
UNIVERSITY OF MASSACHUSETTS FISCAL YEAR 2011 STATE BUDGET REQUEST

The University of Massachusetts is required by Chapter 75, the University's enabling act, as well as some provisions of Chapter 15A (public higher education) and Chapter 29 (public finance) to prepare and submit a budget request. The state budget request is to be prepared in accordance with a funding formula. Consistent with these requirements, the University of Massachusetts requests a total maintenance appropriation of **\$463,194,809 for fiscal year 2011**. This amount would fill one-tenth of the state funding "gap," as generated by the University's budget request funding formula, as well as cover the estimated cost of all state-funded collective bargaining agreements for FY2010 and FY2011.

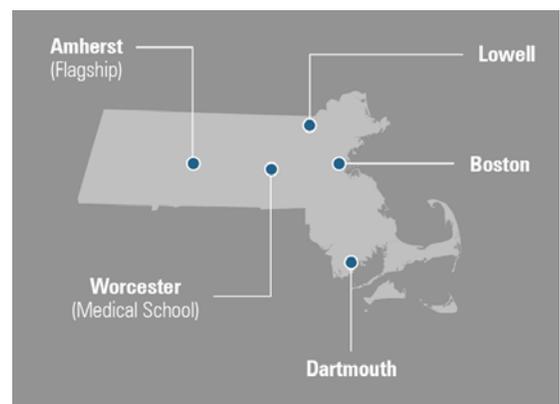
The University is mindful of the extremely difficult fiscal environment that state leaders are facing as they develop the FY2011 state budget. We understand that the state will not be able to meet the funding needs outlined in this budget request. We also know, however, that in difficult times the citizens of the Commonwealth look to the University for an affordable, high-quality education, as well as cutting-edge research and development that can provide a vital stimulus to the state's economy.

The University has experienced fluctuations in its state appropriation for the past decade. Between 2001 and 2004, the University endured deep cuts in its appropriation. Beginning in 2004, increased appropriations to the University funded previously unfunded collective bargaining agreements, new collective bargaining agreements, and provided increased dollars in support of the general operations of the University. While appropriations recovered between 2004 and 2009, annual student charge increases were limited to changes at or below inflation. However, due to reductions in its appropriation for FY2009 and FY2010, the student charge increase for FY2010 exceeded the rate of inflation for the first time in over a decade in order to support the continued operations of the University.

The fundamental mission of the University is to provide, within available resources, the highest possible quality of instruction, research and public service to the widest possible segment of the citizens of the Commonwealth. The University is committed to providing, without discrimination, diverse program offerings to meet the needs of the whole of the state's population. The University's five campuses and UMassOnline are geographically dispersed throughout Massachusetts and possess unique and complementary missions. The University plays a positive role in the economic development of the Commonwealth, contributing over \$4 billion in economic activity. Our research enterprise alone brings to the Commonwealth over \$508 million in external funds.

The University has experienced overall programmatic success and financial performance in many areas, including:

- Applications and enrollments, SAT scores and high school G.P.A.s of entering students continue to improve.
- The University raised over \$94.2 million from private sources in FY2009 and has an endowment of \$407 million. The endowment has grown significantly since last year due to the establishment of the Trustees' Quasi-Endowment Policy. The number of endowed professorships has grown ten-fold since the inception of the state funded Endowment Incentive Program.
- Revenues from licensing and patents of university research generated \$73 million in FY2009.
- Investments in capital and technological infrastructure increase



each year to support a rolling five year capital plan of \$3.7 billion.

Like other public universities across the country, the University of Massachusetts is facing declines in state support. As a result of the fiscal difficulties facing the Commonwealth, the University's allocation of general state appropriations was reduced by \$31.9 million, or 8 percent, through the "9C" in October of 2009. Since FY2009, the overall reduction to the University's general state appropriation totals \$84.9 million, or 18 percent. Cost-cutting measures are being implemented across the University, including employee reductions through hiring freezes, attrition and lay-offs. Programs are under review and each of the campuses is currently engaged in planning for possible additional reductions in FY2011. Appendix B updates and describes the short and long-range strategic goals of each campus with a focus on the challenges of 2010 and 2011.

For FY2010, the state appropriation for the University's collective bargaining contracts totals \$5.9 million. The estimated cost of these contracts in FY2011 is \$23.1 million. The base state appropriation of \$463.2 million requested by the University would cover these costs, as well as one-tenth of the total funding required to close the funding formula gap.

Providing an affordable and accessible education of high quality is an important part of the University's mission and adequate funding of the state's financial aid program is necessary to insure that every qualified student has the opportunity to attend. This is why the University is very supportive of efforts to preserve and increase funding to the state's need-based financial aid programs, particularly the Mass Grant and cash grant programs.

The level of state support requested for FY2011 is vital to the overall success of the University and will allow the University's five campuses to continue to provide high quality and accessible education, cutting edge research, and valuable public service and economic development programs to the citizens of the Commonwealth. Appendix B describes in greater detail campus and system strategic mission-related goals for FY2011.

In addition to the maintenance appropriation request, the University is requesting support for the very successful endowment incentive program and support for the University line items listed below.

UNIVERSITY LINE ITEMS

The University is requesting the restoration of separate line item appropriations for the Commonwealth Honors College, the Star Store and Advanced Technology and Manufacturing Center programs, the Toxics Use Reduction Institute, Massachusetts Office of Dispute Resolution, and the University Endowed Professorship Incentive Program. Prior to FY2010, these programs all received state support through separate line item appropriations.

1. Commonwealth Honors College **Amount: \$3.63 million**

Beginning in FY1999, the state included a separate line item appropriation to support the development of the Commonwealth Honors College at Amherst. Due to the severe economic difficulties facing the state, this line item was eliminated from the budget for fiscal year 2010. The University is requesting re-funding of this line item in FY2011.

The College's mission is to provide an excellent and affordable education to academically talented students from all backgrounds and to prepare them for responsible engagement in society by fostering intellectual curiosity, interdisciplinary analysis, and academic rigor within a supportive, socially-just community. We have used the state funding appropriately to provide excellent courses with small student enrollments and to provide students with the opportunity to create new knowledge consistent with a Research Intensive University. Specifically, for example, 72 percent of the College budget is used for the direct benefit to the students, including faculty instruction, advising, and student scholarships.

2. New Bedford College of Visual & Performing Arts (Star Store) facility Amount: \$3.7 million

In 2001, the College of Visual and Performing Arts at UMass Dartmouth opened its Star Store campus in downtown New Bedford, Massachusetts. The redevelopment of the facility has been credited by local officials with sparking the renovation of numerous nearby buildings and breathing economic and cultural life into the neighborhood. The facility brings dozens of faculty artists and hundreds of students to downtown New Bedford every week.

This state-of-the-art facility is home to hundreds of artists working in a variety of disciplines and has developed strategic partnerships with New Bedford arts organizations such as the Zeiterion Theater. The Star Store is also home to a number of impressive exhibition spaces--most notably the University Art Gallery, which features exhibitions of local, national, and international renown. The facility includes administrative and academic office space, provides learning spaces for Bristol Community College, and provides quality meeting space for community organizations.

Today, the Star Store continues to be a vital component of downtown New Bedford's emergence as a cultural and academic hub. In 2004, the Star Store was joined in downtown by the UMass Dartmouth Center for Professional and Continuing Education.

3. Fall River Advanced Technology & Manufacturing Center Amount: \$1.9 million

The Advanced Technology and Manufacturing Center (ATMC) provides infrastructure for early-stage and transition companies as they grow and mature. The ATMC is the site of between 10-15 start-up companies and a satellite manufacturing center for Avant Immunotherapeutics, one of the Commonwealth's fast-emerging bio-tech companies. The ATMC was also a major selling point in the city's successful bid to attract a 600-job medical software company (Meditech) to neighboring property. Meditech also located a portion of its workforce at the ATMC as its new facility was being constructed. UMass Dartmouth has played a significant role in helping the company identify its southeastern Massachusetts workforce.

The primary objective of the ATMC is to provide an environment where technology companies will develop into employers located in Southeastern Massachusetts. By attracting these companies to the ATMC, the University facilitates the economic growth of the region. Participating companies benefit from an environment that includes quality space, complete facilities and support services, technical and business expertise, and proximity to other companies facing similar challenges. Access to UMass Dartmouth faculty and staff, as well as the fully-equipped research laboratories, is one of the most beneficial resources. Additionally, business and technical support is available from the UMass Dartmouth. The services include strategic and business planning, financial and capital planning as well as market research. The University will also help with legal and intellectual property issues as needed. The Center has established commercial alliances with accounting, legal, human resources and funding organizations. The ATMC also provides a wide array of intern and work experiences for UMass Dartmouth students.

The Technology Venture Center also provides an excellent networking environment for the southeastern Massachusetts business community. The ATMC's Conference Center frequently hosts technology conferences and forums that attract local and national industry leaders, entrepreneurs and others who invest in and work with growing companies. One of this year's most important forums was a day-long presentation by the National Sciences Foundation about opportunities for higher education institutions to attract federal investments in innovation.

4. Toxics Use Reduction Institute (TURI) Amount: \$1.67 million

The Massachusetts Toxics Use Reduction Institute (TURI) at the Lowell campus was created to promote reduction in the use of toxic chemicals and the generation of toxic by-products in industry and commerce in the Commonwealth of Massachusetts and has received a separate line-item appropriation for a number of years.

In the FY2009 budget, the Governor and the legislature included an earmark for Breast Cancer Prevention Research, with a corresponding increase in the appropriation, for \$250,000. That earmark and \$250,000 was cut in October of 2008 under the Governor's 9C budget balancing authority. TURI's request for FY2010 assumes no earmark for funding the Breast Cancer Prevention Research in TURI's line item appropriation. The University is not requesting an increase in funding for FY2010 to this special state appropriation (level funding at \$1,667,454) based on the assumption that there will be no collective bargaining agreement increases in FY2009 or FY2010.

5. Massachusetts Office of Dispute Resolution (MODR) **Amount: \$331,757**

For FY2011, MODR is seeking state operational funding to enable the office to provide infrastructure for conflict resolution, collaborative governance and public engagement for the Commonwealth, as well as restoration of its line-item language.

For over 20 years, MODR has been providing effective forums for conflict resolution, proven mechanisms that improve public decision-making processes and enhance community involvement on contentious public issues, and capacity building for public agencies and officials. The office serves as a neutral forum and state-level resource providing skilled assessment, systems design and process management services, and access to qualified mediators and collaborative practitioners for service on public contracts.¹ MODR's enabling statute, sets forth specific legislative authority for MODR to provide dispute resolution and related collaborative services to public entities. Public agencies engage MODR through interdepartmental service agreements without the need for competitive bidding. When MODR receives requests to provide services, the office establishes a team to provide the requested service comprised of MODR staff and affiliated dispute resolution and collaborative practitioners qualified as contractors by MODR to provide services on public projects. To fulfill its public function as a state-wide knowledge-based resource for public leaders and a bridge to experienced practitioners from the private sector and to raise project revenue through grants and sponsored projects, MODR needs core state funding for high quality permanent staff and institutional operating expenses.

6. Edward J. Collins, Jr. Center for Public Management **Amount: \$541,000**

The Edward J. Collins, Jr. Center for Public Management at the University of Massachusetts at Boston's McCormack Graduate School of Policy Studies is requesting funding of \$541,000 for its operations in FY2011. The Collins Center requests the restoration of its FY2009 line-item language.

A total of \$541,000 is the amount of funding that the Center is receiving in FY2010 from federal stimulus money and is also the amount that was funded in line item 1599-4417 in FY2009 prior to 9C cuts. This level of funding will allow the Center to continue providing Massachusetts state and local governments with cost-saving, revenue-enhancing, and performance-improving services initiated in FY2009 and FY2010. These services include assistance to Massachusetts municipalities to achieve savings through consolidated purchasing, service exchanges, governance reforms, cost-saving technologies, and incentive programs, as well as revenue-enhancement support. Through this work, the Collins Center is helping to relieve serious fiscal pressures faced by Massachusetts municipalities.

In addition, the Collins Center will continue its work to help governments in Massachusetts understand how to improve their effectiveness, efficiency, and accountability to the public with performance measurement and better analysis. The Center has also conducted and will continue to conduct executive searches and short-term executive placement services for cities and towns. The Collins Center will conduct research useful to legislators and government managers, including documenting lessons learned and identifying useful models worthy of replication. It will also develop and deliver practical management tools useful to all levels of government.

¹ MODR was formerly a statutory state agency within the Executive Office for Administration & Finance charged under G.L. Ch. 7, Section 51. In July 2005, MODR's functions and personnel were transferred to the University of Massachusetts Boston through enactment of G. L. Ch. 75, Section 46.

The Collins Center has begun to offer executive education classes in public management and finance. In FY2010 and FY2011, the Collins Center will create an on-line course on performance management, plan and develop a university-credit Certificate of Public Management, and offer New Mayors training sessions. It will also strengthen its capacity to help Massachusetts governments recruit a strong and diverse workforce and retain them. As needed, the Center will serve as a catalyst to examine issues needing attention and advance needed reforms.

7. University Endowment Incentive Program

Amount: \$10.0 million

In FY2001, a \$10 million incentive fund was created to assist the University in raising private funds for endowed professorships in critical academic disciplines. The University exhausted the initial \$10 million which generated \$23.5 million in University endowment funds when matched with private funds. These funds provide salary, administrative and other support for the professors in perpetuity. The endowed professors program allows the University to retain and attract nationally recognized scholars in fields that are critical to the quality of life in Massachusetts. The University has made the establishment of endowed professorships a top priority and the match program has been instrumental in creating more than 40 professorships system-wide as well as numerous scholarships for students.

In FY2008, the program was funded in a supplemental appropriations act. That program allocated \$7,000,000 to fund an endowment match program for UMASS. The \$10 million request for FY2011 would keep the University on track to reaching the \$50 million goal set by statute.

**University of Massachusetts
FY2011 Budget Request & Formula Analysis**

I. TOTAL FORMULA FUNDING NEED	\$1,603,422,302
II. CURRENT NON-STATE REVENUES	
Tuition & Fees Revenue (net of scholarship allowances)	\$488,937,000
Other Non-Operating revenues (unrestricted)	\$47,762,900
TOTAL CURRENT NON-STATE REVENUES	\$536,699,900
III. NET STATE SUPPORT NEEDED (I-II)	\$1,066,722,402
IV. CURRENT STATE SUPPORT (FY10 est.)	
State Maintenance (plus retained tuition)	\$407,906,060
Stimulus Funding (FY10 only*)	\$150,643,271
Fringe Benefits (FY2009 actuals)	\$115,106,000
TOTAL CURRENT STATE SUPPORT	\$673,655,331
V. ADDITIONAL FUNDING NEEDED -- "The Gap" (III.-IV.)	\$543,710,342
(less Strategic Priority Funding/Elimination of Stimulus Funding)	

Requested State Budget Appropriation Increase to Close the Gap in 10 years	\$54,371,034
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FY2010 State Appropriation (does not include Tuition Retention)	\$379,900,504
FY2010 Cost of Collective Bargaining Agreements	\$5,870,984
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FY2011 Cost of Collective Bargaining Agreements	\$23,052,286
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Requested Increase	\$83,294,305
Total Requested FY2011 Maintenance Appropriation	\$463,194,809

* includes \$31.9 million in Stimulus funding anticipated for Q3 of FY10.

Appendix A: Fiscal Year 2011 Budget Request Funding Formula Summary

Formula budgeting for the University of Massachusetts takes a bottom up approach to determine the total cost of core activities funded by the state and other unrestricted revenues sources, primarily students: instruction, research, public service, etc. Its aim is to determine how much it costs to do these things well.

The formula was initially developed in the early 1990s during the time when the University was coming together as a five campus system after the 1991 reorganization. The formula was used to inform the University's annual state budget request and the allocation of state appropriations decisions from FY1994 through FY2002. Reductions in state support for the University and continuing economic instability necessitated a different approach for the FY2003 and FY2004 state budget requests. For those two annual budget requests, the University sought level funding and appropriations to support collective bargaining contracts from the Commonwealth only. The University ran the funding formula with updated data for the preparation of the FY2005 through FY2010 state budget requests and has run the formula again to inform the FY2011 state budget request. The total funding formula determined need to deliver core University programming is \$1,603.4 billion.²

Each component of the formula was initially built based on a review of practices, national norms, the experience of comparable institutions, as well as a review of formulas in place in other states during the early 1990s. Development of the funding formula is an evolving process. The assumptions and norms used have been updated and some factors have been adjusted incrementally over time. It is expected that further refinements will be incorporated, providing even better information about what we do, what the costs are, and how they compare with costs at other institutions and nationwide. Despite this ongoing assessment, however, formula budgeting should help provide a measure of stability and regularity to the University and state budget processes over time.

The formula looks at activities funded from unrestricted sources of revenue (primarily state and student revenue) that are available to support core activities. The state share includes the state maintenance appropriation and fringe benefit support. Other unrestricted revenues include: student revenues from mandatory fees and credit for tuition waivers, research overhead funds, investment income, and other sources of unrestricted revenues. Other sources of funds are excluded from the formula including revenues from restricted sources such as grants and contracts and auxiliary operations.

Student/faculty ratios are the key drivers of the formula. The instruction component begins by calculating the number of instructional lines needed to carry out the basic mission of the institution at each level of instruction:

Lower division undergraduate	22.5 to 1
Upper division undergraduate	15.0 to 1
Masters	7.5 to 1
Ph.D.	4.5 to 1

The ratios for each level of instruction are applied to actual enrollments to yield the total number of instructional lines needed. Most of the other cost components are driven from the instructional component.

Medical School funding is based on a similar formula. Costs of instruction and research per medical student are based on average comparable costs at other public medical schools nationwide. Other formula costs are calculated using the same methods as in the main formula.

² Not including funding for the strategic priority component of the formula which, when added, increases the formula need to \$1,675.6 billion.

Fiscal Year 2011 Budget Request Funding Formula Detail

Overview

The formula is made up of ten key components, the core of which is a set of standard activities defined by the federal government and used by all institutions of higher education in financial reporting. Several other components have been included that relate more particularly to features of higher education funding in Massachusetts, or to the structure of the University itself such as a separate formula calculation for the Medical School. The data used to prepare the formula request represent a combination of actual experience over the last three years, and comparative experience nationwide and at comparable public universities.

General Notes

Hold Harmless

The funding formula is used to inform the state budget request and campus allocation processes. It is the policy of the University to hold campuses harmless in that current level of state support will not be reduced based on formula results. However, the distribution of state appropriated dollars above the previous year's base may be distributed by the Board of Trustees and President of the University to the campuses based the results of the funding formula.

Fringe Benefits

Fringe benefits are counted both as a revenue and expenditure wherever appropriate. The overall fringe rate used is 27.8%, which includes the FY2010 Massachusetts rate of 26.42% plus additional costs not covered in that rate.

Component Detail

Instruction

The instruction component represents a major portion of the formula, reflecting as it does one of the highest priorities of the University. It includes costs of all instructional activities and programs. Instructional costs have been built into the formula in four major areas:

Faculty Resources

The instruction component begins by calculating the number of instructional lines needed to carry out the basic mission of the institution at each level of instruction (lower division undergraduate; masters and doctoral). Initial guidelines for differentiating the number of faculty needed at each of these levels were based on the advice of the National Center for Higher Education Management Systems (NCHEMS), when the formula was originally developed in the 1990s. These guidelines were based on a broad understanding of standard practice at universities nationwide.

The ratios for each level of instruction were applied to the annual student credit hour enrollments to yield the total number of instructional lines needed.

Lower division undergraduate	22.5 to 1
Upper division undergraduate	15.0 to 1
Masters	7.5 to 1
Ph.D.	4.5 to 1

The dollar need for faculty resources was determined by multiplying the number of faculty lines needed by the average faculty salary. An additional 27.8% was added to this amount for fringe benefit costs. This represents the current state rate for fringe benefits – 26.42% -- plus 1.38% for estimated costs of additional fringe benefits not covered by the state, such as health insurance and unemployment insurance contributions.

Teaching Assistants

In addition to full and part-time faculty, a significant role in any research university is played by teaching assistants (TAs). The formula determines needs for teaching assistants by maintaining the current ratio of TAs to faculty, even though graduate activity is increasing university-wide. TAs currently make up approximately 10% of total instructional lines at the University, therefore 10% of the need for instructional lines as determined by the formula was assumed to be covered by TAs. Costs for TAs were calculated by taking the full-time equivalent value of an average TA stipend and multiplying that amount by the total FTE TA lines needed. The total cost of supporting TAs includes tuition and fee waivers as well as stipends. Therefore the average cost of providing waivers was also added to the total TA cost.

Support Staff

In addition to looking at an adequate level of instructional positions for the number of students we serve, the formula looks at an average ratio of support staff to instructional personnel. The support staff ratio is calculated at 27% of the total FTE instructional personnel needed. This percent is based on an estimate used in previous formula assessments at the University. The number of FTE support staff determined in the formula is multiplied by the average University support staff salary. An additional 27.8% of salary cost was added to cover fringe benefit costs.

Equipment/Supplies/Other Support Costs

The final area of funding for instruction is the calculation of other instruction related costs: equipment, supplies, and other support costs (these include cost of student workers and other non-benefited employees who are not counted elsewhere). The rate per FTE instructional line was calculated based on FY2009 expenditures.

Research

Research is a unique University mission, in terms of the scope and breadth of activity. A senior level university's research programs advance knowledge, understanding, and quality of life, thereby addressing a wide variety of social and economic needs. Funding from this component will serve to support current and future research activity including supplies, equipment, lab technicians, computer programmers, grant development personnel, administrative costs and other related costs that involve research. The research component is comprised of two factors: one that provides support to campuses already strong in generating externally sponsored research dollars, and one that supports non-sponsored research along with the development of new research activities.

The first factor provides a modest match of sponsored funds at the rate of \$.15 for each sponsored dollar brought into the University (15% of total grant and contract revenues less indirect costs recovery funds). The second factor is calculated by taking 3% of the dollars generated in the instruction component of the formula and is aimed at providing support of non-sponsored departmental research as well as developmental funds for future research. Both of these were standard methods used for calculating support of research activities in formulas in place elsewhere in the country at the time when the formula was initially developed.

Public Service

Public service is another key area of activity for the University. It includes use of University expertise and personnel to provide service to the state and the communities and regions immediately surrounding our campuses,

and is part of the historical tradition of Public Land Grant Universities. Support for public service is calculated in the formula by taking 3% of the total generated in the instruction component of the formula.

Academic Support/Student Services

Academic support and student services have been combined into a single component. This includes support of libraries, computer labs, and student services key to successful retention and graduation of students. The combined rate per headcount student was determined by looking at equivalent average expenditures for groups of comparable peer institutions.

Plant Operations and Maintenance

Plant operation and maintenance is an area of particular concern because of the need to improve and maintain our assets. The calculation of costs for the plant component has several factors: utility costs, costs of maintaining buildings and grounds, and renewal and adaptation of plant. None of the calculations for the plant component includes the cost of maintaining properties used to run auxiliary operations such as dormitories, dining halls, or bookstores. It is assumed that the revenues from these operations cover maintenance costs. Also not included in the formula, but clearly a growing cost for the University, is the cost of debt service that supports the University's non-auxiliary capital program. In FY2009, the University expended approximately \$104 million on debt service payments for improvements to core academic and research facilities and the infrastructure needed to support those activities.

Utility costs are calculated by taking a three-year average of actual expenditures. The purpose of averaging is to avoid large swings in expenses reflective of climatic differences from one year to the next. Costs of maintaining buildings and grounds were determined using industry standards that approximate salary and supply costs needed per gross square foot for buildings (\$4.39 per GSF) and per acre (\$6,944 per acre) for grounds maintenance.

The final factor in the plant component is renewal and adaptation. A continuous program of repair, rehabilitation and adaptation of our existing physical assets is critical to the overall success of the University. In previous years, the annual cost factor for adaptation and renewal was calculated based on 10% of the total replacement value of the physical plant estimated at \$136.38 per square foot. For the FY2009 formula, the annual cost factors changed from a 10% annual cost factor for adaptation and renewal to a 3% cost factor for adaptation and a 2% for cost factor for renewal. These percentages are based on the total replacement value of the physical plant estimated at \$292.00 per square foot. This change in the calculation is used by the Board of Higher Education in its funding formula and is based on an industry standard. For both the FY2010 and this year's formula, the renewal and adaptation factor was again calculated based on the 3% and 2% figures.

Financial Aid

The Scholarships and Fellowships component is calculated by taking 20% of total billed tuition plus mandatory fee revenues. This is comparable to methods used in formulas in place elsewhere. The percentage used is also an estimate of costs of providing financial aid to current students and is, we believe, a reasonable calculation of funding needs relative to the state's access mission for public higher education. This calculation does not include the cost of providing mandatory tuition waivers.

Institutional Support

Institutional support includes the overhead/management costs of operating the University. This component is calculated by taking 6% of the total of all other components (not including strategic priority funds). This method is also used in other formulas elsewhere in the country, and is considered a reasonable means of calculating the cost of providing all other services and programs that make up the balance of the formula.

Medical School Funding

The University of Massachusetts Medical School has produced a parallel formula to that for the rest of the University, which incorporates national information on expenditure levels for instruction and research at public medical schools. Data are gathered from other public medical schools in the United States and are reflective of the average instructional costs per medical student at those schools. The remainder of the Medical School formula mirrors the methods used in calculating costs for the rest of the University.

Strategic Priority Funding

This component is also a feature of the University's funding request. It provides for the dedication of a portion of the budget to mission-related priorities. These are areas in which the University feels it is critical to focus energy and resources in order to strengthen existing programs and develop new ones in areas of key University and statewide priorities. Strategic priority funds would be used to support programs in the areas of economic development, environmentally sound production methods, increased student access and retention, and increased involvement with K-12 public education. The component is calculated by taking 4.5% of the formula's bottom line. Information provided by NCHEMS when the formula was first developed indicated that this percent can vary from 3% to 10% of the total budget, with a reasonable starting point in the range of 4% - 5%.

Obviously, given the current fiscal environment and the immediate need to support the continued funding of our collective bargaining agreements, strategic priority funding may need to be considered on a go-forward basis rather than incorporating this component into the FY2011 request.

The following table summarizes the results of the running the funding formula. Attachment 1 provides a more detailed analysis of the components of the formula. The total need determined by the formula is \$1,063.4 billion. This represents a level of support that should be available to deliver the core teaching, research and service mission. Current levels of state and non-state revenue support meet all but \$543.7 million when removing the strategic priority funding component. This number represents the "gap" that the University seeks to fill in part with its FY2011 state budget request.

University of Massachusetts FY2011 Budget Request & Formula Analysis

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II. CURRENT NON-STATE REVENUES	
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IV. CURRENT STATE SUPPORT (FY10 est.)	
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(less Strategic Priority Funding/Elimination of Stimulus Funding)	

* includes \$31.9 million in Stimulus funding anticipated for Q3 of FY10.

University of Massachusetts • FY 2011 State Budget Request

APPENDIX A

**ATTACHMENT I
UNIVERSITY OF MASSACHUSETTS
FY2011 BUDGET REQUEST FORMULA: COMPONENT ANALYSIS OF TOTAL FORMULA NEED (IN MILLIONS)
(INCLUDING MEDICAL SCHOOL)**

Formula Component	Total Need	% of Total	Method of Calculation
INSTRUCTION	\$716.8	44.7%	
Includes salaries and fringe benefits for faculty and instructional support staff, and costs for teaching assistants. Also includes funds for instructional equipment, supplies, and other support costs.			FTE students/staffing ratios=FTE instructional lines (faculty and TA's) FTE faculty X average salary = faculty salary costs FTE faculty x fringe rate ('10) = faculty fringe costs FTE TA lines x average stipend = TA stipend costs FTE TA lines x average waiver = TA waiver costs Instructional lines x support staff ratio = FTE support staff FTE support staff x average salary = support staff salary costs FTE support staff x fringe rate ('10) = support fringe costs Instructional lines x average actual cost per instructional line = equipment/supplies/support costs
PLANT OPERATION AND MAINTENANCE	\$355.0	22.1%	
Includes expenditures for building and grounds maintenance and utilities as well as funds for renewal and adaptation of plant.			Utilities: actual costs (3-year average) Building Maintenance: \$4.39 per GSF Grounds Maintenance:\$6,944 per acre Renewal Costs: 3% of estimated replacement cost Adaptation Costs: 2% of estimated replacement cost
ACADEMIC SUPPORT/STUDENT SERVICES	\$233.0	14.5%	
Includes support for libraries, computer centers, AV services, as well as expenditures for admissions, registrar, student counseling, etc.			\$ 1,8958 to \$3,979 per HC student (CAMPUS peer averages)
FINANCIAL AID	\$103.1	6.4%	
Includes support of financial aid programs except mandatory tuition waivers.			20% of sum of total fiscal year billed tuition and mandatory fee revenues
INSTITUTIONAL SUPPORT	\$90.8	5.7%	
fiscal operations, data processing, personnel, legal counsel, etc.			6% of all other component costs (Instruction, Research, Public Services PO&M, etc.)
RESEARCH	\$83.3	5.2%	
Provides matching support of current sponsored research activity plus support of non-sponsored departmental research and start-up costs for new research.			15% of sponsored research dollars (3-year average) 3% of Instruction
PUBLIC SERVICE	\$21.5	1.3%	
Supports non-instructional services to groups and individuals outside the University.			3% of Instruction
TOTAL FORMULA NEED	\$1,603.4	100%	
TOTAL CURRENT NON-STATE REVENUES	-	\$536.7	
NET STATE SUPPORT NEEDED		\$1,066.7	
CURRENT STATE SUPPORT	-	\$523.0	
ADDITIONAL FUNDING NEEDED -- "The Gap"		\$543.7	

Appendix B: FY2011 University Mission & Strategic Related Goals Update

University of Massachusetts – Mission & Strategic Related Goals

The 5-campus University of Massachusetts system was created in 1991 following the release of a report entitled, “Learning to Lead: Building a World Class Public University in Massachusetts.” The essence of the report, crafted by a distinguished panel of experts led by former University of California President David Saxon, was that the effectiveness of a cohesive five-campus University system would be greater than the sum of its parts.

In recent years, the University increased annual private support, licensing of UMass research and external research funding. Meanwhile, the academic profile of our incoming freshmen continued its steady improvements as has the growth in applications at all campuses.

The continued ascendance of UMass, however, will require stable state support. To sustain quality, UMass must be equipped to compete for non-state funds that create the University’s margin of excellence. Stable state support is necessary to keep UMass competitive.

Private donors – individuals, corporations, and foundations – give to quality rather than need. They are unlikely to continue making substantial contributions if they come to believe they are only filling gaps created by state budget cuts. Research licensing funds – generated by moving UMass science into the marketplace – arise from the quality of the faculty and facilities on our campuses. Likewise, increases in external research funding (federal, corporate, etc.) are a direct result of the quality of the faculty and facilities on our campuses. In all three cases, stable public support is necessary if UMass is to make a strong case for non-state investment.

Also, the University’s ability to attract and provide access for the academically talented sons and daughters of Massachusetts is based on the quality of the faculty, staff and facilities on each campus, and our ability to keep student charges competitive with out northeast peers. Stable state support will be critical to sustaining quality and access in the future.

The University has set some ambitious goals for the coming years to support the core teaching, research and public service missions, including:

- Expand external research funding from approximately \$400M to \$600M
- Raise the endowment of the University
- Invest in infrastructure improvements
- Enhance and improve the student experience by investing in programs of distinction at all of our campuses

The following sections are excerpted from campus updates to their strategic and mission related goals reports for FY2011.

University of Massachusetts – Amherst

The strategic goals of the Amherst campus are to enhance its core teaching and research mission by attracting and retaining top faculty, to provide services to support student retention and student success, and to renovate and renew campus space.

In the near term, the campus will have diminished resources to achieve these aims. The worldwide recession forced the state to reduce its annual appropriation to the campus by more than \$40 million in FY10. In response, the campus cut its base budget by \$10 million. Larger cuts were temporarily averted due to the infusion of federal stimulus funding. These federal funds, however, are only temporary and the campus faces a projected \$30 million deficit in FY11. To mitigate the level of budget cuts necessary to balance the budget, the campus is moving aggressively to expand its revenue base, and reduce its reliance on state funding. This will be a multi-year effort, designed to pull the campus through the present fiscal crisis and to position itself for a long-term future of instructional and research excellence.

The University of Massachusetts Amherst presently enjoys the largest undergraduate enrollment in its history. In terms of academic achievement, this current cohort is also its most accomplished. If historic trends continue more than half will remain in Massachusetts past graduation. This all speaks to this institution's important role in building a vibrant state economy and underscores why the current fiscal difficulties cannot disrupt the campus from carrying out its vital educational mission.

Goal #1: Enhancing the core teaching and research mission by attracting and retaining top faculty

Before the FY09 fiscal crisis began, the campus had been devoting its annual share of incremental state appropriations to restore faculty strength on the Amherst campus after more than a decade of decline. Teaching capacity has been enhanced in those colleges and departments that were the most significantly understaffed for the number of students enrolled and new positions have been added in areas exhibiting promising research strength and funding opportunities. Budget cuts this year and next will reduce instructional capacity, although limited strategic faculty hiring will continue to better match instructional supply and demand and to expand the capacity of units demonstrating strong research or creative potential.

Goal #2: Provide services to support student retention and student success

Students succeed when services and activities that promote academic achievement operate in collaboration and with considerable integration with those programs that promote student extracurricular and social development. The measure of success in this coordination and integration is improved student retention and eventual graduation. The most important time for this work is during the first year of a student's academic career on campus. The Amherst campus, through its First Year Experience program in the residence halls and increased academic advising resources, is working to give students the right combination of support to ensure their academic and personal success. For the second consecutive year, one year retention of entering full-time first year students was 87%, the highest rate in at least fifteen years.

In addition, by focusing on access and affordability, the Admissions office will continue to make significant improvement in the recruitment of high quality students to ensure a diverse and academically capable student body that represents the college going population of Massachusetts. Before this year tuition and mandatory student fee increases for in-state students had increased by no more than 3.5% a year the previous years while institutional funding of need-based aid had risen on average 9% annually over the same span.

Goal #3: Renovate and renew campus space

The restoration of faculty numbers must be accompanied by the renovation and renewal of campus space. This is happening. Within the last year, historic Skinner Hall – the new home of the Nursing Program – has opened, as has a new Studio Arts building and the Integrated Science Building. The new Recreation Center opens later this semester. State funding is expected for the construction of a new science building in the next three years. Despite

this very tangible progress in transforming parts of the campus, the deferred maintenance backlog on this campus still far exceeds the deficiencies faced by peer institutions. Without continued large investments toward eradicating this \$1.7 billion backlog, the campus will be forced, within the next five years, to close some academic buildings because they will no longer be functional. This possibility only increases the urgency for a new state-funded academic classroom building to address the campus' acute shortage of suitable classrooms.

The case has been made by the Governor and others that the Massachusetts economy is a "knowledge economy" that depends on a vibrant flagship campus to produce the next generation of skilled workers. The campus has been a good steward of its resources, working to restore faculty strength at UMass Amherst, making critical infrastructure improvements, and striving to keep its tuition costs accessible to all qualified students. Despite the very significant loss of state revenue, the campus remains committed to making progress on its strategic goals, but over the long term a sustained investment of state operating and capital funding is required if this campus is to fully carry out its obligations to the state and its citizens.

University of Massachusetts - Boston

Despite two rounds of 9C reductions in FY09, a difficult FY10 budget process, and the expected challenges of the FY11 budget, the University of Massachusetts Boston remains committed to making progress toward the goals of our strategic plan: *UMass Boston Renewal: Building the Student-Centered, Urban Public University of the New Century*. The four major goals of the UMass Boston strategic plan are:

1. Increase student access, engagement, and success
2. Attract, develop, and sustain highly effective faculty
3. Create a physical environment that supports teaching, learning, and research
4. Enhance campus-community engagement through improved organizational structures.

ATTAINING THE GOALS OF THE STRATEGIC PLAN

FY10 is the final year of UMass Boston's three-year strategic plan. The campus has already begun the process of developing the next plan, and we expect that the four goals above will continue to be important parts of the new strategic plan.

Increase Student Access, Engagement, and Success

UMass Boston continues to experience significant growth in demand. For the Fall 2009 semester, the Boston campus enrolled 14,912 students, a 5.6 percent increase over Fall 2008 and the largest enrollment in its history. From 2004 to 2009, we have experienced 28% growth in enrollment, the largest increase in the UMass system. We have nearly reached our strategic plan target of 15,000 students, a year ahead of the schedule in the strategic plan, and we expect that our enrollment will grow again in FY11.

Not only are our numbers increasing, but the students who are coming to UMass Boston are quality students, who have sustained a GPA of 3.0. Our Honors Program grew to nearly 300 students, and student retention has improved over the past two years.

We are also maintaining our commitment to access and diversity. In FY09, UMass Boston once again exceeded the Board of Trustees' objective of meeting more than 90 percent of the financial need of all in-state undergraduates receiving need-based aid, and we expect to do so again in FY10. From FY04 through FY08, the University of Massachusetts Boston increased its contribution for financial aid by \$7.8 million, or 223%, from \$3.5 million to \$11.3 million, an annual growth rate of 45%.

Student diversity is still strong. UMass Boston students hail from 140 countries and speak 90 languages; 41% of undergraduates and 17% of graduate students are people of color. Consequently, our campus community looks more like Boston and more like the world than any other university in New England.

As part of the FY10 budget process, the Chancellor established a Growth Planning Committee, with membership from Enrollment Management, Academic Affairs, Student Affairs and A&F, to help plan for the resources necessary to accommodate projected FY10 enrollment growth. The Committee conducted a thorough review and also attempted to gather benchmark data where such statistics were available to help to determine where UMass Boston needs to build capacity to accommodate future growth in the years beyond FY10. We are pleased that we were able to fund all of their recommendations in the FY10 budget.

Attract, Develop and Sustain Highly Effective Faculty

UMass Boston continues to rebuild its faculty after the exodus caused by the early retirement incentive programs in fiscal years 2003 and 2004. Unlike many other universities both in Massachusetts and around the country, the Boston campus added 38 new full-time tenure-track or tenured faculty for AY09-10, including 13 new lines, after adding 34 new tenure-system faculty the previous academic year. The influx of new full-time faculty allows the University to continue to strengthen undergraduate and graduate teaching and to expand research activity. To

provide faculty and their students with effective tools for teaching and learning, more than 90 percent of the classrooms have had new or upgraded technology and A/V systems installed.

UMass Boston is ranked fifth in the United States among small research universities in faculty research productivity. Faculty research expenditures are on the rise, up 19% to more than \$46 million. This growth reflects the increased focus provided by a research strategic plan established in 2007 and the strategic allocation of resources to research infrastructure and to five research clusters: urban health and public policy research; developmental sciences; science and math education and learning research; computational sciences, analysis and modeling; and inter- and trans-cultural studies. We are currently implementing a plan for achieving desired outcomes in those areas during the next several years.

Create a Physical Environment that Supports Teaching, Learning and Research

The Boston campus is moving forward on our 25-year master plan, with the architectural firm Goody Clancy doing programming and pre-planning work on the Integrated Sciences Complex that will provide lab, research, and classroom space. We also anticipate planning a new general academic building and collaborating on the development of the Edward M. Kennedy Institute for the United States Senate. We are honored to have this important institute located on our campus.

UMass Boston is also undertaking numerous facilities improvement projects, all with three goals in mind: ensuring safe and secure use of campus space, supporting academic and student life, and providing structural support to the campus's infrastructure. For example, UMass Boston built a nursing clinical education center to provide patient simulation for students, which mimics the clinical setting but eliminates any risk to patients. The center aims to improve the safety and quality of care provided by students and practicing clinicians through the use of simulation and advanced technology, which allows deliberate repetitive practice, team and communication exercises and immediate feedback.

On May 1, 2009, UMass Boston officially opened its cutting-edge Venture Development Center (VDC). Offering state-of-the-art labs and collaborative facilities for UMass Boston's faculty, students, and partnering companies to pursue research and development that will create new products and services that will dramatically improve people's lives, the VDC is already approaching capacity.

Enhance Campus-Community Engagement through Improved Organizational Structures

UMass Boston was deliberately and explicitly placed into relationships with external communities in its founding documents, which emphasized the University's urban mission and its responsibilities to the Commonwealth of Massachusetts. Since its creation, the University has eagerly sought opportunities to interact with neighbors, cities and towns, organizations, and business concerns. No longer limited by the boundaries of the Commonwealth, UMass Boston has worked with communities elsewhere in the country and the world.

UMass Boston is nationally recognized as a model of excellence for urban universities. The University of Massachusetts Boston story -- with its high-quality faculty, cutting-edge research, and education for excellence -- is being heard locally, regionally, and nationally. The Carnegie Foundation has chosen UMass Boston as one of only 62 institutions nationwide to receive its Community Engagement Classification for outreach, partnerships, and curricular community engagement.

Opportunities to connect academic work with community needs are not limited to faculty. Students have ample local access to internships, research opportunities, and community-based learning and service activities through the university's Career Services Office, academic departments, and Office of Student Leadership and Community Outreach. Many faculty members are deeply engaged with urban issues and, in turn, engage their students through classroom and research projects with real-world substance and impact. University partnerships offer channels for students into civic life and work here and abroad, such as clinical placements for nursing students in area hospitals, teaching practica for education students in nearby public schools, and an "International Epidemics" course involving travel to South Africa for participation in efforts to combat AIDS. Faculty research and teaching

combine with student development and community needs to produce a synergy that is one of UMass Boston's unparalleled attributes.

PLANNING FOR THE FUTURE

As of October 12, 2009, prior to any FY10 9C cuts, UMass Boston was able to craft an operating budget for FY10 that protects our academic core, advances key initiatives outlined in our strategic plan, and avoids layoffs, furloughs, and other major impacts on faculty and staff. We did so through a combination of additional revenue, including \$20M of federal stimulus money, and carefully targeted expense cuts.

However, we expect that balancing the FY11 budget will present a greater challenge than did FY10. First, in FY11, we will lose the \$20M of federal stimulus money that our campus is receiving in FY10, leaving a large revenue hole. In addition, we expect significant pressure on expenses so that we can fund continued progress on strategic plan goals, projected enrollment growth, increased need for financial aid, master plan activity, collective bargaining agreements, life safety and facilities maintenance needs, and general inflation. The result could be a possible budget gap as large as \$35M as we begin the FY11 budget process. As we did in FY10, we will seek to close the FY11 gap with both additional revenue and expense reductions. Because, as part of our FY10 strategy, we have already taken as many non-personnel expense reductions as are feasible, we would expect that most of the FY11 expense reductions would involve programs and personnel.

CONCLUSION

As the only public university in greater Boston, UMass Boston is committed to keeping first-rate education within reach of the Commonwealth's student population and to actively engage local, national, and international constituents through our academic programs, research centers, and public service projects. The Boston campus offers a unique learning experience and opportunity. With seven colleges, over 900 faculty members, and nearly 15,000 students, UMass Boston is still able to ensure that much of the learning on our campus occurs in small classrooms. The low faculty-to-student ratio means that our students have frequent contact with and direct access to professors who have the highest qualifications in their fields.

To achieve our mission, we must continue to move forward with our strategic plan and to redevelop our infrastructure to more efficiently serve greater enrollments, while providing our faculty and students with state-of-the-art facilities in which to teach and learn. UMass Boston also intends to continue to rebuild its tenured and tenure-track faculty base and to implement other strategic measures that will benefit the campus in the long-term. We recognize that we must balance these initiatives with needed expense reductions, reallocations and other steps that will rebase the campus' budget and allocate resources to those areas of growth that we designate for funding consistent with our campus's strategic plan. We are committed to actively managing our budget, but we cannot lose sight of our ultimate goals and the urgent need to rebuild our campus and position UMass Boston to meet the extraordinary challenges that lie ahead.

University of Massachusetts - Dartmouth

UMass Dartmouth is the fastest growing campus in the UMass system in terms of student population, residential student population, and research activity. This transformation through growth has paralleled that of the southeastern Massachusetts region. Despite difficult fiscal challenges, the campus is making strategic investments of public and private dollars to sustain and develop the quality of its academic programs and to meet the needs and aspirations of the region. The campus recently completed an update of its strategic plan with a focus on emerging technologies for teaching and research and the economic growth of the region.

Pursuing strategic goals

The University of Massachusetts Dartmouth has developed strategic goals that focus on continued growth and development as a regional research university. Its mission is responsive to the needs and aspirations of the southeastern Massachusetts region.

The University has grown from approximately 6,500 students in the fall of 2000 to 9,302 students in the fall of 2009. This growth has been critical to stabilizing our financial condition. We expect, due to increasing demand for our programs and our steady strategic effort to “right size” the institution, to grow to approximately 10,000 students over the next 3-5 years. Our graduate enrollment has grown from approximately 700 to 1,300 during the same period.

In recent years we have added the School for Education, Public Policy, and Civic Engagement, selected high student demand undergraduate programs (majors in crime and justice and women’s studies), and expanded key research-based programs that are regionally focused but have statewide and global impact (marine science, nursing, advanced materials, advanced manufacturing, math education, Portuguese studies, K-12 education and policy analysis). As evidence of the quality and impact of these programs, our faculty and staff have won major federal, state, and private grants related to these fields, including funding from the U.S. Department of Education to improve math teaching and teaching corps in critical subject areas.

The next major targets for investment are the renovation of the Claire T. Carney Library, laboratories, expansion of the Charlton College of Business, expansion of the School for Marine Sciences, and establishment of a bio-manufacturing center.

Challenge and transformation

In response to the downturn in the economy and resulting state budget cuts, the campus is taking action to reduce its costs without harming the quality of the education it provides to its students. The Dartmouth campus is also examining opportunities to increase non-state funding of its operations so that it can continue to respond to the needs and aspirations of the region and the Commonwealth.

Our research enterprise has grown from \$9.9 million in 2001 to more than \$20 million today. The Center for Marine Science and Technology is a recognized leader in marine research and is recognized by the academic and business community as a critical hub of an emerging marine science and technology corridor. The campus’s activity in bio-medical research and advanced materials is an emerging strength, rooted in the University’s textile engineering history that is a catalyst for economic transformation in the region.

The Advanced Technology and Manufacturing Center in Fall River and the Star Store arts campus in New Bedford have added value to campus programs and positioned us well to provide innovative leadership support in both cultural and economic development. Several companies are being incubated at the ATMC next to UMass Dartmouth research laboratories. Over the last two years, several companies have left the incubator to expand in the region. The Star Store, meanwhile, has spurred the re-development of a dozen downtown New Bedford buildings.

UMass Dartmouth is also central to key partnerships that are leading the social and economic development of southeastern Massachusetts, including:

- The Connect partnership is linking all of the public higher education institutions in the southeastern area in order to serve the region more effectively.
- The SouthCoast Development Partnership is a regional coalition of higher education and business leaders designed to think and act strategically to foster sustained growth.
- The SouthCoast Education Compact is a regional coalition of higher education, K-12, and business leaders focused on increasing educational attainment levels.

UMass Dartmouth continues to advance its mission through such collaboration and very much appreciates the support of the Commonwealth within the University of Massachusetts base appropriation and targeted special appropriations as previously noted.

University of Massachusetts - Lowell

UMass Lowell's mission is "to enhance the intellectual, personal, and cultural development of students through excellent, affordable educational programs," and to "meet the needs of the Commonwealth today and into the future and support the development of sustainable technologies and communities." UML seeks to fulfill this mission every day through our teaching and learning, research and scholarship, and outreach and engagement.

The campus launched a strategic planning effort to guide the development of UMass Lowell. UMass Lowell 2020 will serve as the University's next generation strategic plan, providing a blueprint for how the campus will achieve national and international recognition as a world-class institution over the next decade. Since February, 2009, faculty, staff, and students have been assessing the University's current academic, research, partnership, fiscal and facilities status and drafting strategies to improve the campus's achievement, reputation and rankings as expressed in the following ways:

- Improve the quality of academic programs on the undergraduate and graduate level
- Ensure that diversity and pluralism is addressed in all aspects of the strategic plan
- Improve the entire learning experience for students (academic, social, personal development)
- Increase research and scholarship
- Increase dramatically private revenues with new, sustainable sources of funding
- Strengthen corporate and community partnerships
- Develop a campus master plan
- Ensure that environmental sustainability is addressed in all aspects of the strategic plan
- Maximize infrastructure -- physical plant, technology, budget systems, and human resource review -- to support all goals
- Achieve recognition for the quality of academic programs, student learning, research and partnerships

An external advisory committee, made up of alumni and local community leaders, will also have input in the strategic plan.

The campus has made tremendous progress in many areas despite the 23% reduction in state funding since the beginning of FY2009. Enrollment growth is strong and sustainable; student success rates are increasing dramatically; research funding is growing; and corporate and continuing education programming and associated revenues are expanding. The campus has partnered with DCAM to develop and implement a Master Plan that will provide the facilities and infrastructure needed to support the emerging strategic plan into the future.

The campus targeted the FY2010 federal stimulus funds toward one-time projects that will advance the strategic plan and not place additional pressures on the operating budget. Federal stimulus funds will not be available in FY2011, however, leaving a tremendous gap of nearly \$22 million. Continued reductions in state support, will further threaten UMass Lowell's ability to sustain the progress made. Additional state funding is necessary so that the campus can continue to meet its mission to the Commonwealth and our students.

University of Massachusetts - Medical School

The UMass Academic Health Sciences Center Strategic Plan, created in the spring of 2008, provides the blueprint for the direction and goals of the Medical School. The plan was developed through a collaborative effort between Chancellor Collins, UMass Memorial Health Care CEO John O'Brien and senior leadership from all areas of the Medical School and the UMass Memorial Health Care system. The result is a set of joint strategic goals for the Medical School and its 'linked destiny' partner, UMass Memorial Health Care (UMMHC). The strategic goals identified were:

- Design the Future Model of Health Care Delivery
- Build the Workforce of the Future
- Design an Ideal Learning Environment
- Translate Discovery Into Practice
- Be a High Performance/High Reliability Organization
- Have a Significant Impact on the World

The ongoing strategic objectives of the Medical School are designed to enhance its ability to achieve its overall mission: to serve the people of the Commonwealth through programs of national distinction in health services education, research and public service. These goals dovetail with the life sciences initiatives of the Commonwealth, and the Medical School's role as the State's public medical school. In collaboration with the Massachusetts Life Sciences Center Board (MLSB) the Medical School has already moved forward with several projects in support of these joint goals. The MLSB has previously funded the development of a Human Embryonic Stem Cell Registry and a Human Embryonic Stem Cell Bank at the Medical School.

- The Human Embryonic Stem Cell (hESC) Registry is a comprehensive and extensively documented international hES cell database, the first phase of a broader Massachusetts hESC initiative. This web-based registry provides Massachusetts researchers and commercial entities, as well as the international biomedical research community, with access to critical information on the provenance of, and research findings on, hESC lines, and facilitates the development of hESC research.
- The Massachusetts Human Embryonic Stem Cell (hESC) Bank is an international repository of human embryonic stem cells that are derived in Massachusetts and beyond. The mission of the Massachusetts hESC Bank is to provide to researchers and commercial operations in the Commonwealth and the international biomedical research community expertly derived and maintained hESC lines so that they may conduct essential investigations into the properties and potential therapeutic applications of those cells. By doing so, the Massachusetts hESC Bank solidifies the Commonwealth's position as the global leader in hESC research, and will attract and retain researchers and companies interested in this growing field of scientific investigation and commercial application.

Most recently, the MLSB approved \$90 million in funding toward the construction of the Albert Sherman Center (ASC).

- The ASC will be a 500,000 square foot facility, which will include state-of-the-art research lab and support space (wet and dry); modern educational spaces that can accommodate the evolving medical curricula, as well as a larger number of students; student life spaces; and auditorium and conference spaces. The project represents a \$449 million investment, with the new facility scheduled to open in 2012. In addition to providing the needed infrastructure to support the Medical School's research and educational missions, this substantial investment will enhance its ability, as the State's medical school, to continue to be an engine for the growth of Worcester County's life sciences economic sector through the creation of directly related jobs as well as indirect job creation based on its use of goods and services.

The UMass Advanced Therapeutics Cluster (UMATC) is a key element in the future of research at the Medical School related to advances in the treatment of currently incurable diseases. Recruiting of faculty and development

of the programs has already begun, with the new activities ultimately to be housed in the ASC. Building on recent accomplishments in the basic sciences at the Medical School, including the groundbreaking work of Nobel Laureate in Medicine, Craig Mello, PhD, and a strong partnership with the state, the UMATC consists of the RNA Therapeutics Institute, the Center for Stem Cell Biology and Regenerative Medicine and the Gene Therapy Center. The confluence of a number of new initiatives, including the creation of the Massachusetts human embryonic stem cell (hESC) bank and registry, and the culmination of decades of scientific excellence, have created the opportunity for the University of Massachusetts and its Medical School to serve as a catalyst for the development of innovative therapeutics, the commercialization of those new agents and the training of researchers and technicians in related fields. The mission of the UMATC is to conduct research that moves from the characterization of the human genome sequence to the development of novel therapeutics that is targeted to specific, disease-causing genes. Three technologies with strong roots in the Commonwealth and at UMass promise the most direct path to novel therapeutics; stem cell science, RNA interference (RNAi) and gene transfer therapeutics. The UMATC seeks to develop each of these technologies to find new therapies for the many diseases that remain untreatable.

Also locating to the ASC will be educational programs related to simulation and standardized patients through the Center for Experiential Learning (CELS). The Standardized Patient Program, already a mainstay of the education process at the Medical School, has led the way over the past ten years in development of similar programs around the country, and the ASC will provide space to grow this program side-by-side with new state of the art simulation programming.

The partnership with the Commonwealth to create the ASC and related programs is an exemplary demonstration of the Medical School's reliance on state funding to provide the fulcrum for its educational and research activities and leverage for its growth. The annual state appropriation is augmented by the School's innovative and diversified operations to the advantage of the Commonwealth's citizenry but these are not possible without the base of operations provided by the state. The Medical School has managed to make appropriate and, to date, non-critical reductions to offset the state reductions experienced in fiscal year 2008 and 2009 but is, like each of the University's campuses, negatively impacted by reductions in this critical and essential support line.

Additional space to house the new initiatives of the Medical School, particularly those related to clinical care and translational science will also be provided by the Advanced Center for Clinical Education and Science (ACCES) building, now nearing completion. The building construction is on schedule, with occupancy now beginning to take place. The ACCES building will be crucial for the development of new clinical research space in a number of disciplines where the Medical School and its clinical partner are leaders in the field, including cardiovascular medicine, diabetes, cancer and musculoskeletal disease. Equally important will be the role of the ACCES building in providing new space to our clinical partner, UMMHC, for ambulatory practice, clinical teaching and faculty offices.

Success in our founding mission of primary care education is demonstrated by consistent ranking in the top 10 percent of medical schools in primary care as reported by US News and World Report (ranked 7th of 126 schools in the most recent survey) with more than 50% of graduating students entering primary care disciplines upon graduation. A key initiative begun last year is an increase in class size in the School of Medicine, part of a long term strategy that recognizes we are in a unique position to expand our leadership role in the training of the next generation of health care providers. We have implemented a comprehensive process to adapt facilities and student services to accommodate a class size of 125 students per class, consistent with the Association of American Medical Colleges recommendation that medical schools increase the number of physicians they train to help address the looming shortage of doctors, especially those in primary care fields.

In pursuit of its mission to achieve not just national, but international distinction in research, one measure of success is the level of funding from the National Institutes of Health. For FY 2008, the most recent year reported, the Medical School awards from NIH grew 2.6% to \$113 million in a very difficult funding climate, as evidenced by a decrease of 2.8% in funding for peer institutions. The quality of the Medical School's research program and its success in achieving national and international distinction is further evidenced by the recognition of Dr. Mello's groundbreaking discovery of RNA interference with the 2006 Nobel Prize in Physiology or Medicine, and last year, the presentation of the Lasker Award for Basic Medical Research (often referred to as the "American Nobel")

to Professor of Molecular Medicine Victor R. Ambros, PhD. In addition to the five faculty already named as Investigators of the prestigious Howard Hughes Medical Institute, two additional faculty, Marc Freeman, PhD and Chris Sasseti, PhD, were named HHMI early career scientists.

The pursuit of our mission of national distinction has continued to produce strategic success in the area of public service. Evolving from a partnership between the department of Psychiatry and the Department of Mental Health to provide psychiatric services to vulnerable populations, the School's division of Commonwealth Medicine now has contracts with 16 other Massachusetts state agencies, providing a variety of high quality services for the Commonwealth and generating revenues that have been invested back into the core academic mission. This entity also provides rich opportunities for research and has been the initiating force in the development of two new academic programs: a PhD program in Clinical and Population Health and fast-track Master's Degree in Nursing program designed to encourage individuals from other professional fields to train for careers in academic nursing. These accomplishments and the continued growth in these programs are key to the achievement of the Medical School's goals and objectives and reflect its leadership commitment to public service in a wide array of activities that support the state and nation with innovative services.

In summary, the strategic goal of the Medical School is to transform the practice of medicine around the world through continued excellence in basic, clinical, and translational research, while recommitting our academic health sciences center to the safe, high-quality health care, superior education, and impressive community service that distinguishes us among our peers. Our ultimate goal is to become an unrivaled leader in the life sciences and a world-renowned academic health sciences center as a result of building upon our unique strengths and cultivating growth in developing areas. Unhindered by historic biases and expectations, UMMS is better able to anticipate and respond to change and advances in science, education, medicine, and nursing, and therefore more likely to be at the forefront of making new discoveries and translating such discoveries into significant and novel advances in health care. The eager collaboration that occurs readily here across traditional boundaries—between scientists and across disciplines; between clinical and basic science faculty; across schools, programs, and departments—is an unique feature among academic health sciences centers, helping us successfully attract and retain the most talented students and preeminent leaders in every field, and serving as a catalyst for discovery and advancement in all arenas. In Commonwealth Medicine, we have highly developed and extensive public service endeavors, which foster rich data for translational science and, in turn, position us at the forefront of health care and scientific policy formulation, continually making our clinical education and training programs “real” for our faculty, students and staff. And finally, while the faculty and staff at the University of Massachusetts Medical School are passionate about the work and success of the institution, often the sum is greater than the parts: Our pride in our institutional success and commitment to our common goals keeps us energized as a community, making us, as a combined entity, more able to attain our goals.
