REPORT OF THE

SJR 90 Joint Subcommittee On Methods Of Financing Replacement Of Obsolete Or Unusable Equipment In Institutions Of Higher Education

TO THE GOVERNOR AND
THE GENERAL ASSEMBLY OF VIRGINIA

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INTRODUCTION

The joint subcommittee was appointed pursuant to Senate Joint Resolution 90 of the 1985 Session to investigate financing options for the efficient and timely replacement of obsolete and unusable equipment at Virginia's public institutions of higher education. The subcommittee also was directed to consider alternatives for equitable distribution of any resources made available through a financing option.

ACTIVITIES OF THE SUBCOMMITTEE

The subcommittee met five times during the year in an effort to define the magnitude of the equipment problem and determine the best solution. The following topics were covered in these meetings:

-- National Science Foundation report on the state of instruction equipment in higher education;

-- SCHEV study of equipment needs in Virginia;

-- The condition of existing equipment at Virginia's colleges and universities and its impact on instructional programs;

-- Actions taken by other states to address equipment deficiencies and related funding;

-- Definition of programs and types of equipment that would be dealt with through any type of extraordinary funding measure;

-- Financing options for a Virginia program;

-- System of administrative controls for equipment acquisition.

In addition to SCHEV and subcommittee staff, input was provided from the following individuals:

Dr. Ray C. Hunt, Jr., University of Virginia
Dr. Johnas F. Hockaday, Jr., Virginia Community College System
Dr. Edgar A. Starke, Jr., University of Virginia
Dr. John C. Jamison, College of William and Mary
Dr. Carlos Kruytbosch, National Science Foundation
Mr. Michael B. Goldstein, State Higher Education Executive Officers
Mr. Stuart W. Connock, Secretary of Finance
Dr. Donald J. Finley, Secretary of Education
Mr. Walter W. Craigie, Jr., Wheat First Securities, Inc.
Mr. Harry Frazier III, Hunton and Williams
Mr. Robert Dean Pope, Hunton and Williams

Two advisory groups were established to discuss technical and legal aspects of matters under consideration. The advisory groups included representatives of the investment banking and legal communities and the Secretaries of Finance and Education.

ISSUES CONSIDERED BY THE JOINT SUBCOMMITTEE

(1) The appropriate standard for State replacement of educational equipment; i.e., to what degree should "state of the art" be pursued.

(2) Priority areas for concentration of State effort.

(3) Delineation of the types of equipment to be considered under an extraordinary effort.

(4) Factors which should limit access to a new program of equipment acquisition.

(5) Estimate of the immediate need for educational equipment and realistic financing alternatives.

(6) Role of the State Council of Higher Education in distributional decisions and administrative control.

BACKGROUND

During 1985, the State Council of Higher Education assessed the equipment inventories of Virginia's public colleges and universities. The Council's conclusion was that the inventories, which have an overall average age of fifteen years, contain much outmoded educational equipment. Educational equipment was defined generally as that used in classrooms and labs to teach and in libraries to do research and access holdings in computer systems. The average useful life of educational equipment is about seven years.

Institutions of higher education acquire educational equipment in several ways. Some moveable equipment is financed as part of capital outlay projects. This is not a systematic approach since the amount of equipment that can be purchased generally relates to the adequacy of the building construction estimate.

Equipment purchases also come from the institutions' annual operating budgets, grant and contract funding, indirect cost proceeds, and in some cases, through debt financing. Roughly 10 to 13 percent of annual equipment acquisitions are in the form of lease-purchase arrangements. Finally, some equipment is acquired through gifts, which are primarily corporate donations.

In order to keep equipment inventories current, an orderly replacement schedule must be followed. Several factors have kept Virginia institutions from adhering to a schedule of this type:

-- Educational institutions do not depreciate capital investments to generate reserves for replacing worn-out and obsolete equipment.

-- Equipment purchases have to be considered more discretionary than day-to-day operating costs. Therefore, periods of budgetary constraint; i.e., level funding, coupled with rising costs in non-discretionary areas divert operating funds away from equipment purchases.

-- Planning for equipment acquisition is hampered by reversions of year-end operating funds and surplus property balances.

-- The use of instructional equipment has become more intensive as demand for educational equipment has broadened to more academic disciplines.

-- Short-term financing for educational equipment has been limited to schools which have the financial backing of healthy endowments.

The estimated replacement value of the current Educational and General (E&G) moveable equipment inventory is $487.1 million. Higher education institutions spent $37.3 million for E&G equipment and $4.0 million for equipment lease-purchases in fiscal year 1984-85. The planned expenditure in the current fiscal year is $39.0 million and $4.7 million respectively. Therefore, institutions are replacing 8 to 9 percent of their inventories annually, in the current biennium.

Roughly one-third of the equipment purchased by educational institutions since 1983 is automated data processing equipment. The next largest categories include: educational/cultural equipment, which includes classroom furniture, office equipment and furniture; and medical/laboratory equipment. Each of these categories is in the range of 11 to 13 percent of total purchases. These figures understate purchases somewhat, however, because several institutions assign an expenditure code for supplies and materials to equipment purchases under a $500 threshold.

Expenditures made in 1984-85 for equipment and lease/purchases are summarized below:

INSTITUTION	TOTAL EXPENDITURES (Millions)	PER PUPIL EXPENDITURES
George Mason	$ 3.4	$ 303
Old Dominion	2.7	208
University of Virginia	2.4	125
Virginia Commonwealth	5.4	350
VPI & SU		
Instructional Div.	6.7	287
All Divisions	10.2	442
William & Mary	1.4	213
Christopher Newport	.5	166
Clinch Valley	.2	221
James Madison	2.1	210
Longwood	.8	267
Mary Washington	.7	252
Norfolk State	.4	56
Radford	1.1	167
Virginia Military	.5	325
Virginia State	.4	89
Richard Bland	.2	307
VCCS	9.0	172
TOTAL	$41.3	$230

ESTIMATE OF NEED FOR INSTRUCTIONAL AND RESEARCH EQUIPMENT

Several national studies conducted since the early 1970's have documented an erosion of state-of-the-art research equipment in university inventories. A number of interrelated factors have contributed to this trend. For example, as scientific equipment has grown more powerful and productive, the initial cost of acquisition has outpaced the general rate of inflation. The growing capabilities of this equipment also bring higher costs of operation and maintenance. And technological advances are occurring at a more rapid pace, thereby shortening the useful life of equipment. Sophisticated equipment today may be superseded in five years or less by more advanced models.

A 1980 National Science Foundation study found that educational institutions were using obsolete equipment to train students for careers in research labs and manufacturing industries. Graduates then had to be retained on state-of-the-art equipment when they left school. The study concluded that classroom and laboratory equipment in universities was about twice the age of comparable equipment in private industry.

In April, 1984, the NSF released its Survey of Academic Reseach Instruments and Instrumentation Needs in three areas--computer, physical sciences and engineering. The survey was designed to yield nationally representative information on the amount, condition, and cost of existing scientific research equipment in calendar year 1982. University researchers classified about one-fourth of their research equipment inventories as obsolete and no longer in research use.

A later version of this NSF survey, which also included the agricultural, biological, environmental, material and medical programs, concluded that one-fifth of scientific equipment in university inventories was obsolete and no longer in research use. Of the systems in research use, 22 percent were more than 10 years old.

SCHEV Estimate of Need in Virginia

A recent SCHEV study estimated that the value of the Educational and General inventories of moveable equipment at Virginia's public colleges and universities approached $500 million. The educational equipment in these inventories was estimated at $300 million. It was projected that roughly $100 million would be required to overcome accumulated equipment obsolescence embedded in this inventory figure. In other words, $100 million worth of equipment still in use is technologically obsolete. In addition to obsolescence, SCHEV pointed to deficiencies in academic computing and engineering equipment in the range of $85 million and estimated that further studies in other disciplines could add another $50 million to the deficiency figure.

The academic computing deficiency was based on the difference between the number of workstations in the institutions' inventories and the computed number of workstations required based on enrollment by program mix. A specific number of access hours was projected for each academic area. The engineering deficiency was based on an estimated national engineering deficiency of $20,700 per graduate for undergraduate education and $25,100 per graduate for graduate education. The cost of equipment for graduate engineering programs was assumed to be shared with 50 percent coming from general funds and 50 percent from research and private funds.

The State Council recommended that Higher Education equipment needs to addressed in three categories:

1) Maintaining and replacing existing equipment

2) Replacing obsolete equipment

3) Overcoming equipment deficiencies

According to the State Council's estimates, the need for maintaining and replacing existing equipment can be handled through the normal operating budget appropriations, if approximately 8 percent of the replacement value of the inventory is provided annually. As indicated earlier, the expenditure pattern in the current biennium reflects this 8 percent benchmark. SCHEV has recommended that $74.2 million is required in 1986-88 to maintain equipment in good working order and to replace worn and broken equipment. The institutions' financial proposals for next biennium contain $74 million for equipment purchase and lease/purchase agreements for equipment.

The SCHEV report indicates that once accumulated obsolescence has been overcome, an annual appropriation of about one-fifteenth of the replacement value of the educational equipment inventory (over $40 million) would be required to replace equipment as it becomes obsolete in the future. This approach overstates the equipment problem to some degree, however. Once accumulated obsolescence has been overcome, the categories of normal maintenance and replacement and replacement of obsolete equipment would not be mutually exclusive.

An updated analysis accomplished for the Subcommittee revealed that accumulated obsolescence of $24 million is a more accurate figure than the original projection of $100 million. The first estimate was based on a sample of inventories from a few of the institutions. In addition, the definition of equipment to be considered in a financing alternative has been refined since that time. Initial estimates included some auxiliary enterprise and sponsored program equipment. The current estimates eliminate these programs, eliminate equipment valued at less than $500 and include data for actual and planned purchases of equipment in the current biennium. This last change reduces the average age of the inventory, as well as the estimate of obsolescence.

In summary, SCHEV estimates that the minimum estimate of immediate need is approximately $110 million. This amount includes deficiencies only in academic computing and engineering equipment. Studies will be undertaken in the next year to identify deficiencies in other disciplines.

Secretary of Education Estimate of Need

The Secretary of Education concurs with SCHEV's recommendation that regular maintenance and replacement of equipment inventories can be accomplished within the institutions' annual operating appropriations.

The Secretary concurs with SCHEV's recommendation that a special effort will be required to replace technologically outmoded equipment and to eliminate equipment deficiencies. However, the estimates of need to remedy obsolescence and deficiencies differ somewhat from the State Council estimates. The Secretary recommends that the obsolescence figure be restricted to the instruction, research and academic support equipment inventories rather than all Educational and General equipment inventories. This reduces the obsolescence estimate from $24 million to $16 million.

The Secretary computes the academic computing deficiency using a higher utilization rate per workstation and a differentiated cost for networked versus stand alone workstations. The recommendation includes installation and operating costs of $.8 million GF and $.5 million NGF for a total estimated need of $29.0 million.

The Secretary also substitutes the estimate of engineering deficiency identified in Senate Document 15 of the 1983 Session ($41.1 million) for the SCHEV estimate of need, which was based on a national norm. In his judgement SCHEV could not adequately document the assumption that the equipment deficiency engineering in Virginia mirrors that of the nation.

In summary, the Secretary estimates that a minimum estimate of need for accumulated obsolescence and deficiencies in academic computing and engineering equipment is $86.4 million. He characterizes that figure as conservative, and acknowledges that the total will likely be higher after all studies are completed.

A convention in recent years has been to spread substantial financial burdens over three biennia to smooth the effect on the general fund. Application of this principle to the equipment funding issue would generate a funding need of $28.8 million in the 1986-88 biennium; in the view of the Secretary of Education. This amount will be recommended by the Secretary to the Governor as a supplemental appropriation, for equipment. The appropriation would be contained in a central account until the General Assembly acts on the Joint Subcommittee recommendations.

Implicit in the Secretary's recommendation is a recognition that tuition and fees are not an appropriate funding source for a major initiative in the area of equipment replacement at this time. The tuition and fees at Virginia's public colleges and universities are among the highest in the southeastern states. State action to address the equipment deficiencies should allow some schools to lower the fees charged to students since specific fees to acquire equipment have been instituted in recent years.

Conclusion. There is clear and compelling evidence that a serious deficiency exists in the equipment inventories of the State's colleges and universities. That fact was first brought to light in 1983 through a legislative study of engineering needs, and has been consistently buttressed in independent analysis conducted by the State Council of Higher Education and by the Secretary of Education.

Although work remains to be done to define precisely the extent and scope of the equipment need, a concerted state commitment will be required to meet it.

ALTERNATIVE METHODS FOR FINANCING EQUIPMENT ACQUISITION

The central charge of Senate Joint Resolution No. 90 is to examine methods of financing the acquisition and replacement of obsolete and unusable equipment in institutions of higher education. The Joint Subcommittee has devoted most of its time to this issue. The Subcommittee has called upon a group of legal and financial advisors to guide it in its work. Included in this group have been representatives from Hunton and Williams, Scott and Stringfellow, Wheat First Securities, Craigie Incorporated, and Alex Brown & Sons, as well as representatives from the University of Virginia, the College of William and Mary, and VPI & SU. The Joint Subcommittee is indebted to these people and their firms for their service. Much of the work included in this report is drawn from material provided by these individuals.

The Joint Subcommittee has examined two principal financing options: (1) either one or a series of general fund appropriations; and (2) a variety of debt financing instruments.

General Fund Appropriations

General fund appropriations represent the obvious beginning point for any discussion of financing alternatives. Such revenues comprise the major source of support for most state programs. They have successfully been used in the past to meet identified needs in funding the State's Standards of Quality in public education, initiatives in economic development, and in a variety of other areas. Moreover, general fund revenues have generally been used to finance capital facilities in higher education, public safety, human resources, and most other areas of state government. The current general fund forecast for 1986-88 is $9,286.3 million, an increase of $1,291.3 million over revenues from the current biennium.

There are several advantages of using appropriations of general fund revenues. First, such appropriations represent the conventional method of supporting higher education. Second, because appropriations are drawn from current revenues only, financing costs are avoided. Third, clear legislative oversight of the scope and configuration of equipment programs would exist. And fourth, the amount of the equipment appropriation and its allocation to individual institutions could be modified at any time.

Because the magnitude of demonstrated need for equipment exceeds $100 million, it is unlikely that a single, lump sum appropriation would be possible. Moreover, there is a limit to the amount of equipment that can be systematically acquired and maintained by the institutions within a single biennium. In some respects, therefore, a lump sum appropriation would be undesirable. The primary alternative would be a series of general fund appropriations over several biennia.

One of the principal advantages of general fund appropriations -- their flexibility -- is also one of their disadvantages. General fund appropriations could be limited or terminated at any time, as the result of an economic downturn or other factors. Four times in the last six years, economic conditions forced the Governor or General Assembly to freeze capital outlay projects or reduce operating budgets in several ways. The orderly replacement of obsolete equipment would therefore be vulnerable.

Conclusion. A series of general fund appropriations is a viable means of financing equipment replacement. However, such appropriations are not conducive to the type of multi-year effort required to remedy identified equipment deficiencies in higher education. For that reason it is advisable to consider other alternatives.

Use of Debt Financing

Several forms of debt financing exist as the primary alternative to straightforward appropriation of general fund revenues. Such methods are routinely used by hospitals to acquire equipment, and have been used for equipment acquisition in other states. Debt financing allows states to take advantage of lower, tax exempt interest rates, while earning interest on portions of bond proceeds.

In Virginia, the Constitution provides for several types of debt issues -- general obligation bonds (9-B), revenue bonds (9-C, to which the full faith and credit of the Commonwealth is pledged), and other obligations (9-D). Each offers its own advantages and disadvantages.

General Obligation Bonds. Article X of the Constitution authorizes general obligation debt for capital projects, and sinking funds. General Obligation Bonds (9-B) are debt instruments to which the full faith and credit of the Commonwealth is pledged. The Constitution requires that such issues receive majority approval of both houses of the General Assembly, receive approval in a referendum of the people, and that the capital projects to be funded be specified in the law authorizing the issue. Limits are placed on the total debt which can be outstanding at anytime.

A sequence of 9-B issues secured by full faith and credit of the Commonwealth could be employed to meet the accumulated equipment deficiency. Such an approach has several disadvantages, however. Key among these is the delay between proposal of a general obligation bond and its passage by the voters and actual issuance of the bonds. Equipment, which could have to be specified in the debt authorization, would likely be a third of the way through a 7-year useful life by the time it was acquired. The involved process of approval would not be sensitive to changing equipment needs or changing technology. General obligation bonds would not therefore be a desirable financing alternative for equipment.

Revenue Bonds (9-C). Section 9-C of Article X of the Constitution also authorizes the General Assembly to issue general obligation bonds to finance revenue-producing capital projects. These bonds are referred to as double-barrel bonds because they are secured both by a pledge of the full faith and credit of the Commonwealth and a pledge of the net revenues of the projects financed. As general obligations of the state, 9-C bonds afford the lowest financing cost. They traditionally have enjoyed a AAA credit rating, the highest rating available.

Section 9-C bonds have been used successfully for financing certain building improvements at state colleges for the past 15 years. While Section 9-C is well-suited for financing facilities with long useful lives, its use for financing equipment having much shorter useful lives poses significant legal and practical concerns.

First, Section 9-C bonds can be issued only to finance capital projects specified in the legislation authorizing their issuance. The legislation must be authorized by two-thirds of the members elected to each house. The Governor must certify, both at the time of enactment of the legislation and again before the bonds are sold, that "based upon responsible engineering and economic estimates," the anticipated net revenues of the projects pledged to payment of the bonds will be sufficient for that purpose. Because instructional equipment would not produce revenues in the conventional sense, it may not be possible to certify financial feasibility, as required.

Second, the capital projects to be financed must be "distinctly specified" in the legislation authorizing the bonds. There are no legal tests in Virginia as to the meaning of "distinctly specified." It is therefore not clear whether describing a project as "acquiring equipment for state institutions of higher learning" would be sufficient. If it is insufficient, then a delay in acquiring the equipment would result, with the same effect as with 9-B General Obligation Bonds.

The legal and practical problems associated with 9-C bonds makes their use for equipment acquisition questionable.

Other Obligations. The Constitution (Section 9-D, Article X) provides that the restrictions on state debt found in Article X are not applicable to obligations incurred by the Commonwealth or any of its institutions, agencies or authorities, so long as the full faith and credit of the Commonwealth are not pledged. This provision, added to the Constitution in 1971, recognizes that pure revenue bonds may be issued on an ad hoc basis as they have in the past. Section 9-D is an explicit recognition of the Special Fund Doctrine under which revenue bonds of institutions of higher learning, the State Highway Commission, and a variety of other state agencies and authorities have been issued.

In addition, certain state-created political subdivisions are authorized to issue revenue bonds that are the functional equivalent of revenue bonds of the Commonwealth.

While revenue bonds require a somewhat higher interest rate because they are not backed by the full faith and credit of the Commonwealth, using them to acquire instructional and research equipment would not likely result in the legal and practical problems already described. Legal problems that do exist could be solved by legislation.

<u>Two Potential Programs Using 9-D Bonds</u>

The tables on the next pages lay out two potential programs for using 9-D bonds to fund equipment purchases. In each case, colleges lease equipment from an authority which has issued bonds. Lease payments are made to the authority using general fund revenues which are provided by the Commonwealth.

Each program uses a "seed" or equity appropriation of $25.0 million from the State's general fund. And, each program is judged to be financially feasible if the cost of total lease payments plus the "seed" appropriation approximately equals the amount of equipment acquired plus the cash on hand. If this test is made, it is possible to conclude that the benefits of debt financing make it "cheaper" to acquire equipment in this manner. The programs are illustrative of the type that could be used to meet equipment needs over a number of years.

First Program. The first program assumes that an authority issues a bond of $66.3 million for a 8-year term, on January 1, 1987. It also assumes an equity contribution of $25.0 million from the State, to an endowment fund. The following statements summarize the dispositions of funds in this program (Table 1):

1. $1.3 million of bond proceeds would be used to pay issuance expenses.

2. An appropriated reserve fund ($9,949,500) is established and maintained by using a portion of the seed contribution provided by the general fund. This amount represents 15 percent of the bond principal, and is used as security for payments on the bonds. It earns interest at an unrestricted rate, under current regulations.

FUNDING PROGRAM 1

$66.3 Million, Eight Year Bond Issue

(Illustrative Only)

			REPAYMENT SOURCES PLEDGED TO BONDS					ENDOWMENT FUND NOT PLEDGED TO BONDS					
	A	B	C	D	E	F	G	H	I	J	K	L	
FISCAL YEAR	TOTAL DEBT SERVICE	EQUIPMENT PURCHASED	LEASE REPAYMENTS (8.15%)	EARNINGS ON ON BOND PRINCIPAL (8.5%)	APPROPRIATED RESERVE FUND BALANCE (15%)	EARNINGS ON RES FUND (8.5%)	TOTAL EARNINGS (C+D+F)	ANNUAL BEGINNING BALANCE	EARNINGS (8.5%)	SURPLUS FROM BONDS	YEAR END BALANCE	PRINCIPAL OUTSTANDING IN THIS YEAR	FISCAL YEAR
1987	5,306,400	15,000,000	0	4,887,500	9,949,500	845,708	5,733,208	15,079,000	1,281,715	234,100	16,594,815	66,330,000	1987
1988	7,855,400	25,000,000	3,771,500	3,187,500	9,949,500	845,708	7,804,708	16,594,815	1,410,559	0	18,005,374	66,330,000	1988
1989	12,108,480	25,000,000	10,058,257	1,062,500	9,949,500	845,708	11,966,465	18,005,374	1,530,457	0	19,535,830	63,781,000	1989
1990	16,368,000		16,344,768		9,949,500	845,708	17,190,476	19,535,830	1,660,546	822,476	22,018,852	56,775,000	1990
1991	16,385,920		16,344,949		9,949,500	845,708	17,190,657	22,018,852	1,871,602	804,737	24,695,190	44,949,000	1991
1992	16,403,720		16,343,563		9,949,500	845,708	17,189,271	24,695,190	2,099,091	785,551	27,579,832	32,159,000	1992
1993	12,652,240		12,571,337		9,949,500	845,708	13,417,045	27,579,832	2,344,286	182,830	30,106,948	18,328,000	1993
1994	7,713,360		6,285,678		9,949,500	845,708	7,131,386	30,106,948	2,559,091	0	32,666,038	7,142,000	1994
									0	0	0		
TOTAL	$94,793,520	$65,000,000	$81,720,052	$9,137,500		$6,765,660	$97,623,212		$14,757,346	$2,829,692			

NOTES ON SCENARIO 1:
1) Assumes a $66,330,000 bond issue on January 1, 1987.
2) Term of bond to be 8 years.
3) General Fund appropriation of $28,800,000 is disbursed to Endowment fund ($15,079,000), Reserve fund ($9,949,500), and and lease payments for 1986-88 biennium.
4) Lease payments all have 5-year terms.

SUMMARY OF:

	COSTS	BENEFITS	
Lease Payments	81,720,052	9,949,500	Reserve Fund Cash
Reserve Fund	9,949,500	32,666,038	Endowment Fund Cash
Endowment Fund	15,079,000	65,000,000	Equipment Purchased
TOTAL	$106,748,552	$107,615,538	

3. All of the remaining bond proceeds ($65.0 million) are used to acquire equipment. Bond proceeds would have to be disbursed within 3 full years, but could earn unrestricted interest within that time under current law. Interest earnings would also have to be disbursed within 3 years. Interest earnings on bond principal would total about $9.1 million.

4. The remaining portion of the seed contribution ($15,079,000) would fund an endowment fund, also earning unrestricted interest. In this program, the endowment fund accumulates cash.

5. Lease payments from the colleges begin in 1988 and are scheduled to pay the price of the equipment over a 5-year period. Paying for the equipment on a shorter schedule than the bond life provides additional cash for the endowment fund. Lease payments over the life of the bond total $81,720,052. The highest lease payment total for any biennium is $32.6 million in 1990-92.

6. The endowment fund grows from $15,079,000 to $32,666,038 over the life of the issue. Beginning in 1991, the balance in the 15 percent reserve fund, plus the endowment fund is sufficient to pay the outstanding principal on the bonds.

7. The cost-benefit analysis is summarized below, and indicates that benefits outweigh costs.

Costs		Benefits	
Reserve Fund	$ 9,949,500	$ 9,949,500	Reserve Cash
Endowment Fund	15,079,000	32,666,038	Endowment Fund Cash
Lease Payments	81,720,052	65,000,000	Equipment Purchased
TOTAL	$106,748,552	$107,615,538	

The result of the program demonstrates that it is financially feasible to acquire equipment through a debt financing while gaining an attractive benefit-cost advantage.

Second Program. The second program involves a $66.3 million bond, issued for a 12-year term on January 1, 1987. It includes an equity contribution which is split between a reserve fund ($9,945,000) and an endowment fund ($15,083,500). Both funds earn interest at an unrestricted rate. The disposition of funds for the scenario is summarized below (Table 2):

1. $1.3 million of bond proceeds would be used to pay issuance expenses.

FUNDING PROGRAM 2

$66.3 Million, Twelve Year Bond Issue

(Illustrative Only)

			REPAYMENT SOURCES PLEDGED TO BONDS					ENDOWMENT FUND NOT PLEDGED TO BONDS					
	A	B	C	D	E	F	G	H	I	J	K	L	
FISCAL YEAR	TOTAL DEBT SERVICE	EQUIPMENT PURCHASED	LEASE REPAYMENTS (8.15%)	EARNINGS ON ON BOND PRINCIPAL (8.5%)	APPROPRIATED RESERVE FUND BALANCE (15%)	EARNINGS ON RES FUND (8.5%)	TOTAL EARNINGS (C+D+F)	ANNUAL BEGINNING BALANCE	EARNINGS (8.5%)	SURPLUS FROM BONDS	YEAR END BALANCE	PRINCIPAL OUTSTANDING IN THIS YEAR	FISCAL YEAR
1987	5,304,000	15,000,000	0	4,887,500	9,945,000	845,325	5,732,825	15,083,500	1,282,098	428,825	16,794,423	66,300,000	1987
1988	5,304,000	25,000,000	3,771,500	3,187,500	9,945,000	845,325	7,804,325	16,794,423	1,427,526	2,500,325	20,722,273	66,300,000	1988
1989	8,949,000	25,000,000	10,058,257	1,062,500	9,945,000	845,325	11,966,082	20,722,273	1,761,393	3,017,082	25,500,749	66,300,000	1989
1990	10,027,400		16,344,768		9,945,000	845,325	17,190,093	25,500,749	2,167,564	7,162,693	34,831,005	62,655,000	1990
1991	10,031,200	25,000,000	16,344,949		9,945,000	845,325	17,190,274	34,831,005	2,960,635	7,159,074	19,950,715	57,640,000	1991
1992	10,032,600		22,630,063		9,945,000	845,325	23,475,388	19,950,715	1,695,811	13,442,788	35,089,313	52,220,000	1992
1993	10,029,200	25,000,000	18,857,544		9,945,000	845,325	19,702,869	35,089,313	2,982,592	9,673,669	22,745,574	46,365,000	1993
1994	10,028,600		18,858,892		9,945,000	845,325	19,704,217	22,745,574	1,933,374	9,675,617	34,354,565	40,045,000	1994
1995	10,032,600		12,571,866		9,945,000	845,325	13,417,191	34,354,565	2,920,138	978,095	38,252,798	33,220,000	1995
1996	10,027,600		12,572,392		9,945,000	845,325	13,417,717	38,252,798	3,251,488	0	41,504,286	25,845,000	1996
1997	10,030,800		6,285,659		9,945,000	845,325	7,130,984	41,504,286	3,527,864	0	45,032,150	17,885,000	1997
1998	10,027,800		6,285,678		9,945,000	845,325	7,131,003	45,032,150	3,827,733	0	48,859,883	9,285,000	1998
TOTAL	$109,824,800	$115,000,000	$144,581,568	$9,137,500		$10,143,900	$163,862,968		$29,738,215				

NOTES ON SCENARIO 2:

1) Assumes a $66,330,000 bond issue on January 1, 1987.
2) Term of bond to be 12 years.
3) General Fund appropriation of $28,800,000 is disbursed to Endowment fund ($15,083,500), Reserve fund ($9,945,000), and and lease payments for 1986-88 biennium.
4) Lease payments all have 5-year terms.

SUMMARY OF:

	COSTS	BENEFITS	
Lease Payments	144,581,568	9,945,000	Reserve Fund Cash
Reserve Fund	9945000	48,859,883	Endowment Fund Cash
Endowment Fund	15,083,500	115,000,000	Equipment Purchased
TOTAL	$169,610,068	$173,804,883	

2. The initial proceeds of the bond would be used to acquire $65.0 million of equipment in the 3 years after issuance.

3. Lease payments from the colleges (using general fund appropriations provided for that purpose) would begin in 1988, and would be structured to pay the price of the equipment in 5 years.

4. Paying leases over a 5-year period while the bond term is 12 years provides substantial additional cash to the endowment fund. The endowment fund accumulates at a rate which allows additional equipment acquisitions of $25.0 million each in 1991 and 1993. This recycling of cash into equipment purchases can continue indefinitely, as long as lease payments are structured on a 5-year basis and funds are appropriated.

5. From 1994, the reserve fund balance plus the endowment fund is sufficient to pay all of the outstanding bond principal.

6. Lease payments over this period total $144,581,568. The highest lease payment total for any biennium occurs in 1992-94 and costs $37.7 million.

7. A total of $115,000,000 in equipment is acquired.

8. The cost-benefit analysis is summarized below, and shows that benefits again outweigh costs.

Costs		Benefits	
Lease Payments	$144,581,568	$115,000,000	Equipment Acquired
Reserve Fund	9,945,000	9,945,000	Reserve Fund
Endowment Fund	15,083,500	48,859,883	Endowment Fund
TOTAL	$169,610,068	$173,804,883	

The second program again demonstrates that a correctly structured bond issue can be used to acquire needed equipment, with benefits exceeding costs.

Conclusion. These two funding programs demonstrate the viability of debt financing as a financing vehicle for equipment. Such an alternative maximizes the immediate availability of equipment and minimizes the need for large initial appropriations. Because debt financing is a multi-year undertaking, it encourages creation of an orderly planning process in the institutions, and allows adequate time for review of all equipment requests. Moreover, the funding mechanism can be tailored to continue, if equipment needs are determined to be greater than originally identified, or it can be terminated by paying off outstanding bond principal.

Selecting an Issuing Authority

If bonds are a viable financing alternative, then the issue of whether to use an existing authority or to create one is of concern. The Joint Subcommittee discussions have focused on the Virginia College Building Authority as a potential issuing entity.

The VCBA is one of several political subdivisions authorized to issue bonds. Others include the Water Resources Authority, Virginia Housing Development Authority, and Virginia Public Building Authority. The VCBA has marketed 17 issues since 1975, aggregating more than $100,000,000 in principal for projects for eight private colleges. The Authority issues its bonds, lends the proceeds to the colleges and secures its bonds by assignment of the colleges' notes and whatever additional security is provided by the colleges.

While all prior activities of the VCBA have been on behalf of private colleges, it is empowered to assist public educational institutions as well. Virginia Code Section 23-30.27 authorizes the VCBA to purchase bonds or other obligations issued by public educational institutions pursuant to Chapter 3 of Title 23. With appropriate amendments, the VCBA also should be able to issue bonds for an equipment financing pool for public educational institutions.

The use of the Virginia College Building Authority as the issuing entity offers several advantages:

1. With appropriate modification to current legislation, it would allow generally unlimited flexibility in creating a program that meets needs of the State.

2. By either altered membership on the VCBA Board or required approvals by state officials, the amended legislation could produce the precise degree of State control desired.

3. The debt issued would be debt of a separate political subdivision and would not raise the issue of debt of the Commonwealth.

4. Because the VCBA is a separate political subdivision, any funds either appropriated to it or generated by its own investments would not require annual reappropriation and could therefore provide meaningful security for bonds.

5. Use of the VCBA would maximize the program's ability to take advantage of the current federal income tax regulations governing tax-exempt bonds, primarily those relating to the investment of funds.

6. This approach would allow the General Assembly's "seed money" to provide the basis for an on-going program that would not require regular additional infusions from the General Assembly and would allow the normal appropriations process to purchase more equipment for each dollar appropriated.

7. The leases would offer the colleges many of the advantages of short-term debt financing without creating actual debt of the colleges and therefore necessitating compliance with the difficult and expensive requirements for legal creation of debt.

8. The program could allow funds to be recycled several times through the life of a bond issue, thus minimizing the transaction cost per dollar of equipment leased.

9. The approach would not require colleges to utilize an "equipment fee" approach (although they would be free to do so) or otherwise alter their internal financial procedures.

10. The transaction savings as well as the general savings from the use of tax-exempt money would be available to all colleges without their having to commit to particular projects at the time bonds are issued, or even at the time they submit capital budgets to the General Assembly.

11. The built-up reserves and lease pool funds will enable the program in the future to use the earnings generated either to reduce the lease costs directly to the colleges (and to the General Assembly), to fund an expanded equipment leasing program without related start-up costs, or to repay the seed money to the Commonwealth.

ADMINISTRATIVE CONTROLS

Under any funding option other than simply appropriating additional funds to the colleges and universities, a series of administrative controls must be developed. Such controls will ensure that: (1) planning for the equipment acquisition takes place in an orderly and systematic fashion; (2) institutions acquire only equipment which is needed and is consistent with their approved discipline mix; (3) equipment inventories are culled, and obsolete equipment is disposed of on a regular basis, and (4) allocations to individual institutions are made equitably.

The State Comptroller and the State Council of Higher Education will be the major actors in developing administrative controls for equipment acquisition from any special funding mechanism for equipment. The Comptroller's Fixed Asset Accounting and Control System (FAACS), when fully implemented, will provide the ability to precisely monitor and evaluate equipment inventories owned by colleges and universities. This ability, coupled with the ongoing work of the State Council in reviewing institutional budget requests and academic programs, can provide the framework for adequate administrative controls.

Fixed Asset Accounting and Control System (FAACS)

The State Comptroller's Fixed Asset Accounting and Control System (FAACS) is the single, statewide property management system. When complete, it will contain automated records on land, buildings, equipment, construction in progress, and other improvements for all state agencies and institutions. State agencies and institutions of higher education will be required to provide all information specified by the State Comptroller on a regular basis.

Full implementation of FAACS is central to the operation of a special funding mechanism for equipment. Through FAACS, it will be possible to derive precise estimates of the state of existing equipment inventories, and to gain information on an item-by-item basis about age, useful life, replacement value, current use, condition, and other characteristics of instructional and research equipment. The table below identifies selected variables within FAACS which are important to oversight of institutional equipment inventories.

SELECTED VARIABLES WITHIN FIXED ASSET ACCOUNTING AND CONTROL SYSTEM

Acquisition Date	Replacement Value
Useful Life	Funding Source
Nomenclature Codes (equipment identifier)	Room Identifier
Discipline identifier	Quantity

Full implementation of FAACS by each college and university should be a prerequisite to participation in any special effort to remedy equipment deficiencies.

A Framework for Administrative Controls

The chart on the next page lays out a framework for administration oversight of a mechanism like an equipment trust fund. The heart of the framework is an application and review process which involves each college and university, the State Council of Higher Education, and the State Comptroller. The process also involves a detailed analysis of equipment using information provided by FAACS.

Use of FAACS. If the process were adopted as outlined, the State Comptroller would be charged with maintaining the FAACS system for each institution. Analysis of existing inventories would be conducted using up-to-date information derived from FAACS. The State Council would use this analysis to estimate the funds required at each institution to maintain the existing equipment inventories, move the average age of equipment to a specified standard age and to remedy identified and quantified deficiencies.

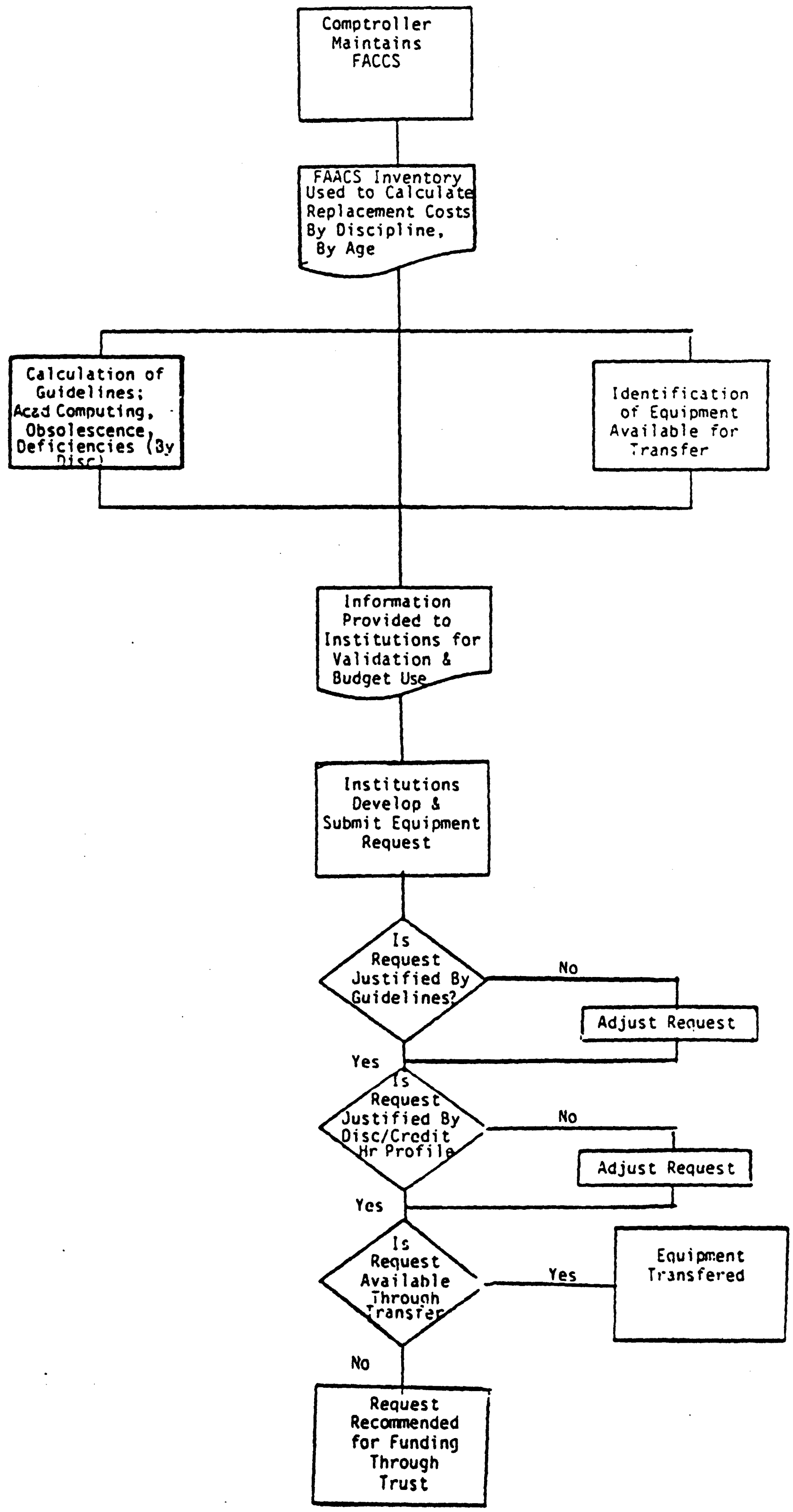
Under this process, use of FAACS would serve two additional purposes. First, FAACS would be used to examine equipment inventories to identify equipment which might be approaching the end of a useful life at institutions, but which might still be functional at another institution. Recycling of equipment in this manner would increase the effective useful life of equipment, and thereby reduce to some degree the demand for new items.

Second, FAACS would be used to cull from existing inventories any equipment which is obsolete or inoperable. Culling the inventories would encourage systematic disposal of obsolete items, and eliminate the possibility that funding for equipment replacement is based upon inflated estimates.

Application Process. Central review of requests for equipment are key to oversight of a concept like an equipment trust fund. Institutions should expect to identify internally their needs for specific pieces of equipment, using a well-defined and regular planning process. Requests should then be submitted to the State Council of Higher Education on a specified time schedule, to allow sufficient time for their review.

For its part, the State Council should analyze and review institutional requests, with an eye towards consistency with the Council's own guidelines for equipment acquisition, and consistency with the mix of academic disciplines taught at each institution. Only when requests are consistent with these tests and when no suitable equipment is available from another institution, would the State Council recommend approval for funding through an equipment trust fund.

POSSIBLE ADMINISTRATIVE PROCESS



Under ordinary circumstances, the actual acquisition of equipment would use each institution's own procurement procedures. As the final step in the process, however, the State Council would verify that equipment purchased with trust fund support matches approved requests.

Conclusion. Development of adequate administrative controls is the key to success of any concept such as an equipment trust fund. The SJR 90 Joint Subcommittee should therefore extend its work into calendar year 1986 to monitor development of administrative procedures and methods for allocating funds for equipment acquisition to the institutions.

SUMMARY OF RECOMMENDATIONS

1. An adequate and up-to-date inventory of instructional and research equipment in institutions of higher education is fundamental to achieving and maintaining programs of high academic quality, fostering and stimulating economic development, and improving the quality of life throughout the Commonwealth. Deficiencies and obsolescence in existing equipment inventories are of sufficient magnitude to require an extra-ordinary, multi-year effort to remedy them. The Commonwealth should commit itself to such an effort, beginning in the 1986-88 biennium.

2. It is unlikely that general fund revenues alone will be sufficient to remedy the accumulated deficiencies and obsolescence in instructional and research equipment. The Commonwealth should therefore apply prudent and limited debt financing to meet this demonstrated need. Debt financing should only be employed when financial conditions indicate that the financial benefits outweigh financing costs. The General Assembly should adopt legislation empowering the Virginia College Building Authority to issue debt instruments in order to support acquisition of instructional and research equipment in colleges and universities.

3. While the members of the Joint Subcommittee are convinced of the magnitude of equipment needs, significant additional work remains to be done to refine current estimates of that need to a precise level. As soon as possible, the State Council of Higher Education should conduct additional special studies of equipment needs in the biological and physical sciences, and in such other disciplines as may be appropriate. Results of these studies should be communicated to the Secretary of Education and the General Assembly.

4. Extra-ordinary efforts to acquire equipment should be limited to equipment which is used in the instruction and research activities of colleges and universities. Such equipment should have a purchase price of at least $500 per item and an anticipated useful life of more than 3 years. At least 80 percent of the anticipated use of the equipment should be for instruction and research. The equipment should be used within the Commonwealth, and should have a price which is not greater than the applicable price under State contract.

The following types of equipment should be specifically excluded:

1. Library books and periodicals;
2. Microform collections and materials;
3. Library stacks or shelving;
4. Office equipment;
5. Transportation equipment;
6. Desks, chairs, and tables for classrooms, laboratories, or offices;
7. Equipment normally affixed to a building or functioning as part of an operating system of a building;
8. Climate control and security systems; and
9. General telecommunications equipment, except that required for approved programs, related courses or research activities.

Data processing and related communications equipment that will be used directly to support research or instruction may be authorized. Each exception should be justified by the requesting institution on an item-by-item basis.

5. The multi-year commitment to remedy deficiencies in instructional and research equipment in Educational and General programs in colleges and universities should not require a matching amount or proportion from tuition and fees paid by students. Matching requirements should be specified for equipment which is to be used for sponsored research or to support sponsored research activities.

6. Full implementation of the State Comptroller's Fixed Assets and Accounting Control System (FAACS) should be a prerequisite to institutional participation in any special funding mechanism created to remedy equipment deficiencies.

7. Special appropriations for equipment acquisition should supplement and not supplant base appropriations included in institutional budgets. Institutions should be required to maintain a specified expenditure level for

equipment from ongoing appropriations, as a condition of participation in any special mechanism for funding equipment.

8. Acquisition of equipment through any special funding mechanism should be fully integrated into an orderly and systematic planning process within each institution, with participation, oversight, and review by central state agencies. This planning and oversight process should include: (1) formal application to the State Council for acquisition of specific type or pieces of equipment; (2) review by the State Council of all requests; (3) recommendations by the Council approving, modifying, or disapproving all or portions of the institutions' requests, and (4) recommendations by the State Council for allocations of funds from special appropriations.

   The State Council of Higher Education, in cooperation with the Secretary of Education, should develop formal guidelines and procedures by which institutions of higher education request and receive funding from a mechanism such as an equipment trust fund.

9. The State Comptroller and the State Council of Higher Education should use the FAACS system to ensure that institutions remove from existing inventories any equipment which is no longer functional in its current use, and to ensure that inventories include only that equipment which is in use.

10. The State Council should coordinate efforts to re-cycle instructional and research equipment from one institution to another, in order to extend the useful life of such equipment as much as is practical.

11. The SJR 90 Joint Subcommittee should continue its work into calendar year 1986, in order to oversee the development of administrative controls for the acquisition of equipment, procedures for allocating a special appropriation for equipment, and such other issues as may be appropriate.

Respectfully submitted,

Hunter B. Andrews, Chairman

L. Cleaves Manning, Vice Chairman

Edward E. Willey

Stanley C. Walker

Charles J. Colgan

Elmon T. Gray

Owen B. Picket

Alson H. Smith, Jr.

Ford C. Quillen

Vincent F. Callahan, Jr.

C. Richard Cranwell

Lewis W. Parker, Jr.

APPENDIX A

Senate Joint Resolution No. 90

LD9077101

SENATE JOINT RESOLUTION NO. 90

Offered January 17, 1985

Requesting a joint subcommittee composed of members of the Senate Committee on Finance and the House Committee on Appropriations to study methods of acquiring and maintaining a technologically current inventory of higher education instructional equipment and alternatives for the equitable distribution thereof.

Patrons—Andrews, Willey, Walker, Anderson, Colgan, Gartlan, and Gray; Delegates: Councill, Quillen, Dickinson, Manning, and Putney

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Referred to the Committee on Rules

WHEREAS, the effectiveness of higher education institutions is influenced greatly by faculty and student access to technologically current educational equipment; and

WHEREAS, substantial amounts of college and university educational equipment has been acquired with funds appropriated for building construction and renovation; and

WHEREAS, no systematic method has been developed to finance the replacement of unusable and obsolete equipment in the institutions of higher education; and

WHEREAS, the inadequacies of the present equipment inventory threaten the excellence of academic programs, inhibit faculty recruitment, and represent fixed asset investment of major proportions; and

WHEREAS, the tuition and fee policies adopted in 1984 and by earlier sessions of the General Assembly require significant increases in tuition and fees if the equipment deficiency were overcome by a large increase in general fund appropriations; and

WHEREAS, the nature and extent of the deficiencies vary widely among educational institutions, requiring statewide assessment and solution of the problems; now, therefore, be it

RESOLVED by the Senate, the House of Delegates concurring, That a joint subcommittee composed of members of the Senate Committee on Finance and the House Committee on Appropriations is requested to study economical, efficient, and expenditious methods of financing the orderly replacement of obsolete and unusable equipment at the Commonwealth's institutions of higher education. The joint subcommittee shall examine alternatives for ensuring that such resources are equitably distributed among the institutions to protect and advance excellence in higher education. The joint subcommittee shall be composed of ten members, five of whom shall be appointed by the Senate Committee on Privileges and Elections from the membership of the Senate Committee on Finance, and five of whom shall be appointed by the Speaker of the House from the membership of the House Committee on Appropriations.

The joint subcommittee shall complete its work and make its recommendations to the Governor and General Assembly no later than November 15, 1985.

All direct and indirect costs of this study are estimated to be $22,045.

APPENDIX B

Proposed Legislation

SENATE BILL NO. 45

Offered January 9, 1986

A BILL to amend and reenact §§ 23-30.24, 23-30.25, 23-30.28, 23-30.29, and 23-30.31 of the Code Virginia, and to amend the Code of Virginia by adding a section numbered 23-30.27:1 relating to the Virginia College Building Authority.

Patrons—Andrews, H. B., Willey, Walker, Gray, and Colgan; Delegates: Smith, Parker, L. W., Cranwell, Callahan, Quillen, and Pickett

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Referred to Committee on Finance

Be it enacted by the General Assembly of Virginia:

1. That §§ 23-30.24, 23-30.25, 25-30.28, 23-30.29 and 23-30.31 of the Code Virginia are amended and reenacted, and that the Code of Virginia is amended by adding a section numbered 23-30.27:1 as follows:

§ 23-30.24. Legislative declaration; definitions.—It is hereby found, determined and declared that the providing of funds for the construction of projects of capital improvement at educational institutions within this ~~state~~ *Commonwealth* is or may be hindered, impeded and delayed by the high financing costs resulting from the sale of bonds of such educational institutions in the open market, and it is desirable that a state agency be created as hereinafter provided, authorized to purchase such bonds in order to serve educational institution purposes by financing the construction of projects of capital improvement at less cost, thereby facilitating such construction.

It is hereby further found, determined and declared that there is an urgent need to provide substantial amounts of new scientific, technical and other equipment for teaching, research and related activities at such educational institutions so that they may remain competitive in attracting high-quality faculty and obtaining research grants, and it is desirable that a state agency be empowered, as hereinafter provided, to purchase such equipment for lease or sale to such educational institutions in order to provide them with such equipment at the lowest possible cost, thereby facilitating the acquisition and supply of such equipment to educational institutions and increasing the purchasing power of their funds, including funds provided by tuition and fees and by appropriations from the General Assembly.

As used in this chapter, the following words and terms shall have the following meanings unless the context shall otherwise indicate:

~~(a) The word~~"Authority" shall mean the Virginia College Building Authority created by § 23-30.25, or, if said Authority shall be abolished, the board, body, commission, department or officer succeeding to the principal functions thereof or to whom the powers given by this chapter to the Authority shall be given by law.

~~(b) The words~~"Educational institution" shall mean those institutions enumerated in § 23-14 of the Code of Virginia, area vocational and technical schools established under Chapter 16 (§ 23-214 et seq.) of this title, and all other schools owned and operated by the ~~State~~ *Commonwealth* in which a college education is taught for less than four years.

(b1) "Equipment" shall mean any real and personal property, including, but without limitation, computer hardware and software and any other improvements of all types, to be used to support academic instruction and research, at educational institutions

~~(c) The word~~"Project" shall have the same meaning as defined in § 23-15 of the Code of Virginia.

§ 23-30.25. Creation and organization of Authority; surety bonds.—The Virginia College Building Authority is hereby created as a public body corporate and as a political subdivision and an agency and instrumentality of the Commonwealth of Virginia, and as such, shall have and is hereby vested with the powers, rights and duties hereinafter conferred in this chapter.

The Virginia College Building Authority shall consist of the State Treasurer, the State

Comptroller *, the Director of Planning and Budget, the Director of the State Council of Higher Education for Virginia,* and ~~five~~ *seven* additional members appointed by the Governor, subject to confirmation by the General Assembly, if in session when such appointments are made, and if not in session, at its first session subsequent to such appointment, who shall serve at the pleasure of the Governor. The initial members shall be the members of the Authority heretofore appointed under the Virginia College Building Authority Act of 1964 for the terms appointed pursuant to that act and until their successors shall be appointed and qualified. The successors of each of the appointed members shall be appointed for a term of four years, except that appointments to fill vacancies shall be made for the unexpired terms. The secretary and the assistant secretary may receive such compensation as the Authority may provide.

The Governor shall appoint one member as chairman, who shall be the chief executive officer of the Authority and who shall receive such compensation as the Governor shall fix. Neither the State Treasurer ~~nor~~ the State Comptroller *, the Director of the State Council of Higher Education for Virginia nor the Director of Planning and Budget* shall be eligible to serve as chairman. ~~Four~~ *Six* members of the Authority shall constitute a quorum for the transaction of all business of the Authority. The Authority shall elect one member from the group of ~~five~~ *seven* members appointed by the Governor as vice-chairman, who shall exercise the powers of the chairman in the absence of the chairman. The Authority shall elect a treasurer, a secretary, and an assistant secretary, each of whom may perform the duties and functions commonly performed by such officers. All such officers, except the secretary and the assistant secretary, shall be selected from members of the Authority. Each member of the Authority hereafter appointed and the secretary and the assistant secretary of the Authority shall execute a surety bond in such penal sum as shall be determined by the Attorney General, each such surety bond to be conditioned upon the faithful performance of the duties of his office, to be executed by a surety company authorized to transact business in the ~~State~~ *Commonwealth* of Virginia as surety and to be approved by the Attorney General and filed in the office of the Secretary of the Commonwealth.

§ 23-30.27:1. Acquisition and disposition of equipment.—A. The Authority is authorized to acquire equipment or any interest therein by purchase, exchange, gift, lease or otherwise, to sell, exchange, donate, convey, lease and dispose of the same, or any portion thereof or interest therein, including security interests therein, and to retain or receive security interests in such equipment.

B. Without regard to the requirements, restrictions, limitations or other provisions contained in any other general, special or local law, educational institutions are authorized to grant security interests in or other liens on equipment held or acquired by the educational institution under any lease or agreement of sale with the Authority.

C. The Authority is authorized to acquire equipment with any funds of the Authority available for such purpose. Acquisition and disposition of equipment may be at public or private sale and for such price and on such terms as the Authority shall determine, provided that the Authority shall acquire equipment for, and shall lease or sell the same to, educational institutions only pursuant to terms approved by the Governor or his designee.

D. The Authority is authorized to establish and maintain such funds as it may deem appropriate from time to time to provide funds for acquisition of equipment on a continuing basis. The Authority may deposit therein such funds as it deems appropriate, including, but without limitation, the proceeds of any Authority bonds issued to finance the purchase of equipment and payments made to the Authority under equipment leases and sale agreements with educational institutions and others. Any moneys held in such funds may also be used in the Authority's discretion to secure payment of principal of and interest on any Authority bonds, whether issued to finance the purchase of equipment, or to pay administrative costs of the authority, whether incurred in connection with the purchase, lease or sale of equipment, or may be transferred by the Authority to be used in *connection with any other program of the Authority. However, no funds of the Authority derived from the equipment program authorized under this section may be used in connection with the issuance or securing of indebtedness for the benefit of private institutions for higher education pursuant to Chapter 3.3 of Title 23 of the Code of Virginia.*

E. The Authority is authorized to determine and charge rent or sale prices for equipment leased or sold by the Authority to educational institutions and terminate such leases or sale agreements upon the failure of an educational institution to comply with any of the obligations thereof, and may include in such leases, options for the educational institution to renew such leases, or to purchase any or all of the leased equipment and provisions for the Authority to repossess and sell equipment leased or sold upon any default under the lease or agreement for the sale of such equipment.

§ 23-30.28. Bonds of Authority generally.–In order to provide funds for the purchase of educational institution bonds as authorized by § 23-30.27, *and to provide funds for the acquisition of equipment as authorized by § 23-30.27:1* ~~,~~ the Authority is hereby authorized to provide by resolution, at one time or from time to time, for the issuance of bonds of the Authority in such amount or amounts as the Authority shall determine. Such bonds of the Authority shall be payable solely from funds of the Authority, including, but without limitation, *any one or more of the following:* (i) payments of principal of and interest on educational institution bonds purchased by the Authority, (ii) the proceeds of the sale of any such educational institution bonds, (iii) payments of principal and interest on obligations transferred to the Authority by the General Assembly or from other assets or moneys transferred to the Authority by the General Assembly, (iv) the proceeds of the sale of any such obligations or assets, ~~and~~ (v) the proceeds from the sale of bonds of the Authority ~~;~~ . *(vi) payments made by educational institutions under leases or sales of equipment by the Authority, (vii) funds realized from the enforcement of security interests or other liens securing such bonds, (viii) payments due under letters of credit, policies of bond insurance, bond purchase agreements or other credit enhancements securing payment of principal of and interest on bonds of the Authority, (ix) any moneys held in funds established by the Authority pursuant to § 23-30.29, (x) any reserve or sinking funds created to secure such payment, and (xi) other available funds of the Authority.* Bonds of the Authority issued under the provisions of this chapter shall not be deemed to constitute a debt of the Commonwealth or a pledge of the faith or credit of the Commonwealth and all bonds of the Authority shall contain on the face thereof a statement to the effect that neither the faith and credit, nor the taxing power of the Commonwealth or of any political subdivision thereof is, or shall be, pledged to the payment of the principal of or the interest on such bonds.

The bonds of each issue shall be dated ~~, shall bear interest at such rate or rates not exceeding six per centum per annum, payable semiannually~~ , shall mature at such time or times, not exceeding forty years from their date or dates, as may be determined by the Authority, and may be made redeemable before maturity, at the option of the Authority, at such price or prices and under such terms and conditions as may be fixed by the Authority prior to the issuance of the bonds. *The bonds may bear interest payable at such time or times and at such rate or rates as determined by the Authority or as determined in such manner as the Authority may provide, including the determination by agents designated by the Authority under guidelines established by it.* The principal and interest of such bonds may be made payable in any lawful medium. The Authority shall determine the form of the bonds, including any interest coupons to be attached thereto, and the manner of execution of the bonds, and shall fix the denomination or denominations of the bonds and the place or places of payment of principal and interest thereof, which may be at the office of the State Treasurer or at any bank or trust company within or without the ~~State~~ *Commonwealth* . In case any officer whose signature or a facsimile of whose signature shall appear on any bonds or coupons shall cease to be such officer before the delivery of such bonds such signature or such facsimile shall nevertheless be valid and sufficient for all purposes the same as if he had remained in office until such delivery. All revenue bonds issued under the provisions of this chapter (other than bonds registered as to principal or in registered form) shall have and are hereby declared to have, as between successive holders, all the qualities and incidents of negotiable instruments under the law of this ~~State~~ *Commonwealth* . The bonds may be issued in coupon or in registered form, or both, as the Authority may determine, and provisions may be made for the registration of any coupon bonds as to principal alone and of registered bonds as to both principal and interest, and for the reconversion of any bonds registered as to both principal and interest into coupon bonds and for the exchange of either coupon bonds or registered bonds without coupons for an equal aggregate principal amount of other coupon bonds or registered bonds without coupons or both of any denomination or denominations. The Authority may sell such bonds in such manner, either at public or private sale, and for such price as it may determine to be for the best interests of the Authority ~~but no such sale shall be made at a price so low as to require the payment of interest on the money received therefor at more than six per centum per annum computed with relation to the absolute maturity of the bonds in accordance with standard tables of bond values, excluding, however, from such computations the amount of any premium to be paid on redemption of any bonds prior to maturity~~ . The proceeds of such bonds shall be disbursed for the purposes for which such bonds shall have been issued under such restrictions, if any, as the resolution authorizing the issuance of such bonds or the trust indenture hereinafter mentioned may provide. Prior to the preparation of definitive bonds, the Authority may under like restrictions issue temporary bonds, with or without coupons, exchangeable for definitive bonds when such bonds shall have been executed and are available for delivery. The Authority may also provide for the replacement of any bond which shall become mutilated or shall be destroyed or lost. Such revenue bonds may be issued without any other proceedings or the happening of any other conditions or things than the proceedings, conditions, and things which are specified and required by this chapter.

The aggregate principal amount of bonds issued to finance acquisition of equipment pursuant to § 23-30.27:1 shall not exceed $150 million.

§ 23-30.29. Security for bonds.–In the discretion of the Authority, any bonds issued under the provisions of this chapter may be secured by a trust indenture by and between the Authority and a corporate trustee, which may be any trust company or bank having the powers of a trust company within or without this ~~State~~ *Commonwealth* . Such trust indenture or the resolution providing for the issuance of such bonds may pledge or assign all or any part of the funds of the Authority available for such purpose, including, but without limitation, (i) payments of principal of and interest on educational institution bonds purchased by the Authority, (ii) the proceeds of the sale of any such educational institution bonds, (iii) payments of principal of and interest on obligations transferred to the Authority by the General Assembly or from other assets or moneys transferred to the Authority by the General Assembly, (iv) the proceeds of the sale of any such obligations or assets, ~~and~~ (v) the proceeds from the sale of bonds of the Authority ~~.~~ *, (vi) security interests granted by the Authority or any educational institution in, or other liens on, equipment, whether such equipment has been leased or sold to an educational institution, (vii) all or any part of the payments due the Authority from educational institutions under any leases, sale agreements, loans or other agreements made by the Authority with the educational institutions pursuant to § 23-30.27:1, and any funds realized from enforcing security for such payments, (viii) payments due under policies of bond insurance, letters of credit or other credit enhancement securing payment of principal of and interest on bonds of the Authority, (ix) any moneys in any, or all of the funds as the Authority may from time to time establish pursuant to § 23-30.27:1, (x) any reserve or sinking funds created by the Authority to secure such bonds, and (xi) other available funds of the Authority. Such trust indenture or resolution may also pledge or assign any other rights of the Authority in equipment owned by, or leases or sales of equipment made by, the Authority.* Such trust indenture or resolution providing for the issuance of such bonds may contain such provisions for protecting and enforcing the rights and remedies of the bondholders as may be reasonable and proper and not in violation of law. Such trust indenture or resolution providing for the issuance of such bonds may provide for the creation and maintenance of such reserves as the Authority shall determine to be proper, and may include covenants setting forth the duties of the Authority in relation to the acquisition of any *equipment or* educational institution bonds ~~,~~ *; care, the leasing or sale of equipment to educational institutions;* the substitution of any educational institution bonds *equipment, leases, security interest or other security* as security for the payment of the bonds of the Authority ~~,~~ *; care, use and insurance of equipment; the repossession and sale of leased or sold equipment by the Authority or the trustee under any trust indenture upon any default under the lease or sale of such equipment;* and the collection of payments *due the Authority under leases or agreements of sale of equipment and payments* of principal and interest on any educational institution bonds and on any obligations or other assets ~~transferred to the Authority by the General Assembly~~ *held by the Authority* . It shall be lawful for any bank or trust company incorporated under the laws of the ~~State~~ *Commonwealth* which may act as depository of the proceeds of bonds or of revenues to furnish such indemnifying bonds or to pledge such securities as may be required by the Authority. Any such trust indenture may set forth the rights and remedies of the bondholders and the trustee, and may restrict the individual right of action by bondholders. In addition to the foregoing, any such trust indenture or resolution may contain such other provisions as the Authority may deem reasonable and proper for the security of the bondholders. All expenses incurred in carrying out the provisions of such trust indenture or resolution may be treated as a part of the administration costs of the Authority. Neither the resolution nor any trust indenture by which a pledge is created need be filed or recorded except in the records of the Authority.

§ 23-30.31. Powers of Authority.–In order to enable the Authority to carry out the purposes for which it is established the Authority is vested with the powers of a public body corporate, including the power to sue and be sued, to make contracts, and to adopt and use a common seal and to alter the same, and is authorized and empowered:

(a) To have perpetual succession as a public body corporate, and to adopt bylaws and regulations for the conduct of its affairs;

(b) To maintain an office at such place or places as it may designate;

(c) To collect, or to authorize the trustee under any trust indenture securing any bonds of the Authority to collect, as the same shall become due, the principal of and the interest on all obligations transferred to the Authority by the General Assembly;

(c1) To conduct a program of purchasing equipment for lease or sale to educational institutions as authorized by this chapter;

(d) To collect, or to authorize the trustee under any trust indenture securing any bonds of the Authority to collect, as the same shall become due, *payments due under leases or agreements of sale of equipment by the Authority to educational institutions, and* the principal of and the interest on all educational institution bonds purchased by the Authority;

(d1) To repossess and sell, or to authorize the trustee under any trust indenture securing any bonds of the Authority to repossess and sell, any equipment upon any default under the lease or agreement for the sale of such equipment;

(d2) To assist educational institutions in applying for grants from, or entering into other agreements with, the federal or state government or foundations or others designed to provide guarantees of or funds for payments under leases or contracts of sale or other benefits and to enter into similar agreements with such entities itself;

(e) To select in such manner as it deems fit, and to appoint and employ financial experts, corporate depositories, trustees, paying agents, attorneys, accountants, consulting engineers, construction experts and such other employees and agents as may be necessary in the judgment of the Authority, *including, but without limitation, employees of the Department of the Treasury, the State Council of Higher Education for Virginia and other* *state agencies and offices*, and to pay their compensation and reasonable expenses *or fees for their services* either from moneys received by the Authority under the provisions of this chapter, or from appropriations made by the General Assembly for such purposes;

(f) To issue bonds of the Authority as authorized by this chapter, and to refund any of such bonds;

(g) To receive and accept any grants, aid or contributions from any source of either money, property, labor or other things of value, or to reject the same in the judgment of the Authority; and

(h) To do any and all other acts and things necessary, appropriate, incidental or convenient to carrying out the powers expressly granted in this chapter.

2. That an emergency exists and this act is in force from its passage.

Official Use By Clerks

Passed By The Senate		Passed By The House of Delegates	
without amendment	☐	without amendment	☐
with amendment	☐	with amendment	☐
substitute	☐	substitute	☐
substitute w/amdt	☐	substitute w/amdt	☐

Date: ____________ Date: ____________

Clerk of the Senate Clerk of the House of Delegates

APPENDIX C

Resolution to Continue Study

LD4032101

SENATE JOINT RESOLUTION NO. 4

Offered January 9, 1986

Continuing the Joint Subcommittee Studying Methods of Acquiring and Maintaining a Technologically Current Inventory of Higher Education Instructional Equipment and Alternatives for the Equitable Distribution Thereof.

Patrons–Andrews, H. B., Willey, Walker, Colgan, and Gray; Delegates: Quillen, Pickett, Smith, Parker, L. W., Cranwell, and Callahan

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Referred to Committee on Rules

WHEREAS, Senate Joint Resolution No. 90 of 1985 established the Joint Subcommittee to Study Methods of Acquiring and Maintaining a Technologically Current Inventory of Higher Education Instructional Equipment and Alternatives for the Equitable Distribution Thereof; and

WHEREAS, the Joint Subcommittee established pursuant to Senate Joint Resolution No. 90 has met five times during 1985; and

WHEREAS, the Joint Subcommittee has worked diligently and has proposed legislation to establish a financing mechanism for the purchase of equipment in the Commonwealth's institutions of higher education; and

WHEREAS, there still remains, however, the need to develop methods of allocating appropriations for equipment and administrative procedures for monitoring equipment inventories; and

WHEREAS, because the academic programs in Virginia's institutions of higher education are varied and some programs require greater investment in expensive equipment in order to maintain excellence, the development of allocation mechanisms and administrative procedures for monitoring equipment inventories will require a careful and thorough evaluation of the needs of each institution; now, therefore, be it

RESOLVED by the Senate, the House of Delegates concurring, That the Joint Subcommittee Studying Methods of Acquiring and Maintaining a Technologically Current Inventory of Higher Education Instructional Equipment and Alternatives for the Equitable Distribution Thereof is hereby continued. The Joint Subcommittee shall consist of ten members, five of whom shall be appointed by the Senate Committee on Privileges and Elections from the membership of the Senate Committee on Finance, and five of whom shall be appointed by the Speaker of the House from the membership of the House Committee on Appropriations. The Joint Subcommittee shall oversee the development of methods of allocating appropriations for equipment and of administrative procedures for monitoring equipment inventories. In addition, the Joint Subcommittee may consider such other matters as it deems necessary and appropriate to remedy the deficiencies in up-to-date instructional equipment in Virginia's institutions of higher education.

The Joint Subcommittee shall complete its work in time to report its findings to the 1987 Session of the General Assembly.

All direct and indirect costs of this study are estimated to be $20,975.