Committee on Graduate Studies
Report to the Faculty

March, 2002

The University faces a budget crisis that threatens severe, negative, and long-lasting impacts on the Arts & Sciences graduate programs. While recognizing that all sectors of the University community are facing painful cuts, we are particularly alarmed for the A&S graduate programs because the present cuts come on top of a half-decade of eroding base support. The first few sections of this report present COGS's need to have a larger voice in the debate on how to respond to this half-decade stagnation of base support, the present budget crisis, and our suggestions on how to ensure the vitality of the graduate programs as we go forward from here. The more routine items appear at the end of the report.

A resolution concerning the role of COGS in the ongoing budget discussions:

Resolved: The Committee on Graduate Studies (COGS) respectfully requests that it be invited to begin immediate discussions with the University administration, the Faculty Assembly and the relevant A&S Faculty committees, the purpose of these discussions being to enlarge the role that COGS has in budget deliberations relating to the research and academic programs under its purview.

Rationale:
1] COGS, together with the Dean of Research and Graduate Studies, is charged with the academic oversight of the graduate programs in Arts & Sciences[1]. This single committee carries out functions for the graduate programs that are delegated to a variety of committees at the undergraduate level. With almost four hundred students under our charge, the A&S graduate program is comparable in size to each of the other Schools.

[1] Section 1.2, Article VI of the Bylaws of the Faculty of Arts & Sciences states: "There shall be a standing Committee on Graduate Studies which shall make recommendations to the Faculty regarding policy, and carry out established policy, with respect to admissions, curricula, degree requirements, and academic standards in programs leading to the degrees of Master of Arts, Master of Science, Doctor of Philosophy, and such other earned post-baccalaureate degrees as may fall within the jurisdiction of the Faculty; and, concurrently with other Faculties of the College, for all programs in which members of the Faculty of Arts & Sciences participate substantially. The Committee on Graduate Studies, of which the Dean of Research and Graduate Studies shall be chair, shall include the Dean of Graduate Studies of the School of Marine Science and the chairs of departments and directors of programs of the Faculty of Arts & Sciences offering graduate work or their respective representatives, and such other members of the Faculty as the Committee on Faculty Affairs may recommend."

2] The graduate programs in Arts & Sciences are the source of most of the overhead funds generated on the main campus (*i.e.* not including VIMS/SMS) as the following table for FY01shows:

Arts & Sciences	$1,923,333	89.3%
Education	229,149	10.6%
Law	2,347	0.1%
Business	0	0.0%
Total overhead	2,154,829	100.0%

Overhead is a kind of 'tax' on externally funded research. We submit that those who pay the tax should have a voice in how the funds are allocated in order to promote and preserve the research programs of the University.

3] Two Master's programs under COGS' purview are proposed for elimination (Chemistry and Psychology). While understanding the time constraints the University administration is working under, COGS must be more closely informed than it has been to date in order that it can effectively carry out its charge under the Bylaws.

Comments: COGS recognizes that participation in the governance of the University is a duty of all faculty. We also recognize that we can achieve some goals of the resolution by encouraging colleagues in our home departments and programs to stand for election to relevant committees and the Faculty Assembly, and to serve on appointed committees. However, this action alone does not address the immediate concerns that prompt the resolution. Nor does it recognize that the graduate programs *as such* have an enduring role to play in advising on budgetary policy as it impacts the research program and that committee memberships - whether elected, appointed or *ad hoc* - should recognize this fact.

The graduate aid situation

Last year's report from COGS highlighted the fact that our Ph.D. stipends are no longer competitive relative to our peers. This finding was based upon a study initiated by Dean Steve Park in Fall 2000 (for a summary of the findings, please see last year's Annual Report[2]). Every one of our Ph.D. stipends is below the 50th percentile relative to our peers, some far below. This is due to the six years of flat funding we have received from the Commonwealth. Because our peer institutions, with whom we compete for students, have been increasing their stipend our flat funding has effectively eroded the base support for the graduate programs. This erosion of the base support is the single greatest threat to the long-term viability of the graduate programs in Arts & Sciences and must be addressed.

The last significant increase in support for graduate stipends occurred during restructuring in the mid-90s. As described in the COGS Task Force study of the Impact of Restructuring performed in the spring of 2000[3], the closing of several MA-only programs freed up approximately $167K in graduate aid funds that were redistributed to the remaining programs. An additional $251K was provided by the administration in order to make the Ph.D. stipends competitive. Since that time, external research funding in A&S has nearly *doubled* from $6.8M in FY97 to $13M in FY02. In the past five years twelve of our junior science faculty have been granted prestigious NSF-Career Awards. Our Ph.D. program in Colonial History is ranked #2 by the US News & World Report. Our programs and faculty are of very good quality, but the drive toward building outstanding graduate programs has stalled. Unless significant new resources are

[2] www.wm.edu/FAS/Meetings/DOCS/GRAD-STUDIES.

[3] www.wm.edu/FAS/Meetings/DOCS/GRAD-STUDIES/COGStaskforce.html.

reallocated into the programs to shore up the base support for graduate stipends, even maintaining the programs at their present levels is at risk.

Departments and programs have been allowed to respond to the flat budget flexibly, for example by offering fewer stipends at higher rates if they chose to do so. Departments with significant external funds, which generate overhead, have been forced to keep their stipends competitive by supplementing the Dean's support with overhead recovery funds. The Physics Department recently raised its stipend by 10% to $17,600 for twelve months. Applied Science will probably soon follow suit. This still puts the Physics Department below the 50% mark among its peers (the Duke stipend is presently $20,000). The funds to cover this increase are not coming from the Dean's Office but will have to come from a combination of external funding and a decrease in the size of the incoming class. For those programs that generate overhead, much of the overhead returned to the program must be used to supplement *teaching* stipends. It is *not* being used to support or invest in the research program (*e.g.* by providing junior faculty startup or equipment money).

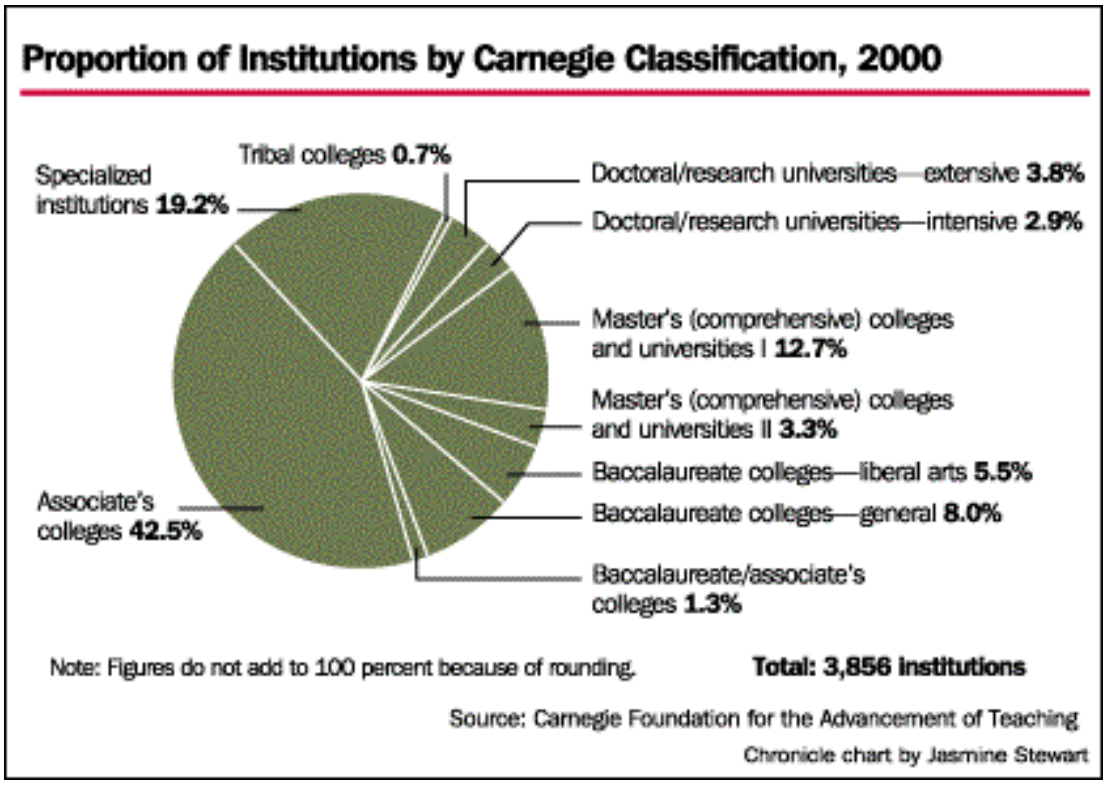
Why the Arts & Sciences graduate programs are important to us all

Although graduate students in Arts & Science are only a fraction of the student body, the benefits they bring are substantial and are distributed throughout the University. We discuss the following points in turn:

- The graduate programs help determine our 'peer group', which in turn affects faculty salaries, library resources, etc.
- The graduate programs enhance the undergraduate program.
- The graduate programs allow us to bring in substantial external support. The overhead on these funds benefits the university as a whole.
- The graduate programs are the most effective means for the University to play a role in economic development.

The graduate programs help determine our 'peer group'

William & Mary is truly a research university. This is not surprising if we view the institution as a whole: if we include the other Schools (Business, Education, Law, Marine Science), 25% of W&M students are graduate or professional students, and 34% of degrees awarded last year were graduate or professional degrees. We are a "Doctoral/research university-intensive" by the Carnegie Classification scheme (see figure). While this classification *per se* is of limited importance, it is used by various outside agencies, such as *US News & World Report*, as a way of grouping us with a 'peer group' of institutions. As the chart shows, this classification puts us into a relatively small group of universities. Membership in this select group gives us strong ammunition to fight for a more prestigious SCHEV peer group. This, in turn, helps us to fight for higher faculty salaries, greater library resources, and a host of other items that benefit the University as a whole. Graduate students enhance faculty productivity in research and scholarship which, in turn, contributes to our national prestige as a University. Through graduate programs such as Public Policy our University plays an important role in public service and ensures that the University continues to play a leadership role in the surrounding community.



The graduate programs enhance the undergraduate program

At William & Mary, the undergraduate program is our 'jewel in the crown'. The graduate programs *enhance* the undergraduate program by providing research opportunities, advanced course offerings, better library facilities, and role models for our undergraduates.

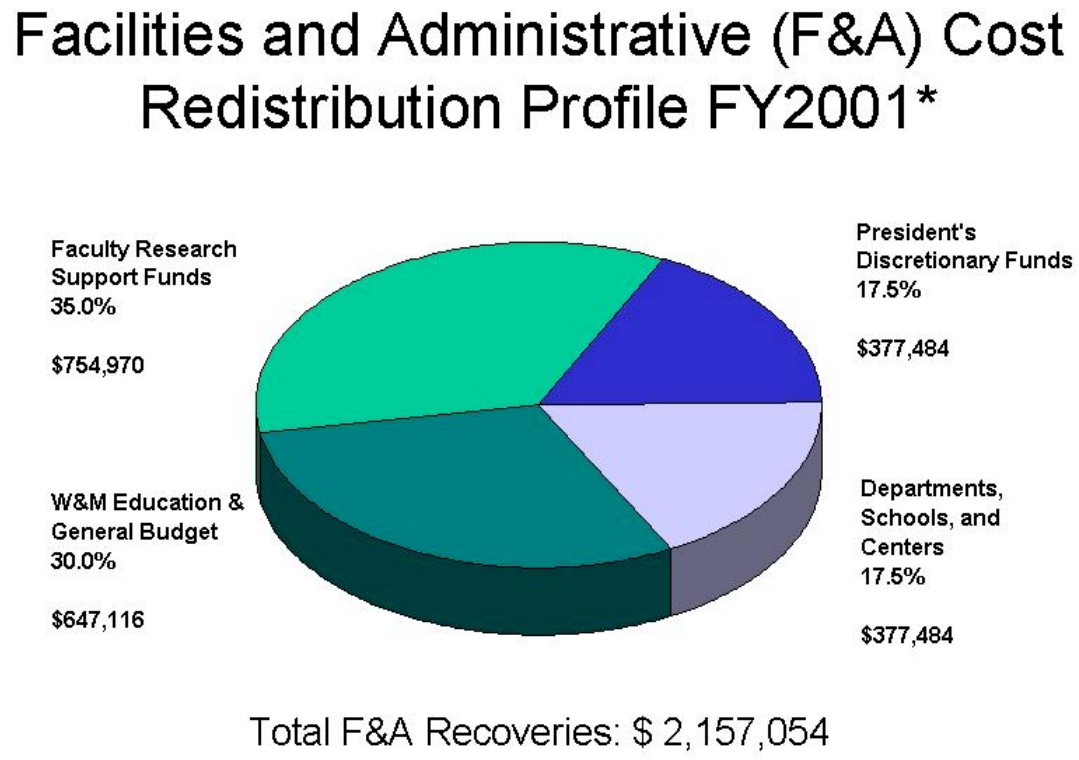
Let's consider, for example, the sciences where we have a recent external report to support our case. Research Corporation recently carried out a study in an attempt to understand the nature of research in science fields at predominantly undergraduate institutions over the past decade. Nationally, 136 institutions (32 public, 104 private) participated ranging from prestigious privates to a number of large publics. Some key findings were (italics added):

- W&M awarded more baccalaureate degrees in the physical and biological sciences during the last decade than any other of the 136 institutions. By discipline studied, the College ranked first in chemistry and fourth in physics and biological sciences.
- The best predictors for students going on to receive the PhD are the quality of the students (SATs) *and the level of research activity by the faculty*.
- W&M ranked *first in research funding* among the 136 schools.
- W&M ranked *third in faculty research productivity* as measured by publications and first in faculty grant activity.

The statistical analysis showed that William & Mary belongs to an elite cluster of schools that are singular in a whole array of areas including faculty research activity, research productivity, science enrollments, and numbers of graduates who go on to receive Ph.D.s in the sciences. The graduate programs, rather than detracting from our undergraduate programs, help to make our undergraduate programs among the best in the nation.

The importance of external funding

Without the graduate programs, our ability to attract significant amounts of external funds would decline sharply. This would be a blow to every program in Arts & Sciences, even those without graduate programs, because overhead funds from grants are distributed to support the research and scholarship mission of the University, broadly understood. For example, a large fraction of the Faculty Research Program has been funded from overhead. This program has played a key role in promoting faculty research and scholarship, even in those programs that don't have graduate programs or access to significant external resources. The long-term solvency of this program depends critically upon the health and vitality of the graduate programs in Arts & Sciences[4].



[4] The School of Marine Science runs a separate grant program and, hence, doesn't contribute to the overhead pool on main campus. Overhead is only charged on external *grants* (private gifts, for example, are typically overhead-free). On the main campus, the only significant grant monies come through the Schools of Arts & Sciences ($9.6M in FY01) and Education ($4.1M in FY01). Because education grants tend to charge low overhead (typically 8-10%) most of the overhead brought into main campus ($2.2M in FY01) comes from Arts & Sciences where overhead is 45% of the total grant (not including equipment).

The graduate programs are the most effective means for the University to play a role in economic development

William and Mary recently received a $3.2 million grant from the Commonwealth Technology Research Fund to improve its bioinformatics infrastructure and help bring a bioinformatics company, INCOGEN, to the area. The quality of the graduate programs in the computational sciences, biology, marine science and applied science were the keys to winning that grant. The founders of the company are former William & Mary graduate students (Physics and Mathematics). The quality of the graduate programs, the habit of internal collaboration, the investment in computational infrastructure, and the flexibility to work with industry and other universities created new opportunities for research, expanded infrastructure in biology and computational science, and new courses of study in the academic program.

A resolution concerning the reallocation of overhead funds

These considerations, coupled with a growing sense of alarm regarding the graduate aid situation, led COGS to adopt the following resolution at its meeting on February 6, 2002:

> "**Resolved:** We strongly urge the Administration to consider modifying the present distribution of overhead recovery funds. Specifically, we suggest that some of the funds presently used to support the Faculty Research Program be shifted to reinvest in the Arts & Sciences graduate programs to make their stipends competitive. This reallocation is also needed to ensure the long-term health of the Faculty Research Program, which plays a key role in promoting faculty research and scholarship across the institution.
>
> **Rationale:** The graduate programs in Arts & Sciences contribute to this institution in many important ways.
>
> - Graduate students, and the research programs they support, ensure that William & Mary is classified as a Doctoral/Research University. This classification directly affects our peer group, faculty salaries, library funds, etc.
> - Graduate students, and the research programs they support, ensure that we are competitive for the external funding that supports research in the sciences.
> - Without significant external funding in the A&S science programs, there would be no significant overhead contribution to fund the Faculty Research Program.
>
> Hence, without a continual reinvestment in the graduate student stipends to keep them competitive, the long-term viability of the Faculty Research Program is at risk. In addition:
>
> - Without the ability to pay competitive stipends to attract good graduate students, there is no real chance for this institution to play the leading role it wants to play in economic development.
> - Without graduate programs there would be fewer research opportunities, fewer advanced course opportunities, and fewer role models for our undergraduates.
>
> The viability of the graduate programs in Arts & Sciences are at risk. We urge the administration in the strongest terms to consider this reallocation of overheard funds from the Faculty Research Program, and to reinvest in the graduate programs which made the Faculty Research Program possible in the first place, and to ensure its continued viability."

Other Committee Business

Course Approvals and Revised Degree Requirements

New modified courses

Applied Science
APSC 651 Cellular Biophysics and Modeling (new course)
APSC 653 Introductory Bioinformatics (new course)

Anthropology
Anthropology 415/515 - Linguistic Anthropology (course cross-listing)

Changes in degrees

Chemistry BS/MS Program

This program links the BS with a master's degree. It is not be a new program. The students who enter this program will be undergrad and grad students combined.

The Chemistry proposal was approved with one abstention from History since the History rep she was not present at the meeting when this was discussed.

HIGHLIGHTS

September 20, 2001 - Graduate Aid Budget-stipends priority for administration

September 20, 2001 - Grad Dean's Open Fellows Funding (DOF) - continuation of funding for new fellows is not secure for future years

September 20, 2001 - Ombudsperson will post each department's grad regulations on the Ombuds web site so students could have easy access to them.

September 20, 2001 - COGS Policy on Extension Requests is in progress

September 20, 2001 - Grad Studies Governance - Discussion of how COGS makes it difficult for programs to advocate for grad studies as a whole because of its structure.

November 29, 2001 - Consensual Amorous Relations Policy

The Committee was asked if it wished to proposed wording for a CARP for graduate students to the Faculty Assembly as they take up their deliberations to develop such a policy. After some discussion, COGS proposed the following wording (adopted by e-mail in January):

"William & Mary graduate and undergraduate students may, from time to time, act in supervisory roles in relation to other students, for example as Teaching Assistants, Teaching Fellows, Residence Life staff members, language drill instructors, graders, etc. The College prohibits consensual romantic and/or sexual relationships between any graduate, or undergraduate, student with teaching or supervisory responsibilities and those graduate, or undergraduate, students whom they are teaching or supervising."

This policy was unanimously approved by COGS and forwarded to the President of the Faculty Assembly for their consideration.

February 6, 2002 - Graduate Dean's Search- Announcement that David Finifter will be the next Dean of Research and Graduate Studies

February 6, 2002 - January Graduate Research Symposium - 1st Annual

February 6, 2002 - Task Force to Develop Guidelines for Proposal of New Grad Programs

C. Statistical Summary

1. ADMISSIONS - Fall 2001 and Spring 2002

Department	Number Applicants	[2] Number Accepted	Number Matriculated
PhD			
American Studies	85	31	12
Anthropology	56	17	8
Applied Science	64	5	4
Computer Science [1]	220	53	20
History	83	28	16
Physics	83	35	10
PsyD			
Psychology	128	20	10
MA/MS/MPP			
Biology	24	20	15
Chemistry	59	5	3
Psychology	55	25	10
Public Policy	45	28	16
Totals	902	267	124

[1] Includes Computational Operations Research.

2. AVERAGE UNDERGRADUATE GRADE POINT AVERAGE OF ENTERING STUDENTS (4.0 SCALE)

Department	Fall 1999	Fall 2000/ Spring 2001	Fall 2001/ Spring 2002
PhD			
American Studies	3.50 (13 of 15)[2]	3.35 (13 of 16)	3.49
Anthropology	3.71	3.35 (6 of 8)	3.28 (6 of 8)
Applied Science	3.47 (10 of 11)	3.47 (10 of 13)	2.92
Computer Science [1]	3.37 (23 of 28)	3.32 (24 of 26)	3.40 (18 of 20)
History	3.60 (21 of 23)	3.56 (21 of 23)	3.70 (15 of 16)
Physics	3.51 (14 of 18)	3.48 (11 of 13)	3.34 (9 of 10)
PsyD			
Psychology	3.50	3.41	3.45
MA/MS/MPP			
Biology	3.14	3.15	3.33
Chemistry	3.73 (3 of 4)	3.14 (4 of 6)	3.13
Psychology	3.30	3.74	3.41
Public Policy	3.38 (14 of 15)	3.36 (18 of 19)	3.34

[1] Includes Computational Operations Research.

[2] Numbers in parentheses signify the # of students we used in this calculation. Some international students have GPAs that are calculated on a different scale and these are not included.

3. AVERAGE GRADUATE RECORD EXAMINATION SCORES OF ENTERING STUDENTS [1]

	Fall 2000/Spring 2001				Fall 2001/Spring 2002			
Department	Verb	Math	Analy	Adv	Verb	Math	Analy	Adv
PhD								
American Studies	596 (15 of 16)[2]	563 (15 of 16)	579 (15 of 16)	*****	622	546	671	*****
Anthropology	561	560	633	*****	550	553	647 (7 of 8)	*****
Applied Science	583 (12 of 13)	756 (12 of 13)	687 (12 of 13)	*****	643	703	710	*****
Computer Science [3]	561	684	686	*****	518	735	645	*****
History	626 (21 of 23)	593 (21 of 23)	663 (21 of 23)	*****	647 (15 of 16)	613 (15 of 16)	661 (15 of 16)	*****
Physics	513 (13 of 16)	723 (13 of 16)	656 (13 of 16)	607 (9 of 13)	504 (9 of 10)	750 (9 of 10)	672 (9 of 10)	*****
PsyD								
Psychology	594	615	651	661	491	532	567	536
MA/MS/MPP								
Biology	553	591	609	*****	561	636	655	*****
Chemistry	535	628	660	*****	547	787	750	*****
Psychology	558	615	593	*****	568	619	632	*****
Public Policy	574 (17 of 19)	654 (17 of 19)	646 (17 of 19)	*****	575 (14 of 16)	604 (14 of 16)	616 (14 of 16)	*****

[1] Includes all regular & provisional students. Scores on the advanced portion are not reported unless at least 70% of the enrolling students took the test.

[2] Numbers in parentheses signify the # of students we used in this calculation. Some international students have GPAs that are calculated on a different scale and these are not included.

[3] Includes Computational Operations Research.

4. REGISTERED REGULAR & PROVISIONAL GRADUATE STUDENTS [1]

Fall 1999 to Spring 2002

Department	Fall 1999	Spring 2000	Fall 2000	Spring 2001	Fall 2001	Spring 2002
PhD						
American Studies	42	51	48	48	49	49
Anthropology	28	25	21	21	22	22
Applied Science	42	38	40	40	37	37
Computer Science [2]	85	75	80	74	66	72
History	62	59	56	56	55	55
Physics	47	46	48	45	41	47
PsyD						
Psychology[3]	53	46	52	46	47	44
MA/MS/MPP						
Biology	23	24	18	21	24	26
Chemistry	8	8	5	7	8	9
Psychology	18	18	16	16	15	15
Public Policy	29	36	36	36	41	41
TOTALS	437	426	420	410	405	417

[1] Totals include both full-time and part-time registration.

[2] Includes Computational Operations Research.

[3] Total in Consortium.

5. GRADUATE DEGREES CONFERRED 2000-2001

DEPARTMENT	DEGREE	August 2000	December 2000	May 2001	TOTAL
PhD					
	M.A.	2	0	3	5
American Studies	Ph.D.	0	3	2	5
	M.A.	1	3	9	13
Anthropology[1]	Ph.D.	0	0	0	0
	M.A.	0	0	0	0
	M.S.	1	1	2	4
Applied Science	Ph.D.	1	2	1	4
	M.S.	2	10	7	19
Computer Science[2]	Ph.D.	1	1	1	3
	M.A.	3	7	10	20
History	Ph.D.	1	2	1	4
	M.A.	0	0	0	0
	M.S.	0	8	4	12
Physics	Ph.D.	3	2	2	7
PsyD					
Psychology	Psy.D.	2	6	4	12
MA/MS/MPP					
Biology	M.A.	3	2	11	16
	M.A.	1	2	1	4
Chemistry	M.S.	0	0	1	1
English	M.A.	2	1	3	6
Government	M.A.	0	0	0	0
	M.A.	0	0	1	1
Mathematics	M.S.	0	0	0	0
Psychology	M.A.	3	0	7	10
Public Policy	M.P.P.	1	1	11	13
Sociology	M.A.	0	0	0	0
TOTALS	M.A.	15	15	45	75
	M.S.	3	19	14	36
	M.P.P.	1	1	11	13
	Ph.D.	6	10	7	23
	Psy.D.	2	6	4	12

[1] 2000-01 1st year of students entering Ph.D. program

[2] Includes Computational Operations Research.

5. GRADUATE DEGREES CONFERRED 2000-01 (cont'd.)

AUGUST 2000 THROUGH MAY 2001

Arts and Sciences	*	23 Ph.D., 12 Psy.D.
Education	*	8 Ed.D., 12 Ph.D.
Marine Science	*	11 Ph.D.

M.A. IN EDUCATION[1]

Secondary School Teaching	*	18

[1]Includes Museum Education

6. GRADUATE DEGREES AWARDED DURING THE LAST 10 YEARS [1]

(August - May)

DEPARTMENT	PROGRAM INITIATED	91-92	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	Ttl Since Aug. 91
PhD												
American Studies	1982-MA	8	12	10	9	11	6	4	13	6	5	84
	1988-PhD	0	1	2	1	4	4	2	3	4	5	26
Anthropology	1979-MA	7	5	12	10	10	9	5	4	5	13	80
	2001-PhD	0	0	0	0	0	0	0	0	0	0	0
Applied Science	1970-MA/MS	1	1	2	6	9	9	11	11	4	4	58
	1990-PhD	0	1	1	4	5	6	6	6	6	4	39
Computer Science[2]	1984-MS	13	23	16	12	9	15	13	8	23	19	151
	1986-PhD	3	2	4	3	0	3	1	5	7	3	31
History	1955-MA	10	10	7	16	12	8	16	11	6	20	116
	1967-PhD	9	6	4	1	3	4	3	9	5	4	48
Physics	1959-MA/MS	10	8	11	9	7	11	12	6	7	12	93
	1964-PhD	7	7	7	6	5	10	8	9	7	7	73
PsyD												
Psychology	1978-PsyD	7	5	6	13	7	8	12	6	14	12	90
MA/MS/MPP												
Biology	1963-MA	5	7	8	13	15	10	8	11	8	11	96
Chemistry	1964-MA/MS	5	7	11	2	8	7	9	4	6	5	64
English	1970-MA [3]	11	15	17	15	11	19	9	5	3	6	111
Government	1966-MA	10	4	7	12	7	3	2	1	0	0	46
Mathematics	1961-MA/MS	6	8	9	9	7	6	0	0	0	1	46
Psychology	1953-MA	7	7	9	5	8	8	9	7	6	10	76
Public Policy	1991-MPP			17	14	13	21	23	14	15	13	130
Sociology	1967-MA	5	2	6	2	7	3	2	0	0	0	27
A&S Totals	MA-MS-MPP	98	109	142	134	134	135	123	95	89	119	1178
	PhD	19	17	18	15	17	27	20	32	29	23	217
	PsyD	7	5	6	13	7	8	12	6	14	12	90

[1] See Table 5 for M.A. in Education degrees.

[2] Includes Computational Operations Research