OFFICE OF RESEARCH ADMINISTRATION & ADVANCEMENT

ANNUAL REPORT

OF

SPONSORED PROGRAM ACTIVITIES

Fiscal Year 2001

This report, prepared by the Office of Research Administration and Advancement (ORAA), provides an overview of sponsored program activities for the fiscal year ending 30 June 2001

$T\ A\ B\ L\ E\quad O\ F\quad C\ O\ N\ T\ E\ N\ T\ S$

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Updated 10 March 2003

INTRODUCTION: RESPONSIBILITIES, ACTIVITIES & ORGANIZATION

I. <u>Summary of Activities</u>

The University of Maryland, College Park (UM) has experienced considerable growth of extramural funding over the past decade, more than doubling our award totals to a current level of approximately \$310 million (includes \$266 million administered through ORAA). The Office of Research Administration & Advancement (ORAA) has aggressively moved toward providing a user-friendly environment for faculty and staff, as well as outside agencies, to promote research and to showcase UM capabilities.

Not only have the award and proposal activity numbers increased, but the intensity of activity has also increased. Our faculty has responded well to the ever changing funding climate; we are experiencing an increased number of proposals. The resulting agreements are complex and unusual, involving multiple parties, special agreements and requirements.

II. ORAA Organization

ORAA is comprised of two main units. The "Administration" unit has responsibility for providing support and service to PIs and Departments for proposal submission and award negotiation and administration. The "Advancement" unit, known as Grant Development Unit, has responsibility for promoting funding opportunities, training and electronic Research Administration (eRA).

III. ORAA Responsibilities:

- Identify sources of extramural funds for research and scholarly activities;
- Facilitate funding links for faculty to sponsors and links to UM researchers for sponsors wishing to initiate collaborative research;
- Coordinate the submission of research proposals to potential sponsors;
- Provide post-award administration (except invoicing);
- Official acceptance and negotiation of all awards;
- Issue and administer sub-award actions;
- Recommend and implement research administration and compliance policies and procedures
- Coordinate, under the direction of the Vice President for Research, the selection of faculty to be
 nominated for prestigious awards that limit the number of applicants (e.g., Packard Fellowships), and
 coordinate the selection of proposals for programs that limit the number of submissions by institution
 (e.g., NSF Instrumentation Program) in any given competition;
- Provide training programs for campus community regarding research administration;
- Review and recommend all F&A waiver requests;
- Conflict of Interest Policy and Procedures.

COMBINED SPONSORED PROGRAM TOTALS

I. <u>Explanation</u>

UM has a combined sponsored research award total of \$310 million for FY 2001. This combined total is comprised of:

- ORAA processed award totals
- UM affiliated foundation grants & sponsored projects not granted back to ORAA from:
 - o University Research Corporation International (URCI)
 - o University of Maryland Foundation (UMF)
 - o University of Maryland College Park Foundation (UMCPF)
- Federal appropriations for the Agriculture Experiment Station (AES) and Cooperative Extension Service (CES)
- Research center memberships
- Units with delegated signature authority: Maryland Fire & Rescue Institute (MFRI), Office of Continuing & Extended Education (OCEE) and the Technology Extension Service (TES)

II. <u>Tables & Charts</u>:

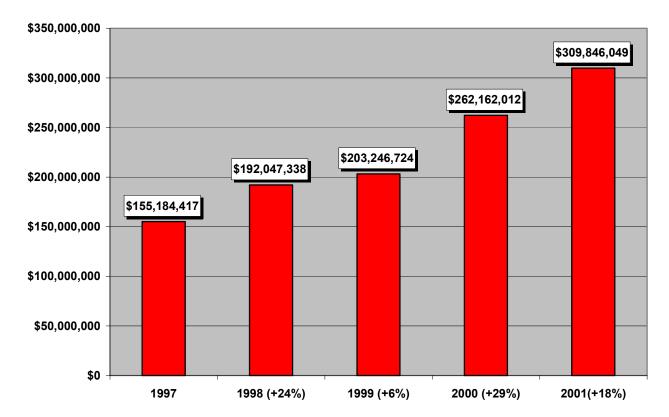
The following table and chart illustrate combined research dollars at UM. Overall, the University experienced an 18% increase from FY 2000.

Table 1
Combined Sponsored Program Awards*
(by sponsor type)

Source	Combined 2000 *	Combined 2001	% Change
Federal	\$156,733,415	\$191,312,561	22%
State	\$33,190,787	\$35,482,063	7%
Corporate	\$9,115,740	\$15,481,703	70%
Foundations	\$40,907,306	\$38,928,930	-5%
Other	\$22,214,764	\$28,640,792	29%
TOTAL	\$262,162,012	\$309,846,049	18%

- * FY2000 totals have been adjusted to reflect the data definitions as standardized in 2001. Specifically subtracted from the state total are:
- Designated Research Initiative Fund (DRIF) \$15,237,000
- State Research Institutes (SRI) \$11,465,000

Chart A – Five Year Combined Research Dollars



Source: UM Data Warehouse.

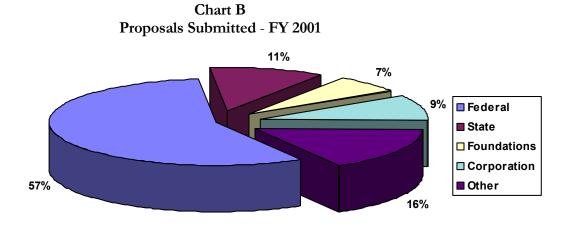
*FY 2000 & 2001 contain totals from expanded extramural report

ORAA SPONSORED PROPOSAL AND AWARD ACTIVITY

Fiscal year 2001 was another groundbreaking year for the Office of Research Administration and Advancement (ORAA). Award dollars administered by ORAA rose by an impressive \$52,482,847, or 25% in comparison to FY 2000. Here are some other notable facts:

- ORAA processed a total of 3,455 award actions, totaling in over \$266 million.*
- 2,039 proposals were sent by ORAA in FY 2001, requesting \$945,520,150 **
- Collaborative projects. have brought nearly \$77 million to the University in FY2001, an increase of 30%.***
- The University's three primary sponsors are:
 - National Science Foundation (NSF)
 - FY 2001 funding of \$41,467,672 (15.7% of FY01 total)
 - The NSF awards rose 15% (from 406 in 2000 to 468 in 2001)
 - The average NSF award was \$88,606 in 2001 a 29% increase.
 - National Aeronautics & Space Administration (NASA)
 - FY 2001 funding of \$38,701,700 (14.62% of FY01 total)
 - The amount of NASA awards rose nearly \$2 million (6%) from FY 2000
 - State of Maryland (STMD)
 - FY 2001 funding of \$35,482,063 (13.41% of YF01 total)
 - STMD awards increased from 314 in FY 2000 to 433 in FY2001, (38% increase).
 - STMD award dollars increased by \$4.3 million (14%) for FY 2001.

Chart B & C below illustrate the division of sponsored awards and proposal processed by ORAA. Chart B shows that the bulk of proposals were sent to federal agencies during FY01



Source: UM Data Warehouse

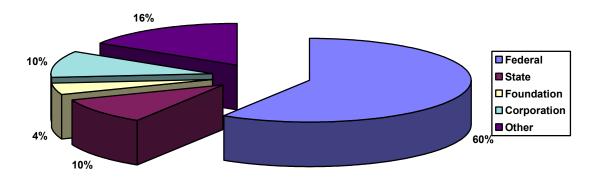
^{*} Number of all awards actions processed through ORAA

^{**} Both totals exclude proposals requesting \$0.

^{*&}quot;Collaborative" denotes projects where PI's are from two or more different departments

The majority of funding during FY 2001 was from federal sources.

Chart C Awards Received - FY 2001



Source: UM Data Warehouse

Table 2 below displays the distribution of Federal award dollars during FY 2001.

Table 2 Federal Award Dollars - FY 2001

Agency or Sub-category	Award Amount	Percentage of Federal	Percentage of 2001 Total
NSF	\$41,467,672	22.58%	15.59%
NASA	\$38,701,700	21.08%	14.55%
Defense Dept.	\$34,360,801	18.71%	12.92%
All Other Federal	\$18,861,310	10.27%	7.09%
Hlth. & Human Serv Dept.	\$18,214,245	9.92%	6.85%
Education Dept.	\$7,324,458	4.78%	3.30%
Agriculture Dept.	\$8,784,473	4.35%	3.00%
Commerce Dept.	\$7,969,480	4.34%	3.00%
Energy Dept.	\$7,274,458	3.96%	2.73%
FEDERAL TOTAL	<u>\$183,616,780</u>	<u>100.00%</u>	<u>69.02%</u>

Table 3 displays the distribution of Non-Federal funds during FY 2001.

Table 3 Non-Federal Award Dollars - FY 2001

Agency or Sub-category	Award Amount	Percentage of Federal	Percentage of 2001 Total
State of Maryland	\$35,482,063	43.09%	13.41%
Corporations	\$11,632,021	14.13%	4.40%
Univ. Research Corp., Int'l.	\$10,563,433	11.79%	3.67%
Universities	\$9,707,612	12.83%	3.99%
Foundations	\$6,594,439	8.00%	2.49%
Other Govt. Entities	\$3,758,843	4.18%	1.30%
All Other Non-Profit	\$3,441,455	4.56%	1.42%
Foreign & Other Non-Federal	\$1,169,449	1.43%	0.44%
NON-FEDERAL TOTAL	\$82,399,315	<u>100.00%</u>	<u>30.98%</u>

The University received the majority of its funding from Federal and State sources. The following tables illustrate the top sponsors for FY 2001.

Table 4
Individual Agencies Awarding \$1,000,000 or more in FY 2001*

Total Rank	Sponsor Name	Dollars Awarded
1	National Science Foundation (NSF)	\$41,467,672
2	National Aeronautics & Space Administration (NASA)	\$38,701,700
3	State of Maryland (STMD)	\$35,482,063
4	Department of Defense (DoD)**	\$34,360,801
5	Department of Health & Human Services (DHHS)	\$18,214,245
6	Corporations	\$11,682,021
7	University Research Corp. International (URCI)	\$10,563,433
8	Universities	\$9,707,612
9	Other Federal Entities	\$9,065,408
10	Department of Education	\$8,784,473
11	Department of Agriculture (USDA)	\$7,982,641
12	Commerce Department	\$7,969,480
13	Department. of Energy (DOE)	\$7,274,458
14	Foundations	\$6,594,439
15	Local Governments	\$2,833,663
16	Government Laboratories	\$2,182,483
17	Environmental Protection Agency (EPA)	\$2,161,568
18	US Agency for International Development (AID)	\$1,851,454
19	Other Institutes	\$1,793,973

Source: UM Data Warehouse

^{*}All totals are ORAA administered totals

^{**} Includes Navy, Army, Air Force and DoD-other funding

PROPOSAL AND AWARD ACTIVITY - HISTORICAL DATA

Table 5 points to the marked increase in funding by college over the past five fiscal years.

Table 5
Awards by College – Five -Year Funding processed through ORAA

School/College	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
College of Math, Computer & Physical Sciences	\$48,852,214	\$52,438,290	\$51,453,487	\$49,084,008	\$69,072,101
A. James Clark School of Engineering	\$39,431,875	\$46,154,467	\$48,524,032	\$57,947,211	\$59,006,198
College of Behavioral & Social Sciences	\$25,235,375	\$44,695,291	\$43,934,909	\$40,271,856	\$53,319,325
College of Life Sciences	\$15,117,385	\$11,504,203	\$16,036,833	\$21,260,285	\$19,852,114
College of Education	\$5,578,420	\$12,281,286	\$12,750,910	\$11,154,992	\$14,605,476
College of Agriculture & Natural Resources	\$8,678,526	\$10,987,330	\$10,550,077	\$8,438,294	\$15,351,360
Other Administrative Units	\$3,894,799	\$3,327,470	\$4,353,290	\$15,946,561	\$20,945,455
College of Health & Human Performance	\$3,383,737	\$4,270,461	\$4,911,634	\$4,751,647	\$4,950,193
Robert H. Smith School of Business	\$2,087,070	\$3,666,992	\$7,692,709	\$975,483	\$1,151,362
College of Arts & Humanities	\$1,204,447	\$1,172,251	\$1,173,736	\$1,926,803	\$4,958,568
School of Public Affairs	\$1,167,628	\$1,038,137	\$827,105	\$730,561	\$2,274,689
College of Information Studies	\$307,010	\$263,618	\$659,979	(\$373,816)	\$313,147
School of Architecture	\$214,141	\$214,982	\$304,273	\$16,500	\$114,257
Philip Merrill College of Journalism	\$31,790	\$32,560	\$73,750	\$41,627	\$101,850
Fiscal Year Totals	<u>\$155,184,417</u>	<u>\$192,047,338</u>	<u>\$203,246,724</u>	<u>\$212,172,012</u>	<u>\$266,016,095</u>

Source: UM Data Warehouse

Table 6
Proposals by College Five - Year Proposal Volume processed through ORAA

School/College	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
A. James Clark School of Engineering	463	509	516	573	549
College of Math, Computer & Physical Sciences	453	415	403	444	479
College of Behavioral & Social Sciences	209	238	245	268	260
College of Life Sciences	263	221	206	184	170
College of Agriculture & Natural Resources	201	188	200	223	209
College of Education	80	67	77	80	111
Other Administrative Units ¹	41	33	71	63	72
College of Health & Human Performance	43	45	48	41	56
College of Arts & Humanities	50	51	30	41	56
School of Public Affairs	32	27	25	27	50
Robert H. Smith School of Business	11	7	5	13	8
College of Information Studies	6	10	9	8	10
School of Architecture	3	3	7	1	5
Philip Merrill College of Journalism	3	2	5	4	4
Fiscal Year Totals	<u>1858</u>	<u>1816</u>	<u>1847</u>	<u>1970</u>	2039

Source: UM Data Warehouse

- Notes for Tables 5 and 6:
 - o In Table 5, amounts include all projects at UM that were active between 07/01/00 06/30/01.
 - O Data in table 6 is a count of proposals sent by ORAA to sponsors

Table 7
Award Actions by College Five - Year Award Volume processed through ORAA*

School/College	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
A. James Clark School of Engineering	656	792	759	832	901
College of Agriculture & Natural Resources	196	266	257	260	306
College of Arts & Humanities	49	55	59	59	83
College of Behavioral & Social Sciences	298	382	406	422	418
College of Education	135	168	158	150	140
College of Health & Human Performance	115	98	90	80	80
College of Information Studies	17	11	12	11	13
College of Life Sciences	314	267	280	285	300
College of Math, Computer & Physical Sciences	875	941	914	898	1012
Other Administrative Units	72	69	111	157	134
Philip Merrill College of Journalism	1	1	2	6	4
Robert H. Smith School of Business	19	17	21	14	12
School of Architecture	7	1	7	3	4
School of Public Affairs	45	37	26	27	54
<u>Fiscal Year Totals</u> 1	<u>2799</u>	<u>3106</u>	<u>3102</u>	<u>3204</u>	<u>3461</u>

^{*} This includes all awards actions processed by ORAA

¹ Other Administrative Units include the VP Office of Academic Affairs, Student Affairs, Office of Information Technology, Graduate School and Undergraduate Studies

OVERVIEW OF ORAA SPONSORED PROGRAM EXPENDITURES

In Fiscal Year 2001, the UM expenditures were in excess of \$229 million for sponsored activities, an increase of 18 percent from fiscal year 2000.*

Chart D
Sponsored Program Expenditures
Total University
(Dollars in thousands)

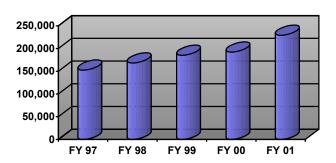


Table 8
Sponsored Program Expenditures
Total University

	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001*
Total University	\$152,520,774	\$168,115,825	\$185,036,200	\$192,051,674	\$229,095,551

Source: UM Comptroller's Office

Table 9
Fiscal Year Comparison: Sponsored Program Expenditures by Cost Element

Cost Element	FY 2000	FY 2001	% Change
Salaries & Benefits	\$95,448,233	\$117,378,542	23%
Equipment	\$5,893,274	\$8,355,271	42%
Travel	\$4,711,076	\$6,061,227	29%
Materials & Supplies	\$6,967,909	\$19,473,184	179%
Contractual Services	\$6,566,318	\$1,830,653	-72%
Subcontracts	\$36,692,862	\$37,226,084	1%
Indirect Costs (F&A)	\$33,886,008	\$37,771,962	11%
Other	\$1,885,992	\$998,628	-47%
TOTAL	\$192,051,674	\$229,095,551	19%

Source: UM Comptroller's Office

Chart E FY 2000 Sponsored Program Expenditures by Cost Element

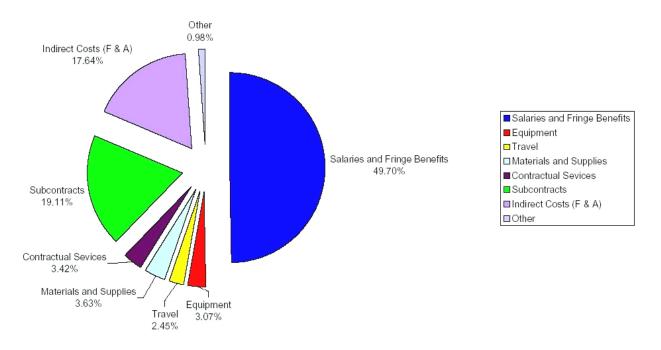
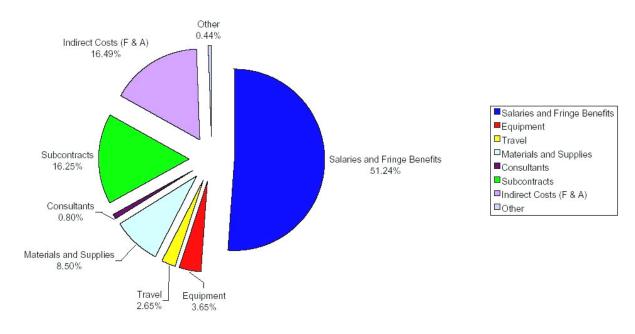


Chart F
FY 2001 Sponsored Program Expenditures by Cost Element



Source: UM Comptroller's Office

THE UNIVERSITY'S RANKING AMONG ITS PEERS

The University's ranking of its sponsored program activities compared with colleges and universities nationwide is illustrated in the following statistics furnished by NSF and NASA:

National Science Foundation (NSF) FY 2000 data:

On An Expenditure Basis¹

- **20th** in Federally financed research and development (R&D) expenditures at public universities and colleges by science & engineering field: fiscal year 2000
- **35th** in Federally financed R&D expenditures at universities and colleges: fiscal year 2000 (see table 10)
- **32nd** in total R&D expenditures at universities and colleges (35th in FY 1999)

On An Obligation Basis²

- 46th in Federal obligations for science and engineering R&D: FY 1999
- 36th in Federal obligations for fellowships, traineeships, and training grants: FY 1999
- 2nd in Federal obligations for science and engineering to Maryland universities and colleges: FY 1999 (rank order: Johns Hopkins, UM, UMAB)

National Aeronautics and Space Administration (NASA) FY 2001 data:

• Ranked 4th nationally for total obligations to educational institutions (see table 11).

¹.All data taken from NSF Academic Research and Development Expenditures tables for FY 1999, 2000.

^{2.} All data taken from NSF Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions: Fiscal Year 1998, 1999

Table 10
NSF: FY 2000 R&D expenditures at Universities and Colleges
(Dollars in thousands)

Rank	Institution	Total Expenditures
1	Johns Hopkins University	\$901,156
2	University of Wisconsin - Madison	\$554,361
3	University of Michigan	\$551,556
4	University of California - Los Angeles	\$530,826
5	University of Washington	\$529,342
6	University of California - San Diego	\$518,559
7	University of California - Berkeley	\$518,514
8	Stanford University	\$454,780
9	University of California - San Francisco	\$443,013
10	University of Pennsylvania	\$430,389
11	Pennsylvania State University	\$427,575
12	Massachusetts Institute of Technology	\$426,299
13	University of Minnesota	\$411,380
14	Cornell University	\$410,393
15	Texas A&M University	\$397,268
16	University of Illinois - Urbana-Champaign	\$373,024
17	University of California - Davis	\$364,789
18	Washington University	\$362,216
19	Ohio State University	\$361,399
20	Duke University	\$356,625
21	University of Colorado	\$353,528
22	University of Arizona	\$345,090
23	Harvard University	\$341,810
24	Baylor College of Medicine	\$334,175
25	Columbia University (in NYC)	\$319,693
35	University of Maryland at College Park	\$252,429

Source: National Science Foundation/SRS, Academic Research and Development Expenditures: Fiscal Year 2000 [Early Release Tables] Table B-35. R&D expenditures at universities and colleges, by source of funds: fiscal year 2000

Table 11
NASA: 50 Educational Institutions Listed according to Total obligation – FY 2001

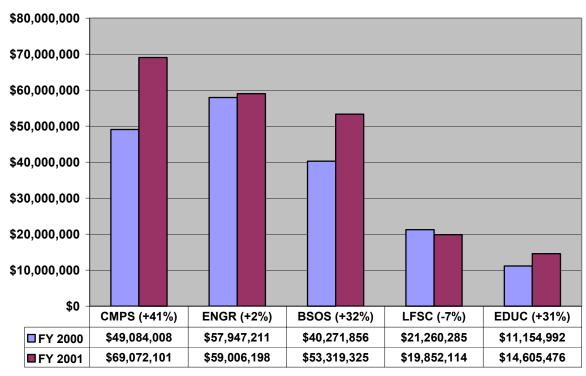
Rank	Institution	Total Obligations
1	Johns Hopkins University	\$129,967,230
2	Stanford University	\$54,331,156
3	University of Colorado – Boulder	\$44,527,133
4	University of Maryland at College Park	\$41,925,149
5	Massachusetts Institute of Technology	\$31,363,846

Source: NASA: University Program Management Information System: (NASA/TM-2002-211518) p.iv

COMPARATIVE DATA: FY 2000 & 2001

I. Highlights of current increases in award dollars by College receiving over \$5 million in funding in FY 2001. The College of Computer Math and Physical Sciences (CMPS) has a dramatic increase of \$19 million which is 41% higher than one year ago.

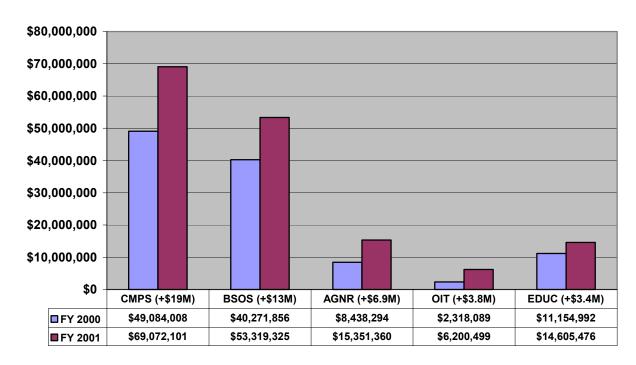




II. The five colleges in ranked order with the greatest rise in funding for FY 2001 are:

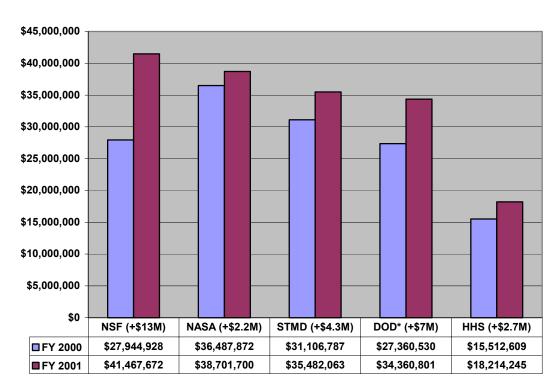
- College of Computer Math and Physical Sciences (CMPS)
- College of Behavioral & Social Sciences (BSOS),
- College of Agriculture & Natural Resources (LFSC),
- Office of Information Technology (OIT)
- College of Education (EDUC)

CMPS is the leader this fiscal year with an increase of over \$19 million in funding.



Top 5 Funding Increases for FY 2001 by COLLEGE

III. The chart below shows the increase in funding from UM's top 5 funding agencies in FY 2001. The National Aeronautics and Space Administration (NASA) and Department of Defense (DOD) had the most pronounced increases with \$13 million and \$7 million respectively.



FY 2001 Increases at UM's Top 5 Funding Agencies

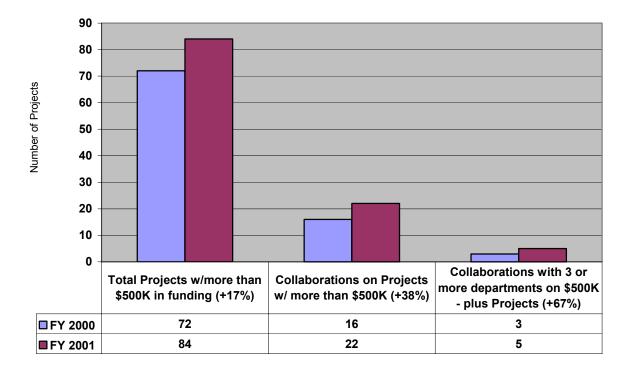
^{*} DOD includes all agencies (Navy, Army, Air Force and Other)

IV. Projects receiving \$500K or more in funding in FY 2001 have increased by 17%. Collaborations as a whole are up 38%. Collaborative projects involving three or more departments are up 67% from FY 2000.

The below chart highlights three important award facts for FY 2001:

- 1. Total number of Projects with more than \$500,000 in funding
- 2. Of these projects, the number of collaborative (i.e. where Principal Investigators from two or more different departments work together)
- 3. How many collaborations involve PI's from three or more different departments.

Collaboration between Departments on Projects exceeding \$500K in Funding



V. Principal Investigator (PI) numbers rose in FY 2001 from 693 to 758, with a large portion of those numbers (86% and 88% respectively) being full time employees (FTE).

Principal Investigators: FY 2000 - 2001

