

DOCUMENT RESUME

ED 202 338

HE 013 846

AUTHOR Huff, Robert A.
 TITLE Problems and Issues Related to the Data Game.
 INSTITUTION Education Commission of the States, Denver, Colo.
 Inservice Education Program.; State Higher Education
 Executive Officers Association.
 SPONS AGENCY Kellogg Foundation, Battle Creek, Mich.
 REPORT NO IEP-905-4
 PUB DATE May 75
 NOTE 11p.; Paper presented at a Seminar for State Leaders
 in Postsecondary Education (Philadelphia, PA, May
 1975).

EDRS PRICE MF01/PC01 Plus Postage.
 DESCRIPTORS Academic Freedom; *Accountability; Budgeting;
 Conflict Resolution; *Data Analysis; Decision Making;
 Evaluation Criteria; *Government School Relationship;
 Guidelines; *Higher Education; Institutional
 Autonomy; Management Information Systems; *Political
 Influences; State Colleges; State Officials;
 *Statewide Planning

IDENTIFIERS *Seminars for State Leaders Postsec Ed (ECS SHEEO)

ABSTRACT

Ways that data can be misused in establishing accountability of public higher education are described along with approaches to help alleviate the potential adversary relationships between postsecondary leaders and state agency personnel. It is suggested that scholars fear a future in which educational decisions may be made according to numbers or by state agency staff who may lack expertise about the issues in higher education. Part of the relationship between state agencies and colleges is influenced by the analysis of data and subsequent conclusions. It is a political tactic to display only those pieces of information that are supportive of a preconceived position, and data elements can be aggregated using decision rules that maximize some comparative figures and minimize others. Data can be manipulated in many ways so as to mislead decision-makers, and decision-makers can choose to base judgments on only scraps of evidence. Faculty suspect that state agency staff and the general public neither understand nor appreciate their unique working style or professional role, and institutional administrators fear loss of autonomy to manage their own campuses. It is proposed that all parties may feel more comfortable if there are clear policy statements guaranteeing certain decisions and responsibilities to each group. One necessary step is to develop a Bill of Rights at the state level so that all participants will have a clear understanding of how the state higher education system is to operate. Additionally, a clear statement defining the sequence of events within the planning and budgeting processes and specifications for a statewide data base and management information system could be developed. Emphasis could be placed on collecting only those data elements that are essential for the prescribed planning and budgeting process. (SW)

ED 202338

Inservice Education Program (IEP)

Paper Presented at a Seminar for State Leaders in Postsecondary Education

PROBLEMS AND ISSUES RELATED TO THE DATA GAME

ROBERT A. HUFF

Professor
Virginia Polytechnic Institute
and Former Director for
(NCHEMS) Applications and Implementation

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

ECS

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Philadelphia, Pennsylvania
May 1975

IEP Reprint No. 905-4

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.

Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

HE 013 P 16



Inservice Education Program (IEP)
Education Commission of the States
1860 Lincoln Street, Suite 300
Denver, Colorado 80295



The IEP Program has been supported primarily by the W. K. Kellogg Foundation with additional funds from the Education Commission of the States, the Frost Foundation and the State Higher Education Executive Officers

PROBLEMS AND ISSUES RELATED
TO THE DATA GAME

"When there is little prey, the lions quarrel."
Moslem Proverb

The strain of retrenchment is showing in the higher education community. Out of the necessity of competing for limited clients and funds, institutions often find it less attractive to cooperate with one another than to guard their own territory. The same can be said for the departments and schools on a single campus. Careers are most readily built during periods of growth. Most of the incentives created by the traditional reward system in higher education prompt administrators and faculty to strive to, at very least, hold on to the numbers of students and the amount of resources they now have. Like the actress who does not know how to grow old gracefully, higher education seems unable to accept the fact that the priorities of many Americans no longer grant top billing to traditional colleges and universities as the best possible way to garner the greatest good with expenditures of public funds.

Since no one really expects those with vested interests in the traditional higher education establishment to expend great energy looking for ways to limit, or even diminish, their own role, new agencies to coordinate and monitor the several campuses within each state have been established. Understandably, such words as faculty activity analysis, cost-benefit accounting, and program complimentation are alarming to scholars who honestly feel that the best available means of attacking social ills and technological problems is through the application of the expertise of academe. No one can be against efficiency or full disclosure in public organizations. Yet, the specter of a future in which educational decisions may be made according to the numbers rather than by the powers of philosophical persuasion causes a shudder in campus offices from the presidential suite to the smallest faculty cubical. New or strengthened state higher education agencies are, by establishing check points within the conduit for public funds, threatening opportunities for upward career mobility as well as limiting campus autonomy to launch promising new programs. Established academicians find it difficult to accept that state agency staff, who frequently are less experienced and prestigious than campus leaders, are qualified to make judgments about the limitations or future shape of the higher education

enterprise. Thus, we have drawn uncertain battle lines between state agencies and local institutions and, in some cases, between different sets of institutions. No small part of this advisory relationship will be a continuous competition in what could be dubbed the Data Game.

Data and information are powerful tools. Difficult decisions can turn on a single piece of hard fact despite a wealth of contrary testimony and opinion. Hard data provide a defense for the decision-maker under pressure. Thus, the central rule of the Data Game is that you must obtain more and better data than the opposition or, if failing that, discredit the opponent's data. A corollary rule cautions that above all, you should never generate the kind of information about your own campus that may prove more useful to the coordinators than to your own spokesmen.

In theory, data are but neutral bits of descriptive information. In reality, this is almost never the case. Just as a sound has meaning only where there is an ear to hear it, data cannot be examined in the absence of the value systems each of us carries. Told that the student-faculty ratio in a given department is 12 to 1, some will applaud that fact as a fine accomplishment while others will quickly point the accusing finger of fiscal irresponsibility. The bit of data may be neutral but the viewers are seldom unbiased. The whole concept of accountability would not be so troublesome if each person could select the criteria and standards by which he would be evaluated.

A popular pastime on the academic cocktail circuit during the past few years has been the telling of horror stories about the misuse of campus data by those outside the academic club. Unfortunately, most of the anecdotes are true. However, legislative analysts and state coordinating agency personnel have no monopoly on the misuse of data. The Data Game is very democratic. Anyone can play and institutional people may even have invented the sport.

Several ways to profitably misuse data can readily be identified. Perhaps the most widely used strategy in the Data Game is to display only those pieces of information that are helpful in supporting your preconceived position. In this strategy, half a picture is better than a full view. Political candidates speak about their strengths and accomplishments and seldom draw attention to their past failures or personal limitations. We have learned to be somewhat skeptical of politicians who would have us believe that they are paragons of virtue. We should also become more sophisticated in expecting educators to be willing to display information about both positive and negative aspects of

their operations. All is not perfection behind the ivy walls and educators who appear overly protective of their institutions increasingly will lack credibility.

A second way of manipulating data in support of pre-conceived positions is by aggregating data elements using decision rules that maximize some comparative figures and minimize others. When itemizing our income tax deductions, all questionable items become deductions in order to minimize the taxable income. Sometimes it is difficult for educational organizations to resist the temptation to count credit hours or allocate costs in such ways as to shape statistical reports in their favor. This can prove a dangerous practice since it is impossible to maximize more than one activity at a time. If the cost of research is maximized, the cost of instruction and other activities must be minimized. If the tally of graduate credits is maximized, the total of undergraduate credits must be diminished or the case for a legitimate curriculum may be compromised. Statistics about educational operations are used for multiple decisions and it is difficult to recalculate the statistics to suit the requirements of every new decision that arises.

There seems to be a proclivity among some analysts to place all kinds of comparative data from several campuses in rank order and then assume or imply that relative locations on the list indicate relative value or quality of performance. Listing the high temperatures for several locations in rank order does not tell the reader whether it was a nice day in each location. The question is, nice for what? Skiers perceive good weather in one way while those hoping to swim at the beach see it quite differently. Arraying educational costs in rank order tells us little about the effectiveness of the expenditures in achieving unique educational objectives. Listing the most active stocks on the New York Stock Exchange does not tell us if any one of them was a good or poor buy. Listing student-faculty ratios from high to low does not indicate if any of the courses offered were worthwhile.

Data can be manipulated so as to mislead decision-makers. Conversely, decision-makers can choose to base judgments on only scraps of evidence. Either act constitutes a misuse of data and shows a lack of responsibility in seeking continual improvement in the management of our limited educational resources. Reaching decisions about the allocation of resources is never easy. However, data and analysis should always support clarity and illumination of alternatives rather than obscurity or bias.

Perhaps the most potentially damaging misuse of data can stem from the current preoccupation of many planners with gathering historical statistics as a basis for future planning and budgeting decisions. As well meaning as these analysts may be, the mere discovery and perpetuation of history may do disservice for both those who seek fiscal efficiency and those focusing on curriculum improvement. Gamblers wouldn't think of setting odds on sporting events on the basis of past win-loss records alone. They always consider new events and inject logic into the odds-making process. Similarly, discovering the average student-faculty ratio or cost per credit across the country may tell us nothing about what such statistics should be for a particular program in a local college or university.

Discovering the status quo is certainly worthwhile, but not to the exclusion of expending adequate energy and time in building consensus as to the planning parameters that should be employed for future operations. It may be desirable to perpetuate historical funding and workload policies through future budgetary periods. On the other hand, the experience of past operations coupled with newly identified needs and goals may call for radical change in resources allocation patterns. More time spent in arriving at plans through hard logic related to what it takes to accomplish specific educational tasks instead of so much time and energy expended in analyzing the historical records would stimulate the educational community toward self improvement. Few educational planners wish to be fettered by past equations, so why not concentrate more effort on what ought to be rather than what has been.

Sociologists have noted that each person tends to act according to the best interests of his group. Members of labor unions may have trouble appreciating the problems of management and corporate management may, in turn, fail to understand the motivations of government officials. Similarly, those occupying various roles related to the higher education Data Game are most concerned with the potential impact on their own positions, opportunities, and responsibilities. Faculty, institutional administrators, and state-wide coordinators may be viewed as three separate groups with differing concerns and views of the possible consequences of providing more data to other educators and the public at large. The reactions of each group to the development of more management information result from a combination of perceptions about what is good for higher education and what is good for them personally.

Faculty suspect that those in state agencies and the general public neither understand nor appreciate their unique working style or professional role. Out of necessity,

faculty pursue many interests simultaneously. Instruction is only one facet of the faculty member's activity. Research and the development of new knowledge and applications, as well as counseling with students and providing services to public and private organizations through consulting, are all part of the comprehensive activities that keep a faculty member current and valuable. The very nature of the faculty role establishes a situation in which erratic patterns of workload, assignments, and accomplishment will occur. Exposure of such erratic patterns through analysis and presentation of cold facts in isolation from complete explanation is alarming to faculty.

Those who talk of mandating standard workload assignments for faculty show a lack of appreciation for the realities of the faculty condition. Faculty are jealous of their professional role that requires a large measure of self-direction. They feel that progress is made by those with the freedom to try new ideas and manage their own resources. Any use of data that tends to limit the entrepreneurial latitude of faculty will quickly be resented and resisted. Faculty are fearful of being turned into production line employees in the name of efficiency and feel that such a move must ultimately damage the quality of instruction, especially at the graduate level. The wise use of data and planning information should avoid destruction of the incentives of faculty as self-directed professionals and simultaneously establish planning strategies that direct the limited educational resources to needed programs in fair proportions.

Like faculty, institutional administrators fear loss of autonomy to manage their own campuses. Governmental preoccupation with scrutinizing operational details limits the administrators' ability to use their allotted resources as they think best to achieve the goals of the institution. In addition, too much control from above denies opportunities to start promising new activities that help maintain a dynamic organization. Most administrators are intensely aware of the political processes that can quickly lead to the capricious use of data as a weapon against the institution. In the heat of rough and tumble state politics, data may quickly be turned to uses for which they were never intended. To the extent that mistrust in the fairness of the political process exists, administrators understandably will wish to have less data rather than more available to bureaucratic statewide planning agencies.

Perhaps there is also more than a little fear on the part of administrators that they will appear to be in charge of poorly run organizations when judged by the criteria of the business world. Again, the conflict between business-like efficiency and decentralization of decision-making that

has been held so important in the university setting may be highlighted by an over abundance of analysis and data. Most administrators would be quite willing to "tell it like it is" if others would try to understand that colleges are not factories and the curricula are not assembly lines.

Those in statewide higher education coordinating agencies are also under considerable pressure when participating in the Data Game. Many are in relatively new positions without established prestige or credibility. They must justify their existence to legislatures and executive offices by demonstrating their ability to plan effectively for the state's postsecondary education network. Currently, they must rely almost totally on data provided by the individual campuses for their planning processes. Thus, the institutions have the power to control the statewide planning process by the flow of data they are either able or willing to report.

An unfortunate adversary relationship has arisen between institutional leaders and state agency personnel. The kind of mutual trust that would enhance opportunities for effective statewide planning most frequently do not exist. Statewide personnel frequently feel that institutional representatives wish to thwart their efforts and render them ineffective in accomplishing the statewide planning function upon which their existence depends. Lacking the experience and prestige of major campus leaders, they often feel disadvantaged or insecure when meeting institutional representatives at the conference table. This leads to a tendency to avoid involvement with campus leaders whenever possible and simply plan for them rather than with them. A lack of interaction in the statewide planning and budgeting process can only intensify the feelings of suspicion and resentment on local campuses.

In such an atmosphere of adversary relationships compounded by honestly held differences of opinion about educational priorities, the Data Game may provide a convenient battleground. The state agency requests data and the institutions reply, "first tell us what you intend to do with it." The squabbling can be both frustrating and embarrassing to all parties. To the general public and its representatives in state and federal government, higher education is seen as being unable or unwilling to coalesce in deference to the public good. The consequence may be more of the very kinds of centralized control and demands for stringent accountability that are most feared by the institution.

Clearly, it would be in the best interest of all concerned for higher education groups to cooperate in an effort

A second necessary task aimed at pacification of the Data Game is the development of a clear statement in each state defining the sequence of events within the planning and budgeting processes. What is needed is a "roadmap" (or PERT chart) for planning. Too often the planning and budgeting process is so haphazard and erratic as to mystify those who are not perpetually involved. The planning map would be limited and, in part, dictated by the particulars of the educational Bill of Rights. The statewide planning process it defined could not encroach upon the management territory preserved for faculty or local campuses by the Bill of Rights. However, the map would spell out the details of decision points and the technology to be employed by the state agency in completing the planning and budgeting tasks allotted to it. The advantage of a map for planning would be that all parties would know ahead of time the important negotiation points upon which plans and budgets would be built. When the state agency is either unable or unwilling to adequately describe how it intends to conduct its business, institutions are frustrated in knowing how best to prepare their proposals.

Given a clear strategy for statewide planning and budgeting, specifications for a statewide data base and management information system can be developed. This effort would constitute the third task intended to defuse many of the Data Game weapons. Emphasis should be placed on collecting only those data elements that are essential for the prescribed planning and budgeting process and avoiding the temptation to collect every available detail related to campus operations just in case they should someday be needed. Too many statewide management information systems have been designed prior to completion and acceptance of the planning roadmap. In such cases, the management system may dictate the planning process and this is clearly a case of the "tail wagging the dog." Systems should serve people and not the other way around.

When institutions have played a role in defining an appropriate planning and budgeting process for the statewide higher education network, they are likely to grant some allegiance and credibility to that system. Of course, gaining consensus on the details of a statewide planning process will take tremendous patience and considerable interpersonal skills. Without institutional support of the planning and budgeting process, the flow of data into a statewide data base in support of that planning process will usually be painfully irregular. With institutional support of the planning process, the incentives will be present in the institutions to make the management information system work and the flow of compatible data from the several campuses will occur much more smoothly. However, the first time the

to design a reasonable and laudable plan in each state and then present united support for the funding of that plan. Data and analysis would play a significant role in such an approach providing the time honored Data Game strategies can be cast aside. Data resulting from historical analysis are not answers. If they are perceived to be answers, the wrong questions are being asked. Historical analysis is important in letting educators know where they have been so they can determine better where they want to go. Historical norms must not automatically become frozen policy for then the flexibility to deal effectively with future needs and opportunities will be lost. In most states, current statewide planning approaches are less than satisfactory to all concerned parties. The major question for the future is, "How can a planning process be devised that will meet the basic needs of faculty, various kinds of institutions, statewide planners and public good?" Finding an answer to that question should be a primary concern in every state.

The chore of replacing the current Data Game with a more acceptable planning process may be accomplished if three sequential tasks are completed. First, a more complete delineation of the prerogatives and areas of autonomy attached to each level of educational management should be developed at the statewide level and reviewed periodically. The Carnegie Commission has called such statements of policy an educational Bill of Rights. Faculty, campus administrators and state agency personnel will all feel more comfortable if there are clear policy statements guaranteeing certain decisions and responsibilities to each group. Faculty need assurance that the governance process will not encroach upon their right to guide the curriculum, participate in appointment of colleagues or manage their own resources. Campus administrators will feel more comfortable with written policies assuring them control over management of internal affairs. State agency personnel need to know the limits and imperatives of their responsibility in evaluating programs and budgets and developing a master plan for postsecondary education. In short, the enabling legislation that establishes most state coordinating boards is too vague and broad to lend clear definition to how the state higher education system is to operate. The result is a pushing and shoving match in which each higher education faction seeks to carve out the largest possible domain for its own control. An educational Bill of Rights is needed at the statewide level so that all participants will know the rules of the game. The time to establish policy is before crises occur rather than in the heat of jurisdictional disputes. Since the jurisdictional disputes have already arisen, the construction of the suggested educational Bill of Rights will be a very difficult, albeit important, undertaking.

management data are misused by the state agency, institutional allegiance to the prescribed statewide planning process will be shattered and the old Data Game will start again. Two basic principles that state agencies should remember in order to avoid shattering the fragile consensus surrounding the planning process are: (1) be scrupulously accurate with any information displays about institutions, always giving institutions an opportunity to criticize reports before they are published, and (2) concede that reaching consensus pertaining to what ought to be is more important than historical analyses that tend to perpetuate what has been.

Smoothing of the statewide planning process will require a lot of give and take by all parties. Institutions will need to provide data in support of differential funding formulas for various program clusters at different student levels. State agencies must agree not to tamper with internal institutional management problems. In addition, statewide coordinating agency personnel must begin to be viewed as true advocates for education, but institutions must acknowledge that advocacy does not mean simply carrying every message each institution proposes to the legislature. In short, what is needed are more educational statesmen and fewer educational politicians. Leaders at both the statewide and institutional levels who are able to take a broad, long-range view and rise above the current bickering may make a major contribution. Human nature and material incentives will always preclude perfect harmony. However, any measure of improved cooperation among institutions and agencies based on hard won consensus will help higher education regain public confidence and support.

The technology for effective planning and management systems now exists but, as usual, the technological advancements have surged ahead of the human capacity to fully utilize them. We must first reach a higher level of cooperation and trust if we ever intend to stop playing the Data Game and put to rest the accusation that higher education is interested in studying everything except itself.