Northeastern University's Hybrid Budget Model

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Executive Summary

After a pilot in the 2010-2011 fiscal year, a hybrid budget model was fully implemented at Northeastern University effective with the 2011-2012 fiscal year. The model incorporates the basic features of Responsibility or Revenue Center Management (RCM) as they pertain to revenue attribution and cost allocation.

Responsibility Centers (RCs) are the key decision making units in the hybrid budget model. Originally, a total of 18 RCs was planned: eleven academic units and seven auxiliary or other RCs. As of FY20, there are 15 RCs; twelve academic units and three auxiliary or other RCs. Under this model, revenue is credited to the RCs as follows:

- Undergraduate tuition (except International Study Programs/Dialogues of Civilization) is divided 50/50 between the teaching RC and the enrolling RC.
- Financial aid, administered by the Office of Financial Aid, is calculated as an average discount on the tuition of all undergraduate day students. This discount rate is reviewed annually in the University budget planning process.
- All graduate tuition is credited to the teaching RC; graduate financial aid is charged to the enrolling RC.
    - Tuition revenue to cover graduate financial aid is returned to the enrolling RC based on the enrolling RC's average discount. The average discount rate is calculated per RC by dividing the amount of student aid awarded by the total amount of graduate revenue those students generated for the most recent prior fiscal year closed out. All enrolling RCs now have two average discount rates; one for doctoral students and one for all other graduate students.
    - Central Graduate Aid (i.e MLK, Double Husky, Yellow Ribbon) administered by the Office of Financial Aid is calculated as an average discount on all graduate revenue (except CPS and SOL). This discount rate is reviewed annually in the University budget planning process.
- Revenue from grants and contracts, gifts, endowment and non-credit activities flows directly to individual RCs.
- Revenue recovered from externally funded grants and contracts for the reimbursement of indirect costs is assigned to the RC(s) in which the grant or contract is located. When multiple RCs are participating, the indirect costs are split based on the PI shares as defined in the grant proposal.
- Revenue from fees (e.g. conferences) and the sale of services (e.g., housing, food) is credited to the RC providing the good or service.

Central costs are grouped into two major categories: common good and space. The general common good cost bucket was created as a single holding place for the previously separate buckets of general administration, student overhead, academic infrastructure, library, research infrastructure, and life-long learning. Nearly all of the university's central costs are therefore allocated to the RCs through the common good.

- [1]Common good increases or decreases at the same rate as an RC's own spending and is assessed using a two-year look back of direct expense growth. FY20 common good is arrived at by

[1] A base common good number from which expenses could grow needed to be determined. Because the FY19 common good would not be finalized until well into FY20, it was agreed upon that the FY19 Q1 common good would serve as the base number. Therefore, FY20 common good was calculated by growing FY19 Q1 projected common good by the increase in actual expenses between FY17 and FY18.

calculating the percentage growth of direct expenses between FY17 and FY18 and growing FY19 common good by that same percentage growth rate. Common good is a fixed number each year and does not fluctuate during the course of the year.

- All direct expenses are included in the common good assessment except for passthru, interest & principal, depreciation, transfer from prior year, and sponsored research. Gift and In-Network direct expenses are discounted by 50% (to encourage spending in these areas) before calculating percentage growth.
- Space costs (including classroom costs) are assessed based on the square footage that is assigned to the RC as determined effective in early October the year prior. A cost center's space charge is indirectly allocated out to the RCs.

The hybrid budget model includes a "University Contribution," which is charged to RCs and is calculated as a percentage of all revenues except direct grant funding, royalties and gift / endowment income.

The "Current Fund Allocation" is a subvention for the RCs to allow for the advancement of strategic initiatives and institutional priorities. The supervising Senior Vice President/Provost determines the Current Fund Allocation each year.

The hybrid budget model seeks to decentralize decision making to the school/college/unit level while also allowing the central administration to partner with units to fund institutional priorities and to continue to advance the reputation of the University. It encourages entrepreneurial activities and achieves a better alignment of resource generation and allocation and provides resources for strategic investment. Finally, it is structured to encourage investment and spending in areas that are of particular importance to the university's strategic goals. The plan will continue to evolve and improvements made as the university itself continues to change.

Summary of Changes to the Model for FY20

The following changes have been adopted for FY20, with the approval of the Senior Leadership Team.

- The term "common good" replaces the previously used term "allocated costs." Common good is an assessment to RC's to cover university central infrastructure costs. Central infrastructure costs are made up of units that provide support across all RC's (i.e. Registrar) but are not assigned to one individual RC.
- The common good model calculation has been significantly revamped for FY20. The FY19 model assessed central costs as a percentage of an RC's actual direct expenses across all fund types except sponsored research. An RC's common good continuously fluctuated with every dollar spent. Beginning in FY20, common good will be a fixed number and will not fluctuate throughout the year. It will be assessed using a two-year look back of an RC's expense growth. An RC's allocated costs will increase or decrease at the same rate as its own spending. To incentivize gift and in-network growth, gift and in-network expenses will be discounted by 50% before calculating growth; passthru, interest and principal, depreciation, transfer from prior year, and sponsored research are excluded from the calculation. To calculate growth, direct expenses are grouped into the following categories:
    - Gift Expenses = Endowment (FT21) and Gift (FT26, FT15 direct revenue) less ineligible expenses divided by 2.
    - In Network Expenses = In-network operating expenses in in-network designated org codes (FT11) divided by 2.
    - Other Expenses = Operating direct expenses (FT11) less in-network and designated direct expenses (FT15) less designated (FT15) gift revenue and ineligible expenses.

To arrive at the FY20 common good, FY19 common good plus an RC's LLN allocation is grown by same the percentage rate of growth between FY17 and FY18 direct expenses and then reduced by the LLN credit.

FY20 Common Good = (FY19 common good+LLN allocation)*FY17/FY18 direct expense growth – FY20 LLN credit

- Revenue sharing for Dialogues of Civilization has historically been split based on student headcount and GEO has received 75% of semester tuition and the student home college has received 25%. Beginning in FY20, the 25% of revenue attributed to the student home college will be split 50/50 between the home college and the instructing college. 75% of semester tuition will still be allocated to the GEO RC.
- The RC revenue split of 75% instructing/25% home college for Global Mobility programs has been adjusted to 50/50 to match the standard revenue sharing model for undergraduate programs.

Goals of the NU Budget Model

The implementation of a decentralized management and budgeting system is intended to:

- Encourage RCs to set priorities and develop new activities in support of the Long Range Plan (LRP);
- Allow the RC's to perform multi-year planning and develop growth strategies by developing a predictable HBM model
- Create incentives at the division level to pursue key university initiatives;
- Promote the efficient use of resources for RC's and CC's
- Provide mechanisms to encourage cross-division collaborations;
- Keep cost center growth in line with RC growth
- Focus on a comprehensive "all funds" approach to resource allocation.

Key Elements of the Budget Model

How the Hybrid Budget Model is Structured at Northeastern University

Responsibility Centers

Responsibility Centers are the foundation of the hybrid budget model. These are the units of the University that bring in significant activity-based revenues which cover an appreciable portion of the unit's operating costs. RCs may be schools/colleges or major programs (i.e., academic RCs) or auxiliary/other operating units (i.e., auxiliary support RCs).

Academic and non-academic RCs need to be coherent units for purposes of strategic decision-making and budget/resource planning and management. Consistent with the experience of other universities that have hybrid budget models, departments and units within the schools and colleges at Northeastern are not to be designated as RCs.

The following list identifies the RCs at Northeastern:

Academic Responsibility Centers

Bouve College of Health Sciences

College of Arts, Media & Design

College of Computer & Information Science

College of Engineering

College of Professional Studies

College of Science

College of Social Sciences and Humanities

D'Amore McKim School of Business

Gordon Institute of Engineering Leadership

School of Law

GEO-NUin

University Programs (General Studies, NU Explore Program)

Auxiliary Responsibility Centers

Campus Dining Services

Residence Halls

Other Responsibility Centers

Summer Conferences

Attribution of Revenue

Each year an activity-based hybrid budget is developed using a set of rules for the attribution of revenue and costs. This section details the methodology that is used to allocate revenues to the responsibility centers.

Attribution of Revenue: Tuition

1) Undergraduate Day Tuition
    - Attribute to each enrolling college
        - Net of overall, university discount rate, e.g., NU financial aid
        - Rationale / Assumptions
            - Centralized management of admissions/aid awarding
                - ➢ Limited ability for RCs to influence discount rate
            - Athletics and merit scholarship enrollments
                - ➢ Student-driven, limited control

2) Undergraduate Day Cross-College Tuition
    - Distribution
        - 50% enrolling college, 50% instructing college (for each academic credit hour taken in another college, the instructing College will receive 50% of 1/16th of undergraduate day tuition). This exchange of revenue is referred to as the buy/sell.
        - University discount rate is applied after the buy/sell exchange
    - Rationale/Assumptions
        - Incent limited duplication of courses
        - Closest to covering cost
        - Revenue from enrolling college to instructing college is distributed to the colleges each term using data provided by University Decision Support /Registrar as of the stat freeze date.

3) Undergraduate Day Tuition and Associated Academic Fees – Other Considerations
    - Combined majors
        - "Enrolling college" revenue (50%) split between colleges that "own" the programs. All tuition revenue and buy/sell transactions are split equally between the RCs that "own" the programs. It should be noted students are allowed to choose their "home" college.
        - At point (term) of enrollment in combined major
    - Team-taught courses
        - Pro rata split of "instructing college" revenue to be negotiated by the Deans in advance. Colleges manage cost or revenue transfers.
    - Transfer to new major
        - Tuition shifts to new enrolling college at point (start of term) of enrollment in new major; if transfer occurs mid-semester, the tuition shifts effective the following semester
    - University Honors Courses
        - Revenue is transferred from the enrolling college to the teaching college in the buy/sell process.

4) Graduate, Law and CPS Tuition

- Attribute to each instructing college
    - Instructing college reimburses enrolling college for graduate aid (grad aid out)
    - Amount of aid reimbursed is driven by the graduate aid discount rates. This exchange of revenue is referred to as graduate aid in/out on the HBM template.
    - Rationale/ Assumptions

      De-centralized (RC) admissions/aid awarding decisions
- Double, multiple or dual program enrollment
    - Revenue follows instructing college
    - A bifurcated discount rate for doctoral programs and all non-doctoral programs for cross-college graduate credits
- Team taught courses
    - Pro rata split of "instructing college" revenue negotiated by the Deans in advance. Colleges manage cost or revenue transfers.

5) Global Experience Office (GEO)

- Regular Study Abroad
    - Tuition divided 75% GEO, 25% Enrolling College
- Faculty Led Programs/Dialogues of Civilization
    - Tuition divided 75% GEO, 12.5% Enrolling College, 12.5% Instructing College
- Housing fees 100% to GEO
- Rational/Assumptions
    - Incremental cost is location/site dependent and highly variable
    - Faculty Led Program: Fixed and variable costs tend to be high
    - Incentivize participation in study abroad experience

6) Online Revenues and Expenses in Partnership with Pearson/EMBANET and Orbis

- All tuition revenues will flow through the University
- Any financial aid offered to online students will be treated as a discount against gross tuition revenue
- Pearson/EMBANET and Orbis cost reimbursements and share of tuition revenue for online programs will not be considered as part of the college's expense base used to calculate Common Good or treated as revenue for purposes of the University Contribution calculation. This is called pass-thru expense/revenue on the hybrid budget model statement.
- The college's "profit" on online programs (after Pearson/EMBANET and Orbis receives their shares) will be subject to the University Contribution

7) Adjustment for Credit Card Fees

- Effective 7/1/13, the University does not accept credit cards from full-time students. RC's will be assessed the actual credit card fees for part-time students at true-up, including those associated with EMBANET and Orbis. In addition, credit cards associated with deposits and collections will be attributed to the enrolling school at true-up.

8) Bad Debt

- Bad debt charge is 0.3% of undergraduate tuition plus graduate tuition less total financial aid.

Attribution of Revenue: Research & ICR

Research Revenue:

- Grants & Contracts
    - 100% to Responsibility Center(s) associated with the grant, split by the Principal Investigator share of effort
- Indirect Cost Recovery (ICR)
    - 100% to the RC split by the Principal Investigator share of effort
- Patent / Licensing Fees
    - 30% PI, 30% Unit, 40% Central net of expenses; to be revisited at a later date

Attribution of Revenue: Gift & Endowment Funds

Annual Giving

- Designated to the RC
- Undesignated to the Central Fund

Endowment earnings

- Designated to the RC
- Unrestricted to the Central Fund

Short term investment earnings

- To the Central Fund

Attribution of Revenue: Other Fees / Charges

- To Campus Dining Services: Meal Plan Charges
- To Central Fund: Late Fees, Vendor Fees (if not attributable to an RC)
- To Colleges (RCs): Graduate Application Fees
- To Enrollment Management: Undergraduate Application Fees
- To Health Center: Health Center Fees, Learning Disability Program fees
- To Instructing College: Other Academic Fees such as private music lessons
- To ISSI – International Student Fees
- To Library: Library Fees/Fines
- To Registrar: Transcript Fees
- To Residence Halls (RC): Housing Charges
- To Residence Halls (RC): Lost/Replacement Husky Card Fees
- To Residential Student Association (RSA): Residence Activity Fees
- To Student Affairs: Undergraduate Student Fee, Judicial Fines, Curry Student Center Fee
- To Student Athletics: Recreation Fees
- To Student Center, Blackman & Fenway Center: Associated fees
- To Student Government Association (SGA): Student Activity Fees

Year End Adjustment of Financial Performance

At the end of each fiscal year, revenue and direct expenses will be trued-up to actual. If an RC over-estimated its contribution, it will owe funds back to the University. If it generated more contribution than originally projected, the RC will receive the additional funds from the University (in the case of non-academic RCs, the relevant SVP will decide how revenue over target is used).

Allocation of Central Costs

The budgets of central cost centers are not activity-based but rather are set so they are sufficient to allow the unit to accomplish the activities and tasks that comprise their support of the academic enterprise. The RCs must pay for administrative / support costs through an assessment. The methodology for distributing central costs to the RCs is intended to:

- Be reasonably simple
- Be predictable
- Enable planning and prioritization
- Allow for effective cost containment strategies
- Align with entrepreneurial behaviors

All central costs are expected to be covered by the common good collected from the RCs. This ensures that central spending aligns with the growth or reduction of spending in the RCs. Central costs are grouped into two categories as outlined in the table below:

Cost Center	**Components**
Consumption-based Common Good	The cost centers listed below are encompassed by the new consumption-based allocation and no longer assessed as separate and distinct entities: • *General Administration:* Executive Affairs, Advancement, Institutional Research, Diversity & Inclusion, Finance, Investments Management, University Counsel, Business Office, Procurement Services, External Affairs, Risk Management, Insurance, Internal Audit, Environmental Health and Safety, Public Safety, Human Resources, ITS Administration, etc. • *Student Overhead:* Enrollment Management, Financial Aid, Student Affairs, Health Center, Student Center, Intercollegiate Athletics, Campus Recreation Programs, etc. • *Academic Infrastructure:* Academic Affairs, Academic ITS Services, Registrar, Faculty Senate, etc. • *Library:* All library costs (personnel, operations & acquisitions). Law School library costs are direct expenses of the Law School. • *Research Infrastructure:* NU-RES, Tech Transfer, etc. • *Global Campus:* Global campus sites, global marketing for professional graduate programs, licensure/ regulatory expenses, strategy and market research costs, and future investments.
Space	Utilities, lease costs, depreciation, facilities admin, operation and maintenance, custodial, debt; related central costs. Cost of unassigned space, including Registrar classrooms, is spread to everyone.

Common Good Calculation

- Common good is assessed using a two-year lookback of expense growth across all fund types except sponsored research.
- Gift and In-Network expenses are divided in half before calculating expense growth to incentivize investment in these activities.
    - In-Network expenses include full- and part-time salaries and benefits for staff, faculty, and students workers with a primary work location at one of the global campuses.
    - In-Network expenses may also include qualified expenditures that are wholly related to activities outside of Boston and have been reviewed and approved by the Provost's Office.
- Passthru expenses, interest and principal, depreciation, and transfer from prior year, are excluded from this calculation.
- Internal expense transfers between fund types, except for a transfer to plant, do not increase an RC's consumption-based common good.
- Common good will be assessed on actual, not budgeted, expenses.

Allocation of Space Costs

- The space inventory is separated into two categories: research space and non-research space.
- The utility cost per square foot is determined for each of the space types.
- The remaining Facility-related costs per square foot are added to the utility costs resulting in the charge per square foot for each space type.
- Non-auxiliary space (including classrooms):
    - The space cost is assessed by applying these two current fiscal year rates to the unit's assigned and categorized space inventory as of October 1 of the prior year. This amount is then used as the space allocated cost base for the current fiscal year's budget.
    - Common space costs, including classroom space assigned by the Registrar, are folded into the assignable square foot charges.
- The costs of auxiliary space are allocated to the appropriate non-academic RC.

Allocation of Costs: Debt & Large Capital

- Debt service for auxiliary RCs is charged directly to the auxiliary (e.g., ResLife) as part of space charge.
- Debt service on academic projects is included in the overall sq. ft. charge to academic and related (non-auxiliary) RCs and cost centers

A summary of how all of these costs are allocated to the various RCs and cost centers is included in Appendix A.

Other Features of Cost Allocation Methodology:

- The use of inside vendors is presumed unless an exception is approved. Use of outside vendors which would damage the provision of services to others or reduce the efficiencies that the University achieves through bundled services should not be allowed.

University Contribution

University Contribution is a charge assessed to all RCs; it can be thought of as a "membership tax."

University Contribution assessments flow into a central pool that enables the President and the Senior Leadership Team to award funding for "subvention" and/or strategic initiatives that support NU's priorities.

They may also constitute a spending reserve. Rather than following the prevailing convention of assessing a “Participation” Tax, at Northeastern it is called a “University Contribution.”

The University Contribution (UC) is a charge against revenues in all RCs. The benefits of this approach include:

- It makes it clear that all RCs have an obligation to contribute to the support of high priority activities that cannot support themselves;
- It makes it clear that all RCs are members of the larger University community and receive a benefit from the membership; and
- By tying the tax to revenue in all RCs, the resulting pool of fungible resources will keep up with the overall growth of the University.

The University Contribution (UC) is calculated based on an RC’s total adjusted revenue excluding direct sponsored research revenues (does not exclude ICR), passthru revenue, royalties and gift and endowment revenue. These <u>exclusions are intended to incentivize seeking revenue from external sources.</u>

The rate for the University Contribution must be informed by discussions by the President with the Senior Leadership Team.

Current Fund Allocation

The “Current Fund Allocation” (in lieu of “subvention” terminology used in other RCM models) is the funding allocated selectively to RCs to fund strategic initiatives and institutional priorities.

Revenue sources that would flow to the Current Fund Allocation pool include University Contribution funds from RCs, unrestricted gifts, unrestricted endowment earnings, all short-term interest on University funds and other unassigned revenues.

A key operating goal of the hybrid budget model is that RC’s are expected to operate at break even or better. With the changes introduced in FY20, we expect to achieve this goal within the next 3 to 5 years.

Governance

Existing management groups at NU are responsible for addressing the need for changes in the budget model and its supporting infrastructure and for assessing the model’s effectiveness. The Senior Leadership Team has the primary responsibility in this regard and may, from time to time, appoint special teams to work on specific issues.

The Council of Deans will be the forum in which the following academic issues are discussed and resolved:

- What kind of entrepreneurship in the academic RCs is a matter of concern?
- Duplication of courses or restrictions of students to courses in their home units (i.e., “trade barriers”).
- Restrictions on faculty participation in interdisciplinary programs and research.

Appendix A – Hybrid Budget Boston-based Cost Allocation Table

Cost Category	Academic RC	Other RC	Auxiliary RC	Cost Center Allocation
Common Good	2 year lookback of an RC's direct expense growth LLN allocation: % of LLN annual revenue goal for FY20	2 year lookback of an RC's direct expense growth	2 year lookback of an RC's direct expense growth	n/c
Space + debt service				
(1) Assignable space	Differential Rates /sq ft for research space /sq ft for non-research space	/sq ft	/sq ft (auxiliary space is the basis, and will need to be broken down further)	/sq ft using non- research space rate
(2) Other common spaces (e.g. Raytheon)	Include in sq ft calculations	Roll into basic calcs	n/c	Roll into basic calcs
(3) Debt service – non-academic	n/c		Assign debt	n/c
(4) Debt service – academic space	Include in sq ft calculations	/sq ft (same as academic RCs)	n/c	n/c
(5) ITS network NUNet	Include in sq ft calculations	/sq ft (same as academic RCs)	n/c	n/c
IS: note inclusion of network and admin charges in space and general admin costs				
Fee based and usage charges: database housing/consulting; network storage; web hosting for NU orgs; telephone and ACD; security breach incidents; new enterprise application development	Direct usage charge	Direct usage charge	Direct usage charge	Direct usage charge
ITS network ResNet	n/c	n/c	Direct charge to residence halls	n/c

The above, ITS ResNet, is now part of allocated costs associated with Common Good

Appendix B – Hybrid Budget Model Template

(in thousands)

	Academic Unit	Auxiliary Unit	Non Academic Unit
Revenue			
Undergraduate Tuition			
Undergraduate Tuition Revenue	$77,576		
Undergraduate Courses In	$35,068		
Undergraduate Courses Out	($11,004)		
Combined Majors Adjustment	$853		
International Study Programs	$717		
Dialogue of Civilization Adjustment	$138		
Undergraduate Tuition	**$103,378**	**$0**	**$0**
Graduate Tuition			
PhD Revenue	$948		
Graduate Professional Scalable	$1,771		
Graduate Professional Non-Scalable	$4,700		
Graduate Aid In	($218)		
Graduate Aid Out	$195		
Graduate Tuition	**$7,396**	**$0**	**$0**
Financial Aid			
Undergraduate Aid	($36,079)		
Graduate Central	($152)		
Graduate Tuition Remission	($3,000)		
Total Financial Aid	**($39,231)**	**$0**	**$0**
Credit Card Adjustment	($17)		
Other Tuition Fees	$258		
Bad Debt	-215		
Total Tuition And Fees	**$71,570**	**$0**	**$0**
Gifts, Grants and Endowment			
Endowment	$400		$1,009
Gifts	$400		
Sponsored Research Direct	$12,500		
Total Gifts, Grants and Endowment	**$13,300**	**$0**	**$1,009**
Other Revenue			
Designated Revenue	$381		$453
Indirect Cost Recovery	$5,468		
Passthru Revenue	$183		
Other Revenue Sources	$0	$7,372	$2,516
Total Other Revenue	**$6,032**	**$7,372**	**$2,969**

University Contribution	($3,871)	($737)	($297)
Current Fund Allocation	$809	$3,653	$17,766
Bridge/Seed	$678		
Total Net Revenue	**$88,518**	**$10,288**	**$21,447**

Expenses

Direct Expenses			
Salary and Wages	$26,728		$3,791
Benefits	$7,432		$1,209
Total Operating Expenses	$1,321	$9,499	$4,223
In Network Expense	$200		
Passthru Expense	$183		
Total Direct Expenses	**$35,864**	**$9,499**	**$9,223**
Designated Expenses	$1,181		$1,462
Sponsored Research Exp	$12,500		
Allocated Costs			
Common Good	$27,895	$789	$3,857
Space	$11,078		$6,905
Allocated Cost Boston	**$38,973**	**$789**	**$10,762**
Total Allocated Costs	**$38,973**	**$789**	**$10,762**
Total Expenses	$88,518	$10,288	$21,447
Surplus / (Deficit)	$0	$0	$0