BOARD OF REGENTS
OF
THE UNIVERSITY OF TEXAS SYSTEM

CALENDAR

Date: **Monday, July 7, 2003**

Time: **10:00 a.m.**
Place: Board Meeting Room, Ninth Floor, Ashbel Smith Hall, 201 West Seventh Street, U. T. System Administration, Austin, Texas
Purpose: Convene in Open Session to Consider Agenda Items

See Page 1, Items A - B

Time: **11:30 a.m. approximately**
Purpose: Recess to Executive Session for Legal and Personnel Issues (over lunch)

See Page 44, Item C

Time: **1:30 p.m. approximately**
Purpose: Reconvene in Open Session to Consider Action on Executive Session Items

See Page 49, Item D

Time: **2:00 p.m. approximately**
Purpose: Recess to Executive Session for Personnel Issues

See Page 49, Item E

Time: **3:30 p.m. approximately**
Purpose: Reconvene in Open Session to Adjourn

See Page 49, Item F

Telephone Numbers

Office of the Board of Regents	(512) 499-4402
Four Seasons Hotel, 98 San Jacinto	(512) 478-4500

TABLE OF CONTENTS
July 7, 2003

AGENDA FOR MEETING
OF
BOARD OF REGENTS
OF
THE UNIVERSITY OF TEXAS SYSTEM

Date: **Monday, July 7, 2003**

Time: 10:00 a.m. – approximately 3:30 p.m.

Place: Board Meeting Room, Ninth Floor, Ashbel Smith Hall, 201 West Seventh Street, U. T. System Administration, Austin, Texas

A. CALL TO ORDER

B. CONSIDERATION OF AGENDA ITEMS

1. **U. T. Board of Regents: Request for Authorization to Negotiate and Enter into an Auditing Services Contract to Perform Audits of the Funds Managed by The University of Texas Investment Management Company (UTIMCO) for the Fiscal Year Ending August 31, 2003**

RECOMMENDATION

The Chairman of the Audit, Compliance, and Management Review Committee recommends that the U. T. Board of Regents authorize U. T. System staff to negotiate and enter into an auditing services contract with Ernst & Young, LLP to perform the audits for the Fiscal Year ending August 31, 2003, for funds managed by The University of Texas Investment Management Company (UTIMCO), as listed below:

- Permanent University Fund (PUF)
- The University of Texas System General Endowment Fund (GEF)
- Permanent Health Fund (PHF)
- The University of Texas System Long Term Fund (LTF)
- The University of Texas System Short Intermediate Term Fund (SITF)

BACKGROUND INFORMATION

Fiduciary responsibility for the PUF, GEF, PHF, LTF, and SITF (the Funds) rests with the U. T. Board of Regents. Section 66.08 of the Texas Education Code requires that the U. T. System perform an annual financial audit of the PUF. Deloitte & Touche LLP has audited all of the Funds on an annual basis since 1996. The Sarbanes-Oxley Act of 2002 now requires public corporations to rotate auditing firms or audit partners every five years. Although not required to do so, the U. T. System believes that now is a good time to select a new auditor for the Funds.

The process used for selecting the audit firm to perform the Fiscal Year 2003 audit of the Funds included a Request for Qualifications (RFQ) stating the objectives, timeline, and scope of work to be completed by the selected firm. The RFQ was sent to prospective bidders in April and responses were received from four firms -- Ernst & Young LLP, Deloitte & Touche LLP, KPMG, and PriceWaterhouseCoopers. Three firms were invited to make oral presentations in May 2003 to the evaluation team that included Regent Estrada, Chairman of the Audit, Compliance, and Management Review Committee.

The criteria used for rating the firms included six areas of consideration: Approach, Quality Standards, Ability and Commitment, Fees, Financial Stability, and Historically Underutilized Business compliance.

2. **U. T. System: Approval of Budget Change Concerning Chancellor's Salary**

RECOMMENDATION

A Request for Budget Change to comply with a mandated salary increase for the Chancellor is recommended for approval by the U. T. Board of Regents. Chancellor Yudof's annual salary would increase to $468,000 effective March 1, 2003.

BACKGROUND INFORMATION

The rate increase for Chancellor Yudof is mandated by state statute. The General Appropriations Act requires that personnel employed between March 1, 2002 and August 31, 2002 be given a 4% salary increase effective March 1, 2003. Chancellor Yudof's initial date of employment was August 1, 2002.

This item was placed on the Docket for the May 2003 Board of Regents' meeting and was deferred pending further review of the statutes governing this action. After review by the Office of General Counsel, it was determined that the 4% mandatory pay increase effective March 1, 2003, applies to the Chancellor's salary.

3. **U. T. System: Update and Possible Action on Selection of a Consultant for the Purpose of Expanding the Research Capabilities of the U. T. System**

RECOMMENDATION

Dr. Teresa A. Sullivan, Executive Vice Chancellor for Academic Affairs, will update the Board of Regents regarding the selection of a consultant for the purpose of expanding the research capabilities of the academic components of the U. T. System.

A recommendation to name a consultant might be ready for Board approval at the July 7, 2003 meeting.

4. **U. T. Health Science Center - San Antonio: Request for Authorization to Sell Approximately 238.625 Acres of Land in Live Oak and Universal City, Bexar County, Texas, and Authorization to Execute All Documents Related Thereto**

RECOMMENDATION

The Chancellor concurs in the recommendation of the Executive Vice Chancellor for Business Affairs, the Acting Executive Vice Chancellor for Health Affairs, and President Cigarroa that authorization be given for the U. T. System Real Estate Office, on behalf of U. T. Health Science Center - San Antonio, to sell approximately

238.625 acres of land in Live Oak and Universal City, Bexar County, Texas, to the Alamo Community College District for its appraised fair market value of $3,244,000. The University will not pay any brokerage fee in connection with the sale.

It is further recommended that the Executive Director of Real Estate be authorized to execute all documents, instruments, and other agreements and to take all further actions deemed necessary or advisable to carry out the purpose and intent of the foregoing recommendation.

BACKGROUND INFORMATION

The Alamo Community College District of Bexar County, Texas, wishes to acquire the subject property as a site on which to build a new community college to serve the northeast portion of the county. The fair market value of the property was established by an appraisal dated March 19, 2003, by Dugger, Canaday, Grafe, Inc., San Antonio, Texas.

The property is part of a bequest of land and financial assets from the late Mrs. Berneice Castella for the unrestricted use of U. T. Health Science Center - San Antonio. To honor desires that Mrs. Castella had verbally expressed, the proceeds from this sale will be used for research on the aging process.

Following this sale, the Board will own 80.373 acres of land out of the Castella bequest. On August 9, 2001, the Board approved the sale of this smaller tract to the District, but that transaction was not consummated. The U. T. System Real Estate Office will request Board action to approve a future sale of this tract for not less than its fair market value.

5. **U. T. System: Report on Highlights of the 78th Texas Legislature, Regular Session**

REPORT

Vice Chancellor Ashley Smith will present Highlights of the 78th Texas Legislature. He will discuss key measures and their affect on higher education in the upcoming 2004-2005 biennium including System-wide plans to enhance educational attainment and research in Texas.

6. **U. T. System: Report on the Development of the System Administration Mission Statement**

REPORT

Dr. Teresa Sullivan, Executive Vice Chancellor for Academic Affairs, and Dr. Geri Malandra, Assistant Vice Chancellor for Accountability, will present an update on the development of a mission statement for The University of Texas System Administration. The draft mission statement and the System mission statement prepared in 1998 are included on Pages 6 - 7.

At the May Board meeting, Dr. Malandra presented the conceptual framework for this project.

DRAFT

The University of Texas System Administration
Mission Statement

Rev. June 16, 2003

The University of Texas System creates and sustains excellence in educational opportunities, research, and health care to meet the goals and ambitions of Texas, the nation, and the world.

The U. T. System adheres to the values of integrity, service, adherence to law, accountability, inclusion, consultation, and collaboration.

In support of the System's broad mission, the U. T. System Administration serves as the executive/managerial agent of the U. T. Board of Regents, providing information and analysis to support the Board's oversight and policy-making functions. The U. T. System Administration adds value by taking advantage of the System's collective size and scope to enhance opportunities for, and efficient operations of, the fifteen component institutions. The System Administration:

- Leads and fosters communication on higher education issues.
- Achieves efficiencies and economies of scale through direct services to, or collaborations among, institutions.
- Targets opportunities for new and collaborative work.
- Enhances the academic and health-care strategic planning of the institutions.
- Assures accountability, compliance, and quality processes.
- Offers consulting and problem-solving services.
- Performs essential support functions.

The University of Texas System

Mission Statement

The mission of The University of Texas System is to provide high-quality educational opportunities for the enhancement of the human resources of Texas, the nation, and the world through intellectual and personal growth.

This comprehensive mission statement applies to the varied elements and complexities of a large group of academic and health institutions. Individually, these institutions have distinct missions, histories, cultures, goals, programs, and challenges. Collectively, these institutions share a common vision and a fundamental commitment to enhance the lives of individuals and to advance a free society. Through one or more of its individual institutions, The University of Texas System seeks:

- To provide superior, accessible, affordable instruction and learning opportunities to undergraduate, graduate, and professional school students from a wide range of social, ethnic, cultural, and economic backgrounds, thereby preparing educated, productive citizens who can meet the rigorous challenges of an increasingly diverse society and an ever-changing global community;

- To cultivate in students the ethical and moral values that are the basis of a humane social order;

- To engage in high-quality, innovative research that entails the discovery, dissemination, and application of knowledge;

- To render service to the public that produces economic, technical, social, cultural, and educational benefits through interactions with individuals and with local, Texas, national, and international organizations and communities;

- To provide excellent, affordable, and compassionate patient care through hospitals and clinics that are of central importance to programs of teaching, scholarship, research, and service associated with medicine and related health sciences;

- To enrich and expand the appreciation and preservation of our civilization through the arts, scholarly endeavors, and programs and events which demonstrate the intellectual, physical, and performance skills and accomplishments of individuals and groups;

- To serve as a leader of higher education in Texas and to encourage the support and development of a superior, seamless system of education – from pre-kindergarten through advanced post-graduate programs, and encompassing life-long learning and continuing education.

To accomplish its mission, The University of Texas System must:

- Attract and support serious and promising students from many cultures who are dedicated to the pursuit of broad, general educational experiences, in combination with the pursuit of areas of personal, professional, or special interest;

- Acquire, retain, and nourish a high-quality, dedicated, diverse faculty of competence, distinction, and uncompromising integrity;

- Recruit and appropriately recognize exemplary administrators and staff members who provide leadership and support of the educational enterprise in an energetic, creative, caring, and responsible manner.

- Create and sustain physical environments that enhance and complement educational goals, including appropriate classrooms, libraries, laboratories, hospitals, clinics, computer and advanced technological facilities, as well as university centers, museums, performance facilities, athletic spaces, and other resources consistent with institutional objectives;

- Encourage public and private-sector support of higher education through interaction and involvement with alumni, elected officials, civic, business, community and educational leaders, and the general public.

[1998]

7. **U. T. Board of Regents: Informational Report on Guidelines to be Used for Revising the Regents' Rules and Regulations**

REPORT

Dr. Donde Plowman, Professor of Management in the College of Business at U. T. San Antonio, will provide an informational report to the U. T. Board of Regents on the guidelines System staff will use in revising the Regents' Rules and Regulations. Dr. Plowman's white paper titled "The Regents' Rules: Making the Case for Simplifying" is attached on Pages 9 - 31. The paper provides support that a major rewrite of the Rules is needed. This will be done by providing: (1) a theoretical basis for what the Rules should look like, (2) benchmarking data showing the U. T. System covers more topical area content in its Regents' Rules than other universities, and (3) survey data primarily from faculty and staff recommending specific significant revisions to the Rules.

Dr. Plowman's presentation, which will be based on the white paper, may be found on Pages 32 - 43. Comments provided by the U. T. Board of Regents will be used to amend the guidelines as needed.

After the guidelines are finalized, the white paper will be provided to the members of a task force that will be charged with actually rewriting the Rules where needed. The task force will use the paper as a guide in drafting rules with the aim of simplifying them to ease the administrative burden of compliance and provide the proper degree of autonomy to the component institutions. All revisions will be shared with Presidents, advisory groups such as the Faculty, Student, and Employee Advisory Councils, and any other interested parties identified prior to U. T. Board of Regents' approval.

Dr. Plowman's research emphasis is decision-making in complex systems, particularly the participation of individuals and groups in organizations.

The Regents' Rules:
Making the Case For Simplifying

Donde L. Plowman, Ph.D.
Professor of Management
College of Business
The University of Texas at San Antonio
dplowman@utsa.edu
(210) 458-4317

I. Executive Summary

II. Evidence from Management Theory

"A Few Simple Rules Will Do: A Complexity View of The University of Texas System"

III. Evidence from Comparison of The University of Texas System to Other Universities

IV. Evidence from Users of the Regents' Rules

V. Guidelines for Revising the Regents' Rules

This work benefited from the ideas and suggestions of Reuben R. McDaniel, Professor of Management Science and Information System and the Charles & Elizabeth Protho Regents Chair in Health Care Management, The University of Texas at Austin and Dennis Duchon, Professor of Management and Chair of Management Department, The University of Texas at San Antonio. John Dark, Student Intern in the Board Office, provided the data for comparison of The U. T. System Policies to other universities. Francie Frederick and Art Martinez of the Board Office assisted with the survey to faculty and staff. Robert W. Hamilton, Professor and Minerva House Drysdale Regents Chair in Law at The University of Texas School of Law, provided his review and comments on the paper and will be a resource for actual revisions to the Rules once that process begins.

I. Executive Summary

The University of Texas System, like most organizations, is a complex adaptive system that faces an "unknowable" environment. As such, the U. T. System is capable of a variety of adaptive, innovative behaviors at the local level. However, overly complicated and highly specified rule systems, as reflected in the Regents' Rules and Regulations, often distract from the more important values and principles of the U. T. Board of Regents and constrain decision making at the component level. Many modern organizations are moving away from this kind of command and control approach to management and are allowing units to self-organize, encouraging the "emergence" of strategies and recognizing that as organizations change, so too does the environment. There is a growing realization that in a complex uncertain world a precise knowledge of cause and effect is not likely, nor is it likely that a specified procedural set of rules can address all future outcomes. Southwest Airlines, VISA, Half-Price Books, and 3M are just a few examples of companies that are doing things differently, providing lessons for the U. T. System.

When the focus of organizational management shifts from command and control to "managing the unknowable," accountability is achieved through focus on the mission, core principles, values, and desired outcomes rather than on rule following. Fewer rules minimize the need for the kind of complex compliance procedures presently in place in the U. T. System.

When the policies listed in the Regents' Rules are compared with policies established by governing boards of other Universities it is immediately clear that the Rules contain more content and are more highly detailed. Regental policies cover 191 different topical areas as compared to only 24 different areas at the University of Michigan, 30 at the University of California System, and 35 at the University of Illinois.

In a survey of staff, faculty, and students who may use the Regents' Rules a significant number of rules were frequently not used and/or not valued. The respondents who reported a high value from some of the rules, however, also frequently noted that the Rules are difficult to read, redundant, poorly organized, and contain too much operational detail. Many suggestions were made to streamline the rules, removing requirements of law and removing procedural statements.

Seven guidelines are offered for use in revising the Regents' Rules. Using these guidelines should result in the development of Regental policies promoting units to self organize, encourage the emergence of strategies and recognize the change that must take place with the changes to the environment.

II. Evidence from Management Theory

A Few Simple Rules Will Do:
A Complexity View of The University of Texas System

Increasingly, organizational scientists are recognizing the fundamental role that uncertainty plays in all organizations.[1] No longer do we believe that the development of organizations over time is predictable or that planning and prediction can protect organizations from uncertainty and surprise. No longer do we believe that a multitude of rules protects organizations from mistakes. Rather, we now recognize that organizations are complex adaptive systems and that uncertainty is fundamental in the world. Complex adaptive systems are made up of people and groups who gather information, interact with each other in self-organizing forms, and adapt and co-evolve with the environment. These basic characteristics make organizations unpredictable.

Universities, like many other organizations, however, are most often viewed as mechanistic systems, rather than as complex adaptive systems. When the mechanistic view of organizations prevails, managers attempt to make organizations predictable and reduce uncertainty through the proliferation of rules. Contemporary organizations are finding that the strategy of adding rules not only fails to reduce uncertainty but also makes it more difficult for people and groups in organizations to solve problems in ways that help the organization adapt successfully to its environment. Thus, the need for more effective ways of managing is paramount – for all organizations. As Reuben McDaniel, Professor of

[1] In 1999 a special issue of *Organization Science* was devoted to Complexity Theory and Organization Science. Additionally a number of books, including those by Wheatley, Stacey, and others have impacted the field.

Management Science and Information Systems at The University of Texas at Austin, says, "We have to manage organizations in the face of uncertainty, rather than trying to make them certain."[2]

Complexity scientists tell us that *a few simple rules* to guide the interactions among individuals and encourage ongoing improvisation will result in more successful organizational adaptation than an overly complex set of rules intended to specify hundreds, sometimes thousands, of particular behaviors. If we rethink the true character of organizations, we will recognize that, as complex adaptive systems, they are capable of an infinitely large set of adaptive, innovative behaviors without resorting to elaborate command and control systems. Margaret Wheatley,[3] best selling author of *Leadership and the New Science* says, "When obedience and compliance are the primary values in an organization, then creativity, commitment, and generosity are destroyed." Elaborate rules are about compliance and an over reliance on rules limits the potential of human ingenuity - a much needed ingredient for dealing with uncertainty and complexity. While organizations have fiduciary responsibilities that have to be met, adding additional layers of compliance activities stifles creativity. Dee Hock[4] founded VISA using complexity principles and encouraging collaboration over control as a management principle. He notes:

> Without question, the most abundant, least expensive, most underutilized, and constantly abused resource in the world is human ingenuity. The source of that abuse is mechanistic, Industrial Age dominator concepts of organization and the management practices they spawn (Hock, 2000, p. 25).

[2] McDaniel, R. R., 2002. "Making the Leap to Organizations," *Emergin*g.
[3] Wheatley, M. 2003. "Meg Wheatley's Simpler Way," *Emerging*.
[4] Hock, D. 2000. "The Art of Chaotic Leadership," *Leader to Leader* (15), 20-26.

The dominant Industrial Age view of organizations, frequently referred to as the Newtonian model, has been of a mechanical system that could be "known," whose properties could be understood and, with the appropriate rules, whose behavior could be determined. From this view managers use their knowledge of cause and effect to understand the forces and laws they believe necessary to operate the system. In a simple unchanging world, knowledge of cause and effect may be possible, and managers equipped with this "knowledge" may be able to achieve some level of predictability, order, and control in their systems. However, in a complex uncertain world, a precise knowledge of cause and effect is not likely, nor is it likely that a specified procedural set can address all possible future outcomes. In spite of this condition of "unknowability," many organizations – universities included - continue to use rules in an attempt to control behavior, to prevent mistakes, to create stability, and to maintain order in the organization. In their pursuit of a goal of stability, managers attempt to make the unknown both familiar and simpler by standardizing procedures and operations. In effect, they use complex rule systems as a defense against unknowable conditions. These same managers would be far better off accepting the future as unknowable and, instead of building elaborate rigid rule systems, build learning mechanisms that enhance problem-solving, making it more likely that the system can effectively respond to changing conditions.

Managing universities as mechanical systems creates an interesting and disturbing paradox for institutions whose fundamental mission is the creation and dissemination of knowledge. The scholarship and learning that lies at the heart of a university intends to extend what it is we know by purposely discovering what it is we do not know. Scholarship requires, among other things, *doubt*, *discovery*, and asking the *disconfirming* question. English scholars *doubt* whether certain words were really Chaucer's words; scientists

discover new relationships among molecules through endless trials and experiments in their labs; researchers collect data to *disconfirm* a previous theory, and students at all levels are asked *disconfirming* questions by their teachers as they explore new intellectual domains. *Doubt*, *discovery*, and *disconfirming* questions have no place in the mechanist view of organizations. Thus, by the nature of their fundamental activities - scholarship and learning - universities are complex adaptive systems dealing with the unknown, yet they are often governed and managed as if they were self-contained mechanical systems.

When universities are understood as complex adaptive systems, the ways in which they are governed and managed will change. As most universities face threatening environments that are largely "unknowable," rethinking the nature of organizations is important. The purpose of this paper is to describe the fundamental properties of complex adaptive systems, propose a picture of The University of Texas System as a complex adaptive system, and offer a set of questions based on this view that could be used to re-envision and simplify the Regents' Rules and Regulations.

Complex adaptive systems share the following characteristics: (1) they are *self-organizing*; (2) they are *emergent*; and (3) they *co-evolve.*

They are Self-Organizing.

Scientists refer to a fundamental movement of all living systems towards organization as *self- organization*. From microbes to ants to humans, every living thing works at creating a world in which it can thrive. This happens by creating systems of relationships in which each living member benefits from connections to other members. These connections form coherent patterns and from these coherent patterns come an effective system of organization. For example, it is through self-organization that certain species of ants can find the most direct path to a critical food source via a series of simple interactions. Recently referred to as

"swarm intelligence" in a *Harvard Business Review*[5] article, the behavior of the group emerges from the collective interactions of all the individuals. When a living system self-organizes, its component parts develop a collective understanding of what is important, what is acceptable, what needs to be done, and it gets things done. As the system develops, new capabilities emerge as a result of these self-organizing interactions among the parts.

In organizations, this self-organizing can be thought of as "leaderless behavior"[6] because individuals work together, share information, develop understandings and figure out what to do. A characteristic of all living systems is that they change in ways that are consistent with their core identity. A biological system, for example, is said to keep the memory of its evolutionary path.[7] Thus, for organizations whose leaders spend their energy telling and retelling the organization's story of who it is, who it wants to be, and what it values, individuals and groups in those organizations can self-organize and take actions that cohere around that identity. Such organizations neither implode nor spin out of control. Rather, they engage in a series of adaptive experiments, consciously trying to find a better fit with their environment. This self-organizing behavior makes the organization capable of surprisingly complicated and adaptive behavior, which is exactly what is needed for organizations facing uncertain and complex environments.

Half-Price Books, the largest used book dealer in the country, with more than 50 stores in eight states, encourages each store and each department within each store to develop its own style, to find what works for that store. Half-Price Books' self-organizing style is similar to that of Herb Kelleher, founder and chairman of Southwest Airlines, who says,

---

[5] Bonabeau, E. & Meyer, C. 2001. "Swarm Intelligence," *Harvard Business Review (*May), 107-114.
[6] Brown, S. & Eisenhardt, K. 1998. *Competing at the Edge*
[7] Jantsch, E. 1980. *The Self-Organizing Universe.* Oxford: Pergamon Press.

"I've never had control and I never wanted it…If you create an environment where people truly participate, you don't need control. They know what needs to be done and they do it."[8]

They Are Emergent.

When individuals and groups in complex adaptive systems interact, and when these individuals and groups are different from each other, their behavior will not be exactly the same in all conditions. This is what leads to complex, not predictable behavior, i.e., "behavior that is orderly enough to ensure stability, yet full of flexibility and surprise."[9] The behavior of the system is emergent because it is a result of what happens inside the system and cannot be fully predicted. The greater the numbers of individuals and groups interacting, the greater diversity of the individuals and groups, the more complex is the behavior that emerges. Although the behavior is complex, the rules that guide its emergence are by necessity simple.

Organizations, like other living systems, are capable of complex behavior from rather simple rules. A flock of birds in flight is a good example of this phenomenon. A flock can adjust to obstacles while flying together without an established leader by observing simple rules. Organizations have the same capacity. As complexity strategists, Brown & Eisenhardt[10] comment, "It is [the rules'] simplicity that creates the freedom to behave in complicated, adaptive, and surprising ways."

3M is an example of a company that has been successful at continuous change by encouraging the *emergence* of profitable products and strategies (Post-its is perhaps the most famous example of a product that emerged rather than was planned). A simple rule used at

[8] Kelleher, K. 1997. "A Culture of Commitment," *Leader to Leader*.
[9] Kaufman, S. 1995. *At Home in the Universe.* New York: Oxford University Press.
[10] Brown & Eisenhardt, 1998. *Competing at the Edge*. Cambridge: Harvard Business Press.

3M is that 25 percent of sales must come from products less than four years old. This rule sets the rhythm for change at 3M, creating a relentless push for new products that emerge from people and places throughout the company. 3M prides itself in a flexible organizational structure, encouraging processes that often circumvent the boss, in order to create a complex array of products in response to a changing, complex marketplace.[11]

They Co-Evolve.

As organizations change and adapt to their environments, they are adapting not to static environments but to environments that are also changing, in part because of changes made by the organization. Thus, organizations are said to *co-evolve with their environments*. As self-organizing occurs in organizations, changes in the organization occur – changes to which the environment then reacts – setting off a continual cycle of mutual learning and adaptation. The organizational system is learning to adapt to an environment that is itself adapting to the organizational system. This co-evolutionary nature of organizations makes it important that organizational behavior be guided by clear values, principles, and desired outcomes rather than an intricate set of rules. Specific rules designed for the environment known to the organization yesterday are often not helpful for the environment the organization faces today. Today's environment responded to yesterday's organizational actions, making it a different environment than it was yesterday. Thus, the organization's rules established to deal with yesterday's environment quickly become irrelevant.

Southwest Airlines engaged in a three-year court battle that resulted in the right to offer point-to-point service, a decision that changed the competitive environment for airlines.

---

[11] Petzinger, T.1999. *The New Pioneers*. New York: Simon & Schuster.

The environment that resulted from this decision was not the environment that Southwest had challenged, but the challenge changed the industry and the nature of competition in the industry forever. Southwest Airlines and its legal/competitive environment co-evolved together. To this day Southwest Airlines relies on a simple mission of "dedication to the highest quality Customer Service delivered with a sense of warmth, friendliness, individual pride and Company Spirit."

These three fundamental characteristics of complex-adaptive systems – *self-organizing, emergent,* and *co-evolving*, – characterize an organization that looks quite different from the machine-like organization. (See Table 1) When organizations are viewed from the mechanistic view, interactions do not flow freely. Rather, they are specified through the formal structure, job descriptions, and rules. In contrast, in complex adaptive systems people are connected to one another and, through their interactions, people come to understand what's important, what needs to be done, and what things mean. In the mechanical view, rules are used to gain obedience and compliance in order to maintain control; while in complex adaptive systems, basic values and governing principles are used to form a few simple rules. These values and principles then allow people to come to know what to do, and their actions produce a coherence that makes collective action effective. In traditional mechanistic organizations, change is predicted, planned, and undertaken in an "orderly" fashion with directives from the top-down. In complex adaptive systems, rather than trying to predict change completely, change emerges from the interactions among the system's members, not randomly, but in a coherent fashion consistent with the system's identity and the environment's demands.

A mechanistic view of organizations leads to the assumption that responses to the environment should be directed from the top and should be consistent throughout a large system. Usually in these systems a complex rule set makes local adaptations to local environmental changes impossible. A complex adaptive system self-organizes such that parts of the system that need to come together in new configurations can do so in order to solve problems. Thus, in complex adaptive systems there are times when change is driven from the top and times when it emerges from somewhere else in the system. In mechanistic systems, the structure or hierarchy directs communication. In these systems, information is seen as a commodity that is used, hoarded, and carefully passed from one individual or unit to another. In complex adaptive systems, communication is an ongoing process that occurs as a function of the interconnections among people. Information is the lifeblood of the organization, which means it must flow freely to all parts of the system where it takes on meaning as different people participate in conversations about what is happening and what needs to happen. Finally, in these systems accountability is achieved through focus on the mission, values, governing principles and desired outcomes rather than on rule following. Leaders in successful organizations hold people accountable by asking – did we do the right thing (mission) in the right way (values and governing principles) to reach agreed upon goals (desired outcomes).

Table 1

Differences in Characteristics of Mechanistic and Complexity Adaptive Systems

Characteristics	**Mechanistic System**	**Complex Adaptive System**
Interactions	Specified through formal structure	Self-organizing; interactions occur as needed
Rules	Complex rule-set intended to specify behavior	A few simple rules; values and principles guide behavior
Change	Predicted, and implemented in an orderly fashion	Unpredictable; response to change emerges from interactions among people
Responses to Environment	Adaptation directed from the top; Consistent adaptation throughout the system to general environment	Adaptive behavior emerges from many places in the system. Changes in one part of the system may look different than in another part.
Communication	Directed by structure and title; information is commodity/power	Occurs as needed; information enables meaning/sustains life
Accountability	Are we following the rules correctly?	Are we true to our mission and to our values and principles; are we achieving our agreed upon desired outcomes?

Recognizing the true nature of organizations as complex adaptive systems gives rise to a strikingly different way of managing than when organizations are viewed as mechanistic systems. Management practices associated with the mechanistic system place a heavy

emphasis on compliance and obedience, often at the expense of creativity and commitment. Compliance is an expectation that accompanies elaborate rule systems. Elaborate rule systems generate elaborate compliance systems. Mechanistic organizations are "rationally" managed in order to achieve stability and order that is only achieved if all the system parts comply. In contrast, complexity science tells us that this pursuit of equilibrium actually destroys the organization's creative ability to adapt. Complexity theorists argue that energy spent pursuing compliance would better be spent on equipping people and organizations to be resilient – to solve problems as they occur. In the face of difficult events and unforeseen circumstances, what we want in an organization is resilience rather than the stability achieved through compliance. The ability to bounce back from difficulties and to turn setbacks into opportunities is what enables organizations to thrive. While the mechanistic model places enormous emphasis on planning, the complexity view suggests time is better spent learning to improvise. Planning often assumes a predictable future. When that future does not occur, the plans are irrelevant and the organization can be immobilized. Managerially, time is better spent learning to improvise, figuring how to make the best of changing conditions – being prepared to act in the face of uncertainty. The mechanistic view emphasizes the managerial behavior of control while it is cooperation that leads to success in complex adaptive systems. It is when people work together towards a common end that things happen – that collective action is transforming.

In mechanistic systems, the manager is viewed as all knowing and capable of telling others what he/she knows and what they should do. In complex adaptive systems, the manager is one of many learners. Thus, the complexity model emphasizes creating

environments where learning can take place – where respectful interaction[12] occurs such that mutual learning becomes part of the system's identity. Finally, in mechanistic systems managers are supposed to decide things and then tell others of their decisions. In complex adaptive systems it is more important for managers to help others make sense out of what's happening. When things make sense, and a collective understanding is shared, deciding is easy. An emphasis on sense-making means the organization encourages people to be mindful about what they are doing, to question what doesn't seem right, to be sensitive to operations, to rely on expertise rather than politics and power to make decisions, and to always look for an alternate explanation of phenomenon. Table 2 summarizes these managerial differences between the two organizational views.

Table 2

Differences in Managerial Behaviors in Mechanistic and Complexity Adaptive Systems

Managing in Mechanistic Systems	**Managing in Complex Adaptive Systems**
Compliance	Creativity
Stability	Resilience
Planning	Improvising
Controlling	Cooperating
Knowing	Learning
Deciding	Sense-making; mindfulness

The University of Texas System as a Complex Adaptive System

What are the implications of thinking about The University of Texas System as a complex adaptive system? First, *the U. T. System is self-organizing*. Note that this does not recommend a "free-for-all" for U. T. System components. Rather, the value system

[12] Weick, K. 1993. "The Collapse of Sensemaking in Organizations: The Mann Gulch Disaster," *Administrative*

articulated by the Board of Regents should be common reference point for component institutions that can (and will) create a variety of successful local adaptations yet retain the essential character of the U. T. System. This means that for some issues, component institutions are capable of developing solutions to local problems in a timelier and more effective way than when solutions are mandated through the Regents' Rules. Local campuses are self-organizing units where people and groups should be encouraged to interact frequently in order to make sense of what's happening and to determine appropriate courses of actions given their collective understanding of their circumstances. Similarly, there are issues where one component should be encouraged to interact with another component and develop joint programs that respond to a common need shared by the two components. These kinds of relationships should be encouraged by the values and principles of the Board of Regents, by a clear sense of what the University's identity is, and not hindered by unnecessarily complicated rules and procedures. For example, two component institutions that want to develop a joint academic program that could benefit stakeholders of both institutions should be encouraged by the Regents' Rules to work out such a program, without encountering complicating layers of system rules and procedures for doing so.

Second, *the U. T. System is emergent*. The University of Texas is made up of fifteen very different component institutions. The local environments, the stakeholders, the students for each institution are uniquely different from those at another institution. As components respond to their environments and their stakeholders, behavior will emerge which is not predictable and therefore is difficult to specify in an elaborate rule system. When behaviors emerge, the U. T. System as a whole makes a much more "complex" response to its environment than when a uniform or singular response is required of each campus.

Science Quarterly, 38, 628-652.

Encouraging interactions among components and among units within components are fundamental to such a complex response. The U. T. System, through its elaborate rules and procedures, often limits units from taking actions that could be most helpful to the component institution or the System. The U. T. System should be an enabling resource to help components become all that they can become rather than a constraint on their creativity. A simpler system that emphasizes the University's mission, values, governing principles, and desired outcomes could enable local component creativity.

Finally, *the U. T. System is co-evolving*. This means that every action the U. T. system takes and every action a component institution takes changes their environments, respectively. The result of this is that each unit then faces a new and different environment, partly changed by the change occurring in either the U. T. System or in the local component. Thus, over specified Regents' Rules are quickly out of date and insensitive to frequent environmental shifts.

Table 3

The University of Texas System
as a Complex Adaptive System

Organizational Behaviors	**Complex Adaptive Systems View**	**U. T. System Requirement**
Interactions	Self-organizing; interactions occur as needed	Component institutions are encouraged to solve problems rather than follow rules
Rules	A few simple rules	Regents' Rules emphasize the values of the U. T. System and what it means to be a part of the U. T. System and eliminates over specification of procedures and tactics.
Change	Unpredictable; response to change emerges from interactions among people	Component institutions encouraged to work with each other, with the system office, and with local stakeholders as needed to solve local problems
Responses to environment	Local adaptation to local changes in environment	Board recognizes that each component faces unique environment. Component institutions encouraged to develop creative solutions to unique component problems while retaining core U. T. System identity.
Communication	Reinforces identity, enables understanding, creates meaning	Communication enables adaptation not compliance.

Guidelines for Re-Thinking the Rules

Based on the description of the U. T. System as a complex adaptive system, the Regents' Rules should articulate those important policies that can then inform many decisions while providing local components the flexibility to develop creative solutions. As a complex adaptive system, The University of Texas System recognizes that component institutions need to be freed of as many constraints as possible in order to effectively meet

the local challenges faced by each institution. The Regents' Rules should encourage innovation and experimentation based on the System's fundamental values rather than constrain and limit behavior.

A critical question for any organization, but particularly a state-funded university, has to do with *how is accountability achieved?* In a mechanistic system, accountability usually rests with the answer to the question are we *following the rules* correctly? But often times rule following occurs, yet organizational effectiveness is still in question. Accountability is important and is only really addressed when leaders of organizations ask the question are we doing the right thing (the organizational mission) and in the right way (organizational values and governing principles) to achieve agreed upon desired outcomes (performance measures). By focusing on the mission, values, governing principles and performance measures, managers can hold others accountable rather than through a checklist of rules.

In order to simplify the U. T. System's complicated rules, the following set of questions has been developed as a guide for moving more towards a complex adaptive systems view of organizations.

1. **Does this rule establish a governing principle that could inform many decisions?**
2. **Does the rule encourage component institution solving (flexibility, self-organizing)?**
3. **Does the rule specify a law or statue?**
4. **Is the rule required for maintenance of the System's identity/integrity?**
5. **Does the rule encourage/allow for sense making at the local level?**
6. **Does this rule encourage mindfulness?**
7. **Does the rule encourage improvisation?**

III. Evidence from Comparison of The University of Texas System to Other Universities

When The University of Texas Regents' Rules are compared with a comparable policies from other universities it is immediately clear that the Regents' Rules are much more highly specified and detailed than the governing policies from other universities.

- *The Regents' Rules contain policies covering 191 different topical areas as compared to only 24 different areas at the University of Michigan, 30 at University of California and 35 at the University of Illinois.* (See Appendix A)

- *Some of the major categories covered in the Regents' Rules that are likely to be covered in other university policy manuals are:*

    - Board of Regents
    - Selection and Duties of Component Presidents
    - Composition of the System
    - Faculty Personnel
    - Classified Staff Personnel

- *Some of the major categories covered in the Regents' Rules, but either not covered or covered in much less detail in other university policy manuals are:*

    - Student Services Activities & Organizations
    - Public Sector Support
    - Use of University Facilities
    - Graduate Education
    - Accounting, Auditing, Reporting, Budget
    - Physical Properties
    - Display of Flags
    - Receipt, Custody and Disbursement of Moneys

IV. Evidence from Users of the Regents' Rules

In an organization that places heavy emphasis on rule following and has a detailed set of policies and rules it is to be expected that employees value the rules. Thus, one should be cautious in interpreting the results below. In our survey sent to approximately 300 individuals representing staff, faculty, and students, 120 responses were received. Of those 120 respondents we found that a large number of rules were valued and a substantial number of rules were frequently not used and/or not valued. These are reported in the tables below.

The respondents who reported a high value for some of the Regents' Rules, however, also frequently noted that the Rules are difficult to read, redundant, poorly organized, and contain too much operational detail. Many suggestions were made to "streamline" the rules, removing restatements of law and removing procedural statements.

The information below will assist those responsible with actually revising the Regents' Rules to target those Rules specifically in need of revision.

Little Used Regents' Rules

Sections of Regents' Rules	Percent of Respondents who never use this rule or think it should be removed
Student Attorney	76%
Housing Rates	55%
Textbooks	48%
Inventories	48%
Student Government	47%
Authority r.e. sales	44%
Graduate Education	44%
Business Participation	42%
Real Property	42%
Minimum Faculty Workload	41%
Student Organizations	38%
Bidding	38%
Student Conduct	37%
Authority r.e. Assets	37%

Most Valued Regents' Rules

Section	Percent of respondents who think rule is valuable or extremely valuable
Ethics Policy	96%
Tenure, promotion, termination	89%
Outside employment	88%
Conflicts of interest	86%
Employee evaluation policies	79%
Types of Leaves	77%
Retirement and modified service	77%
Appointment of relatives	77%
Appointments of staff & faculty	75%
Delegation of authority	74%
Acting on Behalf of the Board	71%
Process for initiating /amending policies	70%
Group Health Insurance	68%
Purchasing Ethics	68%
Travel authorization	66%
Gifts to U. T.	65%
Retirement Programs	65%
General Personnel	62%
Legal Matters	61%
Operating Budges/appropriations requests	60%
Classified Personal programs	59%
Faculty & staff organizations	59%
Rights & responsibilities of faculty	58%
Endowed academic positions	57%
Assessment, collection, waiver of tuition	56%
Institutions composing system	56%
Types of Funds	56%

V. Guidelines for Revising the Regents' Rules

1. **Does this rule establish a governing principle that could inform many decisions?**
    - Does it communicate an important governing principal or does it specify an operational detail?
    - Could the content of the rule inform other decisions or is it applicable to a narrow set of types of decisions?
    - Does it have System-wide application that is essential?

2. **Does the rule encourage component institution problem solving (flexibility, self-organizing)?**
    - Is the rule dictating policy or procedure that could better be determined by a component?
    - Is it likely that a component would have better information about the issue to which the rule is speaking?

3. **Does the rule clarify a law or statue?**
    - Does it provide an interpretation of a law or does it restate the law?
    - Does it refer to a law or does it restate the law?

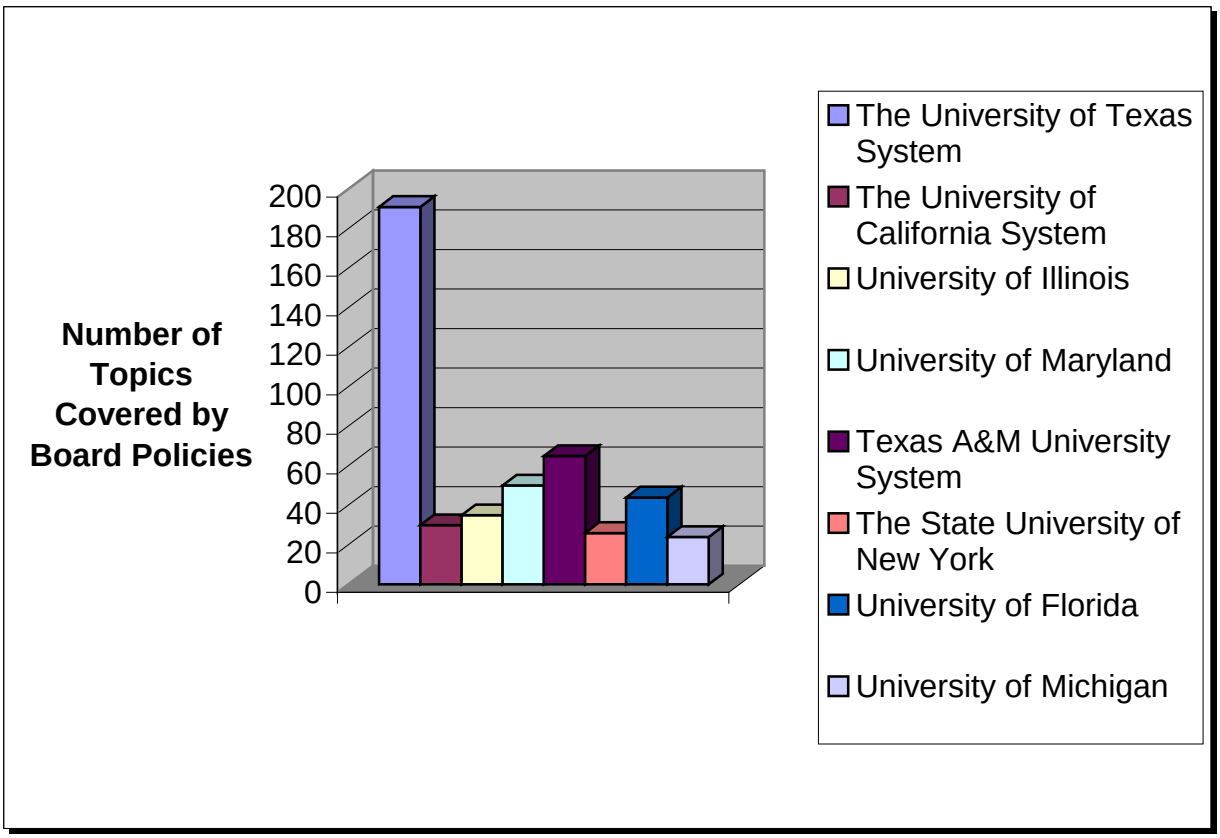
4. **Is the rule required for maintenance of the system's identity/integrity?**
    - Does it communicate the system's identity, i.e., fundamental understanding of what it means to be part of the University of Texas System or does it establish procedure?
    - Does it communicate the system's values?

5. **Does the rule encourage/allow for sense making at the local level?**
    - Does it help components make sense of their own environments rather than dictate what local environmental changes mean?
    - Does it avoid prescribing actions that may not be applicable to every component?

6. **Does this rule encourage mindfulness?**
    - Does it encourage deliberate problem solving rather than automatic rule following?
    - Does it encourage the reliance on expertise for problem solving rather than reliance on rules and procedures?

7. **Does the rule encourage improvisation?**
    - Does it encourage a component to experiment with problem solutions in an attempt to find what works best for the component?

Appendix A


Number of Topics Covered by Board Policies
200
180
160
140
120
100
80
60
40
20
0
The University of Texas System
The University of California System
University of Illinois
University of Maryland
Texas A&M University System
The State University of New York
University of Florida
University of Michigan

A Few Simple Rules Will Do: A Complexity View of The University of Texas System

Donde L. Plowman, Ph.D.
Professor of Management
The University of Texas at San Antonio

July 7, 2003

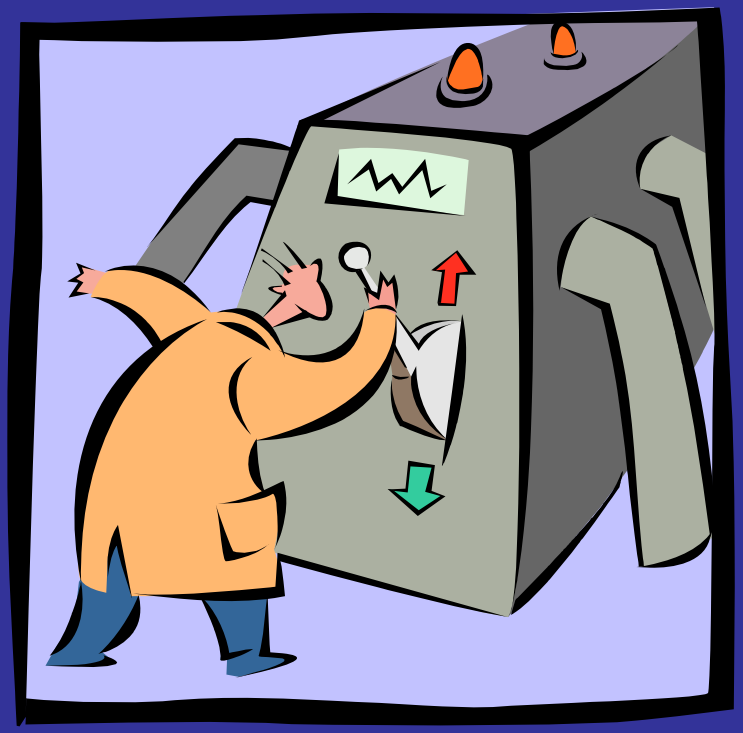
We used to think...

- We could predict what was going to happen.
- We should avoid uncertainty and surprise.
- Rules protect us from mistakes.

Now, we think...

- Prediction isn't possible.
- Planning doesn't protect us from uncertainty and surprise.
- Mindfulness minimizes mistakes.

Organizations as Mechanical Systems



- “Known” properties
- Deterministic
- Cause and effect can be known
- Rigid rule systems

Defense against unknowability

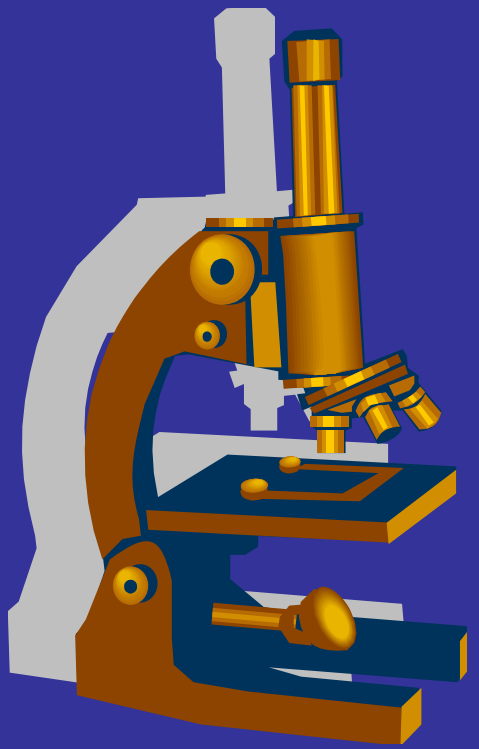
Complex Adaptive Systems

- They self-organize.
- They are emergent.
- They co-evolve.

Southwest Airlines, VISA, 3M, Half-Price Books, Microsoft...

Universities as Complex Adaptive Systems

- Doubt
- Discovery
- Disconfirming questions



Characteristics	Mechanistic	Complex Adaptive
Interactions	Specified by structure	Self-organizing
Rules	Complex set	Few, simple; guided by values
Change	Planned, orderly	Emergent
Environmental Response	Top-down	Emergent from many parts
Communication	Information is commodity	Enables meaning
Accountability	Following the rules	True to mission, values, desired outputs

Focus Less on Rules and More on Accountability

- Are we doing the right thing?

mission

desired outputs

- Are we doing it the right way?

values

Simpler Rule System

- **Encourages *mindfulness***
- **Encourages *sense-making***
- **Encourages *problem solving***
- **Minimizes *blind rule following***

U. T. as a Complex Adaptive System

Interactions	**Campuses encouraged to solve problems**
Rules	**Regents' Rules emphasize values & identity and eliminate overspecificity.**
Change	**Components encouraged to work together**

U. T. as a Complex Adaptive System

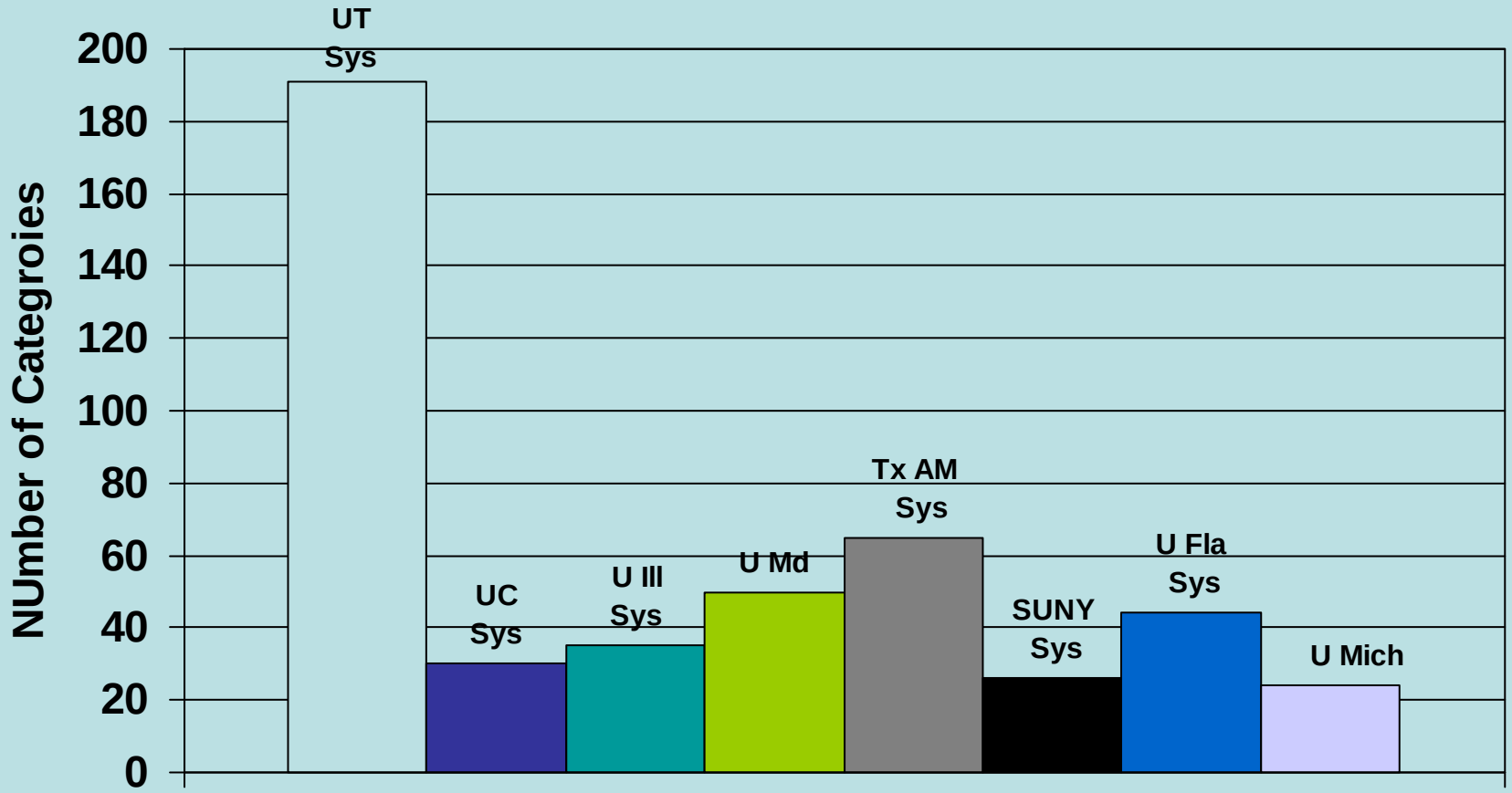
Responses to environment	**Components develop creative solutions while retaining core U. T. identity.**
Communication	**Enables adaptation not compliance**
Accountability	**Are components achieving their goals vs. following the rules?**

Rethinking the Regents' Rules

- **Establish a principle?**
- **Encourage component problem solving?**
- **Specify a law?**
- **Required for maintenance of the System's identity/integrity?**
- **Encourage/allow for sense-making at the local level?**
- **Encourage mindfulness?**
- **Encourage improvisation?**

Appendix 1

Number of Subjects Covered in Governing Rules



C. RECESS TO EXECUTIVE SESSION (TEXAS GOVERNMENT CODE, CHAPTER 551)

1. Consultation with Attorney Regarding Legal Matters or Pending and/or Contemplated Litigation or Settlement Offers - Section 551.071

a. Discussion of Supreme Court decision, if issued, concerning University of Michigan Affirmative Action Case (Vice Chancellor Godfrey and Professor Laycock)

b. U. T. Health Science Center - San Antonio: Proposed Settlement of Medical Liability Litigation

c. U. T. M. D. Anderson Cancer Center: Proposed Settlement of Claim for Pharmacy Losses

d. U. T. Health Science Center - Houston: Proposed Settlement of Claim for Tropical Storm Allison Damages

2. Deliberations Regarding the Purchase, Exchange, Lease or Value of Real Property - Section 551.072

U. T. Austin: Approval of Proposed Ground Lease (PRC MoPac Tract)

3. Personnel Matters Relating to Appointment, Employment, Evaluation, Assignment, Duties, Discipline, or Dismissal of Officers or Employees - Section 551.074

U. T. Austin: Consideration of Recommendation of Hearing Tribunal Regarding Termination of Faculty Member

D. RECONVENE IN OPEN SESSION TO CONSIDER ACTION ON EXECUTIVE SESSION ITEMS (ITEM C)

E. RECESS TO EXECUTIVE SESSION (TEXAS GOVERNMENT CODE, CHAPTER 551)

Personnel Matters Relating to Appointment, Employment, Evaluation, Assignment, Duties, Discipline, or Dismissal of Officers or Employees - Section 551.074

a. U. T. Arlington: Consideration of Personnel Matters Relating to Presidential Search

b. U. T. System: Consideration of Personnel Matters Relating to Appointment, Employment, Evaluation, Assignment and Duties of Officers or Employees

c. U. T. System: Consideration of Personnel Matters Relating to Evaluation of Presidents and U. T. System Executive Officers

F. RECONVENE IN OPEN SESSION TO ADJOURN