

# RESEARCH AND DEVELOPMENT

UNIVERSITY OF MARYLAND BALTIMORE

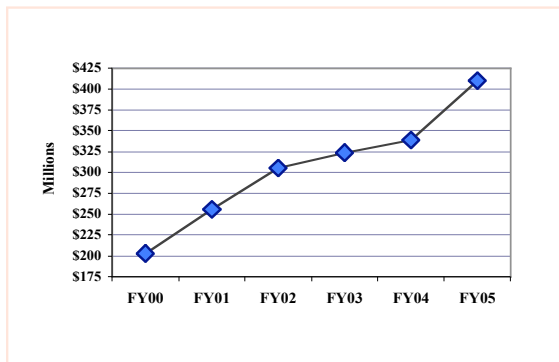


ANNUAL REPORT 2005

# RESEARCH AND DEVELOPMENT AT THE UNIVERSITY OF MARYLAND BALTIMORE REPORT ON FY05 ACTIVITIES

## EXTRAMURAL FUNDING AT UMB: OVERVIEW

The University of Maryland Baltimore attracted more than **\$410.4 million** of extramural support for research, service and training projects during fiscal year (FY) 2005. These awards and gifts, which fund hundreds of projects, represent a **21 percent increase** over FY04, effectively doubling the funding levels of just five years ago. This accelerated pace of growth in sponsored program activities continues at each of the schools. With significant growth in awards to the Department of Medicine for vaccine and infectious disease research, the Oncology Program for cancer research and the Department of Surgery due to the addition of the Center for Vascular and Inflammatory Disease, the Medical School alone accounts for 84% of FY05 funding.

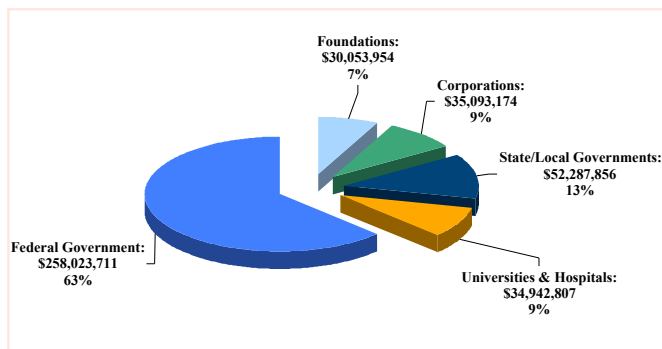


## SUMMARY OF EXTRAMURAL FUNDING

The Office of Research and Development processed \$365.8 million in awards while nearly \$45 million in additional support was processed through the University of Maryland Baltimore Foundation (\$22.8 million) and through the School of Medicine from the Veterans Affairs Medical Center (\$21.8 million). See detail by school and unit below:

School/Unit	Awarded through ORD	UMBF & VA	Total FY05	% change over FY04
Dental	\$17,394,968	\$988,264	\$18,383,232	17.1
Law	1,655,509	5,070,664	6,726,173	18.9
Medicine	311,816,381	32,830,319	344,646,700	22.6
Nursing	7,233,881	2,288,419	9,522,300	10.8
Pharmacy	14,339,158	1,964,116	16,303,274	12.8
Social Work	10,029,053	517,825	10,546,878	27.8
Campus Administration	2,172,844	952,324	3,125,168	1.3
Graduate	1,147,779	0	1,147,779	-51.0
<b>Total</b>	<b>\$365,789,573</b>	<b>\$44,611,931</b>	<b>\$410,401,504</b>	<b>21.0%</b>

## TOTAL EXTRAMURAL FUNDING BY SOURCE



Much of the growth in total extramural funding is attributable to a 26 percent increase in federal government research awards with the largest source, NIH--that accounts for more than three-quarters of federal funding and half of all UMB funding awards--gaining 24 percent. Foundation funding increased by 30 percent over FY04 amounts.

## OFFICE OF RESEARCH AND DEVELOPMENT: RESULTS

Following is a detailed report on the grants and contracts activity processed through the Office of Research and Development for fiscal year 2005.

### SUMMARY

Grants and contracts processed through the Office of Research and Development totaled **\$365.8 million** in FY05, a **26 percent increase** over FY04 outcomes and double the award amounts of just five years ago.

Of that amount, \$296 million (81 percent) was awarded in direct costs and \$69.8 million (19 percent) was awarded in indirect costs. The nearly 2000 awards to UMB researchers from 500 sponsors of research, service and training projects brought significant, double-digit increases in external funding.

### SUCCESS BY SCHOOL - FY05

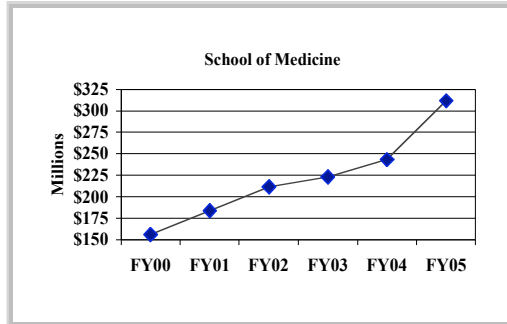
School	# of Awards	Total Awarded	Direct Cost	Indirect Cost	Average % Indirect/Direct	% change over FY04
Dental	90	\$17,394,968	\$13,517,304	3,877,664	28.7	22.4
Law	23	1,655,509	1,543,662	111,847	7.3	86.2
Medicine	1,556	311,816,381	251,093,020	60,723,361	24.2	28.1
Nursing	69	7,233,881	6,062,591	1,171,290	19.3	10.2
Pharmacy	135	14,339,158	11,380,623	2,958,535	26.0	15.6
Social Work	36	10,029,053	9,194,412	834,641	9.08	28.0
Campus Admin	2	2,172,844	2,172,844	0	0.0	0.0
Graduate	6	1,147,779	1,039,954	107,825	10.4	-49.5
<b>Total</b>	<b>1917</b>	<b>\$365,789,573</b>	<b>\$296,004,410</b>	<b>\$69,785,163</b>	<b>23.58%</b>	<b>26.2%</b>

The ten largest departments in the University generated \$259 million or 71 percent of the total:

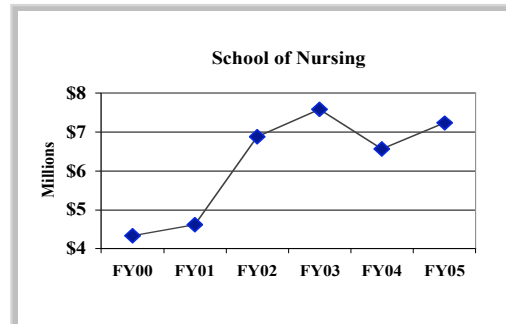
- DEPARTMENT OF MEDICINE - \$97.9 MILLION
- DEPARTMENT OF PSYCHIATRY - \$30.8 MILLION
- DEPARTMENT OF PEDIATRICS - \$22.6 MILLION
- DEPARTMENT OF SURGERY - \$21.9 MILLION
- ONCOLOGY PROGRAM - \$18.1 MILLION
- DEPARTMENT OF EPIDEMIOLOGY AND PREVENTIVE MEDICINE - \$18 MILLION
- SCHOOL OF MEDICINE - \$16.4 MILLION
- DEPARTMENT OF BIOCHEMISTRY AND MOLECULAR MEDICINE - \$12 MILLION
- DEPARTMENT BIOMEDICAL SCIENCES - \$11.2 MILLION
- DEPARTMENT OF PHYSIOLOGY - \$9.2 MILLION

SUCCESS BY SCHOOL - FY05 - CONTINUED

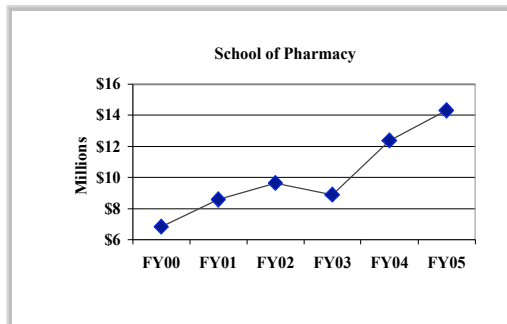
The School of Medicine received \$311.8 million or 87 percent of the total. This represents a 28 percent growth over FY04 and an increase of 99.4 percent over five years.



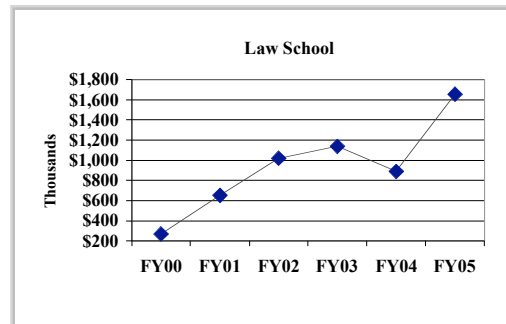
The School of Nursing received \$7.2 million representing a 10 percent increase over FY04 and a jump of 67 percent over five years.



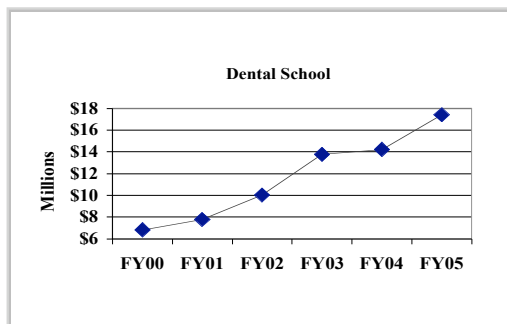
The School of Pharmacy received \$14.3 million for 4 percent of the total. This is a 14 percent increase from FY04 and a 109 percent increase over five years.



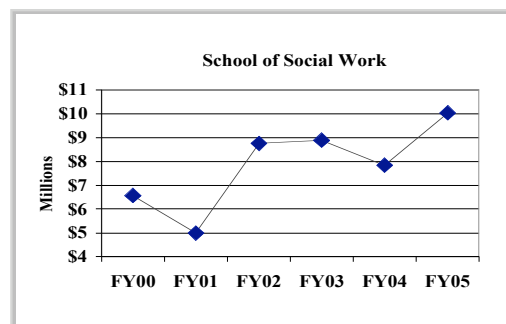
The School of Law received \$1.7 million in FY05, a rate of 86 percent growth over FY04 and a five-fold increase in five years.



The Dental School received \$17.4 million cornering 5 percent of the total, with a 22 percent increase over FY04 and a 155 percent increase over five years.



The School of Social Work received \$10 million last year which is a 28 percent rate of growth over FY04 and a 53 percent increase in the funding levels of five years ago.

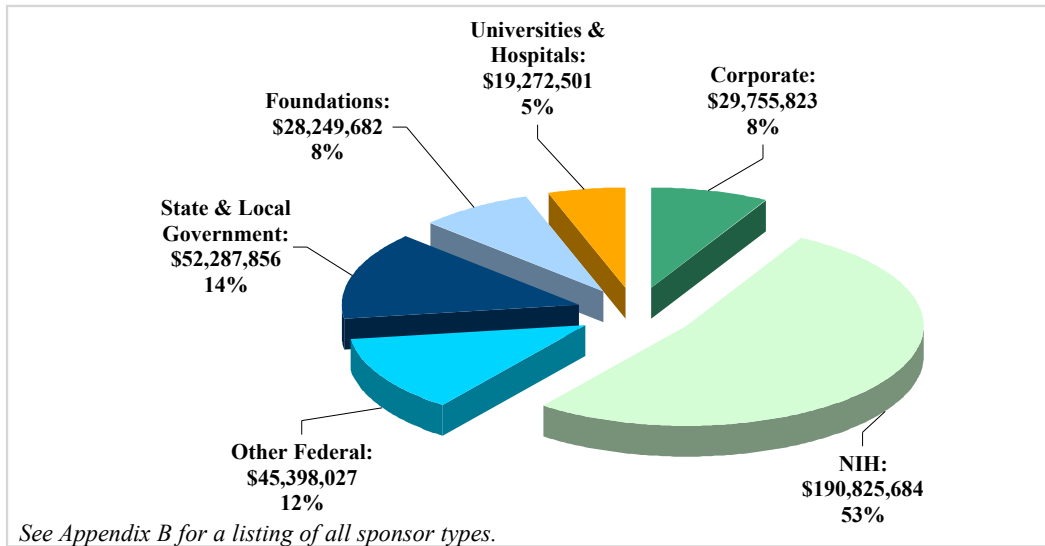


See Appendix A for summary data by school, by department.

## AWARDS BY SOURCE

Funding for the University’s research and public outreach activities comes from a wide array of sponsors, including federal, state and local government; business and industry; and associations, foundations, and other not-for-profit organizations. All sources of grant and contract funding grew in double-digits with federal sources growing by 28 percent, corporate sponsorship up by 30 percent and foundation support increasing by 39 percent over FY04 totals. State funding increased due to accounting for cigarette restitution funds. These funds previously were awarded to the University through UMMS. In FY05, these funds were received directly from the State of Maryland. The amount of cigarette restitution funds in FY05 was \$12.9 million.

### ORD FY05 Dollar Amounts by Source



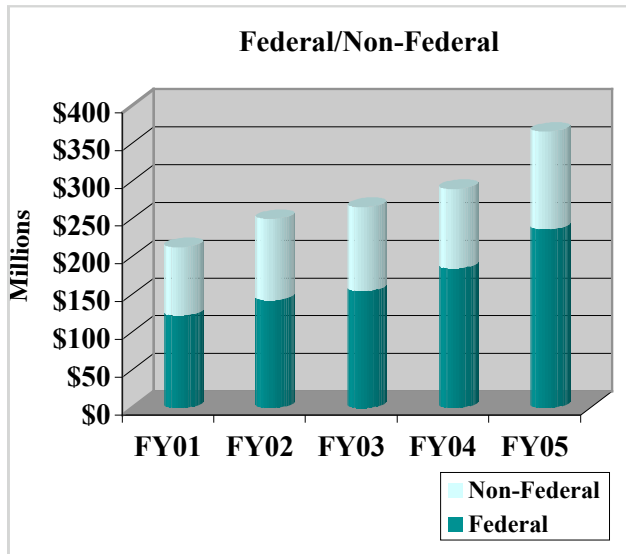
### A Perspective on Awards by Source FY01- FY05

The mix of UMB’s grant funding sources has remained relatively constant over the last five years, with NIH providing about half, other government agencies contributing about a quarter, and other sources (corporations, universities, and hospitals) providing the remaining quarter. Seventy-five percent of our growth over the last five years has come from federal sources; NIH contributed 60 percent of this growth.

Source	FY01	FY02	FY03	FY04	FY05	% Change FY04-FY05
Federal Agencies	\$122,478,250	\$142,834,428	\$154,852,470	\$184,950,829	\$236,223,711	27.7
State/Local Government	25,141,690	37,572,617	37,683,217	36,065,286	52,287,856	45.0
Foundations	21,375,069	21,149,651	23,236,708	20,324,264	28,249,682	39.0
Corporations	26,239,603	25,849,858	25,788,326	22,907,603	29,755,823	29.9
Universities & Hospitals	17,696,577	22,650,028	24,230,041	25,503,075	19,272,501	-24.4*
<b>Total</b>	<b>\$212,931,189</b>	<b>\$250,056,582</b>	<b>\$265,790,762</b>	<b>\$289,751,057</b>	<b>\$365,789,573</b>	<b>26.2%</b>

\* Cigarette restitution funds shifted to State government source.

## Federal and Non-Federal Sources

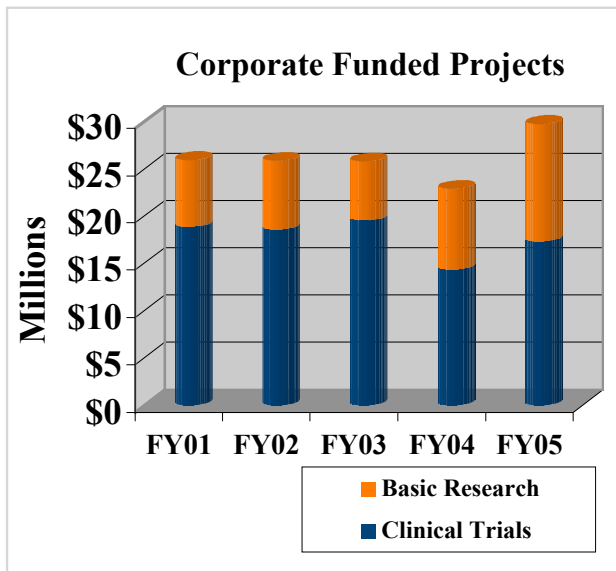


Over the last five years, federal funding sources have nearly doubled, whereas other funding sources have grown half as fast (44 percent). As a result, the mix in our funding is now approximately 2/3 federal, 1/3 non-federal. Of the federal agencies, the National Institutes of Health (NIH) was again UMB's largest sponsor of research. NIH awarded \$190.8 million (24 percent gain over FY04). The NIH support accounted for 81 percent the total federal dollars obligated to UMB and 53 percent of all funding.

■ THE FEDERAL GOVERNMENT, INCLUDING NIH, AWARDED \$236.2 MILLION, 65 PERCENT OF THE TOTAL FUNDING IN FY05.

## Corporate Support

Corporate funding provided \$29.8 million in FY05, a 30 percent increase over FY04, after several years of level funding. Active corporate funded projects total \$55 million.



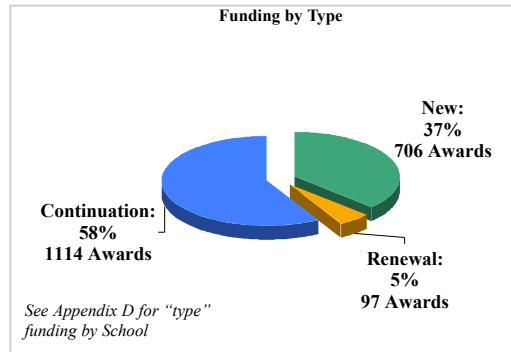
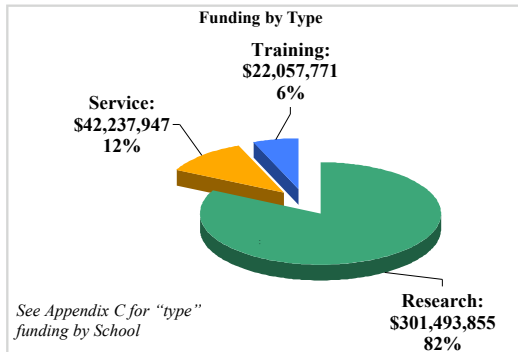
## Top Corporate Sponsors - FY05 Amount

Sponsor	Amount
GlaxoSmithKline	\$2,241,294
Pfizer	1,425,930
Varian Medical Systems, Inc.	1,250,000
Dade Behring, Inc.	1,204,787
Bristol-Myers Squibb	853,097
Dynamic Science, Inc.	846,796
MedImmune, Inc.	657,784
Teva Pharmaceutical Industries	603,921
Novo Nordisk	592,348
Aventis Pasteur SA	575,958
Kosan Biosciences, Inc.	558,813
Westat, Inc.	558,715
Affymax Inc.	512,314
Berlex Laboratories, Inc.	468,542
Hoffman-LaRoche Company	466,615
Shire Laboratories	441,733
Schering Corporation	426,250
Astellas Pharmaceuticals	419,111
Ortho Pharmaceuticals Corp.	411,400
Wyeth-Ayerst Laboratories	403,294
Jarvik Heart, Inc.	359,047
BD Biosciences	351,011
Johnson & Johnson	343,472
Amersham, Inc.	308,390
Implant Innovations, Inc.	300,000
ADAC Laboratories	300,000

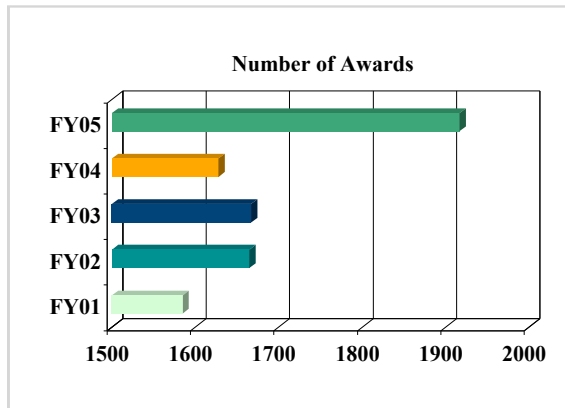
## AWARDS BY TYPE

Research awards contribute \$301.5 million or 82.4 percent toward the FY05 total. Service agreements yield \$42.2 million and training projects are supported with \$22.1 million.

Of all the awards received by UMB researchers, 37 percent were new, never before submitted competitive applications and 58 percent reflected long-term, non-competing awards. The remaining five percent represent renewal of pre-existing, ongoing projects.



In FY05, the number of Principle Investigators (PIs) with active awards grew to 671, up from 608 in FY04. This number counts only the PI on a grant. However, there are as many as 1500 researchers engaged in sponsored project activity at UMB. Hundreds of collaborative projects engage experts across the U.S. and the globe.



■ THE TOTAL NUMBER OF PROPOSALS SUBMITTED TO ALL SPONSORS WAS 2351. THE TOTAL DOLLAR AMOUNT REQUESTED INCREASED BY 14.6 PERCENT.

■ OF THE \$535 MILLION IN PROPOSALS REQUESTED THIS YEAR, \$383.4 MILLION (71.7 PERCENT) WAS REQUESTED FROM FEDERAL SOURCES.

Over the last five years, the dollar value of research awards increased 114 percent (\$161 million). Training increased by 64 percent (\$8.6 million) and service increased by 52 percent (\$14.4 million).

FY	Total	Research	Training	Service & Other	% Change
2000	\$182,038,206	\$140,803,754	\$13,455,071	\$27,779,381	
2001	212,722,728	165,347,861	14,776,167	32,598,700	16.9
2002	249,843,064	200,660,079	17,023,966	32,159,019	17.0
2003	265,744,562	206,332,954	19,385,896	40,025,712	6.0
2004	289,751,057	238,633,531	16,025,536	35,091,990	9.0
<b>2005</b>	<b>\$365,789,573</b>	<b>\$301,493,855</b>	<b>\$22,057,771</b>	<b>\$42,237,947</b>	<b>26.0</b>

## TOP PROJECTS BY TYPE

Following are the top projects for Fiscal Year 2005:

### New Research Project Awards in FY05

< \$1 million

*Full Amount	FY05 Amount	Sponsor	PI	Title
\$3,543,552	\$621,425	National Institute of Allergy & Infectious Disease	Richard Pierson Surgery	Immunomodulation for Heart Allograft
3,524,620	682,644	National Heart, Lung and Blood Institute	Joseph Finkelstein Epidemiology & Prev. Medicine	Hypertension Telemanagement in African Americans
3,332,128	922,760	Bill/Malinda Gates Foundation	Myron Levine Medicine	Programmatic Introduction in Mali of Hib Cojugate Vaccine
2,999,361	599,999	National Heart, Lung and Blood Institute	Elijah Saunders Medicine	Baltimore Partnership Program to Reduce Cardiovascular Disease
2,793,360	536,712	Center for Disease Control	Carl Weiner OB/GYN	Race/Ethnicity/Immunity/Progesterone and Preterm Birth
2,600,000	2,600,000	National Center for Research Resources	Donald Wilson Dean's Office	Cancer Center Renovation Grant
2,543,335	554,371	National Institute of Child Health and Human Development	Lydia Temoshok Medicine	Elucidating Biopsychosocial Mediators of HIV Progression
2,535,940	500,000	National Cancer Institute	Claudia Baquet Dean's Office	Maryland Regional Community Network to Eliminate Cancer
1,978,000	1,978,000	National Center for Research Resources	Rao Gullapalli Diagnostic Radiology	High-Field Animal Magnetic Resonance Imaging System
1,949,799	495,434	National Institute for Occupational Safety and Health	Jane Lipscomb Behavioral&Community Health	Blood Exposure & Primary Prev in the Home Care Workplace
1,596,375	319,275	National Institute of Diabetes & Digestive & Kidney Diseases	Jian-Ying Wang Surgery	Surgical Studies of Gut Permeability
1,584,658	422,129	National Institute of Biomedical Imaging & Bioengineering	Richard Thompson Biochemistry/Molecular Biology	Zinc Fluorescence Biosensing & Imaging Technology
1,477,575	363,825	National Eye Institute	Nancy Ellish Ophthalmology	Tailored Messages to Increase Eye Examination Behavior
1,415,046	363,756	National Heart, Lung and Blood Institute	Meredith Bond Physiology	Synemin is an A-Kinase Anchoring Protein in the Heart
1,316,538	260,702	National Cancer Institute	Pei Feng Biomedical Sciences	Apoptotic Effect of Zinc in Targeting Prostate Cancer
1,305,217	143,941	National Institute of Diabetes & Digestive & Kidney Diseases	Stephen Meltzer Medicine	Research Training in Gastroenterology
1,250,000	1,250,000	Varian Medical Systems	Cedric Yu Radiation Oncology	Extracranial SRT Using IMAT/Biological & Imaging Guidance
1,218,285	1,218,285	Office of Naval Research	Stephen Bartlett Surgery	Studies Leading to Tolerance Induction
1,218,000	1,218,000	Maryland Department Health/Mental Hygiene	Donald Wilson Dean's Office	Baltimore City Public Health Grant/Cigarette Restitution
1,217,700	304,425	National Institute of Diabetes & Digestive & Kidney Diseases	Thomas Pallone Medicine	Calcium Signaling in Vasa Recta Endothelium
1,217,700	304,425	National Institute of Diabetes & Digestive & Kidney Diseases	Kristi Silver Medicine	Linkage of 15q to Insulin Levels in the Old Order Amish
1,200,000	600,000	U.S. Department of Agriculture	Glenn Morris Epidemiology & Prev. Medicine	Development of Computer Models for Ranking the Public Health
1,155,000	385,000	Maryland Department Health/Mental Hygiene	Ebenezer Israel Epidemiology & Prev. Medicine	Maryland Cancer Database Systems
1,092,481	353,451	National Institute of Neurologic Disorders & Stroke	Gary Fiskum Anesthesiology	Neuroprotection After Cardiac Arrest
1,062,903	261,965	National Institute of Biomedical Imaging & Bioengineering	Cha-min Tang Neurology	OCT-Guided Interventions for Pain Management
1,002,375	334,125	National Eye Institute	Steven Bernstein Ophthalmology	A Functional Approach to Treating Optic Nerve Stroke

\*Multi-Year Award Amount

See Appendix E for Top Service Awards and Appendix F for Top Training Awards



Appendix A - Awards Processed by ORD

Awards By Department Prior Year Comparison

Dept	Prior_Direct	Prior_FA	2004		2005			
			Prior Amount	Prior Count	Current Direct	Current FA	Current Amount	Current Count
<b>Dental School</b>								
No Dept	801,502	55,898	857,400	18	1,382,253	167,542	1,549,795	24
SOD Biomedical Sciences	6,887,461	2,725,585	9,613,046	39	8,305,696	2,935,023	11,240,719	33
SOD Dental Hygiene	53,100	4,646	57,746	2	73,767	12,115	85,882	3
SOD Diagnostic Sciences	1,079,473	220,383	1,299,856	10	1,427,187	293,977	1,721,164	15
SOD Endodontics	2,000	0	2,000	1	314,733	84,266	398,999	1
SOD Endodontics/Periodontics	544,642	195,367	740,009	6	514,267	175,943	690,210	7
SOD Office of the Dean	1,000,000	0	1,000,000	1	1,000,000	0	1,000,000	1
SOD Oral Maxillo Surgery	30,017	0	30,017	2	34,981	0	34,981	1
SOD Restorative Dentistry	467,683	146,556	614,239	9	464,420	208,798	673,218	5
<b>Sum</b>	10,865,878	3,348,435	14,214,313	88	13,517,304	3,877,664	17,394,968	90
<b>Graduate School</b>								
HS/HSL Library Administration	1,578,183	278,107	1,856,290	3	493,696	80,297	573,993	2
Office of Academic Affairs	474,240	10,760	485,000	5	546,258	27,528	573,786	4
<b>Sum</b>	2,052,423	288,867	2,341,290	8	1,039,954	107,825	1,147,779	6

Appendix A -Awards Processed by ORD (continued)

School	Dept	Prior_Direct	Prior_FA	2004			2005		
				Prior_Amount	Prior_Count	Current_Direct	Current_FA	Current_Amount	Current_Count
<b>School of Law</b>									
No Dept		0	0	0	0	71,304	0	71,304	3
SOL Clinical Law Program		449,751	10,500	460,251	11	534,563	0	534,563	11
SOL Office of the Dean		397,937	30,922	428,859	5	937,795	111,847	1,049,642	9
<b>Sum</b>		847,688	41,422	889,110	16	1,543,662	111,847	1,655,509	23
<b>School of Medicine</b>									
Anatomy & Neurobiology		4,307,216	1,877,876	6,185,092	26	3,628,567	1,634,049	5,262,616	25
Anesthesiology		789,057	300,312	1,089,369	10	1,129,024	420,943	1,549,967	9
Biochemistry&Molecular Biolog		6,273,764	2,391,340	8,665,104	31	8,715,599	3,338,243	12,053,842	48
Center for Integrative Medicine		1,951,858	405,410	2,357,268	5	486,361	130,071	616,432	3
Deans Office		12,256,907	778,815	13,035,722	17	15,541,111	828,216	16,369,327	19
Dermatology		343,808	12,626	356,434	6	726,500	127,672	854,172	11
Diagnostic Radiology		867,028	276,316	1,143,344	13	3,688,146	588,957	4,277,103	21
Emergency Medicine		2,056,042	0	2,056,042	1	2,261,646	0	2,261,646	2
Epidemiology & Preventive Me		12,777,208	2,606,313	15,383,521	89	14,918,562	3,144,367	18,062,929	99
Family Medicine		1,508,201	227,291	1,735,492	9	1,827,625	283,898	2,111,523	9
Medical & Research Tech		266,097	104,212	370,309	2	232,905	39,697	272,602	4
Medicine		60,562,978	15,019,903	75,582,881	363	78,121,956	19,822,285	97,944,241	404

Appendix A -Awards Processed by ORD (continued)

Dept	2004				2005			
	Prior_Direct	Prior_FA	Prior_Amount	Prior_Count	Current Direct	Current FA	Current Amount	Current Count
Microbiology	4,539,508	1,885,737	6,425,245	34	5,498,602	2,162,916	7,661,518	41
National Study Center	2,603,209	489,896	3,093,105	27	2,938,740	583,847	3,522,587	21
Neurology	4,829,907	1,028,367	5,858,274	69	5,550,415	1,541,078	7,091,493	77
Neurosurgery	1,037,131	358,492	1,395,623	10	1,240,307	461,574	1,701,881	11
No Dept	21,150	5,499	26,649	1	0	0	0	0
OB-GYN	2,888,486	695,840	3,584,326	11	4,116,764	909,491	5,026,255	11
Oncology Program	13,422,821	1,625,310	15,048,131	57	15,652,195	2,457,633	18,109,828	99
Ophthalmology	1,194,444	343,796	1,538,240	11	1,341,878	571,336	1,913,214	16
Orthopedics	462,239	182,198	644,437	8	654,864	284,731	939,595	8
Pathology	3,390,436	1,017,977	4,408,413	35	5,350,489	1,723,651	7,074,140	34
Pediatrics	17,013,346	4,243,794	21,257,140	125	18,194,711	4,461,555	22,656,266	143
Pharmacology	3,367,184	1,327,425	4,694,609	27	3,137,886	1,256,645	4,394,531	25
Physical Therapy	374,052	81,569	455,621	7	412,157	81,966	494,123	11
Physiology	6,517,271	2,487,415	9,004,686	46	6,757,510	2,413,634	9,171,144	53
Psychiatry	22,251,868	3,486,084	25,737,952	153	26,744,037	4,048,120	30,792,157	176
Radiation Oncology	2,457,399	943,846	3,401,245	28	3,420,009	1,248,622	4,668,631	30
Shock Trauma	313,618	103,087	416,705	6	1,618,060	470,785	2,088,845	16
Surgery	6,069,244	2,045,114	8,114,358	57	16,445,516	5,490,290	21,935,806	126
Veterinary Resources	118,217	57,335	175,552	1	740,878	197,089	937,967	4
Video Press	146,667	0	146,667	2	0	0	0	0

Appendix A - Awards Processed by ORD (continued)

Dept	Prior_Direct	Prior_FA	2004			2005		
			Prior_Amount	Prior_Count	Current_Direct	Current_FA	Current_Amount	Current_Count
<b>Sum</b>	196,978,361	46,409,195	243,387,556	1,287	251,093,020	60,723,361	311,816,381	1,556
<b>School of Nursing</b>								
School of Nursing	42,008	3,361	45,369	1	86,116	6,890	93,006	2
SON Academic Affairs	110,551	13,165	123,716	3	221,785	10,578	232,363	3
SON Adult Health Nursing	1,769,074	580,615	2,349,689	23	1,879,568	352,730	2,232,298	26
SON Child/Womens Family Hlt	598,746	42,969	641,715	9	730,958	51,898	782,856	8
SON Clinical Practices & Svcs	210,760	5,661	216,421	3	150,312	12,024	162,336	2
SON Deans Office	382,338	179,662	562,000	2	303,798	141,570	445,368	1
SON Family & Community Hea	1,501,877	344,285	1,846,162	19	2,162,878	479,830	2,642,708	22
SON Nurs Ed Adm Info&Hlth P	595,026	143,659	738,685	6	527,176	115,770	642,946	5
SON Office of Research	31,164	7,791	38,955	2	0	0	0	0
<b>Sum</b>	5,241,544	1,321,168	6,562,712	68	6,062,591	1,171,290	7,233,881	69
<b>School of Pharmacy</b>								
SOP Deans Administration	362,904	6,343	369,247	2	18,518	1,482	20,000	1
SOP Pharm Hlth Srv Rsch	1,671,509	464,620	2,136,129	36	2,597,511	781,117	3,378,628	46
SOP Pharmaceutical Sci Dept	4,214,521	1,763,749	5,978,270	51	4,162,580	1,670,918	5,833,498	48
SOP Pharmacy Prac & Sci Dept	3,566,882	352,621	3,919,503	36	4,602,014	505,018	5,107,032	40
<b>Sum</b>	9,815,816	2,587,333	12,403,149	125	11,380,623	2,958,535	14,339,158	135

**Appendix A -Awards Processed by ORD by Department (continued)**

School	Dept	2004				2005			
		Prior_Direct	Prior_FA	Prior Amount	Prior Count	Current Direct	Current FA	Current Amount	Current Count
<b>School of Social Work</b>									
	School of Social Work	7,131,163	588,676	7,719,839	32	9,120,012	832,201	9,952,213	33
	SSW Administration	93,674	21,182	114,856	3	50,000	0	50,000	1
	SSW Training	0	0	0	0	24,400	2,440	26,840	2
<b>Sum</b>		7,224,837	609,858	7,834,695	35	9,194,412	834,641	10,029,053	36
<b>UMB Administration</b>									
	Office of the President, UMB	172,843	0	172,843	1	172,844	0	172,844	1
	Office Research & Development	2,000,000	0	2,000,000	1	2,000,000	0	2,000,000	1
<b>Sum</b>		2,172,843	0	2,172,843	2	2,172,844	0	2,172,844	2
<b>Grand Total</b>		235,199,390	54,606,278	289,805,668	1,629	296,004,410	69,785,163	365,789,573	1,917

## Appendix B - Sponsor List

FullName	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Fogarty International Center	1,702,135	1,722,400	2,912,275	1,080,817	2,245,111
National Cancer Institute	10,909,008	9,564,367	7,062,199	8,149,482	15,384,565
National Center for Complementary & Alternative Medicine	3,306,179	3,569,408	2,789,263	2,642,070	462,807
National Center for Research Resources	3,500,184	5,196,283	6,864,706	6,927,908	10,884,337
National Center on Minority Health & Health Disparities	0	0	0	1,103,143	1,070,448
National Eye Institute	1,101,908	519,750	519,750	779,625	1,848,825
National Heart, Lung and Blood Institute	9,130,651	9,277,529	12,683,417	14,860,984	27,771,335
National Human Genome Research Institute	0	0	252,269	207,900	214,138
National Institute of Alcohol Abuse and Alcoholism	660,342	616,234	297,000	750,040	725,790
National Institute of Allergy and Infectious Disease	16,166,796	23,602,770	18,552,380	38,880,106	45,189,741
National Institute of Arthritis & Musculoskeletal/Skin Disease	2,648,344	3,634,369	7,978,672	7,441,959	6,930,221
National Institute of Child Health and Human Development	6,027,446	8,575,108	5,284,303	8,128,198	9,441,324
National Institute of Dental & Craniofacial Research	2,051,412	2,406,720	3,113,595	3,743,253	7,282,872
National Institute of Dental Research	227,338	189,338	189,338	0	148,500
National Institute of Diabetes & Digestive & Kidney Diseases	8,800,257	7,856,319	7,612,660	14,351,536	11,728,809
National Institute of Environmental Health Sciences	1,511,344	1,629,349	1,694,679	655,710	1,666,462
National Institute of General Medical Sciences	2,082,003	1,665,367	2,556,505	3,054,696	4,551,053
National Institute of Mental Health	5,094,084	5,922,389	6,946,700	8,429,144	9,561,817
National Institute of Neurologic Disorders & Stroke	7,825,530	9,293,675	12,121,872	11,494,404	12,551,969
National Institute of Nursing Research	774,933	784,777	442,433	1,309,724	596,348
National Institute on Aging	7,433,888	8,798,502	10,572,838	7,548,861	8,424,862
National Institute on Deafness & Other Communicative Disorders	4,327,318	6,626,884	6,628,061	5,104,827	4,694,623
National Institute on Drug Abuse	2,015,806	3,485,496	3,110,144	3,639,353	4,520,580
National Institutes of Health	0	0	389,049	639,792	549,522
National Library of Medicine	1,868,396	1,862,907	2,263,956	1,929,039	646,743
Natl Institute of Biomedical Imaging & Bioengineering	271,448	279,587	1,813,552	804,475	1,732,882
<b>Total NIH</b>	<b>99,436,750</b>	<b>117,079,528</b>	<b>124,651,616</b>	<b>153,657,046</b>	<b>190,825,084</b>
Other DHHS	7,600,975	9,974,734	10,770,316	11,877,757	27,322,461
<b>TOTAL DHHS</b>	<b>107,037,725</b>	<b>127,054,262</b>	<b>135,421,932</b>	<b>165,534,803</b>	<b>218,148,145</b>
Army	2,430,831	3,822,733	3,255,008	5,196,743	3,282,767
Navy	665,770	2,069,035	2,238,302	2,792,523	1,415,164
Air Force	9,706	7,428	0	8,366	0
<b>TOTAL DOD</b>	<b>3,106,307</b>	<b>5,899,196</b>	<b>5,493,310</b>	<b>7,997,632</b>	<b>4,697,931</b>
Veterans' Administration	6,975,021	5,830,379	8,912,091	8,471,843	8,518,784
Other Federal Departments	2,027,152	2,586,157	4,070,865	2,018,832	2,300,700
Federal Agencies	3,234,927	1,066,743	721,689	725,723	2,558,151

**Appendix B - Sponsor List (continued)**

FullName	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
<b>TOTAL FEDERAL</b>	<b>122,381,132</b>	<b>142,436,737</b>	<b>154,619,887</b>	<b>184,748,833</b>	<b>236,223,711</b>
State of Maryland	21,672,909	33,610,415	33,969,600	33,186,616	52,271,549
Other States	1,166,957	1,194,076	1,033,918	258,481	16,307
<b>TOTAL STATES</b>	<b>22,839,866</b>	<b>34,804,491</b>	<b>35,003,518</b>	<b>33,445,097</b>	<b>52,287,856</b>
County Government	395,721	726,546	712,782	687,437	734,212
City Government	1,841,771	1,900,851	1,901,169	1,849,650	1,587,113
<b>TOTAL DOMESTIC GOVERNMENT</b>	<b>147,458,490</b>	<b>179,868,625</b>	<b>192,237,356</b>	<b>220,731,017</b>	<b>290,832,892</b>
Previous report	145,947,146	178,259,878	190,588,877	220,075,307	
Diff	1,511,344	1,608,747	1,648,479	655,710	
NIEHS Var	1,511,344	1,629,349	1,694,679	655,710	
VA Var	0	-20,592	-46,200	0	
Foreign Government	1,511,344	1,608,757	1,648,479	655,710	49,091
	64,332	140,729	65,748	83,102	
<b>TOTAL ALL GOVERNMENT</b>	<b>147,522,822</b>	<b>180,009,354</b>	<b>192,303,104</b>	<b>220,814,119</b>	<b>290,881,983</b>
Prev Report	147,709,225	180,228,195	192,535,687	221,061,110	
Variance	-186,403	-218,841	-232,583	-246,991	
Var - Var C State					
Foundations	21,375,069	21,149,651	23,236,708	20,324,260	28,249,682
Universities	8,247,383	9,446,957	10,492,955	10,862,064	13,142,371
Hospitals Calc	9,635,597	13,421,912	13,969,669	14,843,011	3,759,714
Corporations	26,232,403	25,849,858	25,788,326	22,907,603	29,755,823
<b>Total Other</b>	<b>65,490,452</b>	<b>69,868,378</b>	<b>73,487,658</b>	<b>68,936,938</b>	<b>74,907,590</b>
<b>TOTAL</b>	<b>213,013,274</b>	<b>249,877,732</b>	<b>265,790,762</b>	<b>289,751,057</b>	<b>365,789,573</b>

\* The major cause of the increase in state funding and decrease in hospital funding is due to cigarette restitution funds. These funds previously were awarded to the University through UMMS. In FY 2005, these funds were received directly from the state of Maryland. The amount of cigarette restitution funds in FY 2005 was \$12,940,000.

## Appendix C - Awards by School/Type

School	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	% Change
<b>Dental</b>						
Research	5,995,212	8,356,424	12,057,456	12,846,907	14,846,114	
Service	1,067,822	930,265	993,886	794,333	908,261	
Training	473,264	750,112	711,987	573,073	1,640,593	
<b>Total</b>	<b>\$7,536,298</b>	<b>\$10,036,801</b>	<b>\$13,763,329</b>	<b>\$14,214,313</b>	<b>\$17,394,968</b>	<b>22.4</b>
<b>Graduate</b>						
Research	-	-	-	155,000	70,000	
Service	-	-	-	1,831,290	573,993	
Training	-	-	-	355,000	503,786	
<b>Total</b>	-	-	-	<b>\$2,341,290</b>	<b>\$1,147,779</b>	<b>-51.0</b>
<b>Law</b>						
Research	74,450	455,669	544,587	389,952	521,772	
Service	534,403	455,009	314,950	372,147	576,468	
Training	42,050	108,700	278,416	127,011	557,269	
<b>Total</b>	<b>\$650,903</b>	<b>\$1,019,378</b>	<b>\$1,137,953</b>	<b>\$889,110</b>	<b>\$1,655,509</b>	<b>86.2</b>
<b>Medicine</b>						
Other	-	-	-	-	2,600,000	
Research	1,49,817,036	177,835,563	179,924,451	209,309,714	268,150,262	
Service	25,168,626	23,581,484	30,926,352	24,681,292	29,013,967	
Training	9,573,821	10,124,002	12,172,798	9,341,939	12,052,152	
<b>Total</b>	<b>\$184,559,483</b>	<b>\$211,541,049</b>	<b>\$223,023,601</b>	<b>\$243,332,945</b>	<b>\$311,816,381</b>	<b>28.1</b>
<b>Nursing</b>						
Research	2,477,298	3,379,370	4,277,746	4,119,692	4,063,511	
Service	1,104,533	1,746,806	1,861,422	963,794	1,049,909	
Training	911,576	1,757,132	1,479,226	1,479,226	2,120,461	
<b>Total</b>	<b>\$4,493,407</b>	<b>\$6,883,308</b>	<b>\$7,593,342</b>	<b>\$6,562,712</b>	<b>\$7,233,881</b>	<b>10.2</b>
<b>Pharmacy</b>						
Other	-	-	-	26,524	-	
Research	6,065,865	6,495,328	5,991,615	8,340,672	9,357,994	
Service	2,256,401	2,890,897	2,594,234	3,681,560	4,396,137	
Training	355,354	372,962	350,137	354,393	385,027	
<b>Total</b>	<b>\$8,677,610</b>	<b>\$9,759,187</b>	<b>\$8,935,986</b>	<b>\$12,403,149</b>	<b>\$14,339,158</b>	<b>15.6</b>
<b>Social Work</b>						
Research	1,087,357	4,199,523	3,646,752	3,471,594	4,484,202	
Service	428,226	629,155	793,478	568,207	946,368	
Training	3,473,351	3,922,134	4,443,096	3,794,894	4,598,483	
<b>Total</b>	<b>\$4,988,934</b>	<b>\$8,750,812</b>	<b>\$8,883,326</b>	<b>\$7,834,695</b>	<b>\$10,029,053</b>	<b>28.0</b>
<b>Campus Admin</b>						
Other	-	-	-	2,172,843	2,172,844	
Research	-	25,000	70,000	-	-	
Service	2,024,554	2,038,047	2,292,972	-	-	
Training	-	3,000	-	-	-	
<b>Total</b>	<b>\$2,024,554</b>	<b>\$2,066,047</b>	<b>\$2,362,972</b>	<b>\$2,172,843</b>	<b>\$2,172,844</b>	<b>0.0</b>
<b>Total All Schools</b>						
Other	-	-	-	2,199,367	4,772,844	
Research	165,517,208	200,746,877	206,512,607	238,520,782	301,493,855	
Service	32,384,565	32,271,663	39,777,294	32,892,623	37,465,103	
Training	14,829,416	17,038,042	19,410,608	16,138,285	22,057,771	
<b>Total</b>	<b>\$212,931,189</b>	<b>\$250,056,582</b>	<b>\$265,700,509</b>	<b>\$289,751,057</b>	<b>\$365,789,573</b>	<b>26.2</b>



## Appendix D - Awards by School/Type

	FY 2001		FY 2002		FY 2003		FY 2004		FY 2005	
	#	Amount	#	Amount	#	Amount	#	Amount	#	Amount
<b>Dental School</b>										
New	45	2,407,159	39	3,502,117	33	5,516,776	28	4,060,021	25	2,717,142
Renewal	13	746,264	6	1,115,250	11	1,022,976	9	744,278	4	203,251
Continuation	31	4,382,875	41	5,419,434	42	7,223,577	51	9,410,014	61	14,474,575
<b>Total</b>	89	7,536,298	86	10,036,801	86	13,763,329	88	14,214,313	90	17,394,968
<b>Graduate School</b>										
New	3	1,371,194			1	70,000	1	5,000	1	350,000
Renewal			6	1,862,907	5	2,263,956	7	1,901,290	1	148,786
Continuation									4	648,993
<b>Total</b>	3	1,371,194	6	1,862,907	6	2,333,956	8	1,906,290	6	1,147,779
<b>School of Law</b>										
New	12	610,903	19	844,694	16	490,585	3	226,280	9	640,558
Renewal	1	40,000	2	124,684	5	189,843	4	159,843	4	249,484
Continuation			1	50,000	4	457,768	9	502,987	10	765,467
<b>Total</b>	13	650,903	22	1,019,378	25	1,137,953	16	889,110	23	1,655,509
<b>School of Medicine</b>										
New	686	87,194,935	654	90,416,087	452	58,792,860	424	61,750,624	558	71,337,342
Renewal	106	16,561,320	74	14,984,351	97	18,616,089	80	17,127,055	66	11,678,100
Continuation	522	80,803,228	617	106,140,611	794	145,735,797	782	164,455,266	932	228,800,939
<b>Total</b>	1,314	184,559,483	1,345	211,541,049	1,343	223,144,746	1,286	243,332,945	1,556	311,816,381
<b>School of Nursing</b>										
New	28	2,001,010	50	4,157,109	36	2,603,117	23	1,881,277	31	1,500,049
Renewal	4	123,487	3	420,703	7	724,197	7	237,294	5	675,045
Continuation	24	2,368,910	13	2,305,496	35	4,266,028	38	4,444,141	33	5,058,787
<b>Total</b>	56	4,493,407	66	6,883,308	78	7,593,342	68	6,562,712	69	7,233,881
<b>School of Pharmacy</b>										
New	54	2,891,894	65	3,436,865	39	2,373,753	59	4,946,634	72	5,188,709
Renewal	6	904,986	11	1,276,444	5	204,213	8	749,693	11	1,604,487
Continuation	33	4,880,730	36	5,045,878	45	6,327,128	58	6,706,822	52	7,545,962
<b>Total</b>	93	8,677,610	112	9,759,187	89	8,905,094	125	12,403,149	135	14,339,158
<b>School of Social Work</b>										
New	14	447,049	17	3,352,216	19	2,373,753	19	1,421,973	10	1,056,529
Renewal	5	3,447,259	5	3,035,432	5	470,886	5	3,248,805	6	1,208,517
Continuation	9	1,094,626	12	2,363,164	17	7,115,191	11	3,163,917	20	7,764,007
<b>Total</b>	28	4,988,934	34	8,750,812	41	9,959,830	35	7,834,695	36	10,029,053
<b>Campus Administration</b>										
New			1	59,777						
Renewal										
Continuation	1	653,360	1	143,363	1	29,016			2	2,172,844
<b>Total</b>	1	653,360	2	203,140	1	29,016	2	2,607,843	2	2,172,844
<b>Total of All Schools</b>										
New	842	96,924,144	845	105,768,865	596	72,220,844	559	76,899,652	706	82,790,329
Renewal	135	21,823,316	101	20,956,864	130	21,227,961	113	22,266,968	97	15,767,670
Continuation	620	94,183,729	727	123,330,853	943	173,418,461	956	190,584,437	1,114	267,231,574
<b>Total</b>	1,597	212,931,189	1,673	250,056,582	1,669	266,867,266	1,628	289,751,057	1,917	365,789,573

## Appendix E - Service Awards

### Top Ten Service Awards FY05

Full Amount	Current Amount	Sponsor	PI	Department	Title
\$2,600,000	\$2,600,000	National Center for Research Resources	Donald Wilson	Dean's Office	Cancer Center Renovation Grant
1,218,000	1,218,000	Maryland Department Health/Mental Hygiene	Donald Wilson	Dean's Office	Baltimore City Public Health Grant/Cigarette Restitution
933,185	73,205	Maryland Department Health/Mental Hygiene	Kevin Cullen	Program of Oncology	MOU for Epidemiology Support for the Maryland Cancer Center
497,163	300,700	Governor's Office/Children Trust	David Pruitt	Psychiatry	Training and Technical Assistance for Wraparound in Maryland
313,859	156,930	Maryland Department Health/Mental Hygiene	David Pruitt	Psychiatry	Maryland's Alternative to Seclusion and Restraint
300,000	300,000	Maryland Department Health/Mental Hygiene	Michael Greenberger	Dean's Office	Preparedness Surge Plan
252,948	80,457	Maryland Department Health/Mental Hygiene	Lydia Temoshok	Medicine	Integrating HIV Prevention in Primary Care Setting
240,255	240,255	Maryland Department Health/Mental Hygiene	Howard Goldman	Psychiatry	Database Infrastructure Grant (DIG)
209,373	209,373	Baltimore VA Medical Center	Melissa McDiarmid	Medicine	Depleted Uranium Program Sharing Agreement
199,710	99,855	U.S. Department/Urban Development	Cheryl Hyde	No department level	Building & Bridging Diverse Communities/East Baltimore

## Appendix F - Training Awards

### Top Ten Training Awards FY05

Full Amount	Current Amount	Sponsor	PI	Department	Title
\$1,406,058	\$703,029	Maryland Department of Human Resources	Barbara Dorsey	Social Work	Social Services Administration Staff Training
1,305,217	143,941	National Institute of Diabetes & Digestive & Kidne Diseases	Stephen Meltzer	Medicine	Research Training in Gastroenterology
928,088	201,284	Fogarty International Center	Henry Silverman	Epidemiology & Preventive Medicine	International Research Bioethics Training: Egypt
537,517	102,816	National Heart, Lung, and Blood Institute	Olivia Carter-Pokras	Epidemiology & Preventive Medicine	Maryland's Approach to Cultural Competency in Healthcare
500,000	22,570	Charles Crane Family Fund	Brenda Bratton Blom	Clinical Law	Community Justice
472,244	176,394	HRSA-BHP-Division of Nursing	Lorraine Doucette	Medical Research Technology	Interdisciplinary Health Care Training & Delivery
350,000	350,000	Maryland Board of Nursing	Barbara Heller	Academic Affairs	Elder Abuse/Neglect National Curriculum Project
99,097	99,097	Center for Disease Control	Wendy Lane	Pediatrics	Evaluation of an Abusive Head Trauma Prevention Program
87,647	87,647	Administration for Children and Families	Debra Linsenmeyer	Social Work	Excellence in Public Child Welfare Supervision
83,520	41,760	John A. Hartford Foundation	Tinagene Inguito	Adult/Health Nursing	Self-Efficacy based Intervention to Facilitate Recovery