

Research Excellence is a vital activity at McMaster University. As provost, I am pleased to accept the direction of the recommendations within this report and to enhance them to ensure McMaster's budget model supports and incentivizes research.

I commissioned this working group following an external review of McMaster's Budget Model conducted in June 2023, which involved extensive consultations across campus. While the reviewers found the hybrid activity-based budget model is working well, they made five recommendations in light of evolving conditions in Ontario's post-secondary sector and within our own campus.

A key recommendation was to strike a working group to explore how the University Fund supports research and to consider broadening the cost drivers for research support.

I am sincerely grateful to all members of the Budget Model Review Working Group, which included faculty members and finance staff representing units across campus. I am especially thankful to Melissa Pool, associate vice-president, Academic Planning and Finance, for chairing the group.

Since receiving this report, I have engaged in additional consultations with research leaders at McMaster and decided to further enhance support for research.

The Research Excellence Fund will be increased to a flat rate of \$10 million annually from the University Fund for a three-year period, up from the current \$2.5 million, an amount that represents approximately 20% of the University Fund.

This substantial increase builds on the recommendations of the Working Group and will provide clarity around the university's commitment to the strategic use of the University Fund to support research across the institution.

This is a sizable and direct investment that consolidates efforts to support core Research Centres and Institutes.

The research conducted on our campus drives innovation and contributes to the social, cultural and economic fabric of our society, locally and globally. I am excited that we are able to increase research support and I look forward to seeing the outcomes of this investment.

Susan Tighe

Auson F. Lighe

Provost and Vice-President (Academic)





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Introduction:

In June 2023 an external review of McMaster's Budget Model (MBM) was conducted. The review sought 'advice and feedback on the degree to which our current University Budget Model structure supports its strategic priorities.' The review included extensive consultation with university stakeholders and reported their findings in August 2023 of which the full report can be found <a href="https://example.com/here.com/he

The review found that "While the hybrid activity-based budget model is working well in many respects and is appreciated for its transparency and the incentives it presents to the Faculties, budgetary tightening in Ontario over the past decade warrants a number of recommendations to tackle the resulting new challenges." It made 5 recommendations. The 4th recommendation will be the focus of this report.



Recommendation #4:

The Budget Model review made the following recommendation:

"Lingering questions about the model's incentives for research activity and how it supports research and reputational goals of the institution should be addressed urgently. Consideration should be given to how the University Fund could be used in a principled and ongoing way to support research and mitigate unintended impacts arising from the distribution of research costs among the Faculties. In addition, consideration should be given to whether the drivers for research support costs can be significantly broadened to best reflect the costs of impactful research and the broad influence of research on the institution's reputation and goals. A working group should be struck to investigate and make recommendations."

Following this advice the Provost tasked a working group with investigating this recommendation and to make its own more detailed recommendations that would address the issues raised by the Budget Model Review committee.

The Committee was comprised of individuals from across the university and chaired by the AVP Academic Planning and Finance. Its membership included:

Melissa Pool, AVP Academic Planning and Finance (Chair)

Matheus Grasselli, Deputy Provost

Khaled Hassanein, Dean DeGroote School of Business

Claude Eilers, Associate Professor, Greek and Roman Studies
Alison Sills, Professor and Chair Physics & Astronomy
Susan Galloway, Executive Director, Finance, Health Sciences

Lou Mitton, Controller, Financial Affairs
Kathy Charters, AVP, Research Administration

Nancy Balfoort, Director, Finance and Administration, Engineering Juliette Prouse, Director Finance and Administration, Social Sciences

Iain Clarkson, Budget Director, Financial Affairs

The working group met 8 times over the course of 7 months. The Terms of Reference for this working group can be found in Appendix 1.

In its work, the group reviewed and explored the following:

- i. The current budget model's means of allocating costs and providing supports,
- ii. The concerns with the current cost drivers and their impacts,
- iii. Cost drivers of research support at other universities,
- iv. Potential Changes and Impacts to various support and driver models,
- v. The NASM rate for allocating space costs,
- vi. The overhead policy of the Indirect Cost of Research,
- vii. The Research Platforms Pool.



The Current Budget Model's Means of Allocating Costs and Providing Supports:

There are a number of mechanisms within the current budget model to support research. These include:

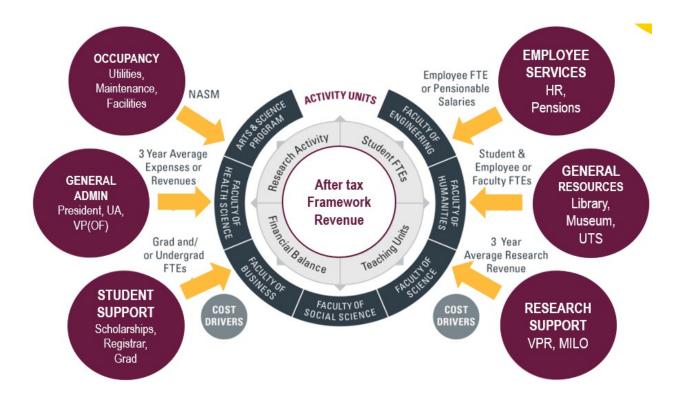
- i) the Research Excellence Fund (REF), which provides \$2.5 million in funding per year from the University Fund to the Faculties. These funds are distributed using the Indirect Cost of Research distribution proportions with a 2x multiplier for Humanities, Social Science and Business. Additionally, \$250,000 is held centrally for distribution for interdisciplinary research support.
- ii) the Research Infrastructure Fund (RIF), an annual tax on the Faculties (3% of Revenue for Contributions from Business, Engineering and Arts&Science, 1% from all others) which is then redistributed using Indirect Cost of Research distribution proportions,
- the exclusion of the University's research funding for support of indirect costs and overhead from the UF and RIF tax (noting 10% of ICR and contract overhead is directed to the VPR discretionary fund)),
- iv) NASM (Net Assignable Square Metres) distribution, in which the McMaster budget model assigns a single cost to all space regardless of its complexity (e.g. lab vs. office space).

Additionally, outside the budget model the University Fund makes a regular contribution to:

v) The Research Platforms Pool - initiated in 2020 with a yearly allocation of \$2 million from the University Fund, requires matching funding from the Faculties. A transparent funding request process is overseen by the University Research Infrastructure Oversight Board and involves outreach to Faculties, with proposal reviews at the Faculty and Oversight Board levels, and final approval from the Provost. Over five rounds, \$12 million has been provided, with some rounds exceeding the \$2 million target. RPP funding is one-time funding used to support research activities for things like new equipment/capital purchases, equipment upgrades, major repairs, fees associated with implementation or start-up services, etc.



The McMaster Budget Model is best summarized by the following diagram:



Tax items to the Framework:

- University Fund
- Research Infrastructure Fund
- VPR Discretionary Fund

As per the diagram above, the cost driver that has been used to allocate Research Support costs (i.e. VPR and MILO) is 3-Year Average Research revenue (post-award).

Concerns with the current drivers and impacts on research:

The current cost driver, while straightforward and easy to understand, is not well aligned with the activities driving the cost of research support. Using research revenue disproportionately drives costs based on the size of awards and does not necessarily align well with the efforts and resources required for research support activities. Furthermore, it does not recognize that McMaster may not

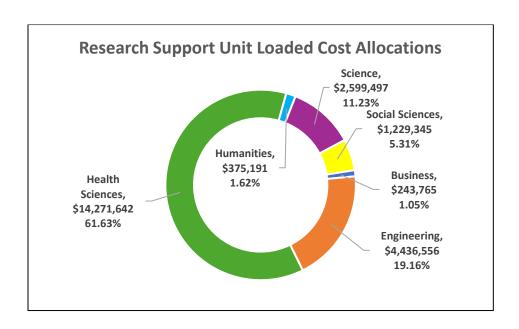


keep all the grant funding awarded and therefore Faculties will be taxed on research revenue that is not retained at the University.

As a result, the Budget Model dampens research success, disproportionately allocates research support costs, including those not driven by research productivity, (e.g. allocated Nuclear Reactor costs) and is a primary reason why the Budget Model appears to disincentivize research. It is worth noting that the cost of research support through the budget model has increased by 60% over the past five years.

The research support cost allocations for 2023-24 were as follows:

Chart 1: Research Support Unit Loaded Cost Allocations per Faculty



Note: there are additional direct research supports invested locally by all Faculties. The focus of the review and working group is on pan-university supports and costs that are taxed and allocated through the Budget Model.

Cost Drivers and Research Supports at Other Universities:

The group investigated other budget models at other universities to understand how research is supported and costs allocated.

In general, two characteristics became evident. Recognizing that insufficient external funding was provided to support research, institutions had created internal funds to support research. These are similar to McMaster's REF and RIF funds.



Secondly, no university drove their research support costs using only one cost driver. Each university had their own mechanisms based on their own intricacies to allocate the costs. All the examples pointed to a mix of inputs to allocate research support costs.

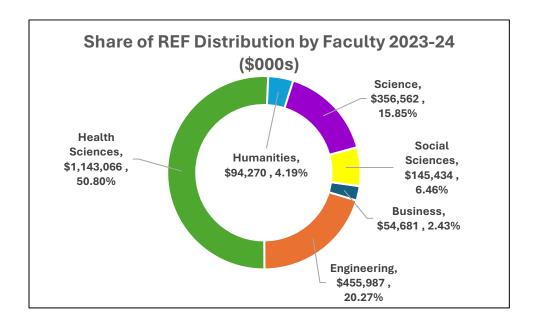
The examples of other universities helped spur investigations into alternate cost driver models.

Potential Changes and Impacts to various support and cost driver models:

As mentioned, research supports and costs are managed within the budget model in a number of ways. These include either flowing or redistributing additional resources to the Faculties (i.e. the REF and the RIF), allocating research support costs according to cost drivers, and by using a flat rate NASM charge.

The Research Excellence Fund was established at a flat rate of \$2.5 million per year and has been static at that level even as the university grew. The working group considered whether the current level of funding was sufficient. The 2023-24 REF distributions were as follows:

Chart 2: Share of Research Excellence Fund Distribution per Faculty



As well the working group looked at models that would change this to a proportional funding model that would ensure support for research would grow as contributions to the University Fund grew. In 2023-24, \$2,500,000 was 4.67% of *Revenue for Contribution* to the University Fund. The following chart shows differing levels of REF support at 6.55% (the amount it would be if it had kept pace with



revenue growth), and 8% representing an increase in the proportion of University Fund that would go to support research.

Table 1: Research Excellence Fund Distribution to Faculties at Different Levels of Support

	Portion of REF Distributions to Faculties at Various Percents															
% of University Fund Revenue for Contribution		l from sity Fund	Bı	usiness	Enį	gineering	Hea	alth Sciences	Hu	manities		Science	Soci	ial Sciences	Inter	disciplinary
% of REF distribution			- 2	2.43%		20.27%		50.80%		4.19%		15.85%		6.46%		
REF current-4.67%	\$ (2,500,000)	\$	54,681	\$	455,987	\$	1,143,066	\$	94,270	\$	356,562	\$	145,434	\$	250,000
REF - 6.55% (proportionate to initial Budget Model % of UF Revenue for Contribution)	\$ (3,502,965)	\$	79,056	\$	659,249	\$	1,652,601	\$	136,292	\$	515,504	\$	210,263	\$	250,000
REF 8%	\$ (4,278,430)	\$	97,902	\$	816,406	\$	2,046,560	\$	168,783	\$	638,393	\$	260,387	\$	250,000

The Research Infrastructure Fund (RIF) was created at a time when professional Faculties were allowed by the provincial government to increase tuition fees at a higher rate than the other faculties, facilitating higher revenue growth by those Faculties. However, this changed when all domestic tuition was cut by 10% and frozen for the foreseeable future by the current provincial government. Given the change in circumstances, the committee discussed whether the unequal contribution levels were still appropriate and felt this to be an inequity.

The 2023-24 RIF contribution and distribution is shown in the table below.

Table 2: Portion of Research Infrastructure Funds Contribution and Distribution by Faculty for 2023-24

			Health			Social	Arts &	Activity Units
	Business	Engineering	Sciences	Humanities	Science	Sciences	Science	Total
Research Infrastructure Fund								
Contribution	\$ (2,919,985)	\$ (4,934,464)	\$ (1,391,958)	\$ (454,248)	\$ (1,426,440)	\$ (761,867)	\$ (97,159)	\$ (11,986,119)
% share of RIF Contribution	24.36%	41.17%	11.61%	3.79%	11.90%	6.36%	0.81%	100.00%
Research Infrastructure Fund								
Distribution	\$ 155,843	\$ 2,599,152	\$ 6,515,538	\$ 268,673	\$ 2,032,422	\$ 414,490	\$ -	\$ 11,986,119
% share of RIF Distribution	1.30%	21.68%	54.36%	2.24%	16.96%	3.46%	0.00%	100.00%

Additionally, the group discussed the distribution of the REF and the RIF funds to Faculties. Currently the RIF is distributed according to the proportion of Indirect Cost of Research (ICR) or Tri-Agency overhead that each Faculty receives. The REF is distributed slightly differently, with Social Science, Humanities and Business ICR amounts multiplied by 2 and \$250,000 is held within the University Fund to support Interdisciplinary research. The group considered alternate models including relating distribution to success, but determined they were satisfied with the current distribution models.

Cost Drivers:

Turning to cost drivers, the AVP Research Administration led an exploration into potential inputs to a new cost driver model. Metrics were sought out that would align more closely with the activities



that support research versus just the successful outputs (i.e. research revenue as is the current case).

Possible inputs were weighed against the budget model and cost driver principles and best practices. Notably the cost driver principles include that the driver should be: a proxy for the use of services or the type of support, easily sourced and sustainable, and replicable annually in time to meet budget process timelines.

As a result of the diligent work of the AVP Research Administration team, a new Weighted Activity Cost Driver (WACD) was developed. Its core components measure activities aligned with major research support cost components, namely ROADS, Research Finance, and MILO, and considered the applicability of those drivers for Research Support, Research Centres and Institutes (RCIs) and the McMaster Nuclear Reactor (allocated space costs only). While additional inputs were investigated, they were either too difficult to maintain or not material (or both) and were therefore discarded. It was determined that the components of the new driver would be Commercialization Activity, Research Transaction activity and Research Funding Applications activity. The detailed information on the WACD can be found in Appendix 2 but the resulting recommended driver inputs are as follows:

Table 3: Weighted Activity Cost Driver Inputs

3 yr average F21-F23							
	Bus	Eng	FHS	Hum	Sci	Soc	Weighting
Commercilization Activity	0.87%	36.43%	53.89%	0.00%	8.63%	0.18%	30.46%
	Bus	Eng	FHS	Hum	Sci	Soc	Weighting
Research Transactions	0.83%	21.07%	55.22%	1.95%	17.77%	3.16%	26.76%
	Bus	Eng	FHS	Hum	Sci	Soc	Weighting
Application numbers	2.53%	22.85%	52.66%	2.55%	13.40%	6.01%	42.78%
TOTAL PER WEIGHTINGS ABOVE	Bus	Eng	FHS	Hum	Sci	Soc	
	1.57%	26.51%	53.72%	1.61%	13.11%	3.47%	100.00%

It was also noted that royalties received by the VPR office are currently used to support seed funding and patent costs for commercialization activities and have historically benefitted those faculties allocated the higher costs driven by commercialization activities. A member noted concern over the complexity of the new driver and tracking the components. The Research Support Office indicated that working with this new driver is a manageable task.

The WACD was then evaluated against other potential cost drivers including the current cost driver (research revenue) and operating expenses.

Additional consideration was given to whether all costs should be driven by a single cost driver, or whether some costs are not well related to the weighted activity cost driver and would then still be inappropriately driven to faculties. To address this concern the group looked at three sets of costs



to understand whether they would be more appropriately driven by a different cost driver than other costs within the VPR envelope. These sets of costs included: the cost of the Office of the Vice President Research (i.e. should its cost driver be similar to the VP Academic or VP Operations and Finance), RCIs and the Nuclear Reactor (both of which have costs (mostly space) from the double stepdown budget model methodology).

Table 4: 2023-24 Research Support Unit - Loaded Cost Breakout

2023-24 Research Support Unit – Loaded cost breakout

			Health			Social	Arts &	Activity Units
\$000s	Business	Engineering	Sciences	Humanities	Science	Sciences	Science	Total
Support Units Loaded Cost Breakout - Research								
VPR and Research Admin - Core Allocation	(143)	(2,607)	(8,388)	(221)	(1,528)	(722)	-	(13,609)
VPR and Research Admin - FHS Deployed Approved amount	(23)	(416)	(1,339)	(35)	(244)	(115)	-	(2,173)
VPR and Research Admin - NASM Related via double stepdown	(14)	(254)	(817)	(21)	(149)	(70)	-	(1,325)
VPR and Research Admin - Other Drivers via double stepdown	(18)	(322)	(1,036)	(27)	(189)	(89)	-	(1,681)
Nuclear Reactor - Core Allocation	(1)	(21)	(67)	(2)	(12)	(6)	-	(108)
Nuclear Reactor - NASM Related via double stepdown	(15)	(274)	(882)	(23)	(161)	(76)	-	(1,431)
Nuclear Reactor - Other Drivers via double stepdown	(9)	(158)	(508)	(13)	(93)	(44)	-	(824)
RCIs - Core Allocation	(0)	(0)	(0)	(0)	(0)	(0)	-	(0)
RCIs - NASM Related via double stepdown	(17)	(312)	(1,005)	(26)	(183)	(87)	-	(1,630)
RCIs - Other Drivers via double stepdown	(4)	(72)	(231)	(6)	(42)	(20)	-	(375)
Research Support Unit Loaded Cost	(244)	(4,437)	(14,272)	(375)	(2,599)	(1,229)		(23,156)

The group determined that VPR Office costs were related specifically to the research enterprise and were still appropriately driven by the WACD .

Note: There are independent ongoing activities regarding the administration/support of the Nuclear Reactor. This report does not intend to override or make any assumptions about the outcomes of those activities.

Until different determinations are made, the group supported the following:

The Nuclear costs were a pan-university strategic cost and thus best driven proportionate to the relative sizes of Faculties, i.e. through 3 year rolling average allocated operating revenue, since it has both research and commercial activities (i.e. making isotopes for cancer treatments) and is being used for significant reputational benefit for the institution.

The discussion around RCIs focused on whether they were more aligned with research activity than general university activity (e.g. like the President's office).) Opinions on this driver were more mixed with observations that these costs could legitimately be driven through either of the cost drivers. (i.e. WACD or Revenue for Contribution).) The majority opinion was that RCI costs were better aligned with the WACD. Discussion on this item noted that 3 year rolling average allocated operating revenue is a driver used for things which are directly beneficial to the pan-university reputation and governance: e.g. Marketing and Branding, etc. The RCIs are, as indicated by their nomenclature, entirely focused on research. While some have national and international



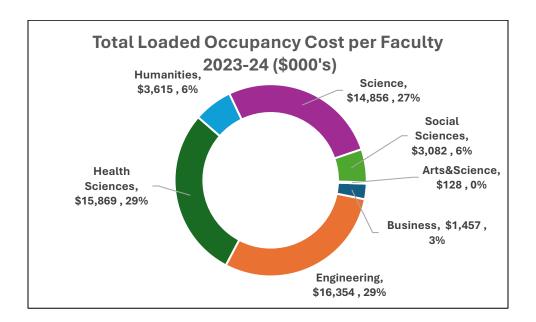
reputation, that reputation is built entirely on the research that they enable. Furthermore, these units are also under the management of the VPR, so it makes sense that their space is divided in the same way as other VPR budget model costs.

Counter opinions felt the RCIs were a common good across the university and should be allocated by the general cost driver – 3 year rolling average allocated operating revenue. Additionally, activities in the RCIs are not driven by Faculty research productivity and so better fit with a non-activity driver.

NASMs – Net Assignable Square Metres

Occupancy or space costs are allocated according to a singular average NASM rate. Each faculty bears the cost of the space it uses based on average NASM rate. As is evident in the chart below, the faculties with the most complex (i.e. expensive) space already pay the bulk of space costs, so further complexity in assigning space costs would not necessarily be productive.

Chart 3: Total Loaded Occupancy Cost Distribution by Faculty 2023-24



Overhead Policy of the Indirect Cost of Research

In addition to the above, the working group also considered additional supports for research. In particular, the Office of the VP Research highlighted the VPR's efforts since 2018 to enhance support for research infrastructure. The initiatives involved consultations with Faculty Deans, collaboration with Northwestern University for best practices, and a needs assessment for core research platforms. This led to the establishment of the University Research Infrastructure Oversight Board and the position of Director, Research Platform Support.



Specifically, the working group was asked if a working group should be struck to examine these questions:

- Should the indirect cost policy apply to service being done using any research infrastructure or research resources at McMaster and if so, should it apply regardless of whether it is located within a core research platform or an individual lab?
- As with industry contracts, should the standard rate be 40%?
- Should the distribution model remain the same whereby the funds for indirect costs are allocated to the faculty, with 10% for the VPR Discretionary Fund?

These are important questions and there is support from the committee for them to be investigated further.

The Research Platforms Pool:

The group agreed this was an important support for research at McMaster.

The RPP is a flat amount of \$2M. On occasion, the Provost has supported requests that have exceeded this amount. The group noted that like the REF, the RPP is a flat amount does not grow proportionately as the university grows. The group felt either an increased amount or at least a proportionate amount that would grow with revenue increases would be appropriate. Even so, flexibility is recommended to recognize that funding exceeding a designated amount may be needed from time to time and hope that the Provost will continue additional support in these circumstances.

It was recognized that matching contributions can be difficult for the Faculties given their budget situations. Faculties should continue to support where possible. Where not possible the Provost should still consider providing funding that helps with much needed infrastructure.

Additional research support - Libraries

It is also important to recognize the vital importance of McMaster's libraries in support of research activities. It was noted that another review of the Libraries was occurring concurrently, and it is expected that supports will be discussed in that forum.

Recommendations to the Provost:

This working group would like to put forth a number of recommendations for the Provost. The recommendations have been considered as an entire package (i.e., evaluations incorporated all proposed changes in identifying the impact on Faculties). The group encourages consideration of the recommendations to also be done in totality. While each recommendation was considered on individual principles, the package in total was itself considered on aggregate for principle. (i.e.,



some of what made individual changes or concessions fair, was because of the fairness of the entirety of the recommendations.)

The working group recommendations are as follows:

- 1) The Research Excellence Fund should be increased and changed to a proportionate percentage that provides for future growth as McMaster grows. The group recommends a change to 8% of the *Revenue for Contributions* to the University Fund.
- 2) Make the Faculty contributions to the Research Infrastructure Fund an equitable percentage of the *Revenue for Contribution* for all Faculties. To maintain the same dollar value of contributions as 2023-24, all Faculties would contribute 1.75% of framework revenues, resulting in the amounts shown in the table below:

Table 6: Change in RIF Contributions by Faculty under new model.

			Health			Social	Arts and	
	Business	Engineering	Science	Humanities	Science	Science	Science	Activity Units total
Revenue for Contributions	97333	164482	139196	45425	142644	76187	3239	668506
RIF contribution - current	2920	4934	1392	454	1426	762	97	11985
RIF contribution - 1.75%								
equally	1703	2878	2436	795	2496	1333	57	11699
Increase/(Decrease)	(1217)	(2056)	1044	341	1070	571	(40)	-286

- 3) RIF/REF Distributions: upon consideration the group agreed to maintain the status quo for the distribution methodology of RIF and REF distributions.
- 4) Establish a new Weighted Activity Cost Driver (WACD) for research support using commercialization, research transactions and research application activity. VPR and Research Administration and Support Costs (i.e. the green area on Table 4) would be driven by the WACD.
- 5) The group recommends allocating RCI double stepdown budget model costs (i.e. the pink portion of Table 4) according to the WACD.
- 6) Nuclear Reactor Operations and Facilities costs from the double stepdown (i.e. the blue portion of Table 4) would be allocated according to 3 year rolling average allocated operating revenue.
- 7) NASMs the group affirmed that the current NASM model is an effective cost allocator and does not feel adding complexity or additional administrative burden would be helpful. This helps support research indirectly in Faculties with more expensive research space.



- 8) In accordance with the Policy on Indirect-Costs-Associated-With-Research.pdf (mcmaster.ca)" it is recommended that Faculties adhere to charging the maximum allowable rate of Indirect Cost of Research (overhead) on research contracts.
- 9) The working group also agreed that a separate group should be struck to examine Indirect Cost of Research questions.
- 10) Given the differential impacts to the Faculties of applying this package of recommendations, the Provost should consider implementation supports for negatively impacted Faculties to assist the Faculties in transitioning to the new model.



Appendix 1: Working Group Terms of Reference

<u>Budget Model Review – Recommendation #4 Working Group</u> Terms of Reference

In August 2023, The University Budget Model Review Committee submitted their report for consideration. The committee's mandate was "to review McMaster's budget model to critically assess the strengths and weaknesses of both the model itself and its associated processes, paying particular attention to the degree to which the model and its processes are in appropriate alignment with each other and with the originally agreed upon set of principles." The Reviewer's report offered 5 recommendations. This working group will advance one of those recommendations.

Mandate:

Recommendation 4: Lingering questions about the model's incentives for research activity and how it supports research and reputational goals of the institution should be addressed urgently. Consideration should be given to how the University Fund could be used in a principled and ongoing way to support research and mitigate unintended impacts arising from the distribution of research costs among the Faculties. In addition, consideration should be given to whether the drivers for research support costs can be significantly broadened to best reflect the costs of impactful research and the broad influence of research on the institution's reputation and goals. A working group should be struck to investigate and make recommendations.

Working Group Aim:

Will bring together representatives from across the university to review the current budget model research supports, consider alternatives for budget model research support cost drivers and make long and short term recommendations to the Provost regarding research support at the university.

The Working Group will:

Adhere to the Budget Model guiding principles, validate, and align on the approach, and provide input on the implementation and communication plan.

Use data to inform decisions,



Will connect with other institutions who have implemented an activity-based model to help inform possible solutions.

Review current research support landscape at McMaster.

Gather pain points and document the current issues with budget model research support.

Recognize there are additional research supports (e.g. deployed services, libraries) when considering recommendations.

Consider budget model research supports holistically in making recommendations (i.e. recognizing that research support has been built in the budget model in a number of ways)

Evaluate solutions, alternatives, provide input on implementation timelines, determine resources and time commitments required for implementation.

Make recommendations regarding budget model drivers.

Sponsor: Susan Tighe, Provost

Members:

Melissa Pool, AVP Academic Planning and Finance (Chair)
Matheus Grasselli, Deputy Provost
Khaled Hassanein, Dean DeGroote School of Business
Claude Eilers, Associate Professor, Greek and Roman Studies
Alison Sills, Professor and Chair Physics & Astronomy
Susan Galloway, Executive Director, Finance, Health Sciences
Lou Mitten, Controller, Financial Affairs
Kathy Charters, AVP, Research Administration
Nancy Balfoort, Director, Finance and Administration, Engineering
Juliette Prouse, Director Finance and Administration, Social Sciences
lain Clarkson, Budget Director, Financial Affairs



Appendix 2: Process for determining the Research Weighted Activity Driver %

Research Weighted Activity Cost Driver Process:

Step 1: Determining data to collect:

Commercialization Activity

- Invention disclosures
- Patents
- Licenses

Number of financial transactions by Faculty:

- Count of Employee ID if received payment through payroll and charged to a research project
- Only count Employee ID once
- Will 'not' capture an individual moving to a new role or research project

Application numbers by Faculty, weighted by 2 levels of complexity.

- Regular grant applications are higher in number than those that are more complex
- Numbers of complex grants have somewhat greater year to year swings

Regular applications: score of 1 More complex applications: score of 2.5

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Research Weighted Activity Cost Driver Process:

Continuation -Step 1: Determining data to collect:

- Application numbers by Faculty.
- More complex:
 - Canada First Research Excellence Fund
 - CFI Biosciences Research Infrastructure Fund (BRIF)
 - Canada Biomedical Research Fund and Biosciences Research Infrastructure Fund (CBRF-BRIF)
 - Canada Excellence Research Chairs (CERC)
 - CFI Innovation Fund
 - Ontario Research Fund Research Excellence (ORF-RE)

 - SSHRC Partnership Grant (Full application)
 New Frontiers in Research Fund Transformation (full application)
 - CFI Major Science Initiatives (MSI)
 - CFI John R. Evans Leaders Fund (JELF)
 - NSERC Collaborative Research and Training Experience (CREATE)
 - Ontario Research Fund Research Infrastructure (ORF-RI)
 - Canada Research Chairs (CRC)
 - SSHRC Partnership Grant (Letter of Intent)

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Research Weighted Activity Cost Driver Process:

Step 2: Weighting the categories against each other:

- Commercialization Activity:
 - o 70% of MILO of costs
- Number of financial transactions by Faculty:
 - 100% of Research Finance costs
- Application numbers by Faculty, weighted by 2 levels of complexity:
 - o 100% of ROADS and 30% of MILO costs

These percentages are applied to the salary and non-salary operating costs of MILO, Research Finance and ROADS

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