selected;
- **mediating** the learning process by helping students to understand the material in ways tailored to their individual learning styles and levels of understanding; and
- **assessing** individual student learning through appropriate methods and assignments designed to certify the attainment of a given level of competence with the material.

Individual faculty members typically perform all five of these activities when they teach a course in the traditional manner. In many first- and second-year lecture courses at large institutions, though, the subject matter addressed is determined by department committee (the design function) based on a given course sequence. Textbooks and readings are selected based on their integration with materials used in these other courses which in turn shapes the content of daily lectures and assignments—thereby taking care of a goodly portion of course development. A senior faculty member will lecture to large groups of students twice a week (the delivery function), while graduate teaching assistants lead smaller discussion sections throughout the week (the mediating function). Graduate students also frequently grade quizzes, term papers, and examinations (the assessing function)—often suggesting final grades that faculty members of record rarely change. In this familiar scenario, senior faculty perform only a few of the five basic functions solo, while either committees or other non-faculty staff accomplish the rest. As this already-common practice suggests, the key to real increases in productivity may be to parcel out some of these activities more daringly—using technology and new instructional staff to fulfill some of the five instructional functions when evidence suggests that they might be most effective.

The most obvious first target to realize a more effective use of faculty assets by breaking down instructional activity into its component parts is the traditional lecture. Recent studies at a number of large community college districts—confirmed by federal transcript studies for all

types of institutions—suggest that up to half of the credit hours produced at the lower-division level at American colleges and universities are concentrated in only about twenty-five course titles. It is easy to imagine a few dozen scholars with national reputations and expertise in these fields determining and delivering the subject matter material in these courses. This instructional material could present world-class faculty talent (individually or in teams) in a format that is absorbing to watch and enhances learning. Such material could be created (perhaps for a profit by a third party) at state-of-the-art video or computer production studios with a full array of effects at their disposal. Institutions, advised by faculty committees, could then buy and present these materials to student audiences in a variety of formats—in technologically-sophisticated large lecture halls, in small seminar groups, or individually on students’ computers. The costs of acquiring these materials—together with any requisite capital conversion costs, say, for a technologically-sophisticated lecture hall—can be amortized over many years. Meanwhile, faculty at institutions utilizing these materials might use the time that they would otherwise be spending preparing and delivering lectures to focus more fully on other instructional activities such as mediating—that is, helping students make sense of the subject matter.

This scenario, of course, is not likely to apply to most upper-division courses and may not apply for lower-division instruction in fields in which faculty do not typically lecture. But it can be done as evidenced by Rensselaer Polytechnic Institute which already uses this approach effectively in key engineering and physics courses. Experience at California State University institutions, meanwhile, suggests that similar re-direction of faculty effort is possible through self-paced instructional materials supplied to much-larger-than-average sections in such fields as remedial mathematics.

Applying technology to achieve economies of scale in the delivery function, however, only highlights the need for faculty to get better at the mediating function—providing the critical individual sense-making experiences and links that students can use as they learn the material being presented. The mediating function, of course, is at the heart of what we recognize as good teaching. As critics of technology-based teaching rightly point out, it is also the function least amenable to mechanical solutions. Even the best software can’t anticipate all of the wrong turns human learners can take, all of the ways they can misconstrue sentences, or all of the questions they can ask. As the lecture course example illustrates, much of this mediating function has been and is still being performed by graduate assistants and by part-time adjunct faculty. In the future, full-time teaching professionals who are neither apprentices nor adjuncts may perform

this function more frequently, although they are not disciplinary faculty as we conceive of the role today. Acknowledging the mediating function may lead to a validation of much of the work that is now largely accomplished by adjunct faculty and graduate students; the creation and acceptance of full-time teaching professional positions may allow many adjuncts who currently must work part-time at low wages because they want to participate in only the teaching aspect of faculty life to choose to become full-time employees.

At present there is no accepted entry-level career path for those who might want to be teaching professionals. Indeed many doctoral graduates especially from research universities a) want to primarily conduct research with little teaching in their job description, or b) are steered away from teaching because of the drain it will put on their energies which when directed at getting tenure sadly enough requires more research and publishing than teaching. One avenue would be to reintroduce the British M.Phil. degree such as Yale and several other institutions did a number of decades ago. The M.Phil. is awarded before the doctorate but after the candidate is qualified to teach the subject matter. This degree could be one career path for teaching professionals. The other avenue available is to acknowledge the swelling ranks of part-time adjunct faculty members and full-time-but-single-year contract instructors already present in American post-secondary education. Elevation of the teaching functions that they perform to a recognized professional level with associated permanent positions and rewards is fundamental. By parsing out and valuing all of the instructional functions—and the people who accomplish each of them—a better, more effective learning experience can be created. In addition, because many current workload studies include only time spent by full-time tenure-track faculty members, the work done by graduate assistants and adjunct faculty is not counted as “instruction” simply because they don’t fit into the categories provided. When teaching professionals’ time can be included, and accounted for, a more balanced vision of what actually occurs in postsecondary education will result.

To help think about the differentiation of these five teaching functions, we at NCHEMS use a simple graphic (**Figure 1**). If the traditional lecture course were depicted in this display there would be an X at the intersection of Design and Faculty Member because faculty determine what is to be included in the course. Development could have an X in both the Faculty Member and the External Provider columns. This choice would be the case if the faculty expertise is coming from within the institution but is being funneled to a publisher or some other external provider to create and develop the delivery mechanism. Now, if a faculty member is using instructional materials created by an external provider, but not specifically by

Five Instructional Functions	Faculty Member	Teaching Professional	Technology	External Provider
Design				
Development				
Delivery				
Mediation				
Assessment				

Figure 1

the faculty member, then there would be only one X under External Provider. Note that this alternative does not mean that local faculty have given up control of the curriculum because that aspect is contained within the Design function. The local faculty member designs the course or curriculum and makes decisions about which externally-provided instructional materials will be used. Back to the example, if the publisher creates a video, for instance, then an X would be placed in the cell created by the intersection of Delivery and Technology because the information is being delivered to the students by technology. What would be marked for Mediation? It depends on how the lecture course is set up. Probably at most institutions an X would be placed in the Teaching Professional-Mediation cell because either graduate students or adjunct faculty lead the smaller discussion sections. Finally, what form of Assessment is used? If the final examination requires passage of a nationally-recognized subject matter test, then an X would go in the External Provider column. If the faculty member writes a two-question essay examination and then grades all the papers by him- or herself, then the X would go in the Faculty Member column. What happens most often is that the faculty member and teaching assistants write and grade the final exam so two X’s would be used—one in the Faculty Member column and one in the Teaching Professional column.

This graphic is useful because of the questions that it leads to about instruction in a particular course or curriculum: When is it okay to have Technology mediate? Is it ever okay? How can Teaching Professionals be used in the development of a course? What alternative paths can I as a faculty member take to creating this course?

Applied to the institutional level, this graphic leads to additional important questions: What do you assign to the faculty? What is the unique contribution of the faculty in the matrix? Are faculty doing things that take full advantage of their skills and minimize what could be done as well by others? Where should we put our money? What will bring the “highest value?” If we direct that all course

materials are to be developed in-house, what does that mean? Will we have funds available for the other functions of design, delivery, mediation, and assessment? If we focus on technologically-advanced delivery, how much will it cost us to purchase externally-developed course materials that can be used in that medium?

These are the types of questions which must be asked and answered before embarking down any expensive paths. For instance, as computers and other forms of technology become increasingly available for education purposes the first stop often is to simply add technology into an existing course syllabus without thinking much about how—and whether—its use can potentially change faculty use of time. In some cases, in fact, faculty actually alter the course and its content to fit the available technology—a move that, while convenient, is fundamentally backwards and pedagogically unsound. More intentional institution-wide attempts to fuse technology and instruction—for instance, many of the projects undertaken by the Oregon State University System in the last couple of years—are blazing a different path. The so-called “pedagogy-up” approach adopted by such initiatives is based instead on setting clear instructional objectives, deciding which particular types of learning experiences are appropriate for achieving these goals, and only then selecting (or building) the requisite technologies to achieve them. Emerging experience with such projects suggests that this approach is far more effective than a “technology-down” approach which attempts to apply technological tools directly without first rethinking what a given course is intended to accomplish.

This conceptualization of instruction as five separate functions allows us to also consider some “black holes” of faculty time, which become blacker and deeper as technology becomes an integral part of faculty life. First and foremost, faculty are subject matter experts and their time should be devoted to helping others—students and external providers—grasp and apply this subject matter. Faculty time is not well-spent on—and indeed is devoured by—writing code for Web-based instructional materials or figuring out how to make a video with lots of bells and whistles, or on researching which technology-pedagogy mix is best for a particular type of course. These are the areas in which technological and instructional development specialists must be hired or contracted with by institutions. It used to be that faculty could indeed “roll their own”—creating everything needed for a course. But this was when the resources needed to design and deliver a course consisted of a sheaf of yellowed papers, old examination questions, and the faculty member’s brain chock full of anecdotal information to illustrate particular points. Now times have changed, and students have changed. The amount of material to be included in courses has burgeoned and faculty members must still know this

material intimately. It is the role of programmers, instructional developers, and videographers to translate the subject matter—learned from the faculty member—accurately into instructional materials which take full advantage of modern technology.

Conclusion

Most institutions we know haven’t thought through this problem systematically. In particular, they haven’t paid much attention to the growing need to acquire and nurture a new kind of “para-professional” staff to support ongoing instructional development—technologically skilled, schooled in a variety of pedagogical approaches, and sufficiently anchored in the disciplines to be credible to mainline faculty. Teaching professionals and para-professionals must be included when conducting institutional workload studies. By incorporating teaching professionals and para-professionals into the academic picture, a higher quality of overall product may result.

The potentially substantial changes in faculty roles and rewards which such initiatives suggest will inevitably have a major impact on faculty cultures. While this shift is now being recognized theoretically, few institutions have confronted it deliberately by restructuring their faculty recruitment, development, and reward policies. Still fewer have directly involved their faculty in collective discussions about why such moves are necessary and how they might best be accomplished. It is not true, as we sometimes hear from faculty, that the whole agenda of incorporating technology into the teaching enterprise is an attempt to get rid of faculty. But it is true that both administrators and policymakers will have to find ways to make limited teaching staffs serve a larger student body. The means exist to accomplish this goal and the inexorable laws of the market will eventually reach it one way or another. Re-conceiving instruction and its component functions more intentionally, thinking of faculty as assets, and providing faculty with the appropriate tools including para-professionals and development to make their teaching more productive—in active partnership with the faculty themselves—is surely the better route.

Directory

<i>General Information</i>	(303) 497-0301
<i>Information Services</i>	(303) 497-0319
<i>Publications</i>	(303) 497-0390
<i>Seminars/Institute</i>	(303) 497-0345
<i>Fax</i>	(303) 497-0338

e-mail: nchems@colorado.edu

web: <http://www.nchems.com>

NCHEMS Information Technology Review

Changing Technology and Information Needs

In this time of rapid technological change, many colleges and universities have not been able to keep pace with the growing information needs of the institution. Computing hardware becomes obsolete before it is paid for, software barely meets the transaction processing needs of operational units, and management information needs are unrealized. Often an over-worked staff is hard-pressed to satisfy the day-to-day information processing needs while maintaining out-of-date systems, and the backlog of new requests grows exponentially. Some frustrated departmental clients design sub-optimal and uncoordinated microcomputer systems, while others simply limp along. Top administrators are reluctant to add resources without a clear plan, and the information technology staff is unable to articulate a plan without additional resources. One way to break this deadly cycle is to initiate an external Information Technology Review.

Even in institutions that are well served by information technology, top administrators may wish to have an external assessment of their technological environment. This is particularly true if any major changes in computing hardware or software are anticipated. In these cases, an Information Technology Review can substantiate institutional activities and plans.

Areas of Review

Areas typically included are the mission, organization, staffing, and activities of academic computing, administrative information systems, networking, and telecommunications units. Other technology-based units may be incorporated into the review, including the computing activities of the library.

Benefits

An NCHEMS Information Technology Review will provide an unbiased assessment of the state of technology on the campus with no motive to sell specific computing hardware, software, or services. It will point out operations that are going well, and will suggest alternative strategies for those that might be improved. The strategies suggested are always tailored to the institution's history, culture, and assets.

Institutional operations are placed in perspective with national trends. Budget and staffing comparisons are provided for peer groups identified both by the institution and by the NCHEMS consultants. As a member of EDUCAUSE, NCHEMS has access to the EDUCAUSE Institutional Database for developing comparable information on information technology activities. When appropriate, telephone surveys of peer institutions can also be conducted to gather current comparable data not covered in the EDUCAUSE database.

Expertise

Chuck Thomas is a Senior Consultant for NCHEMS and an international consultant on information technology



in higher education. He was Executive Director of CAUSE for 15 years and vice president of a national software firm for three years. He was one of the founding staff members of NCHEMS in 1969, and has over 35 years' experience in higher education information technology.

Dennis P. Jones is a recognized expert in the use of information for strategic planning and management decision-making in higher education throughout the world. He has directed many NCHEMS projects dealing with strategic planning, institutional needs assessment, and strategies for resource allocation. A consultant to many colleges, universities, higher education organizations, and government agencies, he has been at NCHEMS since 1969, and President since 1985.

General Approach

An NCHEMS Information Technology Review can provide strategic direction for top administrators without the usual excessive technical detail. NCHEMS consultants have a broad range of institutional experience and are able to understand individual institutional situations. As a non-profit membership organization, NCHEMS is able to provide unbiased recommendations for strategic alternatives. Using an "information driven model," a broad range of facts and opinions are considered, including the perceptions of many different individuals on the campus. These perceptions are gathered through on-campus interviews with specific individuals in their offices. Briefly, the steps are:

1. Advance collection and review of relevant materials.
2. Campus visit by the consultant for interviews.
3. Development of a preliminary report indicating findings and recommendations.
4. Review of the preliminary report by senior campus administrators.
5. Revision of the preliminary report and submission of a final report.

Timeline and Budget

After discussion of your situation, a specific project or proposal will be prepared for review and acceptance by the institution. Most NCHEMS Information Technology Reviews can be completed within approximately 30 days after agreement on the workscope. The cost will depend on institutional complexity and the scope of the review specified by the institution. A fixed cost will be established after discussions.

Scheduling

An Information Technology Review can be initiated by contacting:

Charles R. (Chuck) Thomas
1100 North Lake Shore Drive 16B
Chicago Chicago, IL 60611
Telephone: (312) 951-1876
Fax: (312) 664-0512
E-mail: crt@nwu.edu

New NCHEMS Assessment Publications

These books are important reading for faculty and administrators—especially those interested in assessment in higher education.

Assessment Update: The First Ten Years

Whether motivated by the desire to improve programs and services or by external accountability pressures, assessment has become extraordinarily widespread. With some form of assessment being undertaken at virtually every institution of higher education, this volume is a resource to help you move toward more effective assessment on your campus.

This collection of columns is drawn from ten years of *Assessment Update*, a bimonthly newsletter published by Jossey-Bass Publishers. The five columnists are among the top scholars/practitioners in the field.

Trudy Banta shares her editor's perspective of the increasing sophistication on the assessment field; the challenge of engaging faculty in assessment efforts; and state-level, national and international issues in outcomes assessment.



Peter Ewell discusses developments over a decade of state-based assessment mandates as well as broader and more complex external forces, including national and international developments, that are shaping the context for assessment.



Peter Gray profiles over 30 four-year institutions that have made serious attempts to design and implement assessment programs.



Gary Pike offers descriptions and critiques of the most widely used assessment instruments from a technical and practical perspective.



Jeffrey Seybert provides models for community college assessment, as well as numerous examples of community college assessment at state and national levels.



This volume will be available in March 1999 at \$29.75 (\$25 plus \$4.75 shipping).

Assessment in Community Colleges: Setting the Standard for Higher Education?

By Trudy W. Banta

Faculty in community colleges are responsive, entrepreneurial, and innovative—characteristics society wants and needs of higher education. In addition, they take teaching and student learning seriously, and in many ways their approaches to the assessment of learning and other college outcomes are exemplary. This book describes approaches to assessing four components of the community college mission: general education, career and occupational education, continuing education, and transfer to four-year institutions. Also explored are the assessment of institutional

effectiveness, uses of assessment findings, and principles for successful assessment. Through analysis of assessment efforts in the community college setting, faculty and administrators at both two- and four-year institutions may find successful models for improving the assessment of student learning as well as curricula, instruction, and support services. *Available in March 1999 at \$12.50 (\$10 plus \$2.50 shipping).*

PUBLICATIONS ORDER FORM ON PAGE 10

Other Publications

Available through NCHEMS

Jossey-Bass, Inc., Publishers

Sourcebooks in the *New Directions for Institutional Research (NDIR)* series published by Jossey-Bass are available from NCHEMS at \$25.75 each (\$22 plus \$3.75 shipping). For a complete list, see the NCHEMS web site (<http://www.nchems.com>).

Inter-Institutional Data Exchange: When to Do It, What to Look for, and How to Make It Work

James F. Trainer, Editor
(NDIR #89, Spring 1996)

Examines the Total Quality Management (TQM) principles and tools that many American businesses are now adopting in order to compete globally. These revolutionary concepts hold much promise for higher education in the 1990s. To implement Total Quality Management in higher education institutions, you need to understand the principles, be able to use the tools, establish a receptive climate, and assess institutional leadership. This volume addresses these implementation steps, draws parallels between TQM and the assessment movement, and includes two case studies of institutions practicing Total Quality Management. The concluding chapter urges institutional researchers and planners to play a pioneering role in implementing TQM in their institutions.

Pursuit of Quality in Higher Education: Case Studies in Total Quality Management

Deborah J. Teeter, G. Gregory Lozier, Editors
(NDIR #78, Summer 1993)

Through a series of vignettes, this volume provides valuable insights into the experiences of colleges and universities that are applying the principles of Total Quality Management (TQM) to higher education. Each vignette presents a different aspect of TQM regarding issues of organization, training, use of tools or methodologies, the language of TQM, or the challenges in transforming organizational cultures. Many vignettes conclude with a synopsis of the lessons learned.

Total Quality Management in Higher Education

Lawrence A. Sherr, Deborah J. Teeter, Editors
(NDIR #71, Fall 1991)

Highlights the benefits and risks associated with participating in inter-institutional data exchanges and describes the various types of exchanges that are available. The chapters outline data-sharing activities from rather simple institution-to-institution exchanges to more complex, multi-level, multi-institution data-sharing consortia. They describe the mechanics of data exchange from rudimentary copying of paper surveys and reports to more technologically advanced electronic data submission and retrieval. The authors indicate how data exchanges can serve to enhance the planning process both on individual campuses and within larger systems. Conversely, they identify potential pitfalls related to openly sharing data with other institutions. Finally, the authors provide a blueprint for deciding whether it is in an institution's best interest to engage in this type of activity.

Implementing Outcomes Assessment: Promise and Perils

Trudy W. Banta, Editor
(NDIR #59, Fall 1988)

The assessment planning committee is usually not granted the luxury of sufficient time to satisfactorily resolve all its questions and concerns. The pressure to "do something" is too great to permit long delays in beginning to collect some kind of data on program effectiveness. We have used ad hoc procedures and invalid instruments because we have not had the time to seek a strong theoretical base for our work. It is time now, near the end of the initial decade of implementation, to take stock of where we have been, what we have accomplished, and where we should go next in strengthening our approaches to assessment. Several of the authors of this volume have written previously about the promise of assessment. We have not lost sight of that feature. But herein optimism is tempered with realism. Along with the promise, some of the perils surrounding assessment are identified and discussed.

PUBLICATIONS ORDER FORM ON PAGE 10

EDUCAUSE Publications

These professional papers published by EDUCAUSE, the association for transforming education through information technologies, are available from NCHEMS at \$19.75 each (\$16 plus \$3.75 shipping). Papers 1-15 are also available. See the NCHEMS web site for complete information.

The Crisis in Information Technology Support: Has Our Current Model Reached Its Limit?

EDUCAUSE Professional Paper #16

By Polley A. McClure, John W. Smith, and Toby D. Sitko

Focuses on one of the most serious problems facing our profession today: the difficulty of providing the level and quality of support demanded by our customers. The paper asserts that, "Fundamental changes taking place in higher education make old models of information technology support inappropriate and insufficient." It describes current problems and how they differ from those of the past, and suggests a new support model. The paper identifies three primary issues of this crisis: overwhelming demands on central information technology (IT) organizations, deterioration of support quality, and the scapegoating of central IT organizations. The solution is a holistic approach to support, with a "whole-product" focus based on customer needs and a reliable baseline information infrastructure. (Publication sponsored by Adobe Systems, Inc.) (28 pages, 1997)

Privacy and the Handling of Student Information in the Electronic Networked Environments of Colleges and Universities

Identifies the privacy challenges and opportunities of technology advances, presents a set of primary principles that underlie fair information practices, and recommends a process whereby a full spectrum of campus constituencies can be involved in discussions leading to a better understanding of campus culture and values with regard to these principles. Included in the discussion are related issues that arise in a networked environment, as well as examples of practices that represent lesser and greater application of the principles. Many helpful appendices are included. (Developed in cooperation with AACRAO.) (28 pages, 1997)

Distance Learning: The Shift to Interactivity

EDUCAUSE Professional Paper #17

By Gene G. Sherron and Judith V. Boettcher

Designed to help higher education institutions confront the distance learning challenge. The authors offer a primer on distance learning, discussing not only the technologies but also planning and instructional design and considerations—including a philosophy of teaching and learning, design principles for interactive distance learning, changing the system and roles of faculty, faculty development and incentive issues, and infrastructure requirements. (36 pages, 1997)

ECS Publications

These four books published by the Education Commission of the States (ECS) are available from NCHEMS at the prices indicated.

Charting Higher Education Accountability: A Sourcebook on State-Level Performance Indicators

Edited by Sandra S. Ruppert

For accountability purposes, a growing number of states are adopting "performance indicators," or common measures for colleges and universities to assess and report their performance. Selected indicators range from easily quantifiable statistics such as faculty/student ratios to more qualitative measures such as plans to increase minority student enrollment. In most cases, indicators are published in a higher education annual report or "report card," which allows for institutional comparisons and provides a readily understandable format for a broad audience.

Ten states have been among the leaders in developing new accountability policies and performance indicators. They are Colorado, Florida, Illinois, Kentucky, New York, South Carolina, Tennessee, Texas, Virginia, and Wisconsin. Their experiences form the foundation for this report. Collectively, the 10 states constitute an interesting mosaic, presenting differences and similarities in how each accountability process originated, how performance measures or indicators were developed, and how the results have been used.

\$18.75 (\$15.00 + \$3.75 shipping)

State Postsecondary Education Structures Sourcebook—1997

Introductory chapter by Aims C. McGuinness, Jr.

This new edition of the *Structures Sourcebook* provides under one cover a basic reference document for those interested in the historical background, current status and emerging patterns of state higher education structures.

An introductory essay overviews the changing structure of state higher education leadership, including the functions of coordination and governance, the evolution and current status of state structures, trends and issues, and guidelines for evaluation and reorganization. Tables show state-by-state legal status, responsibilities, membership, and staffing of state coordinating and governing boards and agencies. Also included are narrative profiles of each state's higher education structure with addresses and telephone numbers of state higher education executive officers in each state.

\$29.25 (\$25.00 + \$4.25 shipping)

(continued on page 10)

ECS Publications *(cont.)*

Refashioning Accountability: Toward a "Coordinated" System of Quality Assurance for Higher Education

By Peter Ewell, Karen Paulson, and Jane Wellman

This publication resulted from discussions about the controversies over accreditation, the State Postsecondary Review Entity and other initiatives to link and enhance accountability and quality assurance in higher education. It proposes a new framework for a "coordinated" accountability system involving mutually supportive roles by institutions, accreditors, federal and state government, and others.

\$16.25 (\$12.50 + 3.75 shipping)

A Framework for Evaluating State Policy Roles in Improving Undergraduate Education: Stimulating Long-Term Systemic Change

By Aims C. McGuinness, Jr.

This publication resulted from the State Policy and College Learning (SPCL) project conducted at ECS and funded primarily by The Pew Charitable Trusts. The project was aimed at developing a new generation of state policies that would have a constructive impact on the efforts of colleges and universities to improve undergraduate education. This publication describes the approach, the conceptual framework for examining the relationship between state policy and institutional change, and provides a self-assessment guide that states and institutions can use to examine the impact of state policy on undergraduate education.

\$7.50 (\$5.00 + \$2.50 shipping)

PUBLICATIONS ORDER FORM

	Price*	Quantity	Total
NCHEMS			
Assessment Update: The First Ten Years	\$29.75	_____	\$ _____
Assessment in Community Colleges: Setting the Standard for Higher Education?	\$12.50	_____	\$ _____
JOSSEY-BASS			
Inter-Institutional Data Exchange: When to Do It, What to Look for, and How to Make It Work	\$25.75	_____	\$ _____
Pursuit of Quality in Higher Education: Case Studies in Total Quality Management	\$25.75	_____	\$ _____
Total Quality Management in Higher Education	\$25.75	_____	\$ _____
Implementing Outcomes Assessment: Promise and Perils	\$25.75	_____	\$ _____
EDUCAUSE			
The Crisis in Information Technology Support: Has Our Current Model Reached Its Limit?	\$19.75	_____	\$ _____
Privacy and the Handling of Student Information in the Electronic Networked Environments of Colleges and Universities	\$19.75	_____	\$ _____
Distance Learning: The Shift to Interactivity	\$19.75	_____	\$ _____
ECS			
Charting Higher Education Accountability: A Sourcebook on State-Level Performance Indicators	\$18.75	_____	\$ _____
State Postsecondary Education Structures Sourcebook—1997	\$29.25	_____	\$ _____
Refashioning Accountability: Toward a "Coordinated" System of Quality Assurance for Higher Education	\$16.25	_____	\$ _____
A Framework for Evaluating State Policy Roles in Improving Undergraduate Education: Stimulating Long-Term Systemic Change	\$7.50	_____	\$ _____
TOTAL			\$ _____

Please send check or purchase order payable to NCHEMS, P.O. Box 9752, Boulder, Colorado 80301-9752
(Complete publications list on the NCHEMS web page at <http://www.nchems.com>)

*** Price includes shipping and handling**

NCHEMS Membership Benefits

Membership provides your institution with access to NCHEMS products and services at a considerable savings:

- a 10 percent discount on all publications, including questionnaires and analysis services for the Student Outcomes Information Services (SOIS), the Comprehensive Alumni Assessment Survey (CAAS), and the Institutional Performance Survey (IPS) service.
- a 10 percent discount on all standard non-customized Information Services reports.
- a 10 percent discount on all registrations for NCHEMS Management Services, Inc. (NMSI) training seminars, including the Academic Management Institute offered in the summer. The seminar series has been expanded to include topics of academic assessment and quality improvement and building effective relationships between state boards and campuses.
- a 10 percent discount on the *Data Definitions for Higher Education* compact disk reference volume. (Note: This discount is \$500 for NCHEMS members.)
- a \$60 savings on Survey Select, a new Windows-based PC program for producing professional-looking surveys.

Who is Eligible for NCHEMS Subscribing Membership Program and How It Works

All institutions, state agencies of higher education, and systems offices are eligible for NCHEMS membership. Each campus in a system must join in order to realize the membership benefits.

The key to the NCHEMS network is your own liaison officer. Each member organization appoints an individual who coordinates communication with NCHEMS. This individual can also serve as the hub of your own internal network of department chairs, deans, administrators, and executives.

Because the NCHEMS Subscribing Membership Program provides benefits not just for one individual but for your entire organization, your liaison officer can ensure that full use is made of discounts on NCHEMS publications, products, and services. The liaison officer is also a vital link in communicating your institution's needs and interests to NCHEMS. The Center, of course, serves the entire higher education community and all are invited to participate in its programs and receive its newsletter. The activities of the liaison officer in a member institution contribute to this existing network by strengthening lines of communication and ensuring systematic distribution of the Center's latest publications, tools, and services.

NCHEMS Membership Form

Name of Organization as you wish it to be listed on the NCHEMS Membership Roster: _____

Your Liaison Officer to NCHEMS:

Name _____ Position _____

Address _____

City _____ State _____ Zip _____

Phone _____ Fax _____

Subscribing Membership Fee: \$300
(one-year membership from date of enrollment)

I wish to subscribe to the NCHEMS Membership Program. A check or purchase order is enclosed for our annual membership fee. The individual designated as the NCHEMS Liaison Officer will represent our organization with respect to the NCHEMS Membership Program.

Date _____ Signature _____

(Authorized Official)

Return to: NCHEMS President's Office, P.O. Box 9752, Boulder, CO 80301-9752
Phone: (303) 497-0301 Fax: (303) 497-0338
Federal ID # 74-1894594



MANAGEMENT SEMINARS

March 1999 Baltimore, Maryland

Monday 15	Tuesday 16	Wednesday 17	Thursday 18
MIS for Strategic Planning and Decisionmaking Dennis Jones, NCHEMS President Peter Ewell, Senior Associate <p style="text-align: right;">\$250</p>	Developing Databases to Analyze Students and Curricula Peter Ewell, Senior Associate Karen Paulson, Staff Associate <p style="text-align: right;">\$500</p>	Managing Change: Systems, Values and Incentives Aims McGuinness, Senior Associate Paula Ries, Staff Associate <p style="text-align: right;">\$250</p>	<p style="text-align: center;"><i>These seminars, and others, can also be done on your campus.</i></p>
Faculty Workload and Productivity Karen Paulson, Staff Associate <p style="text-align: right;">\$250</p>	Linking Planning with Budgeting Dennis Jones, NCHEMS President <p style="text-align: right;">\$500</p>		

The Omni Inner Harbor Hotel is hosting our March 1999 seminars. Please call the hotel at (800) 843-6664 or (410) 752-1100 to make your reservations. Our rate is \$125 for single or double accommodations. This rate is guaranteed until February 22, 1999. Be sure to mention that you are attending NCHEMS seminars.

NCHEMS Management Services, Inc. will offer our Academic Management Institute in Boulder, Colorado in June of 1999 and seminars in October of 1999.

FOR MORE INFORMATION, CALL OR WRITE:

Arlene Barr • National Center for Higher Education Management Systems (NCHEMS)
 P.O. Box 9752 • Boulder, CO 80301-9752 • (303) 497-0345 or 497-0365
 Fax: (303) 497-0338 • E-mail: barra@colorado.edu • Web Site: <http://www.nchems.com>



National Center for Higher Education Management Systems
 P.O. Box 9752 • Boulder, Colorado 80301-9752

NON-PROFIT
 ORGANIZATION
 U.S. POSTAGE
 P A I D
 BOULDER, CO
 PERMIT NO. 22