

Task Force on Alternative Budget Models Report

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Table of Contents

	Page
Table of Contents	2
Executive Summary	3
Introduction	6
Mandate of the Task Force	7
The Present Budget System	7
Governance-related Principles	8
Background to Activity-based Budgeting	8
Background Research Methodology	9
What have we learned?	10
Communication within McMaster University	12
Progress to Date	12
Remaining Issues	18
Recommendation	20
Summary	21
Appendices	22
I	Task Force and Sub Committees Membership
II	Communication with the McMaster Community
III	Background Research
IV	Principles for Funding of Teaching

Executive Summary

President Peter George announced the formation of a Task Force to review and recommend changes to the McMaster operating budget model in June 2007. The mandate was to review the current McMaster budget model relative to the objectives, examine alternatives and, after consultation with the Budget Committee and the University Planning Committee, make recommendations to the President that will enhance the effectiveness and efficiency of the budget model and budget process. This report is submitted to the President as the Task Force's progress report as of June 2009

The Budget Model Task Force met monthly from December 2007 to May 2009. Its first item of business was to establish a set of governance-related 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

Adopting a new budget model does not increase the revenue coming to the University. It changes the method used to allocate existing resources.

The Task Force examined a budget model called Activity-Based Budgeting (ABB) where all operating revenue is attributed to the activity units, who by their 'activity', such as enrolling and teaching students and carrying out our research, carry out the core mission of the University – typically but not exclusively the Faculties. The Faculties use a portion of this revenue to pay for the budgets of the service units (defined as all budget units at the University other than the activity units), using specific "cost drivers". It is a highly decentralized budget system with considerable responsibility and accountability for financial outcomes devolved from the central administration to Faculty Deans/Directors. All evidence reviewed 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 allows deans to do long-range planning more proactively.

In an activity-based budget system at McMaster University the revenue streams that would be attributed to the activity units have been identified as:

- Tuition income, both undergraduate and graduate
- Government operating grants (accessibility, BIU-based and others)
- Overhead on research grants
- Proportional interest on the unrestricted endowment
- Proportional interest on the working capital
- Other income generated internally by the Faculty

The recommended cost drivers for attribution of the service units are:

- Total revenue
- Total Expenditures (which includes operating, research, trusts and others)
- Total tuition income
- Undergraduate student counts (FTE + headcounts)
- Graduate student counts (FTE + headcounts)
- Total student counts (FTE + headcounts)
- Faculty counts (FTE + headcounts)
- Employee counts (FTE + headcounts)
- Research funds
- Net Assignable square meters (NASM)
- Metered utilities costs

A University Fund would be established and held centrally to support high priority initiatives of the University. This Fund would be used to ensure a smooth transition to the new system is achieved in the transition years of the budget model. The Fund would be used to hold units harmless, to the greatest extent possible, during the transition period. The Fund would be established by using a percentage taken off the top of the tuition and Provincial government grant revenue streams available to the operating budget. A recommendation about the amount of that percentage is yet to be determined.

Funding for undergraduate teaching would be supported by a 50:50 split of tuition revenue with half to the Faculty home of the student (to support advising and other student services) and half to the Faculty teaching the courses. This assumes an “average” tuition rather than a calculation for each student. BIU funding would be attributed to the Faculty that houses the program. This recognizes that roughly half the BIU revenue supports scholarly/creative activity and half teaching. The BIUs support scholarly/creative activity but also recognize the needs above the average in teaching certain types of programs.

Space costs would be attributed to the activity units to cover the utility charges, custodial services, security, and routine building and grounds maintenance. Deferred maintenance is not included. The costs of new capital construction would be borne by the Faculty.

Recommendation

The Task Force on Alternative Budget Models has now agreed to a set of principles guiding any budget system for McMaster University, and has conducted detailed studies, received input from the University community and held discussions on many aspects of budgeting. The Task Force makes the following recommendation:

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.

Next phase

Over summer 2009, we will proceed with numerical modeling. The Task Force can proceed no further in its analysis of the ABB model without a numerical simulation of an ABB budget system. We propose to use the 2008/09 and 2007/08 fiscal budgets for modeling purposes. This analysis is no small task as the working group must look at numerous scenarios of the model assigning differing values to the defined metrics.

As the Task Force continues its work, it will continue to consult with various constituencies of the University and will keep the campus community informed of its progress.

1. Introduction

At McMaster University we believe in fiscal responsibility and sound management of all our operations and resources. In response to a general climate of restraint and a more demanding environment that has affected the entire university sector, the academic mission needs to be appropriately supported by a strong budgetary framework that will transform budgetary operations and policies from roadblocks to strategic enablers, and channel resources **consistent with institutional strengths/excellence/priorities**. **McMaster's mission and vision statements position the University as a student-centered, research-intensive university. A new budget model should protect and enhance current research activity and enhance future learning opportunities but should also support research into emerging areas of strength and promise.**

This report is submitted to Dr. Peter George, President of McMaster University, as the Task Force's progress report as of June 2009. The final section contains recommendations for the next steps in the process.

President Peter George announced the formation of a Task Force to review and recommend changes to the McMaster operating budget model in June 2007. It was found to be increasingly difficult to balance the fiscal budget and accumulated deficits were increasing. Some Faculties were in structural deficits thus severely constraining deans in their efforts to move their academic agendas forward, an untenable situation at any university. In recent years, there has been a migration of provincial funding to more and more targeted aims rather than to the Basic Provincial Grant. The Basic Grant does not contain any annual increases in consideration of inflationary pressures. With the intersection of these issues, it was deemed time to review McMaster's budget system.

Priest et al (2002) provide a useful definition of university budgeting:

Budgeting in higher education is an activity focused on the control of financial resources, the evaluation of financial performance, and the facilitation of the university's mission, and accomplished by calculating and ratifying expectations for revenues and expenditures. Budgeting can also be viewed as an activity that allocates scarce resources in a manner perceived to reflect understood and shared institutional aspirations.

A useful caveat to their definition is that a budget system does not create revenue but it is a method used to allocate revenue. It is the primary means by which the University can achieve its academic mission as presently defined at McMaster University in *Refining Directions*. Finally, it must be stressed that there is no perfect budget system. The goal is to pick one that allows McMaster to achieve its most important objectives.

2. The Mandate of the Task Force

The Task Force began its deliberation in December of 2007 under the following mandate:

The Task Force will review the current McMaster budget model relative to the objectives, examine alternatives and, after consultation with the Budget Committee and the University Planning Committee, make recommendations to the President that will enhance the effectiveness and efficiency of the budget model and budget process. The Task Force will be given the broad mandate to examine all aspects of McMaster's Budget Policy and the budget process. They will be expected to establish the vision, and the guidelines for the budget process. As part of their study, the Task Force will examine the way in which all revenues and expenses are allocated to the units; review the present method of interdepartmental charges and recommend changes that may be needed; and address issues of accountability, performance and transparency.

The Task Force membership is given in Appendix I.

3. The Present Budget System

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. In 2008/09 the University's total budget was \$770 M, the operating budget \$420 M or 54.5% of the total budget. The operating budget relies primarily on revenues from the Province, the Federal Government and from tuition.

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

<u>Budget Envelope</u>	<u>2008-09 Budget Allocation</u>
Faculty and Academic Envelopes	\$233M
Academic Priorities	\$3.3M
Academic Support	\$51M
Student Support	\$39M
Facilities Support	\$54M
Institutional Support	\$36M
Institutional Priorities	\$3.5M

McMaster's existing budget system is an **incremental budget system**, whereby an envelope budget is defined as the previous years' allocation plus/minus any incremental allocation. The basis for the original allocations has not been reviewed for some years. The envelope budget includes all direct costs and all inflationary costs. Net expenditures must equal the envelope allocation with surpluses/deficits carried forward to the next fiscal year. The indirect cost of research funds are allocated to the Vice-President Research, to academic departments and to general operations. The interest on working capital and on internally restricted endowments is general revenue that is allocated to the operating budget. The Vice-President University Advancement receives 1% of the total endowment average market value for support of fundraising initiatives.

4. Governance-related Principles

The Task Force's first item of business was to establish a set of governance-related 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

5. Background to Activity-based Budgeting

The Task Force 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. In its pure form it can be described as “every tub on its own bottom”. 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 reviewed 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 deans. The underlined words above bring focus to what is perceived to be the essence of ABB. A comparison of our governance-related principles to the features expounded for an ABB system leads naturally to the Task Force examining such a system.

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 by 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 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 varies with the service unit in question and

formula to determine these costs has not yet been developed. It is the Faculties who are on ABB while the service units remain on an incremental budget model

6. Background Research Methodology

The resources for our background research included visits to three universities, downloaded material from the web sites of these and other universities (see appendix II), a visit to our Task Force from Safwat Zaky, Vice-Provost for Planning and Budget at the University of Toronto, and a text by Priest et al (2002) *Incentive-based Budgeting Systems in Public Universities* published by Edward Elgar Press.

The Task Force met monthly from December 2007 to May 2009. The meetings were informal and while notes were taken for subsequent action items, no minutes were kept. In addition several meetings were held by sub-groups of the Task Force to work in detail on action items that arose from the Task Force meetings themselves. The memberships are given in Appendix I.

Communication with, and feedback from the McMaster community was achieved by:

- Town-hall meeting on November 5 2008 highlighted by a presentation outlining the principles established by the Task Force to guide it in subsequent deliberations.
- Update via Daily News in February 2009 on the Task Force's work (these two documents can be found at <http://www.mcmaster.ca/vpacademic/priorities>)
- Visits by R. McNutt to numerous groups across the campus (see Appendix II).

Interactions with other Universities

Three members of the Task Force, R. McNutt, L. Scime and J. Weaver spent five days visiting the University of Michigan at Ann Arbor (UM) and the University of Indiana at Bloomington (UIB) in February 2008. We chose these with care. UIB was the first major public university to adopt ABB (first at its Indianapolis campus, then at Bloomington) and remains the university with one of the purist forms of the budget system. UM also adopted ABB but found it did not work for them in the pure form, thus they modified it while still retaining many features of the model. Both universities now have enough experience with their respective budget systems to give insight on the pros and cons of ABB. UIB is principally an arts and science campus, while UM carries a full academic program including a large Faculty of Medicine. At UM, the medical school participates in the revenue allocation model but with a somewhat different treatment of auxiliary activities to prevent changes in the fiscal relationships between the medical school and the health system.

Because the funding mechanisms for U.S. public universities are different in many ways from Ontario, we focused on the principles behind their respective models, their attribution methodology and what they have learned from their respective systems. At both campuses, senior officials made the time to meet with us. Appendix III lists the officers we met at both campuses.

The Task Force's interaction with the University of Toronto (U of T) took several forms. R. McNutt initially had a one-on-one meeting early in 2008 with Safwat Zaky, Vice-Provost of Planning and Budget. R. McNutt, L. Scime, K. Menard and W. Li met with Zaky and senior members of his staff in the summer of 2008 and he came to McMaster to meet with the whole Task Force in September 2008. Finally, R McNutt met with Ian Orchard, Vice-President and Principal of University of Toronto, Mississauga in February 2009. The University of Toronto moved to its form of ABB for its 2007-08 fiscal year. It is important that we continue to monitor U of T's progress as its campuses operate under the same provincial government revenue rules as McMaster.

7. What Have We Learned?

Most universities that we studied made modifications to the "pure" ABB system and each university has a variant that best fits its particular needs. All like their respective versions of ABB and would not return to incremental budgeting. While admitting that each of their respective systems is not without fault, their view is that ABB is better than any other budget system. As noted already they all stressed that this system leads to more transparency, greater awareness of the budget and more trust between the senior administration and the budget units. It made innovation easier, and it made long-range planning possible for the deans. Both UM and IUB describe themselves as "dean's campuses" by which they mean that deans have significant budgetary authority. It was stressed at all three institutions that successful implementation and continuation of such a system requires that the university provide high quality, easily accessible and timely data; and that a Faculty Dean and her/his senior administrative staff must be very budget savvy. Implementation of an ABB budget system will require staff training and development, and for the Faculties, it could mean a significant relative increase in staffing and training costs.

The literature on ABB also provides cautions. There will be a tendency (i) to create "silos," (ii) to increase course duplication across the campus, and (iii) to discourage interdisciplinary programs, all as a result of deans moving to maximize revenue. However, the three campuses we visited have not seen these as major problems. The Task Force recognized these dangers throughout its discussions, and considered it important that mechanisms are in place to ensure that these problems are avoided as a new budget model is developed. At McMaster, it is the role of the Provost, University Planning Committee and Senate to ensure that courses are offered in a proper manner by an academically-appropriate unit without wasteful duplication as well as to encourage interdisciplinary programs with merit.

Attribution of Costs

An important component of ABB is that the attribution of revenue does not imply ownership. A significant part of that revenue will be returned to the University to fund the service units. All Faculties must participate on an equal footing based on the level of their activity otherwise this system does not work. Two measures of a unit's activity are the revenue it receives and the expenditures it incurs. For example, for those services considered as serving all Faculties equally (e.g., offices of the President and Vice-Presidents, University Secretariat, classrooms under the Registrar's control, etc) costs can be attributed to Faculties as a percent of the total revenue, a percent of total expenditures, or a combination of both. Most universities we examined lean to expenditures as the basis, and it certainly was the preference of their deans. They felt that by cutting their expenditures while still receiving the same revenue, they optimized their bottom line. Additionally, for their long-range planning, it was easier to predict future expenditures than future revenue.

The attribution of costs to the Faculties (i.e. the return of revenue to support the service units) is the most difficult part of establishing an ABB budget system and all universities we studied commented on this. For example, the University of Michigan started with 24 different metrics to determine attributions leading to a budget model which the Provost admitted that no one could understand. They have now adopted a flat assessment of 24% on their general funds, 11% on research funds and 2% for the use of the UM name all based on the unit's expenditures. UIB began with 26 metrics that were described as "draconian". They now have moved to three variables - student, faculty and staff FTEs, also using expenditures as the basis where applicable. In contrast, the University of Toronto uses revenue as its primary metric and has 12 "cost bins".

Space

Space is not a free commodity under ABB. Faculties will be assessed the cost of utilities, custodial service and routine maintenance for the space under their control. In addition if they want new space, they are responsible for all planning, project management and construction costs including the financing of any long-term debt. The literature argues that charging for space will lead to more efficient use thus decreasing the demand for physical plant growth. It is lauded as one of the important features of ABB. However, at both UM and UIB, the Faculties' demand for more space continued even with the implementation of charges. Perhaps it is a question of the rate (e.g., \$/NASM) applied. Most universities do not charge for capital depreciation (an exception being the University of Otago) and they use a fairly simple assessment of space cost.

Interfaculty teaching

Interfaculty teaching must be funded properly, formulaically and openly. At UIB all the tuition income follows the student, i.e., 100% to the Faculty of instruction, while at UM it is split 50:50 between the Faculty of instruction and the Faculty of enrolment. At the University of New Hampshire (UNH) and the University of Minnesota (UMinn) it is 75% to the Faculty of instruction. U of T has developed a different and detailed approach. It provides guidelines but the decision about the final reallocation of resources between them is left to the deans.

8. Communication within McMaster University

R. McNutt's meetings with various groups on campus showed that there was general acceptance that this model leads to greater transparency and that is indeed welcome. Several themes or concerns about, or with, the ABB system did emerge:

- Support for research - will research suffer because our revenue stream is dominated by undergraduate enrolment with the consequence that the Faculty deans will drive up undergraduate student numbers at the expense of support for graduate enrolment and research?; will laboratory research space charges be so punitive as to discourage faculty from continuing to seek funding?
- Cost of space – space varies in quality across campus so will those Faculties housed in older, more expensive structures be saddled with the additional cost?; will space costs be categorized based on utility demand so that wet labs will be more expensive than dry labs or offices?
- Interdisciplinary programs – there is strong support at McMaster for interdisciplinary programs but will the revenue allocation model work against such programs as deans naturally try to garner as much revenue as possible for their respective Faculties?
- Teaching – How does this model resolve the issue of teaching in order to ensure that all students have the same access to a high quality education?
- Enrolment planning – is it possible for the University to have an overall enrolment strategy with the increased decentralization of revenue control?
- Duplication of services both in the academic area (e.g., course offerings) and in the service areas (e.g., human resources, finance) – how will we identify those activities that represent appropriate dispersal of services as opposed to duplication for the sole purpose of budgetary gain?
- Opting out – how will we determine which operations are most efficiently and effectively provided campus-wide so that all Faculties are required to contribute to the cost in the budget model?

All of these concerns were examined by the Task Force.

9. Progress to date

Revenue attribution

As discussed above, a principle of ABB is that all revenue is attributed to the activity units – typically but not exclusively the Faculties. The Task Force agrees that for McMaster these revenue streams are:

- Tuition, both undergraduate and graduate
- Government operating grants, both BIU-based and others
- Overhead on research grants
- Proportional interest on the unrestricted (internally restricted) endowment
- Proportional interest on the working capital
- Income generated internally by the Faculties

Additionally, there are revenue streams that are allocated to operating units, other than Faculties. For instance, some students fees are earmarked for student services and parking fees are allocated to Security and Parking. Any new budget model will honour such current obligations and arrangements for unit-specific fees and income.

Attribution of costs of service units

The definition of attribution variables and their application to cost allocation can be the most difficult and is the most important component of the ABB model. The Task Force recommends a set of cost drivers and, with the benefit of previous experience at our sister universities, has managed to keep them to a reasonable minimum. Metrics include:

- Total revenue
- Total Expenditures (which includes operating, research, trusts and others)
- Total tuition income
- Undergraduate student counts (FTE + headcounts)
- Graduate student counts (FTE + headcounts)
- Total student counts (FTE + headcounts)
- Faculty counts (FTE + headcounts)
- Employee counts (FTE + headcounts)
- Research funds
- Net Assignable square meters (NASM)
- Metered utilities costs

Our investigation to date indicates that costs of the different service units can vary based on the level of revenue, expenditures, various combinations of student, faculty and staff FTEs or space utilization, depending on the nature of the service. Thus, use of a combination of these variables in an ABB budget model for McMaster would result in a model which is neither revenue-driven nor expenditure – driven but a hybrid. When it comes to assigning a dollar value to the attribution cost to each Faculty, the principle of proportionality will apply in almost all cases except space attribution.

The University Fund

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 UM and U of T 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 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.

Teaching

McMaster University has a long tradition of differentiating between a Faculty teaching students earning degrees in its program and a Faculty teaching students earning degrees from another Faculty (service or interfaculty instruction). Our current model allocates incremental tuition and provincial funds based on student degree program solely, with no consideration given to which Faculties offer the courses students attend. The current Faculty cohort emerged from a complex variety of pressures, including the need for certain departments to offer teaching to students enrolled in degree programs in other departments. The delivery of service teaching has never been formally recognized in our budget allocations, and the Task Force is strongly recommending a change that recognizes teaching of all students, whether in their own Faculty, or if they take courses in other Faculties, should be reflected equally in the funding formula. However, it is clear that a rapid transition to this model could pose problems in Faculties which have relied heavily on other Faculties to teach their students. Thus, a smooth and gradual transition is important to the stability of the institution .

The perceived lack of financial support at the undergraduate level for interfaculty instruction has been a contentious issue for many years at McMaster. The PAGIC report of 1993 addressed this issue and provided a very detailed methodology for change. For whatever reasons, the PAGIC report recommendations were never adopted.

The Provost, Ilene Busch-Vishniac, took on the responsibility of this most important issue. She held multiple meetings with the Faculty deans and they have tentatively agreed, subject to examination of financial models, to a new model on future teaching. Based on the principles and issues raised in their meetings, (see appendix IV for the details), the deans produced the following proposed budget model for teaching:

- 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 allows 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.

Interdisciplinary academic programs have long been a feature of McMaster University. It has been stated in the literature (Priest et al 2002) that a possible drawback of any activity-based budget system is that it can create silos, so will hamper interdisciplinary efforts. This issue was raised repeatedly by the groups with whom R. McNutt met. It is clearly of great concern to the academic community. Of note to this issue, the subgroup who visited U.S. universities queried their hosts on such programs and was told that in fact their activity-based budget systems did not hamper the support of interdisciplinary programs.

However, the Task Force remains cognisant of this issue. While the proposed teaching model above resolves a number of the issues raised, it does not fully address all of them including importantly a mechanism for handling interdisciplinary programs. This is a key point if we are to encourage the growth and viability of such programs. Thus, there is still significant work to be done on this part of the budget model before it can be implemented.

Space

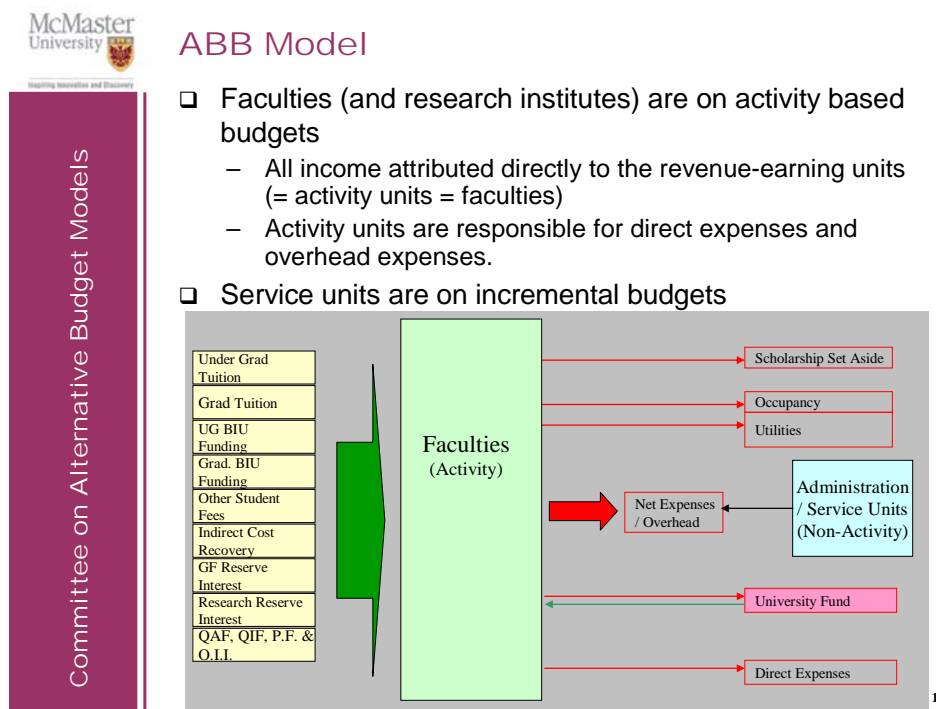
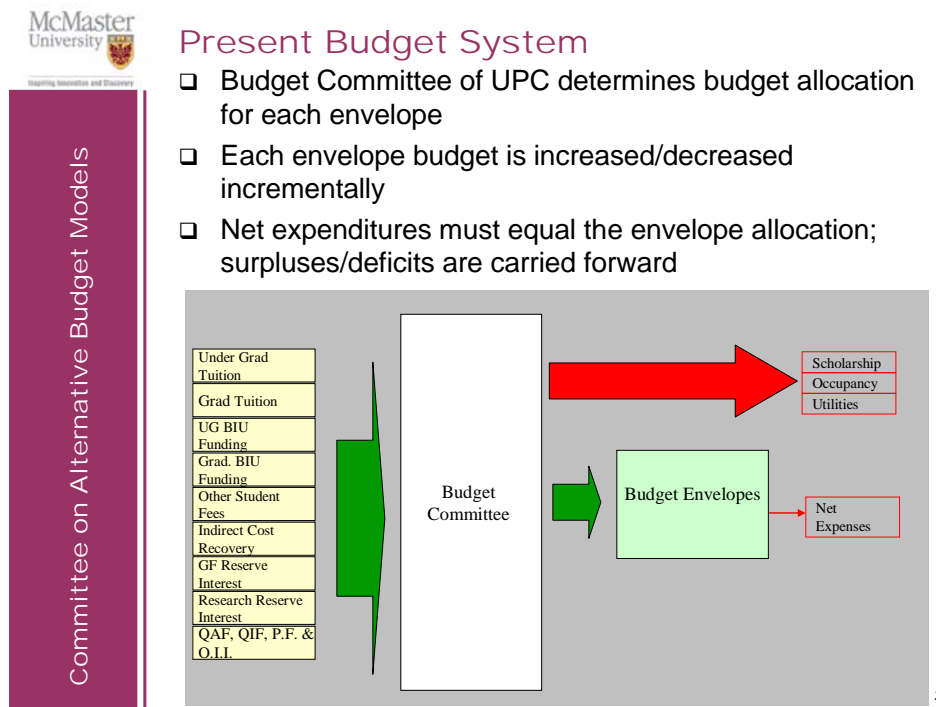
It is agreed that space cost must cover utility charges, custodial services, security, and routine building maintenance; that deferred maintenance is not included; and that costs of new capital construction must be borne by the Faculty. We still have to resolve the charge rate for the various categories of space that we will define. It is important to note that allocations of existing space costs should not be seen as a new burden added to Faculties were we to adopt an ABB budget model. In our current model, funds are taken off the top for existing building maintenance and utilities. In an ABB model, these funds would go to the Faculties who would then be directly charged for such space, thus making the cost of existing space utilization more transparent but does not increase the cost of space to the institution.

Governance

The migration to a new budget model may well suggest a concomitant change in the governance structures associated with the budget. It will be necessary to establish some type of representative governance structure to review and approve service unit budgets and cost recovery plans. There still remains an important role for the Budget Committee, University Planning Committee, Senate, Finance Committee and Board of Governors. However, it is not clear how these roles might change to ensure better consultation across the campus on budgetary matters. The newly established project prioritization policy, which establishes a committee to set priorities for initiatives requiring new space or funding, might serve as a model for distribution of the university fund. Further, as the detailed budget work of the university presently occurs in closed meetings, the shift to a new model will require the establishment of a means of having detailed discussions of topics in an open fashion. It is only through such a consultative process that we can establish a new budget model, improve transparency, and determine which portions of the model require refinement.

Figure 1 summarizes the differences between our present system and what an ABB system at McMaster University may look like.

Figure 1 Comparison of McMaster University's Present Budget System (top) and an ABB system (bottom)



10. Remaining Issues

The Task Force still has to resolve several important components of ABB some of them alluded to above. It may be that they cannot be solved by the present Task Force but rather will need the detailed analysis that only an Implementation Task Force can provide.

Cost of Space and the Support of Research at McMaster University

While the Task Force has agreed on the principles behind space charges the details must be studied. Of all the issues that were raised with R. McNutt during his campus visits, none was of more concern than space charge for research space and other service unit charges for research. As noted above, there is a strong view in the community that any ABB model will, under our provincial funding system (in contrast to the U.S. public university funding system), lead to greater emphasis on undergraduate teaching and a de-emphasis on research and its support. The Canadian system does not adequately cover the indirect cost of research. McMaster gets \$25M of overhead funding to support \$170M of direct research costs or about 15%; in the USA this figure can be as high as 70% so that McMaster has to subsidize research space from instruction-based income for example. There is significant concern about the cost of research space. A satisfactory resolution of the space issue is important to any consideration of budgetary issues at McMaster, including the potential introduction of ABB

Categories of Service

Services at McMaster are provided in several ways. The services can be categorized as follows:

Central service: services as provided universally to Faculties with the costs allocated based on an agreed to formula with no ability for units to opt-out. These services include Internal Audit and payroll.

Complementary service: an enhancement to a central service that is funded based on utilization for additional service if provided centrally to a Faculty or funded by the Faculty directly if provided within the Faculty.

Deployed or decentralized service: a service provided by a receiving unit as an alternative to a central service that provides the same functionality. An example of a deployed service would be research accounting for “8” accounts in FHS.

Enhanced central service (Fee for service): a service that is charged back to the customer using the service and is cost recovery. This service normally falls outside the scope of the central service. Examples of special services which will be charged back to academic departments or programs may include: computer technicians servicing departmental personal computers and changes in building mechanical/electrical systems or structure to accommodate an academic function.

Faculty-specific service: a service funded by a Faculty fund as its own unique services as it is not available at a central complementary service. Faculties providing such unique services can recover costs from other Faculties with their consent based on their utilization of the service. An example is FHS practice plan accounting.

The above categories of service are partly the result of historical structures and partly the hybrid model driven by a view of how best to provide any given service. Computing services, for instance, are generally understood to be best provided in a hybrid of centralized support for items such as major administrative software and local support for computing needs associated with research.

It is important to recognize historical contexts, and to provide appropriate incentives for efficient operation as a new budget model is adopted. It is understood that the new budget model will not force currently deployed services to be re-centralized, although it should support a review of these services to ensure they are effective. Neither should the model encourage deployment of services that are more efficiently accomplished through a centralized structure. The new budget model will not permit Faculties and other units to opt out of centralized service unless there is a strong business case that aligns with the strategic goals of the University and is approved through the governance process that will be identified as part of the new budget model.

At McMaster most Faculties rely on the central administration for administrative support. The Faculty of Health Sciences is a partial exception to this and provides some of its own services. In addition, FHS provides enhancements to some centrally provided services. The budget model must clearly identify these situations and ensure that FHS does not pay twice for the same service while at the same time ensuring FHS is contributing in an appropriate way to central services. A group of senior administrators from Business Management Services, Faculty of Health Sciences, the Office of the Provost and Office of the Vice-President, Research meet on a regular basis. See Appendix I for membership. This group is now reviewing the definition of these services and how metrics should be applied to them within the framework of the new budget model. The FHS/Admin group is identifying how administrative services are managed within Health Sciences and under what categories they fall. The group will then meet with central services providers to gain more understanding and provide recommendations for how the metrics should be applied to these services.

Ancillaries

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 Transition to a New System

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 also likely that the new budgetary framework will be on a “slip” year basis, i.e., a unit’s budget this year will be based on the previous year’s metrics. In some cases two slip years may be necessary. This will lead to an important improvement in predictability for unit managers as well as added smoothness in transition.

Metrics and Numerical Modeling – The Task Force can proceed no further in its analysis of the ABB model without a numerical simulation of just what an ABB budget system will look like in comparison to our present one. The Task Force must be assured that an ABB budget system can work for McMaster. It was hoped that a data set based on the 2005/06 fiscal budget could be used but it has proven not to be the case. It was originally developed for the Acting Provost in 2006/07 and while it served him admirably, it does not have the necessary detail for the present simulation. We propose to use the 2008/09 fiscal budget year and the 2007/08 year for expenditures when using a slip year metric. This analysis is no small task so some time is required. The working group must look at numerous scenarios of the model using differing values of the defined metrics above. The plan is to carry out the modelling exercise during the summer months for review and discussion by the Task Force later this year.

11. Recommendation

The Task Force on Alternative Budget Models has now agreed to a set of principles guiding any budget system for McMaster University, and has conducted detailed studies, received input from the University Community and held discussions on many aspects of budgeting. The Task Force recommends:

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.

12. Summary

The Task Force recommends that McMaster University *investigate the development of a version of an activity-based budget system.*

The Task Force has established the governing principles for any new budget model. For an activity-based budget system, the Task Force has determined, in principle, the following:

- possible methods for the allocation of revenue
- possible metrics for revenue allocation to the service units
- principle of a University Fund
- basis for financial support for instruction
- possible methods of charging for space

Over summer 2009, we will proceed with numerical modeling so as to quantify the metrics for revenue allocation. In so doing it will provide the information required to recommend resolutions to the outstanding issues concerning:

- support of research operations and space costs
- funding of deployed versus centralized services
- transition to the new budget system

Other issues still to be resolved are:

- steps needed to provide high quality, easily accessible and timely data
- governance structure for any new model
- support for interdisciplinary initiatives
- capacity of the model to support institutional priorities

Membership

A. Task Force Membership:

Kathy Bennett, Faculty of Health Sciences
Ilene Busch-Vishniac, Provost and VP Academic
Karen Belaire, VP Administration
Suzanne Crosta, Dean, Faculty of Humanities
Mo Elbestawi, VP Research and International Affairs
Khaled Hassanein, Faculty of Business
John Kelton, VP and Dean, Faculty of Health Science
Brian McCarry, Chair, Budget Committee
Bob McNutt, Chair of Task Force
Karen Menard, AVP, Institutional Research and Analysis Office, Co-Chair, TEAM
Lilian Scime, AVP Administration
Michael Veall, Chair, Task Force on Evaluation, Assessment and Management (TEAM)
Cindy Ward, Director of Administration, Faculty of Science
John Weaver, Faculty of Humanities
David Wilkinson, Dean, Faculty of Engineering
Phil Wood, AVP and Dean, Student Affairs

Resource Staff:

Barb Campbell, Office of the Provost
Fred Cram, Budgeting Services (later replaced by Lou Mitton)
Barb McKenna, Research Services
Gina Robinson, Student Services

Administrative Support:

Tracy Stojanovic, Office of the AVP Academic

B. Sub-Committee Membership

1. Faculty of Health Sciences/Administrative Group

Barb Campbell, Executive Director, Office of the Provost and Vice-President (Academic)

Ross Gardner, Director of Finance, Faculty of Health Sciences

Debbie Martin, Administrator, Corporate Services, FHS

Barb McKenna, Director, Administration and Finance for University Research Envelope
(Vice-President Research and International Affairs)

Karen Menard, Associate Vice-President, Institutional Research and Analysis

Lilian Scime, Assistant Vice-President, Administration

Kevin Sulewski, Administrator, Clinical Services, FHS

2. Metric Sub-Committee Group

Karen Menard, Associate Vice-President, Institutional Research and Analysis

Ross Gardner, Director of Finance, Faculty of Health Sciences

Lilian Scime, Assistant Vice-President, Administration

Roman Viveros-Aguilera, Professor (Mathematics and Statistics)

Communication with the McMaster Community

University Planning Council- October 22, 2008
Open House presentation – November 5
University Advancement – November 20
Chairs and Directors Breakfast Series meeting – November 25
University planning Council Budget Committee – November 26
Faculty of Science Council – December 4
President of McMaster Innovation Park – December 4
McMaster University Faculty Association Executive – December 5
Chair, Department of Biochemistry – December 18
Faculty of Social Science Council – January 20, 2009
Faculty of Humanities Dean’s Advisory Council – February 11
Faculty of Health Science Executive – February 25
Faculty of Business Council – March 19
Faculty of Engineering – March 19

Background Research

A. Interviews at other Universities

University Indiana Bloomington – fairly pure form of ABB first established in 1989
 Vice-President and Chief Financial Officer for UI System
 Senior Associate Vice-President
 Dean of University Libraries
 Dean, School of Education
 Executive Associate Dean, College of Arts and Science
 Assistant Dean, Finance and Operations School of Business
 Chair of University Faculty Council
 Senior staff including the Senior Associate Vice-Provost, Assistant Provost, Assistant Vice-President and Campus Planning Officer

University of Michigan – modified form of ABB having rejected a more pure form
 Provost
 Vice-Provost, Academic and Budgetary Affairs
 Assistant Vice-President, Space and facilities
 Associate Vice-President for Finance
 Faculty members from the Provost's Budget Advisory Committee
 Executive Director of Budget and Planning
 Associate Director of University Budget
 Chief Administrative officers from several Faculties
 Marilyn Knepp, co-author of UM study on ABB

University of Toronto - a modified form of ABB initiated in 2007
 Vice-Provost, Planning and Budget

B. Material Studied

Indiana University
 University of Michigan
 University of Toronto
 Iowa State University
 University Minnesota
 University of New Hampshire
 University of Otago

A. Principles for funding of teaching

1. All students should experience a high quality learning environment.
2. We recognize the value of all teaching, including undergraduate classes, graduate courses, and research/clinical/practicum.
3. We support student mobility between Faculties.
4. Learning outcomes are promoted using a variety of pedagogical methods.
5. Any budget for instruction must recognize the academic unit providing instruction as well as the unit or units registering and providing program level support to the students.
6. We commit to efficient teaching through minimizing the replication of courses.
7. We commit to maximizing student accessibility to courses when they have appropriate backgrounds.
8. We value opportunities for students across campus to exchange their varying perspectives in class.
9. We encourage the development of interdisciplinary studies.
10. Program design should not be driven solely by budgetary considerations.
11. We should regularly review the success of our instruction and implement appropriate changes.
12. Course and program design should be based on collaboration between discipline experts and Faculties whose students are likely to enrol in the class.
13. Courses will be taught by people with disciplinary expertise.
14. The home for a course ought to be the Faculties whose core faculty members have that disciplinary expertise.
15. While instructional flexibility is important, we recognize the value of having a critical mass of expertise in a single academic unit.
16. We favour core faculty over short-term instructional faculty as instructors of any course.
17. Any budget model ought to provide incentives for behaviour that map to the above principles.

B. Issues raised by the Deans that any new budget model for teaching must consider are:

1. Disciplinary expertise in some areas exists in multiple Faculties. How do we prevent silos and ensure appropriate teaching?
2. What is the model for supporting interdisciplinary programs?
3. How do we recognize differences in the costs of various types of courses? (lab courses, courses using instruments, writing-intensive classes)
4. Revenue varies by degree program. How do we deal with the cost per student in any particular class being fixed independent of their degree program?
5. There is a nonlinear scaling of costs with size. Adding one person to a 15 person class is more of a burden than adding one to a 200 seat class.
6. We must keep things simple – not too many variables.
7. Who will regulate/review the system we establish if it is course specific?
8. Do we focus on costs to deliver courses or on revenues?
9. How do we change the reward structure for going over target on admissions?
10. How do we recognize the variation in teaching loads from Faculty to Faculty?