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## ABSTRACT

By provision of law, the Ohio Board of Regents must review the appropriation requests of the public community colleges and the state colleges and universities and then submit recommendations regarding the biennial higher education appropriation for the state. To do this, the Board of Regents developed a Model Program Expenditure Budget. This procedure depends upon two fundamental processes: (1) a uniform program classification of instructional offerings by the public institutions of higher education, and (2) an on-going resource analysis by which the actual expenditure experience of each public institution of higher education for instruction in these different programs can be determined and models for future expenditure requirements can be devised. The importance of these model budgets by program is threefold: (1) They provide a framework within which to establish state subsidy support and a corresponding level of needed student fees. (2) They make possible an equitable distribution of available state appropriation support among all public institutions of higher education. (3) They provide guidelines to public institutions of higher education in their utilization of available financial resources. (LBH)

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PROGRAM EXPENDITURE MODELS  
FOR HIGHER EDUCATION BUDGETING  
1975-1977

HE008911

Ohio Board of Regents  
February 1975

## EXPENDITURE MODELS

By provision of law, Section 3333.04(J) of the Revised Code, the Ohio Board of Regents is directed to review the appropriation requests of the public community colleges and the state colleges and universities and submit to the Office of Budget and Management and to the chairmen of the finance committees of the House of Representatives and of the Senate its recommendations in regard to the biennial higher education appropriation for the state, including appropriations for the individual state colleges and universities and public community colleges.

In approaching its budget authority, the Ohio Board of Regents has had three major objectives in mind:

1. To provide financial support from state appropriations and from student charges adequate to meet the reasonable basic instructional expenditure needs of the public institutions of higher education.
2. To distribute available state government appropriation support on an equitable, objective basis among the many different public institutions of higher education in Ohio.
3. To distribute available state government support on a differential basis in relation to the number of students in different kinds of instructional programs at the various public institutions, recognizing that different categories of instructional programs have different requirements so far as levels of expenditure are concerned.

In order to realize these budget objectives, the Ohio Board of Regents has developed a unique procedure which is called a Model Program Expenditure Budget. This procedure depends upon two fundamental processes: (1) a uniform program classification of instruc-

tional offerings by the public institutions of higher education, and (2) an on-going resource analysis by which the actual expenditure experience of each public institution of higher education for instruction in these different programs can be determined and "models" for future expenditure requirements can be devised.

#### Subsidy Formula Restudy and Revision

In preparation for the 1975-77 biennial budget, the Board of Regents has undertaken and concluded a widely ranging reexamination of the basic formula approaches to higher education funding which have been used during the past several years in Ohio.

A Consultation on Subsidy Formula Revision was undertaken over the course of several months, with active participation and input by all senior institutions and two-year institutions in the higher educational system. A great deal of careful attention was given to existing approaches to subsidy formula administration, and a large number of policy issues and analytical techniques were studied and debated.

The principal conclusions of the Consultation were as follows:

1. That while careful attention is needed to assure adequate support for those individual institutions facing unexpected enrollment loss or the slowing of growth, the basic dependence on student enrollments as the primary subsidy base should be continued. Enrollment continues to be the only available and dependable measure of performance or output for use in achieving equitable distribution of state support among diverse institutions.
2. That the budget allocations expressed in state-level expenditure models should continue to be viewed as generalized expenditure needs for purposes of determining appropriate levels of state support, and not as prescriptions for final spending patterns.

within individual institutions.

3. That the expenditure models used in earlier years require substantial modification to more closely describe actual expenditure experiences of institutions in various instructional program fields. The principal thrust of this conclusion is that the expenditure models have presented averages of groups of individual programs which were too broad to accurately portray significant program differences among institutions.
4. That with enrollment growth slowing, more careful attention is required to be sure that procedures for reflecting cost increases within each expenditure model from one year to another are accurate and sensitive to the actual experience of higher educational institutions.
5. That the selective use of categorical funding, standing outside the enrollment-based formulas and carefully targeted to achieve specific results, is an appropriate mechanism for developing new services and for carrying out specific state policy objectives. A similar recommendation also came from the Citizens' Task Force on Higher Education.

In an added effort to broaden the preliminary consultation contributing to the formulation of the 1975-77 biennial budget, the Board of Regents has carried out a series of formal hearings with individual university and college presidents. In these sessions, held individually with the thirteen senior institutions and in small group with the two-year colleges, presidents have had the opportunity to highlight their concerns, both programmatic and financial. The individual Budget Recommendations which the Board had sought from each institution were reviewed in detail, with particular attention given to the implications of subsidy formula revision.

Program Classification

Institutions of higher education offer a wide variety of programs of instruction. These programs vary by field of study (general education, technical education, arts and sciences, agriculture, business, engineering, law, medicine, nursing, social work, etc.), and they vary by level of study (two-year, four-year, and graduate). The Board of Regents has found it necessary to develop a uniform list of 50 program categories simply to provide a minimum classification of various instructional programs. The Board has studied program costs separately in these various fields for two-year programs, baccalaureate level programs, masters level programs, and doctoral level programs, in addition to various graduate professional level programs such as medicine, law, and dentistry.

To budget for the more than 200 separate categories within which the Board of Regents regularly examines instructional expenditures would be too complex for state-level appropriation purposes. The Ohio Board of Regents proposes for 1975-77 a classification of sixteen major groupings of instructional programs by field of study and by level of study. Previously, eight major groupings of instructional programs were utilized. However, as cited in the section on Subsidy Formula Revision these groupings are too broad to accurately portray significant-program cost differentials. The new groupings are as follows:

General Studies

- Cost Level I
- Cost Level II
- Cost Level III

Technical Education

- Cost Level I
- Cost Level II
- Cost Level III

Baccalaureate

- Cost Level I
- Cost Level II
- Cost Level III

Masters/Professional

Cost Level I  
Cost Level II  
Cost Level III

Doctoral

Cost Level I  
Cost Level II

Medical

Cost Level I  
Cost Level II

The program classification utilized for budget purposes is considered by the Board of Regents to provide a reasonable grouping of instructional programs which recognizes major cost differences in the fields of instruction and the various levels of instruction offered by Ohio's public institutions of higher education.

Expenditure Models

When the program classification of instructional offerings has been determined, the second step in the budget process is to develop for each program an expenditure model.

Accounting Classification

The expenditure model is based upon the standard accounting classifications set forth in the Uniform Manual of Accounts and Financial Reports for state-assisted colleges and universities in Ohio issued by the Auditor of the State of Ohio in 1967. Recently the National Association of College and University Business Officers (NACUBO) has revised the structures of accounting for higher education institutions. A study is underway currently to adopt these national standards into the Ohio accounting system. The revised classifications are:

1. Departmental Instruction and Research
2. Academic Support

3. Student Services
4. Institutional Support
5. Plant Operation

It should be added that these standard accounting classifications are the major categories of expense for the primary activity of public institutions of higher education: instruction and general operation. The total work effort of public institutions of higher education is ordinarily divided into five categories for income and expense purposes:

- I. Instruction and General Operation
- II. Research
- III. Public Service
- IV. Auxiliary Services
- V. Student Aid

The total budget recommendations of the Board of Regents are divided into these work categories as well, except that the State of Ohio does not provide any appropriation support for Auxiliary Services (residence halls, dining rooms, recreational and social programs, university centers, convocation centers, student publications, student health service, and intercollegiate athletics.)

The technique of developing a model program budget of expenditures applies only to the first category of work activity of public institutions of higher education, Instruction and General Operation.

The model expenditure budgets for the sixteen program groupings are set forth at the end of this statement. These pages show the model used for the current biennium, and the model expenditure budget developed for the biennium 1975-1977 by the Ohio Board of Regents.



Descriptive Expenditure Base

In determining the base of expenditures from which to project model expenditure budgets for 1975-77, the Board of Regents, through the Consultation on Subsidy Formula Revision, has very carefully constructed base year (1974-75) models which demonstrate total instructional and general expenditures as they actually exist in that year. These base year models accurately portray expenditures and various key budgeting patterns such as student/faculty ratios as they exist in 1974-75. From total expenditures of that year have been subtracted expenditures supported by amounts of income generated from external sources other than state subsidies and student charges. The remaining expenditures form the experience base from which expenditure models for 1975-77 have been derived. It is thus possible from this "descriptive" base of actual net expenditures to demonstrate each element of proposed increase in 1975-77 which the Board of Regents proposes be provided from state subsidy and student fee sources, both within the "continuation" level of support and within the "expanded program" level of support.

Inflation

The Board of Regents and the Consultation on Subsidy Formula Revision have given a great deal of thought and brought a considerable amount of knowledgeable research to bear on the rapidly rising inflationary rates of the current biennium. The basic decision was made in this regard to utilize the Consumer's Price Index of the U.S. Bureau of Labor Statistics as the best available inflationary measure as regards compensation items within higher education's expenditure requirements. The companion decision was also made that a more accurate, direct measure of university experience was required so far as non-compensation items of expenditure are concerned.

Representative commodities, over 30 commodities were finally utilized, which colleges and universities actually purchase were selected for the non-compensation index. The price movements of these commodities were then recorded from detailed lists published by the Bureau of Labor Statistics.

Each commodity must be weighted according to its relative value in the total expenditures of colleges and universities. The resulting calculation is a newly developed University Price Index that is sensitive to non-compensation items in each model. Estimates can then be made as to the effect of continued inflation and the adjustments that are necessary to recover lost rates of purchasing power since the last legislative decisions were made regarding higher education spending. Inflation factors used in estimating the rate of continued inflation within each model are as follows:

|                  | <u>Actual/Estimated</u> |                | <u>Projected</u> |                |
|------------------|-------------------------|----------------|------------------|----------------|
|                  | <u>1973-74</u>          | <u>1974-75</u> | <u>1975-76</u>   | <u>1976-77</u> |
| Compensation     | 8.7%                    | 10.0%          | 8.0%             | 7.0%           |
| Non-Compensation | 18.6%                   | 18.4%          | 15.4%            | 16.4%          |

In addition, the purchasing power lost during the current biennium is measured at eight percent.

Other Elements of Increase

Procedures must be established for reflecting cost increases within each expenditure model from one year to another. First, attention has been given to the requirements associated with the change in faculty mix. During the period of rapid enrollment growth additional faculty members were recruited. Often these additions were recent products of graduate schools and hired at junior rank.

As these individuals mature and continue to make progress in their professional careers, they are advanced to higher ranks. This increased maturation of faculties in terms of ranks should be recognized in the modification of the descriptive base upon which base models have been established.

Faculty Compensation Improvement is a second major factor in constructing proposed expenditure models. Consideration should be given to Ohio's relative position compared to various indicators, for example, national averages, average salaries for institutions in the Big 10, or other useful groupings of institutional type and mission.

Thirdly, a reduction in the student/faculty ratio, should be considered for the General Studies I model. Following reconstruction of the base year (1974-75) expenditure models on a "descriptive" base, a number of the college and university representatives participating in the Consultation on Subsidy Formula Revision have viewed with alarm the high student/faculty ratios actually existing in programs making up the General Studies - Cost Level I model. Where the broader General Studies model used during the current biennium provided for an overall ratio of 24/1, for all programs, the more specific breakdowns now proposed for 1975-77 reveal a ratio of 36/1 in the particular programs categorized within the lowest cost model (General Studies I).

#### The Output of Instructional Programs

The model expenditure budgets concentrate upon input requirements of public institutions of higher education with which to undertake their particular instructional programs. But the objective or the output of all these inputs is the essential purpose for which a public institution of higher education is operated. The importance of the instructional output

cannot be stressed too emphatically.

The real output of the instructional process is an educated student. The customary evidence of this output is the student who receives a degree, which attests or certifies to educational achievement in a particular instructional program. Ideally, the instructional output of a public institution of higher education should be measured in terms of degrees awarded.

The complication, of course, is that budgets prepared on a biennial basis for expenditures fiscal year by fiscal year simply do not correspond with the instructional time span for award of degrees. Furthermore, the instructional activity of a public institution of higher education will include students who may not complete a degree program and hence receive the award of a degree. Yet the number of these students must be included in the output of instructional expenditures.

For these reasons, the only meaningful unit of instructional output is the full-time equivalent student who obtains instruction. The full-time equivalent student is determined by dividing total course registrations in the various instructional programs as of the autumn quarter by 15 credit hours, the generally prescribed full-time credit load of a student. The result of this calculation is a full-time equivalent student. A major advantage of this definition is that it does not discriminate between the full-time and the part-time student and does make appropriate allowance for the varied credit load registration of different individual students.

Since public institutions of higher education operate on a full year basis, the determination of the number of full-time students obtaining instruction must include those enrolled in the summer quarter. These course registrations by programs are divided by 45 (3 times the autumn

quarter figure since that figure represents instruction for 3 quarters), and the number of full-time equivalent students for the summer quarter is added to the number for the autumn quarter in order to determine the total year-round output of an institution's instructional activity.

The output of the instructional process is accordingly presented in terms of a full-time equivalent student obtaining instruction from a public institution of higher education.

#### Components of Model Expenditure Budgets

The model program expenditure budgets contain five component parts, as mentioned earlier, each of which represents an actual component of expenditure common to all colleges and universities. These components deserve some further explanation.

Departmental Instruction and Research is the most important single part of the instructional budget. This category of expenditure includes three parts: faculty compensation; compensation of other departmental staff; and other departmental expenses. Faculty compensation in turn depends upon two calculations: the total number of full-time equivalent faculty members to be employed in order to render instructional services and the average compensation paid to each faculty member. The compensation paid includes the institutional contribution to the state teachers retirement fund since this is an expenditure required by law to be made by each institution. The number of faculty required for instruction depends upon the average credit hour load of faculty members (average class size times credit hours of courses taught). This credit hour load can also be represented in terms of a student/faculty ratio. These ratios by program as budgeted in the model expenditure budgets are set forth in the description of each model at the end of this document.

The other components of departmental instruction and research in addition to faculty compensation are "Other Compensation" and "Other Expense." The first item includes a miscellaneous array of expense items: the cost of program management (department chairmen and school or college deans), and faculty assistance (stenographers, laboratory assistances, and class assistances). The latter item includes instructional supplies and equipment and faculty travel. In each case, the allowance for each item in the base model is the result of the actual experience of public colleges and universities.

#### Academic Support

The provision of library services and other instructional services e.g. audio-visual materials, programmed learning materials, radio and television broadcasting clinical activities (many of which are self-supporting from service charges) computer services and observation activities are included in this component. The importance of books, periodicals, and documents to instruction is too well known and too obvious to require extensive comment.

The allowance for these support items is drawn from the descriptive base which is the actual experience of the colleges and universities.

#### Student Services

Admission, registration, class scheduling, student record keeping, student placement and student relations constitute the main kinds of student services which each institution of higher education must perform. The allowance within each model is drawn from the descriptive base.

#### Institutional Support

The overall planning, direction, and management of an institution of higher education and the provision of internal services such as

Administrative computer services, reproduction services, communication services and public information services are included in this model component. Once again the amount provided in each model is brought forward from the descriptive base.

#### Plant Operations

Each institution must necessarily provide for the heating, ventilation, cleaning, maintenance, utility needs, and repair of its instructional and administrative facilities; the upkeep of its grounds; the provision of parking; and the protection of the property. Allowances in each model are based on the actual experience of the colleges and universities.

#### Changes in the 1975-77 Models

The two major changes in the 1975-77 expenditure models from those used previously are the additional number of models and the descriptive base which the models are built. The Subsidy Formula Revision Consultation concluded that the eight very broad models were not adequate to recognize the desirable level of program cost differential. Sixteen Models are sensitive to the major differentials while still presenting a reasonable number of groupings to be understood by those called upon to make major decisions relative to needed resources. The table on Page 15 displays the changeover from eight to sixteen models.

Secondly the "Recast" models for 1974-75 which becomes the base upon which future requirements can be determined are based on the actual expenditure experience of public colleges and universities are referred to as being "descriptive" in nature.

Finally, the table displays models for the years 1975-76 and 1976-77 based on a minimum continuation level. The increases provided by these models would be necessary to continue programs at their current levels and offset the effect of inflation forecast for the 1975-77 biennium. Obviously,

several important elements of increased costs are not included in this level. As discussed in the text above but only summarized here, elements not included are as follows: Improve faculty compensation; provide for changes in faculty mix; improve student faculty ratio in General Studies I model; and does not provide for several other quality improvement items.

#### The Importance of Model Budgets

The model expenditure budgets by program of the Ohio Board of Regents serve several important purposes:

1. The model budgets provide a framework within which to establish state subsidy support and a corresponding level of needed student fees.
2. The model budgets make possible an equitable distribution of available state appropriation support among all public institutions of higher education.
3. The model budgets provide guidelines to public institutions of higher education in their utilization of available financial resources.



EXPENDITURE MODELS PER FTE STUDENT

|                           | Old<br>Models<br><u>1974-75</u> |   | Recast<br>Models<br><u>1974-75</u> | Minimum Continuation<br>Models |             |                |             |
|---------------------------|---------------------------------|---|------------------------------------|--------------------------------|-------------|----------------|-------------|
|                           |                                 |   |                                    | <u>1975-76</u>                 | <u>Inc.</u> | <u>1976-77</u> | <u>Inc.</u> |
| General Studies           | \$1,282                         | < | I \$1,032                          | \$ 1,130                       | 9.5%        | \$1,233        | 9.0%        |
|                           |                                 |   | II 1,304                           | 1,428                          | 9.5         | 1,557          | 9.0         |
|                           |                                 |   | III 1,751                          | 1,918                          | 9.5         | 2,091          | 9.0         |
| Technical                 | \$1,813                         | < | I 1,487                            | \$ 1,629                       | 9.5%        | \$1,776        | 9.0%        |
|                           |                                 |   | II 1,674                           | 1,833                          | 9.5         | 1,998          | 9.0         |
|                           |                                 |   | III 2,317                          | 2,537                          | 9.5         | 2,766          | 9.0         |
| Baccalaureate             | \$1,953<br>2,506                | < | I \$1,777                          | \$ 1,946                       | 9.5%        | \$2,122        | 9.0%        |
|                           |                                 |   | II 2,178                           | 2,385                          | 9.5         | 2,600          | 9.0         |
|                           |                                 |   | III 3,050                          | 3,340                          | 9.5         | 3,641          | 9.0         |
| Masters &<br>Professional | \$3,656<br>3,588                | < | I \$2,813                          | \$ 3,081                       | 9.5%        | \$3,359        | 9.0%        |
|                           |                                 |   | II 4,520                           | 4,950                          | 9.5         | 5,396          | 9.0         |
|                           |                                 |   | III 5,975                          | 6,543                          | 9.5         | 7,132          | 9.0         |
| Doctoral                  | \$5,914                         | < | I \$4,768                          | \$ 5,221                       | 9.5%        | \$5,691        | 9.0%        |
|                           |                                 |   | II 7,908                           | 8,660                          | 9.5         | 9,449          | 9.0         |
| Medical                   | \$7,520                         | < | I \$5,889(1)                       | \$ 6,449(1)                    | 9.5%        | \$7,030(1)     | 9.0%        |
|                           |                                 |   | II 8,987(2)                        | 9,841(2)                       | 9.5         | 10,727(2)      | 9.0         |

(1) Includes \$1,035 Federal Capitation

(2) Includes \$1,500 Federal Capitation

PROPOSED EXPENDITURE PER  
FTE STUDENT  
GENERAL STUDIES I

|  | <u>Base</u><br><u>1974-75</u> | <u>Minimum</u><br><u>1975-76</u> | <u>Continuation</u><br><u>1976-77</u> |
|--|-------------------------------|----------------------------------|---------------------------------------|
| <b>A. Departmental Instruction &amp; Research</b>  |                               |                                  |                                       |
| 1. Faculty Compensation<br>(36/1 student-faculty ratio)<br>(Average annual compensation,<br>1975: \$14,110; 1976: \$15,230;<br>1977: \$16,310) | \$ 392                        | \$ 423                           | \$ 453                                |
| 2. Other Departmental Compensation   | 68                            | 73                               | 78                                    |
| 3. Other Departmental Expense  | <u>39</u>                     | <u>44</u>                        | <u>49</u>                             |
| <b>Total Departmental Instruction</b>  | <b>\$ 499</b>                 | <b>\$ 540</b>                    | <b>\$ 580</b>                         |
| <b>B. Academic Support</b>   | 118                           | 127                              | 137                                   |
| <b>C. Student Services</b>   | 118                           | 128                              | 139                                   |
| <b>D. Institutional Support</b>  | 149                           | 162                              | 173                                   |
| <b>E. Plant Operation</b>  | <u>148</u>                    | <u>173</u>                       | <u>204</u>                            |
| <b>Total Expenditure<br/>per FTE Student</b>   | <b>\$1,032</b>                | <b>\$1,130</b>                   | <b>\$1,233</b>                        |

MODEL NO. 1

PROPOSED EXPENDITURE PER  
FTE STUDENT  
GENERAL STUDIES II

|  | Base<br><u>1974-75</u> | Minimum<br><u>1975-76</u> | Continuation<br><u>1976-77</u> |
|--|------------------------|---------------------------|--------------------------------|
| A. Departmental Instruction & Research   |                        |                           |                                |
| 1. Faculty Compensation<br>(23/1 student-faculty ratio)<br>(Average annual compensation,<br>1975: \$12,670; 1976: \$13,690;<br>1977: \$14,650) | \$ 551                 | \$ 595                    | \$ 637                         |
| 2. Other Departmental Compensation   | 99                     | 107                       | 114                            |
| 3. Other Departmental Expense  | <u>56</u>              | <u>63</u>                 | <u>71</u>                      |
| Total Departmental Instruction   | \$706                  | \$765                     | \$822                          |
| B. Academic Support  | 131                    | 142                       | 153                            |
| C. Student Services  | 118                    | 128                       | 139                            |
| D. Institutional Support   | 163                    | 175                       | 186                            |
| E. Plant Operation   | <u>186</u>             | <u>218</u>                | <u>257</u>                     |
| Total Expenditure<br>per FTE Student   | \$1,304                | \$1,428                   | \$1,557                        |

MODEL NO. 2

PROPOSED EXPENDITURE PER  
FTE STUDENT  
GENERAL STUDIES III

|  | Base<br><u>1974-75</u> | Minimum<br><u>1975-76</u> | Continuation<br><u>1976-77</u> |
|--|------------------------|---------------------------|--------------------------------|
| A. Departmental Instruction & Research *   |                        |                           |                                |
| 1. Faculty Compensation<br>(24/1 student-faculty ratio)<br>(Average annual compensation,<br>1975: \$15,770; 1976: \$17,040;<br>1977: \$18,240) | \$ 657                 | \$ 710                    | \$ 760                         |
| 2. Other Departmental Compensation   | 178                    | 192                       | 205                            |
| 3. Other Departmental Expense  | <u>148</u>             | <u>165</u>                | <u>185</u>                     |
| Total Departmental Instruction   | \$ 983                 | \$1,067                   | \$1,150                        |
| B. Academic Support  | 129                    | 140                       | 151                            |
| C. Student Services  | 114                    | 124                       | 134                            |
| D. Institutional Support   | 171                    | 172                       | 167                            |
| E. Plant Operation   | <u>354</u>             | <u>415</u>                | <u>489</u>                     |
| Total Expenditure<br>per FTE Student   | \$1,751                | \$1,918                   | \$2,091                        |

MODEL NO. 3

PROPOSED EXPENDITURE PER  
FTE STUDENT  
TECHNICAL I

|  | Base<br><u>1974-75</u> | Minimum<br><u>1975-76</u> | Continuation<br><u>1976-77</u> |
|--|------------------------|---------------------------|--------------------------------|
| A. Departmental Instruction & Research   |                        |                           |                                |
| 1. Faculty Compensation<br>(15/1 student-faculty ratio)<br>(Average annual compensation,<br>1975: \$11,190; 1976: \$12,090;<br>1977: \$12,930) | \$ 746                 | \$ 806                    | \$ 862                         |
| 2. Other Departmental Compensation   | 107                    | 116                       | 124                            |
| 3. Other Departmental Expense  | <u>85</u>              | <u>95</u>                 | <u>107</u>                     |
| Total Departmental Instruction   | \$ 938                 | \$1,017                   | \$1,093                        |
| B. Academic Support  | 64                     | 70                        | 76                             |
| C. Student Services  | 128                    | 139                       | 150                            |
| D. Institutional Support   | 170                    | 184                       | 199                            |
| E. Plant Operation   | <u>187</u>             | <u>219</u>                | <u>258</u>                     |
| Total Expenditure<br>per FTE Student   | \$1,487                | \$1,629                   | \$1,776                        |

MODEL NO. 4

PROPOSED EXPENDITURE PER  
FTE STUDENT  
TECHNICAL II

|  | Base<br><u>1974-75</u> | Minimum<br><u>1975-76</u> | Continuation<br><u>1976-77</u> |
|--|------------------------|---------------------------|--------------------------------|
| A. Departmental Instruction & Research   |                        |                           |                                |
| 1. Faculty Compensation<br>(12/1 student-faculty ratio)<br>(Average annual compensation,<br>1975: \$11,200; 1976: \$12,100;<br>1977: \$12,950) | \$ 933                 | \$1,008                   | \$1,079                        |
| 2. Other Departmental Compensation   | 107                    | 116                       | 124                            |
| 3. Other Departmental Expense  | <u>85</u>              | <u>95</u>                 | <u>107</u>                     |
| Total Departmental Instruction   | \$1,125                | \$1,219                   | \$1,310                        |
| B. Academic Support  | 64                     | 70                        | 76                             |
| C. Student Services  | 128                    | 139                       | 150                            |
| D. Institutional Support   | 170                    | 186                       | 204                            |
| E. Plant Operation   | <u>187</u>             | <u>219</u>                | <u>258</u>                     |
| Total Expenditure<br>per FTE Student   | \$1,674                | \$1,833                   | \$1,998                        |

MODEL NO. 5

PROPOSED EXPENDITURE PER  
FTE STUDENT  
TECHNICAL III

|  | Base<br><u>1974-75</u> | Minimum<br><u>1975-76</u> | Continuation<br><u>1976-77</u> |
|--|------------------------|---------------------------|--------------------------------|
| <b>A. Departmental Instruction &amp; Research</b>  |                        |                           |                                |
| 1. Faculty Compensation<br>(10/1 student-faculty ratio)<br>(Average annual compensation,<br>1975: \$13,330; 1976: \$14,400;<br>1977: \$15,410) | \$1,333                | \$1,440                   | \$1,541                        |
| 2. Other Departmental Compensation   | 213                    | 230                       | 246                            |
| 3. Other Departmental Expense  | <u>142</u>             | <u>159</u>                | <u>179</u>                     |
| Total Departmental Instruction   | \$1,688                | \$1,829                   | \$1,966                        |
| B. Academic Support  | 64                     | 70                        | 76                             |
| C. Student Services  | 128                    | 139                       | 150                            |
| D. Institutional Support   | 170                    | 186                       | 205                            |
| E. Plant Operation   | <u>267</u>             | <u>313</u>                | <u>369</u>                     |
| Total Expenditure<br>per FTE Student   | \$2,317                | \$2,537                   | \$2,766                        |

MODEL NO. 6

PROPOSED EXPENDITURE PER  
FTE STUDENT  
BACCALAUREATE I

|   | Base<br><u>1974-75</u> | Minimum<br><u>1975-76</u> | Continuation<br><u>1976-77</u> |
|---|------------------------|---------------------------|--------------------------------|
| A. Departmental Instruction & Research  |                        |                           |                                |
| 1. Faculty Compensation<br>(20/1 student-faculty ratio).<br>(Average annual compensation,<br>1975: \$16,200; 1976: \$17,500;<br>1977: \$18,720) | \$ 810                 | \$ 875                    | \$ 936                         |
| 2. Other Departmental Compensation  | 178                    | 192                       | 205                            |
| 3. Other Departmental Expense   | <u>96</u>              | <u>107</u>                | <u>120</u>                     |
| Total Departmental Instruction  | \$1,084                | \$1,174                   | \$1,261                        |
| B. Academic Support   | 152                    | 164                       | 177                            |
| C. Student Services   | 116                    | 126                       | 136                            |
| D. Institutional Support  | 194                    | 211                       | 229                            |
| E. Plant Operation  | <u>231</u>             | <u>271</u>                | <u>319</u>                     |
| Total Expenditure<br>per FTE Student  | \$1,777                | \$1,946                   | \$2,122                        |

MODEL NO. 7



PROPOSED EXPENDITURE PER  
FTE STUDENT  
BACCALAUREATE II

|  | Base<br><u>1974-75</u> | Minimum<br><u>1975-76</u> | Continuation<br><u>1976-77</u> |
|--|------------------------|---------------------------|--------------------------------|
| A. Departmental Instruction & Research   |                        |                           |                                |
| 1. Faculty Compensation<br>(14/1 student-faculty ratio)<br>(Average annual compensation,<br>1975: \$14,830; 1976: \$16,020;<br>1977: \$17,140) | \$1,059                | \$1,144                   | \$1,224                        |
| 2. Other Departmental Compensation   | 255                    | 275                       | 294                            |
| 3. Other Departmental Expense  | <u>110</u>             | <u>123</u>                | <u>138</u>                     |
| Total Departmental Instruction   | \$1,424                | \$1,542                   | \$1,656                        |
| B. Academic Support  | 158                    | 171                       | 184                            |
| C. Student Services  | 112                    | 122                       | 132                            |
| D. Institutional Support   | 212                    | 231                       | 252                            |
| E. Plant Operation   | <u>272</u>             | <u>319</u>                | <u>376</u>                     |
| Total Expenditure<br>per FTE Student   | \$2,178                | \$2,385                   | \$2,600                        |

MODEL NO. 8

PROPOSED EXPENDITURE PER  
FTE STUDENT  
BACCALAUREATE III

|  | Base<br><u>1974-75</u> | Minimum<br><u>1975-76</u> | Continuation<br><u>1976-77</u> |
|--|------------------------|---------------------------|--------------------------------|
| <b>A. Departmental Instruction &amp; Research</b>  |                        |                           |                                |
| 1. Faculty Compensation<br>(11/1 student-faculty ratio)<br>(Average annual compensation,<br>1975: \$17,200; 1976: \$18,570;<br>1977: \$19,870) | \$1,563                | \$1,688                   | \$1,806                        |
| 2. Other Departmental Compensation   | 388                    | 419                       | 448                            |
| 3. Other Departmental Expense  | <u>229</u>             | <u>263</u>                | <u>304</u>                     |
| <b>Total Departmental Instruction</b>  | <b>\$2,180</b>         | <b>\$2,370</b>            | <b>\$2,558</b>                 |
| <b>B. Academic Support</b>   | 189                    | 204                       | 220                            |
| <b>C. Student Services</b>   | 116                    | 126                       | 136                            |
| <b>D. Institutional Support</b>  | 254                    | 276                       | 298                            |
| <b>E. Plant Operation</b>  | <u>311</u>             | <u>364</u>                | <u>429</u>                     |
| <b>Total Expenditure<br/>per FTE Student</b>   | <b>\$3,050</b>         | <b>\$3,340</b>            | <b>\$3,641</b>                 |

MODEL NO. 9

PROPOSED EXPENDITURE PER  
FTE STUDENT  
MASTERS & PROFESSIONAL I

|  | <u>Base</u><br><u>1974-75</u> | <u>Minimum</u><br><u>1975-76</u> | <u>Continuation</u><br><u>1976-77</u> |
|--|-------------------------------|----------------------------------|---------------------------------------|
| <b>A. Departmental Instruction &amp; Research</b>  |                               |                                  |                                       |
| 1. Faculty Compensation<br>(14/1 student-faculty ratio)<br>(Average annual compensation,<br>1975: \$18,980; 1976: \$20,500;<br>1977: \$21,920) | \$1,356                       | \$1,464                          | \$1,566                               |
| 2. Other Departmental Compensation   | 410                           | 443                              | 474                                   |
| 3. Other Departmental Expense  | <u>192</u>                    | <u>219</u>                       | <u>252</u>                            |
| <b>Total Departmental Instruction</b>  | <b>\$1,958</b>                | <b>\$2,126</b>                   | <b>\$2,292</b>                        |
| <b>B. Academic Support</b>   | <u>230</u>                    | <u>249</u>                       | <u>268</u>                            |
| <b>C. Student Services</b>   | 63                            | 69                               | 75                                    |
| <b>D. Institutional Support</b>  | <u>245</u>                    | <u>266</u>                       | <u>287</u>                            |
| <b>E. Plant Operation</b>  | <u>317</u>                    | <u>371</u>                       | <u>437</u>                            |
| <b>Total Expenditure<br/>per FTE Student</b>   | <b>\$2,813</b>                | <b>\$3,081</b>                   | <b>\$3,359</b>                        |

MODEL NO. 10

PROPOSED EXPENDITURE PER  
FTE STUDENT  
MASTERS & PROFESSIONAL II

|   | Base<br><u>1974-75</u> | Minimum<br><u>1975-76</u> | Continuation<br><u>1976-77</u> |
|---|------------------------|---------------------------|--------------------------------|
| <b>A. Departmental Instruction &amp; Research</b>   |                        |                           |                                |
| 1. Faculty Compensation<br>(7-1 student-faculty ratio)<br>(Average annual compensation,<br>1975: \$19,080; 1976: \$20,610;<br>1977: \$22,050) | \$2,726                | \$2,944                   | \$3,150                        |
| 2. Other Departmental Compensation  | 477                    | 515                       | 551                            |
| 3. Other Departmental Expense   | <u>210</u>             | <u>254</u>                | <u>313</u>                     |
| <b>Total Departmental Instruction</b>   | <b>\$3,413</b>         | <b>\$3,713</b>            | <b>\$4,014</b>                 |
| <b>B. Academic Support</b>  | <b>277</b>             | <b>300</b>                | <b>323</b>                     |
| <b>C. Student Services</b>  | <b>56</b>              | <b>61</b>                 | <b>66</b>                      |
| <b>D. Institutional Support</b>   | <b>354</b>             | <b>384</b>                | <b>414</b>                     |
| <b>E. Plant Operation</b>   | <u><b>420</b></u>      | <u><b>492</b></u>         | <u><b>579</b></u>              |
| <b>Total Expenditure<br/>per FTE Student</b>  | <b>\$4,520</b>         | <b>\$4,950</b>            | <b>\$5,396</b>                 |

MODEL NO. 11

PROPOSED EXPENDITURE PER  
FTE STUDENT  
MASTERS & PROFESSIONAL III

|   | Base<br><u>1974-75</u> | Minimum<br><u>1975-76</u> | Continuation<br><u>1976-77</u> |
|---|------------------------|---------------------------|--------------------------------|
| <b>A. Departmental Instruction &amp; Research</b>   |                        |                           |                                |
| 1. Faculty Compensation<br>(6/1 student-faculty ratio)<br>(Average annual compensation,<br>1975: \$21,230; 1976: 22,930;<br>1977: \$24,540) | \$3,539                | \$3,822                   | \$4,090                        |
| 2. Other Departmental Compensation  | 642                    | 693                       | 742                            |
| 3. Other Departmental Expense   | <u>316</u>             | <u>376</u>                | <u>451</u>                     |
| <b>Total Departmental Instruction</b>   | <b>\$4,497</b>         | <b>\$4,891</b>            | <b>\$5,283</b>                 |
| B. Academic Support   | 448                    | 484                       | 522                            |
| C. Student Services   | 57                     | 62                        | 67                             |
| D. Institutional Support  | 393                    | 426                       | 459                            |
| E. Plant Operation  | <u>580</u>             | <u>680</u>                | <u>801</u>                     |
| <b>Total Expenditure<br/>per FTE Student</b>  | <b>\$5,975</b>         | <b>\$6,543</b>            | <b>\$7,132</b>                 |

MODEL NO. 12

PROPOSED EXPENDITURE PER  
FTE STUDENT  
DOCTORAL I

|   | Base<br><u>1974-75</u> | Minimum Continuation<br><u>1975-76</u> <u>1976-77</u> |            |
|---|------------------------|---|------------|
| A. Department Instruction & Research  |                        |   |            |
| 1. Faculty Compensation<br>(8/1 student-faculty ratio)<br>(Average annual compensation,<br>1975: \$21,020; 1976: \$22,700;<br>1977: \$24,300) | \$2,628                | \$2,838   | \$3,037    |
| 2. Other Departmental Compensation  | 552                    | 596   | 638        |
| 3. Other Departmental Expense   | <u>408</u>             | <u>464</u>  | <u>530</u> |
| Total Departmental Instruction  | \$3,588                | \$3,898   | \$4,205    |
| B. Academic Support   | 306                    | 331   | 357        |
| C. Student Services   | 54                     | 59  | 64         |
| D. Institutional Support  | 315                    | 341   | 368        |
| E. Plant Operation  | <u>505</u>             | <u>592</u>  | <u>697</u> |
| Total Expenditure<br>per FTE Student  | \$4,768                | \$5,221   | \$5,691    |

MODEL NO. 13

PROPOSED EXPENDITURE PER  
FTE STUDENT  
DOCTORAL II

|   | Base<br><u>1974-75</u> | Minimum<br><u>1975-76</u> | Continuation<br><u>1976-77</u> |
|---|------------------------|---------------------------|--------------------------------|
| <b>A. Departmental Instruction &amp; Research</b>   |                        |                           |                                |
| 1. Faculty Compensation<br>(5/1 student-faculty ratio)<br>(Average annual compensation,<br>1975: \$23,720; 1976: \$25,610;<br>1977: \$27,400) | \$4,743                | \$5,122                   | \$5,481                        |
| 2. Other Departmental Compensation  | 1,111                  | 1,200                     | 1,284                          |
| 3. Other Departmental Expense   | <u>572</u>             | <u>675</u>                | <u>815</u>                     |
| <b>Total Departmental Instruction</b>   | <b>\$6,426</b>         | <b>\$6,997</b>            | <b>\$7,580</b>                 |
| B. Academic Support   | 459                    | 497                       | 536                            |
| C. Student Services   | 53                     | 58                        | 63                             |
| D. Institutional Support  | 323                    | 350                       | 377                            |
| E. Plant Operation  | <u>647</u>             | <u>758</u>                | <u>893</u>                     |
| <b>Total Expenditure<br/>    per FTE Student</b>  | <b>\$7,908</b>         | <b>\$8,660</b>            | <b>\$9,449</b>                 |

MODEL NO. 14

PROPOSED EXPENDITURE PER  
FTE STUDENT  
MEDICAL I

|   | Base<br><u>1974-75</u> | Minimum<br><u>1975-76</u> | Continuation<br><u>1976-77</u> |
|---|------------------------|---------------------------|--------------------------------|
| <b>A. Departmental Instruction &amp; Research</b>   |                        |                           |                                |
| 1. Faculty Compensation<br>(6.5/1 student-faculty ratio)<br>(Average annual compensation,<br>1975: \$16,720; 1976: \$18,060;<br>1977: \$19,330) | \$2,573                | \$2,779                   | \$2,974                        |
| 2. Other Departmental Compensation  | 1,060                  | 1,145                     | 1,225                          |
| 3. Other Departmental Expense   | <u>1,170</u>           | <u>1,306</u>              | <u>1,467</u>                   |
| <b>Total Departmental Instruction</b>   | <b>\$4,803</b>         | <b>\$5,230</b>            | <b>\$5,666</b>                 |
| <b>B. Academic Support</b>  | 215                    | 233                       | 251                            |
| <b>C. Student Services</b>  | 42                     | 46                        | 50                             |
| <b>D. Institutional Support</b>   | 211                    | 216                       | 210                            |
| <b>E. Plant Operation</b>   | <u>618</u>             | <u>724</u>                | <u>853</u>                     |
| <b>Total Expenditure<br/>    per FTE Student</b>  | <b>\$5,889*</b>        | <b>\$6,449*</b>           | <b>\$7,030*</b>                |

\* Includes \$1,035 Federal Capitation Support

MODEL NO. 15



PROPOSED EXPENDITURE PER  
FTE STUDENT  
MEDICAL II

|   | Base<br><u>1974-75</u> | Minimum<br><u>1975-76</u> | Continuation<br><u>1976-77</u> |
|---|------------------------|---------------------------|--------------------------------|
| <b>A. Departmental Instruction &amp; Research</b>   |                        |                           |                                |
| 1. Faculty Compensation<br>(4.5/1 student-faculty ratio)<br>(Average annual compensation,<br>1975: \$22,000; 1976: \$23,800;<br>1977: \$25,500) | \$4,889                | \$5,289                   | \$5,667                        |
| 2. Other Departmental Compensation  | 1,578                  | 1,704                     | 1,823                          |
| 3. Other Departmental Expense   | <u>934</u>             | <u>1,056</u>              | <u>1,206</u>                   |
| <b>Total Departmental Instruction</b>   | <b>\$7,401</b>         | <b>\$8,049</b>            | <b>\$8,696</b>                 |
| <b>B. Academic Support</b>  | 426                    | 461                       | 498                            |
| <b>C. Student Services</b>  | 42                     | 46                        | 50                             |
| <b>D. Institutional Support</b>   | 278                    | 301                       | 324                            |
| <b>E. Plant Operation</b>   | <u>840</u>             | <u>984</u>                | <u>1,159</u>                   |
| <b>Total Expenditure<br/>per FTE Student</b>  | <b>\$8,987*</b>        | <b>\$9,841*</b>           | <b>\$10,727*</b>               |

\*Includes \$1,500 in Federal Capitation Support

MODEL NO. 16

LISTING OF PROGRAMS  
ASSIGNED TO MODEL-

GENERAL STUDIES

|     |   |  |   |
|-----|---|--|---|
| I   | History<br>Economics<br>Geography<br>Political Science<br>Psychology<br>Sociology, Anthro | Mathematics<br>Business Admin.<br>Computer Sci.<br>Education<br>Home Economics<br>Military Science |   |
| II  | English<br>Languages<br>Philosophy<br>Speech<br>Biological Sciences                       | Art<br>Journalism<br>Social Work   | Library Sci.<br>Interdiscip.<br>General Education |
| III | Chemistry<br>Physics<br>Geology<br>Other Phy. Sci.<br>Physical Education                  | Engineering<br>Drama & Dance<br>Music  |   |

TECHNICAL

|     |  |  |  |
|-----|--|--|--|
| I   | Business Tech.<br>Public Service Tech. |  |  |
| II  | Natural Science Tech.                  |  |  |
| III | Health Tech.<br>Engineering Tech.      |  |  |

BACCALAUREATE

|     |   |   |                         |
|-----|---|---|-------------------------|
| I   | History<br>Economics<br>Geography<br>Political Science<br>Psychology<br>Sociology, Anthro | Mathematics<br>Business Admin.<br>Computer Sci.<br>Education<br>Home Economics<br>Military Sci.<br>Physical Educ.   |                         |
| II  | English<br>Languages<br>Philosophy<br>Speech<br>Biological Sci.<br>Art<br>Architecture    | Agriculture<br>Journalism<br>Social Work<br>Library Sci.<br>Public Admin.<br>Interdisciplin.<br>General Educ.<br>Medicine (Service)<br>Vet Medicine (Service) |                         |
| III | Chemistry<br>Physics<br>Geology<br>Other Phy. Sci.  | Engineering<br>Drama & Dance<br>Nursing<br>Pharmacy   | Allied Medical<br>Music |

MASTERS/PROFESSIONAL

- I Education  
Computer Sci.  
Business Admin.  
Library Science  
Law (Prof.)
- II English Mathematics Social Work  
Languages Physical Educ. Music  
Philosophy Home Economics Drama & Dance  
Speech Architecture Nursing  
History Art Medicine  
Economics Journalism Dentistry  
Geography General Educ. Optometry  
Political Sci. Interdisciplin. Vet. Medicine  
Psychology Public Admin. Allied Medical  
Sociology, Anthro
- III Biological Sciences  
Chemistry  
Geology  
Physics  
Other Phy. Sci.  
Agriculture  
Engineering

DOCTORAL

- I English Business Admin.  
Languages Computer Sci.  
Philosophy Education  
Speech Home Economics  
History Journalism  
Economics Physical Educ.  
Geography Public Admin.  
Political Sci. Social Work  
Psychology Interdisciplin.  
Sociology, Anthro
- II Biological Sciences  
Chemistry  
Geology  
Physics  
Other Phy. Sci.  
Mathematics  
Agriculture  
Art  
Engineering  
Drama & Dance  
Music  
Pharmacy  
Medicine  
Vet. Medicine

MEDICAL

- I        Dentistry (DDS)  
          Optometry (OD)  
          Vet. Medicine (OVM)
  
- II        Medicine (M.D.)