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November 15, 2011

Dear Members of the McMaster Community,

The process to establish a new budget model for the University has continued to make progress and we are pleased that the Alternative Budget Model Task Force – Phase II has now issued its Final Report. We would like to thank chair Khaled Hassanein and the Task Force members for their diligence and commitment to this important work over the past two years.

The Committee is recommending a structure for an activity-based budget system at McMaster along with the methodology that could be used to implement such a structure across the University. We hope that members of the campus community will review the report and provide us with their thoughts on the recommendations.

Many issues remain to be addressed and many decisions still need to be made. Your feedback will inform the ongoing process of determining what budget approach will be most effective in supporting and enhancing McMaster's academic mission.

Feedback can be sent to [BMTF2@mcmaster.ca](mailto:BMTF2@mcmaster.ca). It is appreciated if all comments are received by December 10, 2011. Your feedback will provide important guidance as the alternative budget process moves into its next phase.

Sincerely,

A handwritten signature in cursive script that reads "Ilene Busch-Vishniac".

Ilene Busch-Vishniac  
Provost and Vice-President, Academic

A handwritten signature in cursive script that reads "Roger Couldrey".

Roger Couldrey  
Vice-President, Administration

**New Budget Model  
Alternative Budget Model Taskforce – Phase II  
(BMTF II)  
Report**

## Executive Summary

In August 2009, the **Alternative Budget Model Task Force (BMTF I)** released its report which recommended that:

*“McMaster University investigate the development of a version of an activity-based budget system that fully supports and enhances its academic mission. This investigation shall have established consultation points and decision points. Any proposed new budget system should be phased in to ensure a smooth transition from the existing budget system and with provision to hold units harmless, to the extent possible, during the transition period.”*

In response to this recommendation, the University established the **Alternative Budget Model Taskforce – Phase II (BMTF II)** whose overall mandate was to take the recommendations from BMTF I and move forward to develop a version of an activity-based budget system that fully supports and enhances McMaster’s academic mission.

During the period of December 2009 to June 2011, BMTF II met on a bi-weekly basis to investigate implementation options and make recommendations on the specific methodologies to be used in McMaster’s version of the activity-based budget system. The Task Force provided regular updates to an Advisory Board of Vice-Presidents and Deans for information and feedback. Regular presentations were also made to a Directors of Administration forum to get their feedback.

BMTF II has now completed its review of revenue distribution options and made recommendations on a methodology for each revenue type. It has also completed working through an allocation methodology for Occupancy Costs and Administrative/Service Unit costs. Discussions were also held to provide recommendations on a governance mechanism associated with the proposed budget model and the establishment and use of a University Fund to support strategic initiatives and to facilitate the move to the new budget model by “holding units harmless” (This means that the incremental costs allocated to Faculties will at least be covered so there is no negative impact on Faculties) during a transition period.

This report contains detailed information on the options that were considered and the recommendations and rationale for both revenue attribution and cost allocation. The University Fund concept as referenced by BMTF I is expanded on with a suggested methodology for the fund’s calculation and operation. The governance options for the new budget model are explored, in terms of governance requirements/tasks and associated responsibilities. Finally, outstanding issues are highlighted, along with the next steps for taking the new budget model testing and refinement forward through a shadow budget process. The shadow budget process will also involve the development of tools to help administrators in the implementation of the new budget model. Appropriate training programs and transition plans will also be developed during the shadow budget process. Once the objectives of the shadow budget process have been achieved, McMaster will be in a position to determine whether the new budget model should be implemented and if so identify a strategy for a smooth transition to this new model.

The development of the model presented in this report involved extensive efforts from members of the BMTF II and many others with the McMaster community. It is through these dedicated efforts that such an ambitious goal appears to be near fruition. I would like to take this opportunity to thank them all for their dedication to this significant undertaking. I would especially like to thank the project Manager, Kim MacDonald for her commitment to keeping us marching towards the finish line. Thanks are also due to Iain Clarkson (BMTF Analyst) and his predecessor Wenny Li for all the work they have put in behind

each meeting of BMTF II. Finally, thanks are due to our Advisory Board and Directors of Administration forum for their feedback and advice throughout this process.

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# 1. Introduction<sup>1</sup>

## 1.1 The Present Budget System at McMaster

McMaster's current budget system segregates the operating budget from capital budgets, trusts, endowments, etc. It is the operating budget that is the focus of the Task Force's work. The operating budget relies primarily on revenues from the Provincial Government, the Federal Government, interest earned, student fees, and from tuition.

McMaster's operating budget uses a budget framework which allocates the total projected operating revenues to budget envelopes. There are seven categories of budget envelopes in the framework as follows:

- Faculty and Academic Envelopes
- Academic Priorities
- Academic Support
- Student Support
- Facilities Support
- Institutional Support
- Institutional Priorities

McMaster's existing budget system is an **incremental budget system**, building on historical allocations whereby Faculty, Academic and Support envelope budgets are defined as the previous year's allocation plus/minus any incremental allocation based on changes in enrolment. To the best of our knowledge, the basis for the original allocations has never been reviewed.

## 1.2. Budget Model Task Force (Phase I) and Activity-Based Budgeting

In 2007 a Budget Model Task Force (BMTF I) was formed to review and recommend changes to the McMaster operating budget model. BMTF I started its deliberations in December 2007. BMTF I focussed its attention on a budget system called Activity-Based Budgeting (ABB). It has been adopted by a number of universities world-wide. In the literature, it goes by a number of terms – incentive-based budgeting (IBB), resource-centered management (RCM), resource-centered budgeting (RCB), value-centered management (VCM) etc. The system was adopted by a number of U.S. private universities starting 25-30 years ago. It was first adopted by the University of Indiana, a large, research-intensive public university, in 1988-89. Since then modified versions of the system have been adopted by a number of publicly-funded universities in the U.S. and elsewhere. All evidence suggests that this system leads to more transparency, greater awareness of the budget and trust between the senior administration and the budget units. It makes innovation easier, and it makes long-range planning possible for the envelope managers.

ABB is a highly decentralized budget system with considerable responsibility and accountability for financial outcomes devolved from the central administration to Faculty Deans/Directors. All University revenue is attributed to the units that through their "activity" bring the income to the University. These Activity Units are the Faculties who enrol students in their undergraduate and graduate programs, do the teaching of students and carry out research for which they receive external funding, but also may include interdisciplinary programs, certain research institutes, etc. The greater the Faculty's activity, the more the

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<sup>1</sup> This section contains excerpts from the BMTF I report, released August 2009.

revenue attributed to it. The costs of funding the Service Units (defined as all budget units at the University except the Faculties) are charged against the Faculty revenue. The method of assessment for these charges varies with the Service Unit in question, based on predetermined cost-drivers. It is the Faculties who are on ABB while the Service Units would be on an incremental budget model.

In August 2009, BMTF I released a report which recommended that:

*McMaster University investigate the development of a version of an activity-based budget system that fully supports and enhances its academic mission. This investigation shall have established consultation points and decision points. Any proposed new budget system should be phased in to ensure a smooth transition from the existing budget system and with provision to hold units harmless, to the extent possible, during the transition period.*

In response to this recommendation, the University established the **Alternative Budget Model Taskforce – Phase II (BMTF II)** whose overall aim was to take the “Alternative Budget Committee Task Force Report” recommendation and move forward to develop a version of an activity-based budget system that fully supports and enhances McMaster’s academic mission. The general structure of the ABB model recommended by BMTF I and adopted for further development by BMTF II is shown in Figure 1.

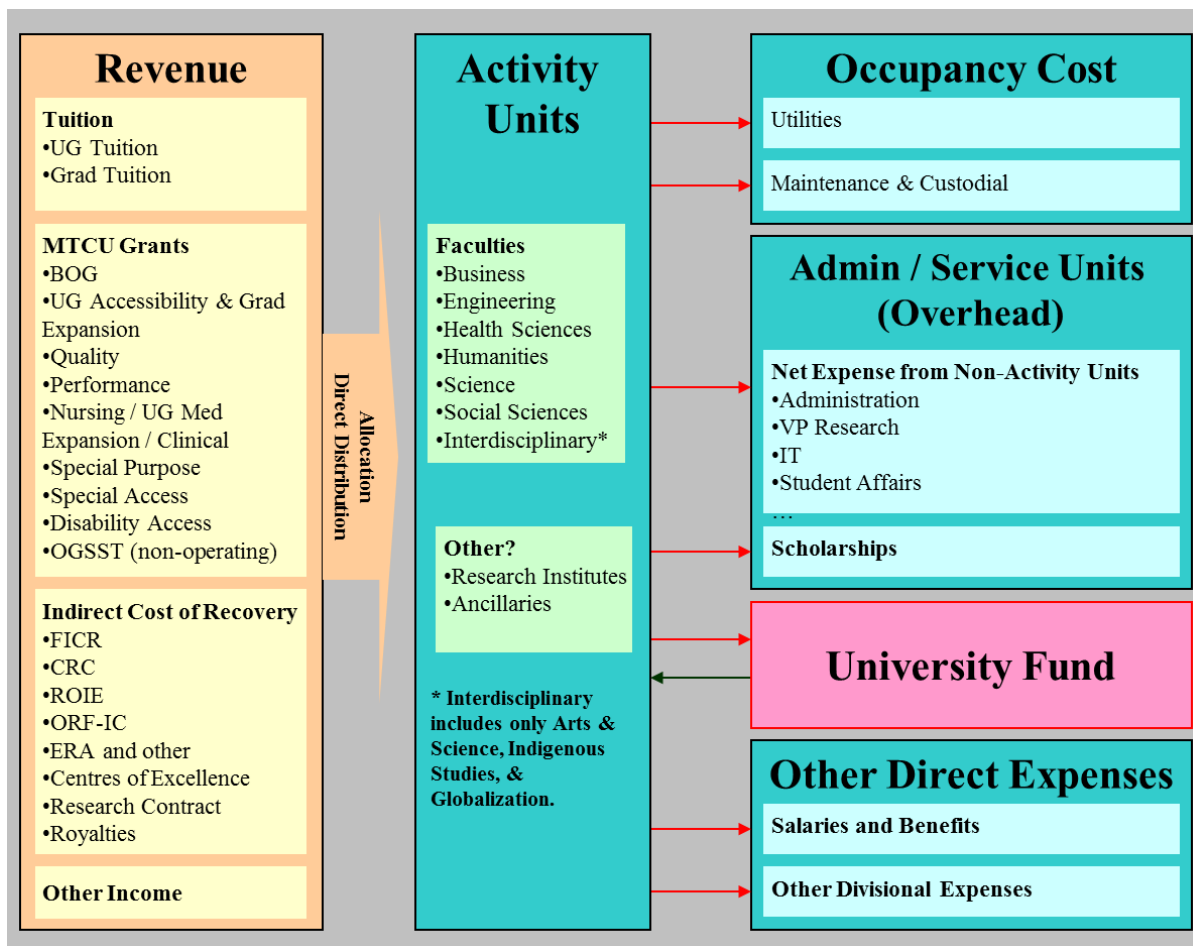


Figure 1: Structure of proposed model

### **1.3 BMTF II and the Alternative Budget Model**

The membership of BMTF II (Appendix I) was carefully selected to reflect the set of skills required to develop the alternative budget model. BMTF II was tasked with the following mandate:

- Develop a suitable plan of implementation for a new budget model (including a transitional plan and development of tools and training as needed)
- Define appropriate datasets and metrics and support and standardize their use across campus
- Identify and assess different options for revenue allocation
- Identify and assess different options for expense recognition and distribution
- Investigate various conceptual models of different methods of flowing revenues and costs to identify the best option for McMaster
- Ensure that best practices are used in the determination of datasets and cost drivers
- Collaborate with stakeholder groups and integrate their feedback on a regular basis
- Identify governance mechanisms suitable for the new budget model
- Make recommendations for improvements to existing and potential systems
- Communicate key decisions/activities to the broader McMaster community on a regular basis

BMTF I had established a set of principles that would serve as the framework for the examination of any new budget model. These principles state that a budget must:

- Promote transparency, trust and engagement
- Assure financial responsibility, accountability and fairness
- Advance the efficient use of physical and human resources
- Have predictability and stability
- Enable innovation, creativity and change
- Assign fiscal and academic responsibility to the appropriate levels
- Build the student learning experience both inside and outside the classroom
- Enable rapid response to opportunities
- Ensure the sustainability of areas of existing and emerging excellence in keeping with academic priorities

Additional guidelines adopted by BMTF II for the new budget model were:

- Supports and enhances the academic mission (research and teaching)
- Avoid the creation of “silos” and promote interfaculty / departmental cooperation
- Keep things simple, not too many variables
- Utilize the concept of “materiality” – spend time on large items, set a limit under which the item will not form part of the components of a budget model
- Simple to administer

At the onset of the Task Force operation the Chair and the Provost met with all the operating budget envelope managers to outline the plans for BMTF II, understand any concerns, and to take their input onboard.

During the period of December 2009 to June 2011, BMTF II met on a bi-weekly basis to investigate implementation options and make recommendations on the specific methodologies to be used in McMaster’s version of the activity-based budget system. Regular updates were provided to an Advisory Board of Vice-Presidents and Deans for information and feedback. Regular presentations were also made to a Directors of Administration forum to get their feedback.

This report outlines the recommendations made by the Task Force in relation to revenue attribution (Section 2) and cost allocations (Section 3). It also briefly outlines the Task Force suggestions/recommendations in the following areas:

- The establishment and use of a University Fund to be used to support strategic initiatives and to facilitate the transition to the new budget model (Section 4)
- Governance issues associated with the proposed budget model (Section 5)
- Ancillary operations (Section 6)
- Outstanding issues (Section 7)
- A plan for refining this model further through a “shadow budget” process where the new model will be run side by side with the present model (Section 8)

It should be noted that key concepts of the model (Sections 2 and 3) were presented and discussed with the Advisory Board with their feedback incorporated. The Advisory Board was also made aware of the outstanding issues outlined in Section 7. Due to the difficulty of scheduling additional meetings with the Advisory Board at the end of this academic year and in the interest of a timely release of this report, Sections 4, 5, 6 and 8 were not presented to the Advisory Board. However, this report is being shared with members of the Advisory Board prior to its final release. As such they will have a chance to examine the contents of this report in its entirety and can provide any feedback they may have.

## 2. Revenue Attribution

Under an activity-based budgeting model all of the operating revenue for the University is attributed directly to the Activity Units (Faculties) generating the revenue, using appropriate revenue drivers. In what follows, each revenue area, as shown in Figure 1, is examined with recommendations and rationale for attribution discussed. Definitions related to the revenue types are provided in Appendix II.

### 2.1 Tuition

#### 2.1.1 Undergraduate Tuition

BMTF I provided the following recommendation for teaching revenue:

- BIU funding is allocated to the Faculty that houses the program. This recognizes that roughly half of this revenue supports scholarly/creative activity, and half teaching. The BIUs support scholarly/creative activity but also allow for the greater costs associated with teaching certain types of programs.
- Tuition income is split 50:50 with half to the Faculty where the student is enrolled (to support advising and other student services) and half to the Faculty teaching the course. This assumes an “average” tuition rather than a calculation for each student.

BMTF II considered that Tuition Revenue for a Faculty depends on:

- Tuition available for allocation after appropriate exclusions (see assumptions below)
- Number of teaching units provided and received by Faculty after appropriate exclusions
  - **Teaching units provided** = Units taught to own students + units taught to other faculties’ students
  - **Teaching units received** = Units taught to own students + units taught to own students by other faculties
- Average tuition rate per teaching unit. The following three options were considered:
  - Option 1:** “Home Faculty Average Tuition Rate” or the tuition rate from the “Home Faculty” where the student is registered
  - Option 2:** “Teaching Faculty Average Tuition Rate” or the tuition rate of the Faculty providing the teaching
  - Option 3:** “University Average Tuition Rate”

#### Recommended Driver

*Tuition income is split with 50% remaining with the Faculty to which the student is enrolled and 50% allocated to the Faculty teaching the course based on the University Average Tuition Rate.*

Accordingly, total tuition revenue for a given Faculty is determined by the following equation:

**Total Tuition Revenue = Excluded Tuition + 50% of Enrolment Tuition + 50% of Teaching Tuition**

**Where, Teaching Tuition = Teaching units provided \* University Average Tuition rate**

## Rationale

The use of the University average tuition rate is simple to administer and understand, while also being predictable and stable. This rate does not discriminate against faculties with lower average tuition rates, and results in a redistribution of revenue from high-tuition faculties to low-tuition ones.

## Assumptions

- Summer session tuition is treated the same as other regular session tuition
- Academic Revenue Generation (ARG) tuition is excluded in calculating enrolment tuition. 100% of ARG programs tuition is distributed directly to Home Faculties
- International differential from Visa students' tuition is excluded in calculating enrolment tuition and distributed directly to Home Faculties. This is done to reflect the lack of BIU funding for international students
- Only net tuition (i.e. McMaster's share based on collaborative agreements with another institution) is included in total tuition for teaching allocation
- Medical program tuition and Physician Assistant program tuition are excluded from enrolment tuition for teaching allocation (teaching units don't apply)

### **2.1.2 Graduate Tuition**

#### Recommended Driver

***The Faculty where a graduate student is enrolled receives 100% of the graduate enrolment tuition earned.***

#### Rationale

This approach is different than UG tuition allocation because of the current data structure of graduate teaching. First, there are different units associated with graduate courses; second graduate courses have greater variability with regards to course length; and third the academic year is not aligned with the UG student year or the budget year. Thus using the same approach as UG tuition allocation will result in unreliable and misleading data and would require interpretation of information. Therefore, until process changes are implemented under the new ERP system, the simplest approach is to give Faculties 100% of the enrolment tuition.

#### Assumptions

- The Faculty where the student is enrolled receives 100% of the tuition
- For programs that have "service teaching" issues or that are interdisciplinary programs, revenue and cost sharing agreements may have to be negotiated between Faculties
- Faculties receive 100% of non BIU funded program tuition
- Under the current model administration fees on non BIU funded programs are charged by central services, in the new model these charges will no longer exist
- Only Net tuition (i.e. McMaster's Share based on collaborative agreements with another institution) is included in tuition revenue for revenue sharing programs (e.g. ADMI and UNENE in Faculty of Engineering)
- Net Deferrals are prorated to each Faculty according to graduate MTCU program tuition
- Nursing Tuition Waivers (for Nursing PhD and Masters from MTCU grants) are distributed to FHS as tuition revenue

## 2.2 Government Operating Grants (BIU-based and others)

Budget Model Task Force II classified MTCU Grants into 5 categories based on the purpose of the funding received from MTCU:

- a) BIU Funding
- b) Targeted Funding
- c) Targeted to University Fund (UF)
- d) General Funding
- e) Excluded Funding

### a) BIU Funding

These grants are enrolment related and include:

- Funding in Basic Operating Grants (BOG)
- In year Enrolment Grant

#### Recommended Driver

*BIU Funding is allocated to Faculties based on the BIU grant allocation of the total undergraduate and graduate students enrolled in the Faculty*

#### Rationale

This method of allocation is the most logical, sensible, and easiest to apply.

### b) Targeted Funding

These grants are provided to support a particular program or a group and include:

- Nursing, UG Medical Expansion, Medical Enhancement, PG Expansion and Clinical Education
- Special Purpose (a current example is Grant from Municipal Taxation)
- Special Access Grants, Aboriginal Grants, and Disability Grants
- Grants not on the FTOT (*financial totals, a report from MTCU provided to the University*)
- Endowment or Capital Grants that are not for operating

#### Recommended Driver

*Allocated directly to the Faculty or Service Unit containing targeted program / group*

#### Rationale

This method of allocation is consistent with objectives and rules around targeted funding.

### **c) Targeted to University Fund**

These grants are one-time in nature and/or have central reporting requirements (e.g. One-Time Year End Quality Grant)

#### Recommended Driver

*Allocated directly to the University Fund.*

#### Rationale

Any funding that cannot be allocated or attributed to Activity Units by any logical method should be allocated to the University Fund (see Section 4).

### **d) General Funding**

There are non-enrolment related grants for example:

- Multi-Year Accountability Agreements (MYAAs)
- Year-end Sustainability Grant
- Performance Funding for Key Performance Indicators

#### Recommended Driver

*Allocated to Faculties based on BIUs as a revenue driver.*

#### Rationale

This method is simple and easy to understand, and aligns with a previously recommended driver for grant attribution.

### **e) Excluded Funding**

These grants are allocated under other revenue sources in the model and include:

- Nursing Tuition Waiver (allocated under Graduate Tuition)
- Research Overheads/Infrastructure Envelope (ROIE) (allocated under Indirect Cost of Research)

## 2.3 Indirect Cost of Research (ICR)

### Types of ICR Received

- Federal funding
  - Federal Indirect Cost of Research (FICR): Indirect overhead is earned by specific Tri-council (CIHR, NSERC and SSHRC) programs. Only some programs earn associated overhead
  - Canada Research Chairs (CRC): Vice-President Research is allocated \$15k from each of the Senior Research Chairs, and \$0 from Junior Chairs (McMaster internal decision)
- Provincial funding
  - ROIE: Indirect overhead is earned by specific Tri-Council programs. Only some programs earn associated overhead.
  - Centre of Excellence (CoE): Project based
  - Ontario Research Performance Funding (ORPF): Project based (funding is being phased out, replaced by ORF)
  - Early Research Awards overhead (ERA), Premier's Research Excellence Awards (PREA), and Ontario Research Fund (ORF): Project based
- University and private sector funding
  - Contract overhead: Project based
  - Royalties: Patent based

### Recommended Driver

***ICR will be allocated to Activity Units<sup>2</sup> based on the total amount of research overhead earned in each category.***

### Rationale

This allocation follows the principle of revenue being attributed to where the revenue is earned.

## 2.4 Other Income

Included in this category are several revenues as detailed below:

### **a) Interest (short-term interest, investment interest)**

### Recommended Driver

***Interest is allocated to Faculties through two steps***

- ***Interest earned/(owed) = working capital rate<sup>3</sup> \* 3-year average Faculty operating and Faculty research balances***
- ***Residual interest income (i.e. Total interest – Interest earned/(Owed)) is allocated to Faculties based on their share of total operating and research revenue***

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<sup>2</sup> Activity Units, in this instance, includes research institutes. There are units that cross faculties and report to the Vice-President Research not the Deans. These cross faculty groups are institutional groups and are consistent with the interests of government and other granting agencies.

<sup>3</sup> Working Capital rate = Internal University Interest rate charged.

### Rationale

This method recognizes working capital interest on a surplus or deficit balance; the residual is then allocated by a straightforward driver that is easy to understand and simple to administer.

#### **b) UG application fees**

##### Recommended Driver

*To allocate the total amount that currently resides in the central allocation and in the Registrar's budget to Faculties based on total number of UG applications.*

### Rationale

There is a clear link between number of applications and the application fees. This method is simple and easy to apply.

#### **c) Graduate application fees**

##### Recommended Driver

*To distribute the total amount that currently resides in the School of Graduate Studies for graduate application fees to Faculties based on total number of graduate applications.*

### Rationale

There is a clear link between number of graduate applications to a Faculty and the fees. This method is simple and easy to apply.

#### **d) Ancillaries' contribution to operating**

##### Recommended Driver

*The ancillary contribution to the operating budget is based on a percentage of sales as determined by the governing committee. This should be allocated to the University Fund.*

### Rationale

Any funding that cannot be allocated or attributed to Activity Units by any logical method should be allocated to the University Fund (See Section 4).

#### **e) Other miscellaneous income**

Other miscellaneous income contains various income elements of low dollar value.

##### Recommended Driver

*Allocated directly to the University Fund.*

## Rationale

Any funding that cannot be allocated or attributed to Activity Units by any logical method should be allocated to the University Fund (See Section 4).

## **2.5 Decentralized Income**

This is income generated internally by the Faculties or Service Units under the current budget model, and is already being attributed directly to the Faculties or Service Units. A number of adjustments will be made to exclude items that have been attributed in other revenue streams under the new model, these include:

- ARG and Tuition from/to other institutions as part of revenue sharing programs – now in Tuition.
- Targeted grants and grants from/to other institutions as part of revenue sharing programs – now in MTCU Grants
- ICR Transfers – now in Overhead on research grants

The remaining balance will be left with the generating Faculty or Service Unit.

## **2.6 Revenue Attribution Summary Table**

<b><u>Revenue Category</u></b>	<b><u>Recommended Revenue Driver/ Attribution</u></b>
UG Tuition	50% to Faculty of enrolment, 50% to teaching Faculty using University average tuition rate
Graduate Tuition	100% to Faculty of enrolment
BIU Funding	Total UG & Graduate BIUs for grant allocation ( for grant allocation excludes BIUs for Medicine and Nursing which get Targeted Funding)
Targeted Funding	Attributed directly to targeted program/group
General Funding	Total UG & Graduate BIUs
Indirect Cost of Research – Recovery	Total amount of research overhead earned in each category
Interest Earned	Working Capital Rate * 3-year average operating and research balances
Residual Interest Income	Share of total operating and research revenue
UG Application Fees	Number of UG Applications
Graduate Application Fees	Number of Graduate Applications
Ancillaries Contribution to Operating	Allocated to University Fund
Other Miscellaneous Income	Allocated to University Fund
Decentralized Income	Remains with Activity Unit (with adjustments for revenue dealt with in other categories)

### 3. Cost Allocation

Under an activity-based budgeting model all of the University-wide expenses (Service Unit costs) are allocated to the Activity Units (Faculties). The costs are allocated using a specific cost allocation methodology and appropriate cost drivers. In the remainder of this section, the principles adopted by BMTF for cost allocation, the allocation methodology and drivers for each Service Unit are outlined with recommendations and rationale for allocation discussed. Definitions related to the cost drivers are provided in Appendix III.

#### 3.1 Principles developed by BMTF II for Cost Allocation Considerations

- Central policies and certain practices for the University have been developed to ensure appropriate operation of the University. The new budget model will honour certain current policies and practices. For example:
  - University Advancement (UA) fund raising priorities are set centrally
  - HR labour relations are provided centrally
- Policies and practices will be reviewed through proper governance on a go forward basis
- There is no “opt out” option for central services provided by Service Units, excluding deployed services agreed to as part of the new budget model implementation. A minimum standard level of service must be defined for the University. A Faculty can choose to have its own enhanced HR services for its specific needs. However, it is still responsible for its share of the cost of HR standard level services provided centrally.
- A clear and appropriate mechanism to discuss Service Unit functions and performance is required as part of the new budget model governance
- As directed by BMTF I, initially there will be no change to the operating allocations made to the Service Units and the 2011/12 budget allocation will be used. To implement the new budget model there will need to be:
  - a mechanism to discuss budget increases and decreases, and appropriation surplus or deficit
  - a mechanism to review performance standards and service effectiveness, however, decisions will rest with a governance body
  - definition of minimum / standard services
  - defined manner of governing these decisions
- There will be no “in year” cost adjustments. The budget will be set and variance analysis performed during 5,7or 8 month reviews.
- The determination of costs and allocations will need to use a slip year (1-year or 2-year slip) for some cost drivers due to data availability during the budget process timeline
- To the extent possible, costs will be calculated in a way that will advance the efficient use of physical and human resources
- To the extent possible, costs will be allocated in a way that will reflect utilization of facilities and central services to promote fairness, transparency, and better decision making

## 3.2 Cost Allocation Methodology

The cost allocation methodology determines the way in which costs are allocated from Service Units to the Activity Units, and considerations are made for self-consumption of services and sequence of allocation. The BMTF II considered and assessed a number of different allocation methodologies, prior to reaching a recommendation.

### Recommended Methodology

*A “Double Step down allocation” method to allocate costs to Activity Units was selected. The two steps associated with this method are:*

- *Step 1: Allocate Service Units’ costs to both Activity and Service Units, including to the Service Unit being allocated.*
- *Step 2: Sequentially allocate Service Units’ residual costs following 1<sup>st</sup> step to both Activity and Service Units. The sequence of allocation usually begins with the department providing service to the greatest number of other service departments (e.g. Facility Services), and progresses all the way to the one providing service to the smallest number of other departments.*

### Rationale

This method provides accuracy of expenses allocated as it considers self-consumption and all services provided to other Service Units. All units are able to understand their own isolated cost and also their fully loaded cost from allocated from other services.

## 3.3 Occupancy Cost

Total occupancy cost attributable to the area occupied by operating units (i.e. Activity Units and Service Units). Occupancy cost includes facilities services, maintenance, utilities, security, and insurance costs. Both the area and the cost of ancillaries and other non-McMaster units are excluded from the allocation.

### Potential Drivers:

- Average NASM Rate
- NASM Rate by building
- NASM Rate by type of space (information currently not available)

### Recommended driver

#### *Average NASM Rate*

### Rationale

- Different buildings are at different ages, and have different efficiencies (some buildings have been upgraded but not all). An average NASM rate does not penalize occupants of older buildings or expensive research space. Additionally, all Faculties benefit from being on campus and all students have access to all buildings.
- Further, the NASM Rate by building method assumes an accuracy of building costs that is not currently attainable (e.g.: not all costs are metered, therefore estimates within estimates). If we use rate by building, there is a need to track movements of space (from building to building) which becomes very complex.

### 3.4 Administration and Institutional Support

Responsible for the planning, development and application of the University's administrative and support services.

Primary areas:

- a) Business Management Services (BMS)
- b) Internal Audit
- c) Administration – General
- d) Human Resources
- e) Security (moved to occupancy cost)

#### a) Business Management Services (BMS)

Primary areas:

- Financial Services
- Budgeting Services
- Purchasing
- Accounts Payable
- Investments
- Mail Services

Potential drivers:

- Total direct expenditure (operating and research)
- Total revenue (operating and research)
- Direct operating expenditure

#### Recommended Driver

*Total direct expenditure (operating and research) using a rolling 3-year average – excluding capital expenditures.*

#### Rationale

- The Task Force discussed using a revenue driver, but many Service Units do not earn revenue
- BMS provides services to both operating and research; therefore a more appropriate driver would include both expenditures (vs. just operating)
- There were concerns about potential large fluctuations in research expense due to large equipment purchases and that this could increase allocations inappropriately. A 3-year average approach was adopted to address this problem
- This driver is simple to administer, easy to understand and explain

#### b) Internal Audit

Provides independent, objective assurance and consulting services designed to add value and improve processes and operations. By bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes, we help the University accomplish its objectives.

Potential Drivers:

- Total direct expenditure (operating and research)
- Total revenue (operating and research)
- Direct operating expenditure

Recommended Driver

*Total direct expenditure (operating and research) using a rolling 3-year average – excluding capital expenditures.*

Rationale

Same rationale used for BMS (see above).

**c) Administration – General**

- Office of Vice-President Administration (Executive Salaries; VP Administration office; VP Administration Contingency)
- Administrative Priorities

Potential drivers

- Total direct expenditure (operating and research)
- Total revenue (operating and research)
- Direct operating expenditure

Recommended Driver

*Total direct expenditure (operating and research) using a rolling 3-year average –excluding capital expenditures.*

Rationale

Same rationale used for BMS (see above).

**d) Human Resources**

Primary areas:

- Labour Negotiations and Employee Relations
- Total Compensation Programs
- Health and Safety
- Employee Health
- Job Evaluation
- Employee Recognition/Learning

Potential drivers:

- Total employee FTE (includes faculty and staff)
- Salary and benefit expenses (operating and research)
- Employee headcount
- Total direct operating and research expense

Recommended Driver

### ***Total employee FTE (includes faculty and staff)***

#### Rationale

- Total employee FTE (faculty and staff) is the best driver as it counts the full time and part time employees and eliminates the discrimination inherent with using salaries (higher salary does not necessarily translate into higher usage)
- Using an FTE would allocate the cost to both Service Units and Activity Units in a way that would approximate usage
- This driver is simple to administer and easy to understand and explain

### **3.5 Bond Interest**

Annual interest cost on the 50-year bond issued.

Potential drivers:

- Total direct expenditure (operating and research)
- Total revenue (operating and research)

#### Recommended Driver

### ***Total revenue (operating and research)***

#### Rationale

- The debt was taken on for the whole University and cannot be attributed back to a specific Faculty or use
- The Task Force agreed that the driver should relate to the residual interest<sup>4</sup> income driver, which is total revenue
- This driver is simple to administer and easy to understand and explain

### **3.6 Pension**

Supplementary pension payment.

Potential Drivers:

- Salary and benefit expenses (operating and research)
- Total employee FTE (faculty and staff)
- Total full time salaries only (for ledger 2, 5 and 8)
- Pensionable earnings

#### Recommended Driver

### ***Pensionable earnings***

#### Rationale

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<sup>4</sup> Refer to Subsection 2.4 (a) for definition of residual interest.

- It is appropriate to allocate this expenditure in a way that links it to permanent employees who would attract pension dollars
- “Permanent” FTE and related dollars can be captured by sub codes in FAS and Mac VIP may be able to track pensionable salary expense
- Arguments were made that benefits should not be included in this driver

### **3.7 University Technology Services (UTS) – includes Technology Fund.**

Primary areas:

- Application Services: Student information system, financial systems and student services, HRIS systems and interfaces (benefits, reports, etc.), and application infrastructure
- Client Services: license renewals for general use applications, guest IDs for Mohawk College student and faculty to use wireless on campus, upgrades to UTS owned computer labs, upgrade TrendMicro Antivirus in all labs
- Enterprise Networks: network technology refresh, data centre network infrastructure upgrade, new/renovated building networks, wireless expansion
- Enterprise Systems: Oracle upgrade
- Project Management
- Help Line and Customer Support

Potential Drivers:

- Total direct expenditure (operating and research)
- Total revenue (operating and research)
- A combination of student FTE and employee FTE

#### Recommended Driver

*A combination of student FTE and employee FTE equally weighted.*

#### Rationale

- University Technology Services are used by faculty, staff and students
- It is important to allocate the cost according to relative usage by unit. This is best achieved by using an equally weighted average of student and employee FTE
- Equal weighting between the two groups was recommended as there is no current factual information to determine if there is more or less usage by one group or the other

### **3.8 University Advancement**

Primary areas:

- Alumni Advancement
- Development
- Advancement Services
- Public Relations
- University Advancement

Potential drivers:

- Total direct expenditure (operating and research)
- Total revenue (operating and research)
- BIU
- Revenues from funds raised

Recommended Driver

***3-year rolling average operating revenue***

Rationale

- Concern was expressed that if a cost driver for allocation was selected that did not reflect the amount of work performed by the unit, negative impacts may result. For example, if the amount of funds raised was used as a driver, FHS would likely be allocated a large percentage of the cost which might not accurately reflect the work of the unit or the service provided.
- Total operating revenue was recommended as BMTF II did not believe that including research in this driver reflected the service provided by the unit
- This driver is simple to administer
- Note: The allocation is net of the trust fund administration revenue which will continue to be honored in the new budget model as this is a Board of Governors approved allocation

### **3.9 Presidential Budget**

To advance the strategic direction of the University by supporting and fostering creativity, innovation and excellence in all aspects of teaching, research, and scholarship and campus life; to cultivate values of integrity, quality, inclusiveness and teamwork within the University community to contribute to meeting the social, cultural and economic needs of our community and society

Potential drivers:

- Total direct expenditure (operating and research)
- Total operating and research revenue
- Total operating revenue
- A combination of student and employee FTE
- Equal division by the six Faculties

Recommended Driver

***3- year rolling average operating revenue***

### Rationale

- This budget provides service to all areas on campus but not in a direct way
- BMTF II agreed that the same driver used for University Advancement would be appropriate for this budget and other administrative budgets that are similar in nature
- This driver is simple to administer

### **3.10 University Secretariat**

Responsible for coordinating and facilitating the work of the Board of Governors, the Senate, and their standing and ad hoc committees, providing those bodies with administrative, advisory and secretarial support. It is repository of information on all matters relating to the governing bodies. In this context, the University Secretariat is a source of information, advice and guidance on matters of jurisdiction, strategy, policy and process to all members of the McMaster community.

Potential drivers:

- Total direct expenditure (operating and research)
- Total operating and research revenue
- Total operating revenue
- A combination of student and employee FTE
- Equal division by the six Faculties

### Recommended Driver

*3-year rolling average operating revenue*

### Rationale

Same rationale used for Presidential Budget (see above).

### **3.11 General Contingency**

This envelope is used for corporate expenses consisting of four areas:

- General University expense including University legal fees
- General University contingency
- Campus copier initiative
- Job evaluation project

Potential drivers:

- Total Employee FTE
- Total direct expenditure (operating and research)
- Total operating revenue (3 year)
- Total revenue (operating and research)

### Recommended Driver

*3-year rolling average operating revenue*

### Rationale

- Same rationale used for Presidential Budget (see above)
- University legal fees remain a general University expense due to the possibility of greater problems arising for the University if legal issues aren't addressed

### **3.12 Office of the Provost**

The Office of the Provost and Vice-President (Academic) is the gathering point for all matters academic including enrolment management; program development and assessment; faculty recruitment, retention and promotion; student life; budget and space allocation; and strategic planning.

Potential drivers:

- Total direct expenditure (operating and research)
- Total operating and research revenue
- Total operating revenue
- A combination of student and employee FTE
- Equal division by 6 (each faculty)

#### Recommended Driver

*3-year rolling average operating revenue*

#### Rationale

Same rationale used for Presidential Budget (see above).

### **3.13 Miscellaneous Envelopes**

Primary areas:

- Strategic Priority
- Academic Allocation - QIF
- Academic Contingency
- Faculty Recruiting (in the future this cost will be borne by the Faculty doing the recruiting and a decision will have to be made about whether this budget should exist to support that function)
- Academic Priority Allocation
- Academic Allocation – Accessibility (holding account for slip year adjustments)

Some of these envelopes, under current budget model have similar functions as the University Fund will have in the new model (see Section 4 below). The Strategic Priority, Academic Allocation – QIF, and Academic Priority Allocation should be distributed as part of the normal revenue distribution to Activity Units. While the remainder will be treated as service units and an expense allocation made, to cover the budget allocation, using the recommended driver.

Potential drivers:

- Total direct expenditure (operating and research)
- Total revenue (operating and research)
- Total operating revenue (3 year average)

#### Recommended Driver

### ***3-year rolling average operating revenue***

#### Rationale

Same rationale used for Presidential Budget (see above).

### **3.14 Research Administration**

Primary areas:

- The Office of the Vice President, Research and International Affairs
- The McMaster Industry Liaison Office (MILO)
- Office of Research Services (ORS)
- The Office of International Affairs
- The Research and High-Performance Computing Support
- Research Administration (including the Nuclear Reactor Patent)

Potential drivers:

- Research revenue
- Research expense
- 3-Year rolling average research revenue
- Faculty FTE

#### Recommended Driver

### ***3-year rolling average research revenue***

#### Rationale

This driver uses a similar rationale to other “general administrative units” such as the Presidential Budget and Provost office while reflecting the research nature of this cost.

### **3.15 UG Scholarships and Bursaries**

Operating funds used to support scholarships and bursaries. Scholarships are monetary awards based on academic excellence while bursaries are monetary awards based on financial need.

Potential drivers:

- Allocated UG tuition revenue
- UG FTE
- Direct to Faculties by actual dollars received by students

#### Recommended Driver

***Scholarship – UG FTE***

***Bursaries – UG FTE***

## Rationale

- BMTF II discussed the differences between scholarships and bursaries to determine if the same driver could be used. It was noted that in both cases it did not make sense to track the cost directly to the Faculty as both UG scholarships and bursaries are administered centrally.
- Centrally administered scholarships are awarded based on academic merit and are not determined by amount of tuition paid. Thus it makes sense to use UG FTE as a driver.
- Bursaries are somewhat tied to cost of tuition as this would enter into the determination of “need”. However the Task Force decided to use UG FTE as the driver, for consistency with scholarships.

### **3.16 Student Affairs**

The main costs associated with this area are:

- Office of Associate Vice-President, Student Affairs
- Career and Employment Services
- Student Financial Aid (now moved to Registrar)
- Centre For Student Development
- International Student Services
- First Year Experience Office
- Judicial Affairs
- Athletics and Recreation Students with Disabilities
- Ombudsperson

Potential drivers:

- Total student FTE (both Graduate and UG)
- Tuition

## Recommended Driver

***Total student FTE (both Graduate and UG)***

## Rationale

- Services provided by Student Affairs are available to all students
- Most students (Graduate, UG, full and part time except MBA) pay for student services by way of mandatory fees or user. The total of these fees are deducted from the costs to be allocated
- Total student FTE makes the most sense. It also accounts for relative weighting for part time students to reflect their reduced utilization

### **3.17 Centre for Leadership and Learning (CLL)**

CLL aims to encourage, support, and collaborate with the teaching community in the scholarly exploration, implementation, evaluation and dissemination of teaching and learning practices. CLL activities include both general and discipline-specific approaches to the promotion of successful learning in all its forms and contexts.

Potential drivers:

- Faculty FTE
- Total student FTE (both Graduate and UG)
- Faculty and student FTE
- Headcount

#### Recommended Driver

***Total student FTE (both Graduate and UG)***

#### Rationale

The Task Force agreed that CLL largely serviced students; therefore a student FTE driver is appropriate.

### **3.18 Libraries**

At McMaster University there are two distinct library systems in place. The main University libraries, and the Faculty of Health Sciences (FHS) library, have distinct budgets and administration.

BMTF II determined that both the University libraries and the FHS library are accessible to all students. Studies from FHS have shown that non-FHS students use the FHS library often. Similarly there is use of all University libraries by students from FHS. Therefore, it was agreed that the best approach would be to combine the costs (or budgets) and allocate the total costs to all Faculties.

Potential drivers:

- Faculty FTE , Total student FTE, and research revenue or expenditure (equally weighted)
- A combination of faculty FTE, graduate student FTE, and UG student FTE
- Total direct expenditure (operating and research)

#### Recommended Driver

***Faculty FTE (exclude sessionals), Graduate student FTE, and UG student FTE***

#### Rationale

The Task Force discussed usage of the libraries and agreed that they are used by faculty and students. Usage by staff, sessional faculty and others would be minimal. Thus a driver that included students (graduate and UG) and faculty is recommended as it reflected usage.

### **3.19 Registrar's Office**

Potential drivers:

- Total student headcount
- UG student headcount
- Total allocated UG tuition

### Recommended Driver

#### ***UG student headcount***

#### Rationale

- While services are provided to all students, UG students are serviced significantly more than graduate students who mainly receive service from the School of Graduate Studies
- Service delivery is not weighted by cost of tuition
- Services are provided equally to full and part time students

### **3.20 School of Graduate Studies**

Provides leadership for McMaster's graduate programs across all six Faculties, and is responsible for maintaining and improving the standards of graduate scholarship and research at McMaster, and enhancing McMaster's national and international reputation as a leader in graduate studies and research training.

Potential drivers:

- Graduate student FTE
- Graduate student headcount
- Graduate tuition

### Recommended Driver

#### ***Graduate student headcount***

#### Rationale

- Services are provided to graduate students
- Service delivery is not weighted by cost of tuition
- Services are provided equally to full and part time students

### **3.21 Graduate Scholarships/Bursaries**

Potential drivers:

- Allocated graduate tuition
- Graduate student FTE
- Graduate student headcount

### Recommended Driver

#### ***Graduate student FTE***

#### Rationale

- The difference in headcount vs. tuition costs for professional programs (e.g. MBA) is quite significant and does not reflect the activity
- Graduate Scholarships are a pool of funds that pay graduate students and are not Faculty specific
- This driver is consistent with that used for UG Scholarships

### 3.22 Museum of Art

Serves as a culture hub for the University campus and region through dynamic and multi-disciplinary exhibitions and programs, scholarly interpretation and preservation of collections, and innovative practices in museology.

Potential drivers:

- Total student and employee FTE

Recommended Driver

*Total student and employee FTE*

Rationale

This is a logical driver to use since this service is available to all at McMaster.

### 3.23 Cost Allocation Summary Table

**(In sequence of allocation for Double step down methodology)**

<u>Service Unit/s</u>	<u>Cost Driver</u>
Occupancy Costs	Average NASM Rate
Human Resources	Total employee FTE (includes faculty and staff)
Business Management Services/ Internal Audit/ Administration - General	3-Year rolling average direct expenditure (operating and research)
Pension	Pensionable earnings
Presidential/ University Secretariat/ General Contingency	3-year rolling average operating revenue
Bond Interest	Total revenue (operating and research)
UTS/ Technology Fund	Total student FTE + Total employee FTE
University Advancement	3-year rolling average operating revenue
Office of the Provost	3-year rolling average operating revenue
Research Administration	3-year rolling average research revenue
Student Affairs	Total student FTE (both Graduate and UG)
Centre for Leadership and Learning (CLL)	Total student FTE (both Graduate and UG)
Libraries	Faculty FTE (exclude sessionals), Graduate student FTE, UG student FTE
Registrar	UG student headcount
School of Graduate Studies (SGS)	Graduate student headcount
Museum of Art	Total student FTE + Total employee FTE
UG Scholarship	UG student FTE
UG Bursaries	UG student FTE
Graduate Scholarship	Graduate student FTE
Miscellaneous Other Budget envelopes	3-year rolling average operating revenue

## 4. University Fund

BMTF I provided the following direction:

*“As noted above, in the pure form of ABB, all income is allocated to the revenue-generating units. This has proven to be a problem for many universities using an ABB system. It was found that the senior administration did not have the financial resources to guide the university to fulfill the mission of the institution. Effectively then pure ABB tends to create silos and to remove responsibility and authority for institutional-wide initiatives. To correct this, many universities have incorporated a centrally-held University Fund into the budget to be held centrally. It typically is taken off the top of allocated revenue and varies from 5-15% depending on the university. This is a feature of the budget systems of both University of Michigan and University of Toronto on the order of 5-10%. The Task Force agrees with this principle. We propose that McMaster establish a University Fund as part of any adopted activity-based system, using a portion of tuition and BIU revenue. The amount (percentage) will be determined during the next phase based on modeling and an assessment of the financial needs to which a University Fund would be put.*

*The Fund will be held by the President and Provost and should be used to fund important new initiatives in both the academic and service areas. The University Fund must operate in a transparent and consultative manner that reflects our tradition of shared governance. Thus it is imperative that a governing body be authorized to advise the President on how the University Fund should be distributed. It is not clear at this point whether an existing governing body, such as the Budget Committee, could serve in this role, or whether an entirely new governance structure is needed. In the transition year(s) to the new system the University Fund most probably will be used to achieve a smooth transition to the new system.”*

They further suggested the following:

*“It will take time to transition smoothly to the new budget system. The University Fund will be used to help achieve this. The Fund would be used to hold units harmless, to the greatest extent possible, during the transition period. It is not clear that units could be held totally harmless given that the Fund would be a limited amount and given the current economic climate.”*

BMTF II determined that in order to quantify and manage the University Fund during the transition, a definition of “hold harmless” was required. The Task Force developed the following definition of “hold harmless”:

***Hold harmless will mean that the costs allocated from Service Units to Faculties under the new model will not exceed the incremental revenue they receive under the new model over and above their existing budget allocation under the old model. This means that the incremental costs allocated to Faculties will at least be covered so there is no negative impact on Faculties during the transition period.***

**Calculation:** Depending on the funding required to make the hold harmless adjustment, a percentage contribution to the University Fund will need to be applied to the calculated revenue for each Faculty net of the allocated indirect cost of research. Indirect cost of research is excluded in line with McMaster being a research intensive University and research dollars remaining with the research faculty. The net incremental revenue after the contribution to the University Fund will be used to compare to incremental costs. The exact percentage contribution from Faculties to the University Fund will be determined during the shadow budget period.

**Application:** The hold harmless adjustment will apply only if the incremental costs allocated from Service Units exceed incremental revenue. Any pre-existing in-year deficit or any accumulated debt in the Faculty will not be negatively impacted, but will not be forgiven by the adjustment. In the event that a Faculty's incremental revenue after the contribution to the University Fund exceeds incremental costs allocated, the Faculty will keep the incremental revenue.

The Task Force also agreed that during the transition stage the expectation will be that Faculties will adjust behaviour to achieve a balanced budget without assistance from the University Fund after the hold harmless period. The expectation is that the transition period (i.e. hold harmless period) will last for a limited time. Once the transition period is completed the hold harmless adjustment would be reviewed with the objective of removing it. Confirmation of the length of the transition period should be determined through the shadow budget process where the magnitude of hold harmless amounts will also be identified.

The University Fund should also have a second component which will become the main component after the hold harmless transition period. The main purpose of this second component of the University Fund will be to fund existing or new initiatives in both the academic and service areas that are deemed to be of strategic importance to McMaster. During the transition period the second component of the University Fund might be small in magnitude. However, it will potentially increase in size when the transition period is completed.

## 5. Governance

The proposed budget model will naturally require changes in budget governance at McMaster. BMTF II had a high level discussion on the possible changes, potential governing bodies and their involvement in various stages and elements of the budget process. Proposed governance responsibilities with regards to the new budget model are outlined in Appendix IV. This chart could serve as an initial guide for further discussions. Consideration should be given to whether or not there needs to be more senior administration represented on the University budget committee.

A key part of the new governance structure should be a forum where discussions could take place between Activity and Service Units. Such discussions could be facilitated using advisory boards. Initially, the first stage will involve an education by the Service Units to the Activity Units of the base level services funded within the operating budget. Further discussion may address supplementary or same services being provided by Activity Units. This will allow appropriate adjustments to be made in the model for any deployed services. Activity Units to Service Units' discussions should be iterative and ongoing to not only aid the budget model process, but also to encourage greater cooperation and understanding.

The ideas proposed here should be further refined and final recommendations on the governance issues associated with the new model should be made at the Advisory Board level.

## 6. Ancillary Operations

The definition of ancillary operations as provided by COU: Council of Ontario Universities is as follows:

“Ancillary operations are typically provided on a ‘fee for service’ basis and include revenues and expenses of ‘sales producing’, non-teaching areas such as the bookstore, food services, residences, parking, University press/publishing, property rentals, University facility rentals, theaters, and conference centres. ”

Excerpt from the “Task Force on Alternative Budget Models Report August 2009 (updated October 2009)” (BMTF I):

*“Ancillaries exist on our campus to provide services and activities that enrich campus life. Our ancillaries are intended to be, at a minimum, self-sustaining and, preferably, revenue-generating. For the most part, ancillary operations do not show fully in our operating budget. They have been treated in a manner consistent with academic units in that end of year surpluses or deficits are carried over within the unit. This is not the case at some of the universities we visited. However, it is recognized that a method which transfers all surplus ancillary funds does not support the envelope accountability structure, efficiency of operations and responsible financial re-investment in capital projects or other enhanced services.*

*It is important that our ancillary operations demonstrate fiscal prudence and provide high quality service standards in meeting stakeholder needs. This can be achieved by providing relevant benchmarking information to ensure efficiency and effectiveness of services delivered and financial performance. This information must be communicated in a clear and concise fashion. The governance committee in the new model will play a key role in monitoring these deliverables for our ancillary operations.”*

The implication from the above statement is that ancillaries fall outside of the BMTF I determination of a new operating budget model.

BMTF II discussed the best approach for how ancillaries should be treated under the new budget model. We agreed with BMTF I’s conclusion that they fall outside the new operating budget model.

BMTF II also reviewed in detail the financial contributions being made to the operating budget by the ancillaries. Ancillaries contribute to the operating fund in the form of a contribution based on a percentage of sales. In addition to this contribution, Student Affairs ancillaries also provide a direct contribution to support the various soft services (e.g. counselling) within their portfolio. They are required to pay market rent, land lease charges as well as their University overhead charges. Ancillaries also contribute to infrastructure improvements and maintenance (both planned and deferred) as part of their ongoing operations through planned reserves. In addition, Student Affairs ancillaries contribute to the asset base of the University through mortgage/debt payments for their buildings. Hospitality and Campus Health Services also make a contribution to MUSC in the form of occupancy costs as well as a rent premium for Hospitality profits generated.

The Task Force also recommended: reviewing the allocation of space and overhead costs to ensure accuracy and fairness in comparison to the costs allocated to Faculties for same services; paying or charging interest on working funds and reserve balances; and monitoring surplus reserve funds to provide for additional contributions to the operating funds if reserves go above pre-determined required levels (determined in conjunction with governance mechanisms).

## 7. Outstanding Issues

There are several issues that remain unresolved and will eventually require changes to McMaster information systems or decisions to be resolved by University leadership. These issues would have various implications to different parts of the proposed model. The outstanding issues are as follows:

- Awaiting report from the Task Force on Interdisciplinary Programs (TIPS). Currently students in such programs are identified as enrolled in one Faculty only due to system limitations
- Combined or double honours programs have the same problems as outlined above for interdisciplinary programs
- Ensuring that the new budget model takes into account revenue sharing agreements with other institutions. Currently several Faculties have such agreements with other institutions. Each agreement is unique, however there are also similarities. Decisions need to be made to approve the criteria of how and when to include or exclude students enrolled in these programs for both revenue and cost allocations
- The drivers selected will not always be available for the budget year; therefore sometimes 1 or 2 slip years of data for drivers will be required
- Graduate teaching units data is not currently collected for all Faculties. It may be in the future there will be data available to allocate graduate tuition by teaching and enrolment but this would require an academic policy change to introduce graduate units
- Decisions regarding what constitute deployed services and resulting adjustments for all Faculties
- Clarification of clinical faculty and unpaid faculty of FHS to determine if they are counted in FTE cost driver numbers and if so, whether they should be excluded
- Decisions regarding appropriate exclusions from the student FTE driver for certain allocations.
- Decisions on development of tools to manage the new budget model (including budget planning), governance, communication, University Fund, staff training, and change management

## 8. Next Steps

BMTF II recommends the next stage be a shadow budget exercise over a two year period.<sup>5</sup> The proposed activities in the shadow are outlined in Appendix V. During the shadow budget years, the most up to date available data will be used to compare the new model to the existing incremental budget model. More detailed discussions will take place between Service Units and Faculties to ensure an understanding of costs allocated and services provided. The shadow process will provide an opportunity to further discuss and address the outstanding issues outlined in the previous section. The shadow budget process will also include the development of appropriate tools to help with administering with the model and the development and execution of appropriate training programs to help ease the transition to the new model. Feedback will be received and considered throughout this process in order to finalize a budget model for implementation with possible transition to the new budget model in 2013/14.

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<sup>5</sup> While there was general agreement from the Task Force regarding proceeding with shadow budget for 2011/12, some Task Force members were of the opinion that 2011/12 was too early to run a shadow budget as they felt the outstanding issues should be addressed and sufficient resources be committed to address them prior to this step.

## **APPENDIX I - Alternative Budget Model Taskforce – Phase II (BMTF II) – Membership**

- Barb Campbell (Office of the Provost)
- Iain Clarkson (BMTF Analyst), replacing Wenny Li (BMTF Analyst)
- Linda Coslovi (Engineering)
- Ross Gardner (Health Sciences)
- Brooke Gordon (School of Graduate Studies)
- Khaled Hassanein – BMTF II Chair
- Mary Law (University Budget Committee), formerly Abigail Payne (University Budget Committee)
- Ying Liu (IRA) , formerly Sam Curtin (IRA)
- Kim MacDonald – BMTF II Project Manager
- John McKay (Advancement)
- Barb McKenna (Research and International Affairs)
- Karen Menard (IRA)
- Lou Mitton (Financial Services)
- Gina Robinson (Student Services)
- Lilian Scime (Financial Services), left University January 2011
- Julianne Simpson (Administrative support)

## APPENDIX II - Revenue Definitions

### Definitions:

#### **Tuition:**

1. Framework Revenue (McMaster internal definition):  
Framework is terminology used in the current budget system. It refers to all revenues that are allocated centrally to Budget Envelopes.
2. Non-Framework Revenue (McMaster internal definition):  
Non-Framework is terminology used in the current budget system. It refers to revenues that are directly credited to the operating account of certain Budget Envelopes. Sometimes administration fees might be charged centrally against these revenues.
3. Enrolment Tuition (McMaster internal definition):  
Refers to the amount of tuition revenue that is distributed to the Faculty to which the student is registered. There are 3 types of enrolment tuition in the new budget model:
  - a. MTCU Program Tuition: Tuition of those programs that is eligible to be funded by MTCU grants. MTCU program tuition is collected by Student Account Fee Assessment and is allocated incrementally in the Framework in the current system.
  - b. Academic Revenue Generation (ARG) Program Tuition: Tuition of those programs that is currently NOT in the framework. ARG program tuition is collected by Student Account Fee Assessment and goes directly to the operating accounts of the Faculty who generates the revenue. 0-10% of administration fee is charged against the tuition and goes centrally to the Framework in the current system. Typically these are non MTCU funded programs or diplomas and certificates.
  - c. Other Affiliated Program Tuition: Tuition of those programs that is currently NOT in the Framework and is NOT collected by Student Account Fee Assessment. Students in such programs are registered in other institutions but have valid McMaster student numbers and will get a McMaster graduate certificate. Currently two undergraduate programs (i.e. Collaborative Nursing and Midwifery in FHS) are in this category.
4. Undergraduate Enrolment Tuition for Teaching Adjustment (McMaster internal definition):  
Refers to the amount of enrolment tuition that would be involved in the teaching adjustment calculation in the new budget model. Equal to total enrolment tuition minus appropriate exclusions.
5. Teaching Units (McMaster internal definition):  
Teaching is measured by Teaching Units.<sup>6</sup> It is also known as Student Units Taught. It is the same as units used to weight courses. (E.g. A typical course is 3 units; therefore, if a department was teaching 9 units, they were likely teaching 3 courses). However, Teaching Units could be described in different ways
  - a. Total Teaching Units Provided by Faculty= units taught to own students + units taught to other Faculty students
  - b. Total Teaching Units Received by a Faculty's students = units taught to own students + units own students taught by other Faculties

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<sup>6</sup> Medicine and Physician Assistant is NOT included in teaching unit count. Thus medicine tuition should be excluded from teaching adjustment in the model.

- c. Net Teaching Units Provided = total teaching units provided by Faculty – total teaching units received by students

**Definitions:**

**MTCU:**

1. MTCU Funding for Operating (McMaster internal definition):  
Refers to the grants received and used for University operating purposes. All “Ledger 2” accounts are operating. The new budget model will only deal with these MTCU operating grants.
2. MTCU Funding for Non-Operating (McMaster internal definition):  
Non-Operating Fund refers to the grants received and used for University non-operating purposes (e.g. capital, endowment).
3. BIU Weight:  
The weighting factor varies by program and level of study and is a rough measure of how costs vary by program and by level of study. Program weights (range from 1.0 to 7.5) were established in 1966-67 and only slight modifications have been made to them since.
4. Basic Income Units (BIUs):  
Each institution’s BIUs are arrived at by multiplying full-time equivalent (eligible) enrolment by a weighting factor.

$$\text{BIUs} = \text{FTE} * \text{BIU Weight}$$

- a. UG BIUs  
Refers to BIUs generated from all eligible undergraduate FTEs in eligible programs at McMaster.
  - b. UG BIUs Excluded for allocation (McMaster internal definition)  
Refers to the undergraduate BIUs of such undergraduate programs under the new budget model that receive enrolment grants through “Targeted Funding” (see 6-B for Targeted Funding definition).
  - c. UG BIUs for grant allocation (McMaster internal definition)  
Refers to the UG BIUs that are eligible for allocation of undergraduate enrolment grants that are categorized as UG “BIU Funding”. In the new budgeting model it equals to “UG BIUs” minus “UG BIUs Excluded for allocation”
  - d. Graduate BIUs  
Refers to the BIUs generated from all eligible graduate FTEs in eligible programs at McMaster<sup>7</sup>.
5. Basic Operating Income (BOI)  
Each institution receives a fixed share of BOI based on historical weighted enrolment levels referred to as Basic Income Units (BIUs)

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<sup>7</sup> There is currently no graduate program that is funded separately by targeted funding so that Grad BIUs are all eligible for Grad BIU related funding allocation

$BOI = BIUs * \$ \text{ Value}/BIU$  (set by government)

6. Formula Fee

Also known as Standard Fees, representing the expected contribution from students associated with that program. The full-time equivalent enrolment was multiplied by fee rate (might be different for programs) to calculate total formula fee.

7. Basic Operating Grant (BOG)

BOG is an enrolment-based, non-targeted, block grant to the institutions. It is distributed on the basis of Basic Operating Income (BOI) for all universities. The formula fee is deducted from the BOI to give the basic income unit (BIUs) of that student for operating-grant calculation purposes.

$BOG = BOI - \text{Formula Fee}$

8. BIU Funding (McMaster internal definition):

BIU Funding refers to the grants that are allocated by enrolment from the source (i.e. MTCU). Grants under this category are to be allocated to Faculties based on their share of 'BIUs for grant allocation' (as a result, some BIUs that are funded separately by Targeted Grants are excluded).

9. Targeted Funding (McMaster internal definition):

Targeted Funding refers to certain targeted provincial grants that are to support a particular program or group. These grants are directly distributed to the recipient's operating account.

10. General Funding (McMaster internal definition):

General Funding refers to the provincial grants that are non-enrolment grants according to the source allocation (e.g. Quality grant).

11. Excluded Funding (McMaster internal definition):

Excluded Funding refers to grants that will be allocated/distributed under other category of revenue in the budget model so that they are excluded from MTCU grant allocation. Only 2 grants are in this category: ROIE (is allocated under ICR) and Nursing Tuition Waiver (is distributed under tuition revenue).

### APPENDIX III – Cost Driver Definitions

1.	Direct Operating Expenditure	Expenses directly debited in Activity Units' or Service Units' operating accounts (Ledger 2). Typical types of direct operating expenditure include salary expense, benefit, and non-salary expense. Allocated overhead from Service Units from the budget model is excluded (fee for service charges are included)
2.	Direct Research Expenditure	Expenses directly debited in Activity Units' research accounts (Ledger 5 and Ledger 8)
3.	Operating Revenue	Operating revenue allocated or directly distributed to the Activity Units in the new budget model. Typical types of operating revenue include tuition, MTCU grants, Indirect Cost of Research (ICR), and other income
4.	Research Revenue	Annual research revenue reported in FAS of the fiscal year
5.	Faculty FTE (academic rank)	Full time equivalent of professor, associate professor, assistant professor, and CLA. Excludes unpaid FTE
6.	Research Staff FTE (other instruction and research rank)	Full time equivalent of research staff (including postdoctoral fellowship, PhD, Master, and Undergraduate students for research assistantships) paid by research fund
7.	Teaching Assistant FTE (other instruction and research rank)	Full time equivalent of teaching assistants
8.	Supporting Staff FTE	Full time equivalent employees in Faculty or Service Units that are not included in Academic Rank or Other Instruction and Research Rank, and that are paid directly by McMaster or indirectly by sub-agreements and sub-contracts with other institutions (Temporary and part-time staff FTEs are prorated by working hours)
9.	Total Employee FTE	Sum of the FTEs of faculty, research staff, teaching assistant and supporting staff
10.	Salary and Benefit Expenses (Operating and Research)	Salary and Benefit expenses recorded in operating accounts (Ledger 2) and research accounts (Ledger 5 and 8).
11.	Undergraduate Fiscal Full-Time Equivalent (FFTE)	Reported by Institutional Research and Analysis (IRA) based on the undergraduate student unit load for a full academic year and ready in March of each year (FTE = FFTE in this report)
12.	Graduate Full Time Equivalent (FTE)	Reported by Institutional Research and Analysis (IRA) as the full-time graduate headcount enrolment plus a full-time equivalent of part-time graduate enrolment (0.3 times part-time headcount) as of November 1st
13.	Total student FTE	Sum of undergraduate FFTE and graduate FTE

14.	Undergraduate Headcounts	The number of undergraduate students registered at the University (includes part-time and full-time students)
15.	Graduate Headcounts	The number of graduate students registered at the University (includes part-time and full-time students)
16.	Total student Headcounts	Sum of the undergraduate and graduate headcounts (includes part-time and full-time students)
17.	Net Assignable Square Meters (NASM)	The sum of all areas in a building available or potentially available to occupants



## APPENDIX IV – Draft Governance Chart\*

Governance Requirements/ Tasks:	Task to be performed by:									
	Envelope Manager	Deans	Provost	VP(s)/ Provost	President	Budget Committee	PVP	Advisory Board (Service Units)	Advisory Board (Activity Units)	Fees Committee
<b>Overall Budget Process/Model Management:</b>										
Review policies and practices and ensure that they support the model and evaluate the budget model periodically and recommend process to adjust						X				
Approve changes in policies and practices for the budget model					X					
Mediation process for resolving issues between budget units (Activity to Service, Activity to Activity, Service to Service, Ancillary to Service etc.)						X (2)		X(1)	X(1)	
Determine budget reporting requirements, parameters and standards (for each level of reporting)						X				
Review Budget Principles							X			
Recommend and approve budget principles					X					
Define overall philosophy for University Fund including - Determination of the process for distribution of the fund						X	X			
<b>Strategic Planning:</b>										
Strategic planning for the University (academic and financial)					X					
Set enrolment targets		X								
Approve enrolment targets			X							
University Fund: - Setting university fund "value" - Allocation of funds to units						X	X X			
Determine Ancillary contribution levels to operating and relationship to budget model						X				
Space Planning: - Space redeployment - Space decommission - New Space - Space within Activity or Service Unit	X	X			X X X					
<b>Oversight:</b>										
Define minimum standards of performance for service units (core services) - Provide template for reporting						X X		X		
Define performance indicators for Faculties		X	X							
Determine mechanism for change (increase/decrease) to current budget allocations for service units - Determine input from activity units - Include changes to other charges e.g.: benefits					X	X		X		
Ensure Ancillary occupancy and "overhead" costs are equitable and "fair" in relation to activity and service unit allocations						X				
Ensure Budgets match strategic plan for University					X(1)	X(2)				
Oversight of Budget Principles  - Eg. Ensure no courses are set where the purpose is to prevent service teaching					X					
<b>Review and Approval:</b>										
Review budgets	X(1)	X(1)		X(2)	X(4)	X(3)				
Recommend to BOG for approval					X(2)	X(1)				
Recommend Fees (tuition increase, fees charged to students etc.)										X
Recommend approval of Debt financing (outside of mandate of BMTF II)										
Capital Budget approval (outside of mandate of BMTF II)										
<i>Note: this chart provides suggested guidance for who will perform budget tasks prior to ultimate approval by the Board of Governors. Once the process for the Budget Committee is complete, the President will take the budget to BOG, the budget also goes to UPC and Senate for information.</i>										

\*Numbers between brackets in some of the cells refer to the order of approval sequence.

## APPENDIX V – Shadow Budget Outline

### Requirement/ Resource Notes:

- *The model will be developed using central resources (mainly the BMTF Analyst) and communicated for discussion with University administrators in Service Units and Activity Units.*
- *Resources will be required to project manage/mediate the discussion forums and transitions.*

### Shadow Budget Year 1 – 2011/12:

#### Data Gathering and Model Build

- Apply the proposed model to the 2011/12 approved operating budget
- Get an initial sense of budget data availability for 1-slip year/2-slip year requirements
- On revenue side allow the sourcing of budget numbers as indicated in the initial actual revenue calculations
- Opportunity to standardize data gathering and templates for use going forward
- Build a fully functioning and linked model for use within the shadow budget exercise
- Identify preliminary budget timelines for use with the new model
  - For data requirements
  - For budget process

#### Reconciliation, Supplemental Information, Discussion

- Ongoing opportunities to vet and address issues as they arise through discussions with University Service Unit and Activity Unit administrators
- Provide numerical model results to drive discussions on fine-tuning of the model
- Finalize treatment in the model for UG and Graduate programs with revenue sharing agreements or collaborative agreements. Discussions will need to be held to further consider the inclusions and exclusions for these programs in the new budget model
- Include a calculation of the University Fund following formulation of methodology and provide a better ‘current’ picture for discussions on scale of University Fund including holding harmless obligations
- Build “data packs” containing each Activity and Service Unit’s individual model results to aid in understanding of new model within the units – and highlight information availability and transparency. These data packs would track and show the fully loaded costs for each unit as result of the double step down cost allocation method
- Initiate discussion forum between Service Units’ administrators to determine service levels, identify deployed services and develop an understanding between the units

- Identify tools that would assist with the implementation of the new budget model through discussions with administrators
- Provide detailed information to assist in the identification of data required in the new ERP system
- Ongoing assessment of the model/ fine tuning
- Continue to assess the model to ensure that it is a model that will support that academic mission of the University and that implementation should proceed
- Develop cost/benefit and impact analysis and review with University constituents to determine if the University should proceed to implement the new budget model

### **Shadow Budget Year 2 – 2012/2013**

- Run shadow budget Year 2 as more realistic real time budget process.
- Use and modify data gathering templates and formatting files.
- Solidify budget timelines for use under new model
- Ensure the Excel based model can handle change of year and data successfully, and eliminate any problems with workings of the model
- Highlight problem areas and issues for transition to the new model
- Highlight the requirements for a successful transition process
- Develop and execute appropriate training programs and transition plans to aid administrators in using the model and its associated tools
- Full discussion forum between Service Units and Activity Units continues
- Drivers stated as 3-year average can now actually be so, as three year data available

<b>ABB</b>	Activity-Based Budgeting
<b>ARG</b>	Academic Revenue Generation
<b>BIU</b>	Basic Income Unit
<b>BMS</b>	Business Management Services
<b>BOG</b>	Basic Operating Grant
<b>CLL</b>	Centre for Leadership and Learning
<b>FAS</b>	Financial Accounting System
<b>FHS</b>	Faculty of Health Sciences
<b>FTE</b>	Full Time Equivalent
<b>F-TOT</b>	Financial Totals (Grants)
<b>HR</b>	Human Resources
<b>HRIS</b>	Human Resource Information Systems
<b>ICR</b>	Indirect Cost of Research
<b>IRA</b>	Office of Institutional Research and Analysis
<b>MTCU</b>	Ministry of Training Colleges and Universities
<b>NASM</b>	Net Assignable Square Metres
<b>UA</b>	University Advancement
<b>UF</b>	University Fund
<b>UG</b>	Undergraduate

**APPENDIX VI – University and Budget Model Acronyms**