A systems model for the study of state higher education policy is adapted to reflect structural relationships within and among key units of government and organizations informally involved in the policy-making process, as well as more fluid political and economic contextual elements that mediate and shape the interaction between them. The model is viewed as three-dimensional, composed of the structural or organizational aspect, the contextual dimension, and the conventional sequence of public policy process. The structural dimension consists of units and the forces and linkages occurring between them. Contextual factors include five variables: (1) powers of the state board; (2) state officials' attitudes toward higher education; (3) the state budget situation; (4) the historic relationship between the state and higher education; and (5) the state's political mood. The public policy process includes problem-structuring, policy formation, implementation, and evaluation. Development and refinement of the model is continuing, with the objective of providing a useful and valid conceptual framework for the study and comparison of policy-making for state systems of higher education. Includes 25 references. (MSE)
The State and Higher Education:
A Model for Higher Education Policy Studies

Jeffery P. Aper
Assistant Professor
Educational Administration and Higher Education
Southern Illinois University
Carbondale, IL 62901

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The State and Higher Education: A Model for Higher Education Policy Studies

In their relationships with higher education, state governments typically carry out broad functions of governance, comprehensive planning, academic program review, resource allocation, administration of state and federal grant programs, and regulation of institutions operating within the state (McGuinness, 1988). But in spite of these broadly similar roles, systems of higher education vary widely from state to state, making generalization concerning the relationship between the state and higher education difficult beyond broad comparisons (Bottum, 1988; Layzell & Lyddon, 1988; Newman, 1987; Pettit, 1987). These substantial differences between states translate into important variations in approaches to higher education policy.

The political roles and interactions of governors, legislators, institutions of higher education, state higher education agencies, and lobby groups have been widely studied, described, and reported on (Carnegie Commission on Higher Education, 1971; Carnegie Council on Policy Studies in Higher Education, 1980; Carnegie Foundation for the Advancement of Teaching, 1976; Goodall, 1987; Gove, 1985; Hines & Hartmark, 1980; Millett, 1975; Millett, 1984; Pettit, 1987; Policy Studies Journal, 1981). The purpose of this paper is neither to review nor to attempt to add to the voluminous literature reviewing the key players or their roles in the policy process, but is, rather, to begin a process of elaborating a descriptive model.

* The author gratefully acknowledges the able assistance of Ron Smith in preparing this paper.
of state higher education policy making that will provide a framework for more systematic analysis of the development of state higher education policies.

Importance of the Study

State officials have come to rely on higher education as a primary engine of economic development as well as a major contributor to the state's prestige and cultural well-being (McGuinness, 1988). As the role, scope, and relative levels of public investment in higher education have expanded it has come to occupy a high priority on many state policy agendas. Because it is at the state level that the most important policy actions affecting higher education occur, an analytical framework that can concisely and meaningfully represent relevant features of real decision situations is needed. Although a model cannot be a precise replica of a complex system, the proposed model may provide a useful framework, thus laying the groundwork for more extensive research into the nature of the relationship between the state and higher education, and for the development of a theoretical basis for the comparison of state patterns of policy making patterns for higher education.

Background

This paper draws from the work of Crosson (1984) to develop a model for the study of state higher education policy. Crosson's systems model incorporates "organizations, institutions, and groups of individuals legitimately concerned with postsecondary education in each state." She postulates state higher education policy making systems as open systems because they are potentially influenced by interaction with groups or occurrences in the larger political,
social, and economic environment. Policies are traced through the system as inputs (policy issues and problems) and outputs (formal policies). It is recognized that the system simultaneously addresses multiple issues, in various stages of development, and that levels of organizational involvement, conflict over policy, and the effect of outside influences vary between issues and across time. Crosson's model, however, does not clearly address the qualitative distinctions and relationships among the connections between the organizational units she identifies.

An open systems approach requires more than identification of formal structure in order to provide a useful framework for looking at organization - system behavior and interaction. The critical factor in such a model is developing an understanding of the policy-making environment and the contextual variables that shape that environment (Katz & Kahn, 1978).

There have been important efforts to describe these qualitative dimensions of the policy-making process. Kingdon (1984), drawing conceptually upon the work of Cohen, March, and Olsen (1972), portrays the policy making process as subject to a relatively happenstance confluence of problems, policies, and politics. Lindblom (1980) suggests that policy making is the result of negotiation and compromise among competing organizational units or groups in the political arena. Incrementalism, though, does not adequately explain the ways in which policy issues emerge and are resolved in government. Policy making agendas may show incremental change in some instances and in others show sudden quantum leaps in activity and attention devoted to particular areas.
The proposed model seeks to provide a framework for analysis and comparison of state policy making in terms of both organization and process; to establish a middle ground between the categorization of states according to organizational structure and the relativism of describing the policy process according to chance events and "muddling through." Looking at states both structurally and through specified political, legal, and economic relationships may provide this middle ground and provide greater descriptive and ultimately, perhaps, predictive power to the study of state policy for higher education.

The contextual relationships between organizations within systems shape and are in turn shaped by such factors as economic conditions, political influence, and perceptions of social and political legitimacy (Katz & Kahn, 1978). Through these relationships attitudes, information, and values are focussed on policy decision situations. It is hypothesized that it is these contextual factors that are particularly revealing in an analysis of policy making (Powers & Powers, 1983).

This "contextual" perspective is supported by the findings of Layzell and Lyddon (1988) in their study of the effect of environmental factors on state appropriations for higher education. They indicate that a more powerful explanation of the state policy process requires attention to issues of governance structure and political values, history, and beliefs, and conclude, "these results imply a need to also study the more abstract, and less quantifiable, aspects of state political systems as they related to policy ... outcomes for public higher education, such as the polit-
ical culture and traditions of a state, as well as the roles played by the various parties involved in the process...." (p. 25).

Theoretical Framework

As already suggested, the proposed model reflects structural relationships within and among key units of government and organizations informally involved in the policy making process, as well as more fluid political and economic contextual elements that mediate and shape the interaction between them. However, the proposed model is far from complete. The nature of a broad conceptual model of the policy making process necessarily simplifies reality, since the structural elements of the system are themselves composed of subunits that are not necessarily uniform in action and effect on the system, and the contextual elements also vary in effect and intensity over time. This model is offered as a first step in an ongoing process of developing and refining a potentially valuable perspective on the ways in which American political culture expresses its values in relation to higher education.

Clearly, the restriction of models to a manageable and measurable handful of elements can provide a distorted picture of what is going on. The very act of measurement creates a reality that conforms more or less to the real world: measurement tends to render continuous variables discrete; a "snapshot" requires somehow holding variables at their means, when in fact their interaction is continuous, dynamic, and synergistic. It is with this sense of the inherent limitations of models that the current model is proposed.

The model is composed of two general categories of components:

1) structural components of the state policy making apparatus,
including institutions of higher education, the statewide governing or coordinating board, the legislative branch, the executive branch, and interest groups with active interest in various higher education issues; and

2) contextual factors that influence the policy making process, including the powers of the state board or agency for higher education, the attitudes of state officials toward higher education, the state budget situation, the historic relationship between the state and higher education, and the political "mood" of the state.

The model is presented as a concatenation of hypotheses, assumptions, and empirical observations, and is intended as a means by which to provide an exploratory perspective on the review of state higher education policy making. It is conceived as three dimensional space, one dimension (the structural, or organizational shape of government) which is relatively constant over time; a second dimension (the contextual) which is relatively more fluid over time; and a third dimension that is process -- a conventional sequence of the public policy process that includes a cycle involving problem structuring, policy formulation, implementation, and evaluation.

From this basis, the model is graphically and conceptually represented as a variation on an explanation of Einsteinian space - time - matter interactions. Contextual relations between structures (shaped by tradition, law, budget, values, power) are represented by space, structural components of governance and policy systems are represented by spheres of varying size or mass (depending on their relative influence) that exist within this space, and
time is represented by the general sequence of the policy process (problem structuring, policy formulation, implementation, evaluation).

Within this system (the state system also has permeable boundaries as part of yet larger national and even international supersystems) the structural units have permeable organizational boundaries and function within the postulated environment of interorganizational space (substantively defined by contextual variables). Each of the structural units extends some organizational force into this space as part of its effort to shape policy. It is this force that drives the policy system (Katz & Kahn, 1978). The strength and effect of these forces are influenced by and mediated through the factors of budget, traditions and attitudes, and agency powers that define the contextual space. The combined effects of these forces and their interactions with the structural components can help explain policy processes and outcomes, as well as providing the crucial link between the identified structural and contextual factors.

The relative strength of the interactions between structural elements of the system are also predicated on the degree to which those elements are closely or loosely coupled (Weick, 1976). This is not a static condition that can be described once for all policies and situations; the relative looseness of coupling between structural elements will vary depending on the nature of the policy issue. Thus the relative interrelationships of the structural elements varies according to the implications of the particular policy.
Graphically, the contextual policy environment is envisioned as a three-dimensional elastic medium, with the structural components existing within this interorganizational space. The relative influence, or power, of each of these components is represented by the size (or mass) of spheres that function in and interact with interorganizational space (contextual variables). The policy process as a sequence of steps from problem recognition to evaluation provides an "arrow of time" that indicates directionality for the activities of the system as a whole. Thus, if the "space" of the interorganizational environment is conceived of (two-dimensionally) as a tightly stretched elastic sheet, and the structural components as spheres of varying size and mass, an organization of relatively great influence (the executive branch in some states, for example) is represented as a large and massive sphere rolled out onto the elastic sheet of the interorganizational, contextual space. The force (gravitational, to maintain the physics metaphor) associated with its mass distorts the shape of the elastic to a greater degree than does that of an organization of lesser influence on the system. Furthermore, the magnitude of the effect of the more massive sphere on the elastic field affects the movement of smaller spheres, just as in the physical universe more massive bodies distort space-time and affect the motion of other bodies as a result of the gravitational force.

Contextual Factors

Five sets of variables are proposed as elemental to the contextual factors. These sets of variables are represented by a series of continua. The assumption underlying the continua is that the
left side of each continuum is a condition conducive to greater autonomy and less prescriptive state policy, while the opposite is assumed to hold for the right side.

1. Powers of the state board or agency for higher education.

The Education Commission of the States has developed criteria through which the comprehensiveness of state board responsibility is determined by the extent of the agency's authority to approve academic programs and its role in the budgetary process (McGuinness, 1983). The following list uses these criteria in describing state board/agency types from most to least powerful:

1) governing board for all public institutions with academic program approval and consolidated budget authority;

2) coordinating board with program approval authority and consolidated or aggregated budget authority;

3) coordinating board with program approval authority and budget review and recommendation authority;

4) coordinating board with program approval authority and no statutory budget role;

5) coordinating board with program review and recommendation authority and consolidated budget authority;

6) coordinating board with program review and recommendation authority and budget review and recommendation authority;

7) coordinating board with program review and recommendation authority and no statutory budget role or program approval role; and

8) planning agencies with no formal program approval or budget role (McGuinness, 1988).
More broadly, the continuum below ranges from "maximum accountability" where central state authorities exercise great influence over higher education to "maximum autonomy" where the campus exercises great influence over policy. The location of states along the continuum will vary with the powers of the central board and its executive officer (Hines, 1988).

<table>
<thead>
<tr>
<th>Minimum state control</th>
<th>Maximum state control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. campus autonomy</td>
<td>Min. campus autonomy</td>
</tr>
</tbody>
</table>

Models:

- **for finance**: Corporate State Aided | State Controlled | State Agency
- **for policy approach**: Laissez faire Encouragement | Intervention | Direct Support & Services
  (no centralized role)

Encouragement is defined as "involvement in planning, setting goals, collecting data, creating incentives, promoting local cooperation, establishing task forces, sponsoring seminars or conferences." Intervention is defined as "resolving issues by delegating responsibility for coordination or centralizing coordination and by regulating providers." Direct provision of support and services includes centralized fiscal systems and control of programs (Hines, 1988).

With regard to the authority of the state higher education executive officer, Hines (1988) suggests that "system character" is shaped by the relationship between the state higher education executive and institutional executive. Pettit (1987) delineates 12 dimensions of authority between system executives and campuses to describe characteristics of a strong authority system, "accommodation between system and campuses", and a weak authority system.
Worthy of note before leaving this section is McGuinness' (1988) observation on qualitative factors that affect the power and influence of the state board or agency for higher education:

Far more than the formal authority of a board, the factors that most frequently define board effectiveness are the prestige and quality of board members; the ability of the board to function as a cohesive group rather than as a collection of individual interests; the ability of the board to organize its work to emphasize policy rather than administration through careful design of agendas and effective use of committees; and the reputation of the board staff among both political and institutional leaders for its objectivity, fairness, sound judgment and commitment to conflict resolution (p. 7).

2. Attitudes of state officials toward higher education.

A high degree of confidence is assumed to correspond with a more "laissez faire" attitude toward higher education, low confidence is assumed to correspond with a belief in the need for "regulation" of the activities of colleges and universities.

Confidence in higher education

<table>
<thead>
<tr>
<th>High</th>
<th>Low</th>
</tr>
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</table>

Corresponding attitudes toward higher education

Trust (minimal state intervention or involvement), acceptance of equifinality  
Monitoring (control or regulation)

Acceptance of institutional autonomy and self-definition suggests tolerance of diversity and of the idea of equifinality. Suspicion of institutions suggests that state action and oversight are necessary in order to keep institutions from forgetting the public
Hines (1988, p. 74) presents the "perspectives on educational excellence" that follow. These perspectives are suggested as relevant to confidence in higher education, in that confidence is a function of expectations and the belief that institutions can reasonably fulfill expected roles and priorities.

<table>
<thead>
<tr>
<th>Perspective</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Political Economy</td>
<td>quality measured by degree to which institutions contribute to the political and economic strength of the state</td>
</tr>
<tr>
<td>Productivity</td>
<td>quality measured by efficiency of institutions in producing appropriate output</td>
</tr>
<tr>
<td>Value-added</td>
<td>quality measured by degree to which institutions enhance individual development</td>
</tr>
<tr>
<td>Producer/Consumer Quality</td>
<td>quality measured by quality of producers and consumers (faculty and students)</td>
</tr>
<tr>
<td>Content</td>
<td>quality measured in terms of curricular quality and scope</td>
</tr>
<tr>
<td>Eclectic</td>
<td>quality measured on a variety of dimensions including efficiency, effectiveness, participant characteristics</td>
</tr>
</tbody>
</table>

3. State budget situation.

Very generally, the state budget situation may range from conditions of surplus to those of deficit:

<table>
<thead>
<tr>
<th>Surplus</th>
<th>Deficit</th>
</tr>
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</table>

More specifically, the strength and direction of state expenditures for higher education can be examined by reviewing the history of such expenditures as a percentage of the appropriations from state tax revenues, as the following graph illustrates:
While increases may be associated with greater institutional autonomy, current expectations for student outcomes assessment efforts suggests that additional funding may also be a quid pro quo for increased "quality control" and improvement efforts. However, most states have so far left assessment largely in the hands of the institutions. Additionally, state officials have become more interested in the use of incentive or initiative funding, seeking to further tie the availability of dollars to institutional responsiveness to state priorities.

4. The historic relationship between the state and higher education.

Partnership Adversarial relationship

States vary in important ways in regard to the traditions of the relationship between the state and institutions of higher education. Some states have historically treated public colleges and universities as a state agency, subject to the same controls and regulation as any other agency. In other states, institutions have been treated as state-assisted, quasi-private organizations that are not subject to the same controls and regulation as other state
agencies. Many states have a mix of such attitudes.

Since World War II most states have added or reformed state boards or agencies to coordinate and oversee public higher education. Such boards have come to vary not only in their formal functions, but in the posture they have come to assume as intermediaries between state officials and the colleges and universities under their jurisdiction. Governing boards have tended to function more as advocates for the institutions under their purview, while coordinating boards have tended to take a broader state perspective on higher education as it relates to the overall goals of state government (McGuinness, 1988).

5. The political "mood" of the state.

Support & Confidence  Alarm, Desire for Regulation

Political mood is defined as in some ways distinct from, although related to, public opinion. It is suggested that political mood is more a matter of policy makers' awareness of issues, their sensitivity to the implications of related policy, and their willingness to risk political capital in taking action of some kind. Legislators, for example, may not be more than superficially aware of the implications of a particular issue or proposed policy, but are willing to go along with a measure because they sense general acceptance and relatively little risk. Conversely, if there is significant political controversy over an issue the political mood is highly charged, and legislators will weigh carefully the "capital" they will risk in supporting or opposing policy initiatives, although higher education issues infrequently "supercharge"
the political environment in such a manner (Kirst, 1983).

Hennessy (1985) presents a conceptual model of the evolution of public opinion through the course of problem structuring, policy formulation, implementation, and acceptance:

<table>
<thead>
<tr>
<th>Education</th>
<th>Public action: Law (followed by</th>
<th>&quot;appeal and uncer</th>
</tr>
</thead>
<tbody>
<tr>
<td>organization</td>
<td>bill, resolution, executive order</td>
<td>tainty&quot;, routinization</td>
</tr>
<tr>
<td>politicization</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(activities undertaken to promote change)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sacrilege<-----Idea------Proposal------Policy<----Traditional

Probability of Agreement

0%----------------------------------------------------------100%

Conclusions

The task of building a comprehensive and coherent model of complex systems is a difficult one. This was initially envisioned as a modest proposal to add "contextual" factors to traditional open systems approaches to studying the policy process, but as the process unfolded, it proved to be far less straightforward and clear than it had seemed initially. The model outlined in this paper is presented as a suggestion for further study and reflection, and clearly will require further specification and testing. Future research will focus on the adequacy of the model as it is finally elaborated to provide a useful and valid conceptual framework through which the study and comparison of policy making for state systems of higher education can be more systematically undertaken.

References


