A budgetary analysis and allocation system for college and university media (audiovisual and library) resources and services is proposed which is aimed at helping administrative personnel make decisions concerning future needs. This Minnesota Plan, used for the state college system, proposes a media materials budget based on three components—an annual base budget of $100,000 per institution, a materials budget of $15 per FTE student and faculty (to be divided 85 percent for program materials and 15 percent for special allocations), and a collection deficiency supplement, to be determined by a formula called Minimum Materials Collection size. A media services staffing formula is also proposed, based on the amount of public services, technical services, and production services. (SK)
A MEDIA RESOURCES AND SERVICES BUDGETARY ANALYSIS
AND ALLOCATION SYSTEM FOR THE MINNESOTA STATE COLLEGE SYSTEM

Prepared by the State College System Media Directors

Dale K. Carrison, Editor

May, 1974
INTRODUCTION

College and university media (audiovisual and library) resources and services are difficult to evaluate in quantitative terms for inclusion in the higher education budgeting process. Most authorities, including accrediting agencies, agree that the "adequacy" of media resources and services cannot be determined or measured in quantitative terms, i.e., consideration of the number of volumes in the materials collection gives little insight into the worth of a library to the programs of a college or university.

The fact that it is difficult to draw qualitative inclusions from quantified data does not diminish the need for higher education personnel involved in the budgeting process, at all levels, to make decisions concerning media resource and service needs. Because adequate, comprehensive standards expressed in quantitative terms have not been developed at either a national or a state level, budgeting and appropriating authorities are compelled to adopt measures to determine quantitative bases for their decisions. Although perhaps having the virtue of simplicity, these measures are often essentially irrelevant. Therefore, the development of a budgetary analysis and allocation system for these authorities is both desirable and necessary—a system which retains the virtue of simplicity, but which also is relevant to the program needs of the institutions involved.

The need for a budgetary analysis and allocation system in the State of Minnesota was emphasized by the many questions concerning higher education media resource and service needs, which were raised during the 1973 legislative session. Higher education nationwide is moving toward programming, planning, budgeting systems in all program areas and particularly in media programs. If adequate media resources and services are going to be made available to the students and faculty in Minnesota colleges and universities, a media budgeting system must be developed and implemented in the State of Minnesota.
The proposed system relates closely to the long range planning process since it enables each institution to estimate requirements for future library resources and staffing once the factors of student enrollment, faculty staffing, and programs have been determined for any given year. For example, the system emphasizes the need for preplanning in the area of graduate programming since the materials allowance per graduate field is intended to apply as soon as the program has received campus approval. This is necessary in order to develop the resources required in advance of actual implementation of the new program.

No inference should be made that the formulas used in the analysis system are optimum in nature. The resources formula is drawn from an approach designed to measure "threshold" adequacy, and the staffing formulas relate to actual experience of libraries in higher education institutions in other states. Neither should it be inferred that achieving 100 per cent of the formulas will automatically insure quality. No formula, or series of guidelines or models, can accomplish this. Quality must of necessity be the responsibility of the individual institution in order to achieve media resources and services which will best support the academic program.

History. The State College Media (Audiovisual and Library) Directors started meeting during the 1972-73 academic year to review mutual problems and ways and means of cooperation for more effective and efficient utilization of resources. One of the major focuses which evolved was the identification of a need for and development of a uniform criterion-based budgeting system for media services in the State College System. During the process of development of this draft document, an extensive literature search was carried out and numerous similar media budgeting documents from other states reviewed. The synthesis of this research and study resulted in a model budgeting system herein referred to as the Minnesota Plan.
MEDIA MATERIALS BUDGET

The total materials budget is divided into four components, which are devised to cover categorical allocation needs for collection building and maintenance. The dollar amounts given in components A - C are based on an index value of 1973 average costs. Allocations of materials budget amounts should be variable each year, using the percentage increase or decrease of media resource average costs in the current fiscal year in comparison with the index year. Bowker Company annual price index statistics will be used as the basis for comparison.

Component A: Annual Base Budget

Each institution receives a base budget of $100,000, without consideration of size of faculty and student body, the diversity and level of programs, and collection deficiencies. This base budget is intended to minimize undesirable extreme fluctuations in funding levels.

Component B:

The State College System receives a materials budget based on $15 per FTE student and faculty, to be allocated for the following purposes:

1. Student/Faculty/Program Level Factors

85% of the available money is distributed on the basis of size of each institution's faculty and student body and diversity and level of programs. The variables and their weights are as follows:

- Number of doctoral programs
- Number of specialist programs (without doctorate)
- Number of master's programs (with no specialist)
- Number of FTE faculty
- Number of FTE students (100/200 level)
- Number of FTE students (300/700 level)

The weights are multiplied by the variables to arrive at points. The points for both the individual institutions and for the System are totaled. The percentage of points represented by the ratio of each institution's
points to the total System's points is computed. The percentage derived in this fashion determine the amount of dollars allocated to each institution from the total sum representing the System subtotal for Component B 1.

2. Special Allocation Factor

15% of the available money is reserved for new programs and/or special needs of institutions within the State College System. Applications for use of this money will be reviewed by the State College System-wide advisory committee on media resources and technology.

Component C: Collection Deficiency Supplement

The State College System receives a collection deficiency supplement based on $10 per FTE student and faculty, to be allocated on the basis of existing collection deficiencies (as established by the Minimum Materials Collection Size formula)* in order to help resolve these deficiencies.

The number of volumes which each institution should have is established based on the collection size component of the Minnesota Plan. The beginning volume inventory for the current year (collection size on July 1) is established; to this total is added the projected number of volumes to be purchased during the current year. This process establishes the next year beginning volume inventory. To this figure is added the number of volumes generated by Components A and B; this total is then subtracted from the number of volumes for collection size as defined by the Minnesota Plan, thus establishing the net deficit.

The institutional deficits are totaled to determine system-wide deficiency. The percentage of deficiency of the system-wide total is computed for each institution. The funds available in Component C are distributed based on these percentages.

The Collection Deficiency Supplement will be terminated upon the achievement of minimum materials collection size by all state colleges.
The minimum quantitative collection of an institution's media resources is determined by using the following formula:

1. 100,000 unit basic collection
2. 100 units per FTE unclassified staff
3. 15 units per FTE students (100/200 level)
4. 25 units per FTE students (300/700 level)
5. 7,500 units per Master's discipline without Specialist program
6. 11,100 units per Specialist discipline without Doctoral program
7. 24,500 units per Doctoral program
MEDIA SERVICES STAFFING

Clerical, technical, and faculty positions are added or deleted on the basis of a weighted formula. The FTE total in each category includes a pro-rated share of administrative positions. The formula levels represent staffing needs for basic higher education media services and do not cover special staffing needs for regional and community services, special campaigns, projects, grant programs, etc. Staffing needs above regular continuing media programs should be covered by special allocations outside and beyond formula produced staff positions.

A. Public Services

Using the factors given below, the weighted user or client total is determined and then divided by a factor of 300 to determine FTE formula public services staff.

<table>
<thead>
<tr>
<th>User Type</th>
<th>Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTE classified staff</td>
<td>.5</td>
</tr>
<tr>
<td>FTE unclassified staff</td>
<td>2.0</td>
</tr>
<tr>
<td>FTE students (100/200 level)</td>
<td>1.0</td>
</tr>
<tr>
<td>FTE students (300/400 level)</td>
<td>2.0</td>
</tr>
<tr>
<td>FTE students (500/700 level)</td>
<td>3.0</td>
</tr>
</tbody>
</table>

The levels (clerical, technical, and faculty) of FTE staff should be determined on a ratio of three clerical and technical positions to one faculty position, with no more than forty percent of the clerical and technical FTE positions to be students. This ratio is based on the need for clerical and technical support for the service activities of media faculty and is based on an analysis of the complexity of work to be performed. The ratio of clerical and technical positions to faculty positions may have to be adjusted in order to provide minimum media services on small campuses.
B. **Technical Services**

Using the factors and divisors given below, the FTE formula technical processes staff is determined by dividing the factor total by the divisor and adding the totals together.

<table>
<thead>
<tr>
<th>Divisor</th>
<th>Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>850</td>
<td>units of materials added</td>
</tr>
<tr>
<td>35,000</td>
<td>beginning inventory of materials</td>
</tr>
</tbody>
</table>

The levels (clerical, technical, and faculty) of FTE staff should be determined on a ratio of three clerical and technical positions to one faculty position, with no more than forty percent of the clerical and technical FTE positions to be students. This ratio is based on the need for clerical and technical support for the service activities of media faculty and is based on an analysis of the complexity of work to be performed.

C. **Production Services**

Using the factors and divisors given below, the FTE formula production services staff is determined by dividing the factor total by the divisor and adding the totals to the basic allowance of five positions. This FTE production services staff total does not include staff for reprographics (duplicating and printing), radio production, or computer based instruction. Regional production centers and special programs should be funded on an institutional, non-formula basis.

<table>
<thead>
<tr>
<th>Divisor</th>
<th>Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1600</td>
<td>FTE students</td>
</tr>
<tr>
<td>100</td>
<td>Unclassified staff (headcount)</td>
</tr>
<tr>
<td>500</td>
<td>Equipment</td>
</tr>
<tr>
<td>30</td>
<td>Television</td>
</tr>
</tbody>
</table>

plus basic allowance of five (5) positions.

The levels (clerical, technical, and faculty) of FTE staff should be
determined on a ratio of four clerical and technical positions to one faculty position, with no more than twenty-five percent of the clerical and technical FTE positions to be students.
DEFINITIONS

**Annual base budget**: Minimum amount of funds needed to maintain currency of collection.

**Beginning inventory**: Number of materials (units) in collection at beginning of each fiscal year.

**Classified staff**: All college personnel with a classified position title in Minnesota State Civil Service, including both M & E (regular allocation) and specially funded or allocated positions.

**Collection deficiency supplement**: Number of units of materials needed to bring collection to size established by minimum collection size component.

**Equipment**: All individual items of audiovisual equipment which are not permanently fixed to a particular location (includes equipment carts and television and photographic items of equipment, etc.).

**FTE student staff**: Total number of student hours worked (both Work Study and regular budget) during the previous fiscal year divided by 2,080 hours.

**FTE students**: Number of students based on total credit hours paid for at each level for Fall Quarter of the budgetary year divided by 15 at the undergraduate level and 12 at the graduate level (divisor based on average number of credit hours for a full course load).

**100 - 400 level students**: Total quarter hour credits paid for at each level for Fall Quarter of the budgetary year divided by 15.

**500 - 700 level students**: Total quarter hour credits paid for at each level for Fall Quarter of the budgetary year divided by 12.

**Master's discipline**: Department or program area which has a formally recognized Master's Degree program. No department or program area may be counted as having more than one Master's discipline.

**Materials**: Audiovisual and print library resources. Item count is determined by units, regardless of format, which are processed and added to collection. Microform units are determined on the following basis: eight microfiche and/or
microcards equal one unit, and one microfilm reel equals one unit.

**Materials budget:** Funds used to purchase all types of materials for permanent addition to the collection, including books, periodicals, film, tape, realia, etc.

**Microform units:** Eight microfiche (ultra and regular) and/or microcards equal one unit, and one microfilm reel equals one unit.

**Minimum collection size:** Number of units of materials which institutions should have, based on staffing, enrollment, and programs, in order to meet minimum instructional program needs for media resources.

**Production services:** The functions of resource design, preparation, production and dissemination and equipment maintenance, repair, and design.

**Public services:** The functions of information selection, retrieval, dissemination, and utilization.

**Specialist discipline:** Department or program area which has a formally recognized Specialist (Sixth Year) Degree program. No department or program area may be counted as having more than one Specialist discipline.

**Technical processes:** The functions of materials acquisition, purchasing, accounting, cataloging, preparation, and systems analysis and information processing.

**Television:** All individual items of television equipment which are not permanently fixed to a particular location.

**Unclassified staff:** All college faculty positions paid by salary funds from faculty positions, including both M & E (regular allocation) and specially funded or allocated positions.

**Units of materials:** Unit is based on intended use of items, i.e., is a group of transparencies intended to be used as a set or independently? See definition of materials.