DOCUMENT RESUME

ED 388 150 HE 028 693

AUTHOR Dewberry, Sidney O.; Jennelle, Ernest M.
TITLE Refocusing Higher Education in Virginia: A Presentation to Members of the Chichester Commission on the Future of Higher Education in Virginia.
PUB DATE 14 Jun 95
NOTE 35p.
PUB TYPE Viewpoints (Opinion/Position Papers, Essays, etc.) (120) -- Reports - Evaluative/Feasibility (142)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS College Credits; College Instruction; Economic Development; Efficiency; Futures (of Society); *Higher Education; Information Technology; Policy Formation; Private Colleges; *Public Policy; School Accounting; State Aid; *Statewide Planning; Student Costs; Tenure
IDENTIFIERS Credit Transfer; Reform Efforts; State College and University Systems; *Virginia

ABSTRACT

This report presents a perspective and analysis of the current state and future direction of the state higher education system in Virginia and recommends a comprehensive legislative package that will ensure the quality and economic viability of Virginia's system into the next century. Concerns about educational quality and state com itment to support higher education originally prompted the review. The report's proposals include: (1) change the institutional culture to make teaching top priority; (2) re-examine the method of awarding tenure; (3) avoid duplication of programs; (4) increase the productivity of teaching; (5) modify academic credit transfer policies; (6) encourage each institution to develop a program to support economic development in its region; (7) adopt a policy of requiring each institution to keep total increases in costs per student to 85 percent of the Consumer Price Index; (8) restore the state's share of higher education to 60 percent of total costs for four-year institutions; (9) require state education agencies and all institutions to develop uniform accounting practices; (10) bring in communication and information technologies; (11) change current restructuring to make efficiency and cost-control on-going concerns; and (12) continue support for Virginia's independent colleges. (JB)

REFOCUSING HIGHER EDUCATION IN VIRGINIA

A Presentation to Members of the Chichester Commission on the Future of Higher Education in Virginia

BEST COPY AVAILABLE

by Sidney O. Dewberry and Ernest M. Jennelle

HE 028 643

June 14, 1995

ADDENDUM NO. 1

The data presented in Tables I through VIII and Figures 2 through 4 are correct in showing past trends in higher education costs in Virginia, except for the fact that it has been the practice of SCHEV to use total FTE enrollments in calculating per student quantities; whereas the GF appropriation is for in-state enrollment only. In the preparation of Table VIII, an in-state enrollment of 70% of total enrollment together with an E&G cost per FTE of $3,697 was used to give a general fund appropriation of $384 million for in-state students. This is no longer the correct allocation of funds.

The program of requiring out-of-state students to pay tuition and fees at least equal to 100% of E&G costs is now essentially in place. Thus the 1995 GF E&G appropriation of $549 million should have been divided by the in-state student enrollment (103,965 used) to give an E&G of $5,281 per FTE. This is 43% higher than the $3,697 that was obtained by using the total (both in-state and out-of-state) enrollment with the $549 million appropriation. The $5,281 GF appropriation per in-state FTE is correct.

Table IX extends actual data for the 1995 fiscal year. The GF appropriation is allocated to the 115,188 in-state enrollment. The same escalations are employed as were used in Tables VII and VIII (0.8% growth rate in enrollment and 2.75% escalation per year per FTE in total in-state E&G costs).

In reviewing the data, we find that since the out-of-state tuition and fees now averages 130% of actual costs, that the total NGF income from this source is $405 million, exceeding costs by $93.4 million.

TABLE IX
Estimated General Fund Requirements For Four-Year Institutions
(Assuming 0.8% Growth and 2.75% Growth in GF Appropriation per In-State FTE)

Fiscal Year	Total FTE Enrollment	78% In-State	General Fund Appropriation	GF E&G per In-State FTE	NGF & E&G per FTE	Total in-State E&H per FTE	%GF
1996	147,310	115,188	$589 Million	$5,113	$4,582	$9,695	52.7
1997	148,488	115,821	$623	$5,380	$4,582	$9,962	54.0
1998	149,676	116,748	$660	$5,654	$4,582	$10,236	55.2
1999	150,874	117,682	$698	$5,935	$4,582	$10,517	56.4
2000	152,081	118,623	$738	$6,224	$4,582	$10,806	57.6
2001	153,297	119,572	$779	$6,521	$4,582	$11,103	58.7
2002	154,524	120,529	$822	$6,826	$4,582	$11,408	59.8
2003	155,760	121,493	$867	$7,140	$4,582	$11,722	60.9
2004	157,006	122,465	$914	$7,462	$4,582	$12,044	62.9
2005	158,262	123,444	$962	$7,793	$4,582	$12,375	63.0

Notes.
1. 100% of GF for in-state only
2. 1996 are actual numbers
3. GF budget increase 1996 – 1997: 5.7%
   2002 – 2003: 5.6%
4. NGF (Tuition) fees for in-state enrollment held at present level
5. Approximately 7 years are required to reach 60/40 GF/NGF ratio

REFOCUSING HIGHER EDUCATION IN VIRGINIA

A Presentation to Members of the Chichester Commission on the Future of Higher Education in Virginia

by Sidney O. Dewberry and Ernest M. Jennelle

June 14, 1995

SJR 139
Commission on the Future of Higher Education

Membership

The Honorable John H. Chichester, Chairman

The Honorable Hunter B. Andrews

The Honorable Elliot S. Schewel

The Honorable Alan A. Diamonstein

The Honorable V. Earl Dickinson

The Honorable Whittington W. Clement

The Honorable Mary T. Christian

The Honorable James H. Dillard, II

Dr. Gordon K. Davies, Council of Higher Education

The Honorable Beverly H. Sgro, Secretary of Education

Mr. Sidney O. Dewberry, Dewberry & Davis

Mr. Scott Martin Harwood, First Virginia Insurance Services, Inc.

Ms. Mary Edwards Owen, Beatley and Gravitt

Mr. R. Hewitt Pate, Hunton and Williams

Mr. George G. Phillips, Henderson and Phillips Insurance

Mr. Hugh Patterson, Willcox & Savage

Mr. William C. Battle

Mr. Val S. McWhorter, Smith, Pachter, McWhorter and D'Ambrosio

Staff

Anne H. Moore, Council of Higher Education

Betsey Daley, Senate Finance Committee

Richard Seaman, House Appropriations Committee

Table of Contents

INTRODUCTION

The people of Virginia through their legislative representatives have followed a positive program of supporting higher education since the Colonial period. Recognizing that the role of higher education was rapidly changing in the post-World War II era, the General Assembly created the State Council of Higher Education for Virginia (SCHEV) in 1956. The council's purpose was "to promote the development of an educationally and economically sound, vigorous, progressive, and coordinated system of higher education," a mission that remains an essential part of SCHEV's role.

As has been noted by others, Virginia is fortunate in that its institutions operate under separate governing boards. In the four decades since SCHEV was founded, the innovation fostered by this structure has proven beneficial to the state and nation. There are many noteworthy examples, among them the excellent reputation of James Madison University as a teaching institution, and the Higher Education Equipment Trust Fund as a vehicle to acquire equipment.

Nevertheless, there remains concern about the operation of our institutions of higher learning. These concerns span a variety of issues, including rising costs, the role of the Virginia Community College System (VCCS), the allocation of resources to teaching and research activities, and the role of tenure in hiring and promoting faculty members.

The cost and quality of higher education are no longer simply the concern of parents with college-bound children. Society in general has raised many questions about the quality of the nation's higher education system. The subject has been examined in local and national periodicals, the CBS television program *60 Minutes* (February 26, 1995), and national and state legislatures, including the 1995 session of the Virginia General Assembly. Some believe that education is no longer the primary goal of many college and university administrators. Others speak of "bottoms up" administration, where faculty groups set too much policy. There is also speculation that funds appropriated for academic purposes are being diverted to uses such as "research support." Classes once taught by tenured faculty members are now often the responsibility of teaching assistants, who have limited experience in both subject matter and effective communication with students. Auditorium-size classes are also becoming more common, even though, until recently, state funding and faculty positions were allocated on the basis of a "normal" class size.

For the past year, members of the Chichester Commission have had the unique and welcome opportunity to examine these and other issues regarding higher education in Virginia. We have met many talented and dedicated professionals who shared their perspectives about the challenges that need to be addressed as the 21st century approaches. We have also learned much about the fascinating work that takes place in our institutions of higher learning, as well as the funding, operational, and organizational mechanisms that support teaching and research.

Virginia has always prided itself on its higher education system; the abundance and diversity of talent, resources, and innovative ideas have placed the state among the nation's leaders in higher education. From the smallest private college to the large publicly supported research universities, Virginia's institutions have flourished through the vision of their leaders and the independence of their operating structures, a system that we wholeheartedly wish to see preserved. In recent years, however, many have come to believe that Virginia has "fallen behind" other states in terms of quality and certainly behind in commitment and support to higher education. If the state is to regain its position of leadership, several critical issues need to be immediately addressed. Most, if not all, members of this commission would now agree that these issues include:

- *Many institutions of higher education need to reexamine their mission of teaching.*
- *A strong system of higher education is a critical component for the future economic well being of the state.*
- *The cuts that have made to higher education funding over the past five years have been excessive and not in the best long-term interests of the state.*
- *The escalation of tuition costs during the past five years have been excessive; the costs are currently too high.*

While many learned papers and reports related to these and other subjects have been available to the Chichester Commission, we feel that it is worthwhile to present a special perspective and analysis of these matters. Through the consideration and implementation of the proposals outlined below, it is thought that Virginia will be able to return to a position of aggressive leadership in higher education—a position vital to the future of the Commonwealth.

REFOCUSING THE INSTITUTIONAL CULTURE

THE COMMITMENT TO TEACHING

The keystone of refocusing our higher education system should be to make teaching a central institutional concern, particularly at the undergraduate level. There should also be a clear linkage between a faculty member's scholarship and his/her teaching responsibilities. A 1991 study conducted for SCHEV by VCU's Survey Research Laboratory asked full-time faculty members at Virginia's public doctoral, comprehensive, and two-year institutions to describe how they allocate their professional time among certain activities. Respondents were also asked to indicate whether they would prefer to spend more, fewer, or the same amount of hours in each activity. The results showed that three quarters of the respondents would prefer to spend more time conducting research; a smaller, yet significant percentages wanted to spend time directly supervising students (i.e., thesis, dissertation, and independent study), and preparing new courses. Less than a quarter in any category wanted to spend more time advising students, and a minute percentage wanted more classroom time—a surprising finding given that many outstanding academic programs are found in non-research institutions, which were included in the study. In addition, most respondents saw little conflict between teaching and research as they felt that students benefit directly from a professor's scholarly work.

These results are disturbing. Certainly, faculty members have a professional obligation to stay current with and contribute to their respective disciplines. Scholarly activity such as laboratory and field research, journal publication, and conference activity benefits society as a whole, and lends well-earned prestige to the institutions, and the state. And there is no doubt that well-funded research programs have helped Virginia's colleges and universities grow both in size and prestige. However, we fear that the quest for research dollars may compromise the mission of teaching undergraduate students. As noted by the Commission on the University of the 21st Century:

> ***Research can overshadow teaching, often to the detriment of undergraduate education...we do not believe it to be self-evident that good research and scholarship lead necessarily to good teaching.***

The commitment to teaching must begin with the institution itself. Two thirds of the respondents in the VCU study said that the lack of institutional support was the major impediment to allocating their time properly; over 40% cited that the institution's reward structure, one third cited the institution's mission as the cause (respondents could choose more than one reason). **Therefore, it is up to each institution to communicate, reinforce, and reward teaching as its primary mission.** This focus, already firmly established in the VCCS and in many of the state's smaller four-year schools, should become an integral part of the institutional culture of all colleges and universities, regardless of size. Every reasonable effort should be made to ensure that this process has the participation of faculty members, and that a reasonable, productive balance between teaching and research is established.

This renewed emphasis on teaching should in no way denigrate research and scholarship. After all, the very foundation of teaching is scholarship, as each teacher must carefully design each course he or she teaches which requires research and hard effort. Certainly, our community colleges and four-year colleges already are heavily emphasizing teaching.

FACULTY RECRUITING AND RETENTION

Refocusing institutional culture also dictates a fresh look at how faculty members are hired and promoted. The 21st Century Commission has already identified several recommendations, such as ensuring that salary increases reflect "genuine merit" in an individual's responsibilities, including teaching and research. These recommendations should be strongly endorsed. **Teaching faculty, particularly those who teach undergraduate students, should be hired and promoted primarily for their talents and accomplishments as teachers, not researchers.**

Tenure has long served the need of academic institutions to recognize and retain outstanding scholars. If we are to make teaching a central focus, however, the award of tenure should likewise reflect accomplishments in the classroom. The benefit of giving lifetime contracts to individuals should be the infinite value of knowledge that will be passed on to generations of students, not the amount of dollars that will support a research activity for a period of time. It could also be argued that, at certain levels, tenure should be for a limited time, requiring those faculty members to continually justify their standing through continued merit and achievement.

It is recommended that institutions with the guidance and coordination of SCHEV re-examine the method of achieving tenure, especially at the undergraduate level. Teaching should be a higher priority than research and publishing. Indeed, tenure should be awarded on the basis of good teaching alone. The old adage of "publish or perish" should be exchanged for "teach well or perish." We should re-examine lifetime tenure for faculty on a set time period of every ten years. "Grandfathering" could ease the transition. Salary increases should be tied to periodic evaluations.

Tenure should not be abandoned. It is a valued peer recognition of faculty and akin to a form of ownership. The recommendation is that it be improved upon and utilized as a valuable tool.

MINIMIZE DUPLICATION AND ENCOURAGE EFFICIENCY

We should think of higher education in Virginia not as simply a number of outstanding, competing institutions, but as an interrelated system, operating independently and cooperatively under the guidance of SCHEV. Some institutions try to be all things to all people, supporting disciplines and programs that serve only a limited number of students. Certainly, a comprehensive university should offer a breadth of educational opportunities to students. There may also be legitimate regional needs for certain programs. **However, our schools and students would be best served by concentrating marginally productive disciplines and their associated resources at a smaller number of schools.** This recommendation should in no way restrict access to the subject area. While certain disciplines should be offered when geographic disparity is an issue, schools without a particular academic program could continue to offer classes through the use of interactive telecommunication and satellite systems. Students at one school who are interested in a particular subject could pursue classes beamed from another and receive full credit toward their degree. As the coordinating agency for higher education, SCHEV should aggressively take the lead in this effort by closing non-productive programs, and encouraging increased cooperation among institutions.

Institutions must also learn to use improvements in technology to make teaching more productive and learning more efficient. Finding and implementing the means to increase the depth and span of a student's learning without increasing its cost should be a continuing goal. **Institutions and teaching faculty are in the "business" of delivering educational services; therefore, they should make every effort to ensure that these services are provided as effectively and economically as possible.** Among the alternatives that have been suggested for achieving this goal are allowing schools to apply savings from the ongoing restructuring program to support greater use of technology (to be discussed in a later section); increasing real-world learning experiences; and providing professional development opportunities for faculty to learn applications of technology for enhancing the learning process.

THE ROLE OF THE VCCS

Two-year community colleges should be strongly encouraged as an alternate path to achieving a four-year degree. However, the record shows that transferring from a VCCS school to a senior institution is not always a simple process. The Review of the State Council of Higher Education for Virginia, as prepared by the Joint legislative Audit and Review Commission of the Virginia General Assembly, reports that

> ***The Virginia Assembly has perceived student transfer to be a problem for many years. Consequently it has authorized a number of special transfer studies from 1976 through 1994, many of which have requested SCHEV's involvement in resolving perceived problems.***

The report further states that some problems continue to exist, and that the higher education system needs SCHEV's continued involvement. Statistics identified in the report show that 93% of students who earn an associate degree from the VCCS and apply to one or more of Virginia's public senior institutions are offered admission to at least one of these institutions. **Further corrections are needed whereby the coursework completed within the VCCS is fully acceptable at the institution and program of the student's choice. Academic policies should be standardized to ease the transfer of community college credit to four- year schools.** The coursework must be consistent in content and rigor with courses at four-year institutions. General education in community colleges is of particular concern, especially as more and more high-school students complete community-college courses and expect transfer credit to be to be awarded by the four-year institutions. Universal transfer policy is now urgently needed; otherwise, the VCCS has not fulfilled its mission as stated when the system was begun in the mid-1960s.

Higher Education and the Public

As the ultimate beneficiaries of higher education, the public should be better informed as to how our public supported colleges and universities operate. Every Virginian should have the opportunity to learn what these institutions do, how do they do it, and its importance to students, the institution, the state, and society. An aggressive public relations outreach program encompassing the print and visual media, group presentations, and other outlets needs to be adopted to better inform our citizens. They need to know that the culture of Virginia's institutions of higher learning is clearly focused on education, serving the interests of those who use, provide, and fund this resource. Otherwise, these institutions will find it even more difficult to find the funding and public support needed to adequately prepare students for the challenges that await our state and society.

REFOCUSING ON ECONOMIC DEVELOPMENT

Of all economic "investments," Virginia's commitment to education can generate some of the highest economic and social returns. - Opportunity Virginia

VIRGINIA'S "GROWTH" INDUSTRY

Taken together, Virginia's public schools, colleges, and universities represent a $7.8 billion industry. **It is larger that all but two of the state's biggest corporations, and is the largest one that operates entirely within the state's boundaries.*** This "industry" serves approximately 1.3 million individuals, including one million in grades K-12, and 300,000 students in public two- and four-year institutions. The state employees over 50,000 professional educators, from kindergarten teachers to graduate faculty at public institutions of higher learning.

Training and education have also become an integral part of the "bottom line" for business. Forty years ago, workers relied primarily on manual skills. As our economy has become less dependent on manufacturing, long-term professionals and entry-level employees alike must have the ability to read and comprehend vast amounts of information, perform complex analyses and calculations, and communicate effectively to coworkers and customers. The dynamics of change continue to accelerate. Every few months, there are new issues, new challenges, new ideas, new technologies, and new ways of doing things that must be quickly learned and put into practice. To keep up with this change, workers must have the ability and opportunity to continually expand their knowledge through education and training programs.

Likewise, businesses are becoming increasingly dependent on the education system to provide individuals with advanced skills. But instead of having workers migrate to where the jobs are—as was the case during the 1930s and 40s, it is the businesses that are willing to relocate to states where qualified personnel and educational resources are abundant. Education can and should be considered one of the state's "growth" industries, one whose standards of excellence and quality should be maintained and supported as part of an overall economic development program. A strong education "industry" produces higher numbers of employable citizens, providing another incentive for businesses to locate to the state. Virginia is fortunate to already have made great strides in linking the resources of its colleges and universities to enhancing the state's long- term economic future. The Center for Innovative Technology, Virginia Tech's Corporate Research Park, and others are proven success stories in helping attract national and worldwide commerce to the state. **These efforts should be encouraged wherever possible within the institutions themselves so that our academic pursuits reflect a culture of public service.**

Research, as the University of Massachusetts has demonstrated, is very important in economic development. Indeed, Virginia has had a long history of working with industries to provide research for new and improved products. This effort must be increased and the new

*The two largest Virginia-based companies are Mobil Corporation ($65.3 billion), and CSX Corporation ($9.6 billion). Figures represent 1994 earnings reported by the companies for publication in *The Washington Post*, April 18, 1995.

accounting system (see another section) will demonstrate dollars spent on research more precisely and enable our legislators to increase this when appropriate.

Economic development is about job creation. No one can deny the linkage between this mission and that of education. **Our colleges and universities must be more organized and systematic in their approach to economic development.** Faculty and administrators of Virginia's public colleges and universities are state employees; as such, they have an obligation to serve the needs and interests of their region and the state. All Virginians have a stake in the success and productivity of our colleges and universities; likewise, they deserve to benefit from the scholarly activities conducted therein. These benefits include providing the finest quality teaching for students, research that serves the public good, and commitment to the highest standards of professional service.

Partners for Economic Development

Colleges and universities should also work in partnership with local and statewide economic development agencies to pursue opportunities that will continue to attract new business and investment to the state. Such initiatives will also encourage corporate sponsorship of research programs, personnel, and facilities, enabling the state and individual institutions to devote more resources to enhancing the objectives of improved teaching. An outstanding example is the Southwest Virginia Higher Education Center in Abingdon, a program that is helping bring enhanced educational opportunities to the state's rural western counties. A new facility now under construction will also help the Center fulfill its mission as an incubator for entrepreneurial ideas, and provide a location for conferences, trade shows, and training programs.

If we expect Virginia to retain its leadership in higher education, our colleges and universities should act as leaders. They should adopt the practices of business for the betterment of our state. Let's encourage and reward cooperation, entrepreneurship, and, within reason, the exploration of new and untested ideas. Let's ensure that the funding mechanisms and "seed money" for developing commercially viable research is available to help well-managed, cost-effective technology linkage programs continue to keep the eyes of industry focused on Virginia.

Each institution should be encouraged to develop a program to support economic development in its respective region, and statewide where appropriate. Each program should be developed and implemented in coordination with local trade groups, chambers of commerce, and economic development authorities, and with the state Department of Economic Development. A comprehensive annual report of these activities should be submitted to the General Assembly and the Governor through SCHEV.

The interests of education and economic development are mutual and intertwined. Without a strong education system, from kindergarten to the doctoral level, the state will lack the resources to effectively compete for economic growth. Without the benefits of a strong workforce and growing economy, the state will not have the resources to fund a quality system of education. These goals can be best achieved through a strong cooperative partnership between the state, education professionals, and the business community.

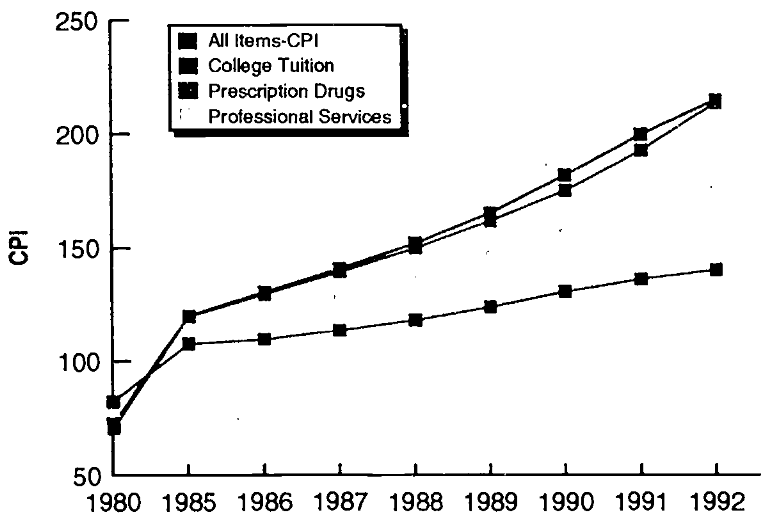
REFOCUSING FUNDING MECHANISMS

THE NEED FOR COST CONTROL

The four major funding programs for Virginia's public colleges and universities are (1) Education & General (E&G) programs, (2) financial aid, (3) sponsored programs, and (4) auxiliary enterprises. While many issues regarding higher education financing require attention, this section focuses on the funding of E&G costs (instruction, state-funded research, and public service functions). These costs are largely salary driven and directly related to FTEs.

A part of the perceived excessive costs of education is real; however, there is no generally accepted yardstick available to help the public understand the problem. The national Consumer Price Index (CPI), published by the U.S. Bureau of Labor Statistics, offers the best available measure, even though the index has recently been questioned as being inflationary (i.e., rises in the CPI may be greater than actual changes in the cost of living). However, if salaries keep pace with changes in the CPI, the purchasing power of the individual does not decrease; in fact, it probably increases. As E&G costs are comprised mostly of salaries, it seems reasonable to expect that these costs should follow the CPI.*

FIGURE 1
Consumer Price Index: Overall & Selected Categories



College tuition and medical costs are items tracked for establishing the change in the CPI. The excessive inflation of medical costs has certainly been well documented over the past few years. It is interesting to note that college tuition nationwide is the only CPI item that has shown a rate of increase greater than that of prescription drugs during the 1980-92 period. Figure 1 compares the national increase in the CPI, college tuition, prescription drugs, and professional medical services for the 12-year period.

*It has been suggested that the Higher Education Price Index (HEPI) would be a better guideline than the CPI. This subject needs further study, although the CPI is more widely known and is a better measure of living costs.

Table I shows the average increase in total E&G costs for nine Virginia colleges and universities per FTE versus the increase in the CPI for three periods. E&G costs essentially followed the CPI for 1973-83 and 1989-94, but increased at three times the CPI during 1983-89. The 1984-90 increase in excess of the CPI is due largely to the state's commitment to increase faculty and staff salaries. During that period, faculty salaries and benefits increased by an average of 11 percent per year. Other staff salaries and benefits increased by an average almost as much, about 9 percent per year. Salaries and fringe benefits comprise about 80 percent of higher education budgets.

TABLE I
E&G Costs Per FTE, 1974-1994

		Increase 1973-83			Increase 1983-89			Increase 1989-1994		
Institution	1973	10-Yr. Inc.	Yearly Avg	1983	6-Yr. Inc.	Yearly Avg.	1989	5-Yr. Inc.	Yearly Avg.	1995
GMU	$1,537	142%	14%	$3,720	63%	10.5%	$6,074	23.11%	4.62%	$7,478
ODU	$1,550	134%	13.4%	$3,632	62.67%	10.45%	$5,908	30.43%	6.09%	$7,706
VPI	$1,738	180%	18%	$4,866	57%	9.5%	$7,640	13.4%	2.68%	$8,664
JMU	$1,360	120%	12%	$2,995	60.8%	10.13%	$4,816	13.45%	2.69%	$5,464
LC	$1,484	104%	10.4%	$3,031	62.24%	10.37%	$4,921	23.27%	4.65%	$6,066
RU	$1,354	114%	11.4%	$2,903	49%	8.17%	$4,322	32%	6.35%	$5,694
VMI	$2,588	110%	11.0%	$5,435	52.51%	8.75%	$8,289	24.16%	4.83%	$10,292
UVA	$2,330	141%	14.1%	$5,608	73.18%	12.3%	$9,712	19.29%	3.86%	$11,585
W&M	$2,379	98.3%	9.83%	$4,718	58.8%	9.8%	$7,492	20.11%	4.02%	$8,999
Average	$1,833	126%	12.7%	$4,101	60.0%	10.0%	$6,575	21.6%	4.42%	$7,994
CPI	49.3%	111%	11.1%	103.9	19.34%	3.22%	124%	20.16%	4.03%	149%
VCCS	$1,334	107%	10.7%	$2,777	27.4%	4.57%	$3,537	9.87%	1.97%	$3,886

Figure 2 shows the trend in E&G cost increases for five Virginia institutions for 1973-1983, 1983-1989, and 1989-1994, and the relative change in the CPI for each period. As noted above, the six-year change for 1983-89 was three times that of the CPI, but this is explained by the state's policy of increasing salaries at rates substantially greater than the CPI increase.

FIGURE 2
Rate of Change in E&G Costs for Five Institutions & CPI for Periods Indicated

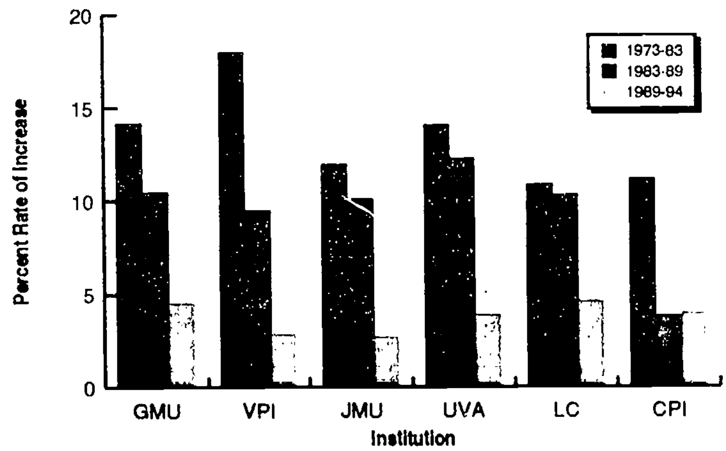


Table II summarizes the percent increase in E&G costs per FTE, after adjusting for the increase in the CPI, at 10 senior Virginia institutions plus the Virginia Community College System (VCCS). **Most noteworthy is the 7% decrease in real dollar costs of education in the VCCS for the 20-year period.**

TABLE II
Percent Increase in Expenditures Per Student, 1974-1994
Adjusted for CPI Increase

GMU	48	**JMU**	20
ODU	34	**LC**	23
UVA	51	**MWC**	2
VCU	21	**RU**	16
VPI	56	**VCCS**	-7
W&M	13		

Statements have been made in association with the state budget discussion to the effect that tuition costs at Virginia colleges and universities have doubled during the past five years. The data presented in Table III largely support these observations. While the average increase at 10 institutions for the five-year period was 76.2%, five institutions show an increase in tuition costs of 90% or more for the period. While the data shows the impact of college tuition costs to the student, they do not reflect what has been occurring in total E&G costs during the period.

TABLE III
Five-Year Increase in Tuition for 10 Institutions

	1989	**1994**	**% Change**
W&M	3079	5254	70.6
GMU	2163	4099	89.5
JMU	1785	2811	57.5
LC	1509	2919	93.4
MWC	1757	3363	91.4
ODU	2247	4082	81.7
RU	1346	2619	94.6
UVA	3756	6416	96.5
VCU	2680	4814	79.6
VPI	3047	4796	57.4
Averages	*2236.9*	*4117.3*	*76.2*

Table IV shows that total E&G cost increases for the same 10 four-year institutions for **this five- year period was 20.5%, very near the 20.2% increase of the CPI.** Old Dominion University and Radford University were the only schools in this sample where increases significantly exceeded that of the CPI. The data in Table IV shows that E&G cost increases can be controlled to that of the CPI. James Madison University and Virginia Tech showed excellent progress in controlling E&G costs for the five-year period.

TABLE IV
Total E&G Costs (General + Non-General Funds) Per FTE

School	1989	1994	% Change
W&M	7492	8999	20.1
GMU	6074	7478	23.1
JMU	4816	5464	13.5
LC	4921	6066	23.3
MWC	5141	6129	19.2
ODU	5908	7706	30.4
RU	4322	5694	31.7
UVA	9712	11585	19.3
VCU	9398	11069	17.8
VPI	7640	8664	13.4
Averages	*6542.4*	*7885.4*	*20.5*
CPI	*124*	*149*	*20.2*

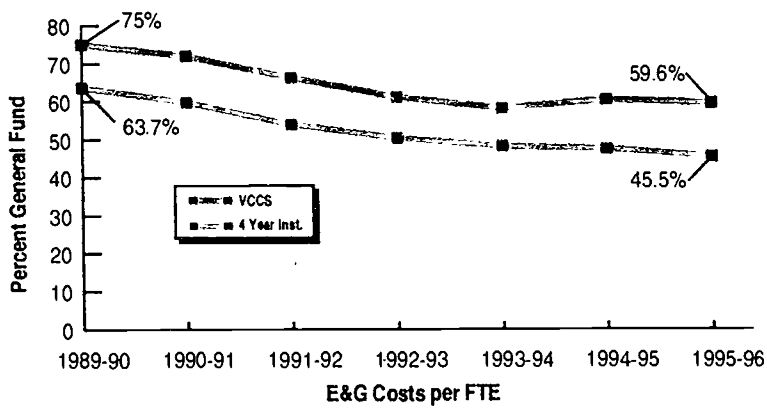
Table V presents annual General and Non-general funds for E&G costs on an FTE basis for nine institutions during the 1989-94 period. The data in Tables IV and V provide evidence that Virginia's public-supported institutions of higher learning now have E&G costs nearly in line with CPI changes. In real dollars, it is assumed that there has been little increase in education costs where E&G costs follow the CPI.

TABLE V
General and Non-General Funds Per FTE, Showing Percent Annual Changes, 1989 - 96

	FUNDING	1989-90	% Chg.	1990-91	% Chg.	1991-92	% Chg.	1992-93	% Chg.	1993-94	% Chg.	1994-95	% Chg.	1995-96	6-Yr. Inc.	Avg. Inc.
The College of William & Mary	Gen. Fund	$4.413	-6.16	$4,141	-10.20	$3,719	-3.25	$3,598	4.06	$3,744	0.00	$3,746	-3.52	$3,614	-18.10	3.78
	Non-Gen.	$3,079	11.20	$3,423	12.50	$3,851	9.10	$4,200	17.90	$4,953	6.10	$5,254	6.70	$5,608	82.10	13.70
	Total	$7,492	1.00	$7,564	0.00	$7,570	3.00	$7,798	11.50	$8,697	3.50	$8,999	2.50	$9,222	23.10	3.85
	Non-General Funding as percent of total: 1989-90 = 41.1 1995-96 = 60.8															
George Mason University	Gen. Fund	$3,911	-2.00	$3,833	-10.70	$3,423	-3.80	$3,292	0.70	$3,314	2.00	$3,380	-10.60	$3,023	-22.70	3.78
	Non-Gen.	$2,163	10.20	$2,383	15.60	$2,754	18.6	$3,267	14.50	$3,741	9.60	$4,099	3.20	$4,232	95.60	15.93
	Total	$6,074	2.30	$6,216	-0.60	$6,177	6.20	$6,560	7.50	$7,055	6.00	$7,478	-3.00	$7,255	19.44	3.24
	Non-General Funding as percent of total: 1989-90 = 35.6 1995-96 = 58.3															
James Madison University	Gen. Fund	$3,031	-8.20	$2,781	-8.70	$2,540	-4.20	$2,434	3.50	$2,519	5.30	$2,653	-2.00	$2,599	-14.25	-2.37
	Non-Gen.	$1,785	14.30	$2,040	6.70	$2,176	9.90	$2,392	9.00	$2,608	7.80	$2,811	7.20	$3,012	68.74	11.46
	Total	$4,816	0.00	$4,821	-2.20	$4,717	2.30	$4,826	6.20	$5,127	6.60	$5,464	2.70	$5,611	16.51	2.75
	Non-General Funding as percent of total: 1989-90 = 37.1 1995-96 = 53.7															
Radford University	Gen. Fund	$2,976	-0.80	$2,953	-11.70	$2,608	-0.92	$2,584	2.60	$2,651	16.00	$3,075	-14.70	$2,622	-11.90	-1.98
	Non-Gen.	$1,346	17.53	$1,582	16.94	$1,850	16.27	$2,151	9.40	$2,353	11.30	$2,619	1.50	$2,659	97.55	16.26
	Total	$4,322	4.90	$4,535	-1.70	$4,458	6.20	$4,734	5.70	$5,004	13.74	$5,694	-7.20	$5,282	22.21	3.70
	Non-General Funding as percent of total: 1989-90 = 31.14 1995-96 = 50.34															
University of Virginia	Gen. Fund	$5,957	-5.70	$5,618	-6.00	$5,281	-4.70	$5,032	0.90	$5,077	1.80	$5,168	-4.85	$4,917	-17.46	-2.91
	Non-Gen.	$3,756	8.00	$4,056	19.03	$4,828	10.13	$5,317	11.06	$5,905	8.70	$6,416	5.94	$6,797	80.96	13.49
	Total	$9,172	-0.40	$9,673	4.51	$10,109	2.37	$10,349	6.11	$10,982	5.49	$11,585	1.10	$11,713	20.60	3.43
	Non-General Funding as percent of total: 1989-90 = 38.7 1995-96 = 58.03															
Va. Commonwealth University	Gen. Fund	$6,718	-6.16	$6,304	-7.66	$5,821	-3.38	$5,624	4.13	$5,856	6.81	$6,255	-1.92	$6,135	-8.68	-1.45
	Non-Gen.	$2,680	17.61	$3,152	12.66	$3,551	14.90	$4,080	9.61	$4,472	7.65	$4,814	4.49	$5,030	87.69	14.61
	Total	$9,398	0.62	$9,496	-0.89	$9,372	3.54	$9,704	6.36	$10,328	7.17	$11,069	0.87	$11,165	18.80	3.13
	Non-General Funding as percent of total: 1989-90 = 28.52 1995-96 = 45.05															
Va. Polytechnic Inst. & State Univ.	Gen. Fund	$4,593	-5.16	$4,356	-10.72	$3,889	-2.44	$3,794	1.45	$3,849	0.50	$3,867	-4.68	$3,686	-19.75	-3.29
	Non-Gen.	$3,047	9.91	$3,349	14.18	$3,824	11.38	$4,259	8.08	$4,601	4.24	$4,796	4.67	$5,020	64.75	10.79
	Total	$7,640	0.84	$7,704	0.13	$7,714	4.39	$8,053	4.93	$8,450	2.53	$8,664	0.48	$8,706	13.95	2.32
	Non-General Funding as percent of total: 1989-90 = 39.88 1995-96 = 57.66															
Old Dominion University	Gen. Fund	$3,661	-5.52	$3,459	-8.76	$3,156	2.31	$3,229	7.49	$3,471	4.41	$3,624	-11.18	$3,219	-12.07	-2.01
	Non-Gen.	$2,247	7.92	$2,425	19.55	$2,899	17.49	$3,406	18.26	$4,028	1.35	$4,082	1.98	$4,163	85.27	14.21
	Total	$5,908	-0.41	$5,884	2.91	$6,055	9.58	$6,635	13.02	$7,499	2.76	$7,706	-4.20	$7,382	24.95	4.16
	Non-General Funding as percent of total: 1989-90 = 38.03 1995-96 = 56.39															
Mary Washington	Gen. Fund	$3,385	-11.70	$2,989	-9.13	$2,716	12.33	$3,051	-1.74	$2,998	-7.74	$2,766	-13.56	$2,391	-29.36	-4.89
	Non-Gen.	$1,757	20.55	$2,118	12.65	$2,386	42.71	$3,405	3.41	$3,521	-4.49	$3,363	4.43	$3,512	99.89	16.65
	Total	$5,141	-0.66	$5,107	-0.10	$5,102	26.54	$6,456	1.00	$6,520	-6.00	$6,129	3.76	$5,904	14.84	2.47
	Non-General Funding as percent of total: 1989-90 = 34.18 1995-96 = 59.49															

BEST COPY AVAILABLE

FIGURE 3
Percent of E&G Costs from General Fund



As shown by the data in Figure 3 and Table VI, the increase in tuition costs during 1989-95 was mostly required to replace reductions in state funding. During this period, the non-general fund portion of E&G costs (tuition) per FTE for the 15 four-year institutions increased from 36.3% to 54.5%. This is a 50% increase in the portion of E&G costs funded by tuition. The non-general fund portion of the E&G costs per FTE for the VCCS increased from 25% in 1989 to 40.4% in 1996, a 68% increase.

TABLE VI
Funding of E&G Cost Per Annual FTE 1989-95

Source	1989	1990	1991	1992	1993	1994	1995
General Fund	4488	4257	3831	3733	8323	3965	3697
Non-General	2560	2866	3254	3681	4068	4358	4437
Total	7048	7123	7085	7414	7891	8323	8134
% General Fund	63.7	59.8	54.1	50.4	48.4	47.6	45.5

Because E&G costs are considered to be mostly salary driven, it is not reasonable for these costs to increase at a rate much less than the change in the CPI. If the General Fund allocation is not kept in line with the CPI, the institutions have no choice but to continue raising tuition. However, the media and the general public have not been fully informed as to the cause of the rapid increase in tuition costs over the past six years. A greater effort is needed to communicate this information to the public, who, in turn, will likely be more inclined to support legislation to increase general fund appropriations so as to keep tuition costs in line with CPI increases. Another result may be support to secure funding through the General Fund appropriation to return to a 60/40 ratio of general fund/tuition, or at least a 50/50 split. VCCS funding should return to its original 70/30 split. It would not seem beneficial to reduce the current tuition amount to achieve the selected ratio because this would place a greater one- time burden on the state budget. Hopefully, the following approach will receive support.

A New Approach

If a commitment can be secured from the General Assembly and the Governor to adopt a policy of returning to a 60/40* or other suitable ratio, tuition should remain at the current level and the General Fund Appropriation increased to cover the total escalation in E&G costs until the desired ratio is achieved. This would permit E&G funding to grow at the rate selected. The legislature should adopt a regulation limiting the growth in E&G costs tc the amount appropriated. (A rate of .85% of the CPI has been used in this example.) This process would continue until the selected general fund/tuition ratio has been achieved, after which both the tuition and general funding would increase at the ratio required to provide an increase of 0.85% of the CPI for E&G costs or other legislative-approved rate. This means that the institutions would have to keep their total E&G costs to the rate approved by the legislature.

Table VII shows how funding would increase under the above proposal. The data uses a 2.75% rate of increase in total E&G funding, with the total increase being funded by general fund appropriations until the desired ratio is achieved. Using this example, four years are needed to achieve a 50/50 ratio, and 12 years are necessary to reach the desired ratio of 40% tuition and 60% general funds. If such a plan is adopted, it will be necessary to adjust the increase in general funding each year in accordance with the change in the CPI.

Table VII
General Fund Requirement*

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
Gen. Fund	$3,697	$3,924	$4,157	$4,396	$4,642	$4,894	$5,153
Nongen.	$4,537	$4,537	$4,537	$4,537	$4,537	$4,537	$4,537
Total	$8,234	$8,461	$8,694	$8,933	$9,179	$9,431	$9,690
% Gen. Fund	44.9	46.4	47.8	49.2	50.6	51.9	53.2

	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
Gen. Fund	$5,419	$5,693	$5,974	$6,263	$6,560	$6,865
Nongen.	$4,537	$4,537	$4,537	$4,537	$4,537	$4,537
Total	$9,956	$10,230	$10,511	$10,800	$11,097	$11,402
% Gen. Fund	54.4	55.7	56.8	58.0	59.1	60.2

* *General fund requirements have been calculated on the assumption that tuition costs will be held at the present level. All escalation in cost will come from the general appropriation. An escalation of 2.75% of total costs has been used in the calculations, which approximates 85% of the CPI.*

Table VIII shows how funding will increase over a 12-year period, where the rate of increase in total E&G costs is 2.75%, and the rate of enrollment growth is 0.8%. (NOTE: This figure was selected on the basis of the 0.7% rate of growth which occurred during the period 1989-95.) This plan will require about an initial 7.0% increase in state funding for

*Hopefully 70/30 for VCCS

E&G costs. At the end of 12 years, the E&G general fund cost increase rate will have reduced to 5.5%. This budget appropriation is based on an average 70% in-state enrollment. The out-of-state tuition policy of establishing a fee to cover at least 100% of E&G costs would be continued under this proposal. When the desired ratio of General Fund to tuition is achieved, both the General Fund and tuition should then be allowed to rise at a rate approximately 85% that of the CPI.

TABLE VIII
Estimated E&G General Fund Requirements For Four-Year Institutions
(Assuming .8% Growth)

	Total Enrollment	70% In-State	E&G per FTE	Appropriation (in Millions)
1995	148,522	103,965	$3,697	$384
1996	149,710	104,797	$3,924	$411
1997	150,908	105,636	$4,157	$439
1998	152,115	106,480	$4,396	$468
1999	153,115	107,181	$4,642	$497
2000	154,559	108,191	$4,894	$529
2001	155,795	109,056	$5,153	$562
2002	157,042	109,929	$5,419	$596
2003	158,298	110,809	$5,693	$631
2004	159,564	111,695	$5,974	$667
2005	160,840	112,588	$6,263	$705
2006	162,127	113,489	$6,560	$744
2007	163,424	114,397	$6,865	$785

* *General fund requirements have been calculated on the assumption that tuition costs will be held at the present level. All escalation in cost will come from the general appropriation. An escalation of 2.75% of total costs has been used in the calculations.*

Other scenarios for funding E&G costs may be considered because of General Fund limitations, or to meet other legislative needs. For example, the initial requirement of a 7.0% increase in state funding to support a proposal freezing of tuition until the desired General Fund/tuition ratio is achieved may not be practical. Another approach would be to allow tuition to increase at a nominal rate (i.e., 1%), and appropriating General fund money to cover the difference in E&G cost increases. This plan would reduce the first-year General Fund increase from 6.9% to 4.9%. In any event, the legislature should adopt a plan specifying the percent of E&G costs to be funded from state appropriations, and develop a funding schedule for reaching that goal. Another approach would be to encourage each institution, through its Restructuring program, to pick up a third of this increased cost. Implemented in conjunction with the 1% tuition increase, the annual increase in General Fund outlays would be reduced to 2.7%.

More attention should be given to the reasonable costs that exists for providing the first two years of education in the VCCS. The projected annual tuition cost is $1,583 for the 1995-96 academic year. This is less than half the tuition costs of attending one of the four-year institutions. Attending a community college also generally reduces other expenses such as living costs for students. The VCCS is also less expensive for the taxpayer. The percent of VCCS E&G costs from the state General Fund decreased from 75% in 1989-90 to 59.6% for the 1995-96 academic year. **Legislation should be enacted to establish and maintain at least a 70% general funding of E&G costs for the VCCS and a 60% average general funding of E&G costs for other institutions.**

FIGURE 4
E&G Costs for 4-Year Institutions and VCCS

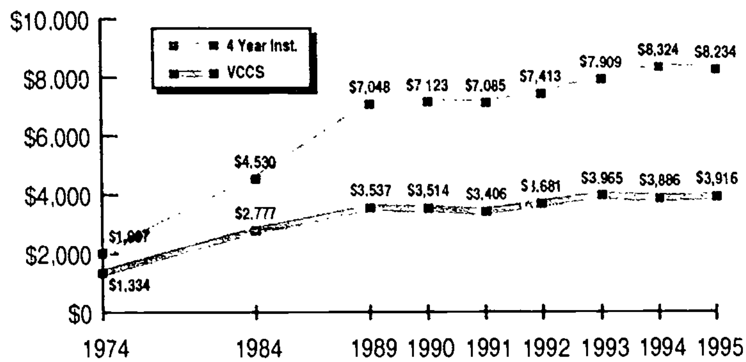


Figure 4 compares the costs of education for the VCCS and four-year institutions. It is expected that many of those who lack the financial resources to attend college could find the means to do so if credit earned at community colleges was equal to that of four-year institutions. Furthermore, if more high school graduates were encouraged to attend a community college, growth stresses would be reduced for the four-year institutions where space is limited. (See previous section on" Cultural Change.") Ideally, pending availability of money, incentives could be built into the funding mechanisms, and if these certain requirements are met, the funding could be increased from 0.85 CPI to 1.0 CPI. These requirements could include continued progress on restructuring, number of student transfer agreements in place, progress on reemphasizing teaching, reduction in redundant programs, progress on economic development initiatives, progress in using technology to improve teaching techniques, and others.

Some have claimed that Virginia needs to play catch-up in general fund appropriations. That the last five years have been lean years in state revenue and now that more normal times have returned, Virginia needs to make larger appropriations to take care of some pressing needs and get higher education funding more compatible with other states. It is no doubt that many maintenance and remodeling programs have been postponed, particularly in the VCCS, where buildings are outdated and various equipment is obsolete. The authors admit that the above described approach merely stays even with inflation, (even 85% of inflation). But we point out that a 5 to 7 percent increase each year in general funds is quite large and that the requested faculty salary analysis is not yet in and will in all likelihood call for a further increase and the requested study for upgrades in technology could result in a program of large dimensions.

Twelve years is a long time to wait for a return to parity (60/40 for 4-year colleges, 70/30 for VCCS). It should occur faster. If the state finds itself with larger than expected revenue, the amount of appropriation should expand dramatically to return to parity more rapidly or to take care of the much needed improvements in the system. In that event, tuition should be reduced.

Improving Accounting and Reporting Standards

State legislators and the public alike would also benefit from improved accounting procedures. SCHEV should develop an accounting system that will provide uniform financial reports from all public institutions. Public funds should be appropriated to cover any additional costs to implement a more relevant and uniform accounting system. More attention should also be given to each institution's accounting and resource allocation practices. For example, if faculty slots are based on FTEs, what is the justification for auditorium-size classes, and what happened to the remaining faculty time when such large classes are employed? For these and other reasons, accounting and financial reporting practices should be modified so that expenses for undergraduate education, graduate education, and research are tracked separately. Under such a system, the state budget would reflect the true cost of each activity.

Financial Aid

The state has increased financial aid to partly offset increased tuition. Financial aid has been made available to community colleges. Financial aid has also been made available to 100 students at the independent colleges as a pilot program.

The writers request that SCHEV provide additional information on these important programs to enable the Commission to make a more complete analysis.

Funding Technology and Equipment

The information and communications revolution is sweeping across our society like a tidal wave. Businesses have found that they must allocate an increasing share of resources to keep pace with advances in technology. For many organizations, technology is the third largest expense, after payroll and facilities, and is fast approaching 50 percent of the cost of space.

At the same time, the 1994 Restructuring strategies of Virginia's colleges and universities describe increasing reliance on telecommunications, academic and administrative computing systems, and the networks that bind these resources together to provide services to students and communities across the Commonwealth. These plans also describe ways in which the institutions contract with the private sector to provide certain services, as well as how resources, technology, and space are shared with other public institutions.

One of the benefits of these approaches is that they can help reduce the need for space. For example, institutions can use computer simulation for laboratory experiments instead of traditional work stations. Students can earn credit from their homes or residence halls using computers, networks, videos, interactive televised classes, and other technology, rather than building more classrooms. Technology also allows the employees of Virginia's colleges and universities to work off-campus or at home, and to process information, like purchases, through institutions other than their own.

We should not assume that this revolution pays for itself in increased efficiency. Technological advancements are raising our standard of living; increasing our effectiveness, productivity, and competitiveness; creating millions of new jobs; and improving our quality of life. Nevertheless, technology is a new expense, and has not been fully recognized as such.

Since technology is a relatively new expense for most colleges and universities, and with the rapidly changing, highly competitive nature of technology-based industries, it will be an ongoing expense with hardware and software purchases and upgrades, plus training for faculty and staff. Thirty years ago, Gordon Moore, co-founder of Intel Corporation, predicted that the computational power of microprocessor systems would consistently double every 18 months. Moore's law is being pushed into an even steeper curve; computational power now doubles every nine to 12 months. This trend has significant financial implications, not only in equipment obsolescence, but in facilities as well. Buildings traditionally go for decades before requiring renovations and upgrades. To remain current in supporting technology, however, renewals are required every few years.

Some experts have reported that Virginia's colleges and universities are "behind the curve" when it comes to information and communications technology. Indeed, reports from our state's institutions show that nearly all are scrambling to keep up with this new "revolution." Their successes are laudable, as many schools have forged ahead to bring their capabilities in line with current technology. However, we are at a point when it would be wise to seek more coordinated efforts across the system, realizing economies in purchasing and shared resources wherever possible.

For example, the Virginia Virtual Library is a cooperative effort of college and university librarians to buy the equipment and data links needed to share books, periodicals, and other resource. This effort is helping to reduce unnecessary duplication of holdings, increasing service to students and faculty, and increasing access to information across the Commonwealth. If each institution had tried to make individual purchases of these resources, the cost would have been nearly $6 million. Using the Virginia Virtual Library and the coordinated efforts of librarians, the cost was less than $1 million.

The real opportunities for this technology revolution lie in changing the way we teach and learn. For the most part the revolution, so far, has been in the storing and retrieving of data. To truly capitalize on the potential of technology, we need to realize that "our digital technologies can be a tremendous liberating force in designing learning venues that bring the full set of senses (sight, sound, action, interactivity, feedback) to the process."* Like a Disney animated cartoon or a Nintendo game, math, chemistry, english, history, economics, or whatever can be tailored-made for the several different categories of human intelligence—and the teaching job will be to fit with the teaching method which more closely matches the abilities of the individual student. Our teaching efficiency will be increased at least ten-fold.

*Robert C. Hedrich, Jr. *Reengineering Teaching and Learning*, CAUSE Professional Paper Series #10.

Our learning effectiveness will increase even more. If only our faculty, the backbone of our institutions, would realize the potential of this powerful technology and design the software and curriculum to usher in this revolution in learning, our entire education system would be at least ten times more efficient. This is the main reason teaching needs to receive the rewards and recognition for the next era of education—so that teachers will be motivated to develop the teaching methods with full utilization of the digital technology already here.

Virginia's colleges and universities have channeled most of the financial benefits resulting from Restructuring to communications and information system improvement programs. The benefits of this strategy are already bearing positive results. However, the importance of the information and communications revolution to the state's future dictates the need for a concerted effort by the Governor and General Assembly to ensure that Virginia's higher education system does not simply keep pace with other states, but seizes the opportunity to become a true global leader in the information age. We should encourage our institutions to set the pace by fully automating as many information communications, teaching and learning functions as possible. This, in turn, will provide the catalyst for research and development in this exciting field.

To achieve this goal, the Chichester Commission should task SCHEV to conduct a statewide needs assessment of information and communications resources for short- and long-term planning, including development of technology for teaching and learning. By coordinating this effort among colleges and universities, the Council will be able to develop a comprehensive program based on existing resources, determine immediate and future needs, and implement technology sharing guidelines. Such oversight will also ensure that the institutions work together, and that the resulting technology advances reflect a statewide commitment to this goal, rather than having each institution pursue parallel, and potentially duplicative, strategies.

In addition, SCHEV needs to appoint or designate an individual who would be responsible for overseeing the coordination and, subsequently, implementation of the state's technology and communications program for higher education. This program will be based on the results of the aforementioned analysis, which SCHEV will use to formulate options for funding, such as providing financial incentives for cooperation. A proposal for the program should then be forwarded to the General Assembly and Governor for consideration. If necessary, the state could use its debt capacity, as it has so wisely done in the past, to finance technology needs. It is hoped that a preliminary study by SCHEV could be completed within 90-120 days so that the Chichester Commission may consider the data before completing the Commission's report.

In concert with this assignment, other equipment needs should be addressed also. Technological advances are changing the tools used to teach and conduct research in nearly every academic discipline. Moreover, the state cannot simply invest in a piece of equipment and believe that the need is permanently satisfied. It is the responsibility of colleges and universities and SCHEV to monitor emerging technologies, instructional tools, and the state's long-term economic and social needs before and after procuring equipment, and advise the appropriate executive and legislative bodies accordingly. Likewise, disposal and replacement options should be better defined to ensure a smooth transition when equipment is replaced.

The Higher Education Equipment Trust Fund is an example of how these principals have been put into practice. Although established to help fund numerous equipment purchases over a short period, the fund offers a viable alternative for meeting the educational equipment needs of our colleges and universities. Similar programs drawn from alternative funding strategies will help Virginia address the multitude of needs for higher education without straining the state's budget or the financial resources of students.

Also, SCHEV's new fixed asset guidelines provide for the sound planning and careful management of infrastructure for our vitally needed information and communications systems. These guidelines account for the technology that is changing the way higher education does its business by encouraging renovation and maximum utilization of existing space. They also emphasize the increased importance of technology and encourage institutions to adapt their fixed assets to specific situations and needs.

In the end, the responsibility for funding higher education falls on taxpayers. Citizens need to understand what they want from their colleges and universities, and what they are paying for, then instruct their elective representatives to do just that. As the Commission on the University of the 21st Century states, "The people of this state can expect excellent colleges and universities only if they are willing to provide the funds to run them." This statement might be amended by adding, "SCHEV will maintain suitable accountability and monitoring so that the legislature and the public remain informed." Then and only then will Virginia support the higher education system it wants and deserves.

The Commitment to Restructuring

One of the most productive initiatives aimed at reducing expenses and improving efficiency at our colleges and universities has been the statewide Restructuring program. Already, millions of dollars in savings have been realized through careful streamlining of new technologies to deliver quality educational services. At the same time, the colleges and universities have taken steps to improve their internal operations and work more closely with their communities.

Restructuring encompasses many of the themes and observations contained in this report. However, it would be unwise to consider that the job is done, having made only the cuts and improvements to date. **Restructuring should be made an ongoing institutional policy, whereby operations and services are continually being evaluated and improved, or eliminated as necessary.** The benefits of incorporating such a philosophy are twofold. First, as noted above, changes in technology have made the practice of teaching and research far different than they were only a few decades ago. As the tools of education continue to evolve, so too should our methods and delivery systems be constantly reevaluated to ensure that courses and teaching methods accurately reflect the needs of an increasingly complex world. Likewise, many institutions are using the savings generated through restructuring to improve their communications and information systems. This not only saves costs of operations, but reduces (and, perhaps, potentially eliminates) the need for tuition increases and supplemental appropriations from the General Assembly. Through restructuring, our colleges and universities can work continually to be more efficient. And as with any good business, these saving could, in turn, be passed along to the consumer (i.e., students, their families, and taxpayers) in the form of flat (or lower) tuition costs.

Put simply, restructuring works. It is a program that should not be limited to the short-term; rather, it should become a part of every institution's culture. The state, students, and the institution itself will benefit immensely from this philosophy.

If restructuring is continued, it should be renamed. Perhaps "continuous improvement" is a better long-term connotation. Savings must also continue to accrue to the benefit of the institutions or the effectiveness of the effort will diminish quickly.

Rewards and Incentives for Faculty

One issue that also requires attention, but is not fully addressed in this paper, is the reward and incentive structure for faculty at Virginia's institutions of higher learning. As this report is being prepared, the Chichester Commission has not had the opportunity to fully examine all factors associated with this topic. A few facts are known, such as the state's commitment to move faculty salaries into the 60th percentile of benchmark groups. While this is certainly a worthwhile goal, it is also the primary reason behind the dramatic increase in education costs during the 1980s. Certainly, faculty should be fairly compensated for their skills and accomplishments, but achieving a fiscally sound education system may very well depend on a reexamination of the state's goals for faculty salaries. Therefore, we request that SCHEV provide the Commission with a comprehensive study of faculty salaries, so that members may perform a more thorough analysis of these matters.

Faculty members comprise the most valuable resource of the state's higher education system. As such, the standards and means by which they are encouraged and compensated for their work deserves careful attention. Initiatives proposed both by this paper and others call for increased professional development and training opportunities for faculty members, so that they may help lead the effort to expand applications of communications and information technology into the classroom. Faculty members must also be considered full partners in any program to streamline operations, improve the relevance of teaching and staff promotion programs, and make the academic environment at the state's colleges and universities every bit as productive as it is cost-effective. The same expertise that helps our colleges and universities produce outstanding students will be equally as critical in helping create an outstanding system of higher education.

Support for Virginia's Independent Colleges

No discussion of funding higher education in Virginia would be complete without considering the state's private (independent) colleges. These institutions offer a wealth of educational opportunities in diverse learning environments, including single-sex, coeducational, and historically black colleges. Here, students can learn and grow in a smaller, more intimate atmosphere that emphasizes teaching. They also have access to the same academic and extra-curricular opportunities that will prepare them for careers, and for continuing their education after graduation. Working together under the Council for Independent Colleges in Virginia (CICV), 25 of these institutions have expanded the range of educational opportunities and resources, complementing those offered by the state's public institutions and strengthening Virginia's reputation for academic excellence.

Over 40,000 students chose this option in 1994-95, an increase of 2.6% over the previous year's enrollment and nearly twice the number of students enrolled in such institutions 20 years ago. Well over half of these students are Virginia residents, with out-of-state students hailing from all corners of the globe. CICV statistics also show that 30,833 students are currently enrolled on a full-time basis. In addition, an increasing number of applicants now look to the independent colleges for graduate and professional-level education programs.

These qualities along with the private sponsorship of the colleges require much higher tuition costs than those at the state-supported institutions, reflecting the actual cost of educating students. On the other hand, SCHEV figures show that Virginia students enrolled full-time at the state's senior four-year public institutions receive a non-need-based subsidy of over $3,500, which includes only E&G costs. Tuition Assistance Grants (TAGs), established in 1973, partially offset the considerable public subsidy received by all Virginia students attending state-supported institutions regardless of need. Thousands of students and their families have benefitted from the TAG program, including the over 12,700 full-time Virginia students who each received a $1,460 grant during the 1994-95 academic year. This lower per-student subsidy also results in significant cost savings for the state, if those same students were attending state institutions.

While the amount of the TAG—set each year by the General Assembly—can help students meet the higher costs of attending an independent college, tuition increases in recent years have made this option less economically feasible for many students. According to information provided by the CICV, the 1988-89 grant of $1,450 offset the average private tuition by 21%; grants for the 1994-95 offset tuition only by approximately 14%. The total TAG appropriation for 1988-89 was 105% of discretionary aid to public colleges, but only 33% for the 1994-95 academic year.

Advocates of the Tuition Assistance Grant (TAG) program have said that the grant amount should be about one-third of the difference between public college tuition and independent college tuition. According to the Council of Independent Colleges, in 1994-95, the gap was about $4,280. One-third of the difference is $1,427.

Others have suggested, the grant should be about one-third of the general fund appropriation per student at the public, four-year institutions. For all students, that amount in 1994-95 is $1,155.

In 1991, the Council on Higher Education recommended that the appropriation for TAG be set at $1,500 per student and discussed the idea that any amount above $1,500 would be based on student financial need.

Clearly, the benefits provided by TAGs to students, families, the institutions, and the Commonwealth more than justify continued support for the program. No Virginia student should be penalized financially for his or her choice of college. **The General Assembly should set a fixed percentage of tuition to be offset by TAGs and appropriate additional funds as necessary to ensure that the awards keep pace with costs.** To be fully fair to these Virginia residents, the amount of TAG grants should approach the amount appropriated per student to the public four-year institutions. This percentage should be established jointly by legislators and administrators of the independent colleges. The writers recommend that the allocated amount should be about two-thirds of what the state contributes to the general fund, or $2,400 per student. Also worthy of consideration will the be results of a pilot program currently underway in the state's remote regions, whereby VCCS students receive grants for successfully transferring to local independent colleges. Through this support, the state will ensure that all its students will be able to sel(a college based on personal interests and the merits of each institution, rather than on financial considerations alone.

In Conclusion...

What has been proposed in this paper goes beyond implementing procedural changes or reorganizing lines of authority and responsibility. Based on the ideas and proposals outlined above, the Chichester Commission should consider recommending a comprehensive legislative package that will ensure the quality and economic viability of Virginia's higher education system for the next century. These proposals include:

- *change the institutional culture to make teaching the highest priority.*
- *the institution should re-examine, under the guidance and co-ordination of SCHEV, the method of awarding tenure. Make teaching a higher consideration.*
- *SCHEV must be more aggressive in preventing duplications of programs and facilities among Virginia's colleges and universities, as well as eliminating unproductive and obsolete programs.*
- *increase the productivity of teaching and develop techniques for achieving this goal.*
- *modify academic credit transfer policies so that college preparatory coursework satisfactorily completed at VCCS institutions may be 100% transferable to programs at higher-level institutions of the student's choice.*
- *each institution should be encouraged to develop a program to support economic development in its respective region, and statewide where appropriate. Each program should be developed and implemented in coordination with local trade groups, chambers of commerce, and economic development authorities, and with the state Department of Economic Development. A comprehensive annual report of these activities should be submitted to the General Assembly and the Governor through SCHEV.*
- *adopt a policy of requiring each institution to keep total increases in E&G costs per FTE student to 85% of the CPI.*
- *restore the state's share of higher education to 60% of the total cost for 4-year institutions and 70% for VCCS. This may be accomplished by freezing tuition (or limiting increases to 1% per year) until the desired ratio is reached. This strategy, together with increased enrollment, will result in an annual increase in the general fund for E&G costs of 5 to 7% for several years. The appropriation may be reduced through savings achieved through ongoing Restructuring programs, and supported by minimal (i.e., 1%) increases in tuition.*
- *require SCHEV and all institutions to develop a uniform accounting system that accurately separates the various costs and expenses for undergraduate education, graduate programs, and research. The system should also be designed to more effectively communicate revenue and expenses to the legislature and general public.*
- *develop a comprehensive, coordinated, accelerated program that will bring all institutions to a position of leadership in applications of communication and information technology.*

- *transition the current Restructuring program into a practice by which all institutions are encouraged to make efficiency and cost-control ongoing concerns. These efforts should be audited annually.*
- *continue support for Virginia's independent colleges. Additional resources should be provided as necessary to the Tuition Assistance Grant program, ensuring that it remains a constant percentage with the state subsidy provided to students at public institutions.*

Refocusing higher education in Virginia will be neither quick nor simple to achieve. However, we cannot maintain the status quo, nor can we start from scratch. The measures that have been recommended in the preceding pages require change. As with any large organization, change can be successfully implemented only with the full input, cooperation, and acceptance of those affected. The tools, resources, and ideas necessary to bring about the refocusing of higher education are already available and in place on the campuses, in the business community, and within the state government. Now is the time to plan the course and strategy that will create a comprehensive and affordable education system under which students of all ages will be able to achieve their full potential. The future of Virginia depends on this commitment.

BIBLIOGRAPHY

An Overview of Results from the Virginia Faculty Survey. Conducted by Survey Research Laboratory, Virginia Commonwealth University, for the State Council of Higher Education in Virginia, June 27, 1991.

The Case for Change. The Commission on The University of The 21st Century, Commonwealth of Virginia. No date given.

The Need for a National Learning Infrastructure. Interuniversity Communications Council, Inc. Carol A. Twigg, 1995.

Opportunity Virginia: A Strategic Plan for Jobs & Prosperity. The Honorable George Allen and The Honorable Robert T. Skunda, December 1994.

Reengineering Teaching and Learning in Higher Education: Sheltered Groves, Camelot, Windmills, and Malls. CAUSE Professional Paper Series #10. Robert C. Heterick, Jr., 1993.

Virginia Statistical Abstract, 1992-93 Edition. Center for Public Service, University of Virginia. 1992.

Statistics, financial data, and other information was provided by the State Council of Higher Education in Virginia, and the Council of Independent Colleges in Virginia.

Sidney O. Dewberry is founder and managing partner of Dewberry & Davis, Fairfax, Va., and a member of the Chichester Commission on the Future of Higher Education in Virginia.

Ernest M. Jennelle, Ph.D., prior to retirement, he was a managing principal of Dewberry & Davis. Prior to joining Dewberry & Davis, in 1974, he was on the faculty at Virginia Tech.

CREDITS

Several people made generous contributions to this report.

- *Donald J. Finley, former Secretary of Education, now Associate Director of the Council of Higher Education, supplied the numbers for funding, which we then analyzed and reached the conclusions presented.* ***Anne H. Moore****, Associate Director of the Council of Higher Education, supplied copies of various reports, as did Don. Both Don and Anne were always available for response to questions and to make suggestions. They also read and critiqued an early draft. We thank them for their valuable help. We also thank* ***Gordon Davies****, Director of the Council of Higher Education, for his suggestions and for allowing Don and Anne to help us.*

Several other people read an early draft and made several criticisms and suggestions.

- ***Dr. George W. Johnson****, President of George Mason University,* ***Dr. H. Randall Edwards****, Executive Vice President of George Mason University,* ***Dr. S. A. Burnette****, President of J. Sargeant Reynolds Community College, and* ***Robert T. Lambeth, Jr.****, Executive Director of The Council of Independent Colleges in Virginia.*

- *To* ***Til Hazel****, Chairman of the Virginia-Business and Higher Education Council, we owe a huge debt of gratitude for his reading of the draft report and, as usual, for giving us his bottom line and frank reaction to various sections.*

- ***Dr. Arnold R. Oliver****, Chancellor, Virginia Community College System, gave us perhaps the most complete and detailed criticism, which we are sure he spent several hours preparing. In addition, he spent a great deal of time with us one day, giving valuable advice and guidance.*

- *The articles authored by* ***Robert C. Heterick, Jr.****, President of EDUCOM and* ***Carol A. Twigg****, Vice President of EDUCOM, referred to in the bibliography, were extremely incisive in their analysis and possible impact on education of technology. We are grateful to their authorship. Additionally, a meeting with* ***Bob Heterick*** *was most helpful.*

- *Along with those listed above, there were others who wish to remain anonymous. Nevertheless, that does not detract from their valuable help. These people made many valuable suggestions, many of which were incorporated into the final work—and those not used was because we ran out of time to properly research the idea or in some cases, didn't agree with the suggestion. Regardless, all suggestions were carefully considered and without those, this work would not be nearly as comprehensive or as good (to whatever extent it may be good!). We shall remain eternally grateful to all of them.*

- *We should not overlook the valuable contributions made by* ***Senator John H. Chichester****, Chairman of the Commission on the Future of Higher Education. While we did not intrude on his time by asking him to review the draft copy, his leadership of the Commission has been such as to encourage questions, and delving into the various aspects of higher education. His* *openness and encouragement to all Commission members is the kind of leadership which makes a committee effective. The agendas which he has set for various meetings of the Commission have brought a rich variety of presentations from several leading professionals in Education. These presentations have been extremely helpful and informative. Senator Chichester's support and contributions to higher education for the past several years have been a valuable asset for all Virginians.*

- *Other members of the Commission are also making a huge contribution. Their comments and questions have been helpful and informative. (Dewberry also thanks them for their forbearance of his many questions.)*
- *Jim Parsons, Professional Writer, helped us with much of the re-writing and we are grateful to him. A reader, however, will note many instances of poorly worded phrases and paragraphs. Those mistakes are ours and not Jim's. We simply didn't have time for Jim to go back and do a final editing as we made many last minute insertions.*
- *In the final analysis, the report is the work of the two authors. All mistakes are ours, and we take the blame for all conclusions. Finally, we add that our time was donated and the cost of publication was paid for by us.*

Sid Dewberry
Ernie Jennelle