Beacon Budget Model (BBM)

For

UMass Boston

Why BBM?

Budget Transparency

Understand revenue flow and expense allocation

Glossary of Terms

Glossary of Terms (In progress) (Back)

Term / Acronym	Definition
ABB	Activities Based Budgeting is a method of budgeting designed to provide greater transparency into the budget process. It distributes revenue and budget authority from instructional, research and service activities which are then allocated directly to the unit responsible for the activity
Account	Accounts are groups of transactions of a similar type in a given fiscal year. There are several groupings (e.g. 700878 = Administrative Expenses, 700874 = Temporary/Non-Benefitted Payroll, etc.)
Accrual	Accounting method that records revenues and expenses when they are incurred, regardless of when cash is exchanged. The term "accrual" refers to any individual entry recording revenue or expense in the absence of a cash transaction.
Allocations	How different revenues and expenses are distributed to the ARS Centers in the BBM
Annualize	Converting a rate of any length into a rate that reflects the rate on an annual, or yearly, basis. This is most often done on rates of less than one year, and it usually does not take into account the effects of compounding.
Appropriation	The legal authorization to expend funds during a specific period, usually one fiscal year.
ARS Centers	Academic, Research and Service (ARS) Centers generate their own revenue through instruction (tuition and fees), research (grants and contracts), and/or other forms of self-generated funding (lab fees, differential fees, fees for service, educational sales and services, donations).
Asset	Property owned by the university regarded as having value and available to meet debts, commitments or legacies.
Auxiliaries	These are areas of the university that provide basic services to students, faculty and staff including things such as Parking, Dining Services, Marine Operations, Quinn Graphics, etc.
Balanced Budget	Implies the university is meeting its year-to-year fiscal objectives and operating margin goals.
BBM	Beacon Budget Model incorporates elements of an activities-based budgeting and results in a hybrid approach where greater unit authority and accountability is provided but necessarily balanced by central participation and authorities.
BLRP	Budget and Long-Range Planning Committee
Budget	A formal estimate of expenditures and revenues for a defined period, usually for one year.
Budget Transfer	The act of transferring budgeted dollars from one budgetary unit to another or between categories within a budgetary unit.
Budget Unit	The discrete area (ARS Center or Support Unit) or level at which budgets are developed and monitored throughout the year (units, departments, etc.)

Budget Year	The 12-month period used by the University beginning July 1 and ending June 30 of the following calendar year. The University's budget year is numbered according to the year in which it ends and runs concurrent with its fiscal year.
Capital Budget	A plan for capital expenditures for projects to be included during the first year of the capital program.
Capital Expenditure	Expenditure for acquiring fixed assets such as land, buildings, equipment, technology and vehicles or for making improvements to fixed assets such as a building addition or renovation.
Capitalization	Capitalization is the recording of a cost as an asset, rather than an expense.
Carry-Forward	Unused current-year revenues that roll-over into subsequent budget years. Examples of carry-forward funds include ESS, RTF, Development, Project Funds, Lab fees, etc.
Carry-Forward Spending	The act of using in the current budget year, revenue earned or recognized in a prior budget year. The use of carry-forward negatively affects the Operating Margin to the extent that all expenses exceed the current year's revenue
CoI	College of Instruction is where instruction takes place regardless of the student's College of Record.
CoR	College of Record is where the student is matriculated.
Deficit	A condition that exists when an ARS Center's, department's, or unit's expenditures exceed appropriations or revenues.
Degrees Awarded	A metric in the model to emphasize the commitment to student success. The total number of undergraduate and graduate degrees awarded each academic year is used to determine the proportion of the State Appropriation an ARS Center receives.
Differential Fee	Fees that are charged by an ARS Center due to the higher cost of education for specific program delivery, licensing, certification, etc.
Direct Costs	Those costs that can be specifically and easily identified with a particular project or activity and are allowable under the sponsoring organizations guidelines. Types of direct costs include: Direct labor costs for employees who work specifically on completing the objectives of the grant or contract; direct labor employee's related fringe benefit costs, travel of direct labor employees; and materials, supplies or other items purchased for use on a specific grant or contract.
Encumbrance	Funds set aside from an appropriation to pay for a known/planned future expense.
ESS	Educational Sales and Services. Generally, funds that are generated by conference registration fees, memberships, etc.
Expenditure	A payment for goods or services received.
Fees	Various academic based fees charged to cover associated expenses. E.g., lab fees are meant to cover lab consumables, lab maintenance, and support the refresh plan for lab equipment.
Financial Aid	Financial Aid is any grant or scholarship, loan, or paid employment offered to help a student meet his/her college expenses. Such aid is usually provided by various sources such as federal and state agencies, colleges, high schools, foundations, and corporations.

Fiscal Year	The 12-month financial period used by the University beginning on July 1st and ending June 30th of the following calendar year. The University's fiscal year is numbered according to the year in which it ends.
Forecast	A process that uses YTD actuals combined with the remaining fiscal year predicted or estimated spending and compared to the budget and/or previous forecasts
Fringe	An extra benefit supplementing an employee's salary. E.g., health insurance
Fringe Rate	A rate applied to benefitted salary to cover the cost of Fringe
FTE	Full-Time Equivalent used to capture the number of faculty, staff and students. The calculation of a FTE is an employee's scheduled hours divided by the University's hours for a full-time work week (e.g. 40 hrs/40 hrs = 1.0 staff FTE; 20 hrs/40 hrs = 0.5 FTE). Similarly, for students the number of credit hours determines their FTE (e.g. 12 credits/12 credits = 1.0 Student FTE; 9 credits/12 credits = 0.75 Student FTE).
Fund	Fund type and codes are set to identify and categorize expenses in the appropriate fund category. For example, 51161 = General Operating Fund (GOF); 51151 = Lab Fees; 51121 = Education Sales & Services; 11000 = Main Allotment / State Appropriation, etc.
Gift	A voluntary and irrevocable transfer of money, services or property from an external donor for either unrestricted or restricted use in promoting the University's goals.
GOF	General Operating Fund – funds generated from revenue sources such as tuition and mandatory fees, trust-fund interest, etc.
Grant	An externally funded activity where there is an agreement representing the transfer of money or property from a sponsor in exchange for specific goods or services. in the stated terms with support being revocable for cause.
Grant Buyout	Tenured and tenure-track faculty may, with appropriate approvals in advance, buy-out courses to free up time for advancing their scholarly work and research endeavors. Refer to UMass Boston Policy on Faculty Course Buyouts (revised Jan 2022) for more guidance.
Guiding Principles	The values that guide the implementation and execution of the BBM and future performance and iterations.
Headcount (HCT)	Headcount represents the actual number of faculty, staff, and students regardless of their associated FTE.
Hybrid Model	A hybrid budget model includes a combination of Central and Local controls when it comes to budgeting and decision making.
Incremental Budgeting	Year-to-year adjustment of budget based on the strategic plan, available revenues and historical/planned expenses.
Indirect Costs	Indirect costs are related to the University's facilities and administrative (F&A) support that cannot be claimed as a direct cost. Indirect costs are part of the real costs of conducting the externally funded research and development. Typical indirect costs include: depreciation on buildings and equipment; cost of operating and maintaining facilities; and general administration and general expenses, such as the salaries and expenses of personnel administration and accounting. Indirect costs charged equate to research revenue generated, or

	RTF, and these RTF revenues are used to establish the subsequent year's RTF budget for the University.
ISA	Interagency Service Agreement. Typically used to transfer funds from the State directly to a University program or initiative.
Liability	A liability is a legal debt the University owes to a third-party creditor. They can include accounts payable for example.
Mandatory Fees	Fees required by the University and/or ARS Center that are not optional for a specific program, course, activity or purpose.
Net Tuition	Gross tuition minus financial aid and scholarships.
OBFP	Office of Budget and Financial Planning
Operating Budget	A Board of Trustees adopted plan for anticipated revenues and expenditures for personnel, contractual services, supplies, current charges, and equipment in one fiscal year.
Operating and Maintenance funds (O&M)	Operations & Maintenance funding of utility costs, routine corrective and preventive maintenance, custodial services, utility distribution systems and site maintenance, furnishings repair, O&M administrative costs, security, and other planned or unscheduled maintenance.
Operating Margin	Operating margin is a metric that compares an organization's annual revenue to annual expense. A positive operating margin means that annual revenue is greater than the annual expenses. Similarly, a negative operating margin means that annual revenues are less than the annual expenses. For UMass Boston, a 2% operating margin means that the annual revenues exceeded the annual expenses by ~$10M.
Revenue	Income generated by a specific school, department, or unit usually as a result of user revenues applied for services rendered. Parking meter charges, fees, and tuition, and State Appropriation are examples of income.
RTF	Research Trust Fund and represents the amount of indirect costs collected by the university to cover facilities and administration (F&A) costs through grant and contract work completed by an ARS Center or other unit.
Salary Savings	The amount of budgeted salary saved through funded position vacancies, delays in hiring, or attrition of the incumbent.
Scholarships	Scholarships are usually merit based. This means that they are given to prospective recipients based on desired qualities such as athletic ability, academic achievement, or involvement in a certain extra-curricular activity. Scholarships can also be based on particular traits like ancestral background or group affiliation.
SCH	Student Credit Hours
SRECNA	Statement of Revenues, Expenditures, and Net Assets is one of three basic financial statements required annually for all institutions. The SRECNA has a standard categorization of revenue and expenses which allows comparison between institutions.
State Appropriation	The State Appropriation represents a specified sum of money authorized by the legislature for a specific period of time to accomplish a specific purpose. In this case the funding received from the Commonwealth of Massachusetts to support university operations.

Subvention	A tool used to collect funds/surplus revenues in the BBM to cover structural deficits and/or other required operating requirements and strategic investments.
Support Units	Units that do not directly generate revenue to cover their expenses, but instead provide core services that support and enable the University to function and serve its core academic mission. It is also used as a mechanism to fund strategic initiatives for the university.
Transaction	The smallest level of financial categorization. Transactions are debits or credits to an account.
Total Grant and Contract Revenues	A metric in the model that represents the total direct and indirect costs generated in a fiscal year and determines the proportion of the State Appropriation that an ARS Center receives for research.
Two-Year Retention	A metric in the model to emphasize the commitment to student success. This metric is based on a rolling 3-year average of undergraduate students continuing at UMass Boston after their second year and is used to determine the proportion of the State Appropriation an ARS Center receives.
Vacancy	A vacancy is an employment position within a company, government organization or nonprofit that has no current occupant.
Vacancy Savings	Are monies saved or generated in personnel services and employee related expenditures by not filling a position which has become vacant.
Variance	Is the difference between the budgeted or baseline amount of expense or revenue, and the actual amount. The budget variance is favorable when the actual revenue is higher than the budget or when the actual expense is less than the budget.
Waiver	Tuition waivers are part of a financial aid package where the University or College waives part or all of the tuition costs for an individual, even if the member still owes costs for fees, room, and board.

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University of Massachusetts Boston: Beacon Budget Model (BBM) (Back)

Frequently Asked Questions (FAQs)

Q: Why are we changing our approach to budgeting at UMass Boston?

A: The current incremental budget model, which primarily rolls academic budgets forward year after year (adding or subtracting some small percent) does not as directly or transparently align resources to expanding programs or incentivize strategic initiatives at either the College or University level. Acknowledging the challenges that incremental budgeting presents to an institution, the University has recognized the need to shift to a more strategic approach to resource allocation.

Q: How are decisions for this project going to be made?

A: A steering committee, comprised of academic deans, faculty, and administrative leadership was formed to help guide the University through this transition. The Steering Committee met regularly and engaged the UMass Boston community to solicit feedback and invite input. The implementation of our new budget model will be a fluid, transparent and inclusive process that is being led by the Provost and Vice Chancellor for Administration and Finance with ongoing consultation with each major academic unit, other senior administrative leaders and relevant governance bodies such as Faculty Council's Budget & Long-range Planning Committee.

Q: Is the BBM an incentive- / activities-based budget model?

A: The BBM is a hybrid activities-based budget model that has been developed uniquely for UMass Boston.

Q: What is an 'incentive-based' budget model and how is it different than prior University practice?

A: The new budget model is a hybrid between a central and decentralized, more activity-based approach to budgeting in which areas within the University are given greater control over their own revenues and costs and thus are more explicitly rewarded for good stewardship of funds with centrally balanced oversight and input. University resources and administrative costs are allocated based on certain activities and identifiable metrics. The university retains responsibility for ensuring that overall university financial requirements are met.

The University's previous budget model was maintained centrally, and new-year budgets for all areas were largely predicated on the prior year's budget and were not explicitly tied to specific performance metrics. In the incremental model, all revenues were held centrally and allocated based on historical expense with potential incremental adjustments, it was generally agnostic to the area(s) that generated revenue, and central University funds were used to cover deficits for underperforming units.

Q: What were the issues with the prior University budget model?

A: The University's previous 'incremental' budget model was not transparent, not able to appropriately respond to enrollment changes for example, and it did not work to incentivize growth, innovation, or development of other operational efficiencies.

- Additional Individual Unit Issues:

- Individual unit heads had little authority over revenues and ability to drive innovation and new strategies (e.g. revenue increases from increased enrollment in existing programs or new programs does not translate directly to additional budget authority and vice versa, revenue decline does not necessarily translate to reduced budget authority). The BBM will respond to revenue increases or decreases in an appropriate and proportional manner based on the allocation metrics.
    - Individual units had little accountability, and operational losses were covered centrally at year-end with limited transparency. The BBM clearly identifies where operational deficits exist across the units on campus.
    - Budgets, in large part, were based more on prior-year expense levels and less on performance, although performance was a factor. Through the budgeting process, units planned to a target that may have been different than prior-year numbers (e.g. higher or lower). In the BBM, budgets will be built based on the revenue and expense allocation metrics established within the model that meet overall university financial requirements.
- Institutional Issues:
    - Funds were not allocated as closely as they will be in the BBM model with the University's strategic priorities outlined in the University's strategic plan, and cross-unit collaboration was not as clearly rewarded.

Despite these limitations, the university has been able to use the incremental model to meet its necessary financial requirements and eliminate its structural deficit. Since 2017 there have been several initiatives that have grown revenue, created internal efficiencies and contained costs. These steps, along with strong support from the Commonwealth and a tuition and fees restructuring, have ultimately allowed the university to eliminate its structural deficit and meet its operating margin requirements. The BBM will continue to build upon this foundation and enhance subsequent initiatives that will have more direct and clear implications to the units involved.

Q: How does the BBM solve these issues?

A: The BBM helps to solve these issues by providing a hybrid between a central and decentralized, more activity-based approach to budgeting in which areas within the University are given greater control over their own revenues and costs and thus are more explicitly rewarded for good stewardship of funds with centrally balanced oversight and input. University resources and administrative costs are allocated based on certain activities and identifiable metrics. The university retains responsibility for ensuring that overall university financial requirements are met.

Revenue is allocated to the areas which generate them, so creative thinking, innovation, operational efficiencies, and high performance are incentivized.

Other improvements include:

- A methodology for the more transparent allocation of central funds to high-priority, strategic initiatives for the University.
- Good stewardship of funds, innovation, creative thinking, operational efficiencies, cross-unit collaboration, and cost containment are incentivized.
- Student success and research are also incentivized as units receive State appropriation revenue based on identifiable metrics like degrees awarded (at various levels), 2-year retention rates, and total grant and contract value.

- Units have the ability to plan for and retain a portion of the revenue and savings they create and receive other allocations based on strategic initiatives. ***Caveat:*** There still is a need to ensure the university achieves the overall financial requirements, and as long as there are units that have operational deficits, a portion of the revenue surplus and savings generated will need to fund these deficits.
- After necessary and appropriate subvention measures are taken to address any operational deficits and funding strategic initiatives, units will retain surpluses and/or losses, increasing visibility/transparency and accountability.
- Units are more involved in the budget process and are more aware of the success metrics used for budget calculation, increasing transparency.

Q: What is the goal of an incentive- / activities-based model?

- **A:** The primary goal is to enable the university (centrally) and units (locally) to make data-informed decisions that support the unit's and University's overall strategic plan and meet the university's required financial targets. ARS Centers are empowered to take greater ownership over their revenues and expenses to drive tactical growth and spur innovation, as well as focus on service delivery and operational effectiveness. Support Units (non-revenue generating units) will focus on supporting the university's strategic plan through service delivery and effectiveness, similar to how they have done in the current incremental budget model.

Q: What are Academic, Research and Service (ARS) Centers and what role do they play in the BBM?

A:. ARS Centers are the units on campus that generate revenue through instruction, research and/or other forms of self-generating funding (e.g. Special Programs, Non-Credit Programs, Differential Fees, Parking Operations, Dining, etc.) and they include the Colleges, Schools, free-standing Centers and Institutes, and Auxiliary Units. UMB's ARS Centers include:

- College of Education and Human Development
- College of Liberal Arts
- College of Management
- College of Sciences and Mathematics
- Manning College of Nursing and Health Sciences
- School for the Environment
- Free-Standing Centers and Institutes
  - Center for Survey Research
  - Mauricio Gaston Institute for Latino Community Development and Public Policy
  - Institute for Asian American Studies
  - Institute for Innovative Leadership in Sports
  - William Monroe Trotter Institute for the Study of Black Culture
  - William Joiner Institute for the Study of War and Social Consequences
- Auxiliaries/Revenue Operations

Q: Is the BBM applicable to all University funds?

A: The BBM will be applicable to all University funds but will have different allocation metrics depending on the fund type.

Fund Type	Distribution
General Undergraduate Tuition	80% College of Instruction (CoI) – 20% College of Record (CoR)
Graduate & Doctoral Tuition	80% College of Instruction (CoI) – 20% College of Record (CoR)*
Tuition Differential	100% to the unit that charges
SP Programs	100% to CoI
Non-Credit Tuition	Will be its own ARS Center, more detail to follow
Student Fees	100% directly to the purpose/program/course
Education Sales & Services	100% to the unit that generates
RTF	100% to unit that generates RTF (70%-30% effective split)**
Development	100% to the unit that generates
Auxiliary	100% to the unit that generates
State Appropriation	**Per Below (Net of Central Expenses)**
Degrees Awarded	45% allocated proportionately based on CoR percent of total degrees
2-Year Retention	40% allocated proportionately based on CoR total headcount
Research	15% allocated proportionately based on grant and contract indirect revenue

Q: I am in a university area which is not a revenue-generating unit (ARS Center), but rather one that supports our students and/or the university. How does the new budget model affect me?

A: An area that does not generate revenue is classified as a Support Unit. Support Units are instrumental and accountable for supporting the university's strategic priorities and fiscal performance.

Support Unit costs are budgeted centrally with budget targets provided by the Office of Budget and Financial Planning (OBFP), and most of the Support Unit expenses are allocated to and funded by the ARS Centers, while selected ones are funded directly from the State Appropriation.

Consistent with past practice, Support Units will be provided budget targets and allocations by the OBFP through what is planned in the five-year forecast and then updated in the annual budget process. These will be consistent with the university's strategic goals and any necessary measures or efficiencies needed to help 1) reach the campus operating margin; 2) address any compliance requirements; and 3) optimize operations to support mission-driven priorities.

Q: For Support Units, what mechanisms will be used to incentivize efficiencies or even revenue-generating activities?

A: Some of the same tools we already have in place, such as third-party reviews to assess and evaluate operations, organizational structure, and positional functions, recommend adjustments, and help identify best practice and operating efficiencies. The external reviews completed to date have provided information to have these Units be appropriately resourced within industry standards. As a result, many necessary steps have been taken within the university's support units since 2017 to help eliminate the structural budget deficit and become more efficient as a result.

Consistent with past practice, Centralized budget targets will be planned to meet compliance and operational needs and operating margin requirements. Support Units will be provided budget targets and allocations by the OBFP through what is planned in the five-year forecast and then updated in the annual budget process. These will be consistent with the university's strategic goals and any necessary measures or efficiencies needed to help 1) reach the campus operating margin; 2) address any compliance requirements; and 3) optimize operations to support mission-driven priorities.

Q: Will Support Units have the capacity to gain revenues from differential fees, RTF, or other non-credit revenue generating programs? Can they engage in revenue generating activities?

A: Support Units can absolutely engage in revenue generating activities as part of the overall budget planning.

Q: How will efficiency be ensured in Support Units? How does the model balance the ARS Center risk of inefficient Support Unit operations being rewarded?

A: In a hybrid model, efficiencies are taken into consideration in the determination of the annual budget targets, just as they are under the incremental method. Transparency around the university's current and near-term financial position requires that all units will have a responsibility to operate in an efficient way. In addition, external reports may be used to review operations and efficiencies in all areas of the university.

Q: Can unused budgets be carried forward to future fiscal years?

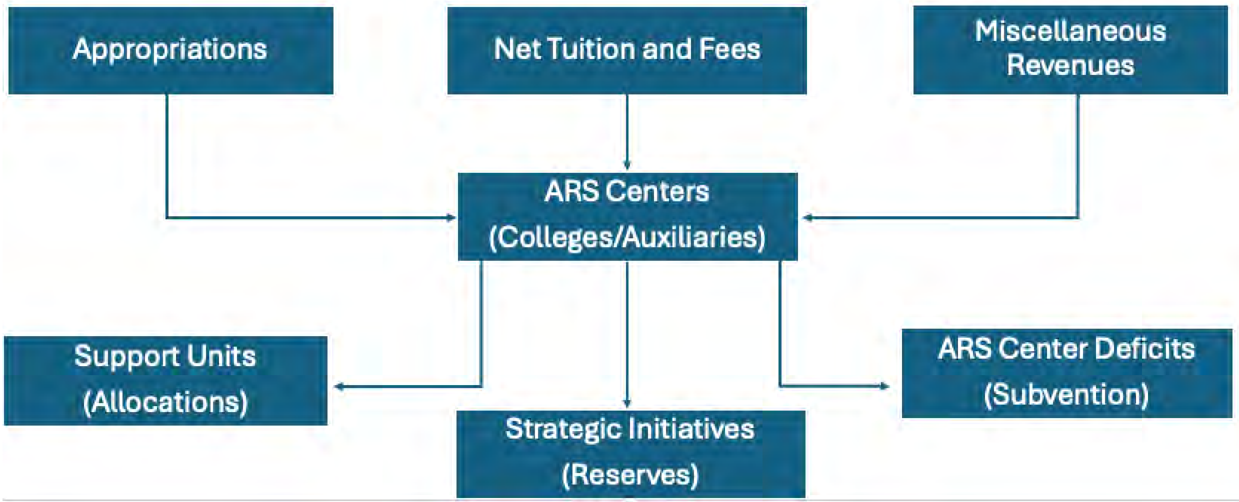
A: Funds that carry-forward will be available to be used in future fiscal years as part of the all-funds management approach. However, use of these funds (all funds) must be planned and accounted for in meeting the ARS Center and University operating margin. General Operating Funds are not available for carry-forward. Funds that carry-forward include those listed in the table that follows:

Fund Type	Fund Code	Does it Carry-Forward?
ESS	51121	Yes, just as it does in the current model
Development	51438, 53500, 53800	Yes, just as it does in the current model
RTF	52129	Yes, just as it does in the current model
Lab Fees	51151	Yes, just as it does in the current model
Project Funds	51373	Yes, just as it does in the current model
General Operating Funds	51161	No
Auxiliaries	various	Yes

The availability of carry forward will be determined by the OBFP at the end of a given fiscal year and is dependent upon the University's ability to meet its operating margin requirements.

Q: How do funds flow in the BBM?

A: UMass Boston is building a hybrid model that is a combination of decentralized and centralized planning and decision-making. The figure below depicts how the revenues (funds) and expenses flow in the BBM. The revenue categories will be allocated to the ARS Centers, where the activities are generated and based on the allocation metrics assigned in the model (and noted above). Similarly, expenses associated with the ARS Center operations (e.g. payroll, space) and Support Unit expenses necessary to support operations University-wide are allocated to the ARS Centers using the expense allocation metrics assigned in the model (e.g. based on number of FTE, headcount, space, etc.).



Source: Curry, J.R., Laws, A.L., Strauss, J.C. (2013). Responsibility Center Management: A guide to balancing academic entrepreneurship with fiscal responsibility. National Association of Colleges and University Business Officers (modified).

Q: How long will it take for UMass Boston to shift its approach to budgeting?

A: Industry experience tells us these types of shifts take several years to implement. The first year was focused on model exploration and design. Initial methodology was considered and evaluated by the steering committee and institutional stakeholders. Now that the model has been designed, the University has shifted into a series of parallel years that include infrastructure development tasks such as establishing model governance committees, creating an annual budget development timeline, piloting the various levers available to ARS Centers and developing updated operating policies and procedures. These parallel years will also focus on the need for increased reporting to support resource allocation decisions.

Q: Have other universities done this?

A: Many universities, both private and public, use some form of an activities-based budget model. It was developed and has evolved over some 45 years since the University of Pennsylvania became the first higher education institution to implement a version in 1974. Of our peer set, the following use an activities-based model methodology:

- Ball State University: Website
- Bowling Green State University: Website
- Kent State University
- Miami University
- Ohio State University
- Ohio University
- University of Alabama at Birmingham: Website
- University of Cincinnati
- University of Memphis

While these models may be informative, it is important to note that the BBM is being built specifically for UMass Boston using a combination of allocation metrics for both revenues and expenses, as well as centralized planning in order to meet the university's overall financial performance requirements. We are not adopting any one university's budget model to use as our own.

Q: Is UMass Boston partnering with an external firm to help us through this process?

A: Yes, the University initially partnered with Huron Consulting Group to help us through the initial framing, education, and model build phase of this process from Fall 2021 to Fall 2022 (Huron has helped more than 50 colleges and universities work through similar questions related to resource allocation, budgeting, and planning.). Since Fall 2022, the University has taken on the tasks of migration and implementation internally through the BBM Implementation Group.

Q: How can I be engaged throughout this process?

A: UMass Boston will be setting up a variety of channels to allow individuals to be involved. In addition to select stakeholder meetings, campus-wide forums have been held and will continue to be held to inform the UMass Boston campus about the BBM project progress and answer any outstanding or ongoing questions. Additional resources include at this time:

- Visit the university website for more information or status updates.
- Email BeaconBudget@umb.edu with any questions that you have.
- Review the FAQs periodically for updates.
- Ask your unit's Budget and Long-Range Planning (BLRP) Committee representative for updates or to pursue answers to different BBM questions or concerns.
- Review the BBM for UMass Boston document.

Q: How are vacancy savings incorporated into the BBM?

A: First, the BBM hybrid model maintains the central interface and oversight of overall vacancy savings to manage/balance the full university budget. Then generally, vacancy savings will be part of the ARS Center budget items to manage and be another tool that units can use to meet their margin.

Q: How are faculty not in colleges treated for revenue and expense allocation purposes?

A: Faculty that are in administrative roles in the Provost's Office, for example, are considered part of that Support Unit. The salary and fringe benefits are part of the expense profile of that office and are funded budgetarily by allocating the expenses of the Provost's Office (Academic Support Cost Pool) in this case, across the ARS Centers.

For faculty that are directors for free-standing centers or institutes, the proportionate percentage of their time dedicated to running the center or institute will be allocated to the free-standing center or institute expense profile. The remaining percentage will be allocated to their home department/college.

Q: What are the budget governance committees?

A: The budget process will be managed year-over-year by the OBFP, in close partnership with the Provost's Office. The Budget and Long-Range Planning Committee makes transparent to the entire faculty, including college senates and budget committees, the overarching plans and budget of the university given they report to the Faculty Council on the administration of funds at UMB.

Q: How will deferred maintenance be addressed?

A: Deferred maintenance will continue to be addressed through the University's operating budget and Five-Year Capital Budget, which is updated annually as part of the budget process. The Facilities Department will play a lead role in the identification of deferred maintenance projects and the completion of them once funded.

Q: How will Research be handled in terms of a subvention to cover ORSP and the research enterprise/administration? How will ORSP be impacted by RTF 100% allocation of RTF to units?

A: When 100% of the RTF is allocated to the ARS Centers, 100% of the research enterprise expense is allocated to the ARS Centers as well. Meaning that the budget for the ORSP for example will be supported by the ARS Centers (which will effectively result in the traditional 70%-30% split.

Q: How does the current RTF 70%-30% (10%-10%-10%) model work in this new model?

A: Currently it will effectively work the same way as it does now. There may be an opportunity to discuss the 10%-10%-10% approach [varies across colleges], and/or the 70%-30% distribution to units (centers and institutes) that are or very nearly fully externally funded. This will continue to be discussed as the model gets implemented.

Q: How will grant co-PIs be accommodated in the new model in terms of revenue allocation?

A: The shifting to the Kuali electronic research management program will help with managing appropriate proportioning of RTF based on the planned levels of effort for each PI that are contained in each grant or contract.

Q: How does the model handle fixed and variable costs and revenues year-to-year in ARS Centers and Support Units?

A: The UMass President's Office and the University's Office of Budget and Financial Planning will provide planning metrics for certain fixed and variable budget assumptions. Ex. COLA assumptions, fringe rate, inflation, etc. These will be provided annually to both ARS and Support Units.

Consistent with past practice, Support Units will then be provided budget targets and allocations by the Office of Budget and Financial Planning through what is planned in the five-year forecast and then updated in the annual budget process. These will be consistent with the university's strategic goals and any necessary measures or efficiencies needed to help 1) reach the campus operating margin; 2) address any compliance requirements; and 3) optimize operations to support mission-driven priorities.

Q: How does the model account for the differences in the quality of space?

A: The plan is to keep it simple at first and all space will have the same rate. As the BBM is implemented and matures, adjustments **may** be considered to account for differences in space quality.

We will use the Space Inventory that was created as part of the 2023 Campus Master Plan Update project and updated annually to track space ownership and usage. It will continue to be updated over time as the ARS Centers and Support Units manage their space. If space usage changes, allocations will be adjusted, however, changes in space use/ownership changes still need to be

Q: Has there been any consideration of embedding guarantees against downsides into the BBM model?

A: No. No budget model can guarantee against downsides. The reason why the BBM is being developed as a hybrid model is to be able to provide the university with the necessary tools to be able to plan and manage its budget and effectively react in times of increasing and/or decreasing revenues and expenses. We need to continue discussion on timeframes that we are basing certain allocations on to help manage risk of certain year to year swings and long-term trends. Deficits need to be resolved through active management and realignment of revenues and expenses within university strategic priorities, not budget guarantees.

Q: Similarly, is there a consideration for a cap on what portion of growth would be returned to an individual ARS Center in a single year?

A: No, the purpose of BBM is to put the resources where the activity is, so if a unit is growing, they get to benefit in that growth, no matter how little or big. That said, as there are ARS Centers that are running in deficit, some of the ARS Center surplus must first be used to cover these deficits.

Q: How will we handle students enrolled in college A one year and transfers to another college in later years, but still retained by the University?

A: The model does not penalize college A on retention as long as they stay in the university.

Q: Are graduate students included in the retention rate or degrees awarded for purposes of the State Appropriation allocations?

A: Graduate students are included in the degrees awarded allocation metric for the State Appropriation. They are not included in the 2-year retention metric – that is undergraduate only.

Q: How do you forecast contract revenue?

A: Every contract or grant will have a projected budget for each year of the contract or grant. Units and PIs are going to have to plan annual expenditures such that spending will fall within the annual RTF distributions.

Q: Is there a mechanism for units that don't generate a lot of grant revenue (RTF) or lab fees to purchase capital equipment?

A: While not necessarily a BBM-specific issue and more of an annual capital budget planning process, we are looking at options and process for helping facilitate purchase of capital equipment for units that don't generate a lot of RTF or lab fees, but still have research and instructional lab equipment needs.

Q: Can the model consider, or would the Administration consider, a "faculty-fund" to be held centrally or within individual ARS Centers?

A: Colleges currently have the ability to put aside funding for professional development and many do that. In the BBM, the ARS Center leads (Deans) would have that same ability if they choose. What BBM brings is more degrees of freedom through an "all funds management" approach to provide for investments like this. The hybrid model also allows for central planning of any contractual obligations in this area.

Q: How does the model encourage collaboration between units and not competition?

A: Similar to the question about incentivizing graduate programs, the same sentiment is true for interdisciplinary programs. In the current incremental model there is no incentive or “reward” for building an interdisciplinary program that attracts new students and therefore new/more tuition. In the BBM, programs (ARS Centers) will be rewarded with the new revenue distributed based on the allocation metrics provided.

Q: How does the model assure that outcomes are not completely tethered to an individual decision-maker?

A: The BBM is a hybrid model that retains central oversight and compliance with system-level financial requirements while pushing more responsibility and accountability to the ARS Center leads (Deans) to manage. Vice-Chancellors continue to manage their respective areas. All reporting and supervisory lines remain intact and will help ensure that management and subsequent decisions are appropriately balanced. OBFP and the Provost’s Office retain their current ability to monitor the budget throughout the year to ensure successful financial outcomes.

Space Allocation FAQs

Q: How are we being charged for space and how is that being calculated?

A: Instructional (classroom) space was identified in the Space inventory that was completed as part of the 2023 Campus Master Plan Update project. That space square footage and associated expense was pulled out of the space total and allocated to the ARS Centers by the ratio of student credit hours taught.

Tuition allocation received by an ARS Center as a College of Instruction, far outpaces the cost of the instructional space.

Q: Are buildings/space costs, such as the parking garage, being offset in our budgets?

A: Auxiliary plant operations such as parking were removed from the total costs and covered as an auxiliary expense in the Revenue Operations ARS.

Q: How and who calculated the space allocations?

A: A current space inventory was completed as part of the 2023 Campus Master Plan Update project. It is updated annually through a process conducted by the Office of Campus Planning and Sustainability. During this process common, instructional and research space were identified and assigned as appropriate.

Monitoring of space data will be a continuous process and will/can be reassigned as appropriate and through the Space Committee where required.

Q: Why are colleges being “charged” for space now, whereas we weren’t before the shift?

A: The university has always had to pay for space. However, there is no transparency in our current budgeting process since space costs are budgeted centrally. The Office of Budget and Financial planning incorporates these costs into the establishment of budget targets for each of the campus areas.

This is not a new charge/expense for the university. Instead it becomes a more transparent charge/expense under BBM. In the BBM, there are different ways to allocate these expenses to the ARS Centers (four scenarios are included below). Each has differences and/or impacts on the ARS

Centers. The goal is to make this as simple as possible, but to provide the ARS Centers with the ability to manage and optimize the use of the space assigned.

Q: Quality of space and how do we account for that?

A: The current model is not taking quality of space into consideration. We need to keep the methodology simple, use the updated space data we have at the time, and continue to improve over time. There is an expectation that the Deans will be in charge of managing space allocated to their units.

Q: Does the model charge the same rate for space in the model (i.e. are there different rates for newer buildings)?

A: Space allocation in the model does not differentiate between "new" and "older" space. There are five elements of the physical plan operations cost that include:

- **Shared** space was identified in the space inventory completed as part of the 2023 Campus Master Plan Update. This square footage and associated expenses were allocated equally across all ARS Centers.
- **Instructional (classroom)** space was identified in the space inventory that was completed as part of the 2023 Campus Master Plan Update. That space square footage and associated expense were pulled out of the space total and allocated to the ARS Centers by the ratio of student credit hours taught.
- **Research (Labs/Office)** space was also identified in the space inventory as part of the 2023 Campus Master Plan Update and is allocated directly to the ARS Center associated with the space.
- **Auxiliary plant operations** such as parking were removed from the total costs and covered as an auxiliary expense in the Revenue Operations ARS Center.
- **Debt Service** is part of the allocated physical plant cost and is covered centrally before the remaining space allocations are made.

Subvention FAQs

Q: What is Subvention?

A: Subvention is used for two major purposes:

1) a central mechanism for covering costs to ensure we meet our operating margin by providing financial assistance or support to those units that may require it and/or that are operating in deficit.
2) Subvention is used as a mechanism to create an investment pool for high priority, mission-driven strategic initiatives across campus.

Q: Why do we need Subvention?

A: Subvention is needed to ensure we meet the 2% operating margin that is required by the Board of Trustees but that is also good financial practice that will provide the university with greater fiscal flexibility in the future. With some areas of the university currently running in deficit, the totality of institutional revenue is needed to cover all aspects of university operations that are necessary to support effective delivery of the instruction, research, and community engagement enterprise. We also need it as a mechanism to create an investment pool for university-funded high-priority, mission-driven strategic initiatives.

Q: What will Subvention cover?

A: Operating Deficits and an Investment Pool.

Operating Deficits

When any individual ARS Center runs a deficit, subvention is a tool that can ensure that the overall financial university financial requirements are met.

Mechanism to Create an Investment Pool

Subvention will also be used as a mechanism to create an investment pool for university-funded high priority, mission-driven strategic initiatives, and capabilities across campus and within the UMass Boston community. For example, for some mission-oriented units to continue to flourish, we may need to continue supporting, at varying levels year-over-year, certain research centers and institutes. The CANALA Institutes are a good example. They are highly mission oriented, and by the nature of the important work they do may realistically need greater institutional support than other units on campus.

Q: How will subvention be funded?

A: Subvention will be drawn from ARS Center surplus revenues to initially cover operations in ARS Centers that are running a deficit. We need to see how the model will work for the first few years and then determine what other options might be.

Q: Is Subvention permanent?

A: No. While subvention is not permanent and will change over time by design as the campus makes progress collectively in increasing revenues and optimizing operations there may be some long-term deficits that will continue longer than others (e.g. parking). With the implementation of the BBM, it will become increasingly clear where the operating deficits are, and we will then develop targeted, multi-year action plans, goals, objectives, and expectations for each of the ARS Centers to achieve the necessary operating margin thereby reducing the level of subvention necessary year-to-year. Each ARS Center will have their own specific plans and will need to use the levers built into the BBM to increase revenue and decrease expense to meet the university's strategic goals, and ultimately reduce the subvention level. Similarly, Support Units will have specific operating targets that include continued focus on optimizing service delivery and minimizing expense. Levels of funding for strategic initiatives will also evolve as they are planned over time based on available resources and the university's strategic plan.

Q: How are the Support Units impacted by Subvention?

A: Consistent with past practice, Support Units will be provided budget targets and allocations by the Office of Budget and Financial Planning through what is planned in the five-year forecast and then updated in the annual budget process. These will be consistent with the university's strategic goals and any necessary measures or efficiencies needed to help 1) reach the campus operating margin; 2) address any compliance requirements; and 3) optimize operations to support mission-driven priorities.

Q: How will Subvention funds be administered?

A: Subvention amounts will be budgeted as part of the annual budget process to 1) ensure we achieve the campus operating margin; 2) cover operating deficits of ARS Centers; and 3) support certain strategic, mission-driven initiatives or investments.

Research Trust Fund (RTF) Questions

Q: How is RTF allocated in the BBM?

A: 100% of RTF will be distributed to the unit responsible for generating the RTF. Since we allocate 100% of the RTF revenue, we also have to allocate 100% of RTF expenses (allocated to ARS Centers from the cost pools the expenses fall in).

Q: If 100% of the RTF is allocated to the ARS Center that generates it, how will Research be handled in terms of subvention or surcharge to cover ORSP and the research enterprise / administration / startups / etc.?

A: As a Support Unit, the VPR/ORSP will build a budget based on planned expenses for the year. These expenses will fall in one or more of the cost pools that are then subsequently allocated to the ARS Centers based on the pool allocation metric.

This will serve to fund the research enterprise functions thereby effectively resulting in the historical 70% to Provost and 30% split currently in place.

Q: Are we resetting the 70%-30% split between the University and Colleges, Depts, PIs?

A: No, not at this time. The 70%-30% split will continue with the BBM.

Q: How does the shift to the BBM impact the use of RTF Carry-Forward?

A: In shifting to the "all funds" management approach in BBM, carry-forward becomes a fund that will be largely managed within each ARS Center in meeting the individual unit and University-wide financial requirements (the latter addressed through the hybrid nature of the model). ARS Center leads will need to evaluate the strategic necessity of the planned use of carry-forward on non-capital expenses as well as the margin implications as it relates to spending rates across the full range of current year revenue sources. If for example, an ARS Center is projecting to underspend current year revenues in one fund (e.g. general operating fund, lab fees, ESS, etc.) by $100K, but needs to spend $100K of RTF carry-forward on non-capital expenses, there is no margin implication. Conversely, if the current year revenues equal current year projected expenses, spending carry-forward on non-capital expenses will negatively impact the operating margin.

Q: How will revenue-based operations, such as grant revenue, be handled for Support Units like VPR, Grad Studies, Enrollment Management, and others that generate RTF?

A: Support units that generate RTF will have to plan that spend in their budget planning process (identify the expenses for the fiscal year). The expenses will fall into a cost pool that then will get funded by allocating the expense across the ARS Centers based on the cost pool's associated allocation metric.

Q: Should we consider different surcharge or subvention metrics for high, medium, or low external funding activity?

A: No, the research enterprise will be budgeted, and the planned expense will get distributed across the ARS centers from the different cost pools. Subvention and/or surcharge will not be used.

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Q: To what extent do the personnel in University Advancement have to cover their salary and expenses based on the funds they obtain from donors?

A: University Advancement is a Support Unit and their expenses will be allocated across the ARS Centers as part of the University Central Support category. Support Unit categories are listed below:

Academic Support	University Central Support
- Provost Office - Research Enterprise - SEAS - Healey Library *Expense allocated to ARS Centers based on the proportion of total Faculty, Staff and Student FTE.*	- Chancellor’s Office - Administration and Finance - Information Technology - University Advancement - Marketing & Engagement - Human Resources - President’s Office Central Charges *Expense is taken directly off the State Appropriation before subsequent allocations are made to the ARS Centers.*
Student Support	**University Physical Plant**
- Athletics - Student Affairs - Enrollment Management - Public Safety - University Health Services *Expense allocated to the ARS Centers based on the proportion of total Student FTE.*	- Facilities - Debt Service *Expense is allocated to the ARS Centers based on the proportion of space (research and instructional).*

Q: At what levels will data get aggregated? As a center director, will BBM give me a better dashboard to manage finances at the center level? Will I be able to do my own cash flow projections?

A: The data will get aggregated at the ARS Center level (college level). The BBM will provide more transparency of where all revenues and expenses are coming from, which should lead to better dashboards (or at least data) to manage finances at all levels at the university.

Centers are able to do their own cash flow projections now, but once BBM is implemented it will become easier.

Q: How is the Writing Center identified in the BBM?

A: Currently the Writing Center is embedded in CLA and all expenses are assigned to the college. As the BBM is implemented, and because of the cross-college services the center provides may warrant consideration of how that is captured in the model.

Q: The same goes for licenses and micro-licenses in higher education can both have financial implications. Traditional licenses may lead to higher tuition fees, increased employability of graduates, and potential industry partnerships, while micro-licenses can provide additional revenue streams, attract a diverse group of learners, and serve as a flexible option for skills development.

Institutions can strategically offer a mix of both types of programs to cater to the needs of different learners and industries while considering the financial sustainability of their offerings.

A: If the question is asking about non-credit Micro-credentialling, certification, etc., the tuition and fees generated by these programs will get directed to the unit that is providing the program. Refer to the Revenue Allocation table.

Q: What is the base value from which the model states that 80/20 will be distributed? More particularly what is the percentage overhead/tax deducted from the student tuition coming in before we get the new 100%?

A: The base value of the BBM for net tuition will be the gross tuition minus financial aid and any discounting. Additionally, the tuition rate per credit is a blended rate that combines undergraduate and graduate tuitions as well as residency differences (again minus aid and discounting) to establish a single per credit rate. This approach was adopted to avoid, for example, shifting all recruitment efforts to international or out of state students, international Master's students, etc. (e.g. all students regardless of level or residency are treated the same) and is aligned with the University mission and the BBM Guiding principles.

Q: How will this tax/overhead be distributed to Support Units – will these units simply be operating by the old "historical" model?

A: Support Unit expenses/budget will be allocated across the ARS Centers as noted above based on the cost pool they fit within: Academic Support, Student Support, University Central Support and University Physical Plant.

Q: Student tuition revenue: Is student tuition based on actual payment of particular students, such that scholarship funded students are less, out of state more, etc?

A: The base value of the BBM for net tuition will be the gross tuition minus financial aid and any discounting. Additionally, the tuition rate per credit is a blended rate that combines undergraduate and graduate tuitions as well as residency differences (again minus aid and discounting) to establish a single per credit rate. This approach was adopted to avoid, for example, shifting all recruitment efforts to international or out of state students, international masters students, etc. (e.g. all students regardless of level or residency are treated the same) and is aligned with the University mission and the BBM Guiding principles.

Q: State Appropriation: what is the allocation formula beyond the headlines of retention rates and graduation rates?

A: The State Appropriation is allocated into three categories after funding University Central Support budgets: 1) 45% Student Success (Number of Degrees Awarded); 2) 40% Student Retention (2-Year retention); and 3) 15% Research (Total Grant and Contract Revenue).

Q: It appears to be a very worrisome idea that units will be charged for space use – seems to go directly against the goals of incentivizing high impact research, both in terms of lab space and workshops, etc. Is there a way the budget systemically ameliorates this foreseeable disaster?

A: The university has always had to pay for space. However, in our current budgeting process that space is covered centrally, which reduces the amount of funding available to distribute to the operational units across campus.

This is not a new charge/expense for the university. In the BBM, there are different ways to allocate these expenses to the ARS Centers (four scenarios are included below). Each has differences and/or impacts on the ARS Centers. Our goal is to make this as simple as possible, but to provide the ARS Centers with the ability to manage and optimize the use of the space assigned.

Q: Charges for classroom will incentivize remote and online classes which all research suggests are worse for our students – thus incentivizing straight against "holistic student success."

A: See above response to space.

Q: State Appropriation and retention: This seems to penalize our low admission criteria – a unit would get more State Appropriation if they made it harder for students to attend (though lower tuition rates). Further it hurts units where undeclared majors are housed. Is that on purpose?

A: There are many implications of the different revenue "levers" in the BBM that include enrollment growth, student success, student retention, special programs, non-credit programs, research, development, etc., that all impact the revenues allocated to the ARS Centers and that are not necessarily mutually exclusive. While it may be true that harder admissions criteria might result in higher retention and graduation rates (therefore more State Appropriation), it may also result in a drop in enrollment (therefore less tuition revenue). As always, ARS Centers are going to have to consider many factors in determining which levers to pull – in lieu of raising the admissions criteria to potentially improve retention, making strategic investments in advising and academic planning might accomplish the desired outcomes of both improving retention and growing enrollment.

Q: Graduate programs will be disincentivized/penalized on the current model – even if 100% of tuition is received classes will still be small – how does that fit with high impact research goal?

A: Actually, graduate program growth (or any program growth for that matter) is penalized in the current incremental model, as there is no "reward" to grow programs or penalty for lost enrollment. For example, more revenue based on more master's students does not translate directly to a college's budget other than incrementally. However, in the BBM graduate tuition revenue will be distributed directly to the ARS Center based on the 80% CoI – 20% CoR ratio. As noted, this will typically be 100% to the CoR for graduate programs.

Q: Interdisciplinary programs seem to be disincentivized – how is that ameliorated?

A: Similar to the question about incentivizing graduate programs above, the same sentiment holds true for interdisciplinary programs. In the current incremental model there is no incentive or "reward" for building an interdisciplinary program that attracts new students and therefore new/more tuition. In the BBM, programs (ARS Centers) will be rewarded with the new revenue distributed based on the allocation metrics provided.

Q: Has the University of Arizona "activities informed budget" disaster been studied? Are we clear on how to avoid that a similar destiny will befall us? https://www.arizona.edu/financial-updates/action-plan

A: The BBM is a hybrid model that has been specifically designed to meet the needs and strategic priorities of UMass Boston and achieve the necessary financial requirements. This is why we are designing a model specifically for our campus rather than copying any other institution's model. Both the Steering Committee and Implementation Work Group have had multiple, lengthy discussions with Huron Consulting over the last two years where we discussed why institutions fail or succeed in implementation. We have reviewed implementations at several universities as part of this process. The joint sponsorship of the project by the Vice-Chancellor for Administration and Finance and the Provost, the design of the guiding principles, thoughtful discussions around model design, review of implications of allocation metrics and incentives, and communications / presentations with many key stakeholders including the Deans, Associate and Assistant Deans, Budget and Long-Range Planning Committee, Vice Chancellor Areas, and Senior Leadership Team has positioned us well for success. Communication and transparency are key tenants of the approach and the campus community can expect many more informational forums.

Note: It was not the budget model that led to issues at the University of Arizona.

Q: Have any other UMass campuses moved to this model – if so, what have we learned?

A: UMass Boston is developing the Beacon Budget Model specifically for our campus, having conducted research on other models in partnership with Huron Consulting. We are not using any other UMass budget models as a guide and are working with the UMass President's Office to incorporate the results of the Beacon Budget Model's annual planning process into the university-wide budget development each year.

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