ABSTRACT
              This document conceptualizes the university as a
living social system with technical, managerial, service, and
institutional subsystems that have specialized goals. The document
discusses models of university compliance systems--the compliance of
university participants in different models such as formal,
semiformal, and informal. In developing these models, the report
makes observations about the organization and administration of a
complex university and about the orientation of university
participants. The compliance subsystems developed provide a framework
for understanding and predicting the behavior of university
participants and for achieving an overall view of the institution
while focusing on a single area or segment. (Author/JF)

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A SYSTEMS APPROACH TO
UNIVERSITY ORGANIZATION

by
John Andes

Institute of Higher Education
University of Florida
Gainesville, Florida

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FOREWORD

The administration of universities offers a fertile
field for research. Universities have grown in complexity
within recent decades. University administrators have
found increasing difficulties in understanding and grap-
pling with tumultuous behavioral problems within the past
decade. Consequently, there is much need for research
efforts designed to help university administrators under-
stand and conceptualize their leadership roles. The re-
search described by Professor John Andes herein was aimed
at conceptualizing the dynamics of university administra-
tion.

Professor Andes work is of a theoretical nature.
Concepts from general systems and compliance theories
were employed in conceptualizing the behavioral dynamics
within the organization of the university. The results
of four empirically oriented studies of university adminis-
tration were also employed in the process of describing
the university as a social system. The result was a very
useful description of the internal compliance system of
complex organizations.

The study results should be of much interest to university administrators and professors of higher education administration. The findings give practicing administrators a framework for understanding the university as a social system. Thus they can approach their tasks from a conceptual perspective as opposed to a hit-or-miss, trial-and-error view. Approaching his task from this theoretical view, the practicing administrator will be able to improve upon and provide new knowledge which was not available in Dr. Andes' seminal study. Finally, the series of untested observations provided by Dr. Andes should be of much value in generating further research by professors of higher education administration.

Ralph B. Kimbrough, Chairman
Department of Educational Administration
College of Education

CHAPTER I

Introduction

Higher education in the United States has undergone rapid growth during the past thirty years. Enrollments have almost tripled, institutions are being founded at the rate of one a week, and the size and complexity of these institutions has increased even more. This rapid growth has created a need for new administrators and faculty members that the universities were not prepared to supply. As a result, many administrators were selected from business, politics, and the military, often without regard for their academic interest or knowledge. They brought their varied backgrounds to the campus where they usually began to manage the university using their previous non-academic experiences as a base for their approach.

These pressures of growth are felt most at the large public multi-purpose universities, some of which have grown to over 45,000 students. Due to a shortage of qualified faculty too large a portion of the undergraduate education at such institutions is being carried on by graduate students, rather than by experienced professors.

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Faculty and student militancy has increased significantly within the past decade. During the 50's frequently called the generation of apathy, students came to college, were exposed to an educational program and left. The decade of the 60's has seen a different student body; one that is concerned about and desires to be involved in social, moral, political issues of the times, and another group that shows a withdrawal. Members of the faculty have begun to demand a voice in the process of decision making and many institutions have been forced, or have willingly made significant changes in this direction. This demand for faculty and student participation has created additional problems for administrators who have little experience or preparation in cooperative decision making. (18)

In addition to the faculty and student pressures upon the university administration, various segments of the external environment of the university look to it to fulfill their expectations and to develop the resources in their area. One segment of society expects the university to pass on a cultural heritage, values, knowledge and skills; while another segment expects the university

to be oriented in the future, and to develop inquiring
citizens; and yet another segment cares little about
the university and ignores it, except in a crisis
situation when they see the university as an important
instrument of society. State legislatures have been
confronted with pressure for more funds from the univer-
sities, while the voters have pressured for lower taxes.
The federal government has continued its long interest
in higher education which began, at least, with the
Morrill Act of 1860, and within the past decade has
made billions of dollars available to universities for
students, faculty, research, libraries, buildings and
teacher education. These financial resources and
pressures have created additional problems for adminis-
trators.

Administrative structures in most universities
have developed by adding squares on organizational charts
as the institution grew in size and complexity. Often
these additions were made on the basis of personality
and friendships, rather than in a logical and systematic
manner. At the same time, there has been a pressure for
the university to adopt more business practices and

methods, and this is seen in the development of program

planning budgeting systems (PPBS) for education. Until

1960, most of the research in university administration

had focused on identification and analysis of the formal

aspects of the institution, often omitting the educational

nature and function of the university (10). Recent re-

search has tended to concentrate on the process of decision

making, informal grouping, role perception and interaction.

Like the earlier studies, however, these have too often

focused on segments of the university.

Specialization, technology, size and the knowledge

explosion have also tended to fragment the university.

Administrators, faculty and students tend to focus not

on the university and its goals, but upon their depart-

ment and interest, as Cook's (7) study has shown. This

fragmentation carries the seeds of conflict and confusion

which could prevent the accomplishment of the university

goals.

There needs to be developed a method of analysis

of the university organization which will enable the

administrator, the faculty member and the student to

keep the university as a whole with its goals and

objectives, and the colleges with their goals and objectives, and the departments with their goals and objectives, as well as the classes, and faculty and students, all within a perspective. This perspective should also offer an approach for depth analysis as well as the comprehensive conceptualizations. General systems theory provides a framework for this organizational analysis. In order to help the reader understand the definitions, procedures and problems of the study, a brief description of systems theory is included at this point.

A system is a complex of elements in interaction (13) and it is possible to conceptualize all forms of animate and inanimate matter as systems (16). Systems are either living or dead, and open (living) systems have varying degrees of openness in the exchange of energy, matter and information with the environment which surrounds the systems. All systems except the smallest have components which are called subsystems, and all except the largest are components of larger systems which are called suprasystems. Open systems tend to maintain themselves in a steady state, or dynamic equilibrium of adjusting to their environment and sub and suprasystems. Systems that

are more closed have greater amounts of entropy which
is a tendency to homogeneity or stationary equilibrium
(16). Social systems have norms and values which give
cohesion to the system and to the participants within
the system. These systems also have integrative agencies
which unite the subsystems into a meaningful whole.
Systems also attempt to maintain themselves through a
process called feedback (3), where the system adjusts
to inputs of energy, information and matter from the
environment, suprasystem and subsystems, and where the
product is changed in regard to this feedback (30).

In a similar manner, it is necessary to analyze
the orientation of individual faculty members, adminis-
trators and students for their behavior and attitudes
are the result not only of their system setting, but
are equally the result of internal orientations which
they have developed through the process of growing and
living. This is a second focus of this study.

Chapter II will contain a brief review of the lit-
erature and research related to organizational theory,
and especially to higher education administration. In
Chapter III, the university is described as a living

social system with its multiple components. The fourth

Chapter will indicate the internal and social orienta-

tion of university participants. In Chapter V a typology

of university compliance systems will be developed.

Chapter VI will contain a summary, with suggestions for

further study, and a series of observations.

CHAPTER II

Administrative Theory and Research

Literature on research and research on organizational theory and analysis is reviewed as it relates to the university and to the orientation of participants within the university. The traditional approach to administration, that of Max Weber and the bureaucratic system, offers insights into the structure of the university as it has developed and is discussed first. The emerging approach to administration is considered next, as it provides an understanding of the interaction of the individual and the group within the university. Research on university administration, that focuses on more than a small segment of the university, is rare, but several studies are discussed.

Traditional or Closed System Theory of Administration

The traditional or closed system approach to administration sees the organization as a closed unit, or at least that the external forces acting upon it are predictable. Followers of this theory see the organization

as rational, and focus upon organizational design for efficiency. Four men form the central core of this school of administration: Weber, Taylor, Gulick, and Urwick.

Frederick Taylor (42) is known as the "father of scientific management." In organizations seeking economic efficiency, human beings were considered as inanimate parts of the organization to be manipulated for the benefit of the organization. He assumes that the goals were known, tasks were repetitive, output of the production process somehow disappears and resources in uniform quality were available. Taylor did realize that the needs of the worker were important. He would meet their needs by increasing wages, which would reward employees, in order to increase efficiency and production. He developed a concept of time study and task specialization which would increase efficiency.

Gulick and Urwick focused on administrative management which viewed economic efficiency as the criteria of an organization. Structural relationships among production, personnel, supply, and service units of the organization were seen as the means of achieving the goal

criteria. Coordination through organization was their
key concept. An effective network of communication and
control must be developed and the problems must be
approached from both top and bottom of the organizational
chart. They saw the span of control as limited by time,
knowledge, and energy which restricts the number of per-
sons one superordinate can supervise. Urwick (14)
described the work of the chief executive in terms of
his activities: planning, organizing, staffing, directing,
coordinating, reporting and budgeting.

Max Weber (44) used many of the same concepts in
order to improve organizational structure. He assumed
the goals were fixed, and tried to depersonalize and
categorize clients and to separate organizational and
private life of employees. His monocratic - bureaucratic
model has five characteristics, that is; (1) the regular
activities required for the purposes of the organization
are distributed in fixed ways as official duties; (2) the
positions in an organization are arranged on the principle
of office hierarchy and of levels of graded authority;
(3) the management of activities is controlled by general
rules which are more or less stable; (4) bureaucracy

develops the more perfectly the more completely it
succeeds in eliminating from official business love,
hate, and all purely personal, irrational, and emotional
elements; (5) employment in a bureaucracy is based upon
technical competence and constitutes a career (44:42-43).

Weber's model was capable of attaining the highest
degree of efficiency and was the most natural. It
provided for predictability and for a wide scope of
operation with specialization and departmentalization.
Technical experts would staff the decision making
process. Weber, Taylor, Gulick and Urwick have had a
profound influence on the structure and organizational
patterns of our universities (20,24,41,47). Their con-
cepts are found in every institution.

Emerging or Open System Theory of Administration

The emerging or open system theory is also called
collegial-pluralistic concept and places a greater
emphasis on the horizontal and informal levels than
does the monocratic-bureaucratic model. It is more a
collection of concepts from many authors and sources
than a unified theory. These authors have a common

orientation in the assumption that the organization is
a living system composed of human components with a com-
plex of variables that are beyond human comprehension
and control (33,39,45).

One of the first developments of this view came
from the Western Electric Studies (22,23). This was
a five-year study which originally was undertaken to
study the effect of conditions of work, fatigue, and
monotony on production. The study was conducted using
small groups and unexpected results occurred in three
of the studies. The unexplained effect came to be called
the "Hawthorne effect" which consisted of three elements:
the attention of management, improved human relations,
and the identification of informal organizations (4).

William Whyte (45) in a three-year study of a
street corner gang analyzed the interactional patterns
of the small group. George Homans (19) systematized
a framework for small group analysis in which he focused
on the internal system of the group, but gave emphasis
to the environment and its effects on the behavior of
the group. The environment has technical, physical, and
social areas. He identified three elements of behavior:

activity, interaction, and sentiment (19).

Chester Barnard used the informal group concepts in his theory. He divided his theory into two parts: (1) the functions and methods of the executive; and (2) the theory of organization and administration. He described a successful organization as meeting two conditions--effectiveness and efficiency.

Jacob Getzels (15) developed a model which expresses these two goals:

NOMOTHETIC DIMENSION

Institution ___ Role ___ Expectation

Social System

Observed Behavior

Individual ___ Personality ___ Need-Disposition

IDEOGKAPHIC DIMENSION
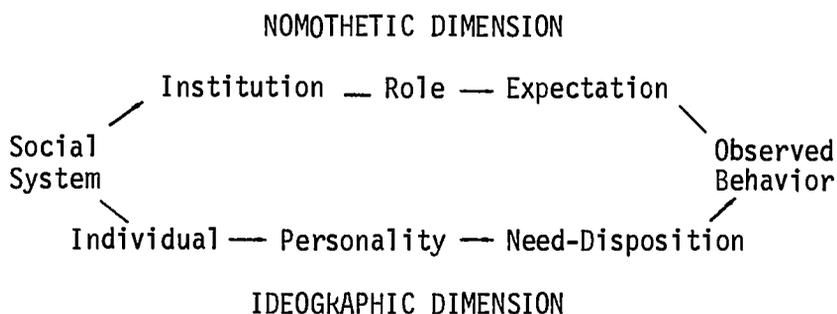
Figure 1. -- Getzel's Model (15:156).

In describing his model he said social behavior is the result of the two dimensions and the closer they are together the more efficient and effective the organization.

Barnard (1) listed incentives that organizations may use to appeal to the employee to induce him to accept the organizational values, and he discussed the symbols of

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status that organizations have developed.

According to Philip Selznick (4), latent structures (informal groups) tend to develop because individuals within the system tend to resist being treated as means. They interact as wholes, focusing on their own special problems and purposes. Selznick developed the concept of "coopting" to describe the process of absorbing new elements into the leadership of policy-determining structure of an organization as a means of averting threats to its stability or its existence (42:35). This has the tendency to lessen the threats from informal or latent structures and to provide a source of leaders who have begun the internalization of the organizational values.

Blau and Scott developed a typology of organizations based on the prime beneficiary: as mutual benefit, business concerns, service organizations, and commonwealth organizations (4:43). They see the university as a service organization where the students are the prime beneficiaries and the chief administrative problem is the conflict between the professional service to the students and the administrative procedures. They hypothesized that a superior cannot identify equally

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with his superordinate and the subordinate and therefore one is slighted. This results in what they call "the alternate connection systems" which leads to a weakness in control and coordination.

Victor Thompson sees the most symptomatic characteristic of modern bureaucracy as the growing imbalance between ability and authority (43:6). He proposed that the bureaucratic structure should be loosened to facilitate innovation and change. The superordinate role is characterized by rights and powers while the subordinate role is characterized by duties. Thompson emphasizes the two dimensions of Getzel's model, and he describes modern management as combining the group-identification approach and that of the individual.

James March, Herbert Simon, (26) and Richard Cyert represent a stream of administrative theory that is built on the work of Chester Barnard, and which focuses on problem facing, problem solving, and the organizational processes related to courses of action (42). Due to their great complexity, modern organizations must develop processes for deciding within the limits of bounded rationality. Therefore the criterion for decisions is

satisficing rather than efficiency (38). This process
of satisficing includes the organization's environment
and its interaction with the environment. March asserts
that organizational goals are established through coali-
tion behavior.

A different typology of organization was developed
by Talcott Parsons (34) which is based on the functional
orientation of an organization and includes the following
four types: (1) Economic production; (2) Political goals:
(3) Integrative; and (4) Pattern maintenance. He sees
the university as a pattern maintenance organization
with the dual goals of socialization and creative modi-
fication of the cultural tradition through research.
In determining organizational subsystems he sees three:
institutional, managerial, and technical (34:20). He
sees the value pattern or orientation of an organization
as the reference for analyzing the social structure. The
function of the value system is to legitimize the organi-
zation's goals, but it is only through power that its
achievement can be made effective. For Parsons, the con-
cept of the role is more significant than that of the
person (34:23).

Compliance is the key concept in Amitai Etzioni's classification of organization. Compliance is a relationship consisting of the power employed by superiors to control subordinates and the orientation of the subordinate to this power. There are three sources of power or control: (1) coercive (the application of or threat of application of physical sanctions); (2) remunerative (the control of material resources and rewards); and (3) normative (the allocation and manipulation of symbolic rewards and deprivations through the employment of leaders, manipulation of mass media, allocation of esteem and prestige symbols, administration of ritual, and the influence over the distribution of acceptance and positive response) (11:5).

Etzioni subdivides normative power into: (1) pure normative power (manipulation of esteem, prestige, and ritualistic symbols), and (2) social power (allocation and manipulation of acceptance and positive response). An organization will tend to rely more on one of these types of power than on others, because they tend to neutralize each other when used in combination.

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Etzioni developed two typologies:

TYPOLOGY OF POWER AND INVOLVEMENT

Kinds of Power	Kinds of Involvement		
	Alienative	Calculative	Moral
Coercive	1	2	3
Remunerative	4	5	6
Normative	7	8	9

TYPOLOGY OF GOALS AND COMPLIANCE

Kinds of Compliance	Kinds of Goals		
	Order	Economic	Culture
Coercive	1	2	3
Utilitarian	4	5	6
Normative	7	8	9

Types 1, 5, and 9 are found more often and he terms these three as congruent relationships because the kind of involvement tends to be the result of the dominant power type, and the kind of goal tends to be congruent with the kind of compliance. Etzioni sees the university as a Type 9; that is, it is normative power with moral involvement producing normative compliance and cultural goals. The use of other types of power or other types of goals will produce dysfunction within the university, and will result in loss of efficiency and effectiveness.

Etzioni sees the university as a normative organi-
zation which also has a service structure which is run
by the administration and is a utilitarian system. This
system is connected to the university at the upper level
to keep the dysfunction between types of power and goals
limited.

Compliance in educational organizations is based
primarily on the internalization of norms which accepts
directives as legitimate, and coercion in such an organi-
zation has been a secondary source of compliance. In
recent years remuneration has increased as a type of
power, and its affect has increased so that it is now
the secondary source of compliance. Some hypothesize
that it is the first.

Etzioni develops the concept of charisma as func-
tional in organizations and sees it as functional in a
university in the faculty ranks.

Research on University Administration

James Doi has observed that prior to 1960, research
on university organization and administration was almost
wholly concerned with the identification and analysis

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of the formal structural aspects of institutions (10:347).

The research focused on organizational charts, line and

staff relationships, lines of communication, duties and

responsibilities of administrators, policies, and prac-

tices. These studies were descriptive surveys of formal

organizational arrangements, and, in most cases, the

basic assumption was that the title and list of duties

accurately described what a university officer did. In

this sense they were often misleading, and even false.

Since 1960 a new trend in research has developed

which, according to Doi, has the following characteristics:

1. Interest in the applicability of theories
   of formal organization to higher education
   institutions and in the development of a
   theory of college organization.

2. Interest in both the formal and informal
   aspects of college organization.

3. Interest in the application of communication
   and decision-making theories and models to
   the governing of college and universities.

4. Accelerated diffusion of the terminology
   and frames of reference of psychology,
   sociology, political science, public adminis-
   tration, and business administration to
   include higher education (10:348).

Thus the descriptive survey has been replaced with the

use of theory as a research base from which the researcher

works. ·Nevertheless, these studies have focused on narrowly defined areas and have contributed little to an understanding of the university as a whole.

The rising tide of faculty and student militancy has resulted in many research studies. Lipset (25), Carr (5), Joyal (21), all have done studies in this area, but have focused on narrow segments of the total problem. An examination of the research on leadership by Myers (32) which demonstrated that the social system of an organization is crucial in developing and in exercising leadership, and that leadership exists in groups, is a group role, makes even more important the realization of a systems approach to administration.

McCoy (31) and Cook (7) in their study of the administration and faculty of a large multi-purpose university found: that the faculty was almost entirely excluded from the decision-making process; there was a tremendous lack of clarity; that most faculty members expect little change and; little participation in decision-making. Lane (23), Clark (6), Mooney (29), Millet (28), and Wilson (46) discussed aspects of the university primarily in the area of internal organization

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and decision-making, and saw the need for less of an
arbitrary approach, and for more participation in
decision-making by faculties.

Dannison (8) studied how the formal expression
of the faculty might contribute to the development of
sound organizational principles. Dibden (9) argues
for stronger participation of the faculty, while
Hickman(17), however, argues that too much sharing of
authority for decision-making by the faculty would be
unwise in view of the growing inexperience and trans-
iency of college faculties. Presthus (37) offers the
opinion that the administration of universities is
overbearing and that the faculty should be granted
greater autonomy. Strong (40) suggests a shared re-
sponsibility for decision-making between the faculty
and administration will produce the best results.

Summary

The traditional or closed state of administration
with its emphasis on organizational tables, rationality,
and efficiency represents the organizational pattern
and practices of many university administrators.

Unfortunately this concept fails to sufficiently meet the needs of students and faculty members.

The emerging or open systems theory of administration provides many concepts that provide for the needs of students and faculty as well as the distinctive purposes of the university. The focus on small group interaction and on the decision making process give insight into the activity of the university. The combination of several of the ideas in this theory should be most productive.

Research on administration in higher education provides a few insights into the organization and administration of the university as a whole. The need to develop a simple, comprehensive, and conceptual framework for analyzing and understanding a university is all the more evident.

CHAPTER III

A Conceptualization of Universities
as Living Social Systems

The rapid expansion of universities in enrollment
and in complexity of internal organization presents
serious problems to university administrators, faculty
and students. These expansions have tended to result
in disunity within the university, the student body and
the faculty. This disunity has been widened by the
increasing specialization and militancy of faculty and
students. If the universities are to survive and
function effectively, some way must be found for uni-
versity participants to understand these problems and
to devise means of integrating the university. Most
of the research on universities isolates one factor
or variable and studies the problem in detail with
little conceptualization of its relation to the univer-
sity as a whole. This isolation of factors only adds
to the problem. Systems theory provides a conceptual
approach integrating the many elements of an organiza-
tion. This article will use social systems theory as

an analytic tool to conceptually integrate the university while maintaining the integrity of the many subsystems.

Parsons defines a social system as a system of action and interaction between two or more actors. (35) In a university the interaction is between the participants who comprise the university and is found both in the learning process and in formal and informal interaction of the participants of the university. These are more manifest in the subsystem. The university exchanges energy and information with its environment. The environment is everything outside of the university boundary. Some of the inputs from the environment come from state government, community, research groups, foundations, organized pressure groups, accreditation agencies, professional organizations and associations, public, and new faculty, administrators, students and service personnel. Some of the outputs are: graduates, dropouts, research results, information and services, and public perceptions of the university based on news media.

Living systems may be classified along a continuum

from open to closed on the basis of the amount and
quality of the inputs and outputs exchanged with the
environment. Figure 2 illustrates that entropy and
inputs have negative correlation.

←— Increase	Entropy	Decrease —→
←— Decrease	Inputs	Increase —→

Closed   Open
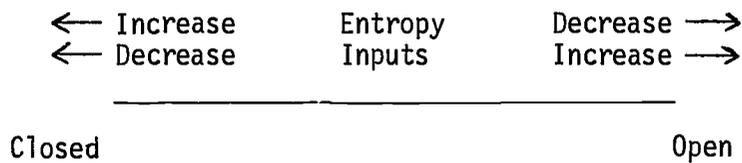
FIGURE 2. LIVING SYSTEMS

No university (living system) is completely open,
(this would destroy the boundary and cause death) or
completely closed for this would also cause death.

As the university receives inputs from its environ-
ment and adjusts to them, it moves to a new steady state.
This is called dynamic equilibrium in contrast to the
resulting stationary equilibrium of a more closed system.
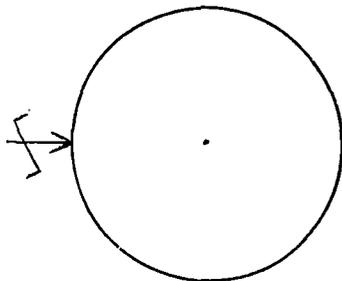

FIGURE 3. STATIONARY   FIGURE 4. DYNAMIC
           EQUILIBRIUM   EQUILIBRIUM
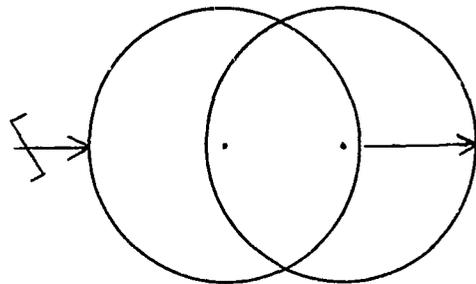
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Figure 3 illustrates a university that resists
inputs from its environment and filters out the inputs
in order to maintain its current (stationary) equili-
brium. No university would be able to filter all
inputs, but is closed to some of them. Figure 4 illus-
trates a university that filters out less of the inputs
and adjusts to them by moving to a new position. This
process is called dynamic equilibrium. An open univer-
sity system would also resist disruptive influences
but would adjust and move to position B (Figure 3).

Bertalanffy (3) has designed a model to describe
this process. This is graphically illustrated in
Figure 5.

stimulus   message   message   response

→ [receptor] ⇒ [control apparatus] → [effector] ——→
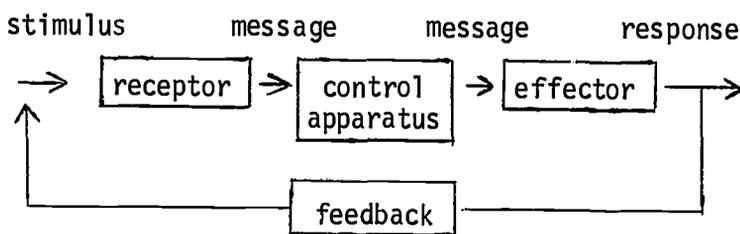
   [feedback]

FIGURE 5. BERTALANFFY FEEDBACK MODEL

The receptor, control apparatus and effector are parts
of the open social system. The stimulus is the inputs
and the response is the outputs. An open university
system monitors the environment's reaction to its

outputs and makes adjustments in response to the feed-
back. The more closed a university system is, the
more it filters out the feedback in an effort not to
be disturbed. This is an example of the increase of
entropy in a closed system. Robert Chin (2) has
theorized that a system reacts in one of three ways
to input and/or feedback from its environment:

(1) resisting the influence of the disturbance;

(2) by resisting the disturbance through
    bringing into operation the homeostatic
    forces that restore or recreate a
    balance...;

(3) by accommodating the disturbance through
    achieving a new equilibrium (2:201-214).

A university will choose one or more of these courses
of action depending upon the extent of openness or
closedness. Within recent years the environment is
sending more inputs and feedback to the university.
If a university is to function and survive it must
anticipate these signals and plan to deal with them.
These signals have a tendency to increase in size and
intensity when ignored and this may cause an over-
compensation response which could endanger the univer-
sity. This means the university should be capable

of effective self-regulation and able to move to a
new steady state.

The principle of equifinality is applicable to
universities. Equifinality means that "the final state
may be reached from different initial conditions and
in different ways" (3:4). Universities seek to have
an output of educated graduates who are able to perform
effectively and efficiently in a modern cultural system.
They accomplish this with inputs of students from many
backgrounds and with wide ranges of abilities and talents.
Not all students respond to the same methods or the
same teachers but the university seeks to use all possi-
bilities to attain its objectives and to develop the
students.

All systems, except the smallest and the largest,
have subsystems and are part of a suprasystem. Each
subsystem has its function or functions to perform, and
it does so in relation to all of the others, so that
all the parts of the social system work together with
a sufficient degree of harmony or internal consistency.
(14:46). This dynamic interaction between subsystems
is one of the means the system uses to maintain its

dynamic equilibrium.

The university is part of the educational suprasys-
tem within the state and nation. The university inter-
acts with the other systems within these suprasystems.
From them the university receives direction, information,
material, resources, finances, values, and the other
functional necessities. The university must meet the
needs of the suprasystems if it is to function effectively.

The university system is composed of many components
or subsystems. Parsons groups subsystems by function or
responsibility into three groups or levels:

1. The institutional or community subsystem
   which legitimizes the system through
   creating agencies of control.
2. The managerial subsystem which controls
   and services.
3. The technical subsystem which performs
   the functions of the system (34, 35).

The institutional, managerial and technical subsystems
are illustrated in the following figure:
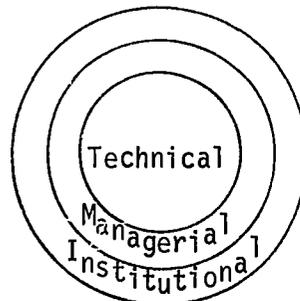
FIGURE 6.   PARSONS TYPOLOGY OF SUBSYSTEMS

The technical system is protected from the environment by the managerial and institutional subsystems, so that it can perform the functions of the system. The managerial mediates between the technical and institution while the institution mediates between the system and the environment.

University Social Systems

The subsystems that exist within the university are represented in Figure 7:
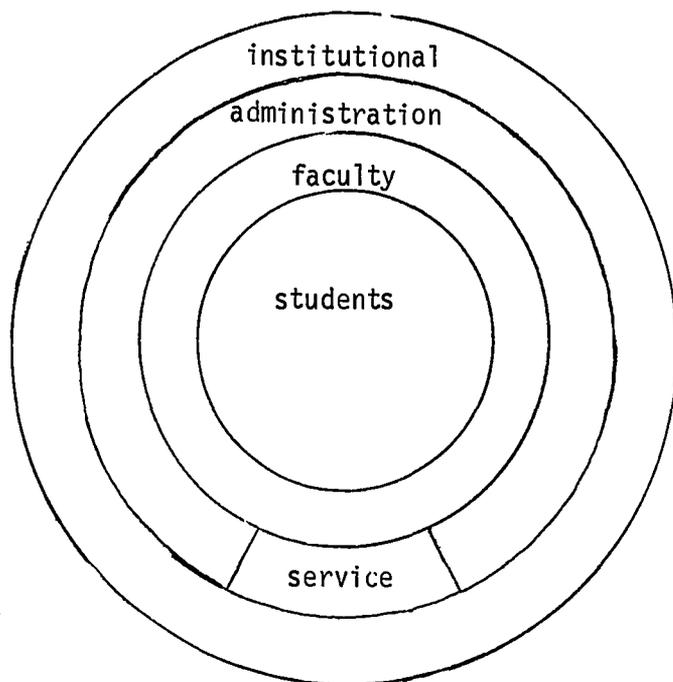

FIGURE 7. UNIVERSITY SUBSYSTEMS

The institutional system forms the outer segment of
the university system through which the legal control
mechanisms (trustees or board of regents or control) of
the university function. The managerial system can be
divided into two subsystems within the university:
administrative and service. The administrative sub-
system includes the president, vice president(s),
deans, business managers and other administrative
personnel who mediate between the university and its
environment and administers the internal affairs of
the university. The managerial subsystem also mediates
between the faculty and students and is responsible,
along with the institutional subsystem, for providing
the resources needed by the technical subsystem. The
service subsystem includes housing, police, food ser-
vices, plant and grounds, and the other sections that
provide the facilities and equipment for the technical
subsystems. The technical subsystem is responsible
for the goal achievement. In the university this
would include the functions of teaching, service and
research. The technical subsystem includes the faculty
and student subsystem. These subsystems are separated

by function but are integrated in several ways.

The major integrative subsystems are graphically shown in Figure 8:
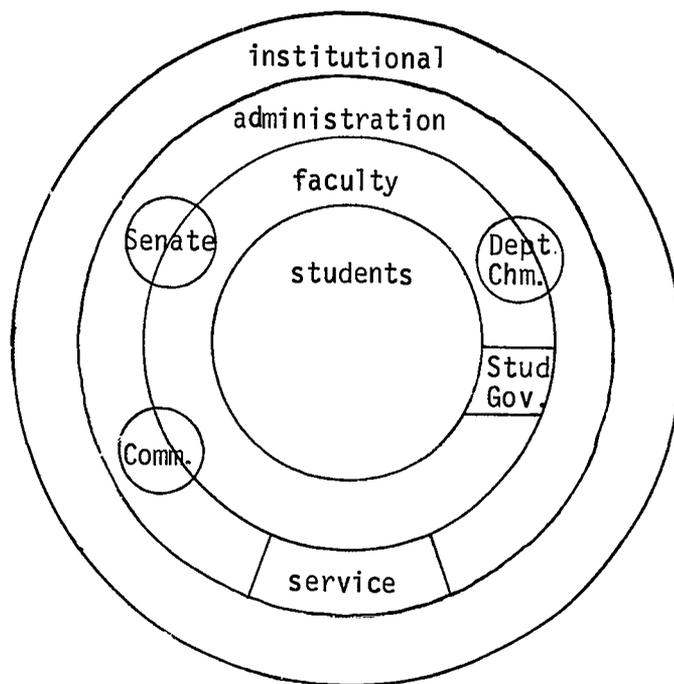

FIGURE 8.   INTEGRATIVE SYBSYSTEMS

Department chairmen, the senate and university committees cross the boundaries between the subsystems and are subsystems themselves. They serve to bridge the boundaries between the faculty and the administration. Student government serves the same function between students and administration, though to a lesser extent.

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A second method of integration is provided by
the two-way channels of communication between the
administrative and the technical subsystems. The
administration may present policies and procedures to
the faculty, but the faculty also present their own
needs and abilities which limit the alternatives
open to the administration. Furthermore, the fact
that faculty are specialists within certain areas
and have more professional competence in these areas
than most administrators serves to increase the adminis-
trators dependence upon the faculty. Also, to the
extent that tenure protects faculty from undue adminis-
trative pressure, it helps insure that the interaction
between systems will be a two-way process.

The third integrative factor is found in the
overlapping of the technical subsystem with other
subsystems of the same level. A university is divided
into colleges and schools on the technical level. The
colleges and schools are shown in Figure 9 as over-
lapping the faculty and student subsystems.
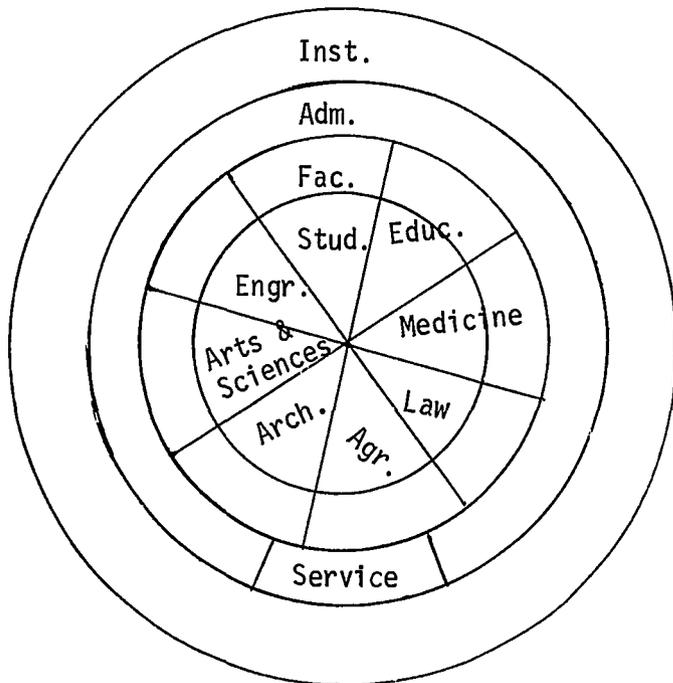
FIGURE 9.   UNIVERSITY TECHNICAL SUBSYSTEMS
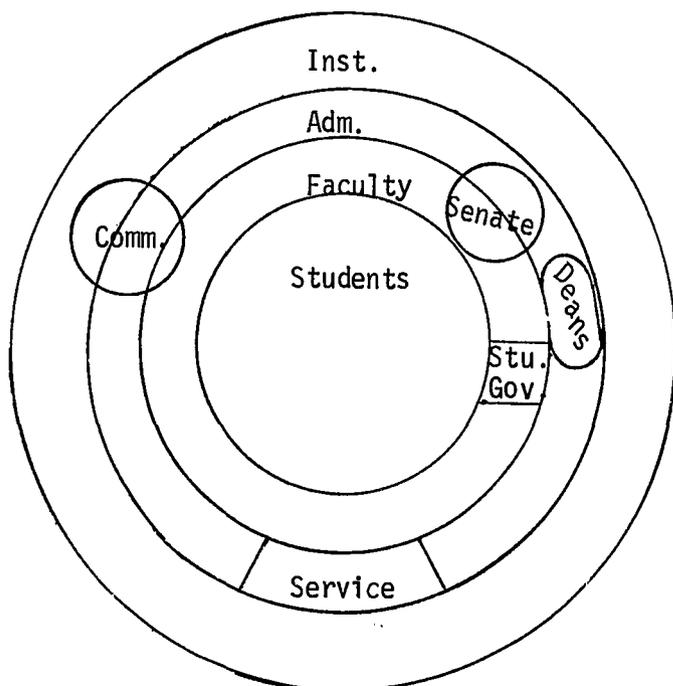
FIGURE 10.   COLLEGE INTEGRATIVE SUBSYSTEMS

In Figure 10 each college is described as a system itself with the university administration being its institutional suprasystem, the college dean and his staff represent the administration subsystems and the library and other services comprising the service subsystem. The factors used to describe the interaction and relation of the university subsystems are equally as valid in college subsystems. These college systems have undergraduate and graduate committees which serve to tie the technical and administrative subsystems together. The major student vertical subsystems are shown in Figure 11 and the student technical subsystems are shown in Figure 12.
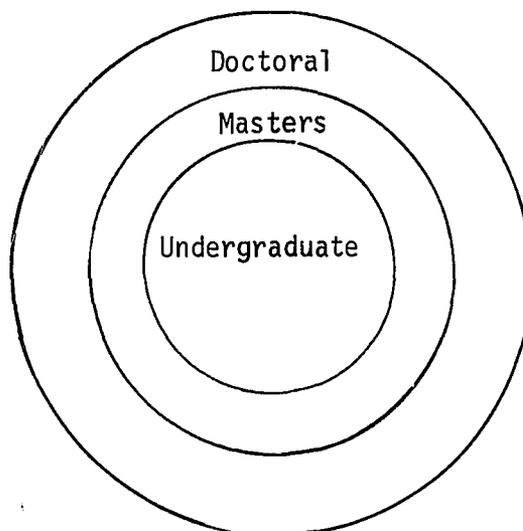
FIGURE 11. STUDENT SUBSYSTEMS
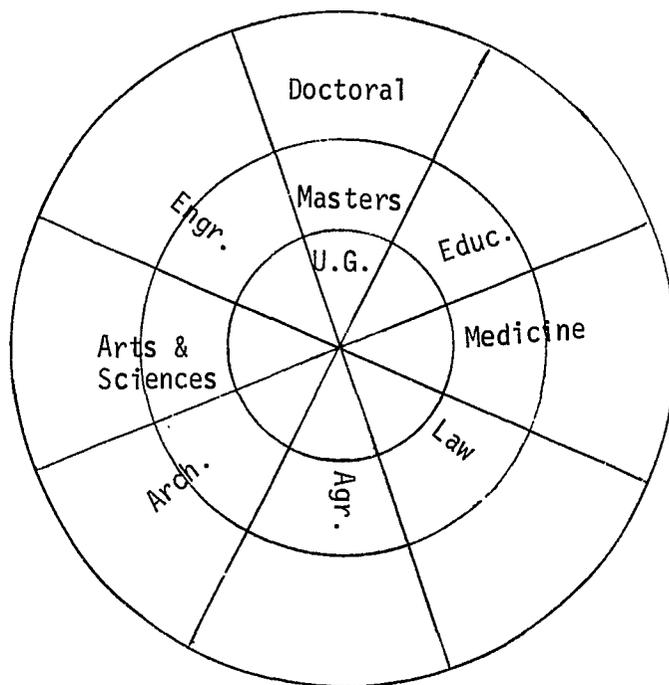
FIGURE 12.   STUDENT COLLEGE SUBSYSTEMS

The students comprise a subsystem of the technical
subsystem and their system has three vertical subsys-
tems. These can be called: (1) Undergraduate; (2)
Masters; (3) Doctoral (including professional). They
describe the academic level of the students. The
boundaries between the subsystems are very permeable
to input of students from the inner subsystem and
from the outside environment (other institutions).

Figure 13 illustrates the integration of the
vertical and technical subsystems of students within
a college.
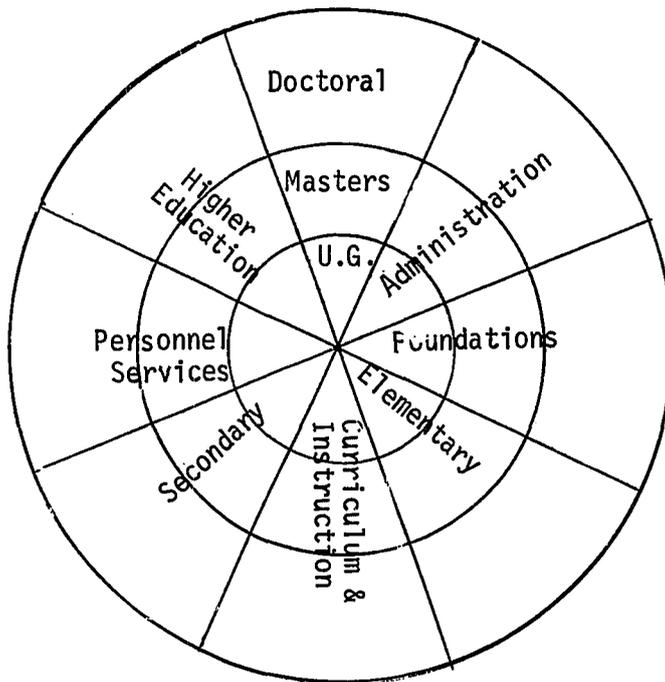
FIGURE 13. STUDENT DEPARTMENTAL SUBSYSTEMS
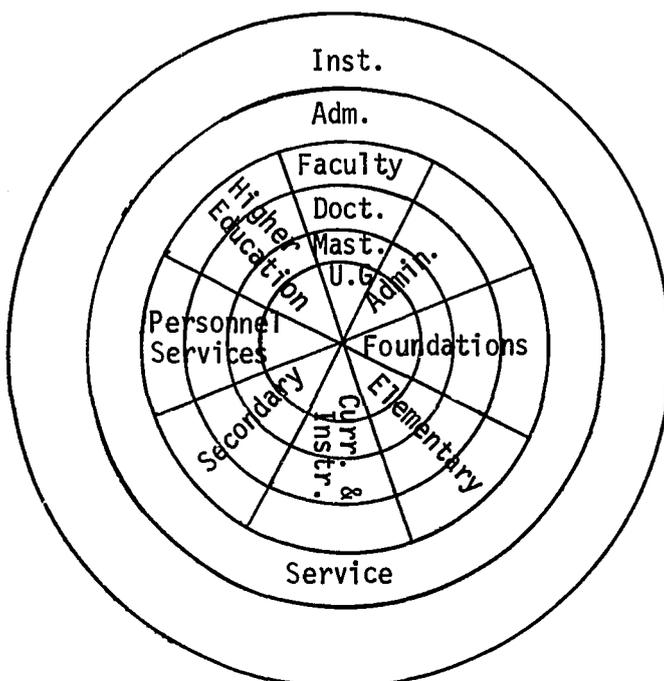
FIGURE 14. COLLEGE TECHNICAL SUBSYSTEMS

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The integration of the student, faculty and managerial
subsystems and the departmental technical subsystems
of a college are illustrated in Figure 14. Within
each college are departmental subsystems. It is at
this level that all of the members of the technical
subsystem can have personal interaction. On the univer-
sity and college level the subsystems are too large
for personal interaction between the components. This
is one of the reasons that faculty ranks are not strong
subsystems and are more important for status and salary.
The boundary between the doctoral subsystem and the
faculty system is permeable and interaction between
the components of the two systems is larger than would
be expected between two systems. Separate subsystems
of the student subsystem are found within the colleges
and within the departments. Interaction among students
is greatest at the departmental subsystem and at the
doctoral level within these departments. Here a rela-
tively tight informal system is usually formed. At
the opposite extreme, the university system level, stu-
dents are a very loose system. Perhaps the only function
where students have personal and emotional interaction

is at football games and in isolated crisis situations.

An additional set of student subsystems overlaps
the previously mentioned subsystem. It is composed of
formal and informal components:
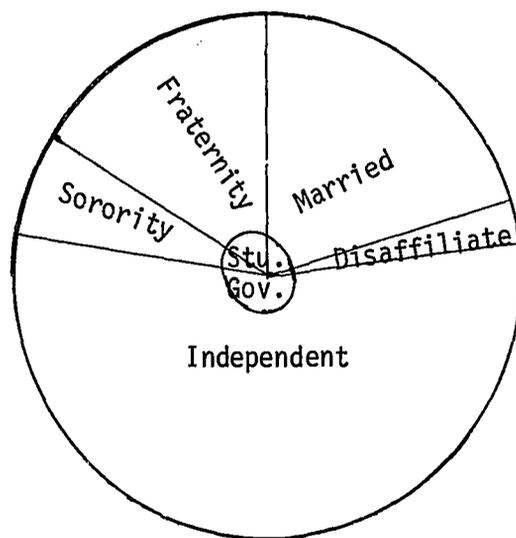
FIGURE 15. STUDENT ORGANIZATIONAL SUBSYSTEMS

The formal subsystems are shown on the above model.
Within each are multiple informal subsystems. For example:
fraternity members cross their fraternity system boundaries
and form informal groups for student government politics
and other reasons. Independent and married students
form informal groups on the basis of residence. Informal
groups are also formed by faculty members, administrators

and service employees on the basis of work or office areas. This conceptualization provides a means of studying the university as a living system with multiple components which make up a totality. No subsystem can be considered except as a part of the whole.

SUMMARY

The university can be conceptualized as a living social system. This conceptualization provides an analytical framework for the university administrator to better understand the many subsystems of the university and how they are related. The conceptualization also enables him to visualize the subsystems which are designed to integrate the university into a functioning whole.

The models used in this article are general in nature, and represent no actual university, but an administrator can create models to describe his university and its subsystems. The models will be helpful as one of his tools of administration. They do not give the answers nor do they even ask the right questions, but the models can assist the administrator in arriving at the questions and the answers.

Conceptual social systems models provide an overall understanding of the university and a means of focusing on one or more of the subsystems.

CHAPTER IV

Orientation of University Participants

The behavior patterns of university participants
are not a simple interpretation of line and staff charts
which indicate superordinate and subordinate roles, but
are a complex, multidimensional interactional relation-
ship.

At least four factors affect the compliance of
university participants in the following model:

```
              B
              ↑
              ↓
E ⟷      A      ⟷ C
              ↑
              ↓
              D
```
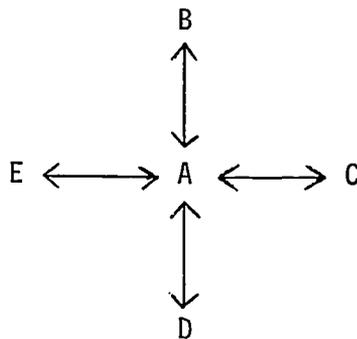
FIGURE 16. COMPLIANCE RELATIONSHIP MODEL

"A" represents the participant in a university with
his internalized orientation that has developed over a
span of years. This orientation will affect his response
to any exercise of power by his superordinate "B." The
peers "C" exert a strong social normative power upon him

to respond in an acceptable manner congruent with the
norms of their particular peer group. Subordinates
"D" have an influence upon "A" for he depends upon them
for the achievement of his and the organizational goals.
External organizations and reference groups "E" also
influence the compliance of "A." These four relation-
ships of "A" will affect his response to a directive
from superordinate "B" or to a request from subordinate
"D." The internal orientation of "A" will usually
determine the strength of the four interactional rela-
tionships.

Orientation of University Participants

Robert Merton (27), in describing the orientation
of influentials, suggests that they can be classified
into two types: "locals" and "cosmopolitans." The
"locals" are great patriots and seldom think of leaving
their community which is their world. They are pre-
occupied with local problems. In developing influence,
"locals" build a network of as many people as possible
and join organizations that provide for these contacts
so that their influence rests upon whom they know
(27:393-400).

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The "cosmopolitans" are described by Merton as
having an interest in the local community, but are
oriented to the outside world and regard themselves as
integral parts of it. This enables them to be mobile,
for their orientation is not restricted to one place
or institution. "Cosmopolitans" are selective in their
personal relationships and limit them to those with
whom they can exchange ideas, and they join organiza-
tions where they can exercise their special skills and
knowledge. They build influence because of prestige,
skills, knowledge, and experiences (27:393-400).

Participants in a university who hold the first
philosophy can be classified as "locals." Their commu-
nity is a university and the region it serves. They
are at home within it and are less mobile than the
"cosmopolitans" who represent the second philosophy.
The two philosophies are found within all colleges of
the university, but they will tend to congregate within
certain departments and colleges.

These two philosophies do not describe fully the
orientation of university participants. Robert Presthus
(13, 36) developed a typology to describe the orientation

of organizational participants in three classifications:

upward-mobile, ambivalent, and indifferents. The

upward-mobile is a bureaucratic type whose:

> ...values and behavior include the capacity to
> identify strongly with the organization, per-
> mitting a nice synthesis of personal rewards and
> organizational goals. A typical form of accommo-
> dation is adjustment through power and special
> efforts to control situations and people. His
> "security operations" stress efficiency, strength,
> self-control, and dominance. His most functional
> value is a deep respect for authority. Not only
> are his inter-personal relations characterized
> by considerable sensitivity to authority and to
> status difference, but his superiors are viewed
> as non-threatening models for his own conduct.
> (36:203).

The indifferent:

> ...refuses to compete for the organization's
> favors. The indifferent person comes from one
> of two backgrounds. Some enter the organization
> with great expectations but are unsuccessful
> and react by turning their backs on the organi-
> zation. Others have a working- or lower-class
> origin and are taught not to expect much from
> the organization. The "indifferent" accommodates
> to organizational demands by doing his work,
> arriving on time, and leaving on time--but by
> developing his major interests outside of the
> organization. His anxieties are reduced to a
> minimum because he refuses to become involved
> in the organizational race for rewards. He
> separates his work from the rest of his living.
> As Presthus says, "He sells his time for a cer-
> tain number of hours and jealously guards the
> rest" (13:115-116).

The ambivalent is unable to adjus to the organizational

goals:

> ...which violate his need for personal autonomy,...
> his "tender-minded" view of human relations dis-
> qualified him for the "universalistic" decision
> making required for success on organizational
> terms. Since his preferences include a desire
> for creativity and for a work environment that
> permits spontaneity and experiment, the structured
> personal relations, stereotyped procedures, and
> group decision making of big organizations prove
> stifling. He rejects its systems of authority
> and status which often seem to rest upon subjec-
> tive bases rather than upon the objective, pro-
> fessional claims that motivate. Nor can he
> easily identify with the small group in which
> he works, for here too the conditions of parti-
> cipation are similar to those of the larger
> system. If his values did not include prestige
> and influence, a happier accommodation might be
> possible; but these again emphasize his ambiguity
> and his inability to assume the roles required
> to achieve them. In sum, with the exception of
> his critical function as the agent of change,
> the ambivalent type is uniquely unsuited to
> the bureaucratic situation (36:285-286).

The typologies of Merton and Presthus can be com-

bined as illustrated in the following figure:

Philosophical Orientation	Focus of Orientation		
	Upward Mobile	Ambivalent	Indifferent
Locals	1	2	3
Cosmopolitans	4	5	6

FIGURE 17. UNIVERSITY PARTICIPANT ORIENTATION

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The type 1 university participant is often referred to by his colleagues as the "administrative type." He has a very strong identification with the upper administration of the university as well as the university itself. He finds his security in this identification and in the internalization process.

The local ambivalent (type 2) finds that the university is unable to meet the needs of individual faculty members who are lost in the bureaucratic system. He is usually a capable and dedicated faculty member who does his "job" and finds his identification in professional organizations. Like the cosmopolitan ambivalent he frequently is active in consultant work or applied research.

The type 3 or local indifferents are more numerous than type 1 or 2 and with type 6 comprise a majority of the university faculty members. They adjust to the university by finding their individual place of specialization and ignoring the rest of the institution. Type 3 participants refuse to become involved in the governance process and feel it is not worth the effort and time. They give the university what it "purchases" from them

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and do as they please with the remainder of their time.

The cosmopolitan upward-mobile (type 4) in most universities identifies with "ideal university goals" and recognizing that the current administration is less than ideal seeks to rise in the bureaucratic structure so that he can implement what he feels are the "ideal university goals." This often places him in opposition to the "in group," as he seeks to develop a new power structure.

Type 5, or cosmopolitan ambivalent, is of two basic subtypes. Like the local indifferent they reject much of the university organization and place a heavy stress on individual and faculty rights and privileges. They find much of their orientation in small reference groups of their peers, within and without the campus. One type is the liberal political activists who seek to change not only the university but the environment around the university. The liberal militants comprise a second type who use methods in addition to discussion and reason to accomplish their objectives. Both types tend to reject the systems cf authority and status found within the university structure which they perceive

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as being based upon subjectivity rather than objective
analysis.

Cosmopolitan indifferents (type 6) reject the
organizational goals as well as the bureaucratic struc-
ture and find their orientation in teaching and research.
Type 6 participants use their concern for originality
and personal development in the classroom and laboratory
and are often among the most effective teachers within
the university. They are often active in many areas
of community life in the surrounding environment.

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The varied pattern of the university participants
is the result not just of directives, of just personal
need dispositions, but of a complex of interactional
factors. An administrator or teacher within a university
needs to have a more concrete framework for analysis if
there is to be a pattern of behavior prediction. The
university as a living social system concept can be
combined with the university orientation concept to
produce a typology of university systems which will
describe the orientation of university participants.

CHAPTER V

A Typology of the University
Compliance Systems

University compliance systems are of several types,
and have varying degrees of scope. In this chapter we
will discuss three types of university systems, the three
ranges of their scope, and construct a typology of nine
types of university compliance systems. The latter half
of the chapter will be a discussion of these nine types
and their meaning for university administrators, faculty
and students.

University compliance systems can be analyzed into
three types: formal, semiformal and informal. Formal
subsystems are formally structured by legitimate authority
for the purpose of decision making and implementation
of the decisions. These systems range from the controlling
board of the university to the classes and extension
programs. The formal subsystems make the instrumental
or means decisions and the expressive or ends decisions.
These subsystems include the upper elite and lower parti-
cipants. In each subsystem there is an identifiable
structure for making and implementing the decisions.

The formal subsystems are within the university formal organization, and it is in these systems that hierarchial power is most effective.

The semiformal subsystems are not under direct university control, but are given status and legitimization by the university administration. Participants within these systems have mutual interaction, and through this interaction a structure and leadership develops. These systems develop around a common orientation and are of four basic subtypes: student, faculty, alumni and administrative. Like the formal and informal system, some of these subsystems extend into the environment.

Informal subsystems develop in many ways. Some are based on office or activity location, while others develop in the many contacts and friendships that a university participant has. Political and philosophical beliefs form the base from which other systems develop. Most of these systems have a changing membership over time, and the subsystems are usually issue or content oriented. Leadership and structure are also fluid depending upon the issue.

University compliance systems may also be defined
in terms of their scope. Three areas of scope may be:
integral subsystems, internal systems spanning subsys-
tems, and external systems spanning subsystems. The
integral subsystems include the primary physical and
professional situation of the university participant.
These subsystems range from the bureaucratic structure
to student and alumni organizations. They include ex-
pressive and instrumental beliefs. Each subsystem has
form and structure or is the result of a structural
location.

Internal systems spanning subsystems are the pri-
mary integrating factors in the university. These
systems spanning subsystems integrate the university
on both vertical and horizontal planes. These sub-
systems range from the formal subsystems under univer-
sity control to informal philosophical subsystems
that are fluid in membership and leadership and under
little control from any source. They include committees,
councils, student and faculty organizations. Perhaps
the key internal system spanning units within a
university are the department chairmen and the deans.

External systems spanning subsystems are designed
or developed to keep the university as a viable system
able to interact with and survive in its environment.
They range from the formal legitimate controlling board
to informal personal contacts and friendships. They
also include formal subsystems designed by the university
to provide services, and assist all or part of the
environment.

These three types of systems and the three areas
of scope can be combined to form the following typology:

TYPE OF SUBSYSTEM

		Formal	Semiformal	Informal
Scope	Integral	1	2	3
of	Internal System Spanning	4	5	6
Subsystem	External System Spanning	7	8	9

FIGURE 18. ORGANIZATIONAL COMPLIANCE SYSTEMS

The nine categories of the typology can be expanded
in a university situation as demonstrated in the follow-
ing typology:

Scope of System	Type of System		
	I. Formal	II. Semi-formal	III. Informal
A. Integral Subsystems	1. Technical 2. Managerial 3. Service	1. Alumni 2. Students	1. Faculty Location 2. Office Location
B. Internal System Spanning Subsystems	1. Senate 2. Councils and Committees 3. Department Chairmen	1. Students 2. Faculty	1. Conservative Old Guard 2. Liberal Political Activities 3. Militants 4. Contacts and Friendships
C. External System Spanning Subsystems	1. Board of Regents 2. Upper Administration 3. Service and Extension	1. Students 2. Faculty 3. Administrators 4. Alumni	1. Business Contacts 2. Professional Contacts 3. Political Contacts 4. Alumni Contacts 5. Family Contacts

FIGURE 19.   UNIVERSITY COMPLIANCE SYSTEMS

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The compliance of university participants in the
result of their multiple interactional relationships and
participation in one or more of the subsystems affects
their compliance. Merton (27) says the situation is
crucial in determining whether a person is "polymorphic"
(has influence in several areas of fields) or "mono-
morphic" (has influence in a limited area of field).
A university faculty member may be "monomorphic" by
choice, but appointment to an internal or external
system spanning subsystem may compel him to broaden
his perceptual field and may provide the opportunity
to become "polymorphic." Thus his behavior is changed
and future compliance is modified by this process.

Formal Subsystems

Integral Subsystems

According to Talcott Parsons, the technical sub-
system is that segment of the organization which
performs the function of the system (34:60-67). The
technical subsystem is similar to the expressive elites,
in Etzioni's model, who make and accomplish the ends
decisions. In the university the technical subsystem
and expressive elites are the faculty who comprise

the departments, conduct the instruction and carry out
the research. Within these subsystems the final ex-
pressive decisions are made: which courses will be
offered and their content, who will teach them, what
will be researched, how research and courses will be
conducted. In the implementation of the decisions
the goals of the university are achieved.

The locus of decisions contribute to making the
departmental subsystems the most crucial subsystems
in the university. All other subsystems can fail to
function effectively with the loss of efficiency for
the university, but failure of departmental subsystems
results in the loss of goal achievement. Departmental
subsystems are the "generators of the University."

Both social and pure normative power act upon the
participants of the technical subsystem. Social and
pure normative power are the most effective types of
power to obtain compliance as the participants have
moral involvement, resulting from a long period of
educational preparation during which time they have
internalized most of the values, norms and goals of
university education.

This social normative power is based on the acceptance and positive response from faculty peers, which tends to produce conformity and a continuation of existing conditions. Managerial personnel have pure normative power which is based on the allocation or withholding of privileges, symbols, titles, and prestige. They also have remunerative power which is growing in importance in obtaining compliance. This is more powerful when withheld from a participant, for then the participant usually leaves for another university who will give him the desired remuneration The lack of a surplus of qualified faculty members increases their value and their mobility.

The main control mechanisms are designed to prevent the emergence or employment of deviant faculty members. Some of these preventive control mechanisms are: selection for professional competence, socialization and internalization, examination and observation during practice period (before tenure), sidetracking and on rare occasions suspension or expulsion. Peer control already referred to, is crucial. Participation by peers in decisions on promotion and tenure is a powerful

force for conformance to peer norms.

The colleges and the administration comprise the managerial subsystems in a university. They are responsible for the maintenance and direction of the institution, and are the best qualified to make means decisions. The higher they are located in the bureaucratic hierarchy the less able they are to make viable decisions on ends, because they are further separated by administrative levels from the implementation of the decisions.

University administrators tend to focus on structural relationships, and the organizational side, to the neglect of the participants' needs. This causes alienation and indifference on the part of the faculty which further retards the achievement of the organizational goals. As the universities increase in size, administrators tend to tighten the structure and control mechanisms, which results in more centralization and less participation by the faculty and students.

Managerial elites are less mobile than faculty elites as they have greater involvement in the specific institution. Some universities select most of their

middle-managerial-level elites from within the university and upper-elites from without. This increases the importance of control mechanisms. These control mechanisms are exercised downward in the bureaucratic structure which increases the upward orientation of the middle- and lower-managerial elites. This upward orientation increases their separation from faculty and student participants.

Student managerial subsystems tend to focus on procedures and policies and not on students. Most of the students tend to accept the instrumental decisions of these systems. Elites within the student managerial subsystems are similar to the academic managerial elites. Colleges of the university are perceived by faculty members as "little administrative buildings." They are seen as blocking rather than as implementing goal achievements.

Service subsystems are described by Etzioni (11) as utilitarian in compliance and having economic goals. This means a calculative response to remunerative power according to Etzioni's typology. These subsystems are separated from the remainder of the university

and are integrated into the institution at the upper
managerial level. This separation is necessary be-
cause their goals and orientation are different from
the rest of the university. The ends decisions are
made at the top of the structure and the means decisions
by the middle and lower elites and implemented by lower
participants. This process is the opposite of the
ideal process for the academic system of the univer-
sity.

Some of the typical service subsystems are:
business, registrar, housing, food service, plant and
grounds, book store, printing shop, and janitorial
service. Their goals are economic and can be described
in specific subgoals that can be measured and evaluated
more easily than cultural goals. Service subsystems
are more normative than the typical service structure
in a business organization due to their interaction
with academic and student participants in the univer-
sity. These service subsystems have a higher level of
commitment than similar employees in a business organi-
zation.

Internal System Spanning Subsystems

Internal system spanning subsystems are created
or develop to integrate the integral subsystems of
the university. They are formally legitimized by the
institution and are designed to cross integral system
boundaries. They integrate the integral systems verti-
cally and horizontally and function as a part of the
decision process. Some are limited to one level, but
most involve two or more levels. They may be advisory
or have a decision making function.

The primary internal system spanning subsystem is
the senate, and is most effective when it is a univer-
sity senate--that is including administrators, faculty
and students.

Face-to-face interaction and discussion provide
an effective integrating situation where participants
can learn and understand from other participants.
Given the bounded rationality of colleges and depart-
ments, the representative senate with broad decision
making authority can unify a large complex university.
This unification also takes place across levels of
the university hierarchy.

Councils and committees abound on every university
campus. They range from presidential and senate com-
mittees to departmental committees. Councils are found
on many managerial levels of the university. To be
effective they must know their area of responsibility
and have the time and resources to solve this area.
Committees designed to include a range of viewpoints
are more likely to consider the full range of alterna-
tives that are available and to arrive at the most
appropriate recommendations or decisions.

The crucial formal internal system spanning unit
is the department chairman. He spans the managerial
and technical system and is the crucial person in
uniting the two systems. He has faculty rank and often
teaches, yet faculty members generally perceive him as
part of the managerial system. Department chairmen
have a wide range of decision making authority and by
sharing this with departmental faculty they can develop
faculty members and have the advantage of their talents
and abilities. As an administrator of the technical
system, department chairmen can affect the quality of
work significantly.

External System Spanning Subsystems

There are three areas of formal, external system
spanning subsystems. The university lives within its
environment and must interact with systems in the environ-
ment if it is to survive. The three basic areas of the
external system spanning units are: the Board of Regents,
the Board of Control, and Trustees. They are normally
provided for by the environment for the maintenance
and control of the university. Most of these members
of such boards are college and university graduates
but are active within fields of service other than
higher education.

The perceptions by members of the Board of Regents
of the goals and purposes of the university are affected
by their educational and professional experiences, as
well as the political considerations which affected
their appointment.

Upper administrators also comprise a subsystem. To
span the boundaries they seek to interpret the university
to the legislature and to groups in the state and nation.
Their speeches and actions are accepted by the general
public as representing the university.

The third area of formal, external system spanning subsystems is that of the service and extension agencies. The land grant universities have agricultural experiment stations and extension service personnel who have made a significant influence upon the agricultural development of our nation. Their applied research and extension patterns offer a model for other areas of the university to consider. Colleges of education have begun to use federal and state funds in cooperation with local school systems for research and development. Medical and dental colleges interact with the public daily and represent the university in these contacts. The use of consultants has spread from political science, engineering and architecture to most other colleges and departments in the university. Each consultant becomes an external system spanning unit as he meets and interacts with the world around the university.

Semiformal Subsystems

Integral Systems

Alumni organizations and student organizations make up the primary semiformal organizations, for they are

connected to the university but are not under adminis-
trative control of the university. The integral student
subsystems develop around housing and organizational
facilities. These include fraternities, sororities,
dormitories, off-campus housing, as well as married
student housing. The rapid growth of the universities
has diminished the effect of the social fraternities
and sororities and increased the influence of off-campus
and married student subsystems.

The strongest type of power affecting the student
semiformal integral subsystem is the social normative
power. This power is very strong within specific sub-
systems for students and less within the general student
system. Peer acceptance and a positive peer response
are crucial within the life of most university students.
It is in being part of his "group" and doing his "thing"
that the student finds his identity.

The university administrative structure is designed
to provide a process for student help and guidance to
the average student, and to provide an instrument for
the use of coercive power upon the deviant student.
The personnel in this student affairs department are

too few to provide assistance for every student. The
assumption, therefore, must be that students will take
care of themselves within the rule and procedure frame-
work, and therefore can be ignored. It is when a
student acts outside the prescribed procedure that the
power available to the structure comes into action.
This coercive power produces a dysfunctional result
when used in a university, which is a major cause of
the increasing student alienation and militancy. The
problem arises because student affairs administrators
see their goals as order, while the goals of the
university are cultural; which may include a certain
amount of disorder in order to develop initiative and
thought. Students are no longer satisfied to receive
just a degree. They feel a necessity to participate
in the university and the world around them.

Internal System Spanning Subsystems

Student internal system spanning subsystems include
several types: governmental, fraternity and sorority,
athletics, professional, and social. These subsystems
serve to unify segments of the university student body

and to provide them with an opportunity for participation beyond their classes and books. In these internal system spanning subsystems some students find a primary orientation, with the process of education becoming secondary. Intercollegiate athletics provide, on many university campuses, the only university-wide internal system spanning subsystem open to all students. The large numbers of students, faculty, and alumni who gather for a football game are aroused to a high intensity of involvement, which has an effect after the game.

Student committees and joint student-faculty-administrative committees serve to span subsystems both horizontally and vertically. Administrators claim that student participation in joint committees is less than effective because they don't participate as fully as faculty members due to a lack of time, resources and interest. This area must be expanded if the abilities and insights of students are to be utilized for the benefit of the university. One way to accomplish this would be to make credits available to students for effective participation.

In the last year of undergraduate study and during

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graduate study many students become participants in professional and honorary fraternities. These are an additional step in the internalization process and serve to help prepare the graduate for his professional field.

Faculty internal system spanning semiformal subsystems are less numerous than student subsystems. These are usually correlated to the departmental subsystems. One type develops around an individual, usually a member with a status position and a larger availability of resources than the average faculty member. Such members have achieved an ascribed charisma as well as national recognition in their professional competence, exceptional interactional ability. Over the years these personal systems have developed as people have built up "political capital" with faculty and administration members, that they can call upon when the situation necessitates.

The American Association of University Professors and the American Federation of Teachers represent a second type of internal system spanning semiformal subsystem. They are also external system spanning. The AAUP has been the traditional faculty system for protection

and promotion of faculty interests and objectives. To
the militant faculty member the AAUP is a "paper tiger"
and has little teeth to enforce its recommendations.
Many administrators and faculty members see the AAUP
as an "anti" organization because it is seen as active
in opposing an action or policy of the university. This
is important as actions or policies being considered by
administrators are often changed in order not to arouse
the AAUP verbal fire. The AFT, of which John Dewey
was an early advocate, represents faculty members who
feel the AAUP's power is too limited and too weak, and
who desire a stronger course of action, including
strikes. Universities who open their subsystems and
involve faculty members in meaningful participation in
decision making may be less likely to have strong AFT
chapters develop.

External System Spanning Subsystems

The external system spanning semiformal subsystems
are created or develop to span the university boundary
into the environment. They are normally composed of
four types of participants: faculty, administration,

students and alumni. Alumni organizations are the best
known external system spanning semiformal subsystems.
They are designed to keep graduates in interaction with
their educational institutions and brings the university
the resources (funds, time, and talent) that they possess.

Student subsystems are crucial in the area of
recruitment. The comments and actions of university
students influence potential students in their choice
of institutions. Many student governments have formalized
this process and provide teams to visit high schools and
individual students around the region where the univer-
sity is located.

Faculty and administrative external system spanning
semiformal subsystems are similar in function. The AFT
and AAUP not only serve to span subsystems within a
university but to span university systems into the
environment. This means that power and resources beyond
the capability of an individual university are available
to the university faculty members. These subsystems
bring in additional inputs of information and resources
that tend to strengthen the university as a whole and
to protect a specific subsystem from internal pressure

from any of the formal compliance systems. This is
crucial in allowing for freedom and responsibility of
the individual faculty member.

Interinstitutional spanning committees and councils
are crucial to the effectiveness of a university and the
quality of the graduate output. These systems coordinate
the educational process in a university to maintain and
increase the quality of graduates, and to prepare stu-
dents from college, junior college, and high school to
intellectually be ready to continue their education.
These subsystems are not system protecting subsystems
but are rather quality control subsystems which must
operate for the university to be most effective.

Informal Subsystems

Integral Subsystems

The informal integral subsystems are those that
develop through mutual interaction. An atmosphere for
subsystems can be created by office and facility loca-
tion. Homans (19) has described how important interac-
tion is to a group, and offices, departments, colleges,
and service facilities can be located so as to facilitate

desired action which may result in the development of informal subsystems. Liberal arts and sciences colleges are usually considered to be the prime integrating divisions of a university, and, therefore, their offices and buildings should be central to the institution so that they will have more interaction with a greater proportion of the university. When a college or school is placed across a main road which isolates its members from the main campus, the members will tend to develop a separate subsystem and often a separate culture from the main campus. This will weaken the unity of the university.

The location of a cafeteria or a coffee shop within a college building will tend to increase the faculty and student interaction within the college and building. Where this is not possible, some colleges have provided a coffee room for faculty members which has a similar effect.

The rising intensity of specialization among faculty members and the knowledge explosion are two reasons for universities to plan for this type of integration on a logical and systematic basis.

Internal System Spanning Subsystems

These informal systems usually develop around
issues and philosophies. They are crucial because they
cross all other university subsystem boundaries and be-
yond the university boundary. Such systems may be seen
in the conservative old guard, the political liberal
activist, the faculty and student militants, both of
the "left" and the "right," and in the numerous fellow-
ships and contacts that faculty members, students, alumni
and administrators develop. These contacts are extremely
crucial in the selection of committee, council and senate
members. A person can be nominated only if someone knows
and supports him.

External System Spanning Subsystems

Informal external system spanning subsystems are
small informal systems that are fluid and yet dynamic.
They come into action as system spanning systems through
issues or actions that interest or affect their partici-
pants. They are developed over time through the inter-
action that every university participant has. They are
seen primarily in the area of business, professional,
social, political, family, and alumni contacts.

Summary

The typology of university compliance systems
provides an analytical framework for understanding the
behavioral pattern of university participants. The
subsystems of the university can be analyzed and the
interactions of the subsystems of the subsystems can
be conceptualized without ignoring either aspect.
Compliance is an interactional relationship resulting
from the multiple dimensions of che university parti-
cipant. The multiple system memberships of university
participants also affect their behavior.

CHAPTER VI

Summary

The university can be conceptualized as a living social system with technical, managerial, service, and institutional subsystems that have specialized functions of goal achievement. Boundary spanning subsystems have developed to unite these goal achieving subsystems into an effective functioning whole. Some of these internal boundary spanning subsystems are committees, councils, university senate, department chairmen and deans. The technical subsystems include the faculty and the students. Systems theory provides a framework for conceptualizing the integration of the colleges and departments with the technical and managerial subsystems. Students comprise a subsystem with many sub-subsystems.

Compliance is an interactional relationship with multiple dimensions. The compliance of a university participant begins with his personal orientation and internalized values and norms, but the compliance relationship includes the relationships with peers, superordinates, subordinates, and reference groups.

The orientation of a university participant has two dimensions. The first dimension is philosophical and can be described by the terms developed by Merton (27): "cosmopolitan" and "local." The "locals" identify with the university and the region it serves and see the basic functions of the university as transmitting the cultural values and norms and maintaining and increasing the economic level of the region served by the university. "Cosmopolitans" have an interest in the university and the region it serves, but find their primary orientation in the professional, national, and international systems beyond the university.

The focus of university participant orientation is described by Robert Presthus (13, 36) in three categories: upward-mobile, indifferent, and ambivalent. The combination of Merton's (27) and Presthus' (13,36) concepts into a typology results in six types which describe university participant orientation.

The compliance systems found in universities are of three basic types: formal, semiformal, and informal; and have three areas of scope; integral, internal system spanning, and external system spanning. The types of

compliance systems are analyzed on the basis of their structure, function, and control mechanisms. Internal system spanning subsystems are created or develop to link the integral subsystems into a meaningful whole while external system spanning subsystems link the university to its environment. The major categories of compliance systems were described in Chapter V.

Compliance subsystems provide a framework for understanding and predicting the behavior of university participants and for achieving an overall view of the institution while focusing upon a single area or segment.

Observations

During the process of developing the models of university compliance systems, the author made observations about the organization and administration of a complex university and about the orientation of university participants. These observations can be used to provide a basis for developing hypotheses for further study. The model of university compliance systems can be used to generate further research

concerning the administration of universities. The
models and observations should be of value to practicing
university administrators and members of the faculty.

The observations are numbered from the typology on
page 55. For example, observation IA1 relates to the
formal integral technical subsystems.

1. The internalization of norms and values is
more essential in the technical subsystems than in the
service subsystems (IA1).

2. The more echelons in the managerial system the
less able are upper administrators to know or understand
the needs of lower participants (IA2).

3. The larger the student system the greater the
tendency toward entropy within the student system because
effective interaction takes place within subsystems of
the student system (IIA1).

4. University administrators can create the situa-
tion in which informal subsystems can develop through
the location of facilities and offices (IIIA).

5. The membership and method of selection of senate
and university committee members will determine the range
of alternatives considered and the decisions reached (IB).

6. Departments are probably the most important subsystem in the university (IA1).

7. Department chairmen are probably the crucial internal system spanning unit (IB3).

8. Smaller subsystems (departments) are more cohesive than larger subsystems (colleges) because the degree of interaction is heightened (IA1).

9. The traditional monocratic decision making model is dysfunctional in a university system because it reduces functional interaction (IA2).

10. Internal system spanning subsystems are more effective when they span both horizontally and vertically (B).

11. The philosophical and professional orientation of university participants limits their perceptual field (IIIB).

12. Leadership in militant students and faculty groups tends to overlap and to consist of a small core of participants (IIIB3).

13. A board of regents over several universities is less able to meet the needs of a single university and will spend more time mediating between universities (IC1).

14. The more stable a university faculty and
administration the greater the degree of entropy (IA).

15. The more open the university to inputs and
feedback from the environment the greater the develop-
ment of the university (IC, IIC, IIIC).

16. The larger the university the larger the
number of subsystems and the more segregation between
the subsystems.

17. Each system filters the transfer of information
from the suprasystem before it passes it on to the
subsystem.

18. The amount of effort and energy required to
transmit information is increased as the size of the
university increases.

19. Participation in decision making by all levels
of systems reduces entropy and increases interaction
and accuracy of information.

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