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ABSTRACT

A study of the impact of economic differentiation on institutional pricing and expenditure policies, higher education public policy, and governance in public colleges and universities is described. It is suggested that economic differentiation is a likely determinant of variation in institutional expenditure and pricing policies and higher education public policy among the states. A series of public policy initiatives are described that may affect the autonomy and governance of public colleges and universities in different states. Since attitudes and perceptions of government agency and institutional officials are the key ingredients in public policy research, a multifaceted research design is employed to ensure data validity. Research subjects include officials of the state coordinating board, public college administrators, and higher education state committee members and support staff. Three research techniques have been selected to identify public policy initiatives and priorities of government agencies: absolute scale technique, rank-order technique, and open-end technique. In addition, published documents, survey techniques, and in-depth interviews are sources of research data. A matrix of research hypotheses, research indicators, and data collection procedures are presented. Finally, a discussion of the implications of public policy for institutional finance in the next decade is included. (SW)

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ECONOMIC DIFFERENTIATION AS A DETERMINANT OF HIGHER EDUCATION PRICING AND EXPENDITURE POLICIES AND STATE-WIDE PUBLIC POLICY: IMPLICATIONS FOR GOVERNANCE

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This paper was presented at the Annual Meeting of the Association for the Study of Higher Education held at the Washington Hilton in Washington, D.C. March 25-26, 1983. This paper was reviewed by ASHE and was judged to be of high quality and of interest to others concerned with the research of higher education. It has therefore been selected to be included in the ERIC collection of ASHE conference papers.

The expenditure and pricing policies of higher education are not a new topic in the policy agenda of state agencies. Control over rapidly rising college and university expenditures and costs, however, has become an increasingly salient issue among students, families, local governments, and state and federal agencies. A heightened sensitivity to the issue has been occasioned by four important factors that could appreciably alter the pattern of federal and state support for higher education in the decade ahead and lead to increased student costs in public institutions:

- federal initiatives to cut back entitlement and financial aid programs
- state revenues which fail to keep pace with beginning-of-the-year fiscal projections
- continuing debate over the distribution of cuts in the state budget among higher education and human services
- increased college and university reliance on private sector revenue for support of academic programs, staff, and services

Will public policy intervention directed toward control over the expenditure and pricing policies of public higher education institutions become a priority item for agencies of state government in the 1980's? If so, what are the most likely policy inititatives that will be advanced by state agencies and what are their implications for governance in public colleges and universities? Will these policy initiatives differ by state in accord with regional economic conditions or will their advent be uniform across all states? If "regionalization" has occured in higher education with public policy assuming a different form in different states, will institutional finance strategies vary by state depending on economic conditions? This research paper will describe a national study currently in progress to determine the impact of economic differentiation on institutional pricing and expenditure policies, higher education public policy,and governance in public colleges and universities.

CONDITIONS FOR PUBLIC POLICY IMPRESS ON INSTITUTIONAL AUTONOMY

Three factors in combination are proposed to lead to a discernible public policy impress on the autonomy of public colleges and universities. First, differential economic conditions among the states--whose collective appropriations comprise thirty percent of the total dollars spent on higher education in the United States--can signficantly alter the flow of resources to higher education.[1] The high unemployment rates associated with economic recession serve to reduce state revenues and increase pressure for spending on social services. Similarly, a decline in the inflation rate has the effect of reducing the flow of resources into state treasuries. Since states are forbidden by law or tradition to operate at a deficit budget, reductions in appropriations to higher education are a commonly utilized method for bringing state revenues into line with fiscal projections. Second, because centralization of decision-making capability and expansion of information systems to make decisions are common tendencies exhibited by complex organizations in a recessionary economy, it is reasonable to expect that higher education coordinating boards in states experiencing fiscal stress will: 1) expand their information requirements to support budget decisions and 2) establish centralized appropriations policies and procedures to improve the efficiency and quality of resource allocation decisions. Without procedures for centralized information collection and analysis, state agencies would be an unnecessary adjunct to state legislatures in the appropriations process.

The third factor leading to public policy impress on institutional autonomy is that of institutional expenditure and pricing policies. As higher education expenditures increase or revenues from state and local funding sources decline, colleges and universities will increase student costs to achieve a balance between revenue and expenditures (Deitch, 1978; Bowen, 1980). Public institutions can employ a number of methods to reduce expenditures or increase revenues in response to a reduction in state appropriations. Among the options available are across-the-board cuts, selective reduction, enrollment ceilings, tuition price increases, increasing productivity through increments in class size and faculty load, and diversification of revenue sources to include private-sector organizations. The issue for public policy consideration by higher education coordinating boards in economically depressed states is that of devising policies to limit appropriations, and thereby to control expenditures, while simultaneously controlling the cost of education to students through imposition of tuition pricing policies. Institutional autonomy, thus, could be impacted through increasing state control relative to expenditures and tuition pricing unless alternative sources of revenue are located to maintain the existing balance between revenue and expenditures.

In the present study, a relationship is postulated between the following research variables; 1) differentiation of economic conditions and higher education appropriations in selected states, 2) public college and university expenditure and pricing policies, 3) the public policy initiatives of state government agencies, and 4) conditions for higher education governance in selected states. A series of public policy initiatives are described which may portend varying degrees of impact relative to the autonomy and governance of public colleges and universities in different states. The paper concludes with a discussion of the implications of public policy for institutional finance in the decade ahead.

ECONOMIC DIFFERENTIATION

Technical data published by the U.S. Bureau of Census, state labor departments, and regional councils of government since 1980 provide documentary evidence of a shift in capital and human resources among the states. The dependency of northern industrial states on energy-intensive industries and uncertain energy supplies combined with out-migration of industry and population to the sunbelt states, has resulted in geographic differences in 1) the condition of the state economy, 2) the financial resources available to higher education, and 3) the demand for access to higher education among population subgroups. The process of differentiation in economic conditions--hereafter referred to as "economic differentiation"--can be measured by a number of indicators. Economic measures such as current and historical data on state revenue growth rates, unemployment, inflation, business and industrial closings, industrial production, plant utilization, new business and industry, etc., can be tabulated on a state-by-state basis to determine the extent of economic differentiation and the effects of such differentiation on higher education appropriations.

Although economic differentiation has been given ample consideration in the literature in terms of its impact on higher education appropriations, it has not been the subject of empirical research vis-a-vis its role as a determinant of higher education public policy. Decision makers in state agencies and public colleges and universities tend not to study the future direction of public policy, but rather to analyze its consequences once established. Determination of the relationship of economic differentiation to higher education public policy is important because it serves to highlight influences on institutional expenditure and pricing policies and specifically on college governance as it is defined in this study.

In summary, economic differentiation is a likely determinant of variation in institutional expenditure and pricing policies and higher education public policy among the states. Differentiation will vary the conditions for governance depending on the future direction of public policy and will shape the finance strategies employed by public colleges and universities in different states. If this conceptual structure is correct, the degree to which economic conditions vary among the states would correlate highly with measures of difference in 1) institutional expenditure and pricing policies, 2) higher education public policy, 3) conditions for governance, and 4) institutional finance strategies.

EXPENDITURES, PRICING AND PUBLIC POLICY

Expenditures and Pricing. Public policy shapes, and is shaped by, higher education expenditure and pricing policies. Expenditures are, after all, important to those agencies and individuals providing revenue for institutional spending and receiving the benefits of spending. Prices are a variable index which influence demand for, and acquisition of, higher education. State legislatures and coordinating boards are seldom indifferent to college and university expenditures and tuition charges are a critical concern to students.

The term "expenditure" refers to the costs incurred by postsecondary institutions for goods and services used in the conduct of institutional operations. They include the acquisition cost of equipment and supplies, staff salaries and benefits, facilities, and utilities. While the term "price" usually refers to an explicit rate of exchange between money and goods and services in an organized market, its use is more specific in the higher education marketplace. A price reoresents the connection between the student's use of resources to obtain access to postsecondary education programs and services and the perceived benefits of access received by the individual prior to the actual achievement of that benefit (Hoenack, 1982). For example, the perceived benefits of instruction in high demand, pre-baccalaureate technical programs in terms of the job market may influence a student to enroll in a public community college. Grants-in-aid, student loans, and tuition charges all constitute prices that influence the behavior of students relative to choices about: 1) whether or not they seek access to higher education, 2) what type of institution to attend, 3) enrollment in liberal arts, technical, or pre-professional programs, and 4) whether or not to continue enrollment in the face of changing economic and social conditions.

Prices perform an allocative role in higher education. The influences of prices on student choice partially determine enrollment levels in colleges and degree programs. The prices reflected in tuition charges facing students partially determine the amount of student subsidization from federal and state agencies and the corresponding institutional expenditures per student to provide educational services. Taken together, prices and expenditures are a catalyst for the formulation of public policy. They influence the public policy initiatives of state and federal agencies designed to cope with issues of student access, cost, and subsidization. Prices and expenditures, however, vary in accord with the condition of the economy in different states. Therefore, the scope and content of public policy in higher education is shaped by the combined influences of institutional pricing and expenditures as well as the economic condition of specific states.

Public Policy. The term "public policy" is used here to denote the complex of initiatives, decisions, directives, and legislation advanced by agencies and officials of state government that establish a policy direction for public higher education institutions in decisions related to enrollment and finance. State agencies formulate policy for higher education based on assessment of public attitudes toward critical educational issues. Public policy can assume many forms and address many problems, but for the purposes of this study, it is limited to eight fundamental issues which affect the self-interests of state agencies as they relate to public higher education: expansion of access, diversity of choice, cost containment, quality, productivity, governance, institutional subsidization, and student subsidization.

College and university expenditure and pricing policies are difficult to examine in terms of implications for public policy because the narrow self-interests of individuals and institutions acquiring or not acquiring benefits tend to permeate discussion. Institutional enrollment and tuition pricing policies, for example, adopted in response to rising or declining state appropriations cannot but have a considerable impact on external perceptions of institutional performance and priorities. Such perceptions constitute the seminal ground for public policy formulation as the following examples of the linkage between state economic conditions, institutional expenditure and pricing policies, and higher education public policy might suggest:

State Economic Condition	Institutional Expenditure and Pricing Policies	Focus of Higher Education Public Policy
declining economy	rising student costs (tuition pricing)	cost containment
declining economy	reduction in institutional programs, staff, & expenditures	quality
economic growth	expansion in programs, staff, & expenditures	institutional productivity
economic growth	expansion in enrollment	expanded access

Although in most contexts public policy is viewed as a determining factor in institutional policy formulation, in this paper the term is used in a more reactive or counteractive sense. It reflects the fact that, because institutional expenditure and pricing policies can have a demonstrable effect on institutional constituences (e.g., reduction in student access, diminishment of program quality and reduction in available services), policy initiatives may be advanced by state agencies and officials as a means to neutralize or negate the undesirable effects of institutional policy on external constituencies. This approach accommodates the possibility that the shape of higher education public policy may depend more on the capacity of administrators to cultivate specific external perceptions of the impact of regional economic conditions and institutional policies than on the independent actions of policy makers. It also opens an interesting arena of descriptive analyses aimed at identifying higher education public policy initiatives and priorities in different states and linking these initiatives with regional economic conditions and institutional expenditure and pricing policies.

INSTITUTIONAL GOVERNANCE

The specification of how higher education expenditure and pricing trends relate to public policy and the impact of these factors on institutional autonomy is essential if college and university administrators are to make accurate decisions regarding the development and management of institutional revenue markets. For example, it is important to understand the constraints on institutional autonomy posed by a shift in institutional policy to greater dependence on state and federal government agencies for financial support. Policy initiatives are likely to be advanced by state agencies guiding institutional decisions related to expenditures, tuition pricing, and enrollment associated with variable levels of revenue forthcoming from the state and federal sources. The public policy implications associated with changing patterns of state control over public colleges and universities cannot but have an impact on institutional autonomy as administrators experience a loss of control over decisions (e.g., tuition pricing, resource allocation, and enrollment and staffing levels) that traditionally have remained the province of the institution and its governing board.

RESEARCH MODEL

To examine the relationship between higher education expenditure and pricing policies and public policy in states with variable economic conditions, it is necessary to present a model for research which organizes relationships among the research variables. This exercise requires the specification of institutional and environmental factors which underlie specific public policy initiatives and then of the impact of these initiatives on institutional autonomy and finance strategies. A public policy impress model (Figure 1) is advanced to organize relationships among the research variables. This model is comprised of four stages: Economic Differentiation, Agency and Institutional Policies, Public Policy Impress, and Institutional Governance and Finance Strategies. Following is a description of the stages in the model and the research variables that are the subject of analysis in each stage.

<u>Stage One: Economic Differentiation</u>. A composite index of the financial condition of a state measured in terms of general economic indicators and revenues allocated to higher education. Indicators of state fiscal condition include historical and comparative data on actual revenue collections versus projected collections, rate of unemployment, volume and percentage of state revenues spent for social services, rate of inflation, state revenue growth

STAGE 1

ECONOMIC DIFFERENTIATION

STATE ECONOMIC CONDITIONS

- economic condition of state [illegible]
- state revenue collections [illegible]
- unemployment rate
- % state revenue spent for social services
- rate of inflation
- tax relief legislation
- status of reduction in federal aid
- economic development & diversification
- other

→

STAGE 2

AGENCY & INSTITUTIONAL POLICIES

STATE HIGHER EDUCATION APPROPRIATION POLICIES

Appropriation pattern to public colleges & universities:

- 1980-82 % change in higher education appropriations
- pattern of request for, & utilization of, volume indicator data for appropriations decisions (1975-1982)
- categories of volume indicator data used in appropriations decisions (1975-1982)

INSTITUTIONAL PRICING & EXPENDITURE POLICIES

Institutional policies to adjust expenditures and pricing to available revenues vis-a-vis state economic condition & appropriation policies:

- ceiling on enrollments
- across-the-board budget cutbacks
- selective budget reductions
- resource reallocation
- increase cost of tuition to generate additional revenue
- increase class size & enrollment

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STAGE 3

PUBLIC POLICY IMPRESS

PUBLIC POLICY INITIATIVES (STATE LEVEL)

Public policy initiatives & priorities established by state government agencies to adjust institutional policies to state social & economic conditions & needs:

- expansion of access
- diversity of choice
- cost containment
- quality
- productivity
- governance
- institutional subsidization
- student subsidization

INSTITUTIONAL AUTONOMY

Public policy impress & capacity of institution for self-governance as measured by:

- measurable internal change in institutional finance & enrollment policies (between stages two & three)
- institutional & state agency perceptions of the future revenue mix for two-year & four-year institutions
- implementation of new finance & enrollment policies in public postsecondary institutions via state agency mandate

STAGE 4

INSTITUTIONAL GOVERNANCE

INSTITUTIONAL FINANCE STRATEGIES

- diversification of revenue sources to include private-sector organizations
- argument for expansion of state & formula to provide "upside" & "downside" protection for postsecondary institutions experiencing gains & declines in enrollment
- liaison with state legislature to increase state aid appropriation as a "fair share" of the state revenue & expenditure budget
- negotiation with state agencies to remove enrollment-based formula funding as a mechanism for allocation of resources to public postsecondary institutions

rates, industrial production, plant utilization, volume and percentage of state revenues spent on higher education, per capita spending for higher education, and business and industrial closings.

Multiple source data are available to provide an assessment of state fiscal conditions including published state reports, state fiscal projections, and private sector reports. Data on state revenue available to higher education must necessarily be interpreted with caution, however, for the following reasons: 1) decisions regulating the flow of revenue to higher education are determined, in part, by political expediency and do not necessarily reflect changes in state fiscal conditions, and 2) it may be impossible to control for extraneous variables that enter the appropriations process such as the political skills of college and university administrators and the effects of such skills on actual appropriations to the institution. Numerous case studies can be attest to the effect of individual negotiation and representation skills on resource decisions made by state agencies.

Stage Two: Agency and Institutional Policies. An index of 1) the pattern of state agency appropriations to public colleges and universities from 1975 to 1982 in relationship to the number and variety of volume indicators used to describe the budgetary needs of public postsecondary institutions and 2) the expenditure and pricing policies adopted by colleges and universities to adjust to changing state fiscal conditions. Volume indicators are quantitative data that describe enrollment, programs, faculty and staff, energy costs, and facilities. Frequently used by state agencies to guide the allocation of resources to public two-year and four-year institutions, a change in the number and type of indicators used in appropriations decisions can result in a significant change in: 1) the allocation of resources to a college, 2) the level and type of categorical expenditures in the institutions, and

3) the cost of education for students.

Economic differentiation and state appropriations policies are viewed as a determinant of institutional pricing and expenditure policies in the research model. Numerous pricing and expenditure policies can be adopted by public colleges and universities to adjust to changing state appropriations in periods of economic stress. Some commonly used "policies" follow:

1) Institutions can place a ceiling on institutional and programmatic enrollments to control instructional expenditures.

2) Across-the-board and selective budget reductions can be implemented to reduce institutional expenditures in accord with changing appropriations policies.

3) Faculty and administrators can effect changes in the internal allocation of resources to modify expenditures in response to reductions in state appropriation growth rates.

4) Enrollment can be increased through increments in class size to improve institutional productivity and increase tuition revenue as a replacement for lost state aid.

5) College and university administrators can increase the cost of tuition, holding student enrollment constant, to generate additional revenue to offset the impact of changing appropriations policies.

6) Efforts can be made to reduce institutional dependence on state aid as a revenue source through diversification of resource development strategies to increase the flow of revenue from non-traditional sources (e.g., business and industry, alumni, private gifts, foundations, etc.)

Stage Three: Public Policy Impress. Each of the pricing and expenditure policy alternatives presented above has a differential impact on the clientele served by public colleges and universities and, to a limited extent, the public policy agenda of state agencies. For example, institutional attempts to control instructional expenditures through reductions in the operating budget can serve to diminish program *quality*. They can also serve as a stimulus for public policy initiatives by agencies of state and federal government aimed toward liberalizing institutional subsidization policies to include categorical assistance to public colleges and universities for program, development, renewal, and preservation. Such policy initiatives would have the effect of sustaining programs while simultaneously improving quality to offset the deleterious effects of lost state aid.

Similar in design, but different in impact, would be the efforts of public postsecondary institutions to raise additional revenue to meet rising expenditures by increasing the cost of tuition. The public policy issue of *cost containment* would invariably receive attention from state agencies as increasing numbers of students may be "priced out" of the higher education market by rising tuition rates. Escalating tuition rates among postsecondary institutions would have the effect of inhibiting student demand depending on program and geographic factors and therefore may serve to limit growth for particular sectors of the postsecondary education market. The absence of attention to cost containment policies could lead to a continuous cycle of enrollment declines and state aid reductions as the disparity widens between institutional costs and student ability to pay in a period of economic change.

Another example of a public policy initiative associated with institutional expenditure and pricing policies is the possible emergence of *self governance* as an issue when intitutions are subjected to complex state aid formulas, declining appropriations, and indirect state control over pricing and expenditure policies. The ability of an institution to make independent decisions regarding its mission, goals, and programs can erode gradually in the face of tightening state controls on the acquisition and expenditure of fiscal resources. Analysis of the fiscal policies and procedures employed by state agencies to guide the preparation of institutional budget requests and establishment of tuition price policies would make a substantial contribution to understanding the effects state government policies on institutional governance.

Stage Four: Institutional Governance and Finance Strategies. For the purposes of this paper, the autonomy of public colleges and universities is evaluated in terms of: 1) the degree of institutional freedom to assign resources to expenditure categories in the college budget (instruction and research, institutional support services, maintenance and operations, academic support services, etc.); 2) the ability to establish institutional enrollment quotas and projections independent of state agency input or adjustment in relationship to enrollment-driven funding formulas; and 3) the ability to establish tuition prices without intervention by state agencies. State agencies interested in the public policy issue of cost containment will almost certainly place tight controls on institutional expenditures, tuition pricing, and enrollment levels. Conversely, state agencies interested in expanding access to higher education can be expected to withhold contraints on enrollment and expenditure levels and thereby encourage enrollment of new students in public colleges and universities.

Institutional finance strategies, the long- and short-term methods used by colleges and universities to balance revenues and expenditures, would tend to center on the development of private-sector revenue in economically depressed states. Although the manifest objective would be aversion of the negative impacts of diminishing state aid (e.g., program cuts, enrollment limitations, erosion in quality), the latent objective would be augmentation of institutional autonomy through utilization of private-sector revenue to support college programs. Thus, institutional finance strategies can be said to be a function of the public policy initiatives of state agencies and to reflect the revenues that colleges and universities expect to receive as well as their perception of the degree of operating freedom to allocate resources to programs and services.

RESEARCH SUPPOSITIONS

Keeping in mind the relationship between economic differentiation, state appropriation policies, institutional pricing and expenditure policies, public policy initiatives, and institutional autonomy, it is possible to advance a number of research suppositions to examine the combined impact of these research variables on institutional autonomy:

-- The economic climate for higher education will vary among the states based on a combination of conditions which negatively or positively impact state revenues available for higher education(e.g., unemployment, revenue spent for social services, inflation, tax relief legislations, federal aid, economic development and diversification).

-- The public policy agenda for higher education pursued by coordinating boards and legislatures in different states will vary in accord with regional economic conditions and the enrollment and finance policies adopted by public institutions to adjust to changing conditions.

-- Higher education coordinating agencies in states with a stable or growing economic base will focus public policy in higher education on a different set of values (i.e., diversity of choice, access, and productivity) than those states with a declining economic base (i.e., cost containment, self-governance, and quality).

-- Between 1975 and 1982, state higher education coordinating agencies will have evidenced a marked increase in the number and type of institutional volume indicators used in resource allocation decisions.

-- Unable to significantly reduce educational expenditures because of swelling "fixed cost commitments" (salaries, benefits, energy, and facility maintenance requirements), public colleges and universities in economically depressed states will increase student costs to a level sufficient to offset any potential imbalance between revenue and expenditures.

-- Faced with conditions of: 1) reduced ability to provide incremental revenue to public colleges and universities, and 2) rising student costs, state agencies in economically depressed states will establish fiscal policies to control institutional expenditures and tuition costs.

-- The imposition of expenditure and cost policies by state agencies in economically depressed states will significantly alter the traditional role and authority fo institutional governing boards in decisions related to higher education finance.

-- Public colleges and universities, faced with erosion of authority to make independent expenditure and pricing policies, will seek to augment autonomy through development of private sources of revenue to support institutional programs and services.

RESEARCH METHODS

Public policy is an elusive subject for research. Empirical measurement is made difficult by research indicators that are not easily defined, policy initiatives that defy measurement because of rapid shifts in public attitudes, and research subjects (state agency officials, college and university administrators, state legislators) reluctant to disclose vital information because of the sensitive nature of public policy. In the research model postulated in earlier discussion, the public policy initiatives of state government agencies are viewed as: 1) a consequent of state economic conditions and institutional pricing and expenditure policies, 2) a potential inhibitant of institutional autonomy, and 3) a determinant of institutional finance strategies.

Public policy can be measured using a working definition of public policy as the complex of: 1) documented perceptions and attitudes held by state government officials regarding the desirable future direction of higher education pricing, expenditure, revenue, and enrollment policies; and 2) views held by college and university administrators regarding the future direction of higher education public policy established by state agencies. Since attitudes and perceptions of government agency and institutional officials are the key ingredients in public policy research, a multi-faceted research design is necessary to ensure data validity. This design should include multiple categories of research subjects, multiple techniques for data collection, and multiple sources of data.

Multiple Sources of Research Data. Influents to public policy such as changing economic and demographic conditions and institutional pricing and expenditure policies involve multiple sources of data including published reports, official agency documents, survey data, and interviews with agency and institutional officials. In the current study, multiple-source data are used to study public policy from the perspective of: 1) the antecedent conditions that shape public policy for higher education (i.e., state economic conditions, appropriation policies, and institutional pricing and expenditure policies), and 2) the consequent factors that comprise the impact(s) of public policy on public colleges and universities (i.e., constriction of institutional autonomy and change in institutional finance strategies). *Published documents* will be examined to determine the economic condition of various states and the impact of these conditions on higher education appropriation growth rates. *Survey techniques* will be employed with state agency officials, college and university administrators, and legislative staff to document the public policy interests of state officials. *In-depth interviews* will be conducted with state agency officials, college and university administrators, and legislative staff in specific states to collect perceptual data regarding the primacy of different public policy initiatives for higher education and the impact of these initiatives on institutional autonomy and finance strategies.

Multiple Subjects for Collection of Research Data. Different research subjects (i.e., state agency officials, college and university administrators, legislative staff, etc.) may have different perceptions of the design and direction of public policy depending on the nature of their organizational affiliation. A collectivity of research subjects representing different categories of organizational affiliation is required for effective research on public policy. The following categories of research subjects are used in the current study:

State Coordinating Board Officials (Two-year and Four-year)

--executive director
--director of finance
--director of academic affairs

Public College and University Administrators (Two-year and Four-year)

--chief executive officer
--chief academic officer

--chief financial officer
--chief officer/institutional relations

State Legislature (Higher Education Committee Members and Support Staff)

--committee head/higher education appropriations committee
.senate
.house
--legislative support staff
--committee members/higher education appropriations committee
.senate
.house

Multiple Techniques for Data Collection. It is necessary to employ a combination of data collection techniques in public polciy research so that assertions from data are not confined to peripheral issues or the self-interested political positions put forward by research subjects. Three research techniques are used to identify the public policy initiatives and priorities of government agencies in selected states:

1. "Absolute Scale" technique in which an array of public policy initiatives (e.g., access, cost containment, diversity of choice, quality, productivity) are defined and presented to research subjects for evaluation of salience. Salience ratings ("very important" to "unimportant" on a five-point Likert Scale) are assigned to a series of descriptive statements that describe each policy initiative. A composite score representing the "mean" for multiple statements descriptive of a specific policy initiative is established for research subjects grouped according to affiliation (coordinating board official, college administrator, legislative staff, etc.).

2. "Rank-order" technique in which subject ratings of the relative importance of public policy initiatives are obtained through ranking initiatives from highest to lowest in accord with individual perceptions of their importance.

3. "Open-end" technique in which research subjects are asked to record, in their own words, the higher education public policy issues that are, or should be, the focus of attention in the state.

These research techniques will yield data that describe the primacy of public policy initiatives among different higher education constituencies in a specific state. Consensus documented among agency, institutional, and legislative officials with respect to the priority and absolute rank of different policy initiatives will be interpreted as a definitive statement of higher education public policy in a specific state. Differences of opinion between respondent groups will mandate additional research including follow-up interviews to clarify survey data.

DATA ORGANIZATION AND ANALYSIS

Effective research on public policy depends on precision in the methods used to collect, organize, and analyze data. Presented below is a matrix of research hypotheses, research indicators, and data collection procedures that will be used to organize and examine research data in the four stages of the study: Documentation of State Economic Conditions, Documentation of State Agency Appropriation Policies and Institutional Pricing and Expenditure Policies, Documentation of Public Policy Initiatives, and Documentation of Impact on Governance and Finance.

Stage One: Documentation of State Economic Conditions

I. Research Hypotheses

Hypothesis 1: Economic conditions for higher education will vary widely among the states with a significant relationship demonstrated between 1) the economic condition of selected states and 2) higher education appropriation growth rates between 1980 and 1982.

Hypothesis [illegible]: A significant relationship will be demonstrated between 1) the economic condition of selected states and 2) per capita spending for public higher education between 1980 and 1982. Per capita spending for public higher education will increase at a much slower rate in economically depressed states compared to states experiencing economic growth.

Hypothesis [illegible]: A significant relationship will be demonstrated between 1) the economic condition of selected states and 2) the proportion of the state budget spent for public higher education. As economic conditions worsen in selected states, a smaller percentage of the state budget will be spent on public higher education compared to previous years.

II. Research Indicators

- annual growth rate of the revenue budget in selected states, 1975-82
- trends in revenue projections/collections for selected states, 1975-82

- unemployment rates for selected states, 1975-82
- annual rate of inflation for selected states, 1975-82
- business and industrial closings in selected states, 1975-82
- plant utilization rates in selected states, 1975-82
- industrial production in selected states, 1975-82
- business and industrial relocation in selected states, 1975-82
- public higher education appropriation growth rates for selected states, 1975-82
- per capita expenditures for higher education in selected states, 1975-82
- percentage of total state budget spent on public higher education in selected states, 1975-82
- percentage of state budget spent on human services (social services, mental health, law enforcement, etc.) in selected states, 1975-82

Preliminary States Selected for Research Analysis*

"Growth" Category			"Depressed" Category		
State	1980-82 Approp. Change**	1982 Approp. per Capita***	State	1980-82 Approp. Change	1982 Approp. per Capita
Alaska	(+79%)	$356.37	Oregon	(-4%)	$ 90.73
Oklahoma	(+47%)	129.00	S. Dakota	(0)	77.99
N. Dakota	(+43%)	164.95	Missouri	(+1%)	72.47
Texas	(+39%)	137.85	California	(+4%)	135.35
Wyoming	(+38%)	197.56	Illinois	(+4%)	89.80
Colorado	(+33%)	118.05	Indiana	(+6%)	88.75
Massachusetts	(+28%)	71.44	Arkansas	(+6%)	86.28
Florida	(+26%)	89.95	Washington	(+6%)	118.05

*States are arbitrarily assigned to categories of "growth" and "depression" based on higher education appropriation growth rates between 1980-81 and 1982-83. State appropriation data are extracted from a report by M.M. Chambers of Illinois State University as state tax funds appropriated for operating expenses and scholarship programs for higher education. Amount of appropriations may be reduced later in some states because of shortfall in revenues. Not included are appropriations for capital outlay or money from sources other than state taxes, such as student fees. Included are appropriations for annual operating expenses even if appropriated to some other agency of the state for ultimate allocation to institutions of higher education. Pre-allocated state taxes whose proceeds are dedicated to any institution of higher education are included even though periodic appropriation by the legislature may be bypassed. Also included are state tax funds appropriated for scholarships and statewide governing or coordinating boards.

**Not adjusted for inflation.

***State appropriations divided by U.S. Census Bureau population estimates for 1981.

III. Data Collection Procedures

.collection and review of published documents and statistical reports detailing state fiscal data, 1975-82

.correspondence and in-depth interviews with state budget officials

Stage Two: Documentation of State Agency Appropriation Policies and Institutional Pricing and Expenditure Policies

I. Research Hypotheses

Hypothesis 4: A relationship will obtain between 1) higher education appropriation growth rates (1975-82) in selected states and 2) the range and magnitude of volume indicator data collected by higher education coordinating boards as a basis for appropriations decisions. Coordinating boards in states experiencing economic stress will exhibit a tendency to significantly expand the amount of volume indicator data (data descriptive of institutional enrollments, facilities, staff, programs, etc.) requested from institutions for use in appropriations decisions compared to states experiencing sustained economic growth.

Hypothesis 5: A significant relationship will be demonstrated between: 1) increasing state agency dependence on volume indicator data for higher education appropriations decisions and 2) year-to-year change in institutional enrollment, expenditure and tuition pricing policies. As coordinating boards in economically depressed states expand the amount of information used in appropriations decisions, public colleges and universities will implement policies to adjust enrollment levels, tuition pricing, and expenditures to maintain or improve the ratio of revenues to expenditures.

II. Research Indicators

- institutional volume indicator data requested by higher education coordinating boards and government agencies in selected states for appropriation decisions, 1975-82 (year-to-year comparisons).

  a) institutional enrollment data/history and projections

  b) academic programs, discipline, and course enrollment data

  c) academic services data, library volume, learning centers, etc.

  d) auxiliary services data

  e) faculty, administrative, and support staff data

  f) faculty load data/credit hours, contact hours, faculty-student ratios

  g) facilities data/square footage, capacity and ut.lization, energy usage and projections

  h) financial data/revenues and expenditures by category

- year-to-year changes in institutional enrollment, tuition pricing, and expenditure policies in selected states, 1975-82

  a) enrollment policies

  - imposition of institutional enrollment ceilings
  - imposition of program enrollment ceilings
  - planned increase in institutional and program enrollment levels to expand tuition revenue (increasing class size)
  - across-the-board expenditure reductions
  - selective expenditure reductions
  - resource reallocation
  - increase in tuition pricing (cost per credit)

- assessment by college and university administrators of causative factors underlying change in institutional enrollment, expenditure, and tuition pricing policies in selected states between 1975-82

III. Data Collection Procedures

- collection and review of state agency documents describing data requested from public colleges and universities for budget review purposes

  - technical instructions for budget preparation
  - budget request forms

- collection of data from public college and university chief academic and financial officers via survey instrument to identify: 1) changing institutional expenditure, enrollment, and tuition pricing policies and 2) regional conditions that mandate changes in institutional fiscal and enrollment policies between 1975 and 1982

Stage Three: Documentation of Public Policy Initiatives in States Facing Differential Economic Conditions

I. Research Hypotheses

Hypothesis 6: A relationship will obtain between the economic condition of selected states (i.e., economic differentiation) and the public policy initiatives advanced by state agencies. This relationship will be mediated by the pattern of change in institutional enrollment, expenditure, and tuition pricing policies evidenced between 1975 and 1982 in public colleges and universities. Public postsecondary education institutions in economically depressed states will undertake major changes in institutional policies in response to changing financial conditions, particularly cutbacks in state appropriations. Over time, these policies (e.g., enrollment ceilings, expenditure reductions, increasing class size) will be perceived by state agencies as producing potentially significant changes in the regional postsecondary education market. Problems such as reduction in student access, decline in academic quality and reduction in programs and services will prompt state agencies to introduce new policy initiatives (i.e., cost containment, improvement in quality, etc.) as a method for alleviating the potentially harmful effects of sustained reduction in spending for higher education. A converse relationship between economic conditions and public policy initiatives would be expected among public colleges and universities in states experiencing economic growth. A condition of sustained growth would encourage the development of institutional policies favoring student access, program and enrollment growth, and diversity of student choice.

II. Research Indicators

.perceptions of the salience of various public policy issues for higher education by college and university administrators, higher education coordinating board officials, legislative staff, and state legislators

-absolute scale technique
-rank-order technique
-open-end technique

III. Data Collection Procedures

- survey questionnaire administered to: 1) selected college and university administrators, 2) state higher education coordinating board officials, 3) legislative staff to house and senate higher education committees, and 4) state legislators serving as committee members on house and senate higher education committees.

- follow-up interviews with selected institutional, agency, and legislative officials

Stage Four: Documentation of Impact on Governance and Finance Strategies in Public Colleges and Universities

I. Research Hypotheses

Hypothesis 7: A relationship will be demonstrated between the public policy initiatives evaluated as important by agencies of government in selected states and centralization/decentralization of pricing and expenditure decisions in public colleges and universities. In states experiencing economic stress, cost and expenditure containment will become a salient public policy issue among state agency officials and college and university administrators. Decisions regarding institutional enrollment levels, tuition pricing, and expenditure levels will be centralized (i.e., regulated by state agencies) to achieve a "balance" between institutional expenditures and revenues. In states experiencing economic growth, public policy issues such as diversity of choice, productivity, and expanded access will receive attention from agency and institutional officials. Enrollment and finance decisions in these states will be decentralized with college and university administrators assuming the major share of responsibility for strategic decisions.

Hypothesis 8: A significant relationship will be demonstrated between the level of centralization for college and university expenditure and pricing decisions in selected states and institutional and state agency projections of trends in the revenue mix for public higher education.

Public colleges and universities in economically depressed states will attempt to offset the effects of declining appropriations and increasing centralization of finance and enrollment decisions through expansion of private-sector revenue to support institutional operations. In contrast, the combined income provided by state aid and tuition for public colleges and universities in developing states will meet the budgetary needs of most institutions and thereby reduce institutional dependence on private sector support.

Hypothesis 9: A significant relationship will obtain between increasing institutional dependence on private-sector revenue for support of programs and services and administrative perceptions of the future direction of higher education appropriation policies in selected states. Among states in which public colleges and universities have substantially increased private-sector revenue for institutional programs, administrators will identify a pattern of change in state aid formulas involving a shift in the burden of support for higher education to private sector organizations.

II. Research Indicators:

- state agency and institutional perceptions of the level of centralization/decentralization of higher education enrollment and finance decisions in selected states, 1975-82

Routine Enrollment and Finance Decisions

-specificity of technical instructions for budget request submission issued by state agencies

-level of precision in enrollment data required for enrollment driven formula budgeting

-level of documentation required for exceptional changes (categorical increases/decreases) in year-to-year institutional budget requests

-state agency policies for transfer of funds between expenditure categories in institutional budget

Exceptional Enrollment and Finance Decisions

-beginning-of-year budget adjustments instituted by state agencies vis a vis changing state revenue levels and/or institutional enrollment levels

-mid-year budget adjustments instituted by state agencies

-freeze on institutional hiring via state agency mandate

-imposition of mandatory "savings" or "accruals" in institutional budget

-ceiling on institutional and program enrollments

-imposition of tuition pricing policies by state agencies

- assessment of institutional efforts to increase revenue from private sector organizations

  -agency and institutional perceptions of current versus anticipated revenue generated from private-sector organizations, 1982-85

  a) business and industry
  b) foundation
  c) alumni giving
  d) private gifts (non-alumni)
  e) miscellaneous

  -agency and institutional perceptions of current versus anticipated percentage of revenue for the operating budget in public colleges and universities generated from private sector organizations, 1983-85

  -changes in staff undertaken by institutions (i.e., increases in staffing and/or reorganization of staff) to improve private sector revenue

- assessment of institutional and agency perceptions of the probability of changes in state aid formulas to substitute private sector revenue for public sector revenue in appropriations to public colleges and universities

- state agency and institutional forecasts of the future revenue mix for public colleges and universities in selected states, 1983-88

  -volume and percentage of institutional revenue between 1983 and 1988 forthcoming from the following sources:

  a) tuition
  b) state aid
  c) local taxation
  d) federal programs (research, entitlement and student aid)
  e) private sources (gifts, foundations, business and industry, etc.)
  f) miscellaneous sources
  g) other

III. Data Collection Procedures

- survey questionnaire administered to 1) selected college and university administrators and 2) state higher education coordinating board officials

- follow-up interviews with selected institutional and state agency officials

IMPLICATIONS FOR INSTITUTIONAL GOVERNANCE

This study may contribute more to understanding of the relationship between economic differentiation, public policy, and institutional autonomy than it will to the improvement of institutional finance strategies, hence augmentation o institutional autonomy. Improvement depends upon critical factors outside of institutional control such as the political incentives facing legislators and other policy makers. In the eyes of many legislators and elected political officials, the public would certainly benefit from consideration of policy issues such as expanded access to higher education, but such issues involve indirect benefit to constituencies and are therefore too diffuse to catalyze voting blocs and pressure groups. Given a continuing scenario of differential economic conditions for higher education, the question is one of the impact on parties to the governance process of changing public policy interests of state agencies. These parties include students who benefit from high quality programs with adequate equipment and supply inventories; faculty whose departmental budgets and salary and benefits would be improved if based on full state funding; and administrators and boards of trustees who would experience greater latitude in decision making if public policy encouraged decentralization of decisions to higher education institutions with adequate support provided by state agencies.

If the expenditure and pricing policies of public colleges and universities become a major public policy issue in the 1980's, faculty and administrators will likely see incremental powers and expectations for centralized planning and coordination on the part of state agencies; regulatory strategies in the form of tuition controls; greater interest in cost-based "reimbursement," whether prospective or retrospective, as the mode of state funding; and even some market strategies such as an increasing emphasis on private sector support as opposed to direct state funding of institutions to open "free market competition" as a means to control costs. The issue will become one of control over policy related to institutional expenditures and pricing -- control which has traditionally rested with institutional governing boards.

The distribution of authority for expenditure and pricing decisions is apt to change as economic conditions change over the next decade. Will there be a "state mode" for distribution of authority in economically depressed states? Will higher education institutions control their own destiny in the establishment of financial policy or will state agencies seize the initiative and provide coordination for these decisions? Will the public policy interests of state government agencies support coordination of higher education pricing and expenditure policies or will such interests mitigate or mollify coordination? And, finally will variable state economic conditions make a difference in the public policy interests of state agencies, hence the milieu for governance, or will such interests emerge quite apart from economic considerations?

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