

# UNIVERSITY OF MARYLAND, BALTIMORE

# **MISSION**

The University of Maryland, Baltimore is the State's public academic health and law university devoted to professional and graduate education, research, patient care, and public service. Using state-of-the-art technological support, UMB educates leaders in health care delivery, biomedical science, social services and law. By conducting internationally recognized research to cure disease and to improve the health, social functioning and just treatment of the people we serve, the campus fosters economic development in the State. UMB is committed to ensuring that the knowledge it generates provides maximum benefit to society, directly enhancing the community.

# INSTITUTIONAL ASSESSMENT

The University of Maryland, Baltimore (UMB) is the State's public academic health and law university devoted to professional and graduate education, research, patient care, and public service. UMB is largely funded by entrepreneurial activity, particularly sponsored research and patient care. Because of its mission and funding sources UMB faces unique challenges and opportunities, especially due to the foreseen slowdown in federal research funding.

#### **SIGNIFICANT TRENDS:**

Students and Employees: UMB represents 'highest education' in Maryland. All of the state's baccalaureate institutions, public and private, serve as our feeder schools. As might be expected given the nature of the institution, UMB students across all of the schools and disciplines are at the very top of their respective fields of undergraduate study. Our students also remain through graduation (our graduation rate is the highest in Maryland) and go on to prestigious employment, residencies or post-doctoral fellowships.

Enrollment in Fall 2008 was a record 6,156, an increase of 5% from Fall 2007, and only the second time UMB enrollment has exceeded six thousand students. Increased enrollments occurred in undergraduate and graduate Nursing and all professional programs. Graduate and professional students account for 86% of campus enrollment. The enrollment of African – American students decreased from 17.9% to 17.4% of the student body. There were 6,959 employees in Fall 2007 of which 797 were graduate assistants and fellows. Compared to the previous year, the number of faculty and staff increased 5.2%.

Revenues: Total campus revenues increased from \$375,760,427 in fiscal 1997 to \$798,320,055 in fiscal 2007, an average of 7.8% per year. The average increase in State general funds over the same time frame was only 4.0%. Fiscal 2008 general funds increased by \$10.9 million compared to the previous year. Based on the fiscal 2008 appropriation, UMB is funded at approximately 73% of its funding guidelines, well below the USM average of 80%.

Tuition and fees were increased no more than 8% for fiscal 2008, and continue to constitute less than 10% of the total budget. Contract, grant and clinical revenues account for about 66% of the UMB budget. The campus has been very aggressive and successful in its ability to attract additional grants and contracts.

Revenues from grants and contracts and tuition and fees will not be enough to address the campus' fiscal imperatives, however. UMB has a relatively small student body and cannot meet fiscal obligations through increased tuition revenue. Meeting the obligations using other revenue sources will be limited because grants and contracts are variable and are restricted in nature and cannot be used to address the basic funding needs of the campus. As mentioned previously, the funding guidelines have recognized the funding needs of the campus and are expected to provide additional State general funds in the future.

#### **INSTITUTIONAL ASSESSMENT:**

Goal 1 – Evolve and maintain competitive edge as a center of excellence in the life and health sciences, law and social work and as a campus of professions committed to addressing complex social issues at local, state, and international levels.

Objective 1.1 – By fiscal year 2010 demonstrate the quality and preeminence of all UMB professional schools by achieving Top 10 status among public schools.

In fiscal year 2005, with more than \$10 million in total awards, the UMB dental school achieved the rank of 4<sup>th</sup> in research-based awards from the National Institutes of Health (NIH), below only the University of California San Francisco, the University of Michigan, and the University of Washington. Only about \$7.2 million of NIH funding was awarded to UMB in fiscal year 2006, resulting in a rank of 10<sup>th</sup>. The ranking of 11<sup>th</sup> for fiscal year 2007 based on \$6.2 million of NIH funding should increase in the future as after 36 years in a rapidly aging building, the UMB Dental School has relocated into a brand new \$142 million, 375,000 square foot state of the art facility.

A similar ranking based on funding received by the UMB School of Medicine from the NIH is now being used in preference to a ranking available through the Association of American Medical Colleges that was not updated on a timely basis. Among public medical schools, UMB achieved the rank of 15<sup>th</sup> for fiscal year 2007, based on \$129.3 million of NIH funding.

US News and World Report updated all nine law specialty rankings for 2008. The UMB School of Law's environmental law ranking improved from 11<sup>th</sup> to 8<sup>th</sup>, but the health law ranking slipped from 2<sup>nd</sup> to 3<sup>rd</sup> and the clinical training ranking fell from 5<sup>th</sup> to 8<sup>th</sup>. UMB regains three law specialty programs ranked in the top ten, however.

US News did not update nursing rankings for 2008. In 2007, the UMB nursing master's program ranked 7<sup>th</sup>, up from 10<sup>th</sup> when last ranked in 2003. One fewer specialty program was ranked in the top ten compared to 2003. Rankings for pharmacy and social work were updated

for 2008. The UMB School of Pharmacy was tied with five other schools for the rank of 9<sup>th</sup>. Rankings are based solely on the average of these assessment scores obtained through surveys sent to deans, administrators, and faculty at accredited schools. UMB's rank of 4.0 is actually the sixth highest rank awarded, as four schools were tied with a score of 4.1. In 2008, the UMB School of Social Work ranked 18<sup>th</sup>, up from 19<sup>th</sup> when ranked in 2004 and 25<sup>th</sup> when ranked in 2000.

Objective 1.2 – By fiscal year 2010 increase nationally recognized memberships and awards to UMB faculty by 25% compared to 2005.

Data for this indicator is taken from the report, *The Top American Research Universities*, prepared by the Lombardi Program on Measuring University Performance. Although the number of UMB faculty with National Academy memberships or nationally recognized awards dipped for 2005, the census returned to previously reported levels for 2006 and increased to 15 for 2007. These rates have held steady for 2008. As an example of the recognition achieved by UMB faculty, the prestigious J. William Fulbright Foreign Scholarship Board awarded Professor Ilene Zuckerman, PharmD, PhD, professor and chair of the Department of Pharmaceutical Health Services Research, a fellowship grant to expand her research of elderly health care in Thailand. Also, Karen H. Rothenberg, JD, MPA, dean of the School of Law was presented with the 2007 John R. Kramer Outstanding Law School Dean Award from Equal Justice Works, a support organization for law students interested in public service.

Objective 1.3 – By fiscal year 2010 increase scholarly productivity by increasing scholarly publications and activities per full-time faculty member by at least 25% compared to 2005.

For a number of years UMB has reported aspects of faculty non-instructional productivity, using the annual survey of faculty non-instructional productivity as a source of the data. Previously, reported scholarly productivity included only published books and refereed works. This indicator was broadened to include non-refereed works, creative activities and papers presented at professional meetings. As noted by the Maryland Higher Education Commission the number of scholarly publications and activities per full-time faculty steadily declined from 6.7 to 6.4 during the past three years. However, this downward trend has been reversed for 2008 with the number of scholarly publications and activities reaching 7.1 per full-time faculty.

# Goal 2 - Conduct recognized research and scholarship in the life and health sciences, law and social work that fosters social and economic development.

Objective 2.1 – By fiscal year 2010 increase extramural funding for research, service and training projects by 26% compared to 2005.

Between fiscal year 1995 and fiscal year 2004 sponsored research at UMB grew by an average of 10% a year. This was fueled in large part by the 7% annual increase in the budget of the National Institutes of Health (NIH). In fiscal year 2005, despite a leveling of the NIH budget, sponsored research grew by a phenomenal 21%.

While the \$379.4 million grants and contracts total for fiscal year 2006 represented a drop of about \$30 million (7%) from the previous year total, this nonetheless reflected an increase of about 13% over fiscal year 2004. The fiscal year 2006 dip, which was experienced by academic health centers across the country, resulted in part from across the board cutbacks and delays in anticipated grant renewals because of flat and/or declining National Institutes of Health (NIH) funding and other constraints on the federal budget. However, the single most important reason for the drop at UMB was the loss of 14 highly productive medical faculty who were recruited away by competing institutions. The twin roots of the problem are adequate space and recruitment/retention funds to stave off such raids. UMB will need Health Sciences Facility III and an enhanced operating budget to achieve projected growth. Grant and contract funding reached record levels for fiscal years 2007 and 2008 and is expected to grow, albeit slowly, for the next three years.

Objective 2.2 – By fiscal year 2010, enhance the production and protection of intellectual property, retention of copyright and the transfer of university technologies by increasing the number of U.S. patents issued annually by 5% and the number of royalty bearing licenses issued annually by 5% compared to 2005.

The performance indicators supporting this objective are taken from UMB's responses to the annual licensing survey conducted by the Association of University Technology Managers. The number of additional U.S. patents issued and number of licenses/options executed for fiscal year 2008 decreased slightly compared to fiscal year 2007. However, the cumulative number of active licenses/options increased by three.

# Goal 3 – Recruit outstanding students, increase access for disadvantaged students, provide excellent graduate and professional education, and graduate well-trained professionals who will be leaders in the fields and in the development of public policy.

Objective 3.1 – By fiscal year 2010 increase the number of master's and doctorate nursing graduates, PharmD graduates and DDS graduates by 30% on average compared to 2005.

In line with the Regent's plan, UMB will increase the production of graduates in areas where critical shortages are projected, especially pharmacy, dentistry and graduate level nursing. UMB is uniquely positioned to increase graduate enrollment and thus educate more faculty and research scientists for the nursing schools in the USM system and the State. As it expands nursing education at the Universities at Shady Grove, UMB will maintain a smaller undergraduate program at the Baltimore campus to serve as a model for educational innovation and fast tracking BSN recipients into graduate programs.

Under funding and inadequate space severely limit achieving teaching and research potential for the PharmD program. Expansion of the PharmD program to the Universities at Shady Grove will accommodate some growth in the program until additional space is constructed. The Dental School restructured the dental education curriculum, which dated back 35 years and implemented a 21<sup>st</sup> century oral health curriculum in concert with the move into the new dental building in summer 2006. A satellite program for dental education in Cecil County is planned.

The total number of graduates from these programs increased for 2008, the result of an increase in graduate nursing enrollments a few years earlier offset somewhat by normal fluctuations in the graduating class size for the professional pharmacy and dental programs. Based on current enrollments in these programs, the total number of graduates will continue to increase.

Objective 3.2 – By fiscal year 2010 increase support for financial aid scholarships and grants by 25% compared to 2005.

Over the three year period from fiscal year 2005 to fiscal year 2007 the amount of scholarships, grants, and assistantships provided to UMB students increased 26%, from \$17.5 million to \$22.1 million. Recent changes to State scholarship programs targeting graduate and professional students may increase financial aid in the next few years.

<u>Objective 3.3</u> – By fiscal year 2010 maintain high rates of graduate employment and educational satisfaction compared to 2005.

UMB has conducted a survey of recent graduates from its three undergraduate programs every three years, but starting in 2005 plans to conduct this survey annually. Survey results indicate a high employment rate (95%) and a high satisfaction level with education (92%). The survey was not conducted in 2007 due to resource limitations but resumed in 2008.

# Goal 4 – Encourage, support and reward faculty entrepreneurship; increase fundraising and philanthropic support.

Objective 4.1 – By fiscal year 2010 reach capital campaign goal of \$450-550 million.

Objective 4.2 – By fiscal year 2010 increase university endowment (all sources) by at least 25% compared to 2005.

Over the four year period annual campaign giving to UMB increased from \$52.9 million in fiscal year 2005 to \$68.7 million for fiscal year 2008, missing projections by \$8.1 million. Over the same period the combined endowments from the Common Trust, the UMB Foundation, the UM Foundation and the Trustees of the Endowment increased from \$198.7 million to \$272.1 million, about \$23 million under projections, due to worse than projected investment performance. Due to current economic conditions future investment returns may substantially vary from projections.

Objective 4.3 – By fiscal year 2010 increase the number of grant applications and the average grant award from federal and other sources supporting traditional research and technology transfer by 25% compared to 2005.

The number of grant applications for fiscal year 2008 has exceeded the volume reported for any preceding year. The average award continues to increase, from \$190,814 in fiscal year 2005 to \$240,452 in fiscal year 2008.

Goal 5 – Provide public service to citizens in all sectors and geographic regions of Maryland; provide outstanding clinical care appropriate to mission.

Objective 5.1 – By fiscal year 2010, increase the number of days that faculty spend in public service with Maryland's governments, businesses, schools, and communities by 25% compared to 2005.

The number of days in public service per full-time faculty member decreased to 10.8 for fiscal year 2008.

Objective 5.2 – By fiscal year 2010 maintain a level of charity care appropriate to mission.

The number of days of charity care provided by UMB School of Medicine clinical medical faculty increased from 3,625 in fiscal year 2005 to 3,776 in fiscal year 2007.

Goal 6 – Increase efficiency, effectiveness and accountability; respond creatively to fiscal pressures, both those that are unique to academic health centers and those affecting higher education generally.

Objective 6.1 – From fiscal year 2005 through fiscal year 2010 attain annual cost savings of at least 4% of the total budget based on enhanced efficiency and effectiveness.

The annual cost savings as a percent of actual budget has ranged between 2.0% and 4.1% over the period from fiscal year 2005 through fiscal year 2007.

Objective 6.2 – By fiscal year 2010 complete implementation of all sections of the UMB Information Technology Plan.

The percent of annual IT Plan completed has ranged between 93% and 97% during the period of fiscal year 2005 through fiscal year 2008.

# **FY 2008 Cost Containment Report**

# **Narrative Summary**

The University of Maryland, Baltimore implemented activities totaling approximately \$22.4 million in FY 2008 toward increased efficiency and effectiveness in line with the Regents' objectives. Of that amount approximately \$10.9 million was generated from enhanced contract and grant, clinical and/or philanthropic activity. This resulted in an increased proportion of faculty and staff compensation (including fringe benefits), facilities renewal, technology commercialization and scholarship assistance being met via faculty entrepreneurship, the school as lender program, and targeted gifts from donors.

Given the state's demonstrated workforce need for nurses, two important initiatives to help respond to these needs were implemented by the nursing school in FY 2008 using strategic partnerships with the health care industry. By partnering with the University of Maryland Medical System and the Office of the Surgeon General, US Army the nursing school to receive the services of approximately 14.35 full time equivalent nurse educators at no cost, thereby saving the school and university approximately \$1.64 million in salaries and fringe benefits. Financial support from four other medical centers generated approximately \$743,000 toward the development of the Certified Registered Nurse Anesthesia Program. Finally using the Wellmobile to provide low or no cost health care services to medically underserved Marylanders saved the state an estimated \$4.2 million in emergency room and other health care costs.

UMB continued to implement various utilities related initiatives toward maximizing energy efficiency and minimizing costs, as well as various initiatives connected with improving environmental health and safety. Estimated savings totaled \$3.43 million. Information technology services implemented some \$1.3 million, principally through centralizing mail and other electronic services that had been distributed across the campuses.

The remaining approximately \$200,000 was due to continued consolidation of academic programs and administrative functions throughout the schools and units.

# In summary:

support \$10.9 M	Enhanced entrepreneurship and philanthropic supp	•
ry 6.6 M	Nursing Partnerships with Health Care Industry	•
4.7 M	Utilities and IT	•
0.2 M	Academic consolidation	•
TOTAL \$ 22.4M		
TOTAL \$ 22		

# **KEY GOALS AND OBJECTIVES**

**Goal 1:** Evolve and maintain competitive edge as a center of excellence in the life and health sciences, law and social work and as a campus of professions committed to addressing complex social issues at local, state, and international levels.

**Objective 1.1** By fiscal year 2010 demonstrate the quality and preeminence of all UMB professional schools by achieving Top 10 status among public schools.

		2005	2006	2007	2008
Performa	ance Measures	Actual	Actual	Actual	Actual
Quality	National Ranking - NIH total awards				
	to Dental Schools <sup>1</sup>	4	10	11	7
	National Ranking – NIH total awards				
	to public Schools of Medicine <sup>1,6</sup>	12	11	15	12
Quality	National Ranking (US News & World				
	Report)				
	School of Law (highest ranked				
	specialty) <sup>2</sup>	$3^{\rm rd}$	$3^{\rm rd}$	$2^{\text{nd}}$	$3^{\rm rd}$
	School of Law (specialty programs				
	ranked in top 10) <sup>2</sup>	3	3	2	3
	School of Nursing (M.S. Program) <sup>3</sup>	$10^{\rm th}$	$10^{\rm th}$	$7^{\text{th}}$	$7^{\mathrm{th}}$
	School of Nursing (highest ranked				
	specialty) <sup>3</sup>	$5^{\mathrm{th}}$	5 <sup>th</sup>	5 <sup>th</sup>	$5^{\mathrm{th}}$
	School of Nursing (specialty				
	programs ranked in top 10) <sup>3</sup>	4	4	3	3
	School of Pharmacy <sup>4</sup>	$7^{\mathrm{th}}$	$8^{th}$	$8^{th}$	$9^{\mathrm{th}}$
	School of Social Work <sup>5</sup>	19th	19th	19th	18th

**Objective 1.2** By fiscal year 2010 increase nationally recognized memberships and awards to UMB faculty by 25% compared to 2005.

Perform	ance Measures	2005 Actual	2006 Actual	2007 Actual	2008 Actual
Quality	Number of nationally recognized				
	memberships and awards	9	14	15	15

**Objective 1.3** By fiscal year 2010 increase scholarly productivity by increasing scholarly publications and activities per full-time faculty member by at least 25% compared to 2005.

Perform	ance Measures	2005 Actual	2006 Actual	2007 Actual	2008 Actual
Quality	Number of scholarly publications				
	and activities per full-time faculty	6.7	6.5	6.4	

**Goal 2:** Conduct recognized research and scholarship in the life and health sciences, law and social work that fosters social and economic development.

**Objective 2.1** By fiscal year 2010 increase extramural funding for research, service and training projects by 26% compared to 2005.

		2005	2006	2007	2008
Performa	ance Measures	Actual	Actual	Actual	Actual
Output	Grant/contract awards (\$M)	\$409.1	\$379.4	\$410.0	\$44

Objective 2.2 By fiscal year 2010 enhance the production and protection of intellectual property, retention of copyright and the transfer of university technologies by increasing the number of U.S. patents issued annually by 5% and the number of licenses/options executed annually by 5% compared to 2005.

		2005	2006	2007	2008
Performan	nce Measures	Actual	Actual	Actual	Actual
OutcomH	Number of U.S. patents issued per				
	year	7	8	14	12
	Number of licenses/options				
	executed per year	23	22	29	24
	Cumulative number of active				
	licenses/options	64	76	93	96

**Goal 3:** Recruit outstanding students, increase access for disadvantaged students, provide excellent graduate and professional education, and graduate well-trained professionals who will be leaders in the fields and in the development of public policy.

**Objective 3.1** By fiscal year 2010 increase the number of master's and doctorate nursing graduates, PharmD graduates, and DDS graduates by 30% on average compared to 2005.

		2005	2006	2007	2008
Performa	nce Measures	Actual	Actual	Actual	Actual
Output	Graduates				
_	Nursing (MS, DNP, and PhD)	193	154	222	240
	Pharmacy (PharmD)	130	158	115	114
	Dental (DDS)	97	106	103	100

**Objective 3.2** By fiscal year 2010 increase support for financial aid scholarships and grants by 25% compared to 2005.

Perform	ance Measures	2005 Actual	2006 Actual	2007 Actual	2008 Actual
Input	Scholarships, grants and				
	assistantships (\$M)	\$17.5	\$19.9	\$22.1	Nov 08

**Objective 3.3** By fiscal year 2010 maintain high rates of graduate employment and educational satisfaction compared to 2005.

		2005	2006	2007	2008
Performa	nce Measures	Actual	Actual	Actual	Actual
OutcomH					
	Employment rate of graduates	97%	95%	NA	95%
Quality	Graduates' satisfaction with				
	education (Nursing)	88%	81%	NA	92%

Goal 4: Encourage, support and reward faculty entrepreneurship; increase fundraising and philanthropic support.

**Objective 4.1** By fiscal year 2010 reach capital campaign goal of \$450-550 million.

	2005	2006	2007	2008
Performance Measures	Actual	Actual	Actual	Actual
OutcomH				
Campaign giving, annual (\$M)	\$52.9	\$60.6	\$65.2	\$68.7

**Objective 4.2** By fiscal year 2010 increase university endowment (all sources) by at least 25% compared to 2005.

	2005	2006	2007	2008
Performance Measures	Actual	Actual	Actual	Actual
OutcomH  Endowment, annual total (\$M)	\$198.7	\$224.0	\$274.7	\$272.1

**Objective 4.3** By fiscal year 2010 increase the number of grant applications and the average grant award from federal and other sources supporting traditional research and technology transfer by 25% compared to 2005.

		2005	2006	2007	2008
Performa	nce Measures	Actual	Actual	Actual	Actual
Input	Number of grant applications	2,380	2,365	2,475	3,000
OutcomH	Ţ				\$240,452
	Average grant award	\$190,814	\$192,582	\$234,679	

**Goal 5:** Provide public service to citizens in all sectors and geographic regions of Maryland; provide outstanding clinical care appropriate to mission.

**Objective 5.1** By fiscal year 2010 increase the number of days faculty spend in public service with Maryland's governments, businesses, schools, and communities by 25% compared to 2005.

		2005	2006	2007	2008
Performance Measures		Actual	Actual	Actual	Actual
Output	Number of days in public service				
	per full-time faculty member	15.0	11.3	11.5	10.8

**Objective 5.2** By fiscal year 2010 maintain a level of charity care appropriate to mission.

		2005	2006	2007	2008
Performa	nce Measures	Actual	Actual	Actual	Actual
Output	Days of charity care provided by				
	clinical medical faculty	3,625	3,623	3,776	Oct 08

**Goal 6:** Increase efficiency, effectiveness and accountability; respond creatively to fiscal pressures, both those that are unique to academic health centers and those affecting higher education generally.

**Objective 6.1** From fiscal year 2005 through fiscal year 2010 attain annual cost savings of at least 4% of the total budget based on enhanced efficiency and effectiveness.

	2005	2006	2007	2008
Performance Measures	Actual	Actual	Actual	Actual

**Efficiency** Annual cost savings as a percent of

actual budget 4.1% 2.2% 2.0%

**Objective 6.2** By fiscal year 2010 achieve a completion rate of annual action items in the Campus Strategic IT Plan of at least 95%.

		2005	2006	2007	2008
Performan	ce Measures	Actual	Actual	Actual	Actual
Outcome	Percent of annual IT Plan				
	completed	93%	97%	97%	95%

#### **USM Core Indicators**

2006	2007	2008
Actual	Actual	Actual
858	799	810
40%	41%	43%
27%	27%	28%
453	354	350
906	806	772
NA	111	100
0.8	0.7	0.8
	Actual 858 40% 27% 453 906 NA	Actual         Actual           858         799           40%         41%           27%         27%           453         354           906         806           NA         111

**Notes:** NA = data not yet available for the year indicated.

- 1. Fiscal 2008 ranking is an estimate.
- 2. Rankings for law were updated for 2008 and each previous year.
- 3. Rankings for nursing MS program and nursing specialties were not updated for 2008. 2007 rankings are used for 2008 and 2003 rankings are used for 2005 and 2006.
- 4. Pharmacy programs were updated for 2008. 2005 ranking is used for 2006 and 2007.
- 5. Social Work program rankings were updated for 2008. 2004 ranking is used for 2005 through 2007.
- 6. Fiscal 2006 value revised.
- 7. In response to the 2008 request of the Joint Chairs for additional information on undergraduate minority student enrollment, UMB student enrollment allocated by minority group for the two most recent fiscal years was as follows: African American 27% in FY 2007 and 28% in FY 2008; Hispanic 3% in FY 2007 and 3% in FY 2008; Asian 10% in FY 2007 and 12% in FY 2008; Native American 0.6% in FY 2007 and 0.2% in FY 2008.

# UNIVERSITY OF MARYLAND, BALTIMORE COUNTY

#### **MISSION**

UMBC is a dynamic public research university integrating teaching, research, and service to benefit the citizens of Maryland. As an Honors University, the campus offers academically talented students a strong undergraduate liberal arts foundation that prepares them for graduate and professional study, entry into the workforce, and community service and leadership. UMBC emphasizes science, engineering, information technology, human services, and public policy at the graduate level. UMBC contributes to the economic development of the State and the region through entrepreneurial initiatives, workforce training, K-16 partnerships, and technology commercialization in collaboration with public agencies and the corporate community. UMBC is dedicated to cultural and ethnic diversity, social responsibility, and lifelong learning.

# INSTITUTIONAL ASSESSMENT

#### Overview

UMBC's goals and objectives reflect its vision of becoming one of the nation's best public research universities of its size. Our Planning Leadership Team has cast as UMBC's top priorities continuing to rank in the top tier of research universities and continuing to build the quality and size of the undergraduate and graduate student bodies. UMBC's most encouraging results this year reflect our institution-wide efforts to improve student retention rates. Both our freshman retention and graduation rates increased over the past year, with our six-year graduation rate exceeding our 2009 target for the third year in a row. This suggests that our efforts to enhance student engagement, both intellectually and socially, appear to be yielding positive results both for retention and graduation. We are especially proud of our retention rate for African-American students, which is higher than for other undergraduates. We have enjoyed continued success in increasing federal research expenditures per faculty member. Areas in which we still face challenges are enrollments in teacher-preparation programs and in production of IT graduates.

The following assessment focuses on achievements and trends in areas that are incorporated in the university's goals, objectives, and performance indicators. Indicators are referenced to their objective numbers.

Students

Enrollments. UMBC's enrollment plan and projections submitted to the Maryland Higher Education Commission forecast an overall enrollment of 12,639 students by fall 2010, including 9,825 undergraduates and 2,814 graduate students, with an emphasis on increasing the percentage of full-time students. Enrollments again surpassed the 12,000 mark, a milestone reached in fall 2007, with 12,268 students enrolled in fall 2008 (9,612 undergraduates and 2,656 graduate students). In the past, a substantial component of enrollment growth at the undergraduate level has been in information technology, an area that has been identified as an

urgent workforce need in the state and one that is emphasized in UMBC's mission. A report of the American Society for Engineering Education ranked UMBC 12<sup>th</sup> in the nation in the number of Computer Science degrees awarded and UMBC still ranks first among its peers in IT bachelor's degrees awarded (see quality indicator for **Objective 2.2**). Consistent with state and national trends, however, IT enrollments have declined since 2002. We are starting to see a reversal of this trend in fall 2008, with IT enrollments constituting a slightly higher percentage of total undergraduate enrollments. The downward trend in enrollments has impacted IT degrees awarded (see output indicator for **Objective 2.2**) and, subsequently, the number of IT graduates employed in Maryland (see outcome indicator for **Objective 2.2**).

The numbers of undergraduate students enrolled in teacher training programs showed an increase in 2008, but decreased at the graduate level (see input indicators for **Objective 2.1**). In 2005, the number of UMBC graduates employed in Maryland Public schools rose to 93 (see outcome indicator for **Objective 2.1**), but the large increase over FY 2004 (48) was an artifact of a temporary delay in graduation for students who did not complete the Praxis II or NTE exams in 2004 (which are now required for program completion). Since 2006 this indicator has improved by 15.7%, but is still short of the FY 2009 target. It appears that the enrollments in Education reflect, at least in part, the challenges of completing the requirements for certification in Elementary Education along with a major in another field and a university language requirement. The fact that our education students are required to major in another field may also affect the number going on to teach in Maryland, as this broader education may enable them to pursue more lucrative careers in their chosen field of study or make them more likely to go on to graduate school. Several new initiatives are focused on preparation of teachers in the high need areas of science and technology. A leadership gift of \$5 million from George and Betsy Sherman funds the Sherman STEM Teacher Training Program, a program that is expected to increase the number of UMBC graduates who move immediately into science, technology, engineering, and mathematics teaching careers in at-risk and challenged schools in Baltimore City and throughout Maryland. A new B.A. program in Physics Education received approval from MHEC in 2007, and a program in Chemistry Education was approved by MHEC in July 2008. These programs will greatly facilitate preparation of secondary science teachers by streamlining and coordinating the requirements in science and Education so that students can complete the program in four years. The university has also added post-baccalaureate certificates in Elementary/Secondary Science Education, Mathematics Education, and S.T.E.M. Education.

<u>Caliber of Students</u>. Our freshman class of 2008 entered with an average SAT of 1190, with a top quartile average combined SAT of 1366. The university offers students a wide range of opportunities to excel both intellectually and in other types of competitions. Undergraduate research is one of the hallmarks of UMBC's designation as an Honors University in Maryland, and the university is participating in a Leadership Cluster of the Carnegie Academy for the Scholarship of Teaching and Learning (CASTL) focusing on undergraduate research. This year 135 students participated in Undergraduate Research and Creative Achievement Day, an annual day-long celebration of student research. Participants included recipients of the Provost's Undergraduate Research Awards, MARC U\*STAR scholars, and students in Interdisciplinary Studies presenting their final senior projects. Volume 9 of the *UMBC Review*, our undergraduate research journal, was also published in the spring. This 204-page issue contains the work of

students majoring in Information Systems, English, Physics, Economics, Civil and Environmental Engineering, Chemistry, Modern Languages and Linguistics, Sociology and Anthropology, Biological Sciences, Mathematics and Statistics, and Media and Communication Studies.

In March 2008, UMBC celebrated the twentieth anniversary of the Meyerhoff Scholarship Program with a day-long symposium on "The Meyerhoff Experience: Addressing Diversity through Excellence in Science and Engineering Education and Mentoring." Two hundred Meyerhoff Scholarship Program alumni have completed graduate degrees at prestigious universities across the nation, including 66 who have earned Ph.D. or M.D./Ph.D degrees, more than 50 M.D.s, and nearly 100 who have earned master's or professional degrees in engineering and other STEM-related fields. Another 250 alumni are currently enrolled in graduate and professional schools.

Individual students' academic accomplishments are also gaining national and international recognition. Two seniors, Phillip Graff (Physics) and Simon Gray (Chemical Engineering) were awarded the prestigious Gates Cambridge Scholarship for graduate study at the University of Cambridge. Phillip Graff was one of 45 U.S. winners among 600 applicants and 119 finalists; Simon Gray, who was also UMBC's valedictorian, was among the international student awardees. Moreover, UMBC alumnus, Ian Ralby, a 2002 winner of the Jack Kent Cooke scholarship, has now been awarded a second Gates Cambridge Scholarship. Humanities Scholar Jack Mullee has been named a Fulbright Research Scholar and will study Buenos Aires' informal economy through ethnographic interviews with salespeople, and Melissa Minogue, a Sondheim Public Affairs Scholar, received a Fulbright English Teaching Assistantship. Carla Valenzuela, a Biological Sciences major and Meyerhoff Scholar, has received a 2008 Goldwater Scholarship, which supports outstanding students in the sciences and engineering.

Retention and Graduation. Student retention and graduation rates are important output indicators that UMBC takes very seriously and that the institution has been working vigorously to improve. Our second-year retention rate, 88.7%, has remained fairly steady following an increase from 82.4% in 2002 to a high of 88.9% in 2004 (see output indicator for **Objective 5.1**). For those students remaining at UMBC and not transferring elsewhere in Maryland, retention has increased significantly, from 82.6% in fall 2006 to 86.8% in fall 2008. It is especially gratifying to see another improvement in the six-year graduation rate, which has risen to 65.0%, the highest value in ten years (see output indicator for **Objective 5.2**). UMBC has a narrower program base than its peer institutions and students who leave the university often cite lack of their chosen major as the reason. With this in mind, UMBC has undertaken several academic initiatives designed to expand the number of certificate and degree programs available, particularly in areas with high student interest. Computer Engineering, introduced in 1998, has enrolled an average of 232 students over the past three years. Financial Economics (2001) has maintained over 300 majors for the past two years, with no significant negative impact on the size of the traditional Economics major, which currently has 235 majors. Enrollments in Bioinformatics and Computational Biology, Environmental Science, and Environmental Studies (2003) are doing well and have resulted in net enrollment gains for their respective departments. The B.A. degree in Business Technology Administration, an alternative to the B.S. in Information Systems, has

grown from 55 students in its first year (fall 2005) to 185 this year. In addition, *Media and Communication Studies* more than doubled its initial enrollment of 47 students in fall 2007 to 112 students in fall 2008.

Another approach to improving our retention and graduation rates has been implementation of several recommendations of the Task Force on UMBC as an Honors University. Some of these new initiatives are designed to increase student engagement with an expected positive effect on both retention and graduation. For example, First Year Seminars, capped at 20 students and taught by full-time faculty, are designed to create an active-learning environment enriched by field work, original research, group projects or performance as well as more traditional reading, writing, and lecture formats. In AY 2008 we offered 16 seminars taught by faculty from 11 departments, including one emeritus professor, on topics ranging from "Science versus Religion: The Battlefield of Evolution" and "Issues in Biotechnology" to "Beethoven's Music and Cultural Legacy." We are also offering student "success" seminars as one-credit additions to popular freshman courses in the disciplines. Preliminary analyses suggest that these seminar programs are having a positive impact on retention. This summer, for the first time, UMBC is offering a summer bridge program, CSI: Collegiate Summer Institute." New freshmen may enroll in "English Composition" or "Algebra and Elementary Functions" with class size limited to 20 students. The courses incorporate a student success seminar and also include co-curricular activities to help build a sense of community. The university also offers several Living Learning Communities focused on students' common intellectual interests or majors. The community for "Exploratory Learners" is especially designed for students who have not decided on an academic program of study - a group that is known to have higher risk for attrition.

<u>Diversity</u>. UMBC's commitment to intellectual, cultural, and ethnic diversity is one of the pillars of its institutional mission, and each year the university expends significant resources to recruit, retain, and promote the academic success of its minority graduate and undergraduate students. As of fall 2008, 42.9% of undergraduate students are minorities (see input indicator for **Objective 4.1**), a value that places UMBC considerably higher than the average of its peers. The Princeton Review featured UMBC in its new 2008 edition of the Princeton Review Guide: "Best 366 Colleges" and ranks UMBC 10th on its Diverse Student Populations list. Only 15 percent of four-year colleges in the U.S. and two Canadian colleges were chosen for the book, with "outstanding academics" as the primary criterion for inclusion. UMBC is ranked first nationally in the total number of undergraduate chemistry and biochemistry degrees awarded to African Americans (18) according to the most recent (2004-05) data from the American Society for Biochemistry and Molecular Biology (ASBMB).

Despite accomplishments with minority recruitment overall, success in recruiting new African American students has fluctuated unpredictably. Over the last ten years, the numbers of new African American freshmen have ranged from a low of 121 (fall 2002) to 213 (fall 2008). This year, the number of African American freshmen increased by 13 over last year (213 vs. 200). Although the number of new African American transfer students has been remarkably constant in recent years (between fall 2001 and fall 2006 the values have hovered around 200), the number rose to 251 in fall 2007 and dropped back to 230 in fall 2008. The decrease is consistent with an overall decrease in new transfer students that we have experienced this year.

Also, in terms of percentages, there is a much higher percentage of African American students among new transfers than among new freshmen (21.5% vs. 13.6% in fall 2008).

UMBC's target for enrollment of undergraduate African American students in FY 2009 is 16%, and over the last ten years the percentage has been fairly constant at about 15-16%, but in fall 2008 it increased to 16.7%, exceeding our FY 2009 target (see input indicator for **Objective 4.1**). The percentage of new freshmen who are Asian American increased from 15.8% in 1996 to 27.8% in 2008, and the percentage of undergraduates who are Asian American has grown from 12.9% in 1996 to 21.7% in 2008. These increases have permitted UMBC to achieve a minority undergraduate enrollment rate of 42.9% (see input indicator for **Objective 4.1**).

UMBC continues its vigorous efforts to attract qualified minority students. Among the strategies reflected in the university's Minority Achievement Plan are the Symposium for High School Faculty and Administrators, the College Preparation and Intervention Program, WORTHY (Worthwhile to Help High School Youth), and services provided to transfer students. The latter include Transfer Advising Days at all Maryland community colleges, UMBC Transfer Open House held each semester, and the Collegiate Alliance Program with CCBC-Catonsville. Other recruitment efforts include participation in college fairs (e.g., the National Scholarship Service and Fund for Negro Students' Student-College Interview Sessions, the National Society of Black Engineers, and the National Hispanic/Latino Fair). Programs such as the Reception for Talented African-American Students and the Campus Overnight Program are held on campus to attract minority students and parents to UMBC. A grant-supported *Upward Bound Program*, conducted by Student Support Services, and a grant from the Howard Hughes Medical Institute for an Undergraduate Biological Sciences Education Program are both targeted for minority students. UMBC continues to attract large numbers of undergraduate African American students pursuing degrees in the science, technology, engineering, and mathematics (STEM) areas through the Meyerhoff Scholarship Program, LSAMP, and MARC U-STAR. The LSAMP program is particularly noteworthy because it includes programs at the University of Maryland, College Park and University of Maryland Eastern Shore. UMBC has also formed partnerships with two HBCUs: Hampton University and Spelman College.

The retention rate for African American students is higher than that for UMBC students overall (see **Objectives 4.2** vs. the output indicator for **Objective 5.1**). The current second-year retention rate is 92.2%; the retention rate for all undergraduates is 88.7%. The graduation rates for African American students and for all undergraduate students currently exceed the university's 2009 targets. Historically, the graduation rate for African American students has been higher than that for all undergraduates, but in the past few years the graduation rate for African American students has fallen slightly below that of all undergraduates: 64.5% vs. 65.0% (see **Objectives 4.3** and **5.2**). Efforts to improve retention and graduation rates, described in the previous section, can be expected to yield benefits for all of our students, including African Americans.

UMBC has also endeavored to increase diversity at the graduate level. *Graduate Horizons* is a program designed to introduce minority students to graduate education and its benefits for their careers. Students are invited to the campus where they meet with faculty, tour

laboratories and talk with current graduate students about their experiences and motivations. The program has grown rapidly in popularity and applications to the Graduate School from minority students have increased dramatically. In fall 2008, 20.7% of UMBC's graduate students were minorities; 11.4% were African American.

Another aspect of diversity that has been a focus of UMBC's recruitment and retention efforts is to increase the numbers of women, both students and faculty members, in the STEM disciplines. The campus has active student and faculty groups of Women in Science and Engineering (WISE), and the university was also the recipient in 2003 of a prestigious five-year NSF ADVANCE grant that promotes recruitment, retention, and advancement of women faculty members in STEM disciplines. Since fall 2003, the number of female tenured and tenure-track faculty members in STEM has risen from 29 to 45. We were pleased to note that the ASEE ranked UMBC 12<sup>th</sup> in the nation in the percentage of master's degrees awarded to women in colleges of engineering (31.6%) and 14<sup>th</sup> in the percentage of tenured and tenure-track women faculty (18.2%).

Student Outcomes. UMBC engages in extensive assessment activities designed to evaluate and improve student learning and to determine accountability for the quality of student learning produced. UMBC's assessment efforts are viewed as complementing ongoing campus planning processes, and it is expected that these assessments will be used to support the reexamination of assumptions, values, priorities, goals, objectives, practices, and programs as they relate to our mission and position among other institutions. Our recently submitted *Student Learning Outcomes Assessment Report* provides detailed information on student performance in courses that focus on oral and written communication, scientific and quantitative reasoning, critical analysis and reasoning, and technological competency. The report also illustrates how these formative assessments have been used to make changes in curriculum and in individual courses.

Student outcomes are also assessed through feedback from alumni surveys. The most recent (2008) survey confirmed high employment rates (see outcome indicator for **Objective 1.1**) and high rates of student satisfaction with preparation for graduate/professional school (see quality indicators for **Objective 1.2** and **Objective 1.4**, respectively). Results of the 2008 survey revealed that UMBC achieved its 2008 target for **Objective 1.3**: 43.0% of graduates are enrolled in graduate and professional study within one year of graduation; the rate for African American students (41.5%) also surpassed our goal of 40%. Taken together, these results show that a trade-off consisting of a slight decline in the percentage of students employed and a slightly larger increase in the percentage going on to graduate and professional schools.

# **Faculty**

Accomplishments. UMBC faculty members continue to be recognized for their outstanding accomplishments. A recent issue of *Science Watch* ranked UMBC third in the country in terms of citation impact in the Geosciences. The Departments of Information Systems and Public Policy were ranked eighth and tenth respectively in their fields by the 2007 Faculty Scholarly Productivity Index, which measures the number of books and journal articles written by faculty members, the number of times other scholars have cited these publications and the grant monies, honors and awards the faculty members received.

Highlights of individual accomplishments this past year represent both national and regional recognition. Violinist and music professor Airi Yoshioka has been awarded the \$10,000 McGraw-Hill Companies' Robert Sherman Award for Music Education and Community Outreach. Music professor Anna Rubin received an ASCAPLUS Award from the American Society of Composers, Authors and Publishers. Scott Bass, Dean of the Graduate School and Vice President for Research, received the Association for Gerontology in Higher Education's (AGHE) 2008 Administrative Leadership Award. Shlomo Carmi, former Dean of the College of Engineering and Information Technology and Professor of Mechanical Engineering was honored last winter for his distinguished 38-year academic and research career with a lifetime achievement award from the District of Columbia Council of Engineering and Architectural Societies. Two publications of the Center for Art, Design and Visual Culture, designed by Professor Franc Nunoo-Quarcoo (Visual Arts), received national awards for design from both the American Association of Museums and the American Institute of Graphic Design (AIGA). The award is the highest honor the AIGA bestows for book design and production, and it is extremely rare for one institution to receive two awards in this category in the same year. The production of Vigils at Woolly Mammoth Theatre Company, directed by Colette Searls (Theatre), was nominated for four Helen Hayes Awards. Within the State of Maryland, Xerxes Mehta (Theatre) was honored by the City Paper as Best Theater Director of 2007. Christopher Corbett, received a Board of Regents Award of Excellence for Mentoring for his outstanding work with undergraduate journalism students and alumni. In 2007, Professor Corbett was also honored by the Society for Professional Journalism with the Excellence in Journalism Award for Editorial Writing. In fall 2008, Claudia Galindo will join UMBC as an Assistant Professor of Language, Literacy, and Culture with support from a Henry C. Welcome Fellowship.

Faculty have also, once again, generated significant expenditures for research and development (see output indicator for **Objective 6.1**). The indicator far exceeds the university's 2009 target of \$100 thousand per full-time faculty member. Federal R&D expenditures grew an average of 17.8% over the past five years, and the university's rank among its peers on this measure remained at 3<sup>rd</sup> (**Objective 6.2**). This ranking still keeps the indicator within its target of ranking in the top 3 among its peers. The trends for these indicators are influenced by the existence of two well-established research centers at UMBC (the *Joint Center for Earth Systems Technology* [JCET] and the *Goddard Earth Sciences and Technology Center* [GEST]), as well as four smaller centers: the *Center for Advanced Studies in Photonics Research* (CASPR), the *Center for Urban and Environmental Research and Education* (CUERE), and the *Center for Aging Studies*. Last year, UMBC was successful in securing a cooperative agreement from NASA to establish the *Center for Research and Exploration in Space Science and Technology* (CRESST), a consortium with UMCP and the Universities Space Research Association, which is led by UMBC. Continued growth in the university's research expenditures is anticipated for the foreseeable future.

<u>Recruitment and Retention</u>. One of the top two priorities to emerge from UMBC's strategic planning activities is the recruitment of new faculty. Increasing the number of core faculty is important for achieving many of UMBC's objectives, particularly those that relate to its status as a first-rate research university. Although new faculty hires have been authorized, and outstanding new faculty members have been recruited, promoted, and tenured over the past

several years, the net number of core faculty has grown only slightly. Because of budget constraints, in AY 06 the majority of our recruitment efforts were devoted to filling recently created faculty vacancies.

As faculty members increasingly achieve national and international recognition, retention becomes a serious concern. Although faculty members leave for many reasons, we have lost several to other universities that can offer higher salaries, lower teaching loads, research support, and other perquisites. We are already aware of resignations and retirements that will negatively impact our fall 2008 faculty count. Junior faculty members recruited during UMBC's first decade in the 1960s and early 1970s are now reaching retirement age, and in some departments a majority of the faculty is over 60 years of age. Thus, even maintaining the current number of tenured and tenure-track faculty is proving to be a challenge. We must continue to balance expenditures on recruitment of new faculty, including competitive salaries and start-up funds, with expenditures in support of current faculty and other university needs.

#### Resources and Economic Development

<u>Facilities Renewal</u>. UMBC has made progress under the BOR initiative to increase state funding for Facilities Renewal by .2% per year until the 2% target is achieved. After a slight decline in FY 2006, our percent of replacement cost expended in facility renewal and renovation increased to .4% in FY 2008 (**Objective 7.1**).

Economic Development. The expertise of UMBC's faculty and students leads to economic growth as measured in a number of ways. Through our Technology Center and Research Park, we have created 925 jobs in FY 2008 (**Objective 3.2**). Construction of three new buildings has dramatically expanded our research park, bwtech@umbc: The U.S. Geological Survey's Maryland-Delaware-DC Water Science Center opened in September 2007; Corporate Office Properties Trust is completing construction of a four-story multi-tenant office building; and Erickson Retirement Communities will move its information technology (IT) department, its adult living national broadcast network (Retirement Living TV), and its private charitable foundation to a 110,000 square-foot building. These projects are reflected in our estimates for FY 2008 and 2009. We also graduated two companies from our incubator programs (**Objective 3.1**).

An indicator of UMBC faculty members' contributions to technology development is the number of invention disclosures relative to federal R&D expenditures. This measure has consistently placed UMBC in the top 20% of its peer institutions, although this year the outcome was negatively affected by several factors (see **Objective 3.3**). First, there was a drop in the actual number of invention disclosures. This appears to reflect random year-to-year variation rather than a true downward trend. Second, although federal R&D expenditures continue to increase, much of the increase is associated with our NASA-sponsored research centers, which do not typically yield high rates of invention disclosures. Finally, the inclusion of new peer institutions (e.g., New Jersey Institute of Technology) has had an impact on our relative standing. Given these factors we estimate that our ranking in the future will fall in the middle 20% of our peers rather than the top 20%, our stated target.

# **FY 2008 Efficiency Efforts**

UMBC was successful again in its efforts to contain and avoid costs through various efficiency efforts which totaled an estimated \$4.823 million for FY 2008.

UMBC utilized various methods for achieving the efficiencies including: partnering with external entities and in/out-sourcing efforts of \$1.465 million; donations of goods and services \$574 thousand; focused efforts by workgroups, business process reengineering, technology initiatives and redefining work within departments to identify cost efficiencies of \$1.629 thousand and; energy conservation and competitive contracting efforts achieved \$1.155 thousand. Specifics to these categories are as follows:

Th	ousands (\$ 000)
Partnering with External Entities and In/Out-Sourcing Efforts	
<ul> <li>Negotiated with 3<sup>rd</sup> party vendor to pay credit card commission fee</li> </ul>	1,000
Participate in the Network Maryland - a state telecommunications network	300
Assisted UMB with Apple hardware procurement	100
In-house installations of telecomm/security projects  New Circuit discounted by the formula and policy desiring the security projects.	45
Negotiated discounted rates for external and online training  The bound asherted for maid any distinguariests.	9 6
<ul> <li>In-house asbestos &amp; mold remediation projects</li> <li>Fire Marshal training from Md. Fire and Rescue Institute</li> <li>5</li> </ul>	0
• Fire Marshal training from Md. Fire and Rescue Institute 5	
Donation of Goods and Services	2.40
Donation of biotechnology equipment used in research and teaching	349
<ul> <li>Donation of art, books and equipment used in research and teaching</li> </ul>	225
Focused Efforts by Work Groups and Departments to Reengineer and Apply Technology	
<ul> <li>Participated in USM/DGS energy purchasing strategies</li> </ul>	1,265
<ul> <li>Implemented four percent cut in library serials budget</li> </ul>	102
<ul> <li>Used book sales increased by utilizing discount strategy</li> </ul>	100
<ul> <li>Increased tenure-track faculty workload from 6.0 to 6.1 courses per year</li> </ul>	57
<ul> <li>Generated revenues from business affiliates for communication services</li> </ul>	30
<ul> <li>Improved monitoring of commission / income generating contracts</li> </ul>	30
• Used grad assist. and part-time staff instead of full-time staff to meet administrative needs	20
Re-engineering communications services tasks	11
Procurement e-bid board for solicitations / bids	6
• PeopleSoft HR upgraded to version 9.0 – SA / HR combined database	5
Recycling of equipment (electrical equipment, silver recovery program)	2
Implemented COLA / Merit process	1
Energy Conservation and Competitive Contracting	
Performance-based custodial contract savings	1,000
Negotiated beverage contract	155

\$4,823

**Total Efficiency Efforts** 

# **KEY GOALS AND OBJECTIVES**

**Goal 1:** Prepare students for work and/or graduate/professional school.

**Objective 1.1** Increase the employment rate of UMBC graduates from 81% in Survey Year 2002 to 85% in Survey Year 2008.

	2000	2002	2005	2008
	Survey	Survey	Survey	Survey
Performance Measures	Actual	Actual	Actual	Actual
<b>Outcome</b> Employment rate of graduates	85%	81%	83.7%	81.3%

**Objective 1.2** Increase the percentage of bachelor's degree recipients satisfied with the preparation for employment from 89% in Survey Year 2002 to 90% in Survey Year 2008.

Performa	nce Measures	2000 Survey Actual	2002 Survey Actual	2005 Survey Actual	2008 Survey Actual
Quality	% of bachelor's degree recipients satisfied with education received for employment	97%	89%	83.2%	84.9%

**Objective 1.3** Increase the graduate/professional school-going rate for UMBC's bachelor's degree recipients from 39% in Survey Year 2002 to 40% in Survey Year 2008.

Performan	ce Measures	2000 Survey Actual	2002 Survey Actual	2005 Survey Actual	2008 Survey Actual
Outcome	Graduate/professional school- going rate of bachelor's degree recipients within one year of graduation	35%	39%	40%	43%
Outcome	Graduate/professional school- going rate of African-American bachelor's degree recipients within one year of graduation	49%	35%	50%	42%

**Objective 1.4** Maintain the percentage of bachelor's degree recipients satisfied with the preparation for graduate/ professional school at 95% or higher.

	2000	2002	2005	2008
	Survey	Survey	Survey	Survey
Performance Measures	Actual	Actual	Actual	Actual

**Quality** % of bachelor's degree

recipients satisfied with education received for

graduate/professional school 99% 99% 97.2% 98.4%

Objective 1.5 Increase the percent of UMBC's bachelor's degree recipients employed and/ or going to graduate/ professional school from 91.3% in Survey Year 2002 to 93% in Survey Year 2008.

Performan	ce Measures	2000 Survey Actual	2002 Survey Actual	2005 Survey Actual	2008 Survey Actual
Outcome	% of bachelor's degree recipients employed and/or going to graduate/ professional school within one year of	04.70	01.20	02.00	04.20
Outcome	graduation. % of African-American bachelor's degree recipients employed and/or going to graduate/ professional school	94.7%	91.3%	93.8%	94.3%
	within one year of graduation.	98.2%	92.3%	94.3%	88.7%

**Goal 2:** Increase the estimated number of UMBC graduates in key state workforce areas.

**Objective 2.1** Increase the number of UMBC graduates hired by MD public schools from 48 in FY 2004 to 95 in FY 2009.

Performan	ce Measures	2005 Actual	2006 Actual	2007 Actual	2008 Actual
Input	Number of undergraduates in				
	teacher training programs	278	353	285	325
Input	Number of post-bach students in				
	teacher training programs	325	383	370	332
Quality	Percent of undergraduate teacher candidates passing Praxis II or				
	NTE <sup>1</sup>	100%	100%	100%	99%
Quality	Percent of post-bach teacher candidates passing Praxis II or				
	NTE <sup>3</sup>	100%	100%	100%	100%
Outcome	Number of students who completed all teacher education requirements and who are employed in Maryland public				
	schools	93	51	54	59

**Objective 2.2** Increase the estimated number of UMBC bachelor's degree recipients in IT programs employed in Maryland from 351 in Survey Year 2002 to 375 in Survey Year 2008.

	2005	2006	2007	2008
Performance Measures	Actual	Actual	Actual	Actual

Input	Number of undergraduates				
	enrolled in IT programs	1,933	1,703	1,526	1,429
Output	Number of baccalaureate				
	graduates of IT programs	483	383	384	333
Quality	Rank in IT bachelor's degrees				
	awarded compared to peers <sup>4</sup>	1 <sup>st</sup>	$1^{st}$	$1^{st}$	1 <sup>st</sup>
		2000	2002	2005	2008
		Survey	Survey	Survey	Survey
Performan	nce Measures	Actual	Actual	Actual	Actual
Outcome	Number of IT graduates				
	employed in Maryland	283	351	396	277

### **Goal 3:** Promote economic development

**Objective 3.1** Maintain through FY 2009 the number of companies graduating from UMBC incubator programs each year at 3.

		2005	2006	2007	2008
Performan	ce Measures	Actual	Actual	Actual	Actual
Outcome	Number of companies graduating				
	from incubator programs	3	2	2	2

**Objective 3.2** Increase number of jobs created through UMBC's Technology Center and Research Park from 520 in FY 2004 to 950 in FY 2009.

Performa	nce Measures	2005 Actual	2006 Actual	2007 Actual	2008 Actual
Output	Number of jobs created by UMBC's Technology Center and Research Park	600	650	841	925

**Objective 3.3** Maintain through FY 2009 UMBC's rank of top 20% among public research peer institutions in the ratio of number of invention disclosures per \$million R&D expenditures

		2005	2006	2007	2008
Performan	nce Measures	Actual	Actual	Actual	Actual
Quality	Rank in ratio of invention				
	disclosures to \$million in R&D				Bottom
	expenditures <sup>5</sup>	Top 20%	Top 20%	Top 20%	20%*

#### Goal 4: Enhance access and success of minority students.

**Objective 4.1** Increase the % of African-American undergraduate students from 15.0% in FY 2004 to 16.0% in FY 2009.

	2005	2006	2007	2008
Performance Measures	Actual	Actual	Actual	Actual

Input	% African-American of				
	undergraduate students enrolled	14.5%	14.3%	15.0%	16.0%
Input	% minority of undergraduate				
	students enrolled <sup>6</sup>	37.9%	38.0%	40.0%	41.7%

**Objective 4.2** Increase the retention rate of African-American students from 89% in FY 2004 to 90% or greater in FY 2009.

		2005	2006	2007	2008
Performai	nce Measures	Actual	Actual	Actual	Actual
Output	Second-year retention rate of				
	African-American students	93.0%	89.3%	91.6%	92.2%

**Objective 4.3** Increase the graduation rate of African-American students from 61% in FY 2004 to 63.0% in FY 2009.

		2005	2006	2007	2008
Performa	nce Measures	Actual	Actual	Actual	Actual
Output	Six-year graduation rate of				
	African-American students	64.3%	62.7%	62.0%	64.5%

Goal 5: Enhance success of all students.

**Objective 5.1** Increase retention rate of UMBC undergraduates from 88.9% in FY 2004 to 90% or greater in FY 2009.

		2005	2006	2007	2008
Performai	nce Measures	Actual	Actual	Actual	Actual
Input	FTE students per FT instructional				
	faculty	21.9	21.4	20.4	21.1
Output	Second-year retention rate of				
	students	88.7%	87.5%	88.4%	88.7%
Quality	Rank in FTE students per FT				
	instructional faculty	$7^{\text{th}}$	$8^{th}$	$8^{th}$	$9^{ ext{th}}*$

**Objective 5.2** Increase graduation rate of UMBC undergraduates from 61.2% in FY 2004 to 63.0% in FY 2009.

		2005	2006	2007	2008
Performa	ance Measures	Actual	Actual	Actual	Actual
Output	Six-year graduation rate of students	61.9%	63.3%	63.7%	65.0%

**Objective 5.3** Increase the number of Ph.D. degrees awarded from 65 in FY 2004 to 75 in FY 2009.

		2005	2006	2007	2008
Performa	nce Measures	Actual	Actual	Actual	Actual
Output	Number of Ph.D. degrees				
	awarded	77	89	81	93

#### **Goal 6:** Provide quality research.

Objective 6.1 Increase the dollars in total Federal R&D expenditures per FT faculty from \$88.5 thousand in FY 2004 to \$100 thousand in FY 2009.

		2005	2006	2007	2008
Performance Measures		Actual	Actual	Actual	Actual
Output	Total Federal R&D expenditures				
	per FT faculty <sup>7</sup>	\$96.8	\$110.9	\$113.8	\$120.6

Rank among the top 3 among public research peer institutions (1<sup>st</sup> in FY 2004) in average Objective 6.2 annual growth rate (5-year) in federal R&D expenditures.

		2005	2006	2007	2008
Performance Measures		Actual	Actual	Actual	Actual
Output	Rank in 5-year average annual				
	growth rate in federal R&D				
	expenditures <sup>8</sup>	$1^{st}$	1 <sup>st</sup>	$3^{\rm rd}$	$3^{\rm rd}$

# Required indicators not attached to a specific goal.

Objective 7.1 Allocate expenditures on facility renewal to meet 2% target by FY 2009 from .3% in FY 2004.

Performance Measures		2005 Actual	2006 Actual	2007 Actual	2008 Actual
Efficiency	% of replacement cost expended				
	in facility renewal and renovation	.3%	.2%	.3%	.4%

Objective 7.2 Maintain at least a 2% rate of operating budget savings through efficiency and cost containment measures.

		2005	2006	2007	2008
Performance Measures		Actual	Actual	Actual	Actual
<b>Efficiency</b>	% rate of operating budget				
	savings	4%	5%	2%	3%

Notes: N/A = data not available

<sup>\*</sup> Peer institutions changed in Spring 2008. Ten current peers now include New Jersey Institute of Technology and U-Mass, Amherst. The University of Delaware and SUNY, Albany were dropped.

<sup>&</sup>lt;sup>1</sup> Data are based on previous fiscal year, i.e. FY2003= FY2002, FY2004=FY2003, etc. based on data availability.

<sup>&</sup>lt;sup>2</sup>Starting in FY03, UMBC's teacher preparation program required passing grades on appropriate Praxis I and II exams to be considered program completers.

<sup>&</sup>lt;sup>3</sup> Data are based on previous fiscal year, i.e. FY2003= FY2002, FY2004=FY2003, etc. based on data availability.

<sup>&</sup>lt;sup>4</sup>Data are based on previous fiscal year, i.e. FY2003= FY2002 (August 2001, December 2001 and May 2002 degrees awarded), etc. based on availability of IPEDS Peer Completions data.

<sup>&</sup>lt;sup>5</sup> Data are based on the latest available NSF peer data so that FY 04; FY 02; FY 05; FY 03; FY 06; FY 04; FY 07; FY 05.

<sup>&</sup>lt;sup>6</sup> The following information in provided in response to the 2008 request of the Joint Chairs for additional information on minority student enrollment, UMBC minority undergraduate enrollment, broken down by minority group for the two most recent fiscal years, was as follows: African American 15.0% in FY 07 and 16.0% in FY 08; Hispanic 3.8% in FY 07 and 3.9% in FY

# 08; Asian 20.8% in FY 07 and 21.3% in FY 08; Native American .4% in FY 07 and .5% in FY 08

<sup>&</sup>lt;sup>7</sup> Data are based on previous year's FY NSF data and the corresponding fall faculty data. FY 04:Fall 02 Faculty/FY 03\$; FY 05:Fall 03 Faculty/FY 04\$; FY 06:Fall 04 Faculty/FY 05\$; FY 07: Fall 05 Faculty/FY 06\$; based on data availability.

<sup>&</sup>lt;sup>8</sup> Data are based on the latest available NSF peer data so that FY 04: FY 97-FY 02; FY 05: FY 98-FY 03; FY 06: FY 99-FY 04; FY 07: FY 00-FY 05.

# UNIVERSITY OF MARYLAND, COLLEGE PARK

# **MISSION**

As the State's premier public research university, its original land grant institution, and the legislatively mandated flagship institution of USM, the University of Maryland, College Park serves the citizens of the State through three broad mission areas of research, teaching, and outreach. The University is the State's primary center for graduate study and research, and it is responsible for advancing knowledge through research, providing highest quality undergraduate instruction across a broad spectrum of academic disciplines, and contributing to the economic development of the State.

# INSTITUTIONAL ASSESSMENT

#### Overview

The University of Maryland has an outstanding reputation as a public research university. The University attracts and retains renowned faculty members who are nationally recognized for their research and pedagogy. Students at the University of Maryland are demonstrating the highest levels of achievement in our history, and the student body is one of the most diverse in the nation. Research productivity has steadily increased over the last 10 years and continues to grow as the University encourages new research initiatives. In addition, the University maintains partnerships with federal agencies and industries that are important to the economic development of the state. To further this momentum, the University has implemented initiatives that enhance student learning, improve cooperation with other institutions in the state, reduce costs to students, and advance the State's economic and workforce needs.

The University has recently completed the development of a new strategic plan. The strategic plan will support the citizens of the state by building a 10-year program focusing on knowledge, creativity, and innovation. The plan's four institutional priorities are undergraduate education; graduate education; research, scholarship, and the creative and performing arts; and partnerships, outreach, and engagement. Three strategic initiatives support the four priorities: Revision of general education, enhancement of the University's international role, and working with its neighbors to transform the surrounding community.

The Managing for Results (MFR) report contains key indicators that measure the University's progress in reaching institutional goals that are included in the University's current strategic plan and in the Maryland State Plan. These goals focus on issues vital to the quality of our educational programs, the success of our students, the recognition of our faculty, and the expanding research undertaken by our faculty in key areas of science and technology. The primary topics addressed in this narrative include quality, access and affordability, diversity and success, efficiency, economic development, and workforce needs. The University has made dramatic progress toward these goals and will continue to maintain high standards of excellence in teaching, research, and public service.

# Quality

#### Related MFR Goals(s):

Goal 1. Provide the citizens of Maryland with a public research university whose programs and faculty are nationally and internationally recognized for excellence in research and the advancement of knowledge.

Goal 3. Expand our Maryland family of alumni and constituents to achieve a network of support that is the hallmark of an outstanding research institution.

The critical measures of institutional quality are highly regarded academic programs, outstanding faculty, extensive research, and satisfied and loyal alumni.

Graduate Program Rankings. The University provides Maryland citizens with a public institution of higher education recognized for quality academic and research programs. Our 2009 goal was to increase the number of top ranked programs to 55 by 2009. As of 2008, we have achieved 52 nationally ranked programs in the top 15. Through a consistent effort to improve academic offerings and to recruit exceptional faculty, the University has been able to more than double the number of graduate programs nationally ranked in the top 15 from 22 in 1998. While we see a temporary dip in the number of graduate programs ranked, the new strategic plan is focused on improving and advancing graduate programs.

<u>Faculty Accomplishments</u>. Exceptional faculty are the key to excellent academic programs. The University continues to attract many outstanding faculty who make significant contributions to their fields. UM set a goal to increase the number of faculty receiving Fulbright, Guggenheim, and NEH fellowships, CAREER awards, and memberships in honorable academies to 65 by 2009. In 2008, UM reported 42 faculty receiving specific awards and recognition. We expect this number to increase with new initiatives to recruit and support faculty who are at the forefront of their fields of study and bring that experience to the classroom.

Recognition of research leadership across a range of fields by UM faculty continued through FY 2008, as the faculty raised more than \$400 million in external research support for the second straight year. A few examples: The National Consortium for the Study of Terrorism and Responses to Terrorism (START) under Gary LaFree in Criminology and Criminal Justice anticipates receiving \$12 million through 2011 from the U.S. Department of Homeland Security. Studies on the avian flu virus in the National Avian Flu Research Project led by Daniel Perez in veterinary medicine received a second \$5 million grant from the U.S. Department of Agriculture to support understanding the molecular basis of avian influenza and its risk to birds and humans. <a href="R&D Magazine">R&D Magazine</a> recognized two University creations among its "100 most technologically significant products introduced into the marketplace" over the past year. One, a new optical method for detecting individual neutrons, was developed by Michael Coplan of the Institute for Physical Science and Technology (IPST) together with his colleagues at NIST. The other is a software tool to manage and track wildfires that was developed by Robert Sohlberg of Geography together with his colleagues at NASA Goddard Space Flight Center and NASA Ames Research Center. A UM-NIST partnership, the Joint Quantum Institute, has been awarded

a most remarkable Physics Frontier Center by the National Science Foundation, with Principal Investigators Bill Phillips, Luis Orozco and Chris Monroe. The newly created UM Center for Applied Electromagnetics was funded at \$20 million by the Office of Naval Research under the leadership of Patrick O'Shea, Executive Director, and Victor Granatstein, Research Director, both in Electric and Computer Engineering. For the second year in a row, the University of Maryland has led the nation by taking the lead on three, highly competitive, Multidisciplinary University Research Initiative (MURI) program awards. These awards support research on: the effect of culture on collaboration and negotiation under Michele Gelfand of Psychology; remote multi-modal biometrics under Rama Chellappa of Electrical and Computer Engineering; and rotorcraft brownout under J. Gordon Leishman of Aerospace Engineering. In addition to these six MURI lead-institution awards over two years, the University also participates in five other MURIs.

Research and Development Expenditures. The quality and recognition of the University of Maryland faculty is demonstrated through the extensive academic research on issues of national importance. The University set a goal to increase R&D expenditures from \$322 million in 2004 to \$361 million in 2009. Despite national concerns for decreasing support for research and development, UM reported \$360 million in R&D expenditures to NSF for the FY 2007. Estimates for FY 2008 indicate that the University will reach \$378 million in R&D expenditures, far exceeding the original 5-year goal. The University has expanded its funding for large centers (including interdisciplinary centers) such as the Office of Naval Research Center for Applied Electromagnetics, the Center for Advanced Study of Language (CASL), the DHS Center of Excellence for the Study of Terrorism and the Response to Terrorism, the Joint Quantum Institute, and the Maryland NanoCenter, which brings together cross-disciplinary scientists to meet important research challenges relating to nanotechnology. The NASA Center for Research and Exploration in Space Science and Technology (CRESST) is tasked to study neutron stars, black holes, and extremely hot gas throughout the universe; the NASA-funded Constellation University Institutes Project (CUIP) funded involves 20 universities with UM as lead to develop technologies and analysis methods for future human space exploration. We are increasing our industrial funding and partnerships with the commercial sector. We seek to increase NIH funding (particularly in the areas of biotechnology, bioengineering, biophysics, bioprocessing, bioinformatics, and nanomedicine) and federal funding (for the improvement of laboratory animal care facilities).

Living-Learning Programs and Other Special Undergraduate Experiences. The "President's Promise" initiative guarantees every new freshman an opportunity to engage in a special learning experience that complements the academic curriculum and offers personal growth. Examples of these experiences include internships, research assistantships, living-learning programs, learning communities and opportunities for study abroad, leadership, and service learning. One popular path for acquiring a special experience is through our living-learning programs. These learning communities combine academic experiences with the benefits of a common residence, allowing students with similar academic interests to live together and learn from each other, both in and out of the classroom. Other programs are designed to prepare students for life beyond college by engaging students in learning opportunities outside the classroom such as internships, service learning and study abroad. The University of Maryland's outstanding learning communities and first-year experiences are among the top ranked "programs to look for" in U. S. News and World

Report. Our goal is to increase the percentage of bachelor's degree recipients who have participated in a special experience to 90% in five years (from 2004 to 2009). As of 2008, 76% of the graduating class had taken advantage of opportunities to include a unique and special experience in their undergraduate education. The President's Promise initiative, which began in 2005, targets freshmen. As a result, the many benefits of the program for these students will not be evident until their graduation.

Annual Giving and Alumni Donors. Fiscal year 2008 was an exceptional year, with gift totals exceeding \$130 million, well above our goal. A record 327 major gifts (i.e., gifts above \$50,000) exceeds the previous high of 277. We have reached our fundraising goal of \$130 million, and intend to increase the total number of donors to 42,000 by FY 2010.

<u>Alumni Satisfaction</u>. In 2008, the University of Maryland conducted an alumni survey of recent graduates. UM continues to receive positive feedback from its alumni with regard to preparation for both employment and graduate or professional school. With survey responses showing satisfaction at 93% and 98%, respectively, we are maintaining a high level of satisfaction.

# Access, Diversity, and Success

#### Related MFR Goals(s):

Goal 2. Provide an enriched educational experience to our students that takes full advantage of the special strengths of a diverse research university and promotes retention and graduation.

Access. The University of Maryland is committed to providing residents of Maryland excellent academic programs that are affordable and accessible. With limited capacity on the main campus, the University has expanded its undergraduate and graduate program offerings to the Shady Grove regional center in neighboring Montgomery County. The University currently offers programs in Communication, Criminal Justice, Business, Engineering, Biology, and Education; plans are in place to increase both enrollment and offerings, particularly at the graduate level. In addition, the University is working to improve transfer opportunities for students at community colleges. The Maryland Transfer Advantage Program (MTAP) facilitates the transfer of community college students to the University by providing opportunities for participation in campus activities and concurrent enrollment while students are completing studies at the community college. MTAP partners include Montgomery College, Prince Georges Community College, Anne Arundel Community College, and the College of Southern Maryland.

Further, the Freshmen Connection (FC) program encourages new students to take advantage of the spring openings that naturally occur due to December graduations and fall attrition. The program allows students to be engaged in campus activity in the fall before enrolling in the spring, while staying on track to graduate in four years. Virtually the entire group of the first two fall cohorts of FC students enrolled the following spring. In Spring 2007, 365 FC students, and in Spring 2008, 601 students successfully transitioned to the University.

Affordability. The University is working to keep high quality higher education affordable for

Maryland residents. There are several financial aid programs that have been developed to help reduce the debt burden of students. The Maryland Pathways Program is the most significant. Based on the level of need, students will either 1) be guaranteed to graduate debt-free, 2) have their accumulated debt capped, or 3) be assured that they will not lose federal support for working. In addition, there are several scholarship programs that target needy students. The Maryland Incentive Awards program (funded through local support) has recently expanded to Prince George's County. The Hillman Family Foundation funded the Hillman Entrepreneurs Program which targeted \$1.7 million in aid to Prince Georges Community College students each year. In addition, private scholarship funding for transfer students in the R.H. Smith School of Business is provided by Chevy Chase bank. The University continues to find creative ways to provide financial assistance to needy students.

Diversity. National attention on affirmative action has brought up questions about the educational benefits of diversity. The University is evaluating the extent to which diversity both affects learning outcomes and advances the University's educational goals. The University takes seriously the challenge and the opportunity to maintain a diverse educational community to which students of all backgrounds are attracted and in which a richly diverse student body will prosper. Consistent with this mission and the Strategic Plan, the University is an inclusive educational community that attracts a diverse population of academically talented students. This community has resulted, in part, from the University's previous initiative to overcome its history of state-enforced racial segregation, and to provide equal educational opportunities to students with a broad variety of personal characteristics. As the community has become more heterogeneous, the University has determined that a diverse student population enhances the educational experience and is an integral component of educational excellence. Thus, one of the diversity goals identified for the University includes achieving a critical mass of 35% minority undergraduate students on campus by Fall 2009. As of 2008, the University has increased this critical mass to 34%. As part of its effort to increase the quality of the institution, the University will continue to sustain a diverse student body with focused efforts to attract, recruit, admit, enroll, and retain students of color.

During the past year, UM developed a plan to support the USM Chancellor's aspirations to eliminate the academic success rate gaps that exist based on race or income. The University's *Closing the Achievement Gap* plan incorporates and refines existing programs and adds several new components. One is establishing a new bridge learning program intended to provide students in the cohort a set of benefits that includes mentoring and a structured curriculum within a learning community context. The ACE (Achieving College Excellence) program focuses on assisting students with insufficient math skills to complete their fundamental math courses in their freshman year so that they stay on track with requirements in their majors. Another component is creating a "Coalition for Student Success." This new coalition will bring together interested and invested members from across the institution to engage in the broader conversation about how the institution can creatively help students excel academically and developmentally at the University.

<u>Achievement</u>. The academic achievement of individuals across all categories of students is a consistent theme within the University. Initiatives, policies, and processes are focused on helping students finish their degrees in a shorter period of time. This theme has the effect of

improving students' success by focusing on graduation, increasing efficiency with regard to the use of university resources, reducing costs to students by reducing the number of semesters that it takes to complete a degree, and providing access to more students as an increasing number of students graduate more quickly.

The University has established a goal of improving the second-year retention rates by 3 percentage points for students in all racial/ethnic categories, except for African-American students. For African American students the goal was to increase from 89% to 93% in 5 years. As of Fall 2008, the retention rate for African American students has increased to 95%, a 6-percentage-point increase in 4 years. The retention rate for all minority students have also increased to 95%, up from 92% in Fall 2007. The University is beginning to see the benefits of implementing student success initiatives over the last few years.

Graduation rates were projected to increase 7 percentage points in 5 years. For all students, the goal was to increase the graduation rate from 73% in 2004 to 80% in 2009. As of Fall 2008, the University reached a graduation rate of 82%. For all minorities the goal was to increase the rate from 66% to 73%. As of Fall 2008, the graduation rate for minorities has reached 77%. The rate for African-American students was expected to increase from 57% to 64% over the same period. The graduation rate for African American students is now at 68%-4 percentage points higher than our 2009 goal, and the highest rate in our history. The University is achieving success for all students.

In addition, the University established 10-year goals to reduce the gap in graduation rates for African-American students and Hispanic students by 50% and 40%, respectively, before 2014. Despite an 11-point increase in the graduation rate for African American students, the gap in graduation rates between African-American students and all students is currently at 14 percentage points. Our goal is to reduce it to 8 percentage points. With new initiatives in place to address the gap and an increase in the retention rates of African American students and minorities, the data suggest that the University will reduce the gap in the coming years.

The gap in graduation rates between Hispanic students and all students dropped to 6 percentage points in 2008. Although the gap shrank this year, the goal is to reduce the gap further to 3% by 2009. The six-year graduation rate for Hispanic students fluctuates over time due to the current small cohort size. The project to close the achievement gap described earlier is designed to continue improvement of minority student retention and graduation rates.

Recruitment and Retention Programs. The University's new strategic plan emphasizes improving the quality of undergraduate programs and students. The University is committed to attracting more academically talented Maryland residents to remain in the state for their education. The University's recruitment agenda also includes programs targeted to attract students of color. Many of the pre-freshman programs serve dual purposes, in that they not only give new students assistance but also expose them to disciplines that traditionally have less diversity, such as science and engineering. For example, the Center for Minorities in Science and Engineering in the School of Engineering has been very successful in serving both current and prospective students. The Pre-College Program in the Office of the Dean of Undergraduate Studies is a federally funded TRIO Program which provides education services to low-income

and/or first-generation college-bound students in an effort to overcome economic, social, and cultural barriers that impede the pursuit of higher education. The University intends to explore opportunities to expand and replicate these programs.

Some of the recruitment strategies involve expanding and capitalizing upon the University's preexisting involvement in surrounding communities. As an example, the University has expanded the Maryland Incentive Awards Program. This program combines service to the community, and support and assistance to high school students in largely minority communities, with an open door to a first-class university. The program not only provides deserving students with a college education, but also focuses on citizenship skills such as leadership, critical thinking, and character development. The one-year retention rate for students participating in the Maryland Incentive Awards Program is 86%. The first two cohorts of students in the Incentive Awards program show a six-year graduation rate of 78%.

Another area for recruitment is community college transfers. Several new programs are coupling recruitment with financial aid to improve retention of transfer students. The Maryland Transfer Advantage Program allows students to plan ahead for their four-year degree while enrolled in a Maryland community college. Each student receives a tuition discount while exploring academic opportunities at UM. The number of Transfer Academic Excellence Scholarships distributed to qualified Maryland community college students has increased. The President's Transfer Scholarship is a two-year, \$5,000-per-year tuition scholarship that is awarded to the most competitive transfer students with the strongest academic records and college grade-point averages. The Weinberg Regents Scholarship is a USM scholarship awarded to qualified Maryland community college transfer students.

<u>National Recognition of Diversity and Success</u>. The University of Maryland is a place where minority students are succeeding. We are nationally recognized for awarding a high number of degrees to African-American students. In 2008, the University was ranked 8<sup>th</sup> by *Diverse Issues in Higher Education* for doctoral degrees awarded to African-American students. Additionally, UM is ranked 24<sup>th</sup> for undergraduate degrees awarded, well ahead of our peers. The University was also ranked by *Black Enterprise* magazine for being among the top 50 colleges for African-American students.

### **Economic Development**

#### Related MFR Goals(s):

Goal 4. Promote economic development in Maryland, especially in areas of critical need, by engaging in a range of partnerships with private companies, government agencies and laboratories, and other research universities.

Goal 5. Prepare our graduates to be productive members of the labor force, particularly in areas considered vital to the economic success of the State.

<u>Incubator Companies</u>. The University set a goal to graduate 65 incubator companies from our Technology Advancement Program (TAP) by 2009. TAP is currently incubating emerging

technology companies in areas such as diverse bioscience, engineering, and computer science. As of July 2008, 59 incubator companies have graduated from TAP. The steady increase over the past few years suggests that the number of incubator companies that graduate from our program will continue to grow. Additionally, the University of Maryland licensed cutting-edge technologies and intellectual property to other start-up companies in Maryland. In FY 2007, 7 companies used UM technology through license agreements with the University; for FY 2008, there are an additional 3 companies. The jobs created by these companies and the resulting economic stimulation are of tremendous value to the State's economic development.

Information Technology. Information technology has expanded so broadly it is now an essential skill for most educational and workforce professionals; technology expertise continues to be a critical need in the workforce for the state, the country, and internationally. The University is currently focusing on diversifying its support for technology professions to produce graduates who have received specialized training in fields such as biotechnology, nanotechnology, and biophysics. These emerging fields are crucial to addressing future workforce needs. The University will continue its commitment to maintain high quality IT programs and provide graduates for workforce demands. Over the last 3 years, the University has begun to see growth in the number of students entering as computer science majors. Our 2009 goal was to have 350 IT graduates employed in Maryland. According to the survey of alumni who graduated in FY 2007, approximately 142 IT graduates were employed in Maryland. Almost all of our IT graduates are either employed or working.

<u>Local Development.</u> The University is working with a private development team and the local community to develop the East Campus, a town center that will attract students and faculty. Planning is underway to achieve a vision that includes housing, shops, restaurants, and other amenities. It currently allocates 2 million square feet for housing, 400,000 square feet for retail, 100,000 square feet for offices, and 100,000 square feet for hotels. The East Campus project is strategically located to allow connectivity to the main campus west of Route 1, to the College Park/UM Metro station, to M Square, and to the College Park downtown commercial district.

The Maryland Research Park, or M Square, is a collaboration among the University, the State, the federal government, and private sector businesses. Currently it houses the National Foreign Language Center and Datastream, an incubator company that recently graduated from our Technology Advancement Program. M Square also includes NOAA's Center for Weather and Climate Prediction, the FDA's Center for Food Safety and Applied Nutrition, the Center for Advanced Study of Language, and the Intelligence Advanced Research Projects Activity (IARPA).

#### **Workforce Needs**

Related MFR Goals(s):

Goal 5. Prepare our graduates to be productive members of the labor force, particularly in areas considered vital to the economic success of the state.

<u>Program Development</u>. The University has recently implemented several new academic

initiatives. Bioengineering and Public Health are two areas where programs have been designed to respond to the changing needs of our society. By developing academic programs in areas that are vital to the economy, the University can better train students to be valuable contributors to the state.

The new School of Public Health is committed to discovery and excellence and is built on the strengths of its predecessor, the College of Health and Human Performance. Recent studies highlight the national shortage of well-trained public health personnel. The American Public Health Association (APHA) predicts that 50% of the federal public health workforce and 25% of the state public health workforce will retire within the next five years. The APHA concludes that the massive attrition in personnel will create a critical shortage of workers that cannot be remedied through existing training programs and recruitment efforts. The School of Public Health will address this significant workforce need, ensuring adequate training for the projected increase in public health jobs within the State, the surrounding regions, and the nation.

<u>Teachers</u>. The growing shortage of teachers at all levels of education and across all educational disciplines in Maryland has been well-documented and continues to have a negative impact on the state and communities surrounding the University. In response, the University has spent the past few years restructuring its teacher education programs to improve the content of the programs and to address critical shortage areas. The College of Education has shifted its focus to place greater emphasis on new post-baccalaureate models, which require a shorter preparation period, and which are expected to increase enrollments at the graduate level. UM also is working to increase the number of teachers prepared in high demand subject areas and to minimize the number of students enrolling in subject areas where there is already an abundance of teachers. The college has developed a number of programs to meet these goals, including multiple paths into secondary education, expanded curricular options in special education, new minors and tracks in Human Development, Second Language Education, TESOL, and Physical Education.

In order to meet critical local needs, the college expanded its paid-internship options in the Master's Certification (M-Cert) secondary program with Montgomery County Public Schools (MCPS) and Prince George's County Public Schools (PGCPS). In these programs, students teach part time in districts with school-based and university support while taking courses at the University. With the newly designed curriculum, added financial support for interns, and enhanced recruitment, these programs represent an excellent vehicle for increasing the likelihood that highly qualified teacher education graduates remain in Maryland. Current reporting methods by the Maryland Sate Department of Education (MSDE) may undercount the number of teachers joining school systems through this program.

As the above examples illustrate, the college has demonstrated its commitment to expanding the curricular options for teacher education candidates, especially at the post-baccalaureate level. In shifting its focus toward post-baccalaureate models, the College anticipated that teacher enrollment at the undergraduate level would decline, while enrollment in secondary and special education at the post-baccalaureate level gradually would increase. Unfortunately, the anticipated increases at the post-baccalaureate level have not achieved fruition at the rate originally intended.

The college plans to review the configuration of its teacher preparation programs to renew emphasis on pathways at the undergraduate level, and to undertake initiatives to increase the production of teachers through multiple avenues (undergraduate and post-baccalaureate) to meet statewide needs. Consistent with priorities articulated in the UM Strategic Plan, the college will: (a) examine the impact of its undergraduate Limited Enrollment Programs (LEPs) on teacher recruitment and adjust them as appropriate; (b) intensify its student recruitment programs, including initiatives designed to enhance articulation with MD's community colleges and increase the number of highly qualified teacher candidates from diverse backgrounds; and (c) develop a teacher education enrollment management plan that includes targets for overall teacher production, with specific emphasis on the state's critical shortage areas and innovative teacher preparation models that promote the likelihood that program graduates remain to teach in Maryland. As these changes are phased in, the College aims at increasing the number of teacher education program completers per year.

#### **Efficiency**

#### Related MFR Goals(s):

Goal 2. Provide an enriched educational experience to our students that takes full advantage of the special strengths of a diverse research university and promotes retention and graduation.

Through the President's Initiatives, the University is increasing throughput, reducing time to degree, and improving graduation rates. These initiatives aid in educating more students while maintaining a stable number of undergraduates on campus, consistent with the Efficiency and Effectiveness policies implemented by the Board of Regents. For example, the University's Student Academic Success/Degree Completion Policy provides students with milestones that must be reached in order to achieve a degree in a timely fashion. An important component of this policy is the academic advising support for students who are not making timely progress towards a degree. The academic advising helps them make appropriate decisions that will ultimately lead to a successful outcome. This University-wide policy was implemented with four-year plans for the fall 2005 incoming class. The University believes that these roadmaps for timely degree completion, coupled with early intervention assist all students in achieving their goals.

As mentioned in the Access, Diversity and Success section, the Freshman Connection Program, first implemented in Fall 2006, is a fall-semester Extended Studies academic program for students accepting admission to Maryland the following Spring semester. In its first three years, the Freshmen Connection Program has served 1400 students. By increasing the intake of new freshmen during the Spring, the University makes more efficient use of resources that were previously underutilized during the spring semester. This further assists the University in meeting its commitment to the University System of Maryland's effectiveness and efficiency initiative to service more students with the same level of resources.

One of our goals is to increase the percent of credits graduating students earn through non-traditional options. These options primarily include courses offered at off-campus locations, online, and through summer and winter terms; transfer credit (brought in by new freshmen

through Advanced Placement or International Baccalaureate credits and through concurrent high school enrollment); credit by exam; service learning; study abroad; internships; and independent study. Students who started as full-time new freshmen and graduated in 2007/2008 earned, on average, 25 of their degree credits through these non-traditional options. The University has achieved its 2009 goal. The University will maximize the use of state resources and foster students' needs in the State by delivering the finest education on platforms that take advantage of technology, industry, and alternative opportunities.

Lastly, the University submits a Cost Containment report through the University System of Maryland (USM) to the Maryland Higher Education Commission that includes detailed savings through indirect cost recovery, increased collaboration among institutions, business process reengineering, technology initiatives, and many other efforts.

## Efficiency Measures Protect Affordable Access and Academic Quality at University of Maryland, College Park

In fiscal year 2008, University of Maryland, College Park strived for affordable access to an excellent education while using limited resources. In order to meet this objective, Maryland developed efficiencies that saved an estimated \$32.5 million. These savings allowed for enhanced services and most importantly, helped protect the quality of and access to instruction.

The university's significant cost containment activities included:

- \$6.6 million Negotiated savings on air travel tickets, moving contracts, Fed Ex and UPS services, and construction program management consulting services.
- \$3.6 million Implemented demand side energy conservation and negotiated savings over market prices on electricity.
- \$3.2 million Initiated Network Refresh that will make network infrastructure current and modern, procured 229 new 800 MHz radios for UMDPS, and expanded wireless coverage.
- \$3.1 million Generated tuition and fees from the Freshman Connection program.
- \$2.9 million Generated revenue from the Capstone South Commons Student Housing Agreement, the Ambling's University Courtyard Public/Private Partnership, and the Graduate Apartments.
- \$2.0 million Implemented an internal contract for Intercollegiate Athletics facilities management.
- \$1.9 million Recycle usable assets, negotiated free pick-up and delivery of surplus property, and generated Terrapin Trader revenues from surplus property sales.

- \$1.8 million Generated revenue from indirect cost recoveries from contracts and grants.
- \$1.3 million Generated revenue from the contract with Barnes & Noble to operate the bookstore.
- \$0.4 million Generated revenue from hosting Prince George's County High School commencements.

## **KEY GOALS AND OBJECTIVES**

**Goal 1:** Provide the citizens of Maryland with a public research university whose programs and faculty are nationally and internationally recognized for excellence in research and the advancement of knowledge.

**Objective 1.1** Increase the number of UM's graduate colleges, programs, or specialty areas ranked in the top 15 nationally from 43 in 2004 to 55 in 2009. <sup>1</sup>

		2005	2006	2007	2008
Performance Measures		Actual	Actual	Actual	Actual
Quality	Number of UM's colleges, programs, or specialty areas ranked among nation's top 15 at the				
	graduate level <sup>1</sup>	49	60	53	52

**Objective 1.2** Increase total research and development (R&D) expenditures reported by the National Science Foundation from \$322 million reported in FY 2004 to \$361 million in FY 2009.

		2005	2006	2007	2008
Performance Measures		Actual	Actual	Actual	Actual
Output	Total R&D expenditures, as				
	reported by NSF <sup>2</sup>	\$326M	\$339M	\$354M	\$360M

**Objective 1.3** Increase the number of faculty receiving prestigious awards and recognition from 51 in 2004 to 65 in 2009.

Performa	nce Measures	2005 Actual	2006 Actual	2007 Actual	2008 Actual
Quality	Number of faculty receiving				
	prestigious awards and recognition	41	51	45	42

**Goal 2:** Provide an enriched educational experience to our students that takes full advantage of the special strengths of a diverse research university and promotes retention and graduation.

**Objective 2.1** Increase the percentage of undergraduate students who participate in enrichment programs before graduation from 80% in 2004 to 90% by 2009.

		2005	2006	2007	2008
Performa	nce Measures	Actual	Actual	Actual	Actual
Output	Percentage of degree recipients who participated in enrichment programs such as the living and learning programs, research activities, internships, independent study experiences, study abroad, or special projects off-campus. <sup>11</sup>	80%	82%	78%	76%

**Objective 2.2** Increase the average degree credits earned through non-traditional options by bachelor's degree recipients from 22 in 2004 to 25 in 2009.

		2005	2006	2007	2008
Performan	ce Measures	Actual	Actual	Actual	Actual
Efficiency	Average credits earned by degree recipients through non-traditional options such as off-campus, on-line, evening, weekend, summer, or winter courses, credit by exam, or transfer credit.	22	22	24	25

**Objective 2.3** Reduce the difference in six-year graduation rates between all students and African-American students by 50% -- from 16 percentage points in 2004 to 8 percentage points in 2014.

		2005	2006	2007	2008
Performance Measures		Actual	Actual	Actual	Actual
Output	The percentage point difference in				
	graduation rates between African-				
	American and all students	9	10	11	14

**Objective 2.4** Reduce the difference in six-year graduation rates between all students and Hispanic students by 40% from 5 percentage points in 2004 and to 3 percentage points in 2014.

		2005	2006	2007	2008
Performance Measures		Actual	Actual	Actual	Actual
Output	The percentage point difference in				
	graduation rates between Hispanic				
	students and all students	10	1	9	6

**Objective 2.5** Create an ethnically and racially diverse community by achieving a critical mass of 35% minority undergraduate students through increased recruitment and retention efforts of minority students between 2004 and 2009.

		2005	2006	2007	2008
Performance Measures		Actual	Actual	Actual	Actual
Input	Percentage of minority				
	undergraduate students enrolled in				
	$UM^{12}$	32%	33%	33%	$34\%^{3}$

**Objective 2.6** Increase the second-year student retention rate of all UM students from 92% in 2004 to 95% (2004 peer average) by 2009.

		2005	2006	2007	2008
Performance Measures		Actual	Actual	Actual	Actual
Output	Second-year freshman retention				
	rate: All UM students	92.6%	91.7%	92.6%	$94.0\%^{3}$

**Objective 2.7** Increase the six-year graduation rate for all UM students from 73% in 2004 to 80% by 2009.

		2005	2006	2007	2008
Performa	nce Measures	Actual	Actual	Actual	Actual
Output	First-time freshman 6-year				
	graduation rate: All UM students	76.4 %	79.0%	79.8%	$81.8\%^{3}$

**Objective 2.8** Increase the second-year retention rate of all UM minority students from 92% in 2004 to 95% by 2009.

		2005	2006	2007	2008
Performance Measures		Actual	Actual	Actual	Actual
Output	Second-year freshman retention				
	rate: All UM minority students	91.6%	90.6%	92.3%	$94.7\%^{3}$

**Objective 2.9** Increase the six-year graduation rate for all UM minority students from 66% in 2004 to 73% by 2009.

		2005	2006	2007	2008
Performance Measures		Actual	Actual	Actual	Actual
Output	First-time freshman 6-year graduation rate: All UM minority				
	students	70.2%	75.7%	75.9%	$77.0\%^{3}$

**Objective 2.10** Increase the second-year retention rate of African-American students from 89% in 2004 to 93% by 2009.

		2005	2006	2007	2008
Performan	nce Measures	Actual	Actual	Actual	Actual
Output	Second-year freshman retention rate: UM African-American				
	students	86.9%	89.2%	90.8%	$95.2\%^{3}$

**Objective 2.11** Increase the six-year graduation rate for UM African-American students from 57% in 2004 to 64% by 2009.

		2005	2006	2007	2008
Performa	nce Measures	Actual	Actual	Actual	Actual
Output	First-time freshman 6-year grad. rate: UM African-American				
	students	67.6%	69.3%	68.4%	$67.7\%^3$

**Objective 2.12** Increase the second-year retention rate of UM Hispanic undergraduate students from 90% in 2004 to 93% by 2009.

		2005	2006	2007	2008
Performa	nce Measures	Actual	Actual	Actual	Actual
Output	Second-year freshman retention				
	rate: UM Hispanic students	90.5%	85.1%	91.0%	$92.2\%^{3}$

**Objective 2.13** Increase the six-year graduation rate for UM Hispanic students from 68% in 2004 to 75% by 2009.

		2005	2006	2007	2008
Performa	nce Measures	Actual	Actual	Actual	Actual
Output	First-time freshman 6-year grad.				
	rate: UM Hispanic students	66.2%	78.1%	71.1%	$75.8\%^{3}$

**Objective 2.14** By 2009, maintain a second-year retention rate for all UM Asian-American undergraduate students at 95% or higher.

	2005	2006	2007	2008
Performance Measures	Actual	Actual	Actual	Actual

**Output** Second-year freshman retention

rate: UM Asian-American students 96.1% 94.6% 94.6% 95.8%<sup>3</sup>

**Objective 2.15** Increase the six-year graduation rate for UM Asian-American students from 74% in 2004 to 81% by 2009.

		2005	2006	2007	2008
Performa	nce Measures	Actual	Actual	Actual	Actual
Output	First-time freshman 6-year grad.				
	rate: UM Asian-American students	75.4%	80.6%	84.8%	$86.7\%^{3}$

**Goal 3:** Expand our Maryland family of alumni and constituents to achieve a network of support that is the hallmark of an outstanding research institution.

**Objective 3.1** Annual giving to the University from all sources will increase from \$86 million in 2004 to over \$130 million by 2009.

		2005	2006	2007	2008
Performa	nce Measures	Actual	Actual	Actual	Actual
Output	Total annual giving from all sources <sup>4</sup>	\$122M	\$130M	\$120M	\$131M

**Objective 3.2** The total number of annual alumni donors to the University will increase from 26,155 in 2004 to 42,000 by 2009.

		2005	2006	2007	2008
Performa	nce Measures	Actual	Actual	Actual	Actual
Output	Total number of annual alumni				
	donors <sup>4</sup>	24,424	24,601	25,623	39,600

**Goal 4:** Promote economic development in Maryland, especially in areas of critical need, by engaging in a range of partnerships with private companies, government agencies and laboratories, and other research universities.

**Objective 4.1** Increase the number of companies that have graduated from the UM incubator program from 50 in 2004 to 65 by 2009.

		2005	2006	2007	2008
Performan	ce Measures	Actual	Actual	Actual	Actual
Outcome	Number of companies graduated				
	from UM incubator program <sup>10</sup>	52	53	58	59

**Goal 5:** Prepare our graduates to be productive members of the labor force, particularly in areas considered vital to the economic success of the State.

**Objective 5.1** The estimated number of UM alumni employed in Maryland one year after graduation will increase from 2,376 in 2002 to 2,900 by 2008.

	2000	2002	2005	2008
	Survey	Survey	Survey	Survey
Performance Measures	Actual	Actual	Actual	Actual

Outcome	Estimated number of UM graduates				
	employed in Maryland one year				
	after graduation <sup>5,7</sup>	2,111	2,376	2,544	2,384
Outcome	% of UM alumni employed full- or				
	part-time one year after graduation <sup>7</sup>	87%	84%	85%	82%

**Objective 5.2** Increase or maintain the number of UM baccalaureate level graduates of Information Technology programs who work in Maryland from 302 as reported in the 2002 alumni survey to 350 in 2008.

		2000	2002	2005	2008
		Survey	Survey	Survey	Survey
Performance Measures		Actual	Actual	Actual	Actual
Outcome	Number of UM baccalaureate level				
	IT graduates employed in				
	Maryland. <sup>9</sup>	187	302	172	142

**Objective 5.3** Increase the number of teachers hired by Maryland's local education agencies who reported that they graduated from UM from 244 in 2004 to 300 or higher in 2009.

		2005	2006	2007	2008
Performan	ice Measures	Actual	Actual	Actual	Actual
Outcome	Number of UM students who completed all teacher education requirements and who were employed in Maryland public schools. <sup>6</sup>	267	306	261	253

**Objective 5.4** Increase the percentage of UM students satisfied with education received for employment from 89% in 2002 to 95% in 2008.

Performance Measures		2000 Survey Actual	2002 Survey Actual	2005 Survey Actual	2008 Survey Actual
Quality	% of alumni satisfied with				
	education received for employment				
	one year after graduation <sup>7,8</sup>	89%	89%	93%	93%

**Objective 5.5** Maintain the percentage of UM students satisfied with education received for graduate or professional school at or above 96% between the 1998 alumni survey and the 2008 alumni survey.

Performa	nce Measures	2000 Survey Actual	2002 Survey Actual	2005 Survey Actual	2008 Survey Actual
Quality	% of alumni satisfied with education received for graduate or professional school one year after graduation <sup>7</sup>	98%	99%	98%	98%

**Notes:** NA indicates where data will not be available for this report.

Sept 08 indicates data will be available for after the Fall student data are captured.

<sup>&</sup>lt;sup>1</sup> This number encompasses all graduate level college, program, or specialty area rankings published by *U.S. News, Financial Times, Business Week, Success*, and the National Research Council for which UM has a matching college,

program, or specialty area. The 2008 data column includes rankings that are current as of August 2008.

<sup>2</sup> Due to lag in NSF data collection and reporting time, data are reported for the prior fiscal year, i.e., the data reported for 2008 is for fiscal year (FY) 2007; the data reported for 2007 is for FY 2006, etc.

<sup>&</sup>lt;sup>3</sup> Fall data reflecting the current academic year. Report year 2008 includes data for Fall 2008.

<sup>&</sup>lt;sup>4</sup> Data and estimates are from the CASE Campaigning Reporting Standards. Data are for the most recent fiscal year. That is the 2008 data column reports data that are current as of the end of fiscal year 2008.

<sup>&</sup>lt;sup>5</sup> Estimation based on percentage of UM alumni surveyed one year after graduation who indicated they were working in Maryland. The 2008 Survey was administered to students who graduated in the fiscal year 2007.

<sup>&</sup>lt;sup>6</sup>Data are based on surveys of teachers hired in Maryland public schools who self-report their graduating institution. These surveys are conducted by local education agencies and reported to the Maryland State Department of Education. Data for 2008 are for teachers hired between October 2006 and October 2007 and reported to USM in

<sup>&</sup>lt;sup>7</sup>Refers to baccalaureate recipients only. Data are based upon graduates who completed the MHEC Follow Up Survey one year after graduation. The 2008 Survey was administered to students who graduated in the fiscal year

<sup>&</sup>lt;sup>8</sup> Reflects only bachelor's degree recipients who graduated the previous year, were employed full time, and rated their education as excellent, good, or adequate/fair preparation for employment on a UM alumni survey administered one year after graduation. In order to avoid data contamination, anonymous responses were excluded from the satisfaction rate calculations.

<sup>&</sup>lt;sup>9</sup> Estimation based on percentage of UM alumni (baccalaureate recipients only) responding to alumni survey who graduated with a MAITI-defined IT degree and who indicated they were working in Maryland.

<sup>&</sup>lt;sup>10</sup>Based on actual incubator companies that have graduated during the most recent fiscal year. The 2008 data column reports on data as of the end of the fiscal year 2008.

<sup>&</sup>lt;sup>11</sup> The list of special undergraduate experiences fluctuates from year to year as old programs are terminated and new programs are added. For example, the entrepreneurship program has ended and will no longer be included for future experiences.

<sup>&</sup>lt;sup>12</sup> The following information is provided in response to the 2008 request of the Joint Chairs for additional information on minority student enrollment. USM minority student enrollment, broken down by minority group for the two most recent fiscal years, was as follows: Asian: 14% for Fall 2007, 15% for Fall 2008; African American: 13% for Fall 2007 and 13% for Fall 2008; American Indian: 0.4% for Fall 2007 and 0.3% for Fall 2008; and Hispanic: 6% for Fall 2007 and 6% for Fall 2008.

## **MORGAN STATE UNIVERSITY**

#### MISSION

Morgan State University is, by legislative statue, Maryland's public urban university. It gives priority to addressing the needs of the population in urban areas, in general, and of Baltimore City in particular, through its academic, research, and service programs. The University is committed to educating a culturally diverse and multi-racial population with a particular obligation to increasing the educational attainment of African Americans in fields and at degree levels in which they are under-represented.

## INSTITUTIONAL ASSESSMENT

#### Access

The University always has welcomed enrollment of students of all races and is placing increased priority on attracting a greater number of "other race" students, but because of its geographic location and historic circumstances its primary constituency is the African-American population. To a growing degree this historic mission is of increasing importance to the State. Currently, one-third of the State's college age population is African-American. During this decade, the number of African-American high school graduates will increase by nearly 20 percent. A large majority of them will mirror the University's applicant pool with similar educational profiles, comparable socio-economic status and family educational history. Applications for attendance to Morgan have more than doubled over the past decade. The increasing attractiveness of the University is primarily attributable to the number of programmatic and capital enhancements that have taken place in recent years.

While the cost to attend continues to increase, the University's cost position, relative to Maryland's four-year public institutions, remains competitive within the State. When compared to competing institutions, out-of-state enrollment has remained relatively constant due to very high out-of-state tuition rates. Despite this, Morgan continues to provide higher education access to a segment of the population which faces financial constraints and challenges. The average percentage of undergraduates receiving Pell Grants for the 2005-2008 period is 48 percent.

The University's increasing attractiveness programmatically and aesthetically has increased the number of high ability students at Morgan. High ability students are those students with a combined SAT verbal and SAT mathematics score of 1000 or above. For fall 2007, high ability students comprised 16% of the total undergraduate population.

Morgan also continues to provide higher education access to promising students who otherwise may not be able to attend a traditional four year university. During the 2005-2008 period about 35% of the entering freshmen class scored below the national average for African Americans taking the SAT. Additionally, Maryland community college transfer students have comprised 3% of the total undergraduate student body.

The results for Morgan State University's diversity indicators are mixed. While the percentage of "other race" enrollment has remained stable at about 10% during the 2005-2008 period, the

percentage of undergraduate white students enrolled has increased slightly from 1.0% to 1.4%, and the percentage of Hispanic undergraduates increased from .5% to 1.0% during this same period. Morgan continues to have a much more diverse student body at the graduate level than at the undergraduate level. As a historically black institution, it continues to be the institution of choice for the children, grandchildren and friends of alumni in addition to being increasingly attractive to the general population as popular programs are developed and facility improvements come to fruition. It is also, by necessity, the destination of many minority students as a result of the relatively high degree of admissions selectivity exercised by nearly all of the State's public four-year majority campuses.

Morgan continues to express its capital and operating resource needs necessary to provide facilities and programs that will be attractive to students of all races. As such, as funds are made available, the University intends to further diversify its student body through marketing, scholarships, and continuing the revitalization and maintenance of its physical plant. Further, continued development of its existing graduate programs and the implementation of a select group of new programs, most of which would not be offered on any other campus, will assist in attracting a more diverse group of students similar to the 1960's and early 1970's when the campus had a unique role in the Baltimore area. In time, the campus expects diversity to increase at the undergraduate level as well due to the familiarity area residents will gain with the campus as a result of its graduate programs and due to the general prestige associated with having a significant doctoral mission.

## **Community Enrichment**

Morgan State University will continue to emphasize and strengthen it historic mission; that of providing an excellent undergraduate education to a broad segment of the population; including many of the best prepared as well as average students who might not otherwise have the opportunity to enroll in college, but who have the potential to complete a degree. As it has been able to do during the past two decades, Morgan State University will continue to develop a program inventory that responds to the emerging workforce and to changing student interests. It also will maintain the quality of its undergraduate program offerings, and make certain that students are equipped to take advantage of the vast and growing knowledge and information resources available electronically. In keeping with this goal, Morgan will begin to offer on-line courses in the fall of 2008. In addition, Morgan will be offering distance education courses at the Higher Education and Applied Technology Center in Harford County in order to provide higher educational access to the new civilian and military personnel who are locating to Aberdeen Proving Ground. At the same time, Morgan is placing additional emphasis on graduate study in selected disciplines as well as research in these fields. These programs are in fields of importance to the economy and provide a foundation for an increased emphasis by the University on service to Baltimore City. Graduate programs also strengthen the University's baccalaureate curriculum through increased exposure of undergraduate students to faculty with research expertise and through their utilization of equipment and other resources associated with advanced study. As a result of growth in doctoral programs, Morgan ranks second in the State in doctorates awarded to African-Americans. It ranks fourteenth among all traditional campuses nationally on this measure.

Additionally, Morgan is beginning to offer continuing education courses to Baltimore City residents and residents of the surrounding areas. Currently, the number of courses offered is small, but the University expects the number to increase as the program is advertised.

Morgan State University faculty, staff and students contribute to the enrichment of the lives of Baltimore City residents through a variety of partnerships with Baltimore City schools. The School of Education and Urban Studies has partnerships with 84 out of the 186 Baltimore City public schools. This year, the University had 113 partnerships with local schools.

#### **Effectiveness**

In recent years, Morgan has graduated 39-42% of its entering freshmen within six years. This ranks the campus above average among public universities nationally with urban missions, without respect to the race of entering freshmen. For African-American freshmen, Morgan ranks near the top among public urban universities nationally. Morgan's six year graduation rate for students with a combined SAT score of 1000 or above is 72 percent which is equal to or higher than most Maryland public colleges and universities with students having similar SAT scores. Morgan's mission requires however, that it admit a diverse array of students, including those with exceptional academic backgrounds, as well as average students who may not have had an opportunity to demonstrate high academic achievement, but who exhibit academic potential. While it is expected that the diversity of students with regard to academic preparation will continue to affect the overall graduation rate, Morgan intends to remain above the national average of its peers.

Overall, second year retention rates have ranged from 68% to 70% for all freshmen and 67% to 71% for African American freshmen. A high proportion of Morgan students tend to originate from a lower socio-economic background. Finances play a significant factor in the ability of many students to stay in school. A recent survey of non-returning freshmen showed that for 25 percent of the respondents, the primary reason for not returning to Morgan was financial. The availability of additional need-based aid would assist in retaining many more students in school and, therefore, enable Morgan to increase its retention and graduation rates. Another factor which adversely impacts student retention is Morgan's increasing dependency on contractual faculty which is currently at 35%. Research conducted by a Morgan faculty member indicates that students taking critical first year courses from regular faculty were academically more successful in those classes than students taking the same classes from contractual faculty. Success in key courses such as English 101 and college mathematics is a critical factor in retention.

Several factors have caused the decline in the number of degrees awarded to African-Americans in science, mathematics, information systems management, computer science and engineering. Nationally, the number of students majoring in computer science has decreased as a result of the dot-com bust in the late 1990's. This trend has impacted Morgan. In addition, our National Survey of Student Engagement results as well as the results of our institutional Senior Exit Survey indicate that about 40% of our students attend college full-time, yet work more than 20 hours a week. This type of schedule results in students not devoting enough time to study, and consequently needing to repeat classes. As of date, our 2008 degree data is preliminary.

#### Quality

## Increase the number of doctoral degrees awarded to 50 by 2010 from 26 in 2004 (Objective 4.3)

The number of doctoral degrees awarded has increased from 26 in 2004 to 42 in 2008. This growth is attributed to the quality and expansion of the University's inventory of doctoral programs, which has also made Morgan one of the state's primary sources of doctoral degrees granted to African-Americans in critical fields, such as engineering and public health. Most recently, Morgan established doctoral programs in English, Social Work, and Psychometrics.

As part of the University's commitment to continually build upon the strength of its undergraduate programs and enhance its advanced degree curriculum, Morgan State University places emphasis on attracting and retaining the most qualified faculty available. As part of this effort, Morgan State endeavors to provide a very competitive compensation package to its faculty. The campus is transitioning to a Doctoral/Research Intensive institution. Faculty salaries at these campuses on the average are higher than are those in Morgan's current category.

Increase the number of authorized faculty dedicated to doctoral education and increase the number of funded graduate assistantships (Objective 4.1)

Now that the University's Carnegie classification has changed from Masters I to Doctoral/Research University, additional full-time faculty are essential if the University is to further excel and be competitive within this classification. The University has not been able to increase the number of authorized faculty dedicated to doctoral education because the modest increase in State support has not permitted growth on this measure. The University has received additional monies for FY 2008 some of which was used to increase the number of authorized faculty dedicated to doctoral education from 7 to 17. Additionally, the University expects to add funded graduate assistantships as additional money becomes available in the future.

It is also imperative for the University's doctoral mission for the faculty work load to be reduced to allow faculty time to conduct research and publish. During the period 2005 to 2008 the workload of tenured and tenure track faculty averaged 7 course units per academic year.

Over the years, the University's grant and contract activity has increased substantially, from \$8.8 million in 1996 to \$24.6 million; an increase of 180 percent. However, in recent years, the rate of growth in grants and contracts has begun to decline. For FY 2009, the University's volume is expected to be close to \$2.1 million less than last year at approximately \$24.6 million. This is attributed to the fact that the University has had to hire contractual (part-time) faculty in support of enrollment growth and program development versus full-time regular faculty. Contractual faculty, typically do not apply for grants and conduct research. These are very important and beneficial activities that provide multiple benefits to the University including increased student financial aid, learning experience for students, research equipment, and partnerships with a variety of businesses and organizations.

As has been the case for the last several years, Morgan State University continues to rate well in relation to its quality indicators. Morgan State University's alumni continue to express their satisfaction with the way in which the University has prepared them for the job market. Recent Morgan graduates have proven to be highly employable individuals able to sustain employment

in today's workforce. The ability of Morgan's graduates to gain employment in fields related to their majors is comparable to the statewide average. A recent survey of the employers (supervisors) of Morgan State University's undergraduate alumni found that most of them express satisfaction with their employees. Morgan State University's undergraduate alumni continue to express their satisfaction with the way in which the University has prepared them for advanced degree programs as well. Morgan State undergraduate students have been continuing their studies in a graduate or first professional degree program related to their undergraduate degree at a higher rate than the statewide trend. Morgan's graduate/professional school going rate has been about 40%, while the statewide rate has been about 30%.

Despite limited resources, the University continues to progress as a Doctoral/Research Institution. However, as additional State and University resources are secured consistent with its five year funding plan, the University expects to accelerate its advancement to become one of the premiere doctoral-granting institutions in the nation, meeting and providing at an increasing level, the workforce needs of the State in critical fields of demand. Further, it will be able to meet the goals and objectives as outlined in this report.

## **Economic Impact**

Every year, Morgan State University graduates a number of students in critical or high demand areas important to the State economy. Recent alumni surveys indicate that the majority of Morgan graduates work and also live in Maryland contributing to the economic vitality of the State.

However, several factors have contributed to the decline in Morgan's number of graduates in critical fields. First, Morgan increasingly faces stiff competition from other campuses Statewide and nationally for the better prepared students who typically major in these fields. These students are attracted to campuses with state-of-the-art facilities and equipment, and high numbers of full-time faculty who conduct research. Secondly, many Morgan students enter college academically under-prepared especially in the mathematics and science areas. Subsequently, these students choose majors other than mathematics, science or engineering or often transfer to other majors. Those students who do major in these fields tend to take much longer than four years to complete their degrees because of the nature of the coursework, and the fact that many of them work more than 20 hours per week which impacts their study time. The University continues to look at ways to increase student enrollment and retention in these fields.

Morgan State University's collaboration with business and industry takes many forms. Partnerships range from fashion merchandising, retail, finance and technology. For Fiscal Year 2008, the University had 127 different partnerships with Business and Industry.

Another area of critical need for the State is teacher education. Several factors have caused the decline in the number of baccalaureates awarded in teacher education at Morgan. Students are not choosing education because other career opportunities are available. In addition, many students who are interested in education choose educational specialties such as special education or early childhood education which Morgan currently does not offer. Despite the decline in baccalaureates awarded in teacher education, Morgan's teacher education graduates are highly

employable. One hundred percent have passed the Praxis, and local education agencies hired 65 Morgan graduates in the fall of 2006.

Morgan alumni continue to contribute to the economic viability of the State. For the 2006 to 2008 period survey results indicate that about 60% of Morgan alumni were employed in Maryland one year after graduation.

## **COST CONTAINMENT**

Morgan State University continues to employ cost reduction and cost efficiency measures to ensure the University operates within available resources while at the same time effectively utilizing the resources that are available to the fullest.

Due to an inadequate resource base to appropriately support University programs and services, cost containment measure were put in place as follows:

- Further increased dependence on contractual faculty versus hiring regular faculty, thereby postponing \$694,320 of expenditures.
- Postponed the filling of selected regular vacant positions for most of the fiscal year, thereby postponing \$650,000 of expenditures.

Technology has been the primary means for the University to become increasingly efficient in the delivery of services. Examples include:

- Implementation of a new email system that combined many independent systems into one consolidated system and employed a standardized user ID format. Implementation was done using in house staff. Savings on the cost of implementation plus associated postal savings and other benefits of more efficient communications total \$45,000.
- Implemented a directory phone messaging system that provides preliminary information to callers concerning frequently asked questions prior to being directed to the appropriate area to speak to a customer representative, thereby saving personnel costs, while improving customer service. Estimating savings is \$80,000.
- Implemented on-line time keeping system to increase the efficiency of the payroll and timekeeping process. Existing staff time is freed up for other responsibilities and the likelihood of requiring additional staff is reduced. Estimating savings is \$90,000.
- Designated satellite cashiers within operating units to enter receipt information and make deposits versus bringing the information to a centralized cashiering location for input. Personnel time is saved, in addition to expediting deposits to the bank. Estimated savings totals \$30,000.
- Increasing the efficiency by which previously and recently implement energy management systems are being utilized 24/7 to reduce the energy usage per square foot. The University estimates that it averted approximately \$865,230 in energy use and associated cost.

Total estimated savings for FY 2008 is \$2,454,550.

# ACCOUNTABILITY GOALS, OBJECTIVES AND PERFORMANCE MEASURES

**Goal 1:** Educate a student body diverse in academic preparedness, demographic characteristics, and socioeconomic backgrounds.

**Objective 1.1.** Increase the percent of high ability undergraduate students to 17% by 2010.

		2006 Act		2008 Act
<u>Input</u>				
Number of high ability students enrolled <sup>1</sup>	585	980	1,084	932
Percent of high ability students enrolled	8.5%	17.1%	18.2%	15.6%

Objective 1.2. Increase the percent of non African-American students to 12% by 2010.

	2005	2006	2007	2008
	Act	Act	Act	Act
<u>Inputs</u>				
Percent of non African-American students enrolled <sup>2</sup>	10%	10%	9%	10%
Percent of Asian students enrolled	1%	.9%	.7%	.7%
Percent of Native American students enrolled	.2%	.2%	.2%	.1%
Percent of Caucasian students enrolled	2.2%	2.5%	2.5%	2.7%
Percent of foreign students enrolled	2.9%	2.1%	4.3%	5.8%
Percent of Hispanic students enrolled	5%	.7%	.9%	1.0%
Percent of other/unknown enrolled	3.0%	4.1%	0%	0%

**Objective 1.3**. Maintain the level of access to an economically disadvantaged student body at or above 50% in 2010.

			Act	
<u>Input</u>				
Percent of students receiving financial aid (PELL) grants	49%	47%	47%	50%

**Objective 1.4**. Increase enrollment of promising students at a minimum of 36% through 2010.

	2005	2006	2007 Act	
<u>Input</u> Percent of freshman class scoring below the national average for African-Americans taking the SAT <sup>3</sup>	36%	13%	35%	35%

**Objective 1.5**. Increase the percentage of Maryland community college transfer students as a percent of undergraduate enrollment to 4% through 2010.

2005	2006	2007	2008
Act	Act	Act	Act

## **Input**

Percent of Maryland community college transfer students 2.8% 2.9% 3.0% 2.3%

**Goal 2:** Enrich the educational, economic, social, and cultural life of the populations in urban areas in general, and Baltimore City, in particular, through academic, research, and public service programs.

**Objective 2.1.** Increase the pool of college applicants to Morgan from Baltimore City high schools to 14% in 2010.

	2005 Act	2006 Act	2007 Act	2008 Act
<u>Inputs</u> Percent of freshman applicants from Baltimore City high				
schools	20%	15%	14%	10%
Percent of Baltimore City students accepted	33%	21%	40%	31%
Percent of Baltimore City students enrolled	52%	50%	45%	55%

**Objective 2.2.** Increase and maintain partnerships with Baltimore City public schools, government agencies, businesses and industries, non-profits and community organizations to 260 through 2010.

	2005 Act	2006 Act	2007 Act	2008 Act
Outcomes Number of partnerships with Baltimore City public	1100	1100	1100	1100
schools	45	64	110	113
Number of partnerships with Baltimore City public schools, government agencies, businesses and industries,				
non-profits and community organizations	100	181	212	240

**Goal 3:** Increase the educational attainment of the African-American population, especially in fields and at degree levels where it is under-represented.

**Objective 3.1.** Increase the number of African-American graduates at all degree levels in science, mathematics, information systems management, computer science, and engineering to 195 by 2010.

	2005		2007	2008
	Act	Act	Act	Act
<u>Outputs</u>				
Number of African-American degree recipients in				
specified fields	213	157	193	174
Number of degrees awarded in engineering	77	65	97	76
Percent of degrees awarded to African-Americans	81%	81%	88%	89%

**Goal 4:** Establish Morgan as one of the nation's premier, moderately-sized urban doctoral-granting universities.

**Objective 4.1.** Increase the number of authorized faculty dedicated to doctoral education to 27 by 2010; and increase the number of funded graduate assistantships to 75.

		2006 Act		2008 Act
<u>Inputs</u> Number of authorized faculty dedicated to doctoral education	7	7	7	17
Number of fully state-funded institutional doctoral/graduat fellowships/assistantships	te 40	48	48	48

**Objective 4.2.** By 2010, reduce the faculty teaching load from 6.6 in FY 2007 to 6.4.

			2007 Act	
<u>Input</u> Course units taught by tenure/tenure-track faculty	6.6	6.5	6.6	6.8

**Objective 4.3.** Increase the number of doctoral degrees awarded to 50 by 2010.

			2007 Act	
Output Doctoral degree recipients <sup>4</sup>	25	40	36	42

**Objective 4.4.** Increase research grants and contract awards to \$26 million by 2010.

			2007 Act	
Output	27.4	20.1	2 - 5	24.5
Value of grants and contracts (\$M)	27.4	29.1	26.7	24.6

**Goal 5:** Foster economic development through the production of graduates in key areas of demand and collaborate with business and industry in research and technology transfer. **Objective 5.1.** Increase the number of graduates in critical demand areas to 350 in 2010.

		2006 Act	2007 Act	2008 Act
Outputs				
Degrees awarded in critical fields <sup>5</sup>	332	303	311	297
Degree awarded at all levels	953	905	949	985

**Objective 5.2.** Increase the number of degrees awarded in teacher education to 55 by 2010.

2005	2006	2007	2008
Act	Act	Act	Act

## **Outputs**

Number of baccalaureates awarded in teacher education	57	51	56	47
Praxis pass rate	100%	100%	100%	100%
Number of new hires teaching in Maryland schools	36	NA	65	NA*

**Goal 6:** Maintain and strengthen academic excellence and effectiveness in meeting the educational needs of the students and the State.

**Objective 6.1.** By 2010, increase the retention rate of Morgan undergraduates from 68% to 70%.

	2005	2006	2007	2008
Inputs	Act	Act	Act	Act
FTE student-authorized faculty ratio	18.3:1	17.6:1	18.3:1	17.4:1
Average class size of first year course offering	25	20	25	27
Percent of authorized faculty in first year of study	35%	37%	36%	37%
	2005	2006	2007	2008
	Act	Act	Act	Act
Outputs				
Second-year retention rate <sup>6</sup>	70%	69%	71%	68%
Second-year retention rate of African-Americans	71%	68%	70%	67%

**Objective 6.2** Maintain the graduation rate of Morgan undergraduates at 40% through 2010.

		2006 Act	2007 Act	2008 Act
Outputs:				
Six-year graduation rate <sup>7</sup>	42%	42%	42%	39%
Six-year graduation rate of African-Americans	43%	41%	40%	40%

**Objective 6.3** Maintain the percentage of graduates satisfied with education received in preparation for graduate/professional study and/or the workforce at 98% by 2010.

	2005 Act	2006 Act	2007 Act	2008 Act
Outcomes:	1100	1100	1100	1100
Percent of students who attend graduate/professional schools	NA	44%	43%	32%
Percent of students rating preparation for graduate/profess-				
ional school (excellent, good or fair)	NA	96%	97%	97%
Percent of employers satisfied with new hires	NA	100%	100%	NA*
Percent of student employed after graduation	NA	90%	93%	87%
Percent of students rating preparation for jobs				
(excellent, good or fair)	NA	97%	95%	86%
Percent of Morgan alumni employed in Maryland one				
year after graduation <sup>8</sup>	NA	60%	56%	61%

#### \* Not available

#### **Notes**

- 1. Objective 1.1: High ability students are considered those with combined SAT scores of 1,000 or higher.
- 2. Objective 1.2: "Other race" refers to those who are not considered "Black or African-American."
- 3. Objective 1.4: Promising students are those scoring below the national average SAT score for African-Americans. The national average SAT score for African-American in 2007 is 862.
- 4. Objective 4.3: Morgan awarded 25 doctorates in 2005 and has a continued objective to award 50 doctorates in 2010.
- 5. Objective 5.1: Critical fields include the following at all degree levels physics, engineering physics, biology, chemistry, medical technology, computer sciences, engineering, information systems management, education, and public health.
- 6. Objective 6.1: Actual second-year retention rates are based on the fall 2003, 2004, 2005 and 2006 entering freshman cohorts from MHEC, respectively. The 2010 goal is based on the 2006 entering class.
- 7. Objective 6.2: Actual graduation rates are based on the fall 1998, 1999, 2000 and 2001 freshman cohorts from MHEC, respectively. The 2010 goal is based on the 2001 cohort.
- 8. Objective 5.2: Data source is online graduate exit survey.