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ABSTRACT

Current formula funding practices in the South and implications for the future are analyzed. Formula funding systems are used in 12 of the 14 states belonging to the Southern Regional Education Board (SREB). Changes that have occurred in the formulas of each state since 1973-74 are described. Data from 1977-78 academic year are compared to the 1973-74 formulas as reported by Francis Gross. Five basic items or functions are analyzed: instruction, academic support, general administration, and general institutional, libraries, and plant operation and maintenance. The formula coefficient, or "fixed factor," and the degree of differentiation of a formula are analyzed. Results indicate that a movement toward more complex or comprehensive formulas predominated in the SREB states over the four-year period. (SW)

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# FORMULA FUNDING IN THE SREB STATES

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# FORMULA FUNDING IN SREB STATES

The increasing competition for state appropriations and the stabilizing of higher education enrollments have heightened interest in how higher education may be funded in the future. Especially in the South, where so many of the states are using formula processes, formula funding is looked to as one logical starting point for modifying existing funding systems to fit a new set of conditions in higher education.

One of the most widely cited works on formula funding for public post-secondary education is the 1974 University of Tennessee dissertation, "A Comparative Analysis of the Existing Budget Formulas Used for Justifying Budget Requests or Allocating Funds for the Operating Expenses of State-Supported Colleges and Universities," by Francis Gross. Gross' data are based on the 1972-73 or the 1973-74 academic years, and at least four years have passed since his information has been updated.

The purposes of this SREB examination of formula funding practices in the South are to describe the current practices and to indicate where they seem to be heading in terms of future funding techniques. The formula processes are examined by comparing the formulas across states. No attempt is made to compare states using funding formulas with states choosing not to use them. It should be remembered that while 12 of the 14 SREB states use formulas as a funding mechanism, only 13 of the remaining 36 states did so, as of 1974. In short, the effectiveness of formulas is not assessed in this study.

The report is divided into two sections. The first describes current formula funding systems in the 12 SREB states which use formulas. The second part describes the changes that have occurred in the formulas of each state since 1973-74. A short essay following the second section examines these changes and their possible implications for future funding processes.

The study is based on information shared with SREB by the financial officers of the state-level agencies in each of the 12 SREB states. The data are for the 1977-78 academic year. In addition, the state-level financial officers were consulted, as necessary, to clarify application of the formula systems and the nature of changes since 1974. In each state, the 1977-78 formulas were compared to the 1973-74 formulas as reported by Gross. Preliminary drafts of the analyses were shared with financial officers for their comments and contributions.

## Current Funding Formulas in the SREB States

Tables A through F describe the funding formulas used by the 12 formula funding states in the SREB region. North Carolina and West Virginia do not use formulas as defined in this study. The descriptions consist of three kinds. First, the formulas are described in terms of the numbers and kinds of items that are treated as separate and distinct. Five basic items or functions are analyzed: instruction, academic support, general administration and general institutional, libraries, and plant operation and maintenance. Attention is also given to the ways in which other items, such as

departmental research, public service and student services are fitted into the formula process in each of the states. In most cases, these items are treated as part of one of the five basic items.

Table A shows whether the states treat each of the items separately or in combination with another formula item. Tables B through F detail the ways in which each of the separate formula items is funded. The description parallels the analysis by Gross and is in three parts. The first part concerns the base of the formula, or the measure or indicator that varies from institution to institution. The base may be credit hours, enrollment, square feet, etc., and provides the variable that "drives" the rest of the process. Because it varies, the base is responsible for the resulting funding differences across institutions.

The second part of the analysis of each separate formula item within a state is the formula coefficient or the "fixed factor." The coefficient does not vary and is mathematically related to the base, in some cases by a dollar or a percentage rate per base unit. The product of the coefficient and the number of base units is the level of funding for a given item.

The third kind of description is of the ways in which the formula item is differentiated to account for the varying funding requirements (of different institutions) caused by variation in programs, student types, kinds of instruction, categories of space, size of the student body or institutions, and so on. The degree of differentiation of a formula indicates the extent to which the formula succeeds in recognizing, and explicitly funding, institutional variation.

## Changes in the Formulas from 1974 to 1978

The second section lists the major changes in the formulas in each of the 12 states over the period from 1973-74 to 1977-78 (Table G). The changes are classified as to whether they signify a move toward more complexity or comprehensiveness on the one hand, or to less complexity.

While the primary purpose of the study was to update descriptions of the formula processes and identify changes since 1973-74, it should be useful to attempt an overall profile describing the general direction of the changes in the formulas of the individual states. The following findings are listed:

1. Two states, Georgia and Louisiana, experienced little or no change.
2. One state, Florida, had changes in its formula that may be described as moving toward less complexity.
3. Three states, Arkansas, South Carolina, and Tennessee, had changes in their respective formula processes that balanced out in terms of net effect on complexity or comprehensiveness.
4. Four states had changes that may be characterized as leading to a more complex or comprehensive formula process. These states are Alabama, Mississippi, Texas and Virginia.
5. Two states not using formulas on a statewide basis in 1973-74, Kentucky and Maryland, had adopted formula funding by 1977-78. Some parts of the Maryland higher education system were using

formulas at that time but not on a systemwide basis. Both the Kentucky and Maryland formulas may be described as "comparatively complex/comprehensive," relative to the other states.

In summary, it appears that in the SREB states, over the four-year period, movement toward more complex or comprehensive formulas predominated.

## Future Directions for Formula Funding

Taken as a whole, SREB-state funding formulas for higher education have generally increased in complexity over the past four years. Judging from descriptions of current uses of formulas and how they have changed, it may be useful to assess possible directions which formula funding might take in the future and why.

In this section, we assume that the future of postsecondary education will be influenced heavily by the stabilization, and perhaps decline, of enrollments and by an environment in which states will be more and more reluctant to increase the share of total state revenues going to post-secondary education. It will be a time when program and institutional growth and additions will give way to stability and substitution and, in some cases, actual net retrenchment. It is reasonable to assume that one very strong option for funding higher education during this time will continue to be some form of formula funding. This assumption is based on the premise that the reasons why formulas were developed in the first place--to foster fairness through a clearer rationale in funding individual institutions and to insure a base level of funding for each institution--are still important, no matter how many total dollars are available. In fact, the goals of greater

objectivity and an insured support may be expected to become more crucial in a time of greater financial pressure.

There are at least three ways of examining how formulas for funding might vary in response to the contextual changes likely in the future. Each of the three responses results in a greater degree of comprehensiveness or complexity in future formulas--that is, more attention devoted to detail.

First, we examine how formulas may react to the increased emphasis, by funders, on accountability or cost-effectiveness, as financial pressures impinge on higher education and it becomes more important to be able to show clearly what results have been generated with the funds made available. Increased accountability also means that funders will expect funding requests to include clearer and more data-based justification, or reasons why one program should be funded instead of another. In these circumstances it becomes more important to justify budget requests with greater detail and comprehensiveness.

The move toward increased justification and the consequent greater attention to detail is illustrated in the transition from incremental to zero-based (ZBB), or program budgeting, being attempted in several states and at the federal level. In incremental budgeting, the base budget is assumed to be continued and the key decision concerns how much the total sum should be changed. The key to incremental budgeting lies in its tacit assumption that the details of the program or the processes being funded do not have to be reviewed and justified in each budget cycle. In zero-based budgeting, all priorities and assumptions and their program manifestations

may be examined in the budget cycle. No base budget or level of funding is assumed; whether programs and program processes in their past form should be continued, given possible new priorities, must be reappraised each cycle.

The purpose of zero-based budgeting (as well as of its sister concept--Planning, Programming, Budgeting Systems) is to maximize the cost-effectiveness of an institution (or a state system of postsecondary education) by keeping resources (and their costs) as directly related as possible to valued program goals. In this way ZBB seeks to reduce the resources wasted (slippage) by making the connection between processes and goals more direct. To do so, the goals of programs, and the individual processes leading to those goals, must be clearly seen and their contribution to the overall goals assessed. Such careful appraisal of the activities which are presumed to lead to goals requires that each individual function or process be judged in relation to its distinct role in meeting the overall goals.

Should the tendency of funders continue to emphasize greater accountability, it may be expected that formulas will change to reflect this trend. Such changes will likely involve further expansion of comprehensiveness and detail of formulas, given the need for more carefully justifying the individual contributions of the separate functions of programs or institutions.

A second issue to be resolved that might impact on the formula funding systems of the states will be the continued quest, by institutions, for a reasonable share of state funds for postsecondary education to meet their student instruction, research, and public service goals. In most cases the need for a system to enable more objective or reasonable funding was the

original reason for states moving to a formula process. This reason promises to become even more important as a motive in the years ahead as funds become more scarce and competition intensifies. In seeking a greater share (the institution would say more equitable share) of the total funds available for postsecondary education, institutions have had to and will have to continue justifying requests on the basis of variations in their make-up calling for different amounts of resources. The variation may consist of different mixes of academic programs or levels of student study, or of research emphases. Whatever the basis, the institution, as part of the justification process, will have to identify the areas of variation clearly, compare them to similar areas in other institutions, show how and by how much they differ, and how funding should be altered to compensate for these differences. The effect on the formula funding process is to increase the detail required for justifying "fair shares."

A third issue could stem from the conviction that funding during tighter financial times must be based on more rational knowledge of the economic functioning of higher educational institutions. One new move in the effort to understand better how colleges and universities behave economically is the attention being paid to funding, in part, on a marginal rather than on an average cost basis.

A program or institution can be funded on two different bases--one for fixed costs (those costs which cannot be changed in the short-run, no matter how enrollment changes), and the other for variable costs (those costs that can be changed as enrollment changes). The sum of the total fixed and variable costs is total cost; divided by total enrollment it is the average cost

per student. Funding enrollment increases or decreases (changes) on the basis of an average cost per student means that institutions receive for each additional student an amount equal to the average cost per student (of the base enrollment). Average cost includes both the fixed and variable cost components of the base costs applied to each additional student in the same amount as to each of the students in the base enrollment.

Several states in the nation, however, are moving toward marginal cost funding, or the process of funding the two distinct kinds of cost bases--variable and fixed. Funding enrollment changes on the basis of marginal costs means that institutions receive for each additional student an amount equal to the sum of two separate calculations. First, the variable costs are identified in the base enrollment and an average variable cost per base student figure is generated, which is then multiplied by the number of new students. Second, the fixed costs are identified in the base period and total fixed cost (not the product of the fixed costs and numbers of new enrollment) is added to the product of the average variable cost base figure times the number of new students. The result is a lower average cost per student for the group of additional students, because only the variable cost portion of the base enrollment costs is included in the costs of added enrollment.

As can be demonstrated, funding by marginal costs will limit the increases per student during a period of enrollment growth but will reduce the decrements in funding during times of enrollment decreases. So it would be expected that institutions which did not push the concept of marginal funding

in the past might tend to do so in the future, as enrollments start to decline. In response to this move toward marginal funding, one might expect (and it is happening in the few states where this idea is being pursued) funders to request greater detail on the nature of institutional costs and resources, specifically as to whether they act as fixed or as variable costs when enrollment changes. The realization that various costs in an institution have different functions or relationships to the number of students served would mean that the functions should be analyzed separately and funded individually. The formula would have to become more complex as items are identified that require different bases on which to relate costs. Instruction may continue to be based on enrollment but, if marginal costing is to be used (and it is to the institution's advantage that it be used during a time of decreasing enrollments), then the fixed costs will have to be identified separately and funded on other footings which reflect this "fixed" nature. Such responses may lead to increasing complexity of formulas, again in reaction to the tightening financial situation.

# BIBLIOGRAPHY

Finley, Donald J. and Cribbs, Jeffrey S. "Budgeting for Higher Education." State Council for Higher Education in Virginia, 1974.

Gross, Francis M. "A Comparative Analysis of the Existing Budget Formulas Used for Justifying Budget Requests or Allocating Funds for the Operating Expenses of State-Supported Colleges and Universities." University of Tennessee, 1973.

Kentucky Council on Higher Education. "Survey of Enrollment Growth Budgeting in Higher Education," October, 1977.

Meisinger, R.J., Jr. State Budgeting for Higher Education: The Uses of Formulas. Berkeley: Center for Research and Development in Higher Education, University of California, 1976.

Miller, J.L., Jr. State Budgeting for Higher Education: The Use of Formulas and Cost Analysis. Ann Arbor: The University of Michigan, Institute of Public Administration, 1964.

Table A
FORMULA ITEMS

X - Handled as separate formula items
[] - Included as part of another category; category indicated by numeral

| | ALA | ARK | FLA | GA | KY | LA | MD | MISS | SC | TENN | TEXAS | VA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. Instruction | X | X | X | X | | X | X | X | X | X | X | |
| General academic | | | | | X | | | | | | | X |
| Off campus | | X | | | | | | X | | | | X |
| Preparatory & adult | | | | | X | | | | | | | |
| Occupational & technical | | | | | X | | | | | | | |
| Summer | | | | | | | | | | X | | X |
| 2. Academic Support | | | | | | | | | X | X | | [1] |
| Academic administration | X | | X | X | X | | [3] | | | | X | [1] |
| Department operations | [1] | | X | X | [1] | | [1] | | | [3] | X | |
| 3. General Administration | X | X | X | X | X | | X | | X | X | X | X |
| 4. Departmental Research | X | | X | | X | | [1] | X | [1] | [1] | [1] | [1] |
| 5. Public Service | X | | [4] | X | | | | | [1] | X | | |
| Community service | | | | | | | | | | | X | |
| Extension | | | | | | | | | | | | |
| 6. Libraries | X | X | [1] | X | X | | X | ** | X | X | X | X |
| Staff | | | | | | | | | | | | |
| Collections | | | X | | | | | | | | | X |
| 7. Plant Operation & Maintenance | | | X | X | | * | X | ** | X | X | | X |
| a. Custodial | X | X | X | | X | | | | | | X | |
| b. Utilities | X | | | | | | | | X | X | | |
| c. Building maintenance | [7a] | X | X | | [7a] | | | | | | X | |
| d. Grounds maintenance | [7a] | | X | | X | | | | | | | |
| e. General services | [7a] | | X | | [7a] | | | | | | X | |
| f. Public safety | [9] | | X | | [9] | | X | | | | X | |
| 8. Student Services | [1] | X | [3] | [3] | [3] | * | X | ** | [3] | X | [3] | X |
| 9. General Institutional | X | | [4] | [4] | [4] | * | | ** | [4] | [4] | X | [4] |

* Louisiana determines an instructional salary base and derives all other educational and general expenditures through an overhead factor related to the salary base.

** Mississippi has a category for other institutional costs which includes all items except instruction, research, and extension.

Table B
INSTRUCTION
(Teaching and Departmental Research)

| | BASE | FORMULA FACTOR | DIFFERENTIATION |
|---|---|---|---|
| ALABAMA | Projected student credit hours (unweighted) | Indexes used to weight each credit hour according to cost (times) an overall dollar rate per credit hour | (a) 15 disciplines<br>(b) Three student levels<br>(c) Two types of institutions |
| ARKANSAS | Projected student credit hours | Workload factors and salary rates | Six student levels |
| FLORIDA | Previous year's FTE students | Workload factors and salary rates | (a) 25 disciplines<br>(b) Four student levels |
| GEORGIA | Projected student credit hours | Workload factors and salary rates | Three student levels |
| KENTUCKY | | | |
| Gen Acad & Occ. & Technical | Projected FTE students | Student-faculty ratios and salary rates | (a) Two categories of disciplines<br>(b) Six student levels |
| Preparatory & Adult | Freshmen & sophomores scoring less than 17 on ACT | Dollar rate per base student | |
| LOUISIANA | Scheduled student credit hours | Dollar rate per student hour | (a) Nine disciplines<br>(b) Five student levels |
| MARYLAND | Projected student credit hours | Dollar rate per student credit hour | (a) Three instructional methods<br>(b) Four student levels |
| MISSISSIPPI | Previous year's student credit hours | Dollar rate per student credit hour | (a) 25 disciplines<br>(b) Three student levels<br>(c) Three types of institutions |
| SOUTH CAROLINA | Projected FTE students | Student-faculty ratios and salary rates | (a) 22 disciplines<br>(b) Three student levels<br>(c) Three types of institutions (salary differentiation) |
| TENNESSEE | Projected student credit hours | Dollar rate per student credit hour | (a) 30 disciplines<br>(b) Four student levels |
| TEXAS | Previous year's student credit hours | Dollar rate per student credit hour | (a) 19 disciplines<br>(b) Five student levels |
| VIRGINIA | | | |
| Regular Instruction | Projected FTE students | Student-faculty ratios and salary rates | (a) 11 specific (and one non-specific) disciplines<br>(b) Four student levels |
| Off-campus & summer session | Projected FTE students | Student-faculty ratios and salary rates | Separate calculations for off-campus and summer sessions. |

Table C
ACADEMIC SUPPORT*
(excluding Libraries)

| | BASE | FORMULA FACTOR | DIFFERENTIATION |
|---|---|---|---|
| ALABAMA | Formula-generated instructional expenditure | Percentage of base | |
| ARKANSAS | Non-formula item | | |
| FLORIDA | | | |
| Academic administration | FTE academic positions | Position ratios (times) salary rates | |
| Departmental operation | | | |
| Personnel | FTE academic positions | Position ratios (times) salary rates | |
| Operation | FTE academic positions | Dollar rate per position | |
| GEORGIA | | | |
| Academic administration | FTE teaching and research positions | Position ratios (times) salary rates | |
| Departmental operation | | | |
| Non-academic personnel | FTE teaching, research, and academic administrative positions | Position ratios (times) salary rates | |
| Operation | FTE teaching, research, and academic administrative positions | Dollar rate per position | |
| KENTUCKY | Projected FTE students | Dollar rate per base student | |
| LOUISIANA | Included in general overhead index | | |
| MARYLAND | Included with general administration | | |
| MISSISSIPPI | Formula-generated educational and general total | Percentage of base total (part of composite item, "other institutional cost," which includes all other items except instruction) | |

Table C (Continued)
ACADEMIC SUPPORT*
(excluding Libraries)

| | BASE | FORMULA FACTOR | DIFFERENTIATION |
|---|---|---|---|
| SOUTH CAROLINA | Formula-generated faculty salaries | Percentage of base | Three types of institutions |
| TENNESSEE | Formula-generated instructional expenditure | Percentage of base | |
| TEXAS | | | |
| Academic administration | Faculty salaries | Percentage of base | Percentage varies according to complexity of institution |
| Departmental opetation | Previous year's student credit hours | Dollar rate per credit hour | (a) 19 disciplines<br>(b) Four student levels |
| VIRGINIA | FTE-teaching and research positions | Position ratios (times) salary rates | Three types of institutions. |

*Expenditures for services that support one of the three primary functions of instruction, research, and public service and which are an integral part of those functions. Includes academic administration and personnel development, course development, computing support, audio-visual services, and others. Libraries normally included in academic support are excluded from this table so that their formulas can be described separately.

Table D

GENERAL ADMINISTRATION

(Includes student services unless indicated otherwise)

| | BASE | FORMULA FACTOR | DIFFERENTIATION |
|---|---|---|---|
| **ALABAMA** | | | |
| General administration | Fall headcount enrollment | Dollar rates per student | Scale of institutional enrollment |
| General institutional | Formula-generated total of instruction, research, academic support, libraries, general administration and plant maintenance | Percentage of base | |
| **ARKANSAS** | | | |
| General administration | Projected student credit hours | Decreasing dollar rates per credit hour | Scale of institutional enrollment |
| Student services | Projected student credit hours | Decreasing dollar rates per credit hour | Five ranges of dollar rates by number of student credit hours (to differentiate dollar rates) |
| **FLORIDA** | Total number of academic positions | Percentage that institution's academic positions is of total positions system-wide (times) total funding available for library and administrative personnel and expense. | |
| **GEORGIA** | Formula-generated total of instruction, research, extension and public service | Percentage of base | |
| **KENTUCKY** | Projected headcount students | Decreasing (by enrollment size)(a) dollar rate per student (plus) percentage of state support of primary programs | (a) Two types of institutions by size (4,000 and over; below 4,000)<br>(b) Three ranges of student-enrollment in each group (determining dollar rate) |
| **LOUISIANA** | Formula-generated instructional salary base | Overhead rate on instructional salary base (rate includes general administration and all other educational and general non-instructional salary cost items) | |
| **MARYLAND** | | | |
| General administration | Formula-generated instructional total | Percentage of instructional total | Percentage rates determi by size of FTE enrolln (higher enrollment, smaller percentage) |

Table D (Continued)
GENERAL ADMINISTRATION
(Includes student services unless indicated otherwise)

| | BASE | FORMULA FACTOR | DIFFERENTIATION |
|---|---|---|---|
| MARYLAND (Continued) | | | |
| Student services | Projected FTE students | Dollar rate per FTE student plus constant total applied to all institutions | Decreasing dollar rate per FTE student as enrollment increases |
| MISSISSIPPI | Formula-generated educational and general total | Percentage of base total (general administration is part of the composite item: "other institutional costs," which includes all other items except instruction) | |
| SOUTH CAROLINA | Formula-generated instructional total | Percentage of base (general administration part of composite item including extension and public service and organized activities) | |
| TENNESSEE | | | |
| General administration | Formula-generated educational and general total | Percentage of total expenditures plus constant total applied to all institutions | Decreasing percentage rates as size of institutional budget increases |
| Student services | Projected headcount students | Dollar rate per headcount student | |
| TEXAS | | | |
| General administration | Previous fall's headcount students | Decreasing dollar rates per student (plus) percentage of past year's educational and general appropriations minus general administration and student services (plus) Percentage of past year's sponsored research funds | (a) Two types of institutions by size (4,000 and over; below 4,000) (b) Three ranges of enrollment in each group (determining dollar rate) |
| General institutional | Previous year's student credit hours | Dollar rates per credit hour | Four ranges of student credit hours (determining different dollar rates) |
| VIRGINIA | Number of FTE teaching and research instructional positions | Position ratios (times) salary rates | (a) Three types of institutions (b) Three kinds of personnel (classified; teaching and research; administration) |

Table E
LIBRARIES

| | BASE | FORMULA FACTOR | DIFFERENTIATION |
|---|---|---|---|
| ALABAMA | Projected annual student credit hours (unweighted) | Dollar rates per credit hour | (a) Five student levels<br>(b) Two types of institutions |
| ARKANSAS | | | |
| General operation | Projected student credit hours | Dollar rates per credit hour | Four student levels |
| Improvement | Formula-generated total for general library operations | Percentage of base | |
| | Number of volume deficiencies | Percentage of base (times) dollar rate per volume | |
| FLORIDA | | | |
| Personnel and operation | Total number of academic positions | Percentage that institution's number of academic positions is of total systemwide positions (times) total system funding available for library personnel and expense | |
| Collections | 1) Need for volumes as influenced by number of doctoral and master's programs, and number of FTE faculty and students (Washington State formula) | Percentage of total systemwide funds available for collections with the percentage determined by the proportion that the needs and deficiencies of the institution are of the total system's needs and deficiencies. | |
| | | (plus) | |
| | 2) Existing collection deficiencies as determined by standards in the Washington State formula | Base funding for all institutions | |
| GEORGIA | Formula-generated totals for instruction, research, public service and extension | Percentage rate of base | |
| KENTUCKY | Previous year's total student credit hours | Dollar rates per student credit hour | Six student levels |
| LOUISIANA | Instructional salaries | Overhead index | Libraries included in composite category of non-instructional items |

Table E (Continued)
LIBRARIES

| | BASE | FORMULA FACTOR | DIFFERENTIATION |
|---|---|---|---|
| MARYLAND | Projected total student credit hours | Cost per weighted credit hours | (a) Student levels<br>(b) Institutional enrollment |
| MISSISSIPPI | Formula-generated E&G total | Percentage of base (included with composite all other non-instructional cost item) | Libraries included in a composite category of institutional costs other than for instruction, research, or extension (separate appropriation for improvement) |
| SOUTH CAROLINA | Formula-generated instructional total | Percentage of base (part of composite item) | |
| TENNESSEE | Projected student credit hours | Dollar rates per base | Five student levels |
| TEXAS | Previous year's student credit hours | Dollar rates per base | Four student levels |
| VIRGINIA<br>Personnel | Projected FTE enrollment and FTE faculty | Position ratios | (a) Three types of institutions<br>(b) Special guidelines for research universities based on the staffing of a specified group of similar institutions |
| Collections maintenance | Volume standards (Voigt formula) | Dollar rate per volume | |

Table F
PLANT OPERATION AND MAINTENANCE

| | BASE | FORMULA FACTOR | DIFFERENTIATION |
|---|---|---|---|
| **ALABAMA** | | | |
| Maintenance & custodial | Gross square footage | Dollar rate per base | |
| Utilities | Gross square footage | Historical dollar rate per base (times) inflation rate | |
| **ARKANSAS** | | | |
| Building maintenance | Total replacement costs (dollar rate times square footage) | Percentage rate of base | (a) Nine functional classes<br>(b) Three construction types<br>(c) Air-conditioned or not |
| Custodial | Total square feet of bldgs. | Dollar rate per base | |
| **FLORIDA** | Total plant O&M expenditures according to standards for each of five functions (based on Texas POM formula) | Percentage of base | Five functions, including general services, grounds, building services, security & maintenance |
| **GEORGIA** | Total square footage | Dollar rate per base | |
| **KENTUCKY** | | | |
| Custodial & general maintenance | Gross square footage | Dollar rate per base | Three categories of space |
| Grounds | Total acres of landscaping and paving | Dollar rate per base | |
| **LOUISIANA** | Instructional salaries | Composite overhead index | POM included in composite category of non-instructional items |
| **MARYLAND** | | | |
| Public safety | Projected FTE students | Dollar rate per student plus constant dollar amount | |
| Operation and maintenance | Gross square feet maintained | Dollar rate per base | |

Table F (Continued)
PLANT OPERATION AND MAINTENANCE

| | BASE | FORMULA FACTOR | DIFFERENTIATION |
|---|---|---|---|
| **ISSISSIPPI** | Formula-generated E&G total | Percentage of base (included with composite "all other non-instructional cost" items) | POM is included in a composite category of institutional costs other than for instruction, research, or extension |
| **OUTH CAROLINA** | | | |
| Operation & maintenance | Average of previous three year's expenditures | Percentage increase of base | Increase could be adjusted to reflect a growth of building space at a rate greater than growth of enrollment |
| Utilities | Last year's expenditures | Annual percentage increase | Same as operation and maintenance |
| **ENNESSEE** | | | |
| Operation & maintenance | Square feet of educational buildings | Average dollar rate per base | |
| Utilities | Actual usage | Expected dollar rates | |
| **EXAS** | | | |
| General services | FTE students and employees, building replacement costs | Salary rates and percentages of base | Six types of buildings |
| Building maintenance | Building replacement costs | Dollar rate per base | |
| Custodial services | Total gross square feet of buildings | Dollar rate per base | |
| Grounds maintenance | Total acres of grounds, total perimeters of buildings and headcount enrollment | Salary rates and percentages of bases | |
| **IRGINIA** | | | |
| Personnel | Projected assignable square feet | Ratios of existing POM staff to assignable square feet | |

Table C
CHANGES FROM FY 74 TO FY 78

| | More Comprehensiveness and/or Complexity | Less Complexity |
|---|---|---|
| ALABAMA | Separated items for departmental research and instruction | Combined building maintenance and custodial services into one item. |
| | Added a separate dollar rate per credit hour for funding two-year college libraries | |
| | Established an economies of scales series of dollar rates per student for the general administration and student services function | |
| ARKANSAS | Formula for faculty salaries changed from dollar rate per student credit hour indexes to faculty workload indicators and salary rates | Faculty salaries formula is now differentiated by only six student levels; in FY 74, 16 disciplines and four student levels were considered. |
| FLORIDA | | Formula for library personnel and expenses now based on an institution's number of academic positions and the proportion this number is of the total positions in the system. The personnel formula was based on a mixture of projected enrollments, volumes to be processed, and library FTE positions. |
| | | Formula for general administration and general expense now based on an institution's number of academic positions and what proportion this number is of the total positions in the system. This item used to be funded as a dollar rate per academic position. |
| GEORGIA | No change since FY 74 | |
| KENTUCKY | Not on formula in FY 74 | |
| LOUISIANA | No change since FY 74 | |
| MARYLAND | Not on statewide formula in FY 74* | |

Table G (Continued)
CHANGES FROM FY 74 TO FY 78

| | More Comprehensiveness and/or Complexity | Less Complexity |
|---|---|---|
| MISSISSIPPI | Faculty salaries now analyzed by 25 disciplinary areas, three student levels and three kinds of institutions; in FY 74 only three student levels were used | Faculty salaries formula now based on past year's student credit hours; based on projected FTE enrollments in FY 74. |
| | | Faculty salaries now fixed to a cost per student credit hour rather than workload factors multiplied by salary rates. |
| SOUTH CAROLINA | Established a new item for utilities, separating them from other plant operating costs | Merged extension and public service item with the composite item for general administration, general institutional, and organized activities related to educational departments. These had been two separate items. |
| TENNESSEE | Established a separate category for utilities based on actual usage. Utilities had been included in a total plant operation and maintenance category related to a rate per square foot factor | Continuing education and remedial education are no longer included as separate student levels in the formulas for instruction and libraries. |
| | | Continuing education is now included in the public service formula. |
| TEXAS | The following items were added as separate formula items, having been funded on a program basis in FY 74: general institutional expense, community service and continuing education, physical plant general services, grounds maintenance. | |
| VIRGINIA | Formula for faculty salaries now related to 13 discipline clusters in addition to the four student levels used in FY 74. | |

*Guidelines were developed for consideration but not integrated in the funding process.