

expensive and redundant graduate programs

- Test demand before adding an expensive new program
- Address demand and need for a program without delay

Cooperative Degree Programs. Currently, NCSU runs cooperative doctoral degree programs with North Carolina Agricultural and Technical State University (NCA&T) in engineering, ECU in education administration, and UNC-W in marine sciences. The consultants, in their review of the revised educational missions, called for expansion of cooperative efforts between UNC-W and NCSU and inclusion of UNC-CH in their recommendation to establish a Marine Science Research Center at UNC-W.

Distance Learning. UNC is using and expanding use of an interactive video network called CONCERT for distance learning.⁷ UNC and several private institutions originally established CONCERT to support engineering and computer science courses and research but UNC is expanding its use to other disciplines. Currently, seven UNC institutions are on the network and two more will be added this year. The long-range plan calls for all 16 institutions to be added to CONCERT.

Courses and other activities proposed for CONCERT for the spring semester include:

- Approximately 13 courses in microelectronics, electrical engineering, computer engineering, and computer science to be shared among UNC-CH, NCSU, UNC-C, NCA&T, Duke, and Wake Forest.
- Two pharmacy courses offered by UNC-CH for students statewide
- A masters-level nursing course offered by UNC-C and a doctoral program course in adult and community college education offered by NCSU to students at the UNC-A graduate center
- A masters-level course in health policy administration offered by UNC-CH at the UNC-C graduate center
- A masters-level course in industrial technology shared by ECU and NCA&T
- A doctoral-level course in curriculum and instruction offered by UNC-CH at NCSU, ECU, UNC-C, and UNC-Greensboro (UNC-G)
- Two extension instruction, masters-level courses in library and information studies offered by UNC-G at UNC-C and UNC-A

⁷CONCERT is managed by MCNC. See issue paper on "Economic Development--Use of Special Purpose Nonprofits."

- A continuing education course in public health nursing offered by UNC-CH statewide
- Other courses in health/physical education, immunology, mathematics, and music
- Several non-credit seminars and conferences

Most CONCERT course offerings are in highly technical fields, such as microelectronics, or in upper level courses which would be expensive to offer at each institution without CONCERT.

Finding 10: Strengthened incentives, especially for provider institutions, would support expanded use of CONCERT for program delivery.

Most current incentives to use CONCERT are incentives to the "receiving" institution. Benefits to institutions receiving instructional delivery via CONCERT include:

- Making courses/programs available that might not otherwise be offered
- Enabling students and faculty to take courses from outstanding faculty or faculty with unique experience located elsewhere
- Saving time and inconvenience of long-distance travel for faculty, thereby inducing them to offer the distance program to the receiving institution(s)
- Allowing institutions to offer very specialized courses which, with limited enrollment, might not otherwise be offered

Disincentives to provider institutions and faculty for offering instruction via CONCERT include:

- Institutions providing a course to other institutions as regular term instruction do not get FTE funding credit. Thus, institutions providing more courses than they are receiving are not rewarded.
- In the faculty evaluation process, faculty are not recognized formally for offering CONCERT courses even though they teach more students and the format requires different and additional effort.
- At some institutions, departments must pay for the use of the video facility.

All participating institutions benefit from sharing of viewpoints of visiting experts, ongoing research, and current developments through low-cost seminars and conferences.

RECOMMENDATIONS

The General Assembly should not have to remain in the reactive position in which it has found itself in the last several budget sessions--cutting or restricting funding to higher education in an increasingly *ad hoc* way. The result of continuing that course would be that the quality of UNC and its value as a force in economic development would continue to deteriorate. It is equally clear that resources required for UNC to maintain and enhance its service to the State will not likely be available from the General Fund for several years. Both the General Assembly and UNC recognize that they must make decisions that are painful, that may be disruptive, and that may have the effect of constricting educational opportunity. Such decisions will be divisive and controversial, but cannot be avoided.

To continue to strengthen, grow, and meet critical needs, UNC must selectively add new programs. In an era of limited resources, this means that lower priority programs must be eliminated. Also, for UNC to maintain program quality, which depends greatly on investment in libraries and high technology equipment, and on keeping faculty salaries competitive, it must look to existing resources for financing many of these needs.

Therefore, the General Assembly should consider the following measures, proposed as an integrated solution for maintaining UNC's achievement without causing upward pressure on General Fund expenditures.

Recommendation 1: Mandate the Board of Governors to conduct a one-time review of all degree programs and other programs, to eliminate those that are of low productivity, low priority, or redundant.

This one-time review also would provide the Board of Governors an opportunity and a mandate to do something it has not been able to do since the unified system was created--rationalize the system. In their early histories, all institutions had authority to offer any programs up to the doctoral level. The Board of Governors inherited a system and an array of programs that had developed until the 1970s with no meaningful central guidance or controls. It has gradually been defining missions by directing and controlling growth of new programs but it has not had a means to radically rationalize the system by eliminating historically redundant programs.

North Carolina is not alone in having to conduct a difficult one-time review to eliminate programs. As shown in Exhibit 5, five of North Carolina's peer public university systems recently have conducted or are currently conducting similar reviews in response to state budget pressures. For example, Illinois recently completed a comprehensive review of academic, research, and service programs for productivity, statewide need/capacity, and statewide priority. The review resulted in more focused mission statements for each institution. Maryland's review is in process and already has resulted in cuts, including one in Cooperative Extension.

While not one of the 11 peer states, Oregon is included in Exhibit 5 because it is another example of a state system engaged in a hard program review. The process is all the more difficult for Oregon because it does not have an established central review process to use as a

EXHIBIT 5
Recent and Current One-Time Program Reviews
Survey of Peer States (and Oregon)

State	Overview/Status
Florida	None is planned. Has conducted systematic reviews of five programs annually for the past 17 years, so one-time review is unnecessary.
Georgia	None is planned.
Illinois	Recently completed review of academic, research, and service programs for productivity, statewide need/capacity, and statewide priority. Developed more focused mission statements for each institution.
Indiana	Considering a one-time review because of recognition that the state cannot continue to do business as it has been.
Maryland	Review is underway, undertaken in response to continued state fiscal problems. Recent reviews included education, engineering, and agricultural extension.
Ohio	Review is underway as part of "managing for future" review of entire state government operations.
Oregon	Review is underway. System is absorbing 20 percent budget cuts as result of severe state budget problems. Has reviewed education, nursing, business, engineering, and continuing education programs. Review of education programs resulted in shift of resources from preparing new teachers to retraining current teachers. Convening stakeholders groups chaired by "lead institution" to review programs. Forcing coordinated planning, elimination of redundant and weak programs. Recognized leadership must come from state level.
Texas	Just completed review of doctoral programs mandated by the state legislature. Eliminating 100 of 600 doctoral programs. Board is beginning a review of bachelors and masters programs on own initiative.
Virginia	Comprehensive review not currently planned. Beginning a review of basic sciences. Grappling with how to review basic programs in the arts and sciences.

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EXHIBIT 5 (Continued)
Recent and Current One-Time Program Reviews
Survey of Peer States (and Oregon)

State	Overview/Status
Wisconsin	Conducting "lateral reviews" of professional programs, using outside consultants. Recently downsized and restructured agriculture and natural resources and currently reviewing allied health and education programs. Planning to review business programs. Considering regional program duplication review because of proximity of several institutions. Grappling with how to review basic programs in the arts and sciences. At the bachelors level, requiring that classes must have a minimum of ten students.

Note: 11 selected peer states provided data. Oregon also is included, because useful data were available.

Sources: Telephone interviews with state higher education representatives, November and December, 1992

point of departure. In the past, the system left all program decisions to constituent institutions. Now the system office must play a direct role because only it can bring a statewide perspective to the process.

Even though this GPAC study was designed to address only academic programs, the analysis concludes that redeployment of resources for consolidation, improvement, and maintenance of quality should not come only from academic programs. Therefore, this recommendation suggests critical review of all non-instructional programs as well, including extension services, continuing education programs, area health education center programs, student services, research and public service programs, athletics, and administrative support services.

A one-time review is more likely to be taken seriously and major savings identified to the extent that incentives to institutions are created and the outcome does not penalize them for undergoing a painful process candidly. The existing management flexibility legislation already provides a vehicle for this. To this end, the General Assembly may want to design the process such that an agreed-upon portion of savings identified can be reinvested in UNC. In addition, the General Assembly could provide special conditions for allowed reinvestment of savings, for specific uses. For example, permitted uses could include:

- Libraries
- Faculty salary competitiveness
- High-priority instructional or research facilities/equipment
- Deferred maintenance
- Selective new program investments in agreed-upon high priority areas
- Other special or critical needs, upon justification by the institutions and agreement by the Board of Governors

Also, because of the potential for controversy, among the alumni and other stakeholders in institutions and specific programs, the General Assembly should consider how it can lend its support to program elimination decisions of the Board of Governors that will arise from this process.

Recommendation 2: In the one-time review, opportunities to eliminate doctoral programs should be a priority.

Exhibit 6 indicates that unnecessary and expensive duplication in programs may exist at the doctoral level. The Board of Governors should determine whether further divisions of effort are possible, especially in disciplines which have very large numbers of doctoral programs, if they do not differ materially in focus. Texas, for example, just completed a review of doctoral programs and is eliminating 100 of 600 programs.

EXHIBIT 6
The University of North Carolina
Current and Planned Doctoral Programs

Program	CURRENT						PLANNED							Total
	ASU	UNC-CH	ECU	UNC-G	NCSU	Subtotal	UNC-C	UNC-CH	ECU	FSU	NCA&T	WCU	Subtotal	
Architecture & Environmental Design		1				1								1
Agriculture & Natural Resources					7	7								7
Biological Sciences		13	6		11	30								30
Business Management		2			1	3								3
Communications		1				1								1
Computer & Information Sciences		1				1								1
Education	1	6	1	6	8	22	1	1		1		1	4	26
Engineering					9	9	2				2		4	13
Fine & Applied Arts		2		1		3								3
Foreign Languages		3				3								3
Health Professions		7			1	8			1				1	9
Home Economics				4		4								4
Letters		6		1		7								7
Library Science		1				1								1
Marine, Earth, & Atmospheric Sciences		1			1	2								2
Medical Biophysics									1				1	1
Mathematics*		3			3	6	1						1	7
Physical Sciences		3			3	6		1					1	7
Psychology		2		1	1	4								4
Public Affairs & Services		1				1								1
Social Sciences		7			2	9								9
Total	1	60	7	13	47	128	4	2	2	1	2	1	12	140

* Includes interdisciplinary program in Biomedical Science and Mathematics

Recommendation 3: Mandate that UNC perform productivity reviews in its ongoing biennial planning process.

By its own policy, the Board of Governors already conducts productivity reviews. Notwithstanding this fact, the General Assembly should formally mandate these reviews, to lend its considerable authority and support to the Board of Governors in managing this process. Other states have done so. For example, the Florida General Assembly officially mandated a review process that already was being undertaken by the governing board. The Virginia legislature also mandates that its Higher Education Coordinating Board conduct biennial productivity reviews.

Recommendation 4: Expand use of graduate centers, CONCERT, and cooperative degree programs, making policy changes to reduce current barriers to these alternative delivery mechanisms.

Through its own initiatives in development and use of graduate centers, CONCERT, and cooperative degree programs, UNC has proven that alternative delivery mechanisms and cooperative efforts can work effectively and efficiently. UNC should continue with its plans to expand use of these delivery methods to improve access to instruction. It also should reduce barriers to use of these mechanisms. Some of the barriers are policy matters within UNC's control, for example, faculty evaluation. In the case of other barriers, the General Assembly, again, has an opportunity to support and spur these developments by enacting funding or other changes that will eliminate disincentives. As an example, resolution of the matter of how FTEs are credited would help.

IMPLEMENTATION CONSIDERATIONS

Phasing of Program Reviews

The Board of Governors might conduct the comprehensive one-time review in three phases.

Phase I: Strengthen productivity criteria and, using the new criteria, conduct a productivity review of programs. As shown in Exhibit 7, while UNC was a leader in conducting productivity reviews, it currently has weaker/more conservative productivity standards than several peer states. Illinois and Maryland, for example, recently strengthened their productivity criteria. Revised UNC criteria should include criteria for trends and cost. The Board also should develop productivity criteria for all UNC functions, other than degree programs, identify those service or support programs that are of low productivity, discontinue those that cannot be justified, or downsize those that can be.

Phase II: Conduct a comprehensive review of programs with the goal of identifying low priority or unnecessarily redundant programs, even those that may be "productive," by quantified productivity criteria. Savings resulting from elimination of low productivity programs will not be sufficient to provide UNC with the resources it needs to make required

EXHIBIT 7
Peer State Survey
Productivity Criteria

State	Criteria
Florida	Target productivity for each institution is an average of 27 FTE enrollment per graduate program. Will not approve new programs if average is below target.
Georgia	No on-going productivity reviews.
Illinois	<ul style="list-style-type: none"> ● credit hours, enrollment, and degree production below the middle 50 percent of programs ● cost above the middle 50 percent of programs
Indiana	<ul style="list-style-type: none"> ● 1 graduate or fewer in the past 4 years ● No graduate in the past 2 years
Maryland	<p>For last 5 years:</p> <ol style="list-style-type: none"> 1) enrollment decline of 25 percent; and 2) 10 bachelors or fewer per year 5 masters or fewer per year 2 doctorates or fewer per year
North Carolina	<p>Enrollment</p> <ul style="list-style-type: none"> ● enrolled no students in the last year ● enrolled fewer than two students in the last 2 years ● averaged fewer than two students in the past 10 years <p>Degrees</p> <ul style="list-style-type: none"> ● conferred no degrees in the last year ● conferred only one degree in the last 2 years ● averaged fewer than one degree in the past 10 years
Ohio	(Representatives were unavailable for interview)
Texas	<p>Average for last 3 years:</p> <ul style="list-style-type: none"> ● 3 bachelors ● 2 masters ● 1 doctorate

EXHIBIT 7 (Continued)
Peer State Survey
Productivity Criteria

State	Criteria
Virginia	<p>Average for last 5 years:</p> <ul style="list-style-type: none"> ● Degrees <ul style="list-style-type: none"> ■ 5 bachelors ■ 3 masters and certificates of advanced study ■ 2 first-professional or doctorates ● Enrollment <ul style="list-style-type: none"> ■ 12.5 FTEs for upper division bachelors ■ 6.0 FTEs for masters and certificates of advanced study ■ 4.5 FTEs for first professional and doctorates ● Service <ul style="list-style-type: none"> ■ 12 FTEs for upper division bachelors ■ 10 FTEs for master or certificates of advanced study
Wisconsin	<p>Average for last 5 years:</p> <ul style="list-style-type: none"> ● 10 majors ● 5 bachelors ● 3 masters ● 3 doctorates ● Cost per credit hour of 40 percent above median for similar programs

Note: Nine of 11 peer states provided data.

Sources: Telephone interviews with state higher education representatives, November and December, 1992

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reinvestments. Therefore, the Board of Governors must (1) rank existing programs against each other and against new program requests and (2) identify those that, even though productive, may be of low current and future priority to the State or are excessively redundant within UNC or between UNC and North Carolina's private colleges and universities.

The academic program portion of the review should place priority on graduate and professional programs. Review of doctoral programs should seek to strengthen and maintain the division of efforts between institutions that offer doctoral programs. This may involve some doctoral programs being eliminated, merged, or redesigned as cooperative programs. The Board of Governors also could look at the issue of redundancy by region. Wisconsin, for example, is doing so.

Following are two major examples of disciplines in which the Board of Governors has specific opportunities to reduce redundant programs. As specific analysis of academic programs is well beyond the scope and expertise of this GPAC study, these are presented as illustrations in this section on implementation, not as specific formal recommendations.

Marine Sciences. As shown in Exhibit 6, UNC currently has two doctoral programs in marine science—at UNC-CH and NCSU. NCSU also is offering a cooperative Ph.D. in marine science with UNC-W which offers a masters degree in marine biology. Duke University also has a nationally known doctoral program in marine science. UNC's academic consultants recommended that UNC locate a major universitywide Marine Science Research Center at UNC-W. If a Center is located there, the existing program undoubtedly will grow into a doctoral program. To prevent UNC from having three doctoral programs in marine science, the Board of Governors may need to consider radical alternatives for reassignment or consolidation.

Education. Another powerful example is education. As shown in Exhibit 8, all UNC institutions, except UNC-A and the North Carolina School of the Arts, offer baccalaureate programs in education; 12 offer masters level programs, six offer intermediate level programs, and five offer doctoral level programs. Two institutions that currently do not offer doctoral level programs in education—Fayetteville State University (FSU) and UNC-C—are planning them. At present, Appalachian State University (ASU) and ECU already produce 75 percent of UNC undergraduate education majors. In addition, many of North Carolina's private institutions also provide programs in education.

Other states are reevaluating their education programs. For example, because of a surplus of new teachers and current education reform efforts, is reducing the number of education programs and redirecting resources to teacher in-service retraining. A task force in Maryland has recommended elimination of all teacher education programs at the undergraduate level; students will take all teacher education courses in a fifth year of study.

The Board of Governors may want to eliminate some schools or programs of education altogether. At a minimum, the Board should consider reducing the number of masters and doctoral programs in education. It also may want to review teacher education programs in relation to demand projections for teachers as part of a larger effort in education reform. (This

EXHIBIT 8
The University of North Carolina
Current and Planned Programs in Education
FY 1992-1993

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	CURRENT				PLANNED			
	<u>Bachelors</u>	<u>Masters</u>	<u>Intermediate</u>	<u>Doctoral</u>	<u>Bachelors</u>	<u>Masters</u>	<u>Intermediate</u>	<u>Doctoral</u>
Appalachian State University	9	14	6	1	2			
East Carolina University	8	12	6	1				
Elizabeth City State University	6							
Fayetteville State University	5	4						1
North Carolina A&T State University	7	9						
North Carolina Central University	4	8				1		
North Carolina State University at Raleigh	6	10	7	8				
Pembroke State University	8	5			1			
UNC-Asheville								
UNC-Chapel Hill	5	12		6	1			1
UNC-Charlotte	3	7	5		1			1
UNC-Greensboro	8	14	5	6				
UNC-Wilmington	4	5			1			
Western Carolina University	11	14	5		1			1
Winston Salem State University	6							
Total	90	114	34	22	7	1	0	4
TOTAL-PLANNED	7	1		4				
GRAND TOTAL	97	115	34	26				

issue also is addressed briefly in the issue paper entitled "Continuum of Education and Intersystem Governance").

Finally, examples of other disciplines in which redundancy should be carefully examined include communications, business and management, and health professions. These examples are not intended to preclude findings of redundancy in yet other disciplines.

Phase III: Reinvest any savings identified in Phase I and Phase II which the General Assembly may reappropriate to the Board of Governors. Assuming that the General Assembly creates incentives for this review by a policy on reinvestment, it is essential that all campuses share in the pain and disruption. Reallocation must be done in such a way as to not penalize institutions for differentially identifying programs for elimination. Therefore, most permitted reallocations should be at the institution level. However, the Board of Governors also must have some flexibility to reallocate some resources between institutions if it is to accomplish the General Assembly's goals for system rationalization.

Additional Implementation Issues

Three additional implementation considerations are as follows.

Timeframe. UNC's recent comprehensive review and development of its current long-range plan took two years. The reviews proposed here may require an equivalent time horizon because UNC will have to develop productivity measures for each area of operations, design the one-time review process, and engage in extensive analyses. UNC may be able to use the current experience of other states, such as Illinois, Maryland, Oregon, Texas, and Wisconsin, in its design.

Once programs are designated for elimination, there is the time-consuming process of phasing them out, including treatment of enrolled students and faculty tenure and employment considerations. Therefore, it is not realistic to expect material resource shifts immediately.

Tenure. The single largest implementation issue associated with program elimination in higher education is elimination of faculty positions. The difficulty centers on the tradition and legal bases for "tenure." In UNC, tenure is granted at the level of the institution (rather than the system or department). Presumably, this means, among other things, that a decision to eliminate a faculty position at the institution level is an important part of the process, as specific institutional tenure policies may vary slightly.

The Board of Governors requires that tenure policies of the institutions include a clause that faculty may be terminated by the institution because of "(1) demonstrable, bona fide institutional financial exigency or (2) major curtailment or elimination of a teaching, research,

or public-service program."⁸ The Board of Governors requires that tenured faculty receive 12-months notice of elimination of the position.

Early Retirement Provisions. UNC may want to consider early retirement as one approach for reducing faculty positions. If necessary and appropriate, some early-retired faculty could be hired to teach courses on a part-time basis, with resulting savings. At present, interviewees indicate that retirement and pension policies of the State create disincentives for use of this approach. It may be useful to review those policies for possible and reasonable changes that would make early retirement a viable tool for program restructuring.

IMPLICATIONS

Financial implications, expressed as dollars of future General Fund savings, are not possible to project by any reasonable methodology. Some premises, however, can be articulated.

Each time the Board of Governors does not approve a program, especially expensive technical or advanced degree programs, there is a large and permanent cost avoidance implied. Therefore, the presence in North Carolina of a unified university system with central governance since the 1970s **already has resulted in avoidance of major costs** that otherwise might have been incurred.

The Board of Governors probably can achieve further rationalization of the university system and its distribution of programs that will result in very large savings, much of which could be reinvested into the System in a manner that stresses **quality over quantity**, while still achieving major cost avoidance objectives.

Each time a program is eliminated, the benefit is a very large permanent future cost avoidance. If implemented, these recommendations are capable of generating savings to the State, at least in the form of future cost avoidance, that may amount to **many tens of millions of dollars** at a bare minimum and far less future pressure on General Fund resources. But the "art" of implementation will be for the Board of Governors to generate the cost avoidance/savings in ways that **strengthen, rather than weaken**, the University's critical service to the State. To this end, the General Assembly may serve its own purposes best by mandating responsibility for the reviews and restructuring to the Board of Governors and then making its best efforts to support the difficult decisions of the Board of Governors in program eliminations.

⁸*The Code*, Board of Governors, The University of North Carolina, Clause 605A, August 1988.

APPENDIX
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