

**THE UNIVERSITY OF NORTH CAROLINA**

**2003 REVIEW OF ACADEMIC DEGREE PROGRAM PRODUCTIVITY**

**A Biennial Report**



**October 2003**

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## Executive Summary

The 2003 UNC Academic Degree Program Review is the fifth biennial review of programs with low enrollments conducted by the UNC Office of the President and UNC constituent institutions since this process began in 1995. Programs were identified for review based on specific criteria established by the Board of Governors for enrollments and graduation rates at the baccalaureate, master's, and doctoral/first professional degree levels. Using these criteria, 241 out of 1,962 degree programs (12.3 percent) were identified. A number of these programs were exempted from review at the system level for various reasons (*e.g.*, undergraduate programs part of a general academic core of programs that almost any institution of higher education should offer), and other programs were referred to the UNC constituent institution for further attention. A total of 96 degree programs were identified for review at the UNC system level. UNC constituent institutions responded with information and comments on these programs and other programs that they requested to discontinue. UNC Office of the President Academic Affairs staff reviewed these responses and offered their own recommendations. These recommendations are:

- A. Discontinue 14 academic degree programs as recommended by UNC constituent institutions and Academic Affairs staff.

<u>Degree Program</u>	<u>Program Level</u>	<u>Institution</u>
Educational Supervision	M.A.Ed.	ECU
Technology Education	B.S.	ECSU
Educational Supervision	M.Ed.	UNCG
Educational Psychology	M.A.	UNC-CH
Special Education/LD	M.Ed.	UNC-CH
Middle Grades Education	M.Ed.	UNCG
Business Education	M.Ed.	UNCG
Biology Education	M.A.	ASU
Biology Education	M.Ed.	UNCG
Chemistry Education	M.Ed.	UNCG
Health Occupations	M.S.	NCSU
Health Occupations	M.Ed.	NCSU
Communication Studies	M.Ed.	UNCG
Environmental Engineering Tech.	B.S.	ECU

- B. Review with UNC constituent institutions four academic degree programs that were recommended for continuation by the institution but were recommended for discontinuation by Academic Affairs staff.

<u>Degree Program</u>	<u>Program Level</u>	<u>Institution</u>
Technology Education	M.A.	ASU
Health & Physical Education	M.A.	ASU
Manufacturing Engineering Tech.	B.S.E.T.	UNCC
Art	M.A.	ECU

- C. Review advanced master's programs in education. The master's programs in education affected by the advanced master's strategies were exempted from the 1999 and 2001 productivity reviews. These programs were reviewed in the current 2003 process, and a number of them were found to be under-enrolled. Additional decisions may be made about these programs as an outcome of the Board of Governors Task Force on Meeting Teacher Supply and Demand.

## 2003 REVIEW OF ACADEMIC DEGREE PROGRAM PRODUCTIVITY

### I. Academic Program Review

The Board of Governors of the University of North Carolina has the responsibility to “determine the functions, educational activities, and academic programs of the constituent institutions” [G.S. 116-11(3)]. The primary purpose of reviewing academic programs is to improve their quality. Academic program reviews are one component of a comprehensive and ongoing process to assess institutional effectiveness. The Office of the President regularly surveys students and other constituents and visits each campus biennially to discuss quantitative and qualitative indicators of institutional performance and strategic plans for improvement. Low producing programs are reviewed biennially at both the system-level and the campus-level. The University also reviews programs across the system by academic discipline to determine if there are systemic trends that need to be addressed. These reviews complement institutional self-studies for accreditation and professional accreditation for various disciplines. As a result of academic program review, administrators can decide to strengthen programs, to consolidate programs, to initiate alternative strategies such as distance learning to improve productivity, to identify programs that will benefit from collaboration and the consolidation of resources, or to discontinue programs that are not productive. The review of existing program quality informs the planning of new academic programs. The academic program review process is pivotal to the implementation of the strategic initiatives of the University to increase access, to develop educational programs that are responsive to the needs of the State, to continue to develop intellectual capital, and to provide a foundation for the creation and transformation of new knowledge.

University-wide and institutional academic program reviews are designed to strengthen academic programs and improve the quality of education. On a biennial basis, the university identifies programs that are characterized by low enrollments and low numbers of degrees conferred. The first such review was completed in 1995, the second was completed in October 1997, the third was completed in October 1999, and the fourth was completed in September 2001. The goal of increasing productivity in the delivery of programs and services reflects both fiscal reality and the need for good management practices in higher education. In the Long-Range Plan for 2000-2005, the UNC Board of Governors asserted its principles for academic program development:

**Good management requires the application of priorities and the judicious allocation of resources. Academic programs and course offerings must be kept up-to-date and new programs and courses developed in response to legitimate needs, but the counterpart of change is the discontinuation of programs no longer needed. Low quality, low productivity, and low priority programs must be eliminated in order to redirect resources to higher needs and priorities.**

Academic program planning within the University is designed to ensure the integrity of each institutional mission and to provide a balance and diversity of programs within the University as a whole. Public universities exist primarily to serve the educational needs of citizens. This purpose presupposes wide opportunity and reasonable geographic accessibility. The University engages in academic program review to make certain that the constituent institutions are responsive to genuine needs and equally responsive in identifying resources that can be used to make certain that offerings are current, consistent with priorities, and used judiciously to respond to new developments in fields of inquiry and research.

### North Carolina General Assembly Mandate

The 1993 Session of the North Carolina General Assembly passed legislation to implement a Government Performance Audit Committee's recommendations for a review of all academic degree programs in the University of North Carolina. Chapter 407, Section 1 of Senate Bill 393, 1993 Session Laws (GPAC/UNC Review Plan) mandates the following actions:

Section 1. The Board of Governors of the University of North Carolina shall review all academic degree programs and research and public service activities to identify those programs and activities that are of **low productivity or low priority, or are unnecessarily redundant**. The Board shall develop specific criteria for these reviews, and shall develop a process to review academic degree program productivity biennially. The Board's review shall **emphasize identification of processes and resources to strengthen programs that are or can reasonably be made productive**. With regard to those **programs that are not and cannot be made productive**, if any, the Board shall consider **eliminating** those programs in a manner that does not negatively impact upon the availability of educational opportunities for North Carolina citizens. In making its determination, the Board shall give consideration to the value of maintaining racial and geographic diversity and to **assuring reasonable access** for students who live off campus.

The act also amended Section 2, General Statutes 116-11(3), which outlines the Board of Governors' responsibilities with respect to academic programs and degrees awarded by adding the following provision:

The Board shall review the productivity of academic degree programs every two years, using criteria specifically developed to determine program productivity.

Reviews of academic programs were conducted in 1995, 1997, 1999, 2001, and 2003 applying criteria and guidelines developed by the Board of Governors' Committee on Educational Planning, Policies, and Programs.

Even before the enactment of the 1993 legislation calling for academic program productivity reviews, the Board of Governors had routinely conducted biennial reviews of low productivity programs to identify candidates for discontinuation. However, in response to this legislation, the Board of Governors formalized the process. The Board's Committee on Educational Planning, Policies, and Programs developed productivity criteria and guidelines for identifying programs for study. The programs were reviewed not only in terms of enrollments and degree productivity, but also in terms of such factors as quality, cost, occupational demand, and centrality to the institutional mission. In addition, some campuses reviewed other academic degree programs with respect to productivity, institutional priorities, and unnecessary duplication.

## II. UNC Academic Program Productivity and Degrees Conferred

Currently, in total, the University of North Carolina offers 1,962 academic degree programs at the associate, baccalaureate, post-baccalaureate, master's, intermediate, doctoral, and professional levels, and each is listed on the university's Academic Program Inventory. Table 1 displays a summary of authorized degree programs offered by discipline division, institution, and level.

Between July 1, 1972 and June 30, 2003, the Board of Governors approved the establishment of 493 new academic degree programs. Over the 31-year period, that represents an average of less than one new degree program per institution per year. As noted in the Government Performance Audit Committee report in December 1992, "UNC planning procedures instituted since 1976 have been effective in preventing excessive proliferation of new programs." During this same period, a total of 425 degree programs were authorized for discontinuation.

Table 2 summarizes by discipline division the new degree programs established in the University since 1972. An analysis of those programs illustrates the emphasis on professional development as well as the emergence of programs in technological areas. More than one half (287) of the new programs have been in six discipline divisions: Education (91), Health Professions (54), Public Affairs and Services, principally public administration, criminal justice, and social work (43), Business and Management (35), Engineering (36) and the Social Sciences (28). Biological Sciences (26), the Physical Sciences (24), and Computer and Information Sciences (23) account for more than one third of the remainder. This program development reflects clearly the greater student interest in degree programs that are perceived to have more explicit career-preparation goals.

The same picture emerges from an analysis of degrees conferred by the University in recent years. Degree productivity shown in Table 3 also reflects the program development outlined in Table 2. The six discipline divisions which account for more than half of the new degree programs established since 1972 also accounted for 51 percent (12,222 of 23,972) of the baccalaureate degrees and more than 70 percent (4,737 of 6,751) of the master's degrees conferred by the University in 2001-2002. The attention given to those programs experiencing low rates of productivity should not obscure the fact that the overwhelming majority of UNC academic degree programs are very productive.

# APPENDIX M

**Table 1**  
**Summary of Authorized Degree Programs Offered by CIP Discipline Division and Level**  
**June 1999**

		Institution															
		ASU	ECU	ECSU	FSU	NCAT	NCCU	NCSA	NCSU	UNCA	UNCCH	UNCC	UNCG	UNCP	UNCW	WCU	WSSU
<b><u>I. Arts and Sciences</u></b>																	
05	Area, Ethnic and Cultural Studies	M	BM	-	-	-	-	-	-	-	BM	B	B	B	-	M	-
11	Computer and Information Sciences	BM	BM	B	B	BM	BM	-	BMD	B	BMD	BMD	BM	B	B	B	BM
16	Foreign Languages and Literatures	BM	B	-	B	B	B	-	BM	B	BMD	BM	BM	-	B	B	B
23	English Language and Literatures/Letters	BM	BM	B	BM	BM	BM	-	BM	B	BMD	BM	BMD	B	BM	BM	B
24	Liberal Arts & Sciences, General Studies & Humanities	B	B	-	-	-	-	-	BM	BM	B	M	BM	-	M	B	B
26	Biological Sciences/Life Sciences	BM	BMD	B	BM	BM	BM	-	BMD	B	BMD	BMD	BM	B	BMD	BM	B
27	Mathematics	BM	BM	B	BM	BM	BM	-	BMD	B	BMD	BMD	BM	B	BM	BM	B
30	Multi/Interdisciplinary Studies	M	MD	-	-	-	-	-	BM	-	BM	M	M	-	-	-	B
38	Philosophy and Religion	B	B	-	-	-	-	-	B	B	BMD	BM	B	B	B	B	-
40	Physical Sciences	BM	BM	B	B	BM	BM	-	BMD	B	BMD	BMD	BM	B	BM	BM	B
42	Psychology	BMI	BMI	B	BM	B	BM	-	BMD	B	BMD	BM	BMD	B	BM	BM	B
45	Social Sciences and History	BM	BM	B	BM	B	BM	-	BMD	B	BMD	BM	BMD	B	BM	B	B
50	Visual and Performing Arts	BM	BM	B	B	B	B	ABM	BM	B	BMD	BM	BMD	B	B	BM	B
<b><u>II. Professional</u></b>																	
01	Agricultural Business and Production	-	-	-	-	BM	-	-	ABM	-	-	-	-	-	-	-	-
02	Agricultural Sciences	-	-	-	-	BM	-	-	ABMD	-	-	-	-	-	-	-	-
03	Conservation & Renewable Natural Resources	-	-	-	-	-	B	-	BMD	B	BMD	-	-	-	B	B	-
04	Architecture and Related Programs	B	B	-	-	B	-	-	BMD	-	MD	BM	-	-	-	-	-
09	Communications	B	B	B	-	B	-	-	BM	B	BMD	BM	B	B	-	B	B
13	Education	BMD	BMD	BM	BMD	BM	BM	-	BMD	-	BMD	BMD	BMD	BM	BM	BMD	BM
14	Engineering	-	-	-	-	BMD	-	-	BMD	-	MD	BMD	-	-	-	-	-
15	Engineering-Related Technologies	BM	BM	B	-	BM	-	-	B	-	-	B	-	-	-	BM	-
19	Home Economics	BM	BM	-	-	BM	BM	-	-	-	B	B	BMD	-	-	B	-
22	Law and Legal Studies	-	-	-	-	-	P	-	-	-	P	-	-	-	-	-	-
25	Library Science	M	MI	-	-	-	M	-	-	-	MID	-	M	-	-	-	-
31	Parks, Recreation, Leisure, & Fitness Studies	BM	BM	-	-	B	BM	-	BMD	-	BM	B	BMD	B	B	B	B
43	Protective Services	B	BM	B	B	B	BM	-	-	-	-	BM	-	B	B	B	-
44	Public Administration and Services	BM	BM	B	M	BM	BM	-	BMD	-	BMD	BMD	BM	BM	BM	BM	-
51	Health Professions and Related Sciences	BM	BMDP	-	B	B	BM	-	BMDP	-	ABMDP	BM	BM	B	BM	BM	BM
52	Business Management & Administrative Services	BM	BM	B	BM	BM	BM	-	BM	B	BMD	BM	BMD	BM	BM	BM	BM

Key: A-Associate; B-Baccalaureate Degree; M-Master's Degree; I-Intermediate  
(includes Ed.S., Certificate of Advanced Study and Post-Master's Certificate); P-First Professional Degree; and D-Doctoral Degree.

**Table 2**

**Summary of New Programs Established by the Board of Governors for Constituent  
Institutions of the University of North Carolina by Program Area and Level,**

**July 1, 1972 – June 30, 2003**

<b>Program Area</b>	<b>Degree Level</b>				
	<b>B</b>	<b>M</b>	<b>FP</b>	<b>D</b>	<b>Total</b>
Agriculture & Natural Resources	3	3			6
Architecture & Environmental Design	3	1		1	5
Area Studies	7	2			9
Biological Sciences	2	9		15	26
Business and Management	15	18		2	35
Communications	9	2		1	12
Computer & Information Sciences	10	12		1	23
Education	25	57		9	91
Engineering	14	13		9	36
Fine and Applied Arts	13	6		1	20
Foreign Languages	3	4			7
Health Professions	20	22	3	9	54
Home Economics	3	4			7
Law					0
Letters	8	5		1	14
Library Science				1	1
Mathematics	3	5		1	9
Physical Sciences	12	10		2	24
Psychology	3	5		1	9
Public Affairs & Services	21	19		3	43
Social Sciences	14	11		3	28
Interdisciplinary Studies	21	11		2	34
<b>TOTAL</b>	<b>209</b>	<b>219</b>	<b>3</b>	<b>62</b>	<b>493</b>



## APPENDIX M

**Table 3**  
**Degrees Conferred in Approved Programs Offered by the**  
**University of North Carolina, By Discipline, 2001-2002**

	<b>A</b>	<b>B</b>	<b>M</b>	<b>FP</b>	<b>D</b>	<b>Total</b>
<b>I. <u>Arts and Sciences</u></b>						
05. Area, Ethnic, & Cultural Studies		134	23			157
11. Computer and Information Sciences		662	301		12	975
16. Foreign Languages and Literatures		243	40		19	302
23. English Languages and Literatures/Letters		1,041	209		28	1,278
24. Lib. Arts & Sci., Gen. Studies, & Hum.		162	52			214
26. Biological Sciences/Life Sciences		1,322	180		91	1,593
27. Mathematics		241	101		49	391
30. Multi-Interdisciplinary Studies		29	18			47
38. Philosophy and Religion		158	11		9	178
40. Physical Sciences		523	115		74	712
42. Psychology		1,458	128		51	1,637
45. Social Sciences and History		2,446	256		66	2,768
50. Visual and Performing Arts		1,124	146		12	1,282
Arts and Sciences Total		9,543	1,580		411	11,534
<b>II. <u>Professional</u></b>						
01. Agricultural Business and Production	130	82	5			87
02. Agricultural Sciences	24	223	62		23	308
03. Conservation & Renewable Nat. Res.		296	59		25	380
04. Architecture and Related Programs		163	62		4	229
09. Communications		1,631	37		14	1,682
13. Education		2,015	1,470		144	3,629
14. Engineering		1,318	409		99	1,826
15. Engineering-Related Technologies		454	41			495
19. Home Economics		404	85		7	496
22. Law and Legal Studies				321		321
25. Library Science			215		1	216
31. Parks, Recr., Leisure, & Fitness Studies		845	113		3	961
43. Protective Services		555	11			566
44. Public Administration and Services		367	363		2	732
51. Health Professions and Related Services		1,609	959	512	98	3,178
52. Business Management & Admn. Services		4,467	1,280		13	5,760
Professional Total	154	14,429	5,171	833	433	20,866
<b>TOTAL</b>	154	23,972	6,751	833	844	32,554

### **III. Programs Reviewed by the UNC Office of the President and by the UNC Chief Academic Officers in 2003**

In a preliminary review of degree program majors and graduates, the number of bachelor's, master's, intermediate, first professional and doctoral programs that were identified for further attention in the 2003 review totaled 241 out of 1,962 active academic degree programs (12.3 percent). (In the 2001 review, 270 programs were identified, or 13.9 percent of the 1,943 active degree programs). In order to conduct meaningful reviews with recommendations to strengthen, consolidate or discontinue programs, it was necessary to divide the total into programs that would be reviewed at the system level and those that needed to be monitored or reviewed at the campus level by the Chief Academic Officers and administrative staff. To facilitate this process, several categories of programs were exempted from the 2003 system review. A full description of the guidelines and procedures for the 2003 Academic Program Review is included in Appendix A.

#### **A. Programs Exempted from 2003 System Review**

At the **undergraduate level**, the Academic Affairs division of the Office of the President recognizes the importance of a basic core of academic disciplines that each constituent institution (except the North Carolina School of the Arts) is expected to offer and these were excluded from the 2003 program review. The Academic Core consists of programs in the fine arts, humanities, mathematics, computer sciences, sciences, and social sciences. These disciplines represent many areas of necessary program duplication among the constituent institutions at the undergraduate level and they should be routinely monitored and reviewed at the campus level.

The UNC program review did not include interdisciplinary programs, area studies, and special health related programs such as medical technology for which the majority of courses are supplied by other disciplines. It also exempted programs that consisted largely of courses supplied by other disciplines (e.g., medical technology, area studies, and interdisciplinary studies). The most obvious measure of low productivity is low course enrollment. If a program has a limited number of majors, but those majors are taking most of their courses from other programs (and thus raising enrollment in those courses), they are not actually unproductive. In fact, to eliminate such majors would not save significant money (the courses would continue to be offered) and might actually be counter-productive by reducing enrollment in some courses and reducing the number of program choices open to students.

The Office of the President used external consultants for a discipline-specific, systemwide review of Foreign Language programs in 1999-2000, and a system-wide UNC faculty and administrator committee made further recommendations in 2003; therefore, these were not included in the 2003 review. For this reason, however, these distance-learning programs were not reviewed. Recently established programs that have not been in place long enough to attract a significant enrollment or produce large numbers of graduates were not reviewed. Programs that were identified for additional monitoring in 2001 and that have not significantly increased enrollment were included in the 2003 program review.

## **B. Guidelines and Criteria for Reviewing Programs**

The UNC Office of the President required each campus to submit either a comprehensive program review or a request for discontinuation or consolidation for low producing programs. The Criteria for Program Review and Evaluation form is included in Appendix A of this document. Applying these criteria, 96 programs were identified for system review. This number is larger than the 55 programs that were identified for system review in 2001 because a number of programs were reviewed in 2003 (such as teacher education master's programs) that were exempted in the 2001 review.

Campuses were asked to submit a report documenting the centrality of the program to the university's mission, the quality of the program, faculty resources, facilities, and equipment. The components of this critical review included: 1) careful review of the evidence of need for graduates; 2) evidence of student demand, including examination of enrollments in comparable programs at other institutions, and likelihood the program can meet productivity criteria in a reasonable number of years; 3) evidence that the program is not already conveniently available at another UNC (or private) institution either within the region or via distance education; 4) evidence that the institution is capable, or can become capable, of offering a quality program; 5) the number of low productivity programs currently being offered by the institution; 6) the institution's track record in accurately projecting enrollments in other recently authorized programs; and, 7) the estimated cost of the proposed program when compared to the probable benefits.

Program reports prepared by the campuses addressed several questions:

- Should the program be continued as a separate degree program? If continuation is recommended, the institution must provide sound and compelling reasons for doing so.
- If the recommendation is to continue the program, can it be made more productive? If so, how? What steps would be taken to strengthen the program and make it more productive? (If the program recommended for continuation was also subject to review in 1999, the rationale must be especially compelling.)
- Should the program be consolidated or merged with other existing programs? If so, which ones?
- Should the program be eliminated? If so, on what timetable?
- If the program were eliminated, would there be any savings of funds or resources that could be reallocated to other programs and activities of greater productivity or higher priority? If so, what would be the savings?

This review required UNC chancellors and chief academic officers to make recommendations about a given program. Recommendations for continuation were required to include an explanation of past enrollment or productivity, expectations for future enrollments, and the importance of the program to the educational mission of the institution. If the institution recommended continuing the program, UNC Office of the President staff examined the institution's rationale to determine whether or not to support its recommendation. Strategies to strengthen programs can include plans for improved recruitment, retention, persistence plans, time-to-degree strategies, distance learning opportunities, specific discipline reviews, or offering the program through the Academic Common Market.

#### IV. The Results of the 2003 Review: Recommendations

Specific recommendations concerning the 96 programs reviewed at the system level are presented in Appendix B. As a result of the system review, the Academic Affairs staff developed several recommendations for discontinuing programs and identified areas that would benefit from further review. The specific recommendations are generally consistent with the recommendations from the chancellors and chief academic officers. The UNC Board of Governors must authorize program discontinuation. These program recommendations are designed to strengthen existing programs and to provide guidance for new program development.

##### A. Discontinue 14 academic degree programs as recommended by UNC constituent institutions and Academic Affairs staff.

<u>Degree Program</u>	<u>Program Level</u>	<u>Institution</u>
13.0404 Educational Supervision	M.A.Ed.	ECU
13.0404 Educational Supervision	M.Ed.	UNCG
13.0802 Educational Psychology	M.A.	UNC-CH
13.1011 Special Education/LD	M.Ed.	UNC-CH
13.1203 Middle Grades Education	M.Ed.	UNCG
13.1303 Business Education	M.Ed.	UNCG
13.1322 Biology Education	M.A.	ASU
13.1322 Biology Education	M.Ed.	UNCG
13.1323 Chemistry Education	M.Ed.	UNCG
13.1327 Health Occupations	M.S.	NCSU
13.1327 Health Occupations	M.Ed.	NCSU
13.1331 Communication Studies	M.Ed.	UNCG
15.0507 Environmental Engineering Tech.	B.S.	ECU
15.0603 Technology Education	B.S.	ECSU

Two of the above programs (B.S. in Environmental Engineering Technology at ECU and B.S. in Technology Education at ECSU) were voluntarily identified by the campuses for discontinuation as part of the campus-level review process. No new students will be admitted after January 2004 into any program recommended for discontinuation. Unless they choose to change majors, juniors and seniors already enrolled in a major program must be permitted to complete the program within a reasonable period of time. Unless the institution has requested an earlier date, all discontinued programs must be phased out by July 1, 2006. This should allow all currently enrolled majors who choose to continue in a program to complete it. Those degree programs in which there are no majors currently enrolled will be discontinued effective February 1, 2004.

##### B. Review with UNC constituent institutions four academic degree programs that were recommended for continuation by the institution but were recommended for discontinuation by Academic Affairs staff.

<u>Degree Program</u>	<u>Program Level</u>	<u>Institution</u>
13.1309 Technology Education	M.A.	ASU
13.1314 Health & Physical Education	M.A.	ASU
15.0603 Manufacturing Engineering Tech.	B.S.E.T.	UNCC
50.0701 Art	M.A.	ECU

Two of the above programs (ASU's M.A. in Health & Physical Education and UNCC's B.S.E.T. in Manufacturing Engineering Technology) are inactive and have no

current enrollments. The other two programs appear to be of such marginal value to the institution that the UNC-OP reviewer recommended discontinuation.

### **C. Review advanced master's programs in education.**

The accessibility and availability of programs for preparing public school teachers are significant elements of the University's overall mission and appropriate justification for some overlapping and duplication of programs throughout the system. The extensive and intensive involvement of UNC institutions in teacher education, both pre-service and in-service, is a necessary obligation of higher education to the educational advancement and development of the state. New programs established in the area of teacher education are a response to changing certification categories (e.g., middle grades education), to the need for teachers with new competencies (e.g., special education and bilingual), and to the continuing needs of public school personnel for advanced study at the graduate level. It is not surprising, therefore, that the most extensive single area of program duplication within the University is in education or, more precisely, in teacher preparation. Fifteen of the sixteen UNC campuses have a commitment to producing teachers for North Carolina's elementary and secondary schools.

During the 1997 Session the General Assembly enacted the "Excellent Schools Act" and directed the Board of Governors of the University of North Carolina to

Develop a plan to revise the current masters of education degree programs at the constituent institutions. The plan shall provide for degree programs that require participants take a more rigorous course of study than is currently required and that includes concentrations in the academic content areas in which the participants will teach. The plan shall also consider methods for: (i) providing the more rigorous course of study using the same number of hours as are currently required for masters of education degrees; and (ii) providing participants the opportunity to complete the masters of education degree program as part-time students, by summer school attendance, and at sites not located at a constituent institution's campus provided there is sufficient demand for the off-campus programs.

In accordance with the Excellent Schools Act, the Department of Public Instruction (in collaboration with school and university representatives) developed a set of "Master's/Advanced Competencies" and "Program Characteristics" to guide revision of existing master's of education programs and design new master's of education degree programs to qualify graduates for the state's new "M" license to teach (replacing the former "G" certificate).

In that regard, the constituent institutions that offer master's of education programs reviewed and revised their programs to comply with the legislative mandate. To enable institutions to meet the September 2000 effective date of the new "M" license, the Board of Governors in early 1998 authorized the appropriate campuses to submit plans for master's degree programs for teachers who are already have initial licensure. The campuses were provided with alternatives in planning and submitting their plans to the Board of Governors as well as to the State Board of Education: 1) existing master's of education programs could be consolidated into a single master's degree program (an M.Ed. or M.A.Ed. - possibly with multiple teaching field options) that addressed both the

"Master's/Advanced Competencies" and "Program Characteristics;" 2) campuses could plan a new master's degree program in education (an M.Ed. or M.A.Ed. - possibly with multiple teaching field options) that addressed both the "Master's/Advanced Competencies" and "Program Characteristics"; or, 3) the campuses could revise their existing master's degree programs in education so that they addressed both the "Master's/Advanced Competencies" and "Program Characteristics."

The master's programs in education affected by the advanced master's strategies were exempted from the 1999 and 2001 productivity reviews. These programs were reviewed in the current 2003 process, and a number of them were found to be under-enrolled. It is not yet clear which master's degrees will be in greatest demand as a result of this legislation. It is also not clear which programs will be needed for increases in the teaching force to meet the projected increase in public school enrollment. However, it would be unwise to discontinue marginally productive master's degree programs that are likely to be of interest to public school personnel until the impact of the new legislation on enrollment patterns throughout the University can be evaluated. Now that the new advanced masters programs are in place, it will be possible to evaluate with greater assurance the long-term viability of master's degree programs that serve public school personnel. Another factor that may influence enrollments in graduate education programs is the incentive provided by many school districts across North Carolina for teachers to seek National Board Certification. Separate tiers of resources and support are provided to teachers who have gained this certification and it would be appropriate for the campuses to determine its impact on enrollments into their graduate education programs as well as the possibility for further development of the graduate program by assisting teachers pursuing National Board Certification. A recently established Board of Governors Task Force on Teaching Supply and Demand may address these issues, and decisions about specific programs should be made after the work of the Task Force is completed.

## **V. Comments on the 2003 Review**

This review leaves in place some programs that, in terms of number of majors and degrees conferred, would appear to be of relatively low productivity. However, decisions to discontinue, or to retain, or to consolidate particular degree programs should not be based on numbers alone. There is no generally accepted formula for what constitutes productivity in terms of enrollments and graduates in a specific degree program and hence no national benchmarks to which UNC program productivity can be compared. The criteria established by the Board of Governors were intended to set realistic expectations for degree program productivity. Such decisions generally should be predicated on an informed judgment that balances available resources against (1) the obligation to respond to the demands of society for certain kinds of employees, (2) program costs, and (3) considerations of the broader responsibilities of the university community to society and the duty to maintain the strength and vitality of that community. "Informed judgment" is emphasized. No mathematical model will lead inherently to a right decision.

Thus, there are sound and relevant educational reasons to retain some programs in the inventory of the University despite their failure to meet productivity criteria. Among those reasons are the following:

- **The program is central to the mission of the institution and complements and supports other necessary programs.** For example, a mathematics program with few majors provides essential support to programs in chemistry, physics, and technology; or a chemistry program with few majors provides necessary support to programs in chemical engineering, agriculture, nutrition, and nursing; or doctoral programs in the biomedical sciences have low enrollments but are required for medical school accreditation and play a vital role in the instruction of medical students.
- **Although student demand is low, the societal need is still high, and the program should be retained.** For example, enrollments and degrees conferred are relatively low in some education programs and science and mathematics programs, but the state's public schools need middle grades teachers, special education teachers, as well as subject specialists, especially in mathematics, science, and reading. Greater efforts should be made to attract students into these programs, many of which are currently under enrolled, rather than to eliminate them and restrict access.
- **The program provides access and opportunity for greater numbers of minority students to participate in higher education in fields where there are critical needs for more minorities** (*e.g.*, education, mathematics, science, engineering, and the health professions). Low enrollment programs on some campuses reflect the overall campus enrollment. As the focused growth institutions gain enrollment, these programs should also expand.
- **The program is needed to maintain institutional diversity and balance in program offerings.** A variety of undergraduate courses and programs in the arts and sciences disciplines and in some professional areas are desirable and appropriate for all constituent institutions except the North Carolina School of the Arts. Some greater diversification of programs at the undergraduate level has been especially important for institutions that historically had concentrated a major part of their resources in traditional areas of teacher education. Without this diversity, it will be difficult for some institutions to increase their enrollments.
- **The program is needed to ensure greater geographic access and regional distribution of programs, not only to provide wider opportunity and availability for students but also to perform a needed service role in a given region of the state.** For example, a program in industrial and engineering management with relatively low enrollments is regarded by community and business leaders as a critical element in local and regional economic development. However, the growing availability of distance learning technologies may diminish the rationale for continuing such programs at a given institution if they can be offered effectively at a distance by another institution.
- **The program is unique to the institution and reflects the regional culture or identity of the institution** (*e.g.*, Appalachian Studies at Appalachian State University, American Indian Studies at UNC Pembroke).

- **The majority of courses for the program are drawn from other majors, and thus the costs for offering the program are marginal** (*e.g.*, social sciences programs, medical laboratory technology programs, and area studies programs depend largely on courses from other disciplines; to discontinue such programs would produce minimal cost savings and might actually reduce enrollment, and hence lower productivity, in courses in supporting disciplines).
- **Although the number of students enrolled in the program is low, enrollments in the courses supporting the program are satisfactory because they serve students seeking other degrees or certificates** (*e.g.*, students seeking licensure only, who are not counted as majors).
- **The program is relatively new and may need more time to develop, or the program has experienced growth since the previous studies (and thus is on an upward trajectory) but has not yet met productivity criteria.**
- **Recent circumstances have changed, and demand for the program is rising.** In many instances, institutions have provided specific and persuasive evidence that changes have been made, or are being made, to make the program more attractive and more accessible. Such circumstances include the following:
  - Legislative changes (*e.g.*, increased pay for earning the advanced master's degree), which should raise enrollment in master's degree programs in education;
  - Revisions in curricula and degree requirements (*e.g.*, a new emphasis on environmental studies in natural science programs, which takes advantage of an institution's regional environment);
  - Improved scheduling of courses (*e.g.*, late afternoon, evenings, and weekends) to meet the needs of nontraditional students;
  - Addition of students through distance learning technology that combines on-campus and off-campus students in the same courses;
  - New leadership or the addition of new faculty in specialized disciplines to revitalize the program; and
  - New or renovated facilities and equipment, which will attract and accommodate more students in the program (*e.g.*, a powerful new telescope to support a physics program, a new science facility, or a new fine arts facility).

In addition to these educational reasons, another factor that argues for discretion in eliminating some marginally productive programs concerns the projected enrollment of the University. Between fall 1993 and fall 1996, overall enrollment in the University remained relatively stable, a situation that has undoubtedly contributed to the failure to increase productivity in some programs. However, enrollments are steadily increasing during the current decade as a result of 1) rising numbers of high school graduates enrolling at UNC institutions and 2) the growth in enrollment of nontraditional students off-campus and through distance education. Given these trends, it is advisable to act with some restraint regarding marginally productive programs in high need areas such as the allied health fields, education, and the sciences and at growing institutions.



## **VI. Benefits of the Reviews**

This review, as well as previous system-wide and biennial productivity reviews, have resulted in benefits to the constituent institutions and the University as a whole in a number of ways. These include:

- **Clearer alignment between university missions and academic program priorities,**
- **More effectiveness in developing programs that are responsive to the needs of the state,**
- **Greater efficiency in identifying and reallocating resources that are available to ensure that programs are current and that can be used by faculty and students to pursue new fields of knowledge,**
- **Improvements in academic program quality which enhance the teaching and learning process and provide a stronger basis of support for faculty and students who are engaged in inquiry, exploration and productive research,**
- **enable the members of UNC academic community to contribute to the mission of The University of North Carolina through teaching, research and service.**

## **Appendices**

Appendix A outlines the specific criteria that served in conducting the review and evaluating the degree programs for the 2003 Review of Academic Degree Program Productivity. Appendix B provides recommendations and additional information with respect to the programs reviewed in 2003. Appendix C provides a summary of those degree programs that have been discontinued by the Board of Governors from July 1, 1972 through June 30, 2003. The table does not include the programs recommended for discontinuation in this report.