

**REPORT OF THE COMMISSION ON THE FUTURE
OF HIGHER EDUCATION IN VIRGINIA ON**

**MAKING CONNECTIONS:
MATCHING VIRGINIA HIGHER
EDUCATION'S STRENGTHS WITH
THE COMMONWEALTH'S NEEDS**

**TO THE GOVERNOR AND
THE GENERAL ASSEMBLY OF VIRGINIA**



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PREFACE

Senate Joint Resolution No. 139 (1994), sponsored by the Honorable John H. Chichester, created the Commission on the Future of Higher Education in Virginia. The Commission was charged to review the structure of the state's system of higher education, determine the efficacy of the decentralization of higher education in Virginia, and recommend an appropriate course of action for the direction of higher education in the Commonwealth.

The Commission on the Future of Higher Education

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Del. Alan A. Diamonstein, *Vice Chairman, Newport News*
Sen. Hunter B. Andrews, *Hampton*
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CHAIRMAN'S PROLOGUE

For the past six years, our colleges and universities have gone through an unprecedented period of upheaval and financial insecurity. Six years ago it would have seemed inconceivable to predict that in fiscal year 1996:

- state support has fallen;
- tuition is at an all-time high; and,
- in this fiscal environment, our colleges and universities must absorb 50,000 more students by the year 2007.

To prepare for this large influx of students, we are asking our colleges and universities to restructure themselves—to find ways to teach more students with fewer resources, to streamline administrative operations, and to decide which activities should stay, and which should go.

It was in this context that I sponsored a resolution in 1994 to conduct a practical study of our colleges and universities, along with the role of the Council of Higher Education in coordinating these institutions. The study group was called the Commission on the Future of Higher Education in Virginia, and what follows is the commission's report.

I had several objectives in mind when I drafted the resolution. First, I felt that the time was ripe to take stock of our higher education system, to educate ourselves as to the demands for higher education, and to assess what our institutions provide.

Second, I felt the need to explore the perceptions of the average citizen regarding higher education. Each of us has a set of anecdotes about higher education—the graduating students who don't fit the job market, or the faculty who don't teach. My intent was to get behind the newspaper stories and the anecdotes, to learn how our colleges and universities operate, to learn about the obstacles to change—some externally imposed, some internally imposed—and to develop a better appreciation of the important role our colleges and universities play in our Commonwealth.

I hoped to cure misconceptions and shatter myths, but, most importantly, I wanted to set a course, or mind-set, for the university community. When it comes to higher education, we need to make sure that the academic community and the policy makers share the same goals and the same ideas about how to go about achieving them.

This commission began its work in the spring of 1994 as the colleges and universities were completing their formal restructuring plans, and we completed our work in the fall of 1995, with the institutions well into the task of restructuring. Perhaps more than anything

else, we have come away with the understanding that restructuring is a long-term venture, and that we have only just begun. We are also struck by the enormity of the higher education enterprise, and the frustration that we have only scratched the surface of the vast number of issues before us. In response, we chose to comment and make specific recommendations in selected areas that we feel should be strongly encouraged, or that have not been, in our view, adequately addressed.

Our commission was fortunate to have the work of the Commission on the University of the 21st Century as a foundation on which to begin our study. The 1989 report cited the need for change to deal with growing enrollments. We hope we have built upon the recommendations of that commission, and, more importantly, translated them into the environment in which we now live. The Virginia economy we face today is not the same one the Commission on the University of the 21st Century operated in when it began its deliberations in 1988. Nor is our higher education system the same as it was in 1988.

Indeed, I see the report on the University of the 21st Century as providing the vision. In contrast, the report of this commission may be more of a "how-to" manual.

A common thread throughout our report is the paramount importance of the institutions of higher education to the economic well-being and development of the Commonwealth. Through research, occupational-technical training, key programs such as engineering and bio-technology, and in so many other ways, our institutions are a major economic asset of the Commonwealth—an asset that needs to be nurtured and supported.

Respectfully,

A handwritten signature in black ink, appearing to read "J. Chichester", written in a cursive style.

John H. Chichester. Chairman

INTRODUCTION

The 17-member Commission on the Future of Higher Education in Virginia met 10 times over the past 24 months. The commission heard testimony from the presidents of our colleges and universities, from the faculty, from high-ranking staff of our senior institutions, from national experts and from the Council of Higher Education, the Department of Economic Development and the Center for Innovative Technology. Our meetings also included a three-site interactive televised session in May of 1995.

Three members of the Senate and five members of the House of Delegates served on the commission, along with the Secretary of Education, the Chairman and Vice-Chairman of the Council of Higher Education, a member of the State Council, the Director of the State Council, and four citizens appointed by the Governor.

The commission arrived at five general conclusions:

- ***Our public colleges and universities must make substantial changes to convince the general public that higher education is operating as efficiently and effectively as possible.***

—The commission wholeheartedly supports the “restructuring” process already begun at the institutions, and implores the institutions to understand that the process has just started. Restructuring is not a fad. Restructuring has not “happened.” While much already has been accomplished, restructuring actually has but begun, and progress by the institutions needs to be closely monitored for years to come.

- ***As higher education changes the way it conducts its business, the Commonwealth should consider changing its business relationship with higher education.***

—The Council of Higher Education should develop a plan for consideration by the Governor and General Assembly that might grant selected institutions special independent status in state government.

—Such a plan, which would provide specific proposals for assigning greater responsibility for daily operations and long-term development of colleges and universities, should be prepared in consultation with the leadership of the institutions of higher education, with the central state agencies, and with the cognizant committees of the General Assembly.

—A post-audit administrative approach based on mutual public trust would seem to fit institutions that demonstrate that they have become more efficient and effective and have the resources to conduct their business with a high level of competency.

—Such institutions should be freed from stifling bureaucratic regulations and should be given a status in the Code of Virginia that reflects their independence and their

accountability.

- ***Higher education in Virginia cannot be sustained at an acceptable level of quality without additional state support.***

—An estimated 50,000 additional students are expected to enroll by the year 2007. State support, along with productivity gains, must keep pace with enrollment growth if we are to avoid the unwanted and undesirable options of mediocre programs and ill-prepared graduates.

—If the institutions fall behind in acquiring and exploiting technology as we enter the 21st century, then the institutions will lose their status as one of Virginia's brightest assets. Virginia's public colleges and universities should lead in technology, and that will require state support.

—Students with financial need deserve access to higher education. While Virginia has done well in recent years through appropriations for the Virginia Guaranteed Assistance Act and for general need-based financial aid, we can and should do better.

—The salary structure must be competitive to retain and attract quality faculty.

—The role of Virginia's community colleges differs from that of the senior institutions, and the Commonwealth should consider ways to strengthen funding for the community colleges that reflect their varied missions and responsibilities.

—And, as state support for public higher education grows, support for tuition assistance grants for Virginia students attending Virginia independent colleges and universities should grow proportionately.

- ***Tuition as a percent of the cost of education has become too high for undergraduate Virginians.***

—Recent actions to reverse this trend should continue. Tuition increases for resident undergraduate students should not exceed cost of living increases, and the additional support higher education requires should come from the general fund.

- ***Virginia higher education is closely linked with the economic growth of the Commonwealth.***

— Each institution of higher education has a role to play in promoting economic development in Virginia, and we should work to better define how each institution can best contribute, either to its region or to the state as a whole. State-wide efforts such as the Center for Innovative Technology must be encouraged and supported.

The rest of this report addresses these five general conclusions in greater detail. We have

not attempted to provide a comprehensive picture of Virginia higher education or a detailed plan for its future. The Council of Higher Education, in consultation with the institutions, has responsibility for detailed planning and, in keeping with the autonomous nature of higher education, the Council—with adequate budget and staff— should be entrusted to discharge these responsibilities, as it has done so well over the years.

We have spoken to what we see to be the most pressing issues confronting Virginians as they consider the futures they want for their grandchildren. We hope that this report sparks conversations throughout the Commonwealth, for there is no subject that is more important than what we want succeeding generations to know and be able to do.

II. EFFICIENCY AND EFFECTIVENESS

A strong consensus has emerged across the nation that America's colleges and universities have got to change both what they do and how they do it in order to serve us well in new social and economic circumstances. Virginia appears to be among the pace-setting states in undertaking change through its restructuring efforts, and we commend those responsible for higher education for the way in which they have approached this task.

Nevertheless, there are concerns about the operation of our institutions of higher education. These concerns include the high cost of college-going in Virginia, the loss of proper balance between the teaching and research activities of faculty, the role of faculty tenure in a world that requires high levels of institutional flexibility, apparently unnecessary duplication among institutions that may have spread their resources too thinly, possible erosion of academic standards, and the need for a more explicit link between learning and work.

For the past two years, members of the Commission on the Future of Higher Education in Virginia have had the unique and welcome opportunity to examine these and other issues regarding higher education in Virginia. We have met several 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 work that takes place in our institutions of higher learning, as well as the funding and organizational mechanisms that support teaching and research.

We have come to expect a lot from Virginia higher education and to take it as our due. The restructuring in which we are engaged should be particularly ambitious because most of our colleges and universities range from "good" to "superior" among their peers nationally.

A. Balancing Teaching and Research

Both teaching and research are important roles of our colleges and universities. This is not a matter of choosing one or the other. In fact, they come together if we think about the

college or university as a “place intentionally designed for learning to occur.” Students learn, often with teachers as their guides. Faculty learn, often from the research they do in their fields of specialty.

A balance is needed between these two important activities. Each institution should spell out, as precisely as possible, the extent to which its faculty is committed to teaching and to research. Then the key decisions that determine the careers of faculty — retention, promotion, tenure, salary increases, sabbatical leaves — should be determined on the basis of the balance that has been established.

Because of the variety of colleges and universities in our system, the balance between teaching and research does, and should, differ across institutions. At major research universities, research will occupy more faculty time while at community colleges it will occupy very little. But teaching should be important everywhere and every institution should administer its systems of incentives in a way that is consistent with the balance it has stated for itself.

The women and men who are faculty go through stages of their professional lives, as we all do. There may be periods when interaction with undergraduate students is extremely rewarding, others when being part of a research team is fulfilling, and still others when administration is the right kind of work. We urge institutions to avoid “one-size-fits-all” faculty job descriptions and to create reward systems that set performance objectives for groups of faculty (an entire department or institute, for instance), thereby allowing individuals to contribute differently to the group effort.

Of this much we are sure: the citizens of Virginia want to know that they and their children have access to the best faculty available. They want to know that, except in rare instances, faculty teach. They will not support institutions in which the teaching is done by graduate students or part-timers while the full-time faculty is off doing something else.

For this reason, we think it is important for the colleges and universities to meet the increased productivity goals they set in their restructuring plans. With only a few exceptions, all are adequately staffed to handle current enrollments; several can handle limited increases in enrollment without adding staff. The restructuring efforts will increase faculty teaching productivity in various ways: faculty teaching more courses, using technology to reach greater numbers of students, and moving away from traditional classroom formats to encourage students to learn independently and with other students.

Teaching ought to be front and center in every institution’s mission and faculty ought to be rewarded to a greater degree for the attention they give to students and to student learning. We put it this way because, in the final analysis, we are interested in what students learn — what kinds of people they have become, and what they know and are able to do — as a result of attending our colleges and universities.

It is not easy to measure the results of education but some Virginia universities have indicated that their restructuring will attempt to account for the learning that occurs. For example, George Mason University may look at a portfolio of a student's work to evaluate learning. Other institutions are developing courses that rely more on self-paced, individual research and only a fraction of the traditional lecture format. We strongly encourage these efforts both because they are right and because they can help us define a key dimension of faculty productivity more meaningfully: by what students learn rather than by how many hours faculty teach.

B. Faculty Tenure

The general public, with corporate executives among the more outspoken, are asking pointed questions about the meaning of tenure as we approach the new world of the 21st century. Many commission members, especially those of us who are not academics, admit to an intuitive, almost visceral, reaction against that aspect of tenure that appears to guarantee lifetime employment.

Academic freedom is not at question. It is universally accepted that faculty scholars must have the freedom to follow their inquiries wherever they may lead, regardless of whether their work is popular or in accord with conventional notions of truth. And, faculty must be assured of their freedom of speech to share their scholarship. Tenure has historically protected this freedom of inquiry, although a strong body of case law and other legal protections also now exist.

The value of the faculty in general and the high esteem with which we hold the faculty as a body are, likewise, not at question. We cherish the faculty. The faculty are higher education.

However, for the general public and corporate executives, tenure is about an entrenched system that is perceived to place a much higher premium on research than on teaching, that causes the institution to be inflexible rather than flexible, and that appears to ensure employment regardless of performance. As higher education attempts to keep pace with the rest of society and restructure itself to meet today's requirements, these aspects of tenure do not fit.

It is essential at the outset of the discussion to recognize that tenure is not a parochial issue for Virginia. Tenure is a national system. Virginia's colleges and universities are part of a vast network of more than 3,000 institutions of higher education in the United States. It is not practical nor advantageous for Virginia to consider the abolition of tenure for faculty at its public colleges and universities. The consequence would be the decline of those institutions who compete for faculty in a national and international marketplace. While we might not lose the most outstanding faculty who are at our colleges and universities, our efforts to hire the best of the next generation of scholars could be damaged. (We note that this is not as much an issue for the community colleges because they do not have a tenure

system in place on their campuses, their market for faculty recruitment tends to be local rather than national, and because community college faculty generally do not build national reputations on the basis of their research or scholarship.)

The institutions, with their boards of visitors taking the lead, should establish and maintain a clear balance between teaching and scholarship in tenure decisions. The scales now tip too heavily toward scholarship. Both are important, but balance is essential. The general public sees little value in a tenured faculty member renowned in his field who is not interested in passing on the products of his scholarship to students. Tenure based almost entirely on publish or perish encourages the production of such faculty. The tenure-track agreement need not, in each and every case, require that scholarly works be published. Tenure should not be denied to those faculty members who have chosen, and so demonstrated, that they wish to be excellent teachers but not necessarily published scholars, as well.

The faculty member is expected to divide his loyalties between his discipline on the one hand, and his institution and his students, his community and his state on the other hand. The responsibility of faculty scholars is to create new knowledge and to help the next generation of students become thoughtful, independent citizens. Ideally, all faculty involved in research have the skills to incorporate their findings and scholarship into the classroom. In our view, knowledge is not advanced if it does not reach the student.

Beginning with guidance from the boards of visitors, our colleges and universities must become more business-like about tenure. There should be institution-wide policies and general criteria for the application of tenure-track agreements with faculty. The tenured faculty member is a highly valued resource for the entire university and its student body, for the community and the state; tenure-track decisions should not be left solely to the department where the faculty member belongs.

And, the board of visitors and administration must not feel under siege by organizations or traditions that stifle flexibility in the use of faculty resources as the board considers which programs to scale back or discontinue and which programs to accelerate or initiate. Ways must be found, perhaps through retraining or through inter-collegiate cooperation, to facilitate faculty mobility to accommodate changes in demand and direction of the curriculum.

The rapid pace of change in technologically advanced economies means that the activities of any institution must change radically, possibly several times, during the lifetime of any professional person. Those who remain flexible not only can adjust to change but also can shape it creatively and remain useful to the institution.

Which brings us to the lifetime job aspect of tenure. If a job is not being done satisfactorily, the incumbent must be replaced. This is why we have emphasized the importance of rigorous post-tenure performance review in this report, and why we commend the Council of Higher Education for doing so in its review of restructuring progress.

The development of post-tenure review policies and procedures is an important factor in effectively addressing the concerns raised about tenure. The faculty of the colleges and universities, working with the administration of those institutions, must take the responsibility to develop and support a process for regular evaluation of tenured faculty that leads to continuous improvement in their teaching, research, and service, or results in negative actions such as dismissal.

Each board of visitors should require the development of a process for regular evaluation of tenured faculty that leads to continuous improvement in their teaching, research, and service, and that makes clear that sanctions for unsatisfactory performance include reduction in salary and dismissal.

The evaluations should be conducted according to a reasonable, periodic schedule that fits each institution. Standards of performance should, at a minimum, relate to each of the faculty member's responsibilities. Peer review is but part of the story. Contributions to the ability of the institution to serve its constituencies must receive at least equal weight.

An effective post-tenure review policy should exhibit the following characteristics. It should be the product of a joint effort by the faculty and administration, integrated with the regular faculty evaluation policy; it should be developmental in nature so that a tenured faculty member who is not performing at the desired level has the opportunity to develop goals and a plan to meet the expectations together with the administration; and it should include a timetable to achieve the mutually agreed-upon goals. The review should be systematic and uniformly applied, provide for due process, and be connected to the existing means available to faculty to redress grievances.

However, the implementation of a post-tenure review policy by itself is not sufficient to address the larger issue of how to recruit and retain a quality faculty. The other elements that need to be included are an effective faculty recruitment process that includes careful screening criteria for all tenure track positions, real evaluation about reappointment during the probationary period, a systematic and in-depth pre-tenure review process, the availability of faculty development opportunities for growth and remediation, and a readiness for faculty peers to take the responsibility to make hard decisions about the reappointment and tenure recommendations of their colleagues who are not achieving expectations in teaching, research, and service.

The commission recommends that each state-supported college and university be directed to adopt and include in its restructuring plan institution-wide policies and programs for both the determination of tenure and for post-tenure performance review. Such policies and programs should begin no later than July 1, 1997, and should include the requirement for a written agreement between the institution administration and each faculty member regarding the duties and responsibilities of each faculty member. The Council of Higher Education should submit a report to the 1997 General Assembly detailing the progress each institution is making toward the development of these policies and programs.

In summary, if tenure systems are to remain viable in higher education, tenure should be awarded for reasons that make sense to the general public. And tenure, once achieved, must be followed by performance reviews that have real and substantial consequences.

C. Program Duplication

There are legitimate reasons for academic programs to be duplicated from institution to institution. Perhaps the best reason for dispersing programs across several institutions rather than concentrating them in one place is that it permits Virginia to maintain relatively small universities. There are universities in other states with 50,000 students or more. As difficult as it is to focus attention on teaching and ensure that students receive personal attention, the mega-university only makes it more difficult. Prudent dispersal of programs is desirable in a system like Virginia's.

For example, it can reasonably be expected that all colleges offering a liberal arts education will have an English major. However, specialty programs, or those not part of a core group of programs within liberal arts, should be duplicated only for compelling reasons. Such programs might include engineering, physics, medicine, or law. Programs duplicative of others currently available elsewhere in the state should be carefully reviewed for possible elimination. When programs must be duplicated in order to meet local or regional need, or because of external pressures, institutions should consider ways in which funding for them can be reduced or shifted to non-state sources.

Programs may offer specific services to regions. They may serve place-bound adults, who represent an increasing proportion of college students. For instance, when a doctoral program in nursing was proposed for northern Virginia, initially it seemed that it might unnecessarily duplicate other such offerings in the state. The program was directed at working nurses, however, who were unlikely to be able to drive to Richmond or Charlottesville for evening classes. The program is now being offered with healthy enrollments, and the nursing programs at the other institutions have not suffered.

Employer needs also may be local. When a law school was proposed for northern Virginia, the members of that community found the presence of law schools elsewhere in the state irrelevant to their concerns. A similar argument has been made on behalf of the engineering program at Virginia Commonwealth University, in which the Richmond business community and a major corporation moving to the area are greatly interested.

External factors can influence the need to develop what would otherwise be seen as unnecessarily duplicative programs. Pressures from industry and trade, for instance, have driven some programmatic development, from dental hygiene at various community colleges to the two-year agriculture degree program at Virginia Tech.

Federal funding sometimes creates windows of opportunity. The Continuous Electron Beam Accelerator Facility (CEBAF), a world class research site in physics, has drawn top

physicists to the state and spurred the development of graduate programs in physics that might not otherwise have been considered. Several of our institutions, including Christopher Newport University, the College of William and Mary and Old Dominion University, are working closely with CEBAF.

Finally, legislative or gubernatorial interest lies behind the development of some academic offerings. Governor Dalton supported the development of the veterinary college at Virginia Tech, for instance.

The Council of Higher Education has statutory authority to approve new programs and eliminate nonproductive programs. For an institution to gain approval for a program, it must demonstrate that there will be sufficient student demand for it at that institution and employer demand for its graduates. Institutions offer various kinds of evidence for student demand: a concentration in the subject or a degree program at another level may have healthy enrollments, the institution may have surveyed its students and service region to determine the level of interest in the potential program, or programs at other institutions may have more students than they can handle.

But student demand, while it may be used to justify program duplication, must be considered in the context of program cost. Higher education is a highly subsidized "marketplace:" if students were expected to pay the full cost, or even close to the full cost, of a degree program, demand might be significantly reduced.

One way to reduce costs while offering programs where there is demand for them is through cooperative programming. The Council has encouraged cooperative development of off-campus instructional sites, for example, resulting in joint centers involving from two to five institutions in Abingdon, Roanoke, northern Virginia, Virginia Beach, and on the Peninsula. Telecommunicated instruction also has created opportunities for cooperation, for example:

—Virginia Tech, Old Dominion University, the University of Virginia, and George Mason University together offer the televised graduate engineering program; and

—Through Teletechnet, Old Dominion University and the community colleges offer associate-degree holders the opportunity to complete their baccalaureate degrees on community college campuses.

More established programs can also help new ones start, thus decreasing development and start-up costs. Virginia Tech is providing substantial assistance to VCU with its engineering program, for instance. CEBAF and the Council of Higher Education this summer called together the physics programs in the state and initiated a discussion of how they might strengthen one another so that Virginia can develop world class instructional and research programs to go with CEBAF's world class research facilities.

As mentioned above, the Council has statutory authority to approve new programs and to require the discontinuance of non-productive programs. The Code of Virginia (Section 23-9.6:1) provides three criteria for non-productivity: "the number of degrees granted, the number of students served by the program, and budgetary considerations."

Since 1974, the Council has monitored all the programs in the state to determine if they were above a certain threshold number, which varies by degree level, majors enrolled, degrees conferred, and students enrolled in upper division classes from other majors. Programs that did not meet at least one of the criteria were reviewed.

Some programs under review were "continued under close scrutiny" in spite of low enrollments for various reasons. The programs may be central to the curriculum: While the Council has eliminated chemistry, history, and German majors in the past, it is reluctant to terminate all the science programs or all languages and literature majors at any individual institution.

Institutional size is sometimes a factor. By the numbers, Eastern Shore Community College is so small that it could only support one major, and the physics program at Virginia Military Institute, which it considers central to its mission, would have to close, even though a respectable percentage of V.I. students major in physics.

Some programs are vital to employers but of little interest to students, such as medical technology programs; if these can be offered economically or if employers are willing to subsidize them, the Council has been inclined to let them continue.

Over the years, the Council's productivity actions have reduced the total numbers of degree programs in Virginia. In 1993, Virginia had 103 fewer degree programs than it did in 1976. Nevertheless, in its recent report on the Council, the Joint Legislative Audit and Review Commission (JLARC) concluded that the Council's performance in the review of program productivity was unsatisfactory. JLARC noted that as of March 1994, 69 of the 99 programs "under close scrutiny" for 1987-1994 were still offered without significant alteration.

JLARC suggested that the Council raise and broaden its productivity standards and include considerations of program quality. In response, the Council of Higher Education has created a new procedure for productivity review. Institutions are categorizing their programs as "weak" or "strong," and as "essential" or "peripheral" to their missions. Programs that fail to graduate sufficient numbers of students will be subject to detailed review of other quantitative measures and of their quality.

In addition, the Council, the institutions, and the staff of the Continuous Electron Beam Accelerator Facility will begin a comprehensive review of all undergraduate and graduate physics programs early in 1996. This review is intended to serve as a pilot for other system-wide reviews of various disciplines.

Most programs that are closed will be small, and closing them alone cannot yield the productivity gains needed to keep an institution's best and most central programs healthy in lean times. The restructuring plans just submitted by Virginia's colleges and universities suggest that institutions are beginning to terminate some larger programs that, for reasons of student or employer interest, quality, cost, or centrality to the institution's mission, should no longer be offered. Through restructuring, institutions to date have closed or slated for closure 49 programs, and they are reviewing others. In the future, both program approval and productivity review should be subsumed into the on-going restructuring processes of the institutions.

We recognize the validity of the arguments we have heard about the necessity of some duplication. And we acknowledge the Council's efforts to keep programs from proliferating. But still, we are concerned.

There are numerous examples of institutional "creep": the process by which institutions strive to achieve the next highest rung on some ladder of prestige. Over the last ten years, three of our doctoral institutions moved up from comprehensive institutions. Three of our six doctoral institutions are now in the top tier of research institutions. Several of our comprehensive institutions have begun to offer masters and even doctoral-level programs.

So there has been movement, which appears to provide a diverse research base across the state. But we think that Virginia should not have seven, eight, or nine doctoral degree-granting universities. There are three comprehensive institutions that aspire to that status. From this point forward, there should be close scrutiny applied to new doctoral programs requested anywhere but in the six doctoral degree-granting institutions.

Even this does not go far enough. Doctoral programs are of various types and fit various markets. It is arguable, for instance, that doctorates in nursing should be close to population centers so that place-bound professionals can pursue advanced degrees. But doctorates in English, Experimental Psychology, or Religious Studies are part of national markets, and we ought to look at whether our programs contribute to an unnecessary glut of PhDs seeking work in industry and higher education.

It is not only possible but probable that certain traditional doctoral programs offered by the six doctoral-level institutions enroll too many students. It also is possible that some should be discontinued.

Advanced graduate students add to the prestige both of universities and of the faculty who supervise their research. In the sciences, particularly, they are relatively inexpensive instructors and laboratory assistants: Whether the market needs more newly minted PhDs or not, often a successful faculty member's large research program cannot operate without numerous graduate students to do the work.

We recognize the value of research in American universities. We also recognize that the

faculty member with a successful program of funded research usually pays the stipends of graduate students from his or her grant funds. But these enrollments are not without cost to the Commonwealth's taxpayers as well. We call for the Council to study what it actually costs to run advanced graduate programs, and to present to the General Assembly its recommendations for change.

With regard to the existing programs and activities of Virginia's colleges and universities, we find it easier to condemn duplication than to remove it in a way that really saves money. The things that might be eliminated or combined for significant savings are those that enjoy wide support, not the standard bachelor's degree majors in history, geography, or business.

Experts advise us that closing an undergraduate program in history or geography just means that the students will come to college and major in something else. Closing the more costly or specialized programs means real savings. But each has political support that probably is stronger than the impulse to efficiency and cost reduction.

We want to acknowledge in this discussion of duplication the special role of Norfolk State and Virginia State universities within Virginia higher education. These universities have distinguished histories of service to African-American citizens and many others who have sought advanced education. Their future role in graduate education should be acknowledged as Virginia and other states seek to increase the pools of potential employees with specialized skills and training.

But even here we do not find justification for program duplication. While we applaud, for instance, Norfolk State's progress in developing its program in chemical physics, we think that the future of doctoral programs in this and other sciences lies in cooperation with Old Dominion University. The two universities can work together while Norfolk State builds science strength, eventually becoming partners in joint degree programs. In the same way, Virginia State and Virginia Commonwealth universities can cooperate to build strong graduate programs that take advantage of Virginia State's experience in dealing with educationally disadvantaged persons.

Now that the Continuous Electron Beam Accelerator Facility (CEBAF) is operational, our academic physicists have organized themselves across institutional lines to share teaching, dissertation advising, and research projects. Their goal is to work with the staff of CEBAF to provide a critical mass of physicists who can keep CEBAF research on the cutting edge of physics. Given CEBAF's interest in industrial applications, we are encouraged that the faculty of the state's physics doctoral programs are cooperating to make their programs and CEBAF's research capacities as productive as possible. We recommend that the Council of Higher Education develop plans for cooperation in graduate education involving these institutions and others in Virginia as appropriate.

Further, should some institutions be slow to react to negative reviews, the commission encourages the Council of Higher Education to take unilateral action to close programs.

While the Council in many cases has been able to talk institutions into closing programs, the Council and the institutions need to know that the public expects determined actions, and that decision-makers in state government will support such determined actions when the case for closing a program clearly has been made.

D. Academic Standards

Perhaps no question is more debated among academics and those who care about higher education than whether our colleges and universities still hew to standards as high as those they held several decades ago. We see two sides of the issue: the level of preparedness of the incoming student, and what the student gains from his or her years on campus.

We see conflicting evidence about whether academic standards have moved up or down. We have seen some troubling evidence that students are not well-prepared for college: twenty-six percent of Virginia's public high school graduates attending college in 1993-94 required remediation in at least one subject area. That's 6,226 young adults who had to be taught high school math, English or writing on our college campuses. Some school divisions had as many as 75 percent of their high school graduates requiring remediation once they got to college.

Again, we see two sides to the issue. Are the students less prepared, or are our colleges and universities accepting more students who are unprepared for college? To answer these questions, we look to the data we have on college exam test-takers, and data on admissions and acceptances.

From these data, we know that total SAT scores are up slightly, from 893 in 1992, to 896 in 1995. But, while this change is encouraging, small increases or decreases in average test scores are not significant. What is important is that more Virginians than ever before are taking the SAT's (65 percent of high school graduates), and the average test scores have not changed significantly over the last 15 years. This means that a broad range of students is performing fairly well. In addition, more high school graduates than ever before (70 percent) are pursuing some form of post-secondary education.

As more students have come to Virginia higher education, the institutions that were always selective have become more so. Other institutions, having more students from which to choose, have also become selective. Across the Commonwealth, the trend of the last 20 years is for Virginia's system of higher education to increase selectivity. But when high school enrollments have gone down, the colleges and universities have dipped deeper into admissions' applicant pools.

These facts are encouraging as we examine standards, but we are still concerned about the need for remediation, and who should provide that service. We acknowledge that the community colleges should be the primary vehicle for delivering remediation, or for providing basic courses for those students who did not follow a college preparatory track.

Four-year institutions should have only limited remediation efforts that are extremely narrow and focused. And, we expect our colleges and universities and local school divisions to work closely to provide the kind of information that both need to improve student performance

Finally, we know that we do not know enough. No enterprise as large as Virginia higher education—a \$3.5 billion annual investment by taxpayers, tuition-payers, and others— should be vague about its results. All of us who have a stake in Virginia higher education need better information about what we actually get for our money:

—What do students know and what can they do when they leave college?

—What kinds of learning experiences do students get for their money?

—Do alumni (one group of customers) think their investment in higher education was worthwhile? Do employers (another group) think the alumni they hire are adequately skilled and knowledgeable?

—What businesses were helped, saved, or attracted to Virginia by the efforts of colleges and universities?

—What did it cost Virginia taxpayers to do research supported by the federal government and industry?

—What are the verifiable benefits to Virginia of the research that is done?

The educational functions of colleges and universities— instruction, research, and service—are not very precise. They cannot be measured the way one can measure tolerances in a machine shop or failure rates in a microchip manufacturing plant. Often the most exciting results of education are the most unexpected—the student who is inspired to go beyond her teacher; the pluggger who persists despite huge obstacles and finally makes it; the scholar who creates something, be it literature or technology, that helps us to live better lives.

We recognize that much of the value added by higher education is intangible. At the same time, we want increased accountability for the results produced with the money we invest. The two are compatible if higher education is treated with care and respect, and we encourage our colleagues and others to support both.

We recommend that the Council of Higher Education be encouraged to continue and extend its “Indicators of Institutional Mission” project to include information about the kinds of questions we have asked. We also feel it is important that each institution provide the same objective, comparable information in order for this data to be used for decision making.

We further recommend that the Council work with the colleges and universities, the Southern Regional Education Board, and national testing organizations, as appropriate, to

identify standardized examinations that would help to determine what students learn as a result of their undergraduate studies.

E. Changing Learning Through Technology

By now it has become commonplace to write about how our lives are changing under the influence of advanced electronic technology. It's here to stay and it has become a major influence on colleges and universities everywhere. They teach its use, they use it to teach and do research, and they use it to provide the administrative support services that keep the institutions open for business.

Advanced communications and computing technology, in short, is a major part of both the form and the content of higher education as we know it today. For succeeding generations it will be the same, only more so. Technology has transformed the higher education experience. We need to encourage and support new applications to even further transform higher education.

One of the objectives of this commission was to identify areas that can be fostered to facilitate the restructuring process. Restructuring, as viewed by this commission, means rethinking and re-evaluating every facet of the academic experience. Restructuring is not simply a means to cut costs and teach more students, but a way to radically rethink how we go about providing higher education in Virginia. Nowhere do we see more opportunities to depart from the old ways and attempt new approaches than in the area of technology. We believe that technology has much to offer in three areas of concern: improving instruction, providing access, and avoiding unnecessary duplication.

Examples of instructional technology viewed by the commission demonstrate that the learning experience can be significantly changed, and hopefully improved, through the use of technology. Are we supporting the development of these new approaches? Can new technologies supplant traditional teaching methods, and the credit-hours-equals-competency model of assessing learning?

Fortunately, several good examples of technology exist at our colleges and universities. One of the most exciting places to be on a college campus is in the classroom where the teacher has integrated technology into the curriculum. Applications using CD-ROM technology allow a poet's voice to come to life in a literature class. Computerized models let students test the properties of ceramics in engineering programs. Future physicians practice their diagnostic skills using programmed patients.

We should encourage similar examples of true integration of technology into the curriculum. By this we don't mean simply using a personal computer for homework, or displaying computer-generated slides on a screen, but applications where the medium of technology brings a new dimension to the course.

We must encourage and support the institution to develop new and better ways of using technology in teaching and learning. Technology has great promise to vastly increase productivity in instruction, gradually but dramatically, over a period of a few years. This initiative requires the development of additional software to accomplish this. To truly capitalize on the potential of technology, we need to realize that new technologies allow us to design applications that provide sights, sounds, interactivity, and feedback that could not be made available before.

To achieve this objective, we cannot ignore that we need to teach teachers how to use the technology and how they can incorporate it into the curriculum. A recently released report on technology in the classroom cautions that technology cannot just be dumped into schools—teachers must learn new ways to teach and assess students' progress

A good example of teaching the teacher exists at Virginia Tech. Over a four-year period, all faculty will have the opportunity to participate in an intensive workshop centered on the integration of instruction technology into the curriculum.

We don't see technology as replacing the instructor, but rather as supplementing his or her role. It is encouraging to hear that students and faculty communicate more freely through electronic mail, at all times of the day, in a way that regular office hours could never accommodate.

We also hear positive reactions from students about courses using technology. An assessment of instructional technology applications at Virginia Tech reports that, in general, students believe they are being provided more opportunities to develop skills, including problem-solving and critical thinking. It is such skills as these that will prepare Virginia's students to compete in a global marketplace. We want to see this kind of assessment documented so that we can evaluate the effectiveness of technology in the classroom, and to target where more resources should go.

New instructional technologies which extend the reach of the faculty should be promoted as a means to increasing productivity, and providing educational opportunities to time- and place-bound students. A key factor in improving access will be a communications infrastructure that can link each college and university, community college, and, ideally, public schools and business. The Commonwealth should encourage the development of a network to support the concept of a statewide virtual campus that can deliver instruction to individuals or organizations, free from the constraints of distance and time.

Again, Virginia has exciting examples of such technology in place that can serve as models for similar ventures. Old Dominion University's Teletechnet is a state-of-the-art digital network designed to deliver baccalaureate programs from Old Dominion in partnership with the Virginia Community College System. Participating community colleges offer the first two years of degree programs, and Old Dominion provides courses via Teletechnet for the last two years at the community colleges. By the year 1998, at least 30 community

college sites will be developed, 20 degree programs will be offered, and 400 courses delivered.

Not only will Teletechnet serve those students unable to leave their residence to attend a four-year college, the network will also help stimulate economic development in areas of the state where there is a shortage of highly trained employees in critical occupations such as engineering and nursing.

Bringing a complex delivery system like Teletechnet into being requires Old Dominion University and the Commonwealth to weigh several factors. For one thing, we want to be careful that the system does not deliver programs that compete directly with programs already offered by local institutions, be they state-supported or independent. But at the same time, we must recognize that technology based delivery systems incur substantial start-up and operating costs, and have to generate a high volume of enrollments in order to be cost-effective. Popular professional programs like nursing and business of necessity must be part of what Teletechnet delivers in order for it to realize its potential.

The services offered by colleges and universities, including efforts like Teletechnet, are subject to the economics of the marketplace. We urge the state-supported and independent institutions to work out arrangements for program delivery that are as constructive and cost-effective as possible. The Council of Higher Education should continue its efforts to promote cooperation as the technological transformation of higher education accelerates.

As Virginia moves to link higher education, the Commonwealth should adopt a policy of buy, rather than build when it comes to technology infrastructure. Changes in technology, coupled with changes in the telecommunications regulatory environment, have spawned an array of private-sector firms ready to provide products and networks to higher education. While the Commonwealth could conceivably save funds in the short term by constructing its own telecommunications infrastructure (as some states have done), these savings may be lost by investing in a technology that could soon become obsolete. Therefore, Virginia's colleges and universities should be encouraged to buy telecommunications services, rather than to build the infrastructure themselves.

We will reach a point when everyone can have the most advanced form of communications and computing technology available to them. But because we aren't there yet, our obligation is to ensure that everyone in Virginia's colleges and universities has access to that technology, that having or not having a personal computer does not divide students or institutions into haves and have-nots .

We propose these strategies to deal with the needs for advanced technology in our colleges and universities.

The institutions should be encouraged to establish communications infrastructure, both within institutions and among them. Working with the Council of Information Management, the Council of Higher Education should ensure that the networks built are all compatible.

Institutions should also be encouraged to develop cooperative programs that incorporate distance learning technology to eliminate unnecessary duplication of high-cost programs.

Faculty should be trained in ways to integrate technology into the curriculum. Institutions should share resources and expertise to train faculty, and charge for the service.

The institutions should encourage students to purchase their own computers, but they should maintain a pool of computers for students who do not do so. They should tell all entering students exactly what capacities their personal computers will require in order to give them access to the institution's network.

Finally, the Council should modify its formula for determining eligibility for student financial aid to include the cost of a personal computer as a higher education expense, when it is required by the institution.

We also recommend the creation of a committee to study what methods have been developed and could be developed to enhance teaching and learning through the use of technology. The study should focus only on the development of new software and redesigned curricula that will usher in a new age in instruction, and has the potential to vastly increase the productivity of our faculty. The study committee should not only review existing and proposed learning venues, but determine costs of implementing a phased approach, and suggest ways that private technology companies may be enticed to develop the necessary programs as a commercial enterprise.

F. The Role of Higher Education in Economic Development

Virginia's community colleges and senior institutions support Virginia's economy and its growth in a variety of ways. For example, in today's information-based economy, an individual's lifetime earning power increases with educational attainment. According to the Southern Regional Education Board, the monthly earnings of a community college graduate are one-and-one-half times that of a high school graduate. A four-year college graduate earns nearly twice as much as a high school graduate. Increased earnings mean a higher standard of living for the worker and his or her family, as well as increased tax revenues for the community and the Commonwealth. Higher education provides access to an improved quality of life in Virginia.

With increasing frequency, institutions are serving as information and resource brokers for business and economic development professionals in the state. Through such efforts as collaborative applied research with business and industry, the delivery of industrial training and retraining, the operation of small business development centers, and participation in various economic development partnerships, the institutions contribute significantly to regional economic development efforts. Higher education has frequently been cited by business and industry leaders as a major factor influencing business location decisions.

While higher education has begun to venture in the economic development arena and has demonstrated some significant successes, institutional efforts to date have not been comprehensive or coordinated and many businesses still feel that they do not know where to turn when they need assistance. In response, the presidents of Virginia's public colleges and universities in May of 1995 developed a plan of action to strengthen higher education's capacity to support economic development.

The basic elements of the plan call for each institution to name a director of economic advancement to coordinate institutional support of economic development. Each institution should establish or join forces with a regional round table of business leaders to identify regional focal industry, identify essential educational support, and report on regional higher education actions required to support economic development. Ultimately, the directors of economic advancement and representatives of regional focal industries are to develop a comprehensive plan for Virginia's higher education support of economic development based on findings of reports. The plan would be included in Opportunity Virginia, the statewide economic development initiative.

The commission endorses these efforts and asks that the institutions place a high priority on activities in this arena. Institutions must work with each other, with business and industry, and with other economic development organizations to ensure that the needs of business and industry are clearly identified, that services and resources are in place to address these needs, that the availability of services is clearly communicated to business and industry, and that duplicative and unnecessarily competitive efforts are avoided. We also recommend continued support for the state-wide efforts of the Center for Innovative Technology to identify high-tech or other industries which can be promoted in Virginia.

III. INVESTING IN VIRGINIA'S COLLEGES AND UNIVERSITIES

A. Assessing Funding Support for Higher Education

Mr. Sidney O. Dewberry, a member of this commission, presented to the commission a thoughtful analysis of the higher education funding situation in Virginia. In doing so, he was ably assisted by Dr. Ernest M. Jennelle, whom the commission also thanks for his contribution. This chapter will not repeat the excellent work done by Mr. Dewberry and Dr. Jennelle.

But several points in the Dewberry-Jennelle analysis should be emphasized. The first among these is that the process known as "restructuring" should continue and even intensify within Virginia's colleges and universities. Clearly, Virginia has entered a period in which state government can no longer provide services in the same ways it has provided them. This is as true of higher education as it is of transportation, public schools, health care, and other social programs.

Our colleges and universities face enormous challenges. They must prepare to teach more students; they must prepare to teach them differently and to teach them skills and knowledge that will help them contribute to a technologically sophisticated economy; and they must find ways to contain the per-student cost of instruction. This is what “restructuring” is all about. The institutions’ initial plans and efforts are impressive, and we commend them for facing up to the challenges. But the work is not finished and many tough decisions and difficult changes lie ahead.

Second, support for higher education is an investment in the future. It is an investment in the capacities of Virginia taxpayers and their families to contribute to economic growth. Economic development has been described as a “contact sport.” One of the fundamental contacts is between a skilled workforce and an industry looking to grow or relocate. The Motorola, IBM-Toshiba, and Gateway relocations announced during 1995 are evidence of three corporations’ faith that Virginia can educate men and women who will do sophisticated work. This commission believes that current levels of state support, if continued, soon will diminish our institutions’ capacity to deliver, and will damage the reputation of Virginia higher education for years to come.

Third, the increase in spending per student by Virginia’s colleges and universities has, on average, been almost exactly the same as the increase in inflation (sometimes called the “CPI,” or “consumer-price index”). This kind of increase is reasonable because institutions are buying supplies and equipment in the national economy and trying to give almost 30,000 employees salary increases so their purchasing power does not diminish. Further, for the community colleges, purchasing power actually has diminished. With a curriculum focused heavily on occupational-technical programs, reduced spending power significantly hinders the community colleges from maintaining the technology, equipment and specialized full-time faculty required to train and retain a highly skilled work force to meet the changing needs of the workplace.

But students and their families, who are the consumers of higher education and also the taxpayers of Virginia, have picked up an increasing share of this higher education spending. Tuition and fee charges have replaced lost state support. For 20 years, from 1969 to 1989, average undergraduate tuition and fees for Virginians was about 13.5 percent of average per capita income. Since 1989, it has risen to 17.3 percent, good evidence that most Virginians may be finding it more difficult to pay the costs of college education.

We commend several initiatives of the Governor, General Assembly, and the Council of Higher Education. We needed to put a lid on tuition increases, as Governor Allen and the General Assembly did in 1994. We needed to give students and their families some certainty about tuition charges during the course of their undergraduate careers, as the Council of Higher Education recommended this fall in response to a study request initiated by the Governor and the General Assembly. And we needed to provide a long-term investment vehicle to help parents with young children begin saving now for college educations that are ten or more years in the future, as the General Assembly did in creating the Virginia Higher

Education Tuition Trust Fund.

These controls on tuition and saving vehicles are desirable, and cost containment on the part of colleges and universities is mandatory. But these are not enough. State support of Virginia higher education needs to be increased dramatically. Students and others served by Virginia's colleges and universities need state government to resume its commitment to pay an appropriate share of the costs of higher education.

In the 1995-96 academic year, Virginia is still mired in 43rd place among the states in per-student state support for higher education. Our system, which received 14.5 percent of the state's general fund appropriation as recently as 1989, now receives about 12.6 percent. Tuition and fees for state universities like James Madison, Virginia State, and Longwood are second highest in the nation; for research universities like the University of Virginia, they are 8th highest.

We have experienced a massive shift in responsibility for paying for college from the state to individual students and their families. Tuition that supports half or more of the institutions' educational programs is, in reality, a user fee levied upon those who must have educational opportunities in order to succeed in life. This commission believes that it is time to roll back these fees.

While we applaud the initiative shown by Mr. Dewberry and Dr. Jennelle in their analysis of higher education funding, this commission does not believe it has either a mandate or the expertise to make specific recommendations about the higher education budget in the coming biennium. We do, however, offer for consideration several general observations upon which funding policy for the years ahead might be shaped.

First, we know we need to increase the state appropriation per student. We believe that higher education has value, and that we don't need to give it away with bargain basement tuition rates. On the other hand, we think that low funding per student sends the wrong message to students and the business community. We know that there are advocates for much higher levels of funding. But as we examine the historic record, we note that when Virginia was funded at about the mid-point among the states, its system of higher education was regarded as among the best in the nation. We want our colleges and universities to be adequately funded but we also want to encourage thrift and innovation.

Second, we recommend that the balance between state general fund support and tuition and fees, which are the two sources of revenue that pay for the educational and general operations of colleges and universities, should be restored to where it was in 1989, at the community colleges and at the undergraduate level for resident students. We think this is especially urgent for Virginia undergraduate students. Overall, tuition and fees now comprise just over half the revenue spent on educational and general programs; in 1989 tuition and fees comprised 37 percent of the total for baccalaureate-level institutions and about 25 percent of the funding for community colleges. Then, undergraduate Virginians

paid about 25 percent of their costs at the senior institutions and about 20 percent in the community colleges; now they pay 38 and 34 percent, respectively. We think the funding sources need to be re-balanced.

A first step here would be to accept Mr. Dewberry's suggestion (page 15 of Appendix A) that higher education funding increases in the next several years come entirely from the state's general fund with no increases in tuition and fees. An alternative is to apply this principle to the tuition of Virginia undergraduates but to allow other tuitions to increase moderately.

Third, adequate faculty salaries are essential. In every field of human endeavor, from business to professional athletics, we can see that "money talks." The best teams are assembled by organizations that are willing to pay good salaries and to provide other, less-tangible forms of compensation.

Fifteen years ago, outstanding teachers and scholars were moving from the east coast to the western and southwestern states for bigger salaries and better facilities. Virginia reversed that trend in the middle 1980s when it made a commitment to increase average faculty salaries to a level substantially above the average of each Virginia institution's group of "benchmark" institutions nationally. This commitment resulted in several years of double-digit average faculty salary increases. Suddenly, all roads led to Virginia. By 1989, the objective had been reached and all institutions were at least at the 60th percentile of their list of benchmark institutions.

Six years later, following a series of increases that did not keep up with inflation, our institutions average around the 30th percentile of their benchmark groups—20 points below the average salaries of institutions most like themselves. While there are individual instances of "stars" who have been lured away from Virginia universities, the more significant reports come from provosts and vice presidents for academic affairs about their recruiting efforts. In the late 1980s, these administrators report, they were able to hire virtually every one of their top choices. Now they get one out of two or three.

The commission recommends that Virginia commit itself to faculty salaries that are above average nationally, and a rededication to the principle that all institutions be at the 60th percentile of their benchmark institutions. Salary increases should be based on performance and tied to rigorous review of all faculty, tenured or not. But we emphasize what seems to us to be fundamental: the major resource of colleges and universities is human capital, the men and women who are responsible for the rich variety of learning that must occur in outstanding institutions of higher education.

We also think it is important to support the Eminent Scholars program which matches with general funds the income earned on endowed professorships, to help our colleges and universities attract truly outstanding faculty.

Fourth, Virginia has to invest in technology, especially advanced computing and communications networks. We have spoken on this subject earlier and will not repeat ourselves. But Virginia is not ahead in this area, especially in the networking that is essential to connect our universities with one another and with the industries they serve. Virginia does have many assets on which to build. The Virginia Community College system in partnership with Virginia Tech and Old Dominion University has initiated planning efforts to develop a broad band, wide area network that will extend across the Commonwealth for use by all institutions as well as local schools. Using the 38-campus structure of the VCCS as the backbone of the network, the long term goal is to provide a robust telecommunications infrastructure throughout the state, the ultimate goal being the extension of network-based courses to substantially more students at lower costs. We need a major investment in such a system for the good of higher education and also for the economy as a whole.

The Higher Education Equipment Trust Fund seems to be the best mechanism available to provide instructional and research equipment to our colleges and universities. But the fund will have to increase in size and probably should be expanded to include equipment used administratively to serve students. On-line career placement systems, for instance, or administrative systems that relieve students from the necessity of standing in multiple lines in order to pay their bills, register for classes, and apply for financial aid, are items that should be eligible for funding through the equipment trust.

Fifth, higher education needs an on-going, predictable source of capital funding for renovations and construction of new facilities. We commend the six-year planning process that has been introduced; it gives administration officials, legislators, and higher education administrators a much better sense for the order in which facilities need to be renovated or constructed. But the commission does not think that higher education can rely upon occasional general obligation bond issues to meet its capital outlay needs.

Several years ago, the possibility of using debt issued by the Virginia College Building Authority as a means of financing state-supported college and university building and renovation was discussed. We recommend that this possibility be considered once again. Prudent, orderly issuance of debt to finance capital outlay seems to us to be an essential part of state government's responsibility in the future.

Sixth, need-based financial aid and grants provided under the Guaranteed Assistance Act for students attending the public institutions must keep pace both with cost increases and with the increasing number of students who are eligible. While appropriations for financial aid have more than doubled over the last three biennia, Virginia in the same time-frame has slipped from meeting 50 percent of a students remaining need, to less than 35 percent. The Council of Higher Education recommends that the 50 percent level be restored by 1997-98, and the commission endorses that proposal.

Seventh, we need to look differently at how we can use the strong resources of Virginia's independent colleges and universities. We are told that the independent colleges and

universities have capacity to accept 7,000 more Virginians. We need those 7,000 places. The Council of Higher Education has told us that it is planning on them as it develops its estimates of capital outlay needs in the state-supported colleges and universities.

We want to acknowledge here the value of the Tuition Assistance Grant Program in Virginia higher education. Created more than 20 years ago, this program has provided non-need-based grants to thousands of Virginians attending independent colleges and universities. In so doing, it has helped numerous institutions survive uncertain times.

But the Tuition Assistance Grants have been frozen in place, like all of higher education during the past six years. The grant was at \$1,500 in 1989 and it has not increased since. We recommend that this program receive the same careful attention that we recommend for the funding of state-supported higher education in the coming years. Both should increase at the same rate to emphasize the historic strength of a single system of private and public institutions. We also support continuation of the pilot program that provides incentives for community college transfer students in areas not served by a public institution to stay home and attend the local independent institution.

Eighth, we recommend that the Council of Higher Education, in consultation with the state-supported colleges and universities, develop a cost accounting procedure that will, at the least, enable policy makers to know the actual average annual cost of educating graduate, professional, and undergraduate students. The current methods, all of which are only approximations based upon enrollments and revenues available to the institutions, are not sufficiently precise for an undertaking that spends well in excess of \$3.5 billion a year.

The Council should estimate the cost of developing a cost-accounting procedure and present its finding to the House Appropriations and Senate Finance committees by the end of the current fiscal year.

B. Virginia's Community Colleges

We are troubled by the apparent incongruity between the roles played by Virginia's community colleges and the ways in which they are funded. We recognize that enrollment-driven guidelines have not been used in Virginia for almost a decade, but it still remains true that institutions are funded roughly according to how many students they enroll. Indeed, it is difficult for us to imagine a funding procedure in which this was not at least in part true.

But community colleges are not just "cut-down" universities. Their mission and the students they serve are often quite different from four-year colleges and universities. The community colleges often serve as the community platform from which education and training services from a variety of providers can be made available. In addition, the VCCS increasingly provides non-credit, contracted instruction to business and industry, providing services to almost as many students in non-credit courses as they do in credit. Community

college non-traditional students come and go, and return again, based on individual needs and changes in workplace demands for knowledge-based performance. They frequently do not earn degrees; in fact, they often enroll with no intention whatsoever of earning degrees but instead have a specific job-related goal in mind.

We recommend that the General Assembly direct the Council of Higher Education, working with the Virginia Community College System, to develop and propose a new way of strengthening and focusing the funding for community colleges. Perhaps the Council can devise a funding method that recognizes and appropriately supports four distinct groups of community college students:

—Those enrolled to earn an academic degree, whether they intend to transfer to a senior institution or not;

—Those enrolled to achieve a specific educational objective short of an academic degree and perhaps no more extensive than a single course;

—Those enrolled for specific training under contract with Virginia industries in which the state has an economic development interest; and

—Those enrolled for avocational or recreational purposes.

The community colleges are a critical and often-overlooked part of Virginia's economic development team. The health of existing Virginia industries often depends upon the continuous training of workers, and the attractiveness of Virginia to firms considering new sites often depends upon the availability of a skilled workforce.

From what we have seen, we question whether the community colleges have adequate resources or support to fulfill their responsibilities as part of the economic development team.

IV. THE LINK BETWEEN DECENTRALIZATION AND ACCOUNTABILITY

Virginia's system of higher education has made "accountability" one of its three key goals since the Virginia Plan for Higher Education was published in 1974. (The other two goals are "access" and "high quality.") Twenty years ago, institutions were developing the financial systems that would enable them to demonstrate good stewardship of the money appropriated to them by the General Assembly. Generally speaking, that objective has been reached and the focus has shifted from accounting for all the money to accounting for the results achieved with it.

We are interested now in clear demonstrations of what taxpayers, tuition-payers, and other

investors in Virginia higher education are getting for their money. This is the “new accountability” in higher education.

It is at this point that the decentralization efforts of the past decade and the current efforts to restructure colleges and universities come together. For more than a decade, Virginia has slowly been decentralizing operating responsibility to its state-supported colleges and universities. Beginning with a set of financial performance measures that institutions had to meet in order to be eligible for additional autonomy, state government has moved toward relinquishing direct operating control of many standard activities, at least on a pilot basis.

Accountability for results began formally about a decade ago, when the Council of Higher Education proposed that each institution begin assessing undergraduate student learning. The Council’s primary objective was to promote curricular change and improvement within the institutions, and the process has produced notable but spotty results. More important from the standpoint of accountability, results across institutions are not comparable.

The Council and the institutions now have put in place a set of “performance indicators” that will be used beginning this year to describe characteristics of each institution. These are the kinds of things consumers and other stake-holders want to know about colleges and universities: academic profiles of entering students, average class sizes, frequency of contact with senior faculty, graduation rates after four and five years, job placements, and so on.

We think that the Council and the institutions should include among these “indicators” the results of alumni and employer satisfaction surveys. Institutions and the public ought to know whether graduates think they have been well-prepared and employers are satisfied with those whom they hire.

We also encourage the Council and the institutions to experiment with standardized achievement examinations as a way to determine what graduates know and can do after completing baccalaureate or associate degrees. We know that there are legitimate causes for concern about statewide examinations, particularly because they can lead to misleading comparisons among institutions with different missions and students. But we also hear expressed more than a little concern that standards have slipped over the years. Those responsible for Virginia higher education should do everything possible to monitor their own quality.

Having begun to decentralize and promote accountability for results, we think further steps may be appropriate in the near future.

We propose that the Council of Higher Education develop and present to the Governor and the General Assembly a plan whereby Virginia might assign selected colleges and universities greater responsibility for their daily operations and for their long-term development. We see this as the continuation of the restructuring and decentralization efforts that currently are reshaping our system of higher education. Eventually, all of Virginia

higher education might participate in this extension of results-oriented accountability.

The Council's plan should be developed in close consultation with the leadership of Virginia's colleges and universities, with the agencies of central state government that now oversee many of the daily operations of the institutions, and with cognizant committees of the General Assembly. In preparing its plan, the Council should consider the possibility that certain schools or colleges within a university might be recommended for independent status, as well. The plan should provide for evaluation of its effectiveness after a period of time by appropriate committees of the General Assembly.

We do not foresee this plan diminishing in any way the active involvement of the Governor and the General Assembly in shaping our system of higher education. Rather, we foresee a lessened need and justification for central government to oversee and overrule daily operational transactions of the institutions. But the checks of executive and legislative oversight, fiscal audit, and Council of Higher Education coordination will remain intact.

We believe that the faculty, administrators, and staff of the institutions will assume greater responsibility for the results they produce when they are given greater responsibility for their operations. This is true not only of institutions of higher education, but of any organization. If the state intrudes, oversees, or over-rules, college and university employees will regard their obligations to the public as diminished because they are not in control.

When the Council of Higher Education proposes a plan that is acceptable to the Governor and the General Assembly, we envision that selected colleges and universities with strong records of excellent administrative performance might become quasi-public entities that are responsible for all of their own operational processes. As instrumentalities of the state, they would continue to serve its citizens, businesses, and institutions. Their missions and clients would not change, but the forms of their accountability would change.

This might mean, for instance, that all personnel functions would be managed by the institutions. Although employees could continue to participate in benefit programs (the Virginia Retirement System and the health insurance system, for example) other options might be made available to them.

Administrative systems, such as accounting and purchasing, could be independent of the administrative regulatory processes of central state government, but the institutions would be responsible for complying with the general laws of the Commonwealth, and their financial management would be subject to review by the Auditor of Public Accounts.

To ensure that the colleges and universities remain responsive to the needs of Virginia taxpayers, students and their families, businesses and other institutions, they and their boards would continue to conduct their business under the provisions of the Freedom of Information Act. In addition, the Council of Higher Education would continue to approve enrollment projections, paying particular attention to maintaining an appropriate balance between in-state

and out-of-state students. The Council also would continue to make operating and capital outlay budget recommendations to the Governor and the General Assembly and to advise both the executive and legislative branches on matters affecting higher education.

To further ensure coordination of the system of higher education, the institutions that might be assigned this special status would continue to be subject to all other planning, review, and approval procedures of the Council of Higher Education.

The selected institutions might be permitted to finance capital auxiliary enterprise and other non-general fund capital projects through the Virginia College Building Authority, subject to Department of Treasury review of financial feasibility and the Council of Higher Education's review of the programmatic justification for the proposed projects. This would be in addition to direct general fund appropriations for capital outlay and financing through general obligation or other debt.

Institutional governance would remain substantially the same, although the boards of visitors would have increased responsibility for oversight. There would be no areas that are beyond their control, as there are now.

In preparing its plan, the Council should consider the possible benefits of permitting the boards of visitors of the selected institutions to appoint a limited number of members in addition to those now appointed by the Governor. There is precedent for this in Virginia with the Museum of Frontier Culture, the Jamestown-Yorktown Foundation, and the Virginia Foundation for the Humanities.

The plan developed by the Council should also consider the possibility of allowing institutions to grant greater autonomy to selected schools, programs, or operations within the colleges and universities that could be largely self-supporting.

In closing, we emphasize again the potential advantages of this further development of restructuring and decentralization, which seem to us to be considerable.

First, accountability would be increased because the people working in the institutions would know that they are fully responsible for how the institutions operate and how well they serve their clients. They would be subject to financial audit by the Auditor of Public Accounts and academic performance "audit" by the Council of Higher Education, thus ensuring accountability for both use of resources and results.

Second, the institutions would have added flexibility to adapt to changes in our economy and the society and could move more quickly and efficiently to do what has to be done. The restructuring programs upon which they have embarked would be improved, and additional funds could be shifted from administration to teaching and other direct services.

Third, the increased autonomy would result in a greater sense of ownership by those who

work in the institutions. This, in turn, would yield more imaginative, cost-conscious decision-making. It's our institution, and we're responsible for it. No one is going to bail us out.

Fourth, the domain of state government becomes smaller as the institutions are assigned this quasi-public status. They are serving their clients rather than responding to central state agencies. This is an excellent example of how operational responsibility should be given to those closest to the points of service; government can be downsized to realize the efficiencies inherent in flexible organizational units responsible for the results they produce. Responsiveness can be increased by largely replacing pre-approval with post-audit management.

V. THE ROLE OF THE COUNCIL OF HIGHER EDUCATION

One of the recurring themes in our discussions and presentations made to the commission has been the need to strengthen the Council of Higher Education for Virginia in its role as coordinator of the system of higher education. Generally, speakers have complimented the Council on its achievements over the years but have urged that it become "tougher" on the colleges and universities in a variety of ways.

State systems of higher education are split into two general groups: those governed centrally by a single board, and those governed at the institutional level with a central board responsible for coordination, planning, and oversight. Virginia has the second kind of system, with a strong coordinating board and a set of autonomous colleges and universities.

The Council of Higher Education's general charge is to promote the development and operation of an educationally and economically sound, vigorous, progressive, and coordinated system of higher education in the State of Virginia. (Code of Virginia, Section 23-9.3) Specifically, the Council is the planning body for the system. It approves proposals for new academic programs and reviews existing ones for productivity, approves enrollment projections, sets guidelines for operating and capital outlay budget requests, makes budget recommendations to the Governor and the General Assembly, and conducts studies and administers programs at the direction of the Governor and the General Assembly.

The Council will celebrate its 40th anniversary in 1996. During the first decade of its existence, its main job was to promote an equitable distribution of resources among a diverse set of institutions. During the middle two decades of its existence, it became more influential in formulating state higher-education policy, and its recommendations came to carry substantial weight as the system of higher education took shape and grew rapidly. During much of the past decade, the Council has become a leading voice in calling for substantial change and improvement to ensure that the system remains fully responsive to the higher education needs of Virginia taxpayers.

We understand the frustrations that lead to proposals that the Council of Higher Education be strengthened. Colleges and universities can be agonizingly slow to change. But there is another perspective. The colleges and universities have served Virginia well over the past half century with relatively modest state support. Rarely, if ever, has Virginia higher education been funded in the top half of the nation's states. Taxpayers continue to seek access to them for themselves and their children. Until out-of-state tuition skyrocketed a few years ago, many fewer students left Virginia for higher education than came here. Consumers of higher education recognize the value offered to them by Virginia's colleges and universities.

And the institutions are changing, sometimes reluctantly, sometimes aggressively, but thoughtfully and responsively. As slow as the process sometimes may seem to those of us who watch it from without, Virginia's colleges and universities are moving faster than those in most other states to meet the needs of students in the 21st century.

Finally, the issue is one of balance. We want a system that behaves like a system: all of its parts working in harmony toward common objectives with minimal waste and inefficiency. We also want to support autonomous institutions governed by boards that are responsible for them. Believing, as we do, that decisions are best made closest to the place where they will be implemented, we want our colleges and universities to set their own admissions standards and decide who will be accepted as students; to hire, promote, and reward for performance the faculty and staff who make the best contributions to each institution's work; to decide what will be taught and how; and to allocate the resources appropriated to the institution and those raised by it.

Combining support for institutional autonomy with desire for a coordinated system makes conflict inevitable. Virginia's system of higher education has had its share of conflicts, about starting new schools, new programs, even about the need for change itself. But on the whole, the conflicts have been remarkably productive rather than bitter and divisive. The system is strong and fluid, not paralyzed by rules and regulations. We see colleges and universities accommodating increasing numbers of students with relatively modest investment by the Commonwealth. While economies surely can be achieved and while it is always worthwhile to press for better ways to discharge the missions of higher education, the system of higher education is functioning well at present.

Yet we realize that there are situations in which institutional ambitions outstrip the needs of the people, when getting bigger or conferring advanced degrees become ends rather than the means of service. We acknowledge that programs can be closed with little or no savings because the faculty simply migrate to other programs where they teach the same courses. And we recognize that it is possible to build a considerable amount of political support for institutional expansions. Through restructuring, the institutions have begun to set priorities among programs, deciding where to concentrate their efforts. Forty-nine programs have been eliminated as a result. Still, the Council should continue its scrutiny of program duplication across the Commonwealth to serve Virginia students efficiently and well.

In the Virginia system of governance, the responsibility for considered action at the campus level rests squarely with the governing boards of the institutions themselves. If board members were appointed and educated to understand that their stewardship on behalf of an individual institution needs to be exercised in the context of the entire system of higher education in Virginia, better decisions would be made at the institutional level.

We therefore recommend that all members of governing boards be required to participate in a formal program of education about board roles and responsibilities. Upon accepting appointment to a college or university governing board, each person should indicate to the Governor his or her willingness to participate in this formal education. (Oklahoma, for instance, requires higher education board members to take 15 hours of continuing education related to their responsibilities. The program is designed and administered by the coordinating board, which is the Oklahoma Board of Regents. The Regent's staff offers some of these courses. Other agencies, like the Attorney General's office, might offer a course on ethics and public policy for which a new board member might receive credit.) The Council of Higher Education should be directed to develop the educational program, including a manual of member responsibilities, in consultation with the colleges and universities and drawing upon the experiences of other states. It should prepare a budget for this activity for consideration by the General Assembly during the 1996 legislative session.

While we emphatically do not want the Council of Higher Education to do the kind of rigid, top-down planning that would put each Virginia college and university into a strait-jacket, we think that policy makers would be helped by having a general sense of what probably will happen in the system of higher education in the immediate future.

In consultation with the presidents of the colleges and universities, the Council should begin to prepare a broad, strategic plan of how it sees the system developing over the next six years. This plan should be revised periodically as part of an ongoing strategic planning process. The plan should include where additional enrollment growth is expected; what kinds of new programs, campuses, and technology based delivery systems are anticipated; how the faculty and staff of the institutions will change; and what kinds of financial commitments state government should anticipate in order to keep our system of higher education among the best in the nation.

We recommend that the Council be directed to begin this planning process, addressing these and such other future developments as it deems appropriate. It should present its first report to the Governor and the General Assembly in advance of the 1998-2000 biennium and revisions each biennium thereafter so they can be taken into consideration in formulating policy and budget for higher education.

Throughout this report, we call upon the State Council to coordinate more activities and develop more programs. We also recognize that the Council must continue to perform its existing responsibilities well. Therefore, it becomes obvious that the Council requires additional resources.

+ This commission concludes that Virginia needs an adequately staffed and adequately funded Council of Higher Education to continue to be an advocate for advanced learning in the Commonwealth. We cannot emphasize too strongly that an under-staffed and ill-funded Council will be unable to provide the guidance and oversight required in this time of change and restructuring. The Council should be independent of the interests of the institutions and of all the other interested parties. It should have the statutory authority and political capital to affect institutional behavior so that it serves the needs of the Commonwealth. Its advocacy should be, in the broadest sense, on behalf of the people of Virginia.

The Council's agenda should clearly reflect the concerns and aspirations of the general public, and the Council's agenda for tomorrow must include the findings and recommendations this commission makes today.

Our commission does not want and does not recommend that the Council become yet another stifling regulatory body for higher education. Yet, the commission, in very strong terms, expects of both the Council and the institutions steady, firm achievement of the changes and objectives this report calls for.

Finally, during several conversations over the past year about ways to reward some institutional behaviors and discourage others, the commission has been reminded that the Council of Higher Education lacks both "carrots and sticks." Only on rare occasions, usually when the budget bill is being written, can executive and legislative action provide incentives and disincentives for various institutional behaviors.

The Commonwealth needs the capacity to reward behaviors Virginia wants to encourage at the institutions and to discourage other behavior by withholding reward. The commission recommends that a substantial fund be created in the Council of Higher Education that would provide incentives to the institutions to meet the change and improvement challenges spelled out in this document and in their restructuring plans. The commission proposes that the details of such a fund be developed by the Governor and General Assembly.

VI. CONCLUDING THOUGHTS

During the commission's deliberations, we were challenged to clearly state our expectations for higher education — what we wanted our public colleges and universities to do. Throughout this report, we recommend a number of specific actions, studies, and considerations, and we trust that the Council and the institutions will take this report seriously.

We were also mindful that the reports of study commissions often do little more than collect dust on a shelf. To make this document the users manual that we envisioned, we call upon the General Assembly to review progress and opportunities in higher education every four years, with the first such review starting in the year 2000.

As our chairman succinctly stated in his prologue, higher education in Virginia is an asset that needs to be nurtured and supported. We trust that this report will prove a useful guide to our public and private colleges and universities, to the Council of Higher Education, and the policy makers who are responsible for nurturing and supporting higher education in Virginia as we move into the next century.

Appendices



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

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SJR 139
COMMISSION ON THE FUTURE OF HIGHER EDUCATION

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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 support-



ed 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.

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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 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.

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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 than 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 employs 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.

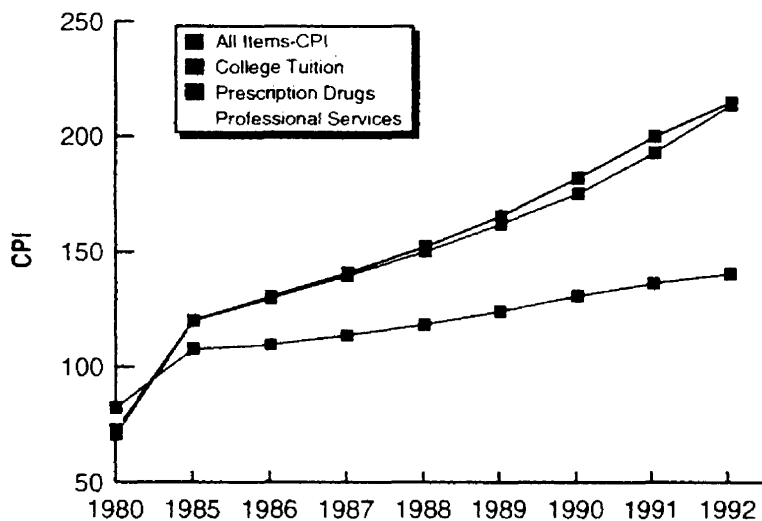
REFOCUSING FUNDING MECHANISMS

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

Institution	1973	Increase 1973-83			Increase 1983-89			Increase 1989-1994		
		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

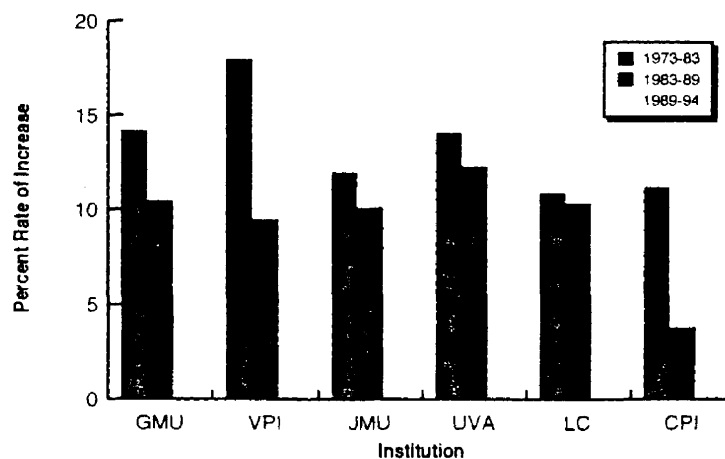




Table II summarizes the percent increase in E&G costs per FTE, after adjusting for the increase in the CPI, at 10 senior Virginia institutions plus the Virginia Community College System (VCCS). Most noteworthy is the 7% decrease in real dollar costs of education in the VCCS for the 20-year period.

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
<i>Averages</i>	<i>2236.9</i>	<i>4117.3</i>	<i>76.2</i>



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
<i>Averages</i>	<i>6542.4</i>	<i>7885.4</i>	<i>20.5</i>
<i>CPI</i>	<i>124</i>	<i>149</i>	<i>20.2</i>

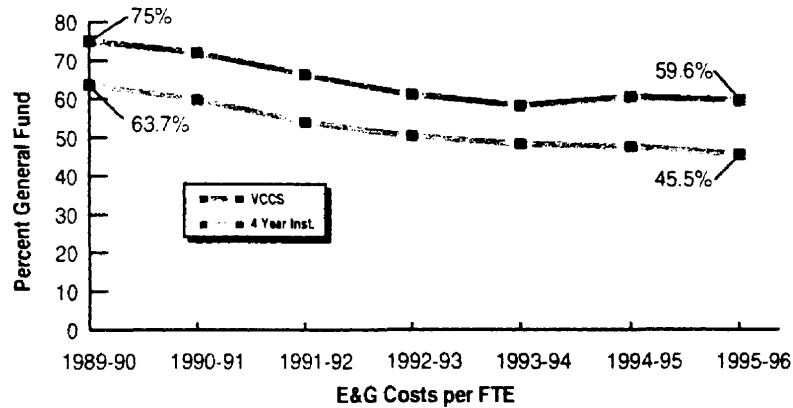
Table V presents annual General and Non-general funds for E&G costs on an FTE basis for nine institutions during the 1989-94 period. The data in Tables IV and V provide evidence that Virginia's public-supported institutions of higher learning now have E&G costs nearly in line with CPI changes. In real 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	-16.10	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 = 60.6															
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	\$2,734	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	\$6,157	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	\$9,712	-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 = 36.7 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															



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 to 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

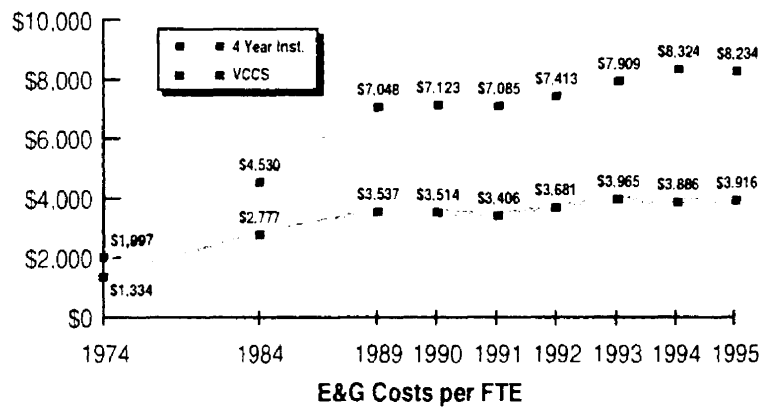


Figure 4 compares the costs of education for the VCCS and four-year institutions. It is expected that many of those who lack the financial resources to attend college could find the means to do so if credit earned at community colleges was equal to that of four-year institutions. Furthermore, if more 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 likeli-



hood 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 equip-



ment 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 busi-

ness, these savings 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 be the 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 select a college based on personal interests and the merits of each institution, rather than on financial considerations alone.

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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.

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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.

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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.*

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- *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.*
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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.

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- *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*

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&G 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	55.7
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

SENATE JOINT RESOLUTION NO. 139

Establishing a Commission on the Future of Higher Education in Virginia.

Agreed to by the Senate, March 8, 1994

Agreed to by the House of Delegates, March 4, 1994

WHEREAS, the Commonwealth's system of higher education is known for its commitment to high quality and diversity; and

WHEREAS, the system's goals of providing access to all persons who wish to and are able to benefit from higher education; ensuring excellence in teaching, research, and service; and maintaining accountability for the effective use of its resources have remained unchanged; and

WHEREAS, the State Council for Higher Education for Virginia (SCHEV) is statutorily directed to "promote the development and operation of an educationally and economically sound, vigorous, progressive, and coordinated system of higher education in the Commonwealth," and the system is characterized by its high regard for institutional autonomy; and

WHEREAS, under the provisions of the Legislative Program Review and Evaluation Act, (§ 30-65 et seq.) of Title 30 of the Code of Virginia, the Joint Legislative Audit and Review Commission (JLARC) is conducting a review of the State Council of Higher Education for Virginia; and

WHEREAS, higher education in Virginia has sustained major budget reductions in recent years and must prepare to deal with fundamental changes in state funding priorities; and

WHEREAS, Virginia's system of higher education now faces an influx of some 70,000 students over the next decade and the task of preparing those students to meet the inevitable changes in the Commonwealth's economy; and

WHEREAS, maintaining the quality of higher education and meeting the needs of 70,000 additional students will require funding that cannot be generated solely through the payment of tuition and student fees; and

WHEREAS, the development of policies and plans to address these concerns and to implement necessary changes is critical to the welfare of the Commonwealth and its citizens; now, therefore, be it

RESOLVED by the Senate, the House of Delegates concurring, That a Commission on the Future of Higher Education in Virginia be established to review the structure of the state's system of higher education, determine the efficacy of the decentralization of higher education in Virginia, and recommend an appropriate course of action for the direction of higher education in the Commonwealth. The commission shall complete a comprehensive review of all state and federal laws, policies, and regulations affecting higher education in Virginia. The commission shall also (i) evaluate systemwide and institutional policies; (ii) identify any unnecessary duplication of academic programs; (iii) propose incentives to promote greater efficiency, effectiveness, and academic productivity; accountability for student learning; and institutional personnel practices related to faculty productivity, evaluation, and rewards, including promotion and tenure; (iv) identify state policies and regulations that may inhibit state-supported colleges and universities from discharging their missions; (v) assess the relationship between state-supported colleges and universities and their affiliated foundations; and (vi) determine the role of public, independent, nonprofit, and for-profit institutions in providing postsecondary education to the citizens of Virginia.

The Commission shall consist of 17 members as follows: three members of the Senate, to be appointed by the Senate Committee on Privileges and Elections; five members of the House of Delegates, to be appointed by the Speaker of the House; the Chairman and Vice Chairman of the State Council of Higher Education for Virginia; one member of the State Council of Higher Education for Virginia, to be appointed by the Governor upon the recommendation of the council; and four citizens representing business and the general public, to be appointed by the Governor; the Director of the State Council of Higher Education for Virginia; and the Secretary of Education.

The direct costs of this study shall not exceed \$12,000.

The State Council of Higher Education for Virginia shall provide staff support for the study. The Division of Legislative Services and the staffs of the Senate Committee on Finance and the House Committee on Appropriations shall provide technical assistance for the study. The Joint Legislative Audit and Review Commission shall share the findings of its review of the council with the

ommission, consistent with JLARC reporting procedures.

All agencies of the Commonwealth shall provide assistance to the commission, upon request.

The commission shall complete its work in time to submit its findings and recommendations to the Governor and the 1996 Session of the General Assembly as provided in the procedures of the Division of Legislative Automated Systems for the processing of legislative documents.

Implementation of this resolution is subject to subsequent approval and certification by the Joint Rules Committee. The Committee may withhold expenditures or delay the period for the conduct of the study.

