

**MEETING THE CHALLENGES OF GRADUATE EDUCATION
AT EAST CAROLINA UNIVERSITY**

Prepared by the Task Force on Graduate Education

Paul J. Gemperline, Chairperson
Division of Research and Graduate Studies
September, 2006

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1. Preface

A Task Force on Graduate Education was created by Vice Chancellor Mageean in the spring of 2006 to address several important issues that East Carolina University faces with respect to Graduate Education. Most significantly, (1) ECU has experienced a dramatic increase in graduate enrollment over the last five years, much of it due to increases in distance education in professional masters and professional doctoral programs (see Section 2). (2) During the past five years, ECU has created new graduate programs, including six new doctoral programs which have significantly increased a need for institutional and external funding. (3) Lastly, institutional funding of on-campus graduate education through assistantships and tuition remissions, which has remained stagnant for many years, has been based largely on historical precedent rather than factors that reflect institutional values.

Together, the above three major forces have created a crisis, placing ECU at a crossroads in its history. Strategic plans and decisions must be made now to ensure that ECU proceeds on a path that will lead to long term success in its graduate programs. The purpose of the Task Force and this report is to identify critical issues surrounding ECU's graduate education programs and recommend strategies to address these issues and new opportunities. After appropriate campus review and feedback, the Task Force will report its findings and recommendations to the Vice Chancellor for Research and Graduate Studies and the Dean of the Graduate School. In addition, an external review of graduate education at ECU is currently underway which will initiate an appropriate campus review and feedback. The findings of the Task Force and external review will provide input into a more specific strategic planning activity for graduate education.

Members of the Task Force include: Patrick Pellicane, Dean of the Graduate School; Rick Niswander, Dean of the College of Business; Jeffery Elwell, Dean of Fine Arts and Communication; George Kasperek, Assistant Dean of Graduate Studies and Professor of Biochemistry; Kris Smith, Director of Institutional Research and Testing; Ron Newton, Chair of the Department of Biology; Marti Engelke, Associate Dean for Research and Scholarship of the School of Nursing; Catherine Rigsby (Chair of the Faculty in 2005/2006); Mark Taggart (Chair of the Faculty in 2006/2007); and Paul Gemperline, Associate Vice Chancellor for Research and Graduate Studies (Task Force Chairperson).

1.1. Importance of graduate education

The prestige of a university is built upon the contributions it makes and the value it adds to society. These take on many forms, but in particular, the quality of its graduates, its outstanding scholarship, creative activity and research productivity¹, as well as the outreach services and economic development that it generates are the pillars upon which institutional prestige are built. If East Carolina University is to continue to enhance its prestige, strong and vibrant high-quality graduate education programs will be essential. High quality graduate programs are also a vital component of economic development, which is urgently needed in eastern North Carolina, one of the most economically depressed regions in the United States. In order to develop a highly-

¹ Research is to be interpreted in its broadest context, i.e., research, scholarship, artistry, performances, and other creative activities.

skilled workforce to meet these regional needs, more students with post-baccalaureate training are needed. High quality graduate programs require dedicated, passionate faculty members, competitive support for graduate students, including assistantships, fellowships, tuition remissions and health benefits, especially for doctoral students, and a significant investment in the university's research enterprise.

1.2. The changing mission of the Graduate School

In light of the above dramatic changes and regional needs, the Task Force began its deliberations by reviewing the Graduate School's current vision statement and mission statement. The edited versions provided below were used as a starting point in the Task Force's discussions; however, it is recommended that the Graduate School, the Graduate School Advisory Board, and University community engage in a process in the Fall 2006 to develop a clearly articulated mission and vision statement. The Graduate School's mission statement should state its purpose or goals and how it will achieve those goals and reflect institutional values. The vision statement should describe a desired future condition.

Edited Vision Statement:

The Graduate School at ECU will recognize and support a broad range of post-baccalaureate programs that serve the needs of students, the region, the nation and the world in an increasingly competitive global environment.

Edited Mission Statement:

The purpose of the Graduate School is to sustain excellence in ECU's graduate programs, ensure high quality educational experiences and professional development for all of its graduate students, facilitate strategic development of graduate programs in selected areas of strength, and compliment the University's research, outreach and undergraduate teaching programs.

1.3. Engaging the campus community in the process

This report represents the first step in a process which will guide the university community as it addresses many of the issues associated with the changing role of graduate education at ECU. In order to achieve this goal, the report will be disseminated as widely as possible and discussed by relevant groups including the Council of Deans, Graduate School Advisory Board, the Graduate Assembly, and other appropriate bodies. The remaining sections of this report present graduate education issues that must be examined and resolved, background data to clearly educate the campus community about the complexity of these issues, and guidance with respect to the creation of policies and other actions aimed at addressing these issues.

1.4. Graduate education issues addressed

The Task Force identified nine critical areas to be addressed during its deliberations which are summarized below. Each of these is covered individually in Section 3 of this report.

1. Recommend performance indicators for assessment of graduate program quality.
2. Develop recommendations for how the University will critically evaluate the need and viability of new graduate programs consistent with ECU's strategic directions.
3. Recommend policies to ensure that accountability is embedded in program development, evaluation, and continuation.

4. Recommend a process for assisting graduate programs in development and assessment of enrollment management plans.
5. Assess the costs and recommended levels of funding required to maintain competitive graduate programs.
6. Recommend guidelines for the development of a distribution model for teaching assistantships, research assistantships, and tuition remissions and for linking the funding of graduate assistantships and tuition remissions to quality, productivity, and need assessments.
7. Identify extramural funding benchmarks and recommend policies for their use in assessing and developing incentives for research intensive graduate programs.
8. Recommend policies to efficiently and appropriately allocate and utilize university resources supporting graduate programs.
9. Identify areas where policies may be absent or in need of updating.

2. Background information

2.1. Growth in graduate enrollment

ECU experienced a dramatic growth in graduate enrollment from Fall Semester 2000 through Fall Semester 2005. (See Tables 1 to 3 and Figures 1 to 3). The most recent data from Fall 2005 indicates that growth in graduate student enrollment continued in 2005 but at a lower rate compared to 2001 to 2004. During this same period, 10 new Master's programs were approved, 6 new doctoral programs were approved, and 36 new Certificates of Advanced Study were approved (see Table 4).

- Enrollment continued to increase in masters and doctoral programs.
- Graduate enrollment comprised about 22% of ECU's Fall 2005 enrollment (another new record high).
- On-campus enrollment remained nearly constant.
- Distance education graduate enrollment increased about 14% in the 2005 academic year.
- Distance education accounted for most of the enrollment increase in masters programs.
- Residential (on-campus) enrollment accounted for most of the increases in doctoral programs.

Table 1: Enrollment Trends, 2000 to 200*5

Description	Fall 2000	Fall 2001	Fall 2002	Fall 2003	Fall 2004	Fall 2005
Total ECU Enrollment	18,750	19,412	20,577	21,756	22,767	23,164
Graduate Enrollment, Total	3,433	3,661	4,059	4,517	4,964	5,139
On-Campus	2,666	2,614	2,698	2,715	2,757	2,640
Distance Educ	767	1,047	1,361	1,802	2,207	2,510
Grad Enrollment, percent of total	18.3%	18.9%	19.7%	20.8%	21.8%	22.2%
Graduate Enrollment						
Increase		6.6%	10.9%	11.3%	9.9%	3.7%
Change in on-campus enrollment		-2.0%	3.2%	0.6%	1.5%	-4.2%
Increase in DE enrollment		36.5%	30.0%	32.4%	22.5%	13.7%

*Excludes MD's

Table 2: Trends Graduate Enrollment by Type of Degree

FY	Masters	PhD	EdD	DPT	First Prof.	Non-degree	Total
1999-0	2,341	73	41	0	300	815	3,570
2000-1	2,377	79	37	0	299	940	3,732
2001-2	2,528	101	55	0	291	977	3,952
2002-3	2,714	117	66	0	293	1,162	4,352
2003-4	3,029	153	128	0	304	1,207	4,821
2004-5	3,407	170	138	0	293	1,249	5,257
2005-6	3,658	178	124	32	286	1,147	5,425

Table 3: Trends in Graduate Enrollment: Distance vs. Residential (on-campus)*

FY	Masters			PhD			EdD		
	Total	Res	DE	Total	Res	DE	Total	Res	DE
1999-0	2,341	2,120	221	73	73	0	41	41	0
2000-1	2,377	2,021	356	79	79	0	37	37	0
2001-2	2,528	2,012	516	101	101	0	55	46	9
2002-3	2,714	2,072	642	117	112	5	66	60	6
2003-4	3,029	2,045	984	153	153	0	128	92	36
2004-5	3,407	2,044	1,363	170	167	3	138	121	17
2005-6	3,658	1,970	1,688	178	175	3	124	120	4

*Excludes non-degree and first professional

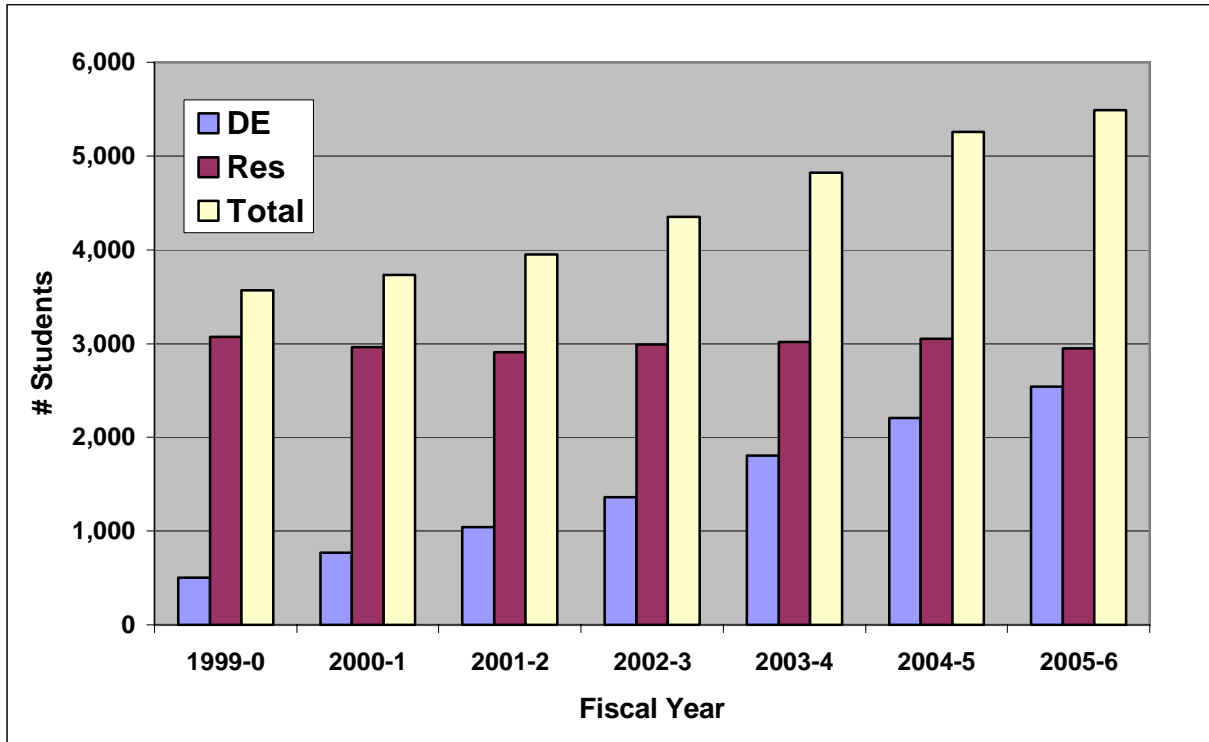


Figure 1: Graduate enrollment trends: 1999-2005, distance education vs. residential

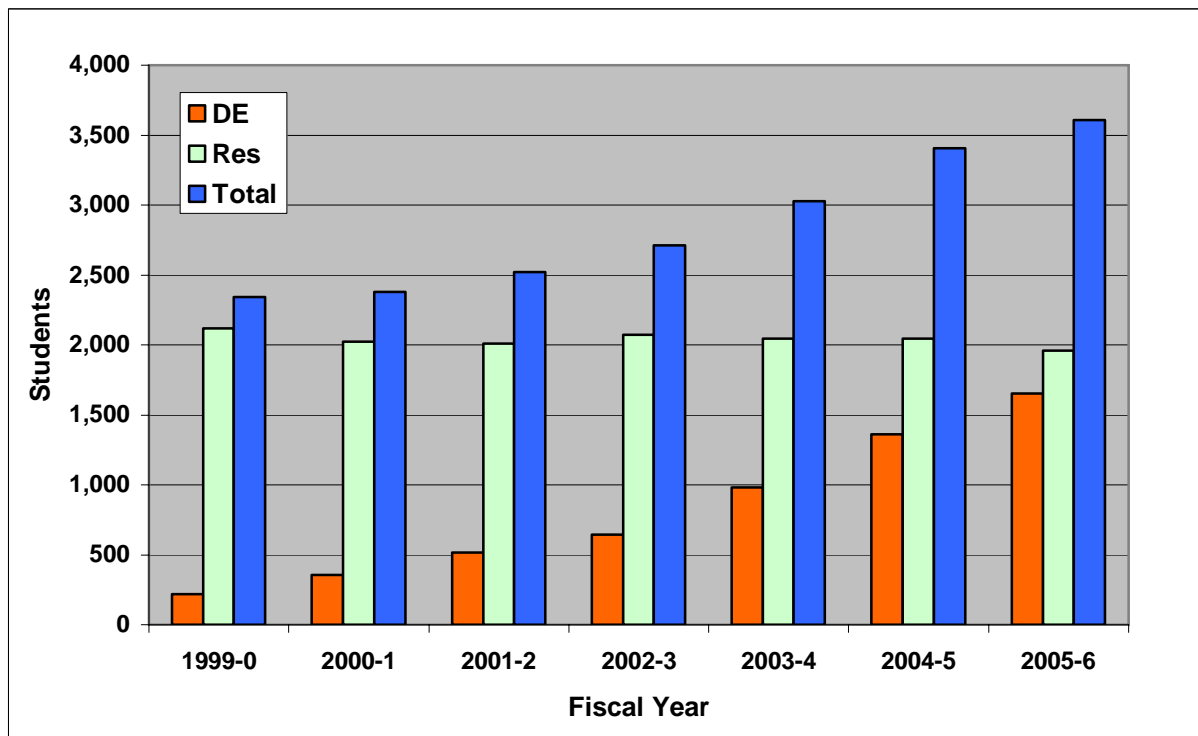


Figure 2: Masters enrollment: 1999-2005, distance education vs. residential

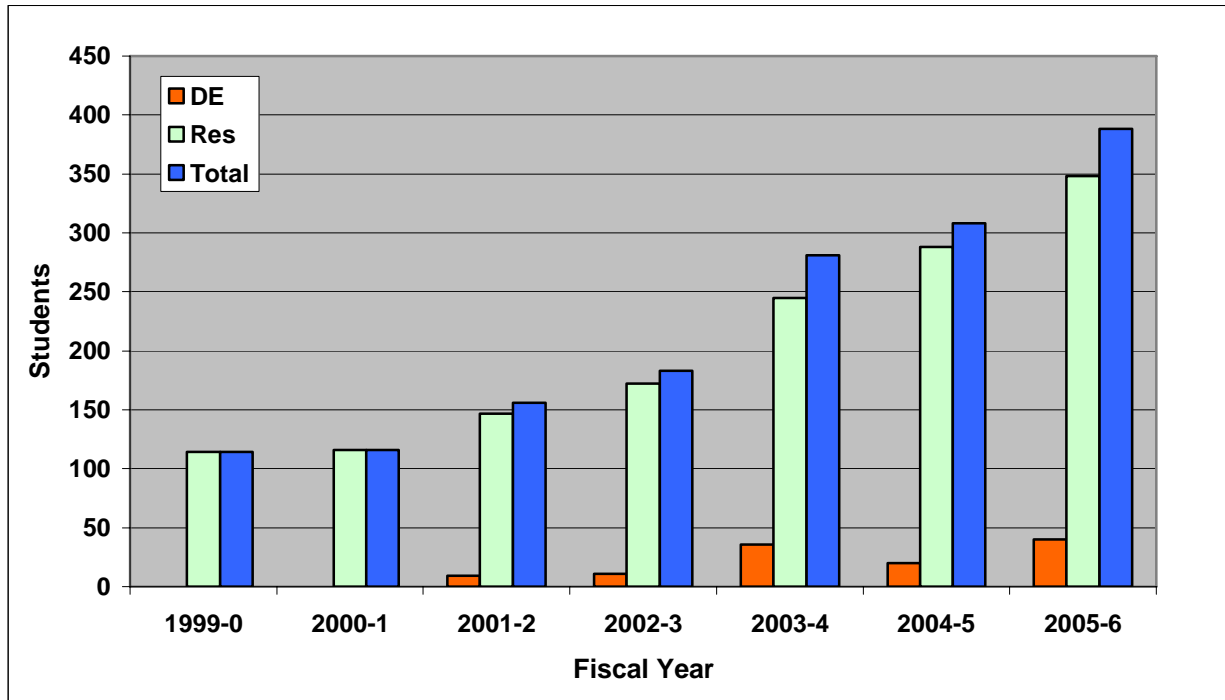


Figure 3: Doctoral enrollment: 1999-2005, distance education vs. residential

Table 4: Recently Approved Graduate Programs

New Master's Degrees		Year Approved
MAEd in Physical Education		2000
MAEd in Career and Technical Education (three licensure areas)		2000
MAT (Teaching, with eleven teacher licensure areas)		2000
MPH (Public Health)		2002
MS in Physician Assistant		2003
MAEd in Birth through Kindergarten Education		2004
MA in Communication		2005
MCM (Construction Management)		2006
MS in Athletic Training		2006
MS in Software Engineering		2006
New Doctoral Degrees		Year Approved
PhD in Nursing		2001
PhD in Technical and Professional Discourse		2003
DPT (Physical Therapy)		2004
PhD in Medical Family Therapy		2004
PhD in Rehabilitation Counseling and Administration		2004
PhD in Health Psychology		2006

Table 4: Recently Approved Graduate Programs (cont'd)

New Certificates of Advanced Study	Year Approved
PB Certificate in Applied Economics	2000
PB Certificate in Professional Communication	2000
PB Certificate in Statistics	2000
PM Certificate in Family Nurse Practitioner	2000
PM Certificate in Neonatal Nurse Practitioner	2000
PM Certificate in Nurse Midwifery	2000
PB Certificate in Early Childhood Studies	2001
PB Certificate in Electronic Commerce	2001
PM Certificate in Nursing Education	2001
PB Certificate in Substance Abuse	2001
PB Certificate in Assistive Technology	2002
PB Certificate in Community Health Administration	2002
PB Certificate in Hispanic Studies	2002
PB Certificate in Suzuki Pedagogy	2002
PB Certificate in Economic Development	2003
PM Certificate in Nurse Anesthesia	2003
PB Certificate in Aquatics Therapy	2004
PB Certificate in Child Welfare Studies	2004
PB Certificate in Information Assurance	2004
PB Certificate in International Teaching	2004
PB Certificate in Multicultural Literature	2004
PB Certificate in Security Studies	2004
PB Certificate in Special Endorsement in Computer Education	2004
PB Certificate in Performance Improvement (Tech Systems)	2004
PM Certificate in Pathology Assistant	2004
PB Certificate in Advanced Performance Studies	2005
PB Certificate in Aquatics Management	2005
PB Certificate in Community College Instruction	2005
PB Certificate in Employee Assistance Program Counseling	2005
PB Certificate in Finance	2005
PB Certificate in Rehabilitation Counseling	2005
PB Certificate in Substance Abuse Counseling	2005
PB Certificate in Vocational Evaluation	2005
PB Certificate in Autism	2006
PB Certificate in Biofeedback	2006
PB Certificate in Sport Management	2006

2.2. Funding of graduate assistantships

Funding of graduate assistantships increased 8.1% in academic year (AY) 2004/05 to \$8.6 M compared to 2003/04 (see Table 5). The largest increase came from Departments and Colleges and the second largest increase came from non-state funds (grants and contracts). The majority of the funds for graduate assistantships came from institutional sources (84.5%) including 49.1% from the Graduate School and 35.4% from Departments and Colleges. During the period from 2002 to 2005 there were no permanent increases in the Graduate School's assistantship budget despite significant growth in enrollment. Compared to peer institutions and peer programs, the

percentage of graduate assistantships funded by non-state sources such as external grants was 15.5%, much lower than the average found in peer institutions.

Table 5: Summary of Graduate Assistantship Funding

	Academic year 2002-03		Academic year 2003-04		Academic year 2004-05		Change, 03/04 to 04/05
	Amount	% of total	Amount	% of total	Amount	% of total	
Grad school funds	\$4,051,577	53.6%	\$4,097,680	51.8%	\$4,222,234	49.1%	2.9%
Unit funds	<u>\$2,294,842</u>	30.3%	<u>\$2,647,474</u>	33.5%	<u>\$3,045,148</u>	35.4%	13.1%
sub-total	\$6,346,419	83.9%	\$6,745,154	85.3%	\$7,267,381	84.5%	7.2%
Non-state funds	<u>\$1,218,526</u>	16.1%	<u>\$1,160,522</u>	14.7%	<u>\$1,333,799</u>	15.5%	13.0%
Total	\$7,564,945		\$7,905,676		\$8,601,180		8.1%

A detailed summary of expenditures in AY 2002/2003, 2003/2004, 2004/2005, and 2005/2006 is presented in Appendix I. This data was obtained by running database queries on the Financial Record System (FRS) data warehouse and the Registrar's student database. All expenditures for graduate assistantships, regardless of the sources of funds or budget unit were retrieved from the FRS data warehouse. Student information, such as the student's major area of study, degree description, and semester credit hours were retrieved from the Registrar's student database. Merging the data from these two very different sources by student SSN was challenging. While every attempt has been made to ensure the accuracy of the data reported in Appendix I, there are bound to be some minor errors. For example, in some circumstances, student SSNs changed especially international students that are customarily assigned temporary numbers when they first arrive. Changes to SSNs were handled by pooling the data for each student to the most current SSN. In some circumstances, no SSNs were available because the "students" were not enrolled. This might occur for example as a result of late applicants to graduate programs. After merging, the resulting data was organized into summary tables by budget unit, source of funds, and student status. Detailed tables from this study are found in Appendix I of this report. Because of the computerized data mining process used in this study, minor errors in the collection and reporting of data are unavoidable. In some cases, these errors can be traced to incorrect coding of assistantship payments into the FRS system at the departmental level.

2.3. Admission data

One measure of the quality of the graduate student body in different degree granting programs can be obtained from admission data. A summary of graduate admission data is presented in Table 6, including GPA for admitted and rejected students, as well as average scores on standardized graduate admission tests. Detailed admission data for academic year 2002/2003, 2003/2004, 2004/2005 and 2005/2006 by graduate program can be found in Appendix II.

- The GMAT (Graduate Management Admission Test) is a standardized exam used primarily by the College of Business. In October 2004, the national mean score was 529 = 50th percentile.
- The MAT (Miller Analogies Test) is a standardized exam used primarily by the College of Education. Raw scores between 46 and 47 are generally near the 50th percentile.
- The GRE (Graduate Record Exam) is a standardized exam in three parts, verbal reasoning, quantitative reasoning, and analytical reasoning. GRE Verbal scores (470 = 50th percentile) and GRE Quantitative scores (620 = 50th percentile) are used by most

graduate programs. The GRE Analytical score was recently rescaled and is not reported here to avoid inconsistencies.

- In some cases, students with high GPA's or high standardized scores might be rejected because they are international students for which out-of-state tuition remissions are not available, due to a lack of timely allocation of resources to program directors, insufficient capacity, lack of a proper prerequisite degree, or other reasons.
- The yield (percent of accepted students that become enrolled) is not reported here. Further work is being performed to gather this data.
- In some cases, ECU students with sufficiently high undergraduate GPA's (>3.50) are not required to take standardized admission exams.

Table 6: Graduate Admission Data, 2004/2005

School or College	Adm Status	No. Students	GPA			GMAT	
			Low	High	Avg	No. Scores	Avg.
Business	Admitted	314	1.930	4.000	3.196	309	508
	Rejected	57	1.680	3.810	2.950	56	396

School or College	Adm Status	No. Students	GPA			MAT	
			Low	High	Avg	No. Scores	Avg.
Education	Admitted	657	1.970	4.000	3.013	383	46
	Rejected	81	2.040	3.870	2.882	48	30

School or College	Adm Status	No. Students	GPA			GRE Verbal		GRE Quant	
			Low	High	Avg	No. Scores	Avg.	No. Scores	Avg.
Harriot College of Arts and S	Admitted	366	0.830	4.000	3.124	337	498	337	563
	Rejected	143	1.870	4.000	2.723	132	431	132	527
Health and Human Perf	Admitted	138	2.270	4.000	3.091	84	435	84	535
	Rejected	41	2.160	4.000	3.095	33	416	33	515
Tech and Comput Sci	Admitted	96	2.140	4.000	3.073	62	450	62	579
	Rejected	16	2.200	3.440	2.851	11	354	11	482
Human Ecology	Admitted	189	2.330	4.000	3.240	125	448	125	519
	Rejected	107	2.040	4.000	3.044	86	413	86	490
Fine Arts & Communic	Admitted	70	2.510	4.000	3.418	39	479	39	565
	Rejected	22	2.530	3.760	3.307	16	447	16	524
Allied Health	Admitted	222	2.310	4.000	3.314	194	456	194	567
	Rejected	122	2.400	4.000	3.092	113	402	113	497
Brody School of Medicine (Basic Sciences)	Admitted	21	2.490	3.910	3.188	21	521	21	676
	Rejected	25	2.260	3.970	2.637	23	483	23	626
Nursing	Admitted	155	2.000	4.000	3.199	66	464	66	536
	Rejected	26	2.770	3.760	3.159	19	473	19	562

3. Task force recommendations

3.1. Performance indicators for assessment of graduate program quality

About 8 years ago, ECU implemented its first formal system of graduate program review. One complete cycle of review was completed two years ago and a new cycle was started last year. The results from these reviews have provided a valuable means of assessment and improvement of graduate program quality; however, the lengthy detailed reports generated by the program review process every 6 to 8 years do not facilitate frequent comparative analysis of graduate programs by directors of graduate programs, department chairpersons, and deans relative to their peers within and external to the University.

It is the Task Force's recommendation that annual collection and reporting of program indicators should be used to supplement the Graduate Program Review process and establish a basis for continuous improvement. Suggested program indicators are described below in Tables 7 to 10. Such a collection of data must be the starting point for decision-making and policy-making activities, but should never be used as a substitute for sound human judgment. Program indicators such as the ones described below should be widely disseminated within the University community to enable the Faculty, Directors of Graduate Programs, Department Chairpersons and Deans to assess the quality, efficiency, effectiveness, and rigor of their graduate programs relative to similar programs within ECU and peer programs outside University. Annual evaluation of these data will help guide the investment of resources and the development of strategies for continuous improvement of the quality and performance of graduate programs. It is hoped that publication of this data regularly will stimulate "friendly competition" between departments within ECU as Department chairpersons and Directors of Graduate Programs strive to continuously improve their programs.

Four types of program indicators are proposed, including input indicators, performance indicators, output indicators and general program characteristics which are listed below. See Appendix IV and V for supporting detail.

1. *Input indicators* related to the quality of entering graduate students and new faculty hires:
 - Evidence for *societal need* of the program, such as opportunities for employment as well as community, regional and state considerations.
 - Evidence of *demand* for the program, such as the number of students applying to the program, size of entering cohorts, and completion rates.
 - Evidence of the *quality* of the entering student body such as the GPA, GRE and other standardized test scores of entering cohorts, including *selectivity* (ratio of application to admission offers), *yield* (ratio of offers to enrollees), and *fellowships, honors and awards* earned or awarded to entering student cohorts. For examples of selectivity and yield indicators see Sims and Syverson (2003)².
 - Evidence of the quality of *new faculty hires* such as awards, publications, funding, and quality of graduate/postdoctoral institutions

² L.B. Sims and P.D. Syverson, "Utilizing Data for Effective Administration of Graduate Education", *J. Higher Educ. Strategies*, 1, 66-94, (2003).

Table 7: Sample input indicators and hypothetical data for a medium size MS program

1. Input indicators	2003	2004	2005
1.1. Application and admission data			
1.1.1. Number of students applied	67	71	63
Avg GRE (\pm std. dev.)	1145 \pm 95	1140 \pm 89	1151 \pm 98
Avg GPA (\pm std. dev.)	3.35 \pm 0.51	3.29 \pm 0.53	3.37 \pm 0.52
1.1.2. Number of students admitted	18	17	20
Avg GRE (\pm std. dev.)	1198 \pm 91	1205 \pm 92	1165 \pm 90
Avg GPA (\pm std. dev.)	3.45 \pm 0.49	3.51 \pm 0.50	3.41 \pm 0.48
1.1.3. Selectivity	27%	24%	32%
1.1.4. Number new students enrolled	12	10	14
Avg GRE (+/- std. dev.)	1230 \pm 88	1292 \pm 90	1244 \pm 90
Avg GPA (+/- std. dev.)	3.4 \pm 0.48	3.55 \pm 0.49	3.39 \pm 0.47
1.1.5. Yield	67%	59%	70%
1.1.6. Awards, honors fellowships	2	2	1
1.2. New faculty hires	1	0	2
1.2.1. Peer reviewed publications / FTE	4	NA	3.5
1.2.2. Citations / FTE	12	NA	11.5
1.2.3. Presentations, performances & creative act. / FTE	9	NA	7

2. *Performance indicators* related to productivity, efficiency, quality and effectiveness:

- *Quality* of the student body including the *size* (number enrolled), *diversity* of the student body, *attrition rate*, *time to degree*, *publications per graduate*, and *honors or awards* received by students.
- Evidence that the quality of the graduate faculty is adequate to offer an intellectually challenging academic environment, as demonstrated by active scholarship and creative activity. Performance measures should include *peer reviewed publications*, *performances*, or *exhibitions per FTE* faculty member, *citations per FTE* (where appropriate), *external funding per FTE*, and honors and awards received by faculty members.
- Effective utilization of resources including, where appropriate, *expenditure of external funds* for direct support of graduate education (graduate assistantships and tuition remissions) and *percentage of students supported on external grants*.
- Efficient utilization of resources, including *low average rates of expenditure of Graduate School assistantship funds in support of students beyond two years for master's students and 3 years for doctoral students*. In some programs or disciplines, this length of time may be different and will need to be approved by the Graduate Dean.

Table 8: Sample performance indicators and hypothetical data for a medium size MS program

2. Performance indicators	2003	2004	2005
2.1. Graduate student performance			
2.1.7. Peer rev. pub. / student	1.2	1.5	1.1
2.1.8. Presentations, performances, exhibitions & creative act. / student	1.8	2.2	2
2.1.9. Student honors & awards	1	0	0
2.2. Graduate faculty performance			
2.2.1. Number FTE graduate faculty	15	16	16
2.2.2. Peer reviewed publications / FTE grad faculty	1.4	1.6	2.1
2.2.3. Citations / FTE grad faculty	3.2	4.1	5.1
2.2.4. External awards (grants, etc.)/ FTE grad faculty	\$92,274	\$81,532	\$102,511
2.2.5. Research expenditures / FTE grad faculty	\$81,573	\$78,275	\$93,185
2.2.6. Presentations, performances, exhibitions & creative act. / FTE	3.2	4.2	3.3
2.2.7 Graduate faculty honors and awards	2	1	0
2.3. Assistantship utilization			
2.3.1. No. full-time equiv. assistantships	18.75	18.75	19.75
2.3.2. Asst. expenditures	\$368,980	\$345,824	\$356,391
2.3.3. Assist. from grant & non-state funds	18%	16%	19%
2.3.4. No. students with assistantship support	22	21	21
2.3.4. Avg. FTE assistantship amount	\$16,772	\$16,468	\$16,971
2.3.5. State funds expended for asst. beyond 2 yrs	\$368,980	\$345,824	\$356,391
2.3.6. No. tuition remissions	5	5	6

3. *Outcome indicators* related to the final products and long-range impact of a program:

- Graduate degrees awarded per FTE, degree completion rates and diversity of degree recipients.
- Where appropriate graduate student presentation, publication and performance rates.
- Exit surveys to assess the quality of the graduate experience, alumni surveys to assess satisfaction and career information, the record of placement of students as related to the mission of the program, and employer surveys to assess the quality of graduate preparation
- Licensure/certification exam pass rates
- Honors or awards bestowed upon graduates.

Table 9: Sample output indicators and hypothetical data for a medium size MS program

3. Outcome indicators	2003	2004	2005
3.1. Graduate degrees awarded	8	6	11
3.2. Graduate placement			
3.2.1. Pursuing further education	2	0	2
3.2.2. Job in field	3	3	4
3.2.3. Job not in field	1	2	3
3.2.4. Unemployed by choice	1	1	2
3.2.5. Unemployed unwillingly	1	0	0
3.2.6. Unknown	1	0	0
3.3. Peer reviewed publ. / graduate	2.1	1.9	2.2
3.4. Presentations / graduate	3.2	3.4	2.7
3.5. Performances / graduate	NA	NA	NA
3.6. Diversity of degree recipients	16%	21%	28%
3.7. Exit survey quality of experience	91%	85%	88%
3.8. Licensure / certification pass rate	NA	NA	NA
3.9. Student honors & awards	1	0	0

4. General program characteristics:

- Indicators related to the size of the program such as *target enrollment*, *actual enrollment*, and *diversity*.
- Indicators related to the program's productivity such as *retention rate*, *graduation rate*, and *persistence rate* where the persistence rate is the number of students either graduated or still enrolled.

Table 10: Sample general characteristics and hypothetical data for medium size MS program

4. General characteristics	2003	2004	2005
4.1. Program size			
4.1.1. Target enrollment	30	30	30
4.1.2. Total number graduate students enrolled	31	28	32
4.1.3. Retention rate after 1 year	76%	76%	74%
4.1.4. Graduation rate after 2 years	56%	43%	59%
4.1.5. Persistence rate after 3 years	84%	69%	83%
4.3. Time to degree (years)	2.3	2.2	2.4
4.4. Diversity	30%	27%	26%
4.5. Average graduate course grade (\pm std. dev.)	3.52 \pm 0.18	3.41 \pm 0.17	3.67 \pm 0.15

Appendices IV and V present detailed data on Time to Degree and Student Retention, Graduation & Persistence rates for ECU programs.

The indicators listed above fall into two general categories, *quantitative* and *qualitative*. Those quantitative indicators deemed important will be collected and reported annually by Institutional Planning, Research and Effectiveness, whereas qualitative measures should be collected as needed for periodic program reviews from professional societies, surveys of graduates and employers, etc.

Because two different types of graduate programs are hosted by ECU, it is expected that there should be differences in some of the performance indicators for these two different types of programs (see Appendix III at the end of this document for degree definitions).

1. *Research graduate programs* involve the preparation of students to carry out significant research and to discover new knowledge in pure and applied fields. Recognized degree titles for research graduate programs include Master of Arts (M.A.) Master of Science (M.S.) and Doctor of Philosophy (Ph.D.).
2. *Professional graduate programs* involve the preparation of students for professional practice. The resulting professional activity usually involves the giving of service to the public in the chosen field. Representative degree titles at the master's levels include Master of Business Administration (M.B.A.), Master of Fine Arts (M.F.A.), Master of Social Work (M.S.W.), Master of Music (M.M.), and Master of Public Health (M.P.H.). Representative degree titles at the doctoral level include Doctor of Audiology (Au.D), Doctor of Physical Therapy (D.P.T.), Doctor of Medicine (M.D.), and Doctor of Education (Ed.D.). Professional graduate degree programs are expected to fully reflect the level of intellectual process and knowledge characteristic of standard high quality graduate programs. For this purpose, specific additional performance indicators relating to admission criteria, field experiences, faculty experience, faculty qualifications, accreditation, and curriculum may need to be considered.

3.2. Evaluating the need and viability of new graduate programs

Within the context of the University's strategic plan, the Graduate School should conduct a campus-wide planning exercise in collaboration with academic units to develop strategic plans for development of existing and new graduate programs. This strategic planning should include a strengths, weaknesses, opportunities and threats (SWOT) analysis of each program and the institutional landscape for graduate education. The analysis should identify key issues, goals, strategies and associated costs. A summary of resource needs should be included which identifies funding or other resources sources. Investment of scarce resources in graduate programs should be aligned with the strategic directions so identified.

1. Institutional resources may need to be reallocated between programs. Not all programs will be able to receive strategic investments. The Dean of the Graduate School, in collaboration with the Dean's Council, the Provost, and Vice Chancellor for Research and Graduate Studies and the Vice Chancellor for Health Sciences will have the primary responsibility for making these resource allocation decisions.
2. Procedures for development of new graduate programs are outlined on the web site of the Academic Program Development Collaborative Team³. To start the process, the unit prepares an "Assessing Readiness to Offer New Degree Programs"⁴ document.
3. The Task Force recommends that the procedures noted above should be amended to include strong consultative advice from the Dean of the Graduate School early during the proposal development process. During the early stages of development, the Dean of the Graduate School should make a preliminary assessment of the strengths and weaknesses of the proposal and advise the Unit and the Unit's Dean on the proposal's viability. Only units with very strong proposals consistent with the University's strategic directions and

³ <http://www.ecu.edu/cs-acad/acadprograms/PoliciesForms.cfm>

⁴ <http://www.ecu.edu/cs-acad/acadprograms/upload/AssessingReadinessToOfferNewDegree.pdf>

reflective of resource realities should be encouraged to proceed in the development process.

3.3. Embedding accountability in program evaluation and continuation

The following recommendations address how accountability should be improved in program evaluation and continuation

1. The Graduate School should review and update minimum standards for admission and the process for requesting exceptions to the policy.
2. The Graduate School should develop an administrative system which is capable of monitoring student progress, accounting for assistantship contracts and other financial arrangements, and attending to other issues that contribute to the smooth progression of each graduate student's career at ECU.
3. The Graduate School should review and revise minimum standards for awarding of graduate degrees, especially doctoral degrees.
4. The six year graduate program review cycle should be updated and re-established. See "Procedures for Graduate Program Review"⁵ and "Graduate Program Review Schedule"⁶.
5. To the extent feasible and where appropriate, the program review schedule should be aligned with professional accreditation.
6. The Graduate Program Review process should be enhanced by utilizing input indicators, performance indicators, and output indicators such as those noted in Section 3.3.1 and comparison to benchmark indicators from comparable University units and peer institutions.
7. The Graduate School should establish effective implementation of the three year follow-up assessment process to assure performance goals established during the Graduate Program Review process are being met. See item 9 under "Timetable for Graduate Program Review"⁷.
8. A policy for suspension or discontinuation of graduate programs should be developed and incorporated into the program review process. Examples of potential reasons why a graduate program might be subject to suspension or discontinuation include, but are not limited to, 1) faculty interest and commitment insufficient to maintain the program, 2) a deficiency in quality, 3) insufficient progress on goals set during the program review, 4) lack of supporting personnel or physical infrastructure, 5) insufficient student demand to justify continuation of the program, 6) lack of congruence or alignment with institutional strategic goals, or 7) cases of financial exigency.
9. Benchmarks for assessing graduate program performance should be obtained from peer institutions. Sources of data for developing benchmarks include the Council of Graduate Schools GRE Enrollment Survey⁸, US Dept. of Education Higher Education site⁹,

⁵ http://www.ecu.edu/gradschool/admin_board/GraduateProgramReviewGuidelines.htm

⁶ <http://www.ecu.edu/gradschool/programreview/ProgramReviewSchedule2002.htm>

⁷ http://www.ecu.edu/gradschool/admin_board/GraduateProgramReviewGuidelines.htm

⁸ http://www.cgsnet.org/portals/0/pdf/R_GED2005.pdf

⁹ <http://www.ed.gov/rschstat/eval/highered/list.jhtml>

National Center for Educational Statistics¹⁰, Survey of Earned Doctorates (SED)¹¹, NRC Doctoral Assessment¹², NSF data bases, and data from professional societies.

3.4. Development and assessment of enrollment management plans

At a complex university, the actions of any academic unit impact, to a greater or lesser degree, other units and campus entities. In particular, local enrollment decisions could have profound implications for institutional resource allocation across many units. As such, enrollment targets should be defined which reflect an institutional perspective and a sense of resources demands across campus.

1. The Graduate School should conduct a review of historical data for each graduate program, including graduate enrollment, graduation rates, attrition rates, time to degree and the quality of the student body. The review should also include an assessment of the income and expenses associated with the operation of each program.
2. Deans and units should estimate enrollment capacity and costs associated with each graduate program.
3. Factors that should be considered when estimating enrollment capacity should include the mission and strategic goals of the university, college and department, the expected needs of the state, region or nation for graduates, student demand for the program, likely job markets for graduates, the size and mentoring capacity of the graduate faculty, the availability of space to support graduate students, (laboratories, graduate student offices, etc.), the department's need for graduate teaching assistants, the minimum size and desirable size of the graduate program and the impact of retention rates, graduate rates, and time to degree on the size of entering cohorts of students.
4. Estimates of cost should include the graduate faculty needed to teach graduate courses and mentor graduate students, the projected cost of assistantships, tuition remissions and health insurance, assistantship and tuition costs offset by external funds and offset by undergraduate teaching duties and other related faculty and program costs. For more examples of enrollment and cost considerations see Sims and Syverson (2003)².
5. The Dean of the Graduate School, in consultation with the Academic Council and academic deans, should formulate graduate program priorities which will form the basis for setting enrollment targets and resource allocations.
6. Academic units in collaboration with the Dean of the Graduate School should set enrollment targets for each graduate program based on the above policies, data and the program's relation to the campus mission, priorities and strategic goals.
7. The Dean of the Graduate School, in consultation with the Academic Council and academic deans, should allocate resources (assistantships and tuition remissions) to support graduate programs based on enrollment targets.

3.5. Costs and recommended levels of funding to maintain competitive graduate programs

A survey of ECU's peer institutions was conducted to assess costs associated with graduate programs. Responses were received from five out of 15 universities surveyed. A wide range of responses were received and it became clear that more work needs to be done to gather discipline

¹⁰ <http://nces.ed.gov/>

¹¹ <http://www.norc.org/issues/docdata.htm>

¹² <http://www7.nationalacademies.org/resdoc/index.html>

specific data that will accurately reflect market driven costs associated with recruiting graduate students (assistantships, tuition remissions, health care, etc). A majority of responding institutions indicated that their support for recruiting Ph.D. students included a combination of assistantship, tuition remission or tuition assistance, and health insurance. Health insurance availability was noted as an important recruitment tool .

The Task Force believes the following recommendations are necessary for ECU's graduate programs to efficiently and effectively use graduate assistantship funds, especially to make competitive recruiting offers.

1. The Graduate School should conduct a comprehensive assessment of current resource allocations and establish an appropriate model to determine support for each program.
2. The Graduate School should conduct a comprehensive assessment in collaboration with graduate program directors to determine the prevailing rate of graduate assistantships within each program and establish minimum full-time assistantships levels.
3. Allocation of graduate assistantships and out-of-state tuition remission from the Graduate School to graduate program directors should be made at the beginning of the recruiting season according to the guidelines discussed above (see Section 3.5, items 1 and 2) and managed by graduate program directors.
4. All Ph.D. students receiving full-time graduate assistantships should receive a full tuition remission and subsidized health insurance benefits. See the UNC student health insurance provider Hill, Chesson & Woody web site¹³ for sample plans and rates.
5. Ph.D. students support by external assistantship funds should also have in-state tuition remissions and health insurance benefits covered by the same source of external funds.
6. Assistantships may be allocated in fractional amounts.
7. Incentives should be instituted to reward programs that support graduate students on external funds.
8. A competitive program for awarding assistantships supplements or premium assistantships should be instituted to increase stipends to enhance recruiting of the very best graduate students.
9. Students exclusively enrolled in certificate programs should not be eligible to receive graduate assistantships or tuition remissions from Graduate School funds.

3.6. Guidelines for the distribution of graduate assistantships and tuition remissions with linkage to quality, productivity, and need assessments

The current distribution of graduate assistantships at ECU is based on historical precedents which no longer serve the university well. In order to address the inequities in this system, the Graduate School should develop policies for distribution of assistantships and implement them over a multi-year period. The policies should be based on the following factors:

1. Estimated faculty mentoring capacity (number research active faculty x number of students per faculty).
2. Ability of the program to place its graduates in fields relevant to their disciplines.
3. Congruence with institutional mission (i.e., research, teaching, service/outreach, and economic development).

¹³ <http://www.hillchesson.com/>

4. Availability of adequate personnel, physical infrastructure and other resources (e.g., research laboratory equipment, space, maintenance, etc.; research office space; where appropriate, technical support; among others).
5. Analysis of student demand for the program, i.e., the ability to recruit an adequate quantity of high quality students.
6. Consideration of the revenue generated by program enrollment and SCH production.

Under all circumstances financial support for graduate students, through assistantships and remissions, must be associated with research, teaching or other activities that contribute to the professional and educational development of the student. Research, in the broadest definition of the term, is identified as the primary professional development activity with which graduate students should be engaged. However, teaching and a wide range of service/outreach activities (including economic development efforts) are legitimate vehicles for student professional development.

Student and programmatic quality should always be a primary factor allocation decisions. Student quality can be assessed by the usual evaluation metrics (e.g., GPA, test scores, etc.) and a variety of subjective criteria (e.g., student motivation, past experience, other character traits). Programmatic quality can be assessed by a variety of metrics including, but not limited to, contract and grant activity, publications, professional engagement, service activities, and social impact.

Programmatic need will not be defined simply as the requirement for resources where none are present. Need must suggest a temporary circumstance or the creation of a foundation upon which future success will be generated without institutional support.

Definitions

Research assistantships, teaching assistantships, and fellowships are frequently administered incorrectly. Graduate students who are hired as part-time hourly workers are routinely classified incorrectly as graduate assistants. These errors and inconsistencies are a source of confusion regarding the strategic role of graduate students, make it difficult to track expenditures for different kinds of graduate assistantships, and as such, complicate planning. The task force recommends the following definitions be adopted and applied consistently in the administration and support of graduate students.

Fellowship

An arrangement in which financial support is given to a graduate student to pursue his or her degree with *no obligation* on the part of the student *to render service to the university or research advisor* as an assistant or employee. Fellowships are generally merit-based awards.

Graduate Assistantship

A Graduate Assistantship is a generic term for any arrangement in which financial support is given to a graduate student in the form of employment to perform specific services related to the institutional mission in the furtherance of his or her graduate education. Such arrangements usually come with the expectation that the student will be required to provide 20 hours of service per week. *Employment of graduate students for purposes unrelated to the furtherance of their*

degree is not an assistantship, and should not be portrayed as such for recruiting or accounting purposes. The Graduate School in conjunction with the Graduate School Advisory Board should develop a more precise set of criteria for deciding when the graduate student is employed as an employee rather than supported on a graduate assistantship.

Graduate Research Assistantship (GRA)

An arrangement in which financial support is given to a student who performs research.

- In cases where the graduate student *performs thesis, dissertation, or other degree-related research* of a type that is required from all candidates for the degree, the time spent on research connected with the thesis or dissertation project is expected to be significant and hours spent on graduate research assistantships are not tracked.
- In cases where the graduate student is conducting research that is not directly thesis-related, a full-time assistantship will constitute 20 hours of work per week.

Graduate Teaching Assistantship (GTA)

An arrangement in which financial support is given to a student who provides support in the teaching of a course. The assignment is in the student's major field or one closely related and *involves intellectual interaction with students*. In making a TA assignment, faculty and staff members responsible for oversight should consider the difficulty of the assignment and the curricular background of the prospective GTA. An appropriate amount of time needed for the GTA to learn the material should be incorporated into the assignment. Where there are disparities in the assistantship assignments from course to course, those responsible for appointments should weight the assistantship assignments to ensure balance. Graduate students given primary responsibility for assigning grades in a course must meet the Southern Association of Colleges and Schools (SACS) 18 hour rule.

Graduate Administrative Assistantships (GAA)

An arrangement in which a unit hires part-time workers which may be graduate students to perform administrative work unrelated to his or her graduate degree. This kind of employment should not be represented as a graduate research assistantship or graduate teaching assistantship for recruiting or accounting purposes and never coded as such in the University's financial record system.

Partial Assistantships

An arrangement in which financial support is given to a student appointed as a part-time GRA, GTA or GAA. For these forms of support, the fractional level of support given to the student will be equal to the expected level of service provided. For example, in return for half the service expected of a regular assistant, the student receives half the regular stipend.

Assistantship Assignments

Student assistants should be asked to perform only duties that are directly related to the mission of their graduate assistantship assignments. Assistants should *never* be asked or required to provide inappropriate services, e.g., childcare, pet care, clerical services or other personal services as part of their responsibilities. In general, assistantship assignments should be equitable. Special care should be given to the distribution of tasks among assistants. All faculty and staff members responsible for oversight are encouraged to be alert to possible unequal

assignments and guard against them through thoughtful and sensitive task distribution (e.g., equal distribution of lab maintenance duties).

3.7 Extramural funding benchmarks and their use in assessing and developing incentives for research intensive graduate programs

At this time, ECU is far from its research and graduate educational potential. Through a combination of incentives and reallocation of resources, research intensive graduate programs must increase the percentage of assistantship funds from external sources. In addition to incentives, external funding targets for graduate education should be set in appropriate disciplines. Specifically, these targets should specify a program's minimum level of expenditures for graduate assistantships from external funds expressed as a percentage of the program's total assistantship expenditures.

3.8. Policies to efficiently and appropriately allocate and utilize university resources supporting graduate programs

Improvements in the efficient use of institutional funds for graduate assistantships will allow the University to expand graduate enrollment or improved the competitiveness of graduate recruiting efforts at little additional cost to the institution. Specific suggestions for the improving the efficient use of existing institutional assistantship funding are noted below.

1. Currently it is common practice in many programs at ECU for graduate students on full-time assistantships to enroll as part-time students (3 SCH). The Task Force recommends that all students who receive full-time assistantships should be registered as full-time (9 SCH, minimum) students. The resulting resources generated by increased student credit hour production will be needed by the Graduate School to offset the increased in-state tuition burden placed upon these students either through increases in assistantships or in-state tuition remissions.
2. Graduate assistantship policies should include a rule limiting the average length of time a masters or doctoral student can be supported from Graduate School funds to two years and three years respectively. In some programs or disciplines, this length of time may be different and will need to be approved by the Graduate Dean. Any support provided beyond these times should come from non-Graduate School funds.
3. Graduate assistantship expenditure to master's students enrolled beyond two years (4 semesters) amounted to about 17% of total masters expenditures in the last fiscal year (see Appendix I). Graduate assistantship expenditures to doctoral students beyond four years amounted to about 37% of the total expenditures (see Appendix I). Application of a two year limit for master's students and a three year limit for doctoral students would free up more than \$500,000 for other graduate students. The benefits from application of such a rule would include decreasing the average time to degree, increasing the number of students supported, and improving the productivity and efficiency of programs.
4. Increased funding for in-state and out-of-state tuition remissions for Ph.D. students is needed in order to provide incentives for faculty members to support Ph.D. students rather than post-doctoral research students.
5. ECU should provide incentives for faculty members, program directors, and departmental chairpersons to increase extramural funding for graduate assistantships through research

grants and other instruments. For example, some form of matching program for externally funded assistantships should be instituted.

3.9. Policies that may be absent or in need of updating

The current Graduate Catalog has grown in an ad-hoc manner over a number of years and is in need of a major re-organization and revision. Furthermore, the use of a paper catalog is not only costly and inefficient, but also ineffective. As such, movement toward an exclusively electronic catalog is essential. At the time of this report's writing, there appears to be a number of graduate student related policy omissions and issues that will need further consideration during a major revision of the catalog. The following list identifies some of the policies that are absent or in need of revision. Others may be identified during the revision process.

Major policies absent or in need of revision:

1. Graduate student grievance procedures
2. The appropriate use of research and thesis courses
3. Review the listing and utilization of 5000-level and 7000-level courses in graduate programs
4. Listing of tuition & fees in the catalog
5. The role of doctoral and masters classes in PhD programs
6. Minimum requirements for master's degrees, doctoral degrees, and PhD degrees
7. Description of in-state residency issues
8. The role of student advisory committees
9. Student representation on faculty committees
10. General admission requirements for all graduate students
11. BS/MS 4+1 degree programs, including tuition issues
12. Issuing and administration of assistantship contracts
13. Review and update the administrative processes for graduate program reviews
14. The Graduate School Administrative Board should review the university's inventory of certificate programs and applicable federal, state and UNC system guidelines and recommend minimum university standards.