

**STATUS REPORT AND RECOMMENDATIONS**

**JOINT SUBCOMMITTEE ON  
HIGHER EDUCATION FUNDING POLICIES**

**DECEMBER 18, 2000**

## **Update on Staff Activities**

- Since the last meeting of the Joint Subcommittee on October 24<sup>th</sup>, the staff has:
  - Refined the funding guidelines based on guidance from the Joint Subcommittee.
  - Continued to work with institutional representatives.
  - Developed guideline simulations and compared results against current institutional base funding levels.
  - Developed recommendations for base funding adjustments.
  - Developed recommendations on a methodology for enrollment growth and for maintaining base funding adequacy in the future.

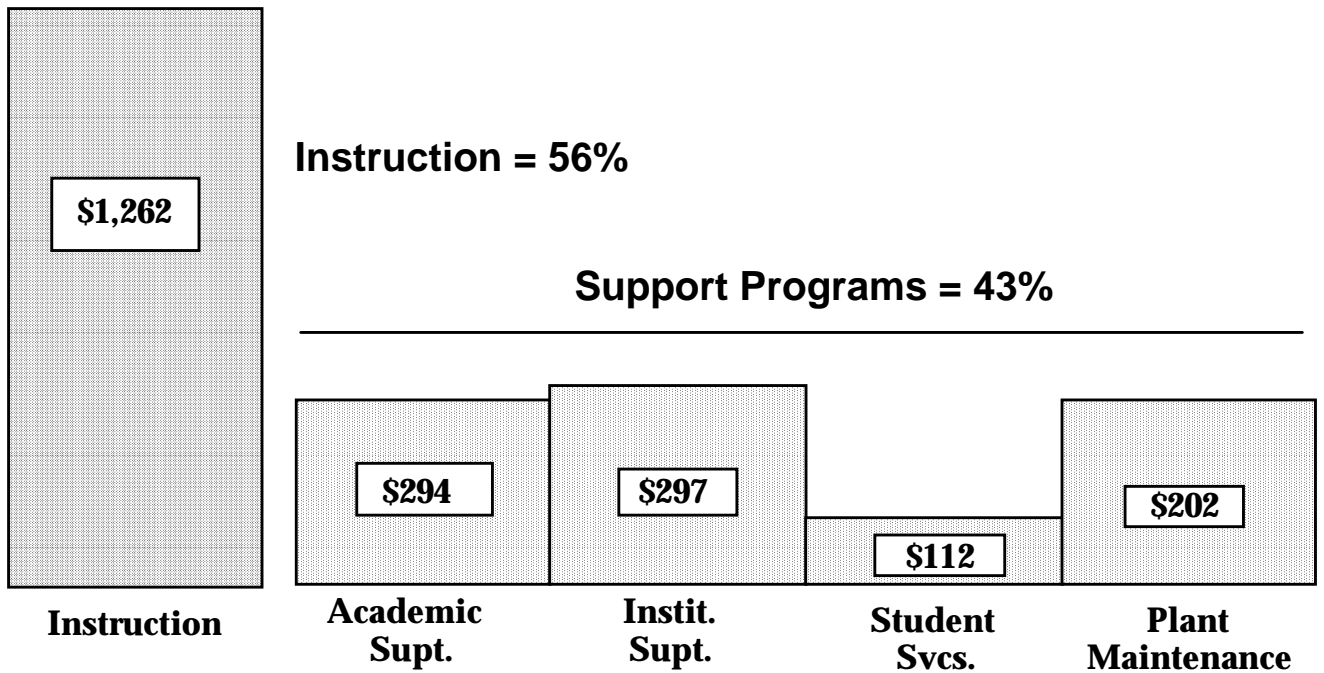
## **Framework of Guidelines for Determining Base Funding**

- The Joint Subcommittee adopted four basic principles for use in developing the guidelines:
  - 1) The guidelines would complement the current funding policies in place for higher education.
  - 2) Not all institutional resource requirements would – nor should – be met through the guidelines.
  - 3) To the extent possible, guideline factors would be developed through an assessment of actual experience, or national “best practices.”
  - 4) To the extent possible, the guidelines should balance the desire for simplicity in the guidelines with the need to recognize institutional differences.
  
- The basic task has been to find a yardstick that can be applied to Virginia’s diverse colleges and universities, without having them all come out looking the same.
  - This approach requires something more precise than a basic funding per student comparison.
  - It also requires building the guidelines from the bottom up.
  
- The study methodology approved by the Joint Subcommittee has a simple premise: **what drives the cost of providing higher education?**
  - If the cost drivers can be measured, then they can be incorporated into a funding guideline.

**Table 1**  
**Guideline Program Activities and Expenditures**

<b>Instruction</b>	<b>Academic Support</b>	<b>Student Services</b>	<b>Institutional Support</b>	<b>Plant Maintenance</b>
Faculty salaries	Academic administration	Admissions offices, registrars	Executive management and planning	Building and grounds maintenance
Instructional equipment, materials, supplies	Libraries	Guidance and counseling	Fiscal, legal, and personnel operations	Utility costs
Support staff, secretaries, lab technicians	Academic computing	Financial aid administration	Campus safety and security	
Instructional technology				

## FY 2000 Expenditures (\$ in millions)



## Instructional Costs

### Faculty Costs

- Two factors determine the number of faculty needed:
  - Types of programs offered (social sciences, engineering, biotechnologies); and
  - Level of instruction (undergraduate, master's, doctoral).
- The task was to develop student-faculty ratios based on the number of faculty required in different kinds of programs and at different levels of instruction.
  - The premise is that some programs and levels of instruction require more faculty and lower class sizes than others.

- Political science, sociology – medium to large lecture classes = lower faculty requirement.
  - Physical sciences, fine arts - smaller classes, lab-based = higher faculty requirement.
- To develop the ratios, staff worked with the consultant and academic officers from the colleges and universities using the best data available from other states along with recommendations and actual data submitted by Virginia colleges.
- Based on these discussions, staff developed program and level student-faculty ratios to determine resource requirements for instruction.
  - The ratios are designed to be a state-level resource allocation tool. They are not intended to be prescriptive or limiting in how institutions allocate faculty resources.

**Table 2**  
**Student to Faculty Ratios, by Level and Discipline**

Discipline	Lower	Upper	Master's/ Professional	Doctoral
<b>Group 1</b>				
Area Studies	24	18	11	9
Business & Management	24	18	11	9
Interdisciplinary Studies	24	18	11	9
Library Science	24	18	11	9
Military Science	24	18	11	9
Public Affairs	24	18	11	9
Social Sciences	24	18	11	9
Study Abroad	24	18	11	9
<b>Group 2</b>				
Communications	20	14	10	8
Education	20	14	10	8
Home Economics	20	14	10	8
Letters	20	14	10	8
Mathematics	20	14	10	8
Psychology	20	14	10	8
<b>Group 3a</b>				
Agric. & Natural Resources	18	11	9	7
Arch. & Env. Design	18	11	9	7
Computer /Info. Sci.	18	11	9	7
Fine and Applied Arts	18	11	9	7
Foreign Languages	18	11	9	7
Bus. & Com. Tech.	18	-	-	-
Data Processing Tech.	18	-	-	-
Public Serv. Tech.	18	-	-	-
Remedial Education	18	-	-	-
<b>Group 3b</b>				
Biological Sciences	18	11	8	6
Engineering	18	11	8	6
Physical Sciences	18	11	8	6
<b>Group 4</b>				
Health Professions <sup>1</sup>	12	10	7	5
Pharmacy	-	-	6	-
Health & Paramed. Tech.	10	-	-	-
<b>Other</b>				
Mech. & Engr. Tech.	13	-	-	-
Natural Science Tech	14	-	-	-
Law	-	-	17	-

<sup>1</sup> Excludes medicine, dentistry, and veterinary medicine.





## **Other Instructional Costs**

- Other instructional costs include everything other than salaries and benefits for full-time and part-time faculty and graduate teaching assistants.
  - Includes staff such as laboratory technicians and secretaries, as well as equipment and supplies used in faculty offices, classrooms, and laboratories.
- There is no precise way to measure these costs.
  - National data are mixed together with other costs.
  - No prevailing norms exist which define an appropriate funding level.
- As a result, the only alternative is to look for an indirect way to measure these costs.
  - The consultant conducted a survey of university and community college systems to determine current expenditure patterns.
  - Received responses from nine systems representing 174 colleges and universities.
- Responses suggest that instructional support costs typically range, on average, from 34 percent to 50 percent of instructional faculty costs.
  - Based on a review of the data and conversations with the technical advisory group, staff recommends a rate of 40 percent of instructional faculty costs.

## **Support Programs**

### **Academic Support, Institutional Support and Student Services**

- Support programs include libraries, academic computing, accounting, administration, personnel, admissions, financial aid administration and registration – those functions that support the core instructional enterprise.
- The general methodology used was to determine the statistical relationship between costs in academic support, institutional support, and student services and potential “cost drivers” in each area.
  - Examples of potential cost drivers include the number of faculty, number and level of academic programs, number of students, and size of institutional budget.
  - The list of cost drivers was refined until the most important ones emerged.
    - For support programs, either the number of students enrolled or overall instructional spending turned out to be the best predictor of support program expenditures.
- Because there are different demands placed on different kinds of colleges, the staff recommends different guideline estimators for each kind of institution.

<b>Institution Type</b>	<b>Virginia Institutions</b>
Research	UVA, VCU, VPI
Doctoral	CWM, ODU, GMU
Master’s/Comprehensive	JMU, RU, NSU, VSU, LC, CNU
Baccalaureate	VMI, MWC, UVA-Wise
Two-Year	RBC, VCCS

## Proposed Guidelines for Support Programs

- **Academic Support.** Apply a percentage to spending for instruction, research, and public service, plus an adjustment factor.
- **Institutional Support.** Apply a percentage to spending for all programs less institutional support, plus an adjustment factor.
- **Student Services.** Use a dollar amount per headcount student, along with an adjustment factor.

**Table 3**  
**Support Services Guideline Rates**  
**and Adjustment Factors<sup>2</sup>**

<b>Institution Type</b>	<b>Academic Support</b>	<b>Student Services</b>	<b>Institutional Support</b>
Research Rate Adjustment Factor	17.8% \$5,043,900	\$349 \$5,900,900	6.1% \$9,492,700
Doctoral Rate Adjustment Factor	25.0% (\$1,746,000)	\$394 \$2,674,500	11.7% \$1,399,100
Comprehensive Rate Adjustment Factor	19.6% \$481,700	\$463 \$982,100	14.4% \$791,600
Baccalaureate Rate Adjustment Factor	21.8% (\$16,300)	\$337 \$757,100	14.8% \$82,900
Two-Year Rate Adjustment Factor	15.2% \$243,500	\$278 \$354,100	20.2% (\$40,700)

<sup>2</sup> The Adjustment Factor is the result of a statistical function that improves the relationship between the values being measured and predicted.

## **Operation and Maintenance of Physical Plant**

- The biggest remaining problem is how to measure what it costs to operate and maintain buildings and land.
  - Virginia's college campuses are exceptionally diverse.
  - This is an area regarded by the colleges as underfunded.
  - National standards and comparisons have not been useful.
- Staff has explored a number of potential cost drivers in the area of physical plant, including square footage and acreage maintained by an institution.
- The staff recommends that additional work be conducted to develop the guideline.

## **Findings of the Funding Guidelines Study**

- The funding guidelines that have been developed allow a comparison of current appropriations to what the guidelines would estimate. To develop this comparison, staff:
  - 1) Calculated the guideline estimate for each college and university, using FY 2001 projected enrollments.
  - 2) Met with staff from each institution to review the estimates and the assumptions used in the calculations.
- Table 4 summarizes the comparison.
- Systemwide, appropriated funding is about 9 percent to 10 percent below that generated by the new guidelines.
  - Twelve of the four-year institutions and both two-year institutions appear to have funding below the guideline calculation estimates.
  - Three of the four-year institutions -- Norfolk State, UVA-Wise, and VMI -- appear to have adequate funding for their current mission and curriculum.

**Table 4**  
**Comparison of Guideline Calculations Estimate**  
**and FY 2001 Funding**  
(\$ in millions)

<b>Institution</b>	<b>Guideline Estimate</b>	<b>Current Funding</b>	<b>Range of Variance</b>
James Madison University	\$141.4	\$116.2	\$24.0 - \$26.0
Virginia Polytechnic Inst.	\$355.0	\$334.9	\$19.0 - \$21.0
George Mason University	\$204.5	\$184.4	\$19.0 - \$21.0
University of Virginia	\$340.8	\$323.1	\$17.0 - \$18.5
Old Dominion University	\$162.4	\$147.0	\$14.5 - \$16.0
Radford University	\$72.1	\$62.0	\$9.5 - \$10.5
Virginia Commonwealth Univ.	\$284.6	\$275.2	\$9.0 - \$9.9
College of William and Mary	\$99.2	\$92.7	\$6.0 - \$6.7
Christopher Newport Univ.	\$36.1	\$33.3	\$2.5 - \$3.0
Longwood College	\$32.7	\$30.0	\$2.5 - \$3.0
Mary Washington College	\$36.5	\$34.0	\$2.3 - \$2.5
Virginia State University	\$39.3	\$38.5	\$0.5 - \$1.0
<b>Four-Year Institutions</b>	<b>\$1,804.6.</b>	<b>\$1,671.3</b>	<b>\$126.0 - \$139.0</b>
Va. Community Colleges	\$484.8	\$421.0	\$61.0 - \$67.0
Richard Bland College	\$7.0	\$6.8	\$0.1 - \$0.2
<b>Total, All Institutions</b>	<b>\$2,296.4</b>	<b>\$2,099.1</b>	<b>\$187.0 - \$206.0</b>

- In reviewing the guideline simulations, several institutions raised the issue of the mix of full-time and part-time faculty.
  - The community colleges currently are staffed at about 50 percent full-time and 50 percent part-time faculty.
    - Long-standing language in the Appropriation Act states that it is the objective of the Commonwealth that a standard of 70 percent full-time faculty should be established for the VCCS.
    - The cost of providing full-time faculty at the 70 percent level for the VCCS is about \$28.0 million.
  - Three four-year institutions have less than 80 percent full-time faculty.
    - The cost of providing full-time faculty at the 80 percent level for these institutions is about \$4.6 million (VCU - \$2.2 million; GMU - \$2.0 million; CNU - \$380,000)
- Staff recommends that the issue of the appropriate mix of full- and part-time faculty be treated separately from the guideline calculations above.

## **Recommendations for Enrollment Growth Funding**

- At the October meeting, the Joint Subcommittee directed staff to develop an enrollment growth guideline based on the following principles:
  - The guideline should recognize enrollment growth, but not provide incentives to grow merely for more funding.
  - The guideline should recognize the concept of the marginal cost of additional students.
- Based on this guidance, staff has developed a recommendation that recognizes that, as enrollment increases, not all programs need to grow at the same rate.
- The staff recommends that every two to four years the components of the funding guidelines would be updated for changes in enrollment and support programs. The results of the calculations would be compared to the funding level of each institution.
- In the interim, enrollment growth would be funded as follows:
  - Each additional student would be funded at a set dollar amount. The amount would be less than the average appropriation per student at the respective institution.
  - Not all programs (instruction, academic support, institutional support, and student services) would be funded at the same level.
  - Funding would be concentrated on those programs where the impact of additional enrollment is most apparent.



- The example in Table 5 demonstrates how the funding could work at a given institution. It assumes that the average guideline funding per FTE student is \$10,000.

**Table 5**  
**Example of Enrollment Growth Funding**

<b>Program</b>	<b>Guideline Avg. \$ Per Student</b>	<b>Percent of Recognized Cost</b>	<b>Additional Funding per Student</b>
Instruction	\$5,500	80%	\$4,400
Academic Support	1,500	70	1,050
Institutional Support	1,200	10	120
Student Svcs.	800	50	400
Oper. & Maint of Plant	<u>1,000</u>	10	<u>100</u>
<b>Total</b>	<b>\$10,000</b>	<b>Avg. 60%</b>	<b>\$6,070</b>

- Staff would work with the institutions to refine these percentages, and present them to the Joint Subcommittee in January.
- This approach meets the objectives of funding enrollment growth but also recognizing operating efficiencies as enrollment increases.

## **Options for the Joint Subcommittee**

### **Recommendations for Action Today**

1. Adopt the guideline framework for determining base funding for instruction, academic support, institutional support, and student services.
2. Endorse the proposed framework for funding of enrollment growth.
3. Recommend that the Joint Subcommittee be continued to provide oversight for implementation of the guidelines and to address outstanding issues.

### **Issues Requiring Additional Consideration**

1. Develop recommendations and a timetable for implementation of the study findings on base adequacy.
2. Direct staff to explore options on the appropriate mix of full- and part-time faculty.
3. Develop budget language calling for the use of the funding guidelines in development of the 2002-04 biennial budget.
4. Direct staff to pursue development of a guideline for operation and maintenance of plant.