McMaster University

UNIVERSITY SECRETARIAT
• Board of Governors
• Senate

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Board of Governors
9:00 AM, Thursday, March 3, 2022
Zoom

AGENDA

NOTE: Members who wish to have items moved from the Consent to the Regular Agenda should contact the University Secretariat before the Board meeting. Members may also request to have items moved when the Agenda is presented for approval at the Board meeting.

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A. OPEN SESSION

1. REMARKS FROM THE CHAIR (9:00 a.m.)

2. NOTICE OF MEETING - FEBRUARY 18, 2022

3. APPROVAL OF THE AGENDA - OPEN SESSION

CONSENT (9:05 a.m.)

4. MINUTES OF PREVIOUS MEETING – DECEMBER 9, 2021 (OPEN SESSION)

6 - 14 **a.** Minutes of the Board of Governors - Open - December 9, 2021

5. REPORT FROM SENATE

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16 - 34 **a.** Proposal for McMaster Institute for Research on Aging|Dixon Hall Centre (MIRA|DH) (APPROVAL)

35 - 38 **b.** Revised Terms of Reference – Hannah Chair (APPROVAL)

39 - 48 **c.** SPS B13 Revisions (APPROVAL)
SPS B13 Revisions - Track Changes

6. COMMITTEE REPORTS

a. EXECUTIVE AND GOVERNANCE COMMITTEE

49 Report from the Executive and Governance Committee

50 - 85 **i. Amendments to the Sexual Violence Policy (INFORMATION)**
Sexual Violence Policy Revisions - Summary

Sexual Violence Policy Revisions - Track Changes- February 1, 2022

b. REMUNERATIONS COMMITTEE

86 Report from the Remunerations Committee

87 - 90 **i.** Ratification of Tentative Agreement - Unifor Local 5555, Unit 5 (Approval)

REGULAR

7. BUSINESS ARISING

8. COMMUNICATIONS

9. PRESIDENT'S REPORT TO THE BOARD (9:05 a.m.)

91 - 96 President's Report to the Board

10. REPORTS RECEIVED FOR INFORMATION (9:25 a.m.)

Presenter: Ms. Carol Podedworny

97 - 147 **a.** McMaster Museum of Art - Annual Report

11. COMMITTEE REPORTS

a. PLANNING AND RESOURCES COMMITTEE (9:35 a.m.)

148 Report from the Planning and Resources Committee

149 - 171 **i. Sustainability Strategy (9:35 a.m.)**
Presenters: Ms. Debbie Martin & Ms. Kate Whelan
Sustainability Strategy (INFORMATION)

172 - 327 **ii. Salaried Pension Plans Actuarial Evaluations (9:45 a.m.)**
Presenter: Ms. J. Allen.
Salaried Pension Plans Actuarial Evaluations (APPROVAL)

b. AUDIT AND RISK COMMITTEE (9:50 a.m.)

Presenter: Ms. Wanda McKenna.

328 Report from the Audit & Risk Committee

329 - 341 **i.** Health and Safety Annual Report 2021 (INFORMATION)

12. PRESENTATION TO THE BOARD OF GOVERNORS (10:00 a.m.)

McMaster Research through COVID

Presenters:
Dr. Karen Mossman, *Vice-President, Research, Office of the Vice-President, Research*
Dr. Fiona Smaill, *Co-director, Special Immunology Services/HIV Clinic*
Dr. P. Ravi Selvaganapathy, *Distinguished Engineering Professor, Canada Research Chair in Biomicrofluids*

13. OTHER BUSINESS

BREAK (10:30 a.m.)

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• Senate

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Minutes of the Board of Governors
9:00 AM, Thursday, December 9, 2021
Zoom

PRESENT: Mr. B. Merkel (Chair), Ms. J. Allen, Dr. E. Apatu, Dr. D. Brooks, Dr. L. Bronsard, Ms. L. Brown, Mr. R. Clarke, Ms. S. Cruickshanks, Dr. J. Daniel, Ms. J. Dhaliwal, Dr. D. Farrar, Mr. D. Feather, Mr. M. Ferencich, Ms. S. Galloway, Mr. D. Horwood, Mr. D. Huctwith, Ms. R. Jamieson, Ms. Sarrah Lal, Dr. N. Lishchyna, Mr. K. Nye, Dr. L. Parker, Ms. M Pool, Ms J. Rowe, Ms. F. Samji, Ms. S. Stankovic, Dr. E. Szathmáry, Dr. S. Tighe, Dr. R. Walker, Ms. A. Thyret-Kidd (University Secretary), Ms. Christine Richard (Associate University Secretary) Ms. K. Snow (Governance Coordinator)

OBSERVERS: Ms. B. Couchman, Ms. E. Davies, Mr. D. Della-Vedova, Ms. A. Farquhar, Ms. S. Fazilat, Ms. D. Henne, Dr. N. Kevlahan, Ms. B.A. Levy, Ms. M.L. Maher, Ms. D. Martin, Ms. W. McKenna, Ms. K. Mossman, Dr. P. O'Byrne, Ms. A. Purina, Ms. C. Seiler, Ms. M. Williams.

INVITED:
Dr. S. Denburg, Executive Vice-Dean and Associate Vice-President, Academic
Dr. K. Hassanein, Dean, Faculty of Business
Dr. J. Hurley, Dean, Faculty of Social Sciences
Dr. M. MacDonald, Faculty of Science.
Dr. H. Sheardown, Dean, Faculty of Engineering
Dr. P. Swett, Dean, Faculty of Humanities
Dr. A. al Shaibah, Associate Vice-President (Equity and Inclusion)
Dr. L. Carter, Director, Centre for Continuing Education
Mr. T. Shattuck, CEO, McMaster Innovation Park
Mr. R. Couldrey, Strategic Advisor to the President and Vice-Presidents
Mr. A. Phillips, TD Securities
Mr. D. Dermott, TD Securities
Ms K. Pithayachariyakul, TD Securities
Mr. D. Kunda, IA Capital Markets
Mr. B.Davis, University Counsel
Mr. T. Betts, Gowling WLG

REGRETS: Mr. J. Mancinelli, Ms. S. McLarty, Dr. D. Sloboda, Ms. C. Stefankiewicz.

A. OPEN SESSION

1. REMARKS FROM THE CHAIR

Mr. Merkel welcomed members, observers, and guests to the final Board meeting of the year. Ms. Anna Purina, the new Chief Internal Auditor, was introduced to the Board. Mr. Merkel thanked members of management, committee chairs and committee members, for their diligent work throughout the year.

Mr. Merkel advised the Board that a Member's Discussion would commence at the end of the closed agenda.

2. NOTICE OF MEETING - NOVEMBER 25, 2021

The Notice of Meeting was circulated on November 25th, 2021.

3. APPROVAL OF THE AGENDA - OPEN SESSION

There were no requests to have items moved from the Consent to the Regular agenda of the Open Session.

It was duly moved and seconded,

that the Board of Governors approve the Open Session agenda for the meeting of December 9, 2021 and that items 4-6 be approved or received for information by Consent.

The motion was ***Carried.***

CONSENT

4. MINUTES OF PREVIOUS MEETING – OCTOBER 28, 2021 (OPEN SESSION)
Approval

It was duly moved and seconded,

that the Board of Governors approve the Open Session minutes of the meeting held on October 28, 2021, as circulated.

The motion was ***Carried.***

5. REPORT FROM SENATE

Approval/information.

Report from Senate

a. Terms of Reference - Vice-Provost, Teaching and Learning (Approval)

b. Terms of Reference - Deputy Provost (Approval)

c. Proposed Name Change for the McMaster Cancer Research Centre (Approval)

d. Terms of Reference & Drafting Committee - Code of Conduct for Faculty (Information)

e. Faculty Respondent Option for External Recommendation of Sanctions Policy (Approval)

f. Faculty General Grievance Procedure (Approval)

g. Terms of Reference - Douglas Family Chair in Nutrition Research (Approval)

It was duly moved and seconded,

that the Board of Governors approve the recommendations as contained in the report from the Senate.

The motion was ***Carried.***

6. COMMITTEE REPORTS

a. EXECUTIVE AND GOVERNANCE COMMITTEE

These actions were taken on behalf of the Board and are being presented for information.

Report from the Executive and Governance Committee

i. Policy Revisions Memo - Items Approved on Behalf of Board

ii. Revised Terms of Reference for the Joint Administration/Faculty Association Committee (MUFA Revisions)

iii. Updates to the By-Laws - Board of Governors (Revised Titles)

b. PLANNING AND RESOURCES COMMITTEE

Report from the Planning & Resources Committee

i. Audited Financial Statements of the Contributory Pension Plan for Hourly Rated Employees of McMaster University including Divinity College as at June 30, 2021

This material is for information.

ii. Audited Financial Statements of the Contributory Pension Plan for Salaried Employees of McMaster University including McMaster Divinity College 2000 (Plan 2000) as at June 30, 2021 (Information)

This material is for information.

iii. Audited Financial Statements of the Contributory Pension Plan for Salaried Employees of McMaster University including McMaster Divinity College (Original Plan) as at June 30, 2021 (Information)

This material is for information.

c. AUDIT AND RISK COMMITTEE

Report from the Audit & Risk Committee

i. Health, Safety, and Risk Management Report

This material is for information.

d. REMUNERATIONS COMMITTEE

Report from the Remunerations Committee

i. Ratification of Tentative Agreement -Unifor Local 5555, Unit 3 (Parking Services)

It was duly moved and seconded,

that the Board of Governors approve the tentative agreement between McMaster University and Unifor Local 5555, Unit 3 (Parking Services) for a 3-year term effective October 1, 2021, and expiring September 30, 2024, with terms outlined in the circulated report.

The motion was ***Carried.***

REGULAR

7. BUSINESS ARISING

There was no business arising.

8. COMMUNICATIONS

Mr. Merkel informed the Board that the University Secretariat received approximately twenty emails on the topic of divestment from fossil fuels. This correspondence was circulated in the materials.

9. PRESIDENT'S REPORT TO THE BOARD

Dr. David Farrar, *President and Vice-Chancellor*, provided his report to the Board.

Dr. Farrar informed the Board that throughout the fall, McMaster experienced a gradual return to campus; with increasing numbers of students, faculty, and staff making use of labs and classrooms, equipment, and other campus-based resources. In November, a joint letter from the President and Provost had been circulated, outlining the plans for the upcoming winter term, as well as the guiding principles that underpin planning and decision making. This includes a balance of flexibility around working models, and the continued development of a sense of community across campus. Dr. Susan Tighe, *Provost and Vice-President,* informed the Board that this planning has been occurring for months now in collaboration with public health departments and officials.

An area of emphasis was the recognition that managing through the pandemic has taken a toll on members of the campus community in a variety of ways, and the New Year represents a significant period of change and transition. As such, efforts are focused on providing the necessary supports to ensure a healthy transition to increased in-person activities after almost two years, while prioritizing health, safety, and well-being of students, faculty and staff.

In response to a question about public health guidance and the Omicron variant, Dr. Paul O'Byrne spoke to the large degree of mutations surrounding this new variant, and the Board heard that while it more infectious than the Delta variant, it is less severe; the caveat being that that is more prevalent among young people.

While mentioning that the Ontario Finance Minister recently released the province's annual budget, Dr. Farrar noted some measures of relevance to the University. These include the establishment of a two-year $40M Advanced Manufacturing and Innovation Competitiveness stream to help Ontario businesses invest in equipment, advanced technologies and skilled workers, as well as an additional $8.7M in 2021–

22 to increase mental health supports at Ontario postsecondary institutions for a total investment of $27.9M. Other measures the province announced was the investment of $342 million, beginning in 2021–22 to add more than 5,000 new and upskilled registered nurses, registered practical nurses, and 8,000 personal support workers, as well as increased funding to $20M over three years for investigating Residential school burial sites and a further commitment to advance the Hamilton LRT project.

Dr. Farrar then proceeded to discuss next generation Covid-19 vaccines. Board Members heard that human trials are set to begin for two next-generation COVID-19 vaccines developed by a team of scientists at McMaster and among the first developed in Canada. Both vaccines are designed to combat variants of concern and will be delivered by inhaled aerosol, not by injection, and will target the lungs and upper airways, where respiratory infections begin. Phase 1 of the clinical trials was recently approved by Health Canada. The vaccines were produced at McMaster's Robert E. Fitzhenry Vector Laboratory. Both the laboratory and the researchers are part of Canada's Global Nexus for Pandemics and Biological Threats based at McMaster. Dr. Farrar also expressed previous and on-coming outreach to the federal government on the matter. In response to a question, Dr. Farrar discussed the University's numerous partnerships with various pharmaceutical companies in the region.

10. REPORT FROM SENATE

a. Midwifery Program Proposal

Dr. Farrar provided an overview of the circulated proposal, explaining that the Senate recently approved the establishment of a Master of Science degree in Midwifery as a consensus was found on the need of preparation at the Masters level for "Advanced Midwife Practitioners" (AMPs). Such midwives have a broad and internationally varied scope of practice, fulfilling different roles such as clinicians, clinical and professional leaders, educators, consultants, managers, change agents, researchers, and auditors.

It was duly moved and seconded,
that the Board of Governors approve the establishment of a Masters of Science degree in Midwifery program, effective November 10, 2021.
The motion was ***Carried.***

b. Enrolment Update

The Board heard that the 2021 Enrolment Report indicates a drop in acceptances which reflects a return to pre-pandemic enrolment numbers. Dr.

Farrar noted for the Board that there are $20 million dollars in unfunded domestic students, and international student tuition have made up these costs.

In response to a question Dr. Farrar explained that McMaster has growth room for international students compared to other universities, noting current levels are at 18%. Ms. Melissa Pool, *University Registrar*, added that universities are not seeing international enrolment levels similar to the levels at colleges. Several members indicated that they would appreciate receiving an outlook on enrolment levels as it pertains to scenario-based financial planning, and Dr. Farrar indicated the Chair and the Secretariat will note that feedback.

A member expressed concerns surrounding support services available for international students. Dr. Farrar indicated that the University is taking steps towards improving these services, including supports to the Black Cohort Hiring initiatives, supporting the mental health and well-being of international students, as well as increased aid and awards offerings.

Members had questions regarding the student growth levels discussed and the resulting general plan for Faculties in dealing with these larger numbers. Dr. Tighe explained that the Provost's Office and the Deans monitor the numbers carefully and plan accordingly.

c. Student Census and Experience Survey Report

Dr. Arig al Shaibah, *Associate Vice-President, Equity and Inclusion,* presented the report and explained that in the winter of 2021, the Equity and Inclusion Office (EIO), with the support of Institutional Research & Analysis (IRA) and after consultation with key community stakeholders, launched its first comprehensive Student Census and Experience Survey (SCES). The goal of the survey was two-fold: to understand the holistic student experience across dimensions of student wellness and success; and to reveal if there are thematic differences in student experience across diverse groups of students.

Board members had questions regarding the timing of the survey and the response rates. Dr. al Shaibah explained the survey will be repeated in future years and comparisons will be possible then.

11. COMMITTEE REPORTS

a. EXECUTIVE AND GOVERNANCE COMMITTEE

i. Security Services Report

Ms. Debbie Martin, *Assistant Vice-President & Chief Facilities Officer,* provided an overview of the Security Services Annual Report. Ms Martin

highlighted the partnerships with several external bodies, including Hamilton police services, and cited the extensive training that officers have undergone. Ms Martin noted the work of the officers during the pandemic, and discussed the McMaster Safety App, which tracks the COVID-19 vaccination status of those on campus.

A member suggested a re-branding of the security officer title, noting some institutions use the title 'Peace and Safety Officers'. Ms. Martin indicated that this would be reviewed for next year.

b. PLANNING AND RESOURCES COMMITTEE

i McMaster Continuing Education Fees

At its meeting on November 18, 2021, Planning & Resources Committee approved the 2022- 2023 McMaster Continuing Education Fees.

Continuing education at McMaster University is different from undergraduate education in several ways: the learner group served, kinds of programs offered, a need for flexibility to meet emerging market needs, and the ancillary status of McMaster Continuing Education (MCE). Continuing Education continually explores and launches new programs based on market demand and trends. Given this goal, MCE offers two main kinds of programs: i) academic programs leading to certificates and diplomas that are reviewed and approved by Senate; and ii) not-for-credit professional development programs. The fees information provided here is strictly for courses and programs that lead to academic certificates and diplomas. Ms. Jane Allen, *Chair of the Planning and Resources Committee,* introduced Dr. Lorraine Carter, *Director, McMaster University Continuing Education* for questions.

In response to a question surrounding costs to deliver certificate programs, Dr. Carter confirmed that programs dealing with data and emerging technologies generally require higher costs to deliver. She indicated that while these programs do operate somewhat like a business, a set percentage of revenue is returned to the University.

It was duly moved and seconded,

that the Board of Governors approve the McMaster Continuing Education fees for 2022-2023.

The motion was ***Carried.***

12. PRESENTATION TO THE BOARD OF GOVERNORS

Ms. Saher Fazilat, *Vice-President, Operations & Finance,* presented to the Board of Governors a comprehensive review of the University's Risk Management activities. The Board heard that Enterprise Risk Management (ERM) is an ongoing business process that addresses risk management and includes; identifying risks across the entire enterprise; assessing the impact of risks to the operations and mission; developing and implementing response or mitigation plans; and monitoring the identified risks, holding the risk owner accountable, and consistently scanning for emerging risks.

Members also heard that over the next six months, the focus of activity will include the search for a Chief Risk Officer and an Enterprise Risk Specialist, and the formation of an institution-wide Operational Risk Committee. Within six to twelve months, the office intends to develop a refreshed Risk Universe/Taxonomy, a refreshed Risk Assessment Criteria and have a full review of McMaster's Risk Inventory including redevelopment of risk definitions.

Members had questions surrounding the formation of the operational risk committee and the committee composition. Mr. Kevin Nye, *Chair of the Audit and Risk Committee,* indicated the process of developing an ERM program takes a significant amount of time, and requires the right experts.

13. OTHER BUSINESS

There being no other business, the Open Session of the meeting was adjourned.

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REPORT TO THE BOARD OF GOVERNORS
from the
SENATE

At its meeting on February 9, 2022, Senate approved the following recommendations and now recommends them to the Board of Governors for approval.

For Approval

Recommendation for the Following Proposed Research Centre:

a. Proposal for McMaster Institute for Research on Aging|Dixon Hall Centre (MIRA|DH)

Recommendation for the Following Terms of Reference:

b. Revised Terms of Reference – Hannah Chair

Recommendation for the Following Policy Revisions:

c. SPS B13 Revisions

It is now recommended,

that the Board of Governors approve the recommendations as contained in the report from the Senate.

Board of Governors: FOR APPROVAL
March 3, 2022

McMaster University

Vice-President
(Research)

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January 10, 2022

TO: University Planning Committee

FROM: Karen Mossman, Vice-President, Research

RE: Proposal for MIRA | Dixon Hall

The Committee on Research Centres and Institutes has reviewed the attached proposal for MIRA | Dixon Hall as per the policies and guidelines, and has been unanimously approved.

Please include this as an agenda item for the next University Planning Committee Meeting on January 19, 2022.

KM:jt

Attach.

cc: Provost
Dean of Graduate Studies
University Secretariat
Dean of Business
Dean of Engineering
Dean of Faculty of Health Sciences
Dean of Humanities
Dean of Science
Dean of Social Sciences

Overview

Proposal for the Establishment of the an Institute [ ] a Centre [X]

McMaster Institute for Research on Aging | Dixon Hall Centre (MIRA|DH)

Submitted by Parminder Raina & The McMaster Institute for Research on Aging

MIRA|DH Members
Dr. Parminder Raina is the proposed Scientific Director for MIRA|DH. As MIRA|DH is nestled within MIRA all current MIRA members are also members of MIRA|DH. As of November 1, 2021, MIRA has 161 researchers representing all six Faculties and 177 active trainee members. MIRA|DH research and trainee members are listed on the MIRA website

Space Needs

New space required? Yes **No √**

Location: MIRA @ MIP suite 109A and Dixon Hall @ 58 Sumach St Toronto **Confirmed √** Proposed

Space cost allocation covered by lead Faculty? **Yes √** No

Plans for Organizational Review	Frequency of Internal:	**Annually**
	Frequency of External:	**The first review for this Centre will align with the next five-year review of MIRA, which will be in 2026, and then every five years**

Please provide names below and check box to verify that approval has been obtained from each:		Check box
Department Chair/ Area Director	Dr. Karen Mossman, VP Research, McMaster	√
Faculty Dean or Director of Administration	Dr. Paul O'Byrne, VP and Dean FHS	√
Other (specify)	Dr. Susan Denburg, Exec. Vice-Dean & Associate VP, Academic FHS	√
	Dr. Susan Tighe, Provost & VP Academic, McMaster	√
	Dr. Suzanne Labarge, Donor and former chancellor McMaster	√

A. Background:

i. *What events led to this proposal for a new Centre/Institute?*

First established in 2014 as the McMaster Institute of Geroscience, **the McMaster Institute for Research on Aging (MIRA)** was created in 2016 and supported by a generous $5 million donation from Suzanne Labarge, a McMaster graduate, past chancellor and esteemed university champion and friend. Suzanne shares MIRA's commitment to evidence-based research focused on health and well-being and has provided support in championing the creation of the **Labarge Centre for Mobility in Aging,** the **Labarge Optimal Aging Initiative**, the McMaster Optimal Aging Portal, the McMaster Institute for Research on Aging and the establishment of the **Raymond and Margaret Labarge Chair in Research and Knowledge Application for Optimal Aging**. MIRA grew out of recognition that the best way to tackle the complex issues facing an aging population was as an organized, interdisciplinary team that integrates the perspectives of older adults, caregivers, stakeholders, and knowledge users into research efforts.

In addition to her philanthropic activities at McMaster University, Suzanne Labarge has invested in Toronto's Dixon Hall with annual contributions to assist with technology upgrades in the Seniors' Department. Since 1929, Dixon Hall has been a resource for older adults living in Regent Park, Moss Park, St. James Town, and other downtown east Toronto neighbourhoods. Dixon Hall's goal is to assist older adults in living independent and healthy lives and offer a range of programs and services to help ensure that older adults and adults living with a disability or illness can continue to live at home and be engaged in the community for as long as possible. Dixon Hall provides crucial programming and services to isolated, marginalized and at-risk people in Toronto's Downtown East and is an established, well-recognized entity celebrated for a commitment to comprehensive client care. In part, the depth, continuity, and consistency of the services it provides are enabled through robust partnerships and long-established relationships: The seniors' department is funded by the Province of Ontario (Ontario Health Teams), the City of Toronto – Community Service Partnerships, the United Way, the Ministry for Seniors and Accessibility, as well as by individual, foundation, and corporate donors. Dixon Hall's efforts are also empowered by its history. Dixon Hall's history and ability to address the needs of older adults who live within this community are key components to its effectiveness. Dixon Hall's Seniors' Services Department is well connected and has partnerships with Toronto Ride, and Home At Last, which include: Reconnect, WoodGreen, SPRINT Senior Care, West Neighbourhood House, Storefront Humber, the Neighbourhood Group, West Toronto Support Services, Les Centres d'Accueil Heritage, and is also involved with the following partners/organizations: Progress Place (Seniors Mental Health Day Program in St. James Town partner), Hospice Toronto (Seniors Mental Health Day Program in St. James Town partner), Fred Victor, Central Neighbourhood House, Sherbourne Health, The Neighbourhood Organization (TNO), Toronto Community Housing, St. James Town Community Corner, St. Michael's Hospital, Neighbourhood Information Post, Regent Park Community Health Centre, Yonge Street Mission, and Health Commons Solutions Lab-Sinai Health. Dixon Hall also has a strong presence and engagement at relevant not-for-profit network tables and in dialogues taking place at all levels of government. Yet, financial constraints have necessarily limited Dixon Hall's activities, growth areas, research, effective use of data, and capacity for engagement in broader policy and advocacy work.

Recognizing MIRA's expertise in aging and mobility research and the potential to extend this expertise beyond the borders of McMaster University and Hamilton, in April 2021, Suzanne Labarge invested $5 million to enable a new partnership between MIRA and Dixon Hall, a service centre offering crucial programming and services to isolated, marginalized and at-risk people in Toronto's Downtown East. Bridging the gap between the academic and the practical, the **McMaster Institute for Research on Aging | Dixon Hall Centre** promises access to unique insights from diverse populations and research opportunities that neither organization could provide alone. MIRA and Dixon Hall are proposing to capitalize on each other's considerable strengths to forge a new partnership that will undoubtedly improve the lives of at-risk older adults: members of our community who have been profoundly affected by the complexities of coping with the extraordinary circumstances in which we all find ourselves only two decades into the 21st century. At-risk seniors can only benefit from access to supports and technology that can help them feel more connected and engaged with their community as they age in place at home. This collaboration will primarily focus on a group that is not often seen or heard – seniors who are low-income, homeless, or precariously housed, or facing multiple challenges to mobility, health, and other social barriers. Our aim is to improve their quality of life and enable them to live with dignity through purposeful initiatives planned over both the short- and long term.

ii. How do those events relate to academic/research priorities?

We propose to establish both a virtual and, eventually, a physical centre at Dixon Hall in Toronto that will further cement McMaster's position as a national leader in research on optimal aging and mobility and enriching the experience for almost 2,000 seniors who access Dixon Hall programming and supports on a yearly basis. This centre will build direct links to McMaster expertise and increase capacity for knowledge dissemination to increase broad awareness of the importance of mobility for the well-being of older adults. It will enable researchers to quickly identify issues and questions of importance to all stakeholders. Opportunities will be augmented to pursue target areas for training, research, and knowledge translation around the topic of mobility and aging. The partnership will also provide a rich learning environment in the science of aging and will enable our experts from MIRA and Dixon Hall to create novel educational initiatives and knowledge translation and dissemination opportunities that will benefit Dixon Hall, MIRA trainees, and members of the general public. With a physical presence in Toronto and access to superb online resources such as the Optimal Aging Portal (OAP) at McMaster, opportunities to enhance public outreach initiatives will grow. This new centre will foster collaborations with researchers that will include community members and stakeholders such as those in the housing and transportation industries as well as government and policymakers. Collaborations between MIRA and Dixon Hall will also allow isolated, marginalized, and at-risk older adults the opportunity to actively participate in all aspects of research, from the formulation of research questions through to knowledge translation and dissemination. MIRA and Dixon Hall have numerous areas of shared capacity and priorities. These areas of alignment inform the following research themes:

Facilitating technology use and access

Technology has the capacity to promote mobility, connection, and healthy aging, but inequities and lack of access can serve to further widen the gap between older adults who are doing well and those who are not. Research platforms and other assets, including the developing Technology Hub at Dixon Hall, McMaster's Institute for Music and the Mind (MIMM), and the numerous MIRA researchers engaged in understanding how older adults interact with, and use technology, will facilitate the pursuit of research questions and initiatives related to technology, aging, and equity. The **McMaster Optimal Aging Portal**, a digital platform that enables older adults and care providers to access plain language evidence summaries of relevant topics, can be further facilitated, evaluated, and explored through Dixon Hall's Technology Hub. Current intergenerational initiatives (e.g., Symbiosis, Timeless, and Dixon Hall's youth programming) provide further opportunity to explore intergenerational interventions in navigating digital tools and platforms.

Housing and aging in place

The Greater Toronto Housing Authority (GTHA) experiences a simultaneous housing shortage and challenges related to health, mobility and social isolation as many older adults struggle to age in place. Innovative approaches are needed to meet the housing needs of an aging population. Dixon Hall's deep capacity for supporting older adults facing housing insecurity is well complemented by McMaster's engagement in housing research and aging in place initiatives, including the CRUNCH (Collaboratory for Research on Urban Neighbourhoods, Community Health and Housing) Lab, engaged in work in both Hamilton and Toronto; the McMaster Smart Home, a test facility for technologies enabling older adults to age in place; and, Health TAPESTRY (Health Teams Advancing Patient Experience: Strengthening Quality), which has currently scaled up from its pilot sites in Hamilton to include additional intervention sites in Niagara-on-the-Lake, Windsor, Harrow, Sault Ste. Marie, and Dufferin County.

Transportation mobility

Transportation is a key element to older adults' health, mobility and meaningful participation in community and society. Population aging will demand research and initiatives focused on understanding and reducing barriers to transportation, including those relating to declining physical mobility, driving cessation, and the costs and limitations of public transit. Dixon Hall's existing partnerships and initiatives (Toronto Ride, SPRINT Senior Care) provide key opportunities to apply MIRA's research capacity, exemplified through platforms such as the McMaster Institute for Transportation Logistics (MITL), and projects including the McMaster Monitoring My Mobility (MacM3) project, the Candrive study, and several Labarge Centre for Mobility in Aging-funded projects on driving, transit, and active transport led by researchers in the social sciences, geography, civil engineering, and rehabilitation science.

Transitions in care and end of life
As older adults experience changes in health and mobility, increasing demands will be placed on transitions in care, including those from hospital to home and to other forms of supported living in the community. Understanding the best practices and policies around these transitions, as well as those associated with end-of-life, can be advanced through Dixon Hall's ongoing work with the Local Health Integration Networks and developing Ontario Health Teams, Hospice Toronto, Sherbourne Health and others, as well as McMaster's research relationships and initiatives with the THRIVE Group, St. Joseph's Villa and its hospice, Margaret's Place, and the dementia care support platform iGeriCare.

Participation and mobility
Participation in the community and reducing social isolation are key elements of mobility that both MIRA and Dixon Hall identify as priorities. As Dixon Hall connects 1,500 – 2,000 older adults annually to service providers and community programming, its seniors' department is poised to link community members to innovative, evidence-based approaches facilitating participation and connectedness. Several of MIRA's current programs of research, including the community codesigned EMBOLDEN trial, the ABLE arts-based mobility therapy platform, and GERAS Dance program, seek to promote social and community mobility among their key aims.

To achieve the overall objectives for the **McMaster Institute for Research on Aging | Dixon Hall Centre,** we propose several mechanisms to conduct research, support community engagement and promote knowledge translation, including but not limited to:

- Facilitating ongoing access to the McMaster Optimal Aging Portal through Dixon Hall's Technology Hub, and evaluating its usability and impact in this population;
- Community initiatives and events to engage Dixon Hall clients, community members, partners, and the wider aging community in Toronto;
- Research and data analysis to better understand current Dixon Hall clients, caregivers, and program use;
- Building capacity in Dixon Hall's work with low-income, precariously housed seniors;
- Identifying service gaps or research topics as determined by the evaluation of Dixon Hall's or partner organizations' program outcomes and trends;
- An inner-city longitudinal cohort study, leveraging MIRA experience and assets, including the Canadian Longitudinal Study on Aging (CLSA);
- Expansion of Labarge Centre for Mobility in Aging-funded multi-year major research programs, Community-based Program to Enhance Physical and Community Mobility in Older Adults (EMBOLDEN) and the McMaster Monitoring my Mobility (MacM3) research platform;
- Expansion of MIRA member-led projects including Arts-based Therapies Enabling Longevity for Geriatric Outpatients (ABLE), Health Teams Advancing Patient Experience: Strengthening Quality (TAPESTRY), Geriatric Education and Research in Aging Sciences Centre (GERAS) Dance, and the online dementia education program iGeriCare;
- Systematic reviews of older adult programming within and beyond Canada, leading to potential evidence-based demonstration projects;
- Intergenerational technology accessibility initiative, linking MIRA trainees and older and younger Dixon Hall users.

iii. *How will creating this Centre/Institute improve and enhance research that will address these priorities?*

The **McMaster Institute for Research on Aging | Dixon Hall Centre** will build direct links to McMaster expertise in academic research and knowledge translation and increase capacity for broad awareness of the importance of mobility for the well-being of older adults. Opportunities will be augmented to pursue target areas for training, research, and knowledge translation around mobility and aging while also focusing on groups that are not often seen or heard – urban, older Canadians who may be low-income, homeless, or precariously housed, to mobility, health, and other social barriers or are facing more complex challenges or concurrent disorders. Our aim is to improve the quality of life for these older adults and enable them to live with dignity through purposeful initiatives planned over both the short- and long term.

Combining the lived experience of the experts at Dixon Hall, with research expertise of academics at MIRA, will allow researchers to quickly identify issues and questions of importance to all stakeholders. With a physical presence in Toronto

and access to superb online resources such as the Optimal Aging Portal (OAP) at McMaster, the centre will have greater opportunities to enhance public outreach initiatives. This new centre will foster collaborations with researchers that will include community members and stakeholders such as those in the housing and transportation industries as well as government and policymakers.

The partnership will also provide a rich learning environment in the science of aging and will enable our experts from MIRA to create novel educational and funding initiatives together with Dixon Hall. MIRA will work together with Dixon Hall to establish research opportunities with existing datasets and to identify research and knowledge gaps that could be addressed through this new partnership. The **McMaster Institute for Research on Aging | Dixon Hall Centre** will capitalize on this activity by leveraging the platforms, research strengths and existing research and educational initiatives in which MIRA and the Labarge Centre for Mobility in Aging have collectively participated, and data that has already been collected at Dixon Hall, while providing experienced leadership in community-engaged initiatives serving older adults in Toronto.

The COVID-19 pandemic has presented us with new opportunities and challenges and MIRA has pivoted to enhancing linkages with Dixon Hall via technology to establish a virtual centre. For Dixon Hall, COVID-19 has presented a new reality and highlighted heightened challenges for many of its clients, and for its role as a multi-service agency. Certainly, the pandemic has highlighted those at-risk older adults can benefit from access to supports and technology that can help them feel more connected and engaged with their community as they live at home, and has the capacity to promote mobility, connection, and healthy aging. However, inequities and lack of access to technology and supports can widen the gap between older adults who are doing well and older adults who are not thriving.
With MIRA as a partner, however, these challenges can be analyzed to create promising opportunities for collaborative community work. There is an urgency to consider the pandemic-specific issues facing many of Dixon Hall's clientele, and the exploration of these challenges will inform future areas of inquiry and help to inform decisions on current and future program design for the populations accessing services at Dixon Hall. This collaboration will focus on short-term collaborative projects leveraging existing projects and technology; long-term collaborative projects, using established infrastructures and frameworks to implement interdisciplinary community-based projects that support research in social and physical mobility utilizing technology and co-design techniques; and leveraging McMaster aging-related research platforms to support research in aging in these populations.

B. Objectives and Proposed Activities:

i. Objectives

Impact on key stakeholders

The **McMaster Institute for Research on Aging | Dixon Hall Centre** aims to improve the quality of life for Dixon Hall clientele and enable them to live with dignity through purposeful initiatives planned over both the short- and long term. These will include the implementation of a digital platform that enables older adults and care providers to access plain language evidence summaries of relevant topics, exploration of intergenerational initiatives to promote connection and reduce feelings of loneliness and isolation, and access to programs of research that facilitate participation and connectedness. This would include the community codesigned EMBOLDEN trial, the ABLE arts-based mobility therapy platform, and GERAS Dance program, all of which seek to promote social and community mobility. Dixon Hall clientele will also benefit from knowledge translation events and community initiatives aiming to engage Dixon Hall clients, community members, partners, and the wider aging community in Toronto. Given MIRA's dedication to inclusion of key stakeholders in research program creation and execution, community members can also be engaged in the design process, conceptualization, and execution of novel research programs and dissemination of knowledge products following successful conclusions of research programs.

The impact on Dixon Hall will include the opportunity for program evaluation to identify efficacy and impact of services currently provided, collaboration in novel educational and funding opportunities, and the ability to steer the research agenda to help identify and create programs and services to support underserviced older adults.

Partners involved with Dixon Hall, including Meals on Wheels may also benefit from access to program evaluation tools and access to experts and evidence-based tools to inform decision making.

Government agencies including the Province of Ontario (Ontario Health Teams), the City of Toronto – Community Service Partnerships, the United Way, the Ministry for Seniors and Accessibility, and individual, foundation, and corporate donors involved with Dixon Hall would also benefit from receiving detailed information about how programs at Dixon Hall impact on the community, as well as receiving insights into service gaps that may be uncovered as a result of research occurring within the **McMaster Institute for Research on Aging | Dixon Hall Centre**.

Potential for collaboration

The **McMaster Institute for Research on Aging | Dixon Hall Centre** aims to include key stakeholders in research program creation and execution through the opportunity to be engaged in the design process, conceptualization and execution of novel research programs and dissemination of knowledge products following successful conclusions of research programs.

Innovative approaches are also needed to support older adults facing housing insecurity and barriers to transportation and transitions in care such as hospital-to-home, and end-of-life care. Participation in the community and reducing social isolation are also key elements to mobility that both MIRA and Dixon Hall identify as shared research themes.

Dixon Hall leaders have significant capacity as knowledge brokers who can mobilize information generated by MIRA with older adults and their caregivers, relevant support networks and service-provider organizations, and engaged funders and other partners. For example, Dixon Hall is an anchor agency for the United Way and has deep and long-standing connections with existing board members and other agencies and organizations that could both contribute to and benefit from this work. There is an opportunity for a McMaster-Dixon Hall partnership to build a collaborative platform that can mobilize other community-based organizations at the regional and national level.

We would also propose collaborating on implementing evidenced-based community demonstration projects and strengthening MIRA's work with stakeholders that support aging research by engaging them in project specific advisory boards, MIRA's governance committees and review panels.

Exploring opportunities for co-authored or co-presented research, with findings to be shared both in academic dialogues and through Dixon Hall's communication channels and networks would also be a priority.

Currently, Dixon Hall has limited capacity for data collection. This new partnership would enable more collaborative work on data analysis and program evaluation to both enhance Dixon Hall's program offerings, assist in identifying service gaps and improve data collection and management. This would include population-specific work and the consideration of gaps in services provided for at-risk groups, including homeless or precariously housed older adults and low-income older adults. Working together would also enable MIRA researchers and Dixon Hall leaders to identify new research topics and enhance Dixon Hall's mandate by mapping onto the priorities of MIRA and the Labarge Centre for Mobility in Aging.

ii. Proposed Activities

Research Projects

One of the aging-related research platforms at McMaster is the Canadian Longitudinal Study on Aging (CLSA). Data and biological samples from the CLSA provide McMaster researchers with one-of-a-kind opportunities to develop high-impact, targeted research agendas that answer critical questions by integrating the perspectives of a variety of disciplines.

a) Short-term collaborative projects (Year 1)

Dixon Hall and MIRA have existing connections and technology to collaborate on the following initiatives:

- Collecting data on COVID-19 experiences and impact on health and wellbeing of Dixon Hall clientele. Relying upon resources and support provided by MIRA, Dixon Hall has collaborated with Dr. Andrea to collect measures examining the impact of COVID-19 on the physical and mental health of individuals. Part of the data for this study was collected through the MIRA | Dixon Hall Centre and includes Dixon Hall clients and findings are currently being analyzed and evaluated. Thorough consideration of topics in this questionnaire that include health, mobility, technology, access to housing and community support, will enable Dixon Hall to enhance their understanding of clients' experiences and needs at this time. In turn, this will help Dixon Hall to prepare for potential future events.
- Engagement in providing access and share the most appropriate up-to-date and evidence-based resources using the **McMaster Optimal Aging Portal** for improving the well-being of older Ontarians and their families. This collaboration will develop and provide standardized training for staff and volunteers who work with service providers and programs on how to use the Portal and integration into existing programs at Dixon Hall enabling the provision to clients of more multi-faceted supports. This would also build Dixon Hall's capacity by helping to ensure utilization of best practices and offering the most current research-based resources and programs to its clients. In turn, MIRA's access to the Dixon Hall client base can help bolster the number and diversity of clients engaging potential service provision projects.
- A robust exploration and observational study of the impact of technology and connectedness on Dixon Hall clients. This work can begin with a consideration of what has been witnessed during the pandemic – clients experiencing heightened levels of isolation because of either a lack of access to technology or a lack of understanding about how to properly use technology. Together, we can then consider the next best steps. Dixon Hall will work to build and expand the Technology Hub that is being facilitated by a gift from Suzanne Labarge. Given current circumstances, Dixon Hall will consider revising the timeline or even the approach to facilitating either a fixed- or portable-use library of laptops, tablets, etc. for client use. This could be on-site, should health circumstances permit a return to day programs, or off-site should the public health restrictions due to the pandemic persist, or in cases of clients unable to attend in person. This new partnership will enable this resource to be developed with an evidence-based approach leading to enhanced service for the clients of Dixon Hall, and ultimately, facilitate the exploration and access to more areas in the future. Moreover, the building of a Technology Hub in concert with MIRA could support MIRA's advancement of technology as a policy tool to reduce inequity and create a meaningful link for MIRA to the McMaster Digital Transformation Research Centre (MDTRC). Through multidisciplinary studies and insight, the MDTRC seeks to investigate and understand the impact of the changes brought about by technological and digital innovation on individuals, groups, and organizations.

b) Longer-term collaborative projects (Year 1 and onward)

MIRA has funded two major interdisciplinary community-based projects that will be conducted in the Hamilton region: **McMaster Monitoring My Mobility (MacM3)**, and the **Enhancing physical and community MoBility in OLDEr adults with health inequalities using commuNity co-design** (**EMBOLDEN)** trial. These projects are funded, designed and ready for implementation. They are described below in their current form with participants expected to be enrolled within the Hamilton area, however, we propose to expand these projects to include communities served by Dixon Hall. Based on Dixon Hall's priority areas and through dialogue and collaboration, these projects will be tailored using a co-design approach and incorporated into the Regent Park area. For example, Dixon Hall and its partner organizations may be host sites for sub-projects or components of the projects and collaborate in participant enrollment or share insight on the mobility needs of their communities. In addition, community members may choose to become project participants or share lived experience in other ways such as in advisory groups. These types of activities could amplify the scope of these research projects and expand the findings to a range of diverse communities. In turn, project information can support program development in Toronto's communities. Overall, this will integrate research within the mandate and operations of Dixon Hall and further support the development of a local research milieu that attracts research and policy experts to engage with and become involved in the exciting research developments occurring at Dixon Hall. Briefly:

- Challenges with mobility such as difficulty with walking or getting into and out of a car are common in older adulthood and can negatively impact health and social functioning. The **MacM3** project will use advanced wearable technologies to understand how mobility changes over time and how this affects health outcomes in older adults. Informed by preliminary research activities to customize activity tracking devices (i.e., wearable technology), each participant in this project will be provided with a wearable device for defined periods over a 2-year span to monitor a variety of mobility measures as they move within their home and in their community. At

the same time, health information will be captured periodically through in-person or phone interviews. These data will be used to identify unique trajectories of mobility for differing levels of mobility challenges and health outcomes. Finally, with input from older adults and caregivers and findings from this research, a self-monitoring mobility tool will be designed to track and manage mobility and health that, ultimately, may prevent or delay mobility problems in later life. Throughout the span of this research, a number of smaller activities will be integral to its success and these include investigating and validating currently available wearable technology for older adults; stakeholder engagement planning, which will involve consultations with older adults, community organizations, clinicians, policy makers, caregivers, and industry; and, the establishment of community 'pop-ups' – temporary data collection sites – in shared spaces such as the YMCA, YWCA, or public library. Certainly, MacM3 offers many opportunities for collaboration with Dixon Hall, its partners, and community members throughout the span of the project.

- The **EMBOLDEN trial** is a co-designed intervention that aims to advance the social and physical mobility of older adults that live in communities of high health inequity in Hamilton. The ability to participate, at will, in social interactions and to be physically mobile is important to maintaining health-related quality of life in older adults (55 years and older). Many adults, however, face barriers in accessing community programs that have the potential to ameliorate the effects of increased social isolation and reduced physical mobility. A co-design approach facilitates cooperation and the exchange of ideas between researchers, stakeholders, and the intended program recipients. The idea of the co-design technique is to identify gaps in service, and to develop unique programs that leverage and align with current community programming to meet the needs of individuals. This approach would be equally suited for implementation with Dixon Hall and its community. Specifically, the program will engage existing best practices and supports in the local community to improve mobility and health through social support, nutrition, physical activity, and system navigation, and strengthen connections with existing support services. The co-designed program will then undergo vigorous empirical evaluation of its implementation and efficacy for meeting the needs of older adults living in the community. The long-term goal of the program is to design interventions and services that can be adapted for implementation in other communities throughout Canada.
- MIRA is also developing a third program of research to address intergenerational issues related to aging. This project **The Intergenerational and Life Course Cohort and Intervention Research Platform (iGEN)** will be a larger examination of intergenerational research across communities in Hamilton and in communities in Toronto served by Dixon Hall. The specific themes for which we will solicit research proposals will be jointly identified by MIRA, Dixon Hall, and relevant stakeholders. These calls will be like MIRA's existing Catalyst Grant calls.

The implementation of these directed projects will be tailored to the Dixon Hall communities using a co-design approach. Integral to the creation of the **McMaster Institute for Research on Aging - Dixon Hall** partnership is McMaster's culture of collaboration as expressed clearly by researchers from diverse fields of study such as social sciences, biology, psychology, engineering, business, and health sciences who continually work together to promote healthy and functional aging. This expertise combined with unparalleled existing platforms, ensures that both the research impact and the benefits for Dixon Hall clients can be optimized.

c) Leveraging McMaster Aging-related Research Platforms (Years 1-5)

There are several aging-related research platforms at McMaster including the Canadian Longitudinal Study on Aging (CLSA). Data and biological samples from the CLSA provide McMaster researchers with one-of-a-kind opportunities to develop high-impact, targeted research agendas that answer critical questions by integrating the perspectives of a variety of disciplines.

In addition to the CLSA, MIRA has an extensive infrastructure needed to carry out and disseminate this research, including:

- Knowledge translation platforms such as the **McMaster Optimal Aging Portal** and the McMaster Health Forum that enable evidence-based research to be easily shared with researchers, decision-makers, and citizens;
- Platforms for developing, evaluating, and implementing new technologies such as the Smart Home within the Faculty of Engineering;
- Biobanks and high-throughput biomarker labs to support high-quality research;
- Centres such as the Geriatric Education and Research in Aging Sciences Centre (GERAS), the Physical Activity Centre for Excellence (PACE), and the Gilbrea Centre for Studies in Aging, providing complementary clinical, social, cultural and community links that amplify the research agendas of the Labarge Centre and the Institute;

- The MIRA Trainee Network, which supports and develops trainees engaging in interdisciplinary research on aging.

Educational outreach

The **McMaster Institute for Research on Aging - Dixon Hall** partnership would provide additional opportunities for knowledge dissemination and training opportunities for students in the MIRA Trainee Network and the related Association for Undergraduate Research in Aging (AURA; currently in development) in both being recipients of information as well as providing additional opportunities for these students to participate in and learn more about and participate in knowledge translation and dissemination.

Engagement in "Staying Healthy and Safe at Home", a project MIRA has developed for consideration by Dixon Hall. This project aims to develop and provide standardized training and access to resources for staff and volunteers who work with service providers and programs on how to access and share the most appropriate up-to-date and evidence-based resources using the **McMaster Optimal Aging Portal** for improving the well-being of older Ontarians and their families. This project will be submitted for funding through the development of partnerships. This initiative would be easily integrated into Dixon Hall's existing programs, enabling Dixon Hall to provide clients with more multi-faceted supports. This would also build Dixon Hall's capacity by helping to ensure utilization of best practices and making certain that the most current research-based resources and programs are offered to its clients. In turn, MIRA's access to the Dixon Hall client base can help bolster the number and diversity of clients engaging in this project.

There will also be opportunities or the partnership to engage in knowledge dissemination and knowledge translation events virtually and in person (when permitted) to engage the communities that Dixon Hall is currently serving, and to diversify the types of knowledge translation events that MIRA has developed a reputation for in the greater Hamilton area., as well as opportunities to provide these events to a wider national audience on a virtual platform.

C. Rationale for Establishment of the Research Centre or Institute:

i. Why is there a need for this Centre/Institute?

Bridging the gap between the academic and the practical, the **McMaster Institute for Research on Aging | Dixon Hall Centre** promises access to unique insights and research opportunities that neither organization could provide alone. The McMaster Institute for Research on Aging and Dixon Hall are proposing to capitalize on each other's considerable strengths to forge a new partnership that will undoubtedly improve the lives of at-risk older adults: members of our community who have been profoundly affected by the complexities of coping with the extraordinary circumstances in which we all find ourselves only two decades into the 21st century. At-risk older adults can only benefit from access to supports and technology that can help them feel more connected and engaged with their community as they live at home. This collaboration will focus on a group that is not often seen and heard – older adults who are low-income, homeless, or precariously housed, or facing multiple or complex challenges to mobility, health, and other social barriers. Our aim is to improve their quality of life and enable them to live with dignity through purposeful initiatives planned over both the short- and long term.

Integral to the creation of the **McMaster Institute for Research on Aging - Dixon Hall** partnership is McMaster's culture of collaboration as expressed clearly by researchers from diverse fields of study such as social sciences, biology, psychology, engineering and health sciences who continually work together to promote healthy and functional aging. This expertise. combined with unparalleled existing platforms, ensures that both the research impact and the benefits for Dixon Hall clients can be optimized.

MIRA|DH will support cross-cutting activities that align with the values and strengths identified in this proposal.

Figure 1: Core Activities of MIRA|DH**:** Cross-cutting activities will support defined research themes aligned with both organizations' priorities and strengths. Several potential projects and initiatives are poised for implementation, adaptation or scale-up.

Cross-cutting activities

- Evidence creation and evaluation
- Cohort data collection expertise and support
- Training and capacity building
- Knowledge translation and exchange, community visibility
- Design thinking and participant-engaged research

	Facilitating technology use and access	Housing and aging in place	Transportation mobility	Transitions in care & end of life	Participation & mobility
Assets, strengths and partnerships at **Dixon Hall**	• Labarge Technology Hub	• Housing department serving ~200 lower income, housing-insecure older adults • Partnerships with **Home at Last, Mainstay Housing**	• Partnerships with **Toronto Ride** and **SPRINT Senior Care**	• Partnerships with LHIN and developing OHT • Partnerships with **Hospice Toronto**, **Sherbourne Health**,	• Service to over 1,500 older adults annually, connecting to service providers and community programming
Research platforms, projects and partnerships at **MIRA**	• McMaster Digital Transformation Research Centre (**MDTRC**) and future mobile unit (PI: K. Hassanein) • McMaster Institute for Music and the Mind (**MIMM**) (Director: L Trainor) • **McMaster Optimal Aging Portal**	• McMaster **Smart Home** • Collaboratory for Research on Urban Neighbourhoods, Community Health and Housing **(CRUNCH) lab** (PI: J. Dunn) • **Health TAPESTRY** initiative (Pis D. Oliver, L.Dolovich, D. Mangin)	• Labarge-funded **MacM3** trial (PIs: M. Beauchamp, B. Newbold) • **McMaster Institute for Transportation Logistics (MITL)** (Director: S. Razavi) • Labarge-funded projects on driving, transit, active transport (Pis: B. Vrkljan; B. Newbold; S. Razavi; J Shedden)	• Partnership with **THRIVE** • Research partnership with **St Joseph's Villa** and its hospice, **Margaret's Place** • **iGeriCare** dementia support	• **EMBOLDEN** trial (PIs: R. Ganann, S. Phillips) • **ABLE** Arts-based mobility therapy (PI: P. Gardner) • Hamilton Social Isolation Impact Plan (HSIIP) • **GERAS Dance** (PI: A Papaioannou)

Potential projects and initiatives

- Inner city longitudinal cohort study, leveraging CLSA experience and assets
- Expansion of Labarge major research programs EMBOLDEN and MacM3
- Expansion of MIRA member-led projects including ABLE, TAPESTRY, GERAS Dance, iGeriCare
- Systematic reviews of older adult programming within and beyond Canada, with possible lead to demonstration project(s)
- Intergenerational technology accessibility initiative, linking trainees, older and younger Dixon Hall users

i. *Alignment with McMaster's Strategic Research Plan*
https://research.mcmaster.ca/research/strategic-plan-for-research-2018-2023/

MIRA – DH will build on and support McMaster University's Strategic Plan for Research by contributing to the discovery, communication, and preservation of knowledge about mobility and aging. This collaboration will encompass the core values of student education and extending boundaries of knowledge through research via the MIRA Trainee Network and the Association for Undergraduate Research in Aging (AURA). The research conducted at the centre will advance society via best practices, and research and knowledge translation events will involve MIRA experts across all faculties, experts from Dixon Hall, as well as stakeholders, and international partners of MIRA including experts in aging from the University of Leeds, and the University of Lancaster. Working together with Dixon Hall, MIRA researchers will be able to disseminate information across a wider provincial, national, and international audience to strengthen communities and improve the lives of Canadians and others around the world.

Work to improve mobility in aging will help older adults live well for longer. The centre commits to partnering with local community agencies and centres to disseminate the learnings from our research to benefit the end user as well as involving the end user in the research from inception to knowledge translation and dissemination.

With respect to sustainability for global prosperity, the centre will extend work that Dixon Hall is already doing to provide access to technology for older adults, as well as work MIRA is already undertaking to improve environmental design in homes such as through the SmartHome research agenda, as well as on streetscapes to improve mobility in urban environments making them more walkable and accessible for older adults.

With respect to the strategic goal of addressing the growing burden of chronic disease **MIRA|DH** will provide opportunities to explore how public services provided to vulnerable and disadvantaged populations can be provided or improved.

In line with the strategic goal to address aging across the life span, **MIRA|DH** will be uniquely positioned to provide opportunities for researchers to interact with service providers to explore and develop opportunities to foster the health and mobility of older adults, focusing on areas including: impact of exercise on aging; interrelationship between psychological function and social function; causes and consequences of multimorbidity, frailty and polypharmacy; the role of caregiving, equity, economics and transportation in optimal aging; the understanding of the biological mechanisms of diseases of aging; evaluating approaches to knowledge translation to improve optimal aging; the use of technology to promote optimal aging and aging in place; understanding and defining mobility in aging; maintaining and restoring mobility in aging; and environmental facilitators and barriers that influence mobility in aging.

The strategic goal of examining data, artificial intelligence and the digital society will be explored through the analysis of data already available at Dixon Hall with respect to digital literacy and access to technology and access to the internet as it pertains to the clientele that utilize services provided by Dixon Hall and its partners. Specifically, during the COVID-19 pandemic, Dixon Hall staff had to pivot to use a variety of different methods to reach out to their clients during lockdowns and when physical contact was severely restricted.

Regarding the strategic goal of equitable, prosperous, and sustainable societies, studies such as the EMBOLDEN study conducted by MIRA and which will expand to **MIRA|DH** will explore how to promote physical and community mobility of older adults who experience difficulties participating in community programs and who reside in communities of high health inequity. This model allows researchers to work together with older adults in the community and service providers to promote mobility in community-dwelling older adults.

ii. Expected regional, provincial, national, global impact

Through the research proposed for the MIRA|DH Centre and through MIRA's work that has been ongoing in the past five years to successfully develop strategic partnerships on a local, national, and international level, the expected impacts of this work will be at the local/regional levels as well as nationally and internationally

Over the past five years MIRA has developed a wide network of collaborators and partners who support MIRA's research, educational endeavors and community-based initiatives. MIRA's partnership development has focused on strengthening our goals and leveraging resources while collaborating with new and existing partners who complement the Institute's research strengths. MIRA has formalized over 30 strategic partnerships, while many more informal collaborations have been developed with a wide variety of stakeholders within McMaster University, locally, nationally, and internationally. These collaborations are with other academic institutions, government agencies, not-for-profit and private industry partners.

To date MIRA's partnerships have resulted in significant leveraged funds, expanded research programs or platforms, new educational programs, and interdisciplinary learnings. MIRA's five-year report highlights these partnerships and collaborations that showcase the diversity of partners engaged with MIRA and how they support the Institute's many goals—from developing institutional strength in aging and mobility through scientific exchange programs to enabling stakeholder and citizen networks and promoting aging in place with evidence-based resources.

As MIRA|DH is nestled within MIRA, this to build and utilize the many regional partnerships Dixon hall has in place as listed in section A. By leveraging these partnerships and supporting Dixon Hall to generate evidence-based outcomes that will inform their programs and services, the regional impact is expected to be significant.

Through the proposed research objectives and projects, the outcomes will become of national and international significance as well. The potential to translate future findings of the proposed research to other cities and under-serviced older adults' communities nationally and internationally.

D. Criteria for expanding the membership:

Currently membership to this Centre is included in the membership to MIRA. Currently MIRA has over 150 Faculty members and close to 100 trainee members and continues to grow to support the growing body of researchers engaging in aging research and identified priority by the University. MIRA is currently working on how to design different levels of membership so that the model is supportive to the needs of our researchers and stakeholders

E. Detailed business plan:

Financial needs

Based on the proposal developed for MIRA|DH and careful budget development based on the proposed program of research and activities at MIRA|DH a request was made for $5M over five years 2021-2026. This amount was approved and donated by Susan Labarge for this work in 2021. The budget is detailed in Appendix A. The budget allows for Dixon Hall to establish core staff and processes for the Centre's collaborative research. Directed MIRA|DH research initiatives builds on existing MIRA projects as described and funds are allocated for new initiatives and projects. There is an allowance in the budget to reimburse MIRA staff for their work with the MIRA|DH Centre.

Anticipated and secured sources of support

With the funds provided by the donor, MIRA will not require any additional funds from McMaster University. MIRA expects to secure additional sources of support through its partnership development activities as well as ability of the MIRA network to attract and leverage funding through funding opportunities. MIRA has been able to leverage significant funding in the past year to support research initiatives and the research in aging milieu at McMaster.

Space needs

Due to the global COVID-19 pandemic, we propose to establish first a virtual and later a physical centre at Dixon Hall in Toronto that will further cement McMaster's position as a national leader in research on optimal aging and mobility; enriching the experience for almost 2,000 seniors who access Dixon Hall programming and supports on a yearly basis.
Phase one of this collaboration will entail the creation of a virtual centre and leveraging existing strengths at both MIRA and Dixon Hall immediately to launch several projects that will generate important information to improve the lives of at-risk seniors and support Toronto's communities.
Phase two will include dedicated space at Dixon Hall's Senior Services' centre on Carlton Street or the soon-to-be renovated community hub on Sumach Street and expansion of further research activities. Dixon Hall's Sanctuary provides a multi-purpose space ideal for hosting community and academic events. These spaces will be sufficient to house some administrative staff and will offer meeting and collaboration areas. The Youth Centre at Wyatt Avenue is an ideal space for intergenerational work.

Please note that there is no request for space from the university. MIRA|DH Centre will be supported through the staff that are located at the MIRA space at the McMaster Innovation Park in suite 109A. No funds will be required for space allocated at Dixon Hall. Staff at Dixon Hall will operate within the existing infrastructure at Dixon Hall. Activities supported will be hosted through existing spaces both at McMaster and at Dixon Hall

Human Resource needs

Existing MIRA staff will support the activities for the proposed work within MIRA|DH similarly as they support MIRA's overall work. Predominantly, MIRA's Research Coordinator, Project Manager and Program Coordinator will support the

collaborative work such as liaising with the researchers support the MIRA|DH research initiatives, managing and supporting data gathering and surveys and funding opportunities and all administrative processes including communications and promotions. Dixon Hall has hired two additional staff to meet their research needs. They have hired a Research & Community Lead and a Research and Communications Officer to be the main staff available to facilitate the collaborative research proposed for the Centre and to liaise with the Dixon Hall clientele.

MIRA's support and the Dixon Hall staff are covered within the budget in Appendix A.

Faculty, researchers, and students will engage with MIRA|DH through collaborative projects and initiatives. MIRA and Dixon Hall staff will liaise with Faculty, researchers and students and support administrative work required. MIRA and Dixon Hall's organization have a broad skillset through its staffing complement that can support all proposed activities.

It is anticipated that MIRA|DH will hire students for research projects and initiatives the centre will engage in. Graduate students may also be involved in MIRA|DH funded projects that will hire students for research and other related activities.

MIRA's staff complement available to support the MIRA|DH Centre:

Senior leadership
Parminder Raina, proposed Scientific Director
Ine Wauben, Managing Director

MIRA team
Gésine Alders, Research Coordinator
Allison Dubé, Project Manager
Casey Irvin, Communications Coordinator
Alison Outtrim, Program Coordinator
Audrey Patocs, Research Manager

Dixon Hall staff complement to support the MIRA|DH Centre:

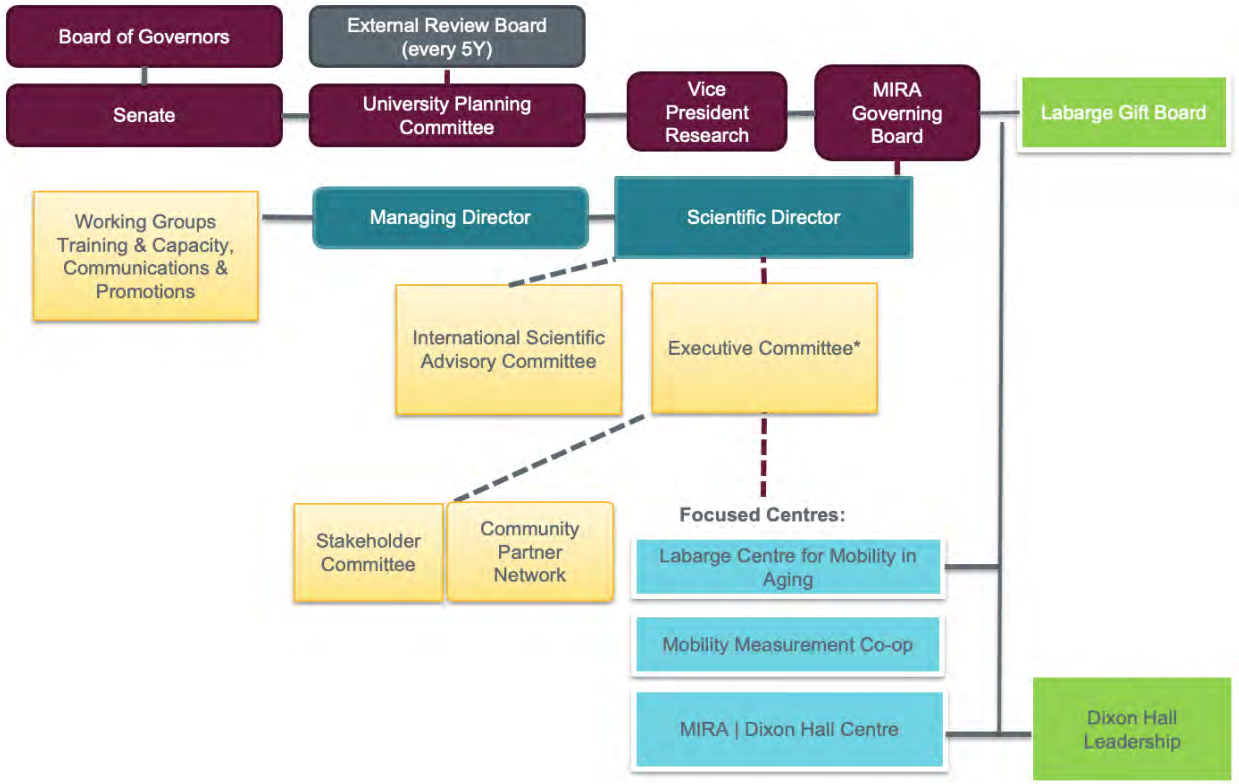
Senior leadership
Mercedes Watson, CEO
Christine Chow, Director Senior Services
Laura Stenberg, Director Philantropy & Communications

Dixon Hall team
Nadia Jamil, Research and Community Lead
Olga Levitski, Research and Communications Officer
Haiat Iman, Data Analysis Coordinator
Laura Thiboutot, Communications Assistant

Organizational & Governance Structure

MIRA's governance and management structure has been carefully crafted to ensure scientific excellence. It provides robust management and oversight from both the Labarge Gift Board as well as University senior leadership. The governance model allows for modification and accountability over time, which will be necessary for the management of scientific and executive strategies and growth.
To properly administer the proposed work and responsible use of funds, the governance model for the Centre is incorporated within MIRA's governance model. Thus, focused centres created within MIRA use a single, centralized, and shared operational, governance and administrative model to facilitate advancement of the strategic objectives of all centres. The centralised governance and administration model maintains MIRA's unique operating structure while creating multiple focused centres that will advance diverse but integrated strategic priorities such as outlined in this proposal.

The Scientific Director and co-lead for Dixon Hall have a seat on the Executive Committee. MIRA|DH will report their progress to the Labarge Gift Board at the annual Labarge Gift Board meeting.



* The Scientific (Co-)Directors of MIRA and the Focused Centres have a seat on the Executive Committee

i. Director

At the request of the donor, it is proposed that the MIRA|DH will be led by Parminder Raina (MIRA) as the Scientific Director and co-led by Mercedes Watson (Executive Director, Dixon Hall).

ii. Advisory Committees

MIRA focussed Centres including MIRA|DH will be supported and advised by the Executive Committee and the International Scientific Advisory Committee. The Executive Committee provides insight and advice to the Scientific and Managing Director regarding operation and strategic priorities of the Institute and corresponding Centres including MIRA|DH. The ISAC is responsible for advising the Scientific and Managing Director on the relevance and quality of the research outcomes of MIRA and corresponding Centres, including MIRA|DH, as well as assisting in decision-making regarding areas of research focus and peer review of strategic initiatives annually. The ISAC will also advise on potential international collaboration and partnership opportunities with a particular focus on research, but also potentially impacting MIRA|DH knowledge translation, training/education, and external relations activities.

The membership of both committees is listed:

Members of MIRA Executive Committee

Dr. Paula Gardner, Humanities
Dr. Michel Grignon, Social Sciences
Dr. Milena Head, Business
Dr. Bhagwati Gupta, Science
Dr. Peter Mascher, International Affairs
Dr. Alexandra Papaioannou, Health Science (Clinical)
Dr. Ravi Selvaganapathy, Engineering
Dr. Michael Surette, Health Sciences (Basic Science)
Dr. Brenda Vrkljan, Health Sciences (Design Thinking)
Mercedes Watson, Chief Executive Officer Dixon Hall

Members of MIRA International Scientific Advisory Committee (ISAC)

Dr. David Hogan (Chair), University of Calgary
Academic Leader, Brenda Strafford Centre on Aging, O'Brien Institute for Public Health, Cumming School of Medicine
Dr. Amelia DeFalco, University of Leeds
University Academic Fellow in Medical Humanities / Cultural representations of aging, disability, dementia, and care
Dr. Tom Kirkwood, Newcastle University
Professor Emeritus (formerly Associate Dean for Ageing), Institute for Ageing
Dr. James Nazroo, University of Manchester
Professor of Sociology, Honorary / Director, Cathie Marsh Centre for Census and Survey Research
Dr. S.V. Subramanian, Harvard University
Professor of Population Health and Geography, Department of Social and Behavioral Sciences
Prof. Nicola Palmarini, Newcastle University
Director, National Innovation Centre for Ageing

Governing Board and Role in Annual Review

The MIRA | Dixon Hall Centre will report annually to the MIRA Governing board as part of the annual MIRA review. The Board is chaired by the Vice-President, Research and oversees the overall activities of MIRA and its performance in supporting McMaster Strategic Research Plan

Members of MIRA Governing Board

Dr. Karen Mossman (Chair), Vice-President, Research
Dr. Susan Tighe, Academic Provost and Vice-President (Academic)
Dr. Susan Denburg, Associate VP Academic, Health Sciences
Dr. Paul O'Byrne, Dean, Health Sciences
Dr. Maureen MacDonald, Dean, Science
Dr. Heather Sheardown, Acting Dean, Engineering
Dr. Jeremiah Hurley, Dean, Social Sciences

The Centre will also report annually to the Labarge Gift board. The Labarge Gift Board is comprised of McMaster University senior leaders and joined by the Donor and/or a candidate nominated by the Donor. The Labarge Gift Board will receive annual updates from the McMaster Institute for Research on Aging (MIRA) on the status of the funds, research successes, outreach activities and financial outcomes that occur each year as part of the Labarge supported initiatives including the MIRA|DH Centre.

Members of the Labarge Gift Board

David Farrar, President and Vice-Chancellor, McMaster University
Paul O'Byrne, Dean, Faculty of Health Sciences
Susan Denburg, Associate Vice-President, Academic, Faculty of Health Sciences
Laura Harrington, Assistant Vice-President/Chief Administrative Officer, Faculty of Health Sciences
Mary Williams, Vice-President, University Advancement
Lorna Somers, Vide-President, University Foundation
Karen Mossman, Vice-President, Research
Susan Tighe, Provost and Vice-President, Academic
Suzanne Labarge and/or representative

F. Plan for Five Year External Review

MIRA and its embedded Centres underwent its five-year external review in 2021. The intention is for the MIRA|DH Centre five-year review to coincide with MIRA's next five-year review in 2026.

Appendix A: **MIRA|DH budget**

APPENDIX A

Budget Template for Research Institutes, Centre or Core Platforms

Please include additional detail in Proposal if necessary

	Insert year	Insert year	Insert year	Insert year	Insert year	Total
OPENING BALANCE/CARRY FORWARD		-$ 15,000	-$ 30,000	-$ 90,000	-$ 65,000	

REVENUE - indicate whether secured or anticipated	2020/21	2021/22	2022/23	2023/24	2024/25		$ Secured	$ Anticipated
Please ensure that any anticipated revenue from grant funding will only support costs eligible for that grant and note funding available for indirect or general operations.								
Donation from Suzanne Labarge	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 5,000,000	$ 5,000,000	
TOTAL REVENUE	**$ 1,000,000**	**$ 1,000,000**	**$ 1,000,000**	**$ 1,000,000**	**$ 1,000,000**	$ 5,000,000	$ 5,000,000	

EXPENSES	2020/21	2021/22	2022/23	2023/24	2024/25	
Dixon Hall Core Budget*						
Staff - Seniors, Research & Communications	$ 120,000	$ 120,000	$ 120,000	$ 120,000	$ 120,000	$ 600,000
Community Partners, Stakeholders & Community Engagement	$ 20,000	$ 20,000	$ 15,000	$ 10,000	$ 15,000	$ 80,000
Infrastructure, Admin and Technology	$ 200,000	$ 200,000	$ 200,000	$ 120,000	$ 100,000	$ 820,000
	$ 340,000	**$ 340,000**	**$ 335,000**	**$ 250,000**	**$ 235,000**	**$ 1,500,000**
MIRA Operations Budget						$ -
Staff - Research Support & Admin	$ 40,000	$ 40,000	$ 40,000	$ 40,000	$ 40,000	$ 200,000
Miscellaneous incl office supplies, etc.	$ 35,000	$ 35,000	$ 35,000	$ 35,000	$ 35,000	$ 175,000
Total Administrative Expenses	**$ 75,000**	**$ 75,000**	**$ 75,000**	**$ 75,000**	**$ 75,000**	**$ 375,000**
Research Expenses:						
Directed MIRA-Dixon Hall Research Initiatives						$ -
Evidence based resource development - Staying Healthy and safe at home	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 500,000
MacM3	$ 150,000	$ 150,000	$ 100,000	$ 100,000	$ 100,000	$ 600,000
Embolden	$ 150,000	$ 150,000	$ 100,000	$ 100,000	$ 100,000	$ 600,000
Interdisciplinary initiatives/leveraging existing programs or funded projects	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$ 125,000
New MIRA-Dixon Hall Research Initiatives						$ -
Surveys, data gathering and analyses Dixon Hall ongoing initiatives	$ 75,000	$ 75,000	$ 75,000	$ 75,000	$ 75,000	$ 375,000
Catalyst grants (intergenerational Projects)	$ 50,000	$ 50,000	$ 200,000	$ 200,000	$ 200,000	$ 700,000
Demonstration/Evaluation Projects	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 25,000	$ 225,000
Total Research Expenses	**$ 600,000**	**$ 600,000**	**$ 650,000**	**$ 650,000**	**$ 625,000**	**$ 3,125,000**
TOTAL EXPENSES	**$ 1,015,000**	**$ 1,015,000**	**$ 1,060,000**	**$ 975,000**	**$ 935,000**	**$ 5,000,000**
IN-YEAR (Surplus/ Deficit)	**-$ 15,000**	**-$ 30,000**	**-$ 90,000**	**-$ 65,000**	**$ -**	

McMaster University
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Office of the Dean

Dean & Vice President
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January 10, 2022

Senate Committee of Appointments
c/o University Secretariat
Gilmour Hall, Room 210

Re: Update to Terms of Reference – Hannah Chair

On behalf of the Faculty of Health Sciences, I am forwarding the attached revised Terms of Reference for approval.

The terms have been updated to better reflect the current processes as well as to clarify the appointment and renewal process for Chairholders.

Enclosed, please find the revision as well as the current ToR for this role.

Thank you for considering this recommendation. If you need further information, please do not hesitate to contact me.

Yours sincerely,

Dean and Vice President
Faculty of Health Sciences

Terms of Reference

Hannah Chair in the History of Medicine

The Hannah Chair in the History of Medicine is named in honour of Jason A. Hannah, M.D. The endowment for the Chair was provided by Associated Medical Services (AMS). This Chair resides within the Faculty of Health Sciences (FHS) and will be jointly appointed to a relevant department in another Faculty (normally Humanities or Social Sciences).

Faculty Appointment:

The holder of the Chair will hold a full-time faculty appointment. Their primary appointment will be within FHS and their joint appointment will be in a relevant faculty as noted above. In addition to fulfilling the normal duties of a faculty member in FHS, they will take on some of the regular duties of a faculty member in their secondary department.

Duties and Responsibilities:

The Hannah Chair will:

- be responsible for the development and expansion of academic program(s) in the History of Medicine,
- ensure that aspects of medical history are introduced into the curricula of the education programs in both Faculties,
- develop and promote a University-wide seminar series,
- foster the appreciation of medical history among undergraduate, graduate and post-graduate trainees.

In addition to these educational contributions, it is expected that the Chair will maintain an active research program in their field.

Selection Process

The Dean of the Faculty of Health Sciences will consult with appropriate Faculties and Departments to determine whether the Chair will be filled via an internal or external search. Once this determination is made, a selection committee, co-Chaired by the Deans (or delegates) will be constituted.

The selection committee will follow all relevant university recruitment policies and will include representatives of both faculties, including faculty and students involved with academic programs aligned with the History of Medicine. Additionally, the committee may wish to have an existing Hannah Chairholder serve as an external consultant.

An appointment to the Chair shall be for an initial five-year period, with the understanding that renewal for additional terms, subject to satisfactory performance, is possible. The recommendation from the Selection Committee shall be forwarded to the Senate and Board via the Senate Committee on Appointments.

Renewal Process

In the final year of appointment, the Chair holder will submit a report of their accomplishments over the current term and will be interviewed by a review committee.

The review committee will be co-Chaired by the Department Chairs (or delegates) and will include appropriate representation from both Faculties, including faculty involved with academic programs aligned with the History of Medicine. Additionally, the committee may wish to have an existing Hannah Chairholder serve as an external consultant.

The recommendation from the renewal committee shall be forwarded to the Senate and Board via the Senate Committee on Appointments.

Reporting

Upon their appointment/reappointment as the Hannah Chair, the Chair holder will work with their Department Chairs (or delegates), to determine the appropriate focus of activities over their term.

The Hannah Chair will include their activities as the Chairholder in their annual career review documentation and these accomplishments will be considered when determining Career Progress and Merit (CP/M) scores.

Approved by Associated Medical Services, June 2021.

For approval via McMaster's Governing bodies.

TERMS OF REFERENCE

THE HANNAH CHAIR IN THE HISTORY OF MEDICINE

General

An endowment has been provided by Associated Medical Services (AMS) toward the establishment of an endowed Chair in the History of Medicine. AMS has funded a Hannah Chair in the History of Medicine at each Ontario University with a Medical School for many years and wishes to endow these Chairs permanently. Because of the goals and objectives of AMS, there has been agreement reached within the University and with AMS that this Chair will be primarily based within the Faculty of Health Sciences but the Chair will have a joint appointment in the Faculty of Health Sciences and the Faculty of Humanities.

Details and Duties of the Proposed Chair

The holder of the Chair will undertake the normal duties of a faculty member in the Faculty of Health Sciences and in consultation with the Dean of the Faculty of Humanities and Chair of the Department of History will also take on some of the regular duties of a faculty member in the Faculty of Humanities. The Chair will be responsible for the development of an academic programme in the History of Medicine, will ensure that aspects of medical history are introduced into the curricula of the education programmes in both Faculties, will develop and promote a University-wide seminar series, and foster the appeciation of medical history among undergraduate, graduate and post-graduate trainees. In addition to making contributions to the education programmes of the Faculties, it is expected that the Chair will remain a leader in the field. An appointment to the Chair shall be for an initial five year period, with the understanding that renewal for additional terms is possible.

Selection Process

The first stage of the selection procedure will be the responsibility of the Deans of the Faculties of Health Sciences and Humanities who, working with their respective appointments committees and following consultation with appropriate departments, will determine whether the Chair will be filled after advertising externally or whether a suitable internal candidate can be identified. The recommendation from the Appointments Committees (following a recommendation of a duly constituted selection committee) shall be forwarded to the Senate and Board via the Senate Committee on Appointments.

McMaster University | UNIVERSITY SECRETARIAT

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TO: Senate Committee on Appointments

FROM: Andrea Thyret-Kidd

RE: Revisions to SPS B13 - Extension of Timeline for Academic Assessments in Response to the COVID-19 Pandemic

In 2020, the University approved the establishment of SPS B13 *Extension of Timeline for Academic Assessments in Response to the COVID-19 Pandemic*. The intent of the Policy is to provide faculty with flexibility due to the wide-ranging impacts of the COVID pandemic. As required by the Policy, a review has been undertaken by University administrators and the Joint Committee, with the attached document being approved for recommendation to the Senate Committee on Appointments.

The proposed revisions include amended language to better reflect the original intent of the Policy, which is to provide faculty with the ability to use the automatically granted one-year extension in years 1, 2, or 3 or later, as long as the timing does not exceed 7 years. This clarification seeks to articulate the University's commitment to flexibility given the disruptive impact of COVID across all Faculties. The other substantive change to the Policy is the inclusion of all faculty members appointed as of June 30, 2022. The next review period is scheduled for December 2022.

A tracked and clean version of the Policy has been included in the agenda package.

It is now recommended,

that the Senate Committee on Appointments approve, for recommendation to the Senate and Board of Governors, the proposed revisions to SPS B13 *Extension of Timeline for Academic Assessments in Response to the COVID-19 Pandemic,* effective March 3, 2022.

Senate Committee on Appointments: FOR APPROVAL
January 17, 2021

Policies, Procedures and Guidelines

Complete Policy Title Extension of Timeline for Academic Assessments in Response to the COVID-19 Pandemic	Policy Number (if applicable): SPS B13
Approved by Senate / Board of Governors	Date of Most Recent Approval TBD
Date of Original Approval(s) April 29, 2020 June 4, 2020	Supersedes/Amends Policy dated February 10, 2021 / March 4, 2021
Responsible Executive Provost and Vice-President (Academic)	Policy Specific Enquiries Provost and Vice-President (Academic)
	General Policy Enquiries Policy (University Secretariat)

DISCLAIMER: *If there is a Discrepancy between this electronic policy and the written copy held by the policy owner, the written copy prevails.*

PREAMBLE

1. McMaster University recognizes the exceptional circumstances that have resulted from the COVID-19 pandemic and the effect it has had on the career progression of its faculty members. COVID-19 has resulted in an unprecedented situation that has required faculty to rapidly adapt to new and/or alternate methods for teaching and course delivery for classes. This has affected their ability to engage in normal scholarly activities, University service, and has impeded faculty in their ability to undertake research and clinical scholarly activities.

2. The purpose of this Policy is to outline the details of how the academic assessment extension will be applied and administered in conjunction with the *Tenure and Promotion Policy* and *SPS (Supplementary Policy Statement) documents*.

3. For the purpose of interpreting this Policy:

   a) words in the singular may include the plural and words in the plural may include the singular;

   b) One-Year Extension means the one-year extension of a tenure-track appointment beyond the normal six-year limit and includes delaying the timing of their academic assessments by one year;

   c) SPS means the Supplementary Policy Statements;

   d) *Tenure and Promotion Policy* means the *McMaster University Revised Policy and Regulations with Respect to Academic Appointment, Tenure and Promotion (2012);* and

   e) Tenure-Track means:

      (i) tenure-track appointments;

      (ii) teaching-track appointments; and

      (iii) special appointments.

4. Normally the total duration of a faculty member's initial Tenure-Track appointment may not exceed six years from the date of their first appointment (Section II, clause 6 of the *Tenure and Promotion Policy*). However, the *Tenure & Promotion Policy* does envision specific situations where these time limits may be extended (Section II, clause 7).

5. In keeping with the principles of the *Tenure and Promotion Policy* the University has deemed it appropriate that all Tenure-Track faculty have their appointment extended by one year, which will in turn affect the timing of their academic assessments for re-appointment, tenure/permanence, and promotion.

ELIGIBILITY

6. All faculty members holding a Tenure-Track appointment as of June 30, 2022, shall have their appointment extended by one year and the timing of their academic assessments may be delayed by one year.

7. Section II, clause 4 (c) of the *Tenure and Promotion Policy* will continue to apply to those in special appointments. Although this Policy outlines a one-year extension for all eligible Tenure-Track faculty, individuals do have the ability to proceed on the normal timing, as outlined in the *Tenure and Promotion Policy*.

EXTENSION GUIDELINES

Responsibilities of Department Chairs

8. It is the responsibility of the Chair of each Department to inform all members of the Department of the University's tenure and promotion provisions related to the COVID-19 pandemic.

9. The *Tenure and Promotion Policy* (Section III, clause 37a) sets out the expectation that Department Chairs should meet at least once each academic year with all Tenure-Track candidates. Results of these discussions must be recorded in writing and agreed to by both parties. When a faculty member is eligible for the One-Year Extension the extended date must be clearly documented in the written summary of these discussions.

Faculty Member Decision to Proceed on the Normal Timing

10. The One-Year Extension for eligible faculty is automatically granted, normally applying to the next assessment. Faculty members in years 1, 2, or 3 have the option to proceed with normal timing for their 3 year assessment and use the extension later. The total tenure clock will be a maximum of 7 years.

11. Although this Policy outlines a One-Year Extension for all eligible Tenure-Track faculty, individuals do have the ability to proceed on the normal timing, as outlined in the *Tenure and Promotion Policy*.

12. Faculty members will inform their Chair in writing of their decision to go forward for re-appointment, tenure/permanence/CAWAR on the normal timing. In such cases, faculty should refer to the *Tenure and Promotion Policy* for guidance on timing and requirements.

Other Time Limit Extensions

13. The One-Year Extension is in addition to any other time limit extensions that have been made in compliance with Section II, clause 7 of the *Tenure & Promotion Policy* (e.g. special leave, medical leave, or a pregnancy/parental leave).

Dossiers

14. All eligible faculty members' dossiers (prepared in compliance with *SPS B12 Preparation of Dossiers for Re-Appointment, Tenure/Permanence and/or Promotion*) shall include a copy of this Policy under section #8 identified in the Table of Contents (listed below):

TENURE, PERMANENCE AND/OR PROMOTION DOSSIER: Dr. E. Z. Rider
Table of Contents

1. Written Recommendation of the Departmental Tenure and Promotion Committee based on an examination of the following elements of the dossier:
2. Curriculum Vitae
3. Candidate's Statement
4. Departmental Teaching Evaluation Report
5. Candidate's Response to Departmental Teaching Evaluation Report
6. List and Biographical Sketch of Potential Referees
7. Referee Letters
8. Sample Copy of Chair's or Dean's Letter Sent to Referees, and the Relevant Policy for Referees

15. Chairs and Directors are encouraged to include in their statement to the Faculty Tenure and Promotion Committee a description of the effect the COVID-19 pandemic had on the candidate's research, clinical, and/or teaching activities.

16. Eligible faculty members may elect to include an additional 1-page statement on how the COVID-19 pandemic has affected their research, teaching and/or University service within section 3 of their dossier (Candidate's Statement).

REVIEW

17. This Policy will be reviewed by MUFA and the Senate Committee on Appointments in December 2022 to determine if conditions require an extension of the application of this Policy and/or if revisions are necessary.

Policies, Procedures and Guidelines

Complete Policy Title	Policy Number (if applicable):
Extension of Timeline for Academic Assessments in Response to the COVID-19 Pandemic	SPS B13
Approved by	**Date of Most Recent Approval**
Senate ~~Executive~~ / Board of Governors	~~February 10, 2021 /~~ ~~March 4, 2021 - effective March 4, 2021~~TBD
Date of Original Approval(s)	**Supersedes/Amends Policy dated**
April 29, 2020 June 4, 2020	February 10, 2021~~April 29, 2020~~ / March 4, 2021~~June 4, 2020 - effective May 12, 2020~~
Responsible Executive	**Policy Specific Enquiries**
Provost and Vice-President (Academic)	Provost and Vice-President (Academic)
	General Policy Enquiries
	Policy (University Secretariat)

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PREAMBLE

1. McMaster University recognizes the exceptional circumstances that have resulted from the COVID-19 pandemic and the effect it has had on the career progression of its faculty members. COVID-19 has resulted in an unprecedented situation that has required faculty to rapidly adapt to new and/or alternate methods for teaching and course delivery for ~~Winter Term 2020~~ classes~~, as well as future classes~~. This has affected their ability to engage in normal scholarly activities, University service, and has impeded faculty in their ability to undertake research and clinical scholarly activities.

2. The purpose of this Policy is to outline the details of how the academic assessment extension will be applied and administered in conjunction with the *Tenure and Promotion Policy* and *SPS (Supplementary Policy Statement) documents*.

3. For the purpose of interpreting this Policy:

   a) words in the singular may include the plural and words in the plural may include the singular;

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5. In keeping with the principles of the *Tenure and Promotion Policy* the University has deemed it appropriate that all Tenure-Track faculty have their appointment extended by one year, which will in turn affect the timing of their academic assessments for re-appointment, tenure/permanence, and promotion.

ELIGIBILITY

6. All faculty members holding a Tenure-Track appointment as of June 30, 2022~~1~~, shall have their appointment extended by one year and the timing of their academic assessments may be delayed by one year.

7. Section II, clause 4 (c) of the *Tenure and Promotion Policy* will continue to apply to those in special appointments. Although this Policy outlines a one-year extension for all eligible Tenure-Track faculty, individuals do have the ability to proceed on the normal timing, as outlined in the *Tenure and Promotion Policy*.

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9. The *Tenure and Promotion Policy* (Section III, clause 37a) sets out the expectation that Department Chairs should meet at least once each academic year with all Tenure-Track candidates. Results of these discussions must be recorded in writing and agreed to by both parties. When a faculty member is eligible for the One-Year Extension the extended date must be clearly documented in the written summary of these discussions.

~~One-Year Extension Requirements~~

~~10.~~ 10. The One-Year Extension for eligible faculty is **automatically granted**, normally applying to the next assessment. ~~however f~~Faculty members in years 1, 2, or 3 have the option to~~can~~ proceed with normal timing for their 3 year assessment and use the extension later. The total tenure clock will be a maximum of 7 years.~~in compliance with the following:~~

~~11.~~

~~12. the One-Year Extension applies to the next assessment of a Tenure-Track faculty member, specifically the academic assessment that usually occurs in the faculty member's third year at McMaster or the tenure/CAWAR/permanence assessment;~~

~~13.~~

~~14. faculty members currently in years 1, 2 or 3, may decide if they want to go forward with the year 3 assessment or defer to year 4;~~

~~15.~~

~~16. faculty members currently in years 4 or 5 may decide if they want to go forward with the tenure/CAWAR/permanence assessment in year 5 or defer to year 6;~~

~~17.~~

~~18. faculty members currently in year 6 may go forward with the tenure/CAWAR/permanence assessment or request a final review in year 7; and~~

~~19.~~

~~20. the total tenure clock will be a maximum of 7 years.~~

~~21.~~

Faculty Member Decision to Proceed on the Normal Timing

11. Although this Policy outlines a One-Year Extension for all eligible Tenure-Track faculty, individuals do have the ability to proceed on the normal timing, as outlined in the *Tenure and Promotion Policy*.

12. Faculty members will inform their Chair in writing of their decision to go forward for re-appointment, tenure/permanence/CAWAR on the normal timing. In such cases, faculty should refer to the *Tenure and Promotion Policy* for guidance on timing and requirements.

Other Time Limit Extensions

13. The One-Year Extension is in addition to any other time limit extensions that have been made in compliance with Section II, clause 7 of the *Tenure & Promotion Policy* (e.g. special leave, medical leave, or a pregnancy/parental leave).

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16. Eligible faculty members may elect to include an additional 1-page statement on how the COVID-19 pandemic has affected their research, teaching and/or University service within section 3 of their dossier (Candidate's Statement).

REVIEW

17. This Policy will be reviewed by MUFA and the Senate Committee on Appointments in December 2022~~1~~ to determine if conditions require an extension of the application of this Policy and/or if revisions are necessary.

UNIVERSITY SECRETARIAT
- Board of Governors
- Senate

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E-mail: univsec@mcmaster.ca
https://secretariat.mcmaster.ca/

REPORT TO THE BOARD OF GOVERNORS
from the
EXECUTIVE AND GOVERNANCE COMMITTEE

Actions Taken on Behalf of the Board of Governors

i. Revisions to the Policy on Sexual Violence

On February 7, 2022, the Executive and Governance Committee approved on behalf of the Board of Governors, the proposed revisions to the Policy on Sexual Violence, effective February 7, 2022.

Board of Governors: FOR INFORMATION
March 3, 2022

Briefing Memo

Date: February 1, 2022

From: Associate Vice-President Equity and Inclusion

To: Senate and Board of Governors

Cc: President, Provost, University Secretary and University Counsel

Re: Sexual Violence Policy Revisions

As the Responsible Executive for McMaster's Sexual Violence Policy, I am bringing your attention to and seeking your approval for proposed revisions to this Policy to take effect by March 1, 2022, in accordance with a recent Provincial directive.

The Rational for Revisions

Following student advocacy and stakeholder consultation, on September 16, 2021, the provincial government announced Ontario Regulation 646/21 to amend Ontario Regulation 131/16, which stipulate provisions for Sexual Violence at Colleges and Universities under the Ministry of Training, Colleges and Universities Act.

The two amendments enacted through O. Reg. 646/21 s. 1 (1) and (2) are below:

> (1) Subsection 2 (1) of Ontario Regulation 131/16 is amended by striking out "and" at the end of clause (d) and by adding the following clause:
>
> > (d.1) informs students that if they, in good faith, report an incident of, or make a complaint about, sexual violence, they will not be subject to discipline or sanctions for violations of the college's or university's policies relating to drug or alcohol use at the time the alleged sexual violence occurred; and
>
> (2) Subsection 2 (2) of the Regulation is amended by adding the following paragraph:
>
> > 14. A statement that students who disclose their experience of sexual violence through reporting an incident of, making a complaint about, or accessing supports and services for sexual violence, will not be asked irrelevant questions during the investigation process by the college's or university's staff or investigators, including irrelevant questions relating to the student's sexual expression or past sexual history.

The Proposed Revisions to McMaster's Policy

McMaster's Commitment (s. 9 – s. 14) to trauma-informed practice guides the university's sexual violence response in a manner that is already aligned with the new trauma-informed directives.

However, to make the practices more explicit, codification of the Provincial directives in the Policy is recommended by inserting the following two new clauses as s. 11 and s. 12. after existing clause s. 10 in the Commitments section. This language has been updated following the discussion at Senate on January 12, 2022, and now adopts directly the language of the Ontario Regulation, with the following adjustments:

1. capitalization of some words to be consistent with the McMaster Sexual Violence Policy, and
2. slight re-wording, e.g., changing 'report an incident' to 'reports an incident'.

Proposed new language:

> 11. A student who, in good faith, reports an incident of, or makes a Complaint about, Sexual Violence, will not be subject to discipline or sanctions for violations of the university's policies relating to drug or alcohol use at the time the alleged Sexual Violence occurred.
>
> 12. A student who discloses their experience of Sexual Violence through reporting an incident of, making a Complaint about, or accessing supports and services for Sexual Violence, will not be asked irrelevant questions during the investigation process by the university's staff or investigators, including irrelevant questions relating to the student's sexual expression or past sexual history.

Please see the attached copy of the Sexual Violence Policy with the proposed new language inserted.

Motion:

that the Executive and Governance Committee approve, on behalf of the Board of Governors, the proposed revisions to the Sexual Violence Policy, effective February 7, 2022.

McMaster University

Policies, Procedures and Guidelines

Complete Policy Title:

Sexual Violence Policy

Policy Number (if applicable):

Approved by:

Senate Executive /
Executive and Governance Committee of the Board of Governors

Date of Most Recent Approval:

January 26, 2022 /

February 7, 2022

effective February 7, 2022

Date of Original Approval(s):

December 14, 2016 / December 15, 2016
effective January 1, 2017

Supersedes/Amends Policy dated:

December 11, 2019 / December 12, 2019
effective January 1, 2020

December 14, 2016 / December 15, 2016
effective January 1, 2017

Responsible Executive:

Associate Vice-President, Equity and Inclusion

Policy Specific Enquiries:

Equity and Inclusion Office

Reviewed for Compliance (OHSA):

June 21, 2021

General Policy Enquiries:

Policy (University Secretariat)

Non-Substantive Revisions

June 21, 2021 – title change

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SECTION I: INTRODUCTION

PURPOSE

1. All members of the University Community ("Community Members" see clause 5 below) have a right to study, work, and live in an environment that is free of Sexual Violence.

2. The purpose of this Policy is to:
   a) articulate McMaster University's commitment to Sexual Violence prevention and response;
   b) identify services and resources related to **Sexual Violence** that are available to all members of the McMaster University Community ("University Community"); and
   c) explain the complaint and reporting options, supports, and accommodations that are available to all members of the University Community who experience Sexual Violence.

SCOPE

3. **Sexual Violence**[1] means any sexual act or act targeting a person's sexuality, gender identity or gender expression, whether the act is physical or psychological in nature, that is committed, threatened or attempted against a person without the person's Consent, and includes Sexual Assault, Sexual Harassment, stalking, indecent exposure, voyeurism and sexual exploitation.

4. This Policy prohibits all forms of Sexual Violence:
   a) acts of Sexual Assault, which fall under the broad definition of Sexual Violence, are considered a violation of this Policy and its procedures below shall apply; and
   b) acts of Sexual Harassment, which fall under the broad definition of Sexual Violence, may be considered violations of the *Discrimination & Harassment Policy* and its procedures may apply.

5. The Policy applies to:
   a) **all Members of the University Community** ("Community Members") include: students (graduate, undergraduate, and continuing education), staff, faculty, medical residents, volunteers, visitors (including visiting professors), and institutional administrators and officials representing McMaster University; and
   b) **all University-related activities**, which are activities (authorized and non-authorized) where there is a clear nexus to the working or learning environment at the University (on and off University premises).

6. When allegations of Sexual Harassment are to be processed under the *Discrimination & Harassment Policy*, there may be circumstances where the allegations in a Complaint necessitate following the procedures under both this Policy and the *Discrimination & Harassment Policy*.

7. Where a Complaint is filed that involves behaviour prohibited by this Policy, as well as behaviour more appropriately dealt with under the *Discrimination & Harassment Policy*, the Complaint may be processed under the *Discrimination & Harassment Policy*, without compromising the Complainant's right to access the specialized supports available through the Sexual Violence Prevention and Response Office. However, any proceedings related to the Complaint will determine if there has been a violation of the *Discrimination &*

[1] Ministry of Training, Colleges and Universities Act, R.S.O. 1990, c. M.19

Harassment Policy, in addition to any findings related to this Policy. The decision regarding which policy or policies are most appropriate will be made by the University.

8. Unless otherwise specified in this Policy, the Policy and its provisions apply where the University has the jurisdiction to pursue, adjudicate, or take steps to safeguard the University community.

MCMASTER'S COMMITMENT

9. Notwithstanding the limits of confidentiality, described below, the University recognizes that enabling confidential disclosures of experiences of Sexual Violence enhances individual and community safety. The University is committed to creating an environment in which Community Members feel able to disclose experiences of Sexual Violence and access support, accommodations and information on complaint and reporting options under the *Sexual Violence Response Protocol*.

10. The University recognizes that making a Disclosure, filing a Complaint, or being the focus of allegations of Sexual Violence may be difficult. The University is committed to ensuring that all individuals making disclosures or who are parties to a complaint, be they Complainants or Respondents, will be treated with dignity and respect, will be guaranteed due process and procedural fairness, will be afforded privacy and confidentiality within its reasonable limits, and will have access to appropriate support and assistance throughout.

11. A student who, in good faith, reports an incident of, or makes a Complaint about, Sexual Violence, will not be subject to discipline or sanctions for violations of the university's policies relating to drug or alcohol use at the time the alleged Sexual Violence occurred.

12. A student who discloses their experience of Sexual Violence through reporting an incident of, making a Complaint about, or accessing supports and services for Sexual Violence, will not be asked irrelevant questions during the investigation process by the university's staff or investigators, including irrelevant questions relating to the ~~individual~~student's sexual expression or past sexual history.

13. When a University complaint process is initiated, the University is committed to providing an intake, investigation, and adjudication process that is trauma-informed, timely, and follows the principles of procedural fairness.

14. The University is committed to addressing Sexual Violence in a manner that is informed by current knowledge, scholarship and best practices in understanding how Sexual Violence intersects with other forms of violence and social inequities.

15. The University recognizes that the experience of Sexual Violence can be traumatic, having negative immediate and/or longer-term effects on an individual's physical, mental, emotional, spiritual, and social health and wellbeing. The University is committed to providing appropriate trauma-informed support, accommodations, resources and referrals.

16. The University recognizes that socially marginalized individuals (on the basis of factors such as race, disability, Indigeneity, sexual orientation, gender identity and gender expression, religion, spirituality, age, citizenship and socio-economic status) experience disproportionately higher incidences of sexual and other forms of violence. The University is committed to ensuring culturally respectful and relevant supports and services that are attuned to systemic social inequities. The University recognizes that individuals from diverse communities who face systemic barriers and discrimination may be reluctant to disclose Sexual

Violence to institutional authorities. The University is committed to examining and eliminating individual bias and institutional barriers in the organization and delivery of its services and supports.

POLICY REVIEW

17. The Policy will be reviewed annually for compliance with the *Occupational Health & Safety Act*. The Policy will be reviewed every three years in accordance with the *Sexual Violence and Harassment Plan Act* in a process inclusive of input from students, key University constituencies, women's organizations and other community partners with expertise in Sexual Violence.

18. Student participation in the three-yearly policy review process will be coordinated by the Equity and Inclusion Office in collaboration with the McMaster Student Union, and the McMaster Graduate Student Association, and will include a diverse cross-section of campus partners with experience and expertise related to Sexual Violence prevention and response.

TERMS AND DEFINITIONS

19. A full glossary of terms and definitions may be found in Appendix A.

20. For the purpose of interpreting this document:

    a) words in the singular may include the plural and words in the plural may include the singular

    b) Directors, members of the Administration, and Decision-Makers in this Policy may, where appropriate, delegate their authority;

    c) **AVP Equity and Inclusion** means the Associate Vice-President, Equity and Inclusion;

    d) **Chief Human Resources Officer** means the Assistant Vice-President & Chief Human Resources Officer;

    e) **Dean of Students** means the Associate Vice-President (Students and Learning) and Dean of Students;

    f) **Director (ELR)** means the Executive Director, Employee & Labour Relations;

    g) **Director (HRDR)** means the Director, Human Rights & Dispute Resolution Program;

    h) **Director (SVPRO)** means the Director, Sexual Violence Prevention and Response Office;

    i) **Director (SSCM)** means the Director, Student Support & Case Management Office;

    j) **Hearing Procedures** means the Hearing Procedures for the Board-Senate Hearing Panel for Discrimination, Harassment, and Sexual Violence;

    k) **Provost** means the Provost and Vice-President (Academic);

    l) **Tenure and Promotion Policy** means the McMaster University Revised Policy and Regulations with Respect to Academic Appointment, Tenure and Promotion; and

    m) **Security Services** means McMaster University Security and Parking Services.

SECTION II: OPTIONS AND SUPPORTS

OPTIONS

21. Community Members who believe there has been a violation of the Policy have a number of options available to them: **Disclosure**, **Reporting** (under the Policy and includes filing a Complaint, and/or Voluntary Resolution), making a **Criminal Report**, or **Other External Options**.

22. Prior to pursuing one of the options below, Community Members should read Section III: Confidentiality. It is important to be aware that, **depending on the circumstances and nature of the incident disclosed**, the University may be obliged to:

    a) conduct a triage of violence risk;

    b) initiate a University-led Investigation of the incident regardless of whether or not the individual making the disclosure chooses to participate in the process; and/or

    c) notify Hamilton Police Services of the allegation and name of the individual who is the subject of the allegation and/or contact other relevant agencies to fulfill legal obligations.

23. Individuals are encouraged to consult with the Director (SVPRO), who will provide holistic support for disclosures, assistance with requests for accommodation, and advice on options, at any point in time, regardless of how the individual chooses to proceed.

24. While encouraged to contact the Director (SVPRO) for disclosure support, complaint intake, and reporting options, Community Members who experience Sexual Violence may choose to contact any one of the Intake Offices to make a Complaint pursuant to the Sexual Violence Policy.

25. Disclosing an experience of Sexual Violence is a separate decision from making a report. Each decision will result in different levels of University involvement and action.

DISCLOSURE

26. A Disclosure is made when an individual informs a Community Member about an experience of Sexual Violence because they wish to access support, accommodations and/or information about their options, under the *Sexual Violence Response Protocol*.

REPORTING

27. A Report occurs when an individual determines that they wish to pursue an official Complaint through one or more of the following avenues: a Complaint to the University under this Policy, Voluntary Resolution under this Policy, a Criminal Report through the justice system, or other reporting options external to this Policy. Reporting options are not mutually exclusive.

28. Individuals who file a Report may ultimately be required to attend/participate in a hearing, either internal to the University, or external through arbitration, or criminal court, etc.

Complaint

29. A Complaint is made when an individual submits an Incident Report to their Supervisor, or a written statement of Complaint to the Director (SVPRO) or an Intake Office making an allegation of Sexual Violence because they wish to initiate a formal University process, which may require an Investigation into the allegations and finding of facts.

Voluntary Resolution

30. In certain circumstances, a Complainant and Respondent may be interested in attempting a resolution of a Complaint at any time before the completion of an Investigation.

31. The following conditions must be present before considering if Voluntary Resolution is a viable option:
    a) the University is able to meet its responsibilities pursuant to the *Occupational Health & Safety Act*; and
    b) the Complainant and the Respondent both agree to:
        (i) attempt to reach a resolution in good faith;
        (ii) the methods to be used to seek resolution; and
        (iii) the terms of what would constitute resolution.

32. A meeting between the Complainant and the Respondent will not be a requirement for Voluntary Resolution.

33. A Voluntary Resolution may be facilitated by an Intake Office, and the methods may include fact-finding discussions, clarification of the issues, facilitated conversations, mediation, coaching, voluntary no contact agreements, reconciliation, restoration processes, workplace restoration processes.

CRIMINAL REPORT

34. A Criminal Report is made when an individual files a report of Sexual Violence with a police service or with Security Services. Filing a Criminal Report with Security Services will result in a report to Hamilton Police Service.

OTHER EXTERNAL OPTIONS

35. Individuals may exercise other University options external to this Policy (e.g. the grievance provisions of applicable collective agreements) or other options external to the University (e.g. through civil litigation or *Ontario Human Rights Code* provisions).

OPTIONS CHART

Central Sexual Violence Complaint Intake Office

Sexual Violence Prevention and Response Office, Equity and Inclusion Office (All Community Members)

Additional Complaint Intake Offices

Human Rights & Dispute Resolution Program, Equity and Inclusion Office (All Community Members)

Student Support & Case Management Office (SSCM), Student Affairs (Students)

Employee and Labour Relations (ELR), Human Resources Services (Faculty and Staff members)

Faculty of Health Sciences (FHS) Professionalism Office (FHS Community Members)

DISCLOSURE

Informing someone in the University community about an experience of Sexual Violence because they wish to access support, accommodations and/or information about their options.

CRIMINAL REPORT

When an individual files a report of Sexual Assault with a police service or with Security Services. Filing a report with Security Services will result in a report to Hamilton Police Services.

COMPLAINT

A Complaint can be initiated through completion of an Incident Report submitted to a Supervisor, or through submitting a written Complaint with the Sexual Violence Prevention and Response Office or through one of the Intake Offices (listed above) making an allegation of Sexual Violence because they wish to initiate a University process, which may require an investigation and finding of facts.

OTHER EXTERNAL OPTIONS

Options external to the University (e.g. civil litigation or Ontario Human Rights Code provisions) or other options external to this Policy (e.g. grievance provisions of applicable collective agreements)

VOLUNTARY RESOLUTION

Attempting a resolution of a Complaint at any time *before* the completion of an Investigation.

SECTION III: CONFIDENTIALITY

CONFIDENTIALITY (LIMITATIONS)

36. The University recognizes the importance of confidentiality both for individuals coming forward to Disclose or Report an experience of Sexual Violence and for individuals who are the subject of a Complaint, and will take steps to protect the confidentiality of both parties to the extent permitted by its legal obligations outlined below.

37. The University and its employees and agents will protect personal information and handle records in accordance with the *Freedom of Information and Protection of Privacy Act* and the *Personal Health Information Protection Act*, where applicable in the circumstances, with the provisions of applicable collective agreements and, in the case of health care providers, in keeping with any professional obligations.

38. When making a Disclosure or Report to any University office, individuals shall receive clear and transparent information about the level of, and limits to, confidentiality that apply.

39. The University recognizes that confidentiality is a crucial consideration in creating an environment in which individuals feel able to Disclose incidents of Sexual Violence and to access Support, Accommodations, and information. The University will share identifying information only in circumstances where it is necessary in order to administer this Policy, to address safety concerns, or to satisfy a legal reporting requirement. In such circumstances, the minimum amount of information needed to allow such concerns to be addressed, or to meet such requirements, will be disclosed. Such circumstances include those where:

    a) an individual is at risk of harm to self;

    b) an individual is at risk of harming others;

    c) there are reasonable grounds to be concerned about risk of future violence or the safety of the University and/or broader community;

    d) disclosure is required by law, for instance, suspected abuse of someone under the age of 16, reports of intimate partner/domestic violence, or to comply with legislation, such as the *Occupational Health and Safety Act* the *Workplace Safety and Insurance Act*, or with human rights legislation; and/or

    e) to comply with the reporting requirements of regulatory bodies and/or professional licensing bodies.

40. Where there are reasonable grounds to be concerned about risk of future violence or the safety of the broader community or the public, or where the University is otherwise obligated to do so, the University may report the incident to Hamilton Police Services. In these situations:

    a) the relevant Decision-Maker will be responsible for making the decision to disclose information to Hamilton Police Services;

    b) the name of the Respondent, if known, will be shared; and

    c) the name of the Complainant will not be shared without their consent, unless doing so would address a reporting obligation or mitigate a safety risk.

41. Some offices and Community Members have additional limitations to confidentiality because of their particular reporting requirements or professional obligations. For example:

    a) all regulated health professionals are obligated to report suspected sexual abuse of a patient by a regulated health professional to that professional's governing body if this information is acquired during the course of their practice; and

    b) Special Constables in Security Services are required to investigate reports of abuse of someone under the age of 16 and reports of intimate partner/domestic violence and to lay charges in all cases when there are reasonable grounds to believe a criminal offence has been committed, regardless of whether the target of the violence wishes to have further involvement with the legal process.

42. As part of the University's responsibility to maintain an environment free from Sexual Violence, information may be shared on a need-to-know basis.

43. Procedural limits to confidentiality may also occur if the University is subject to legal proceedings that, in the opinion of the Provost or the Vice-President (Operations and Finance), require the disclosure of information.

44. The importance of preserving the confidentiality of Complaints and any related proceedings will be explained to all parties as a necessary measure to protect the integrity of the proceedings.

SECTION IV: PROCEDURAL GUIDELINES

ADVISOR / SUPPORT PERSON

45. An Individual who is a party to a Complaint may be accompanied by an Advisor, a Support Person or legal counsel at any stage of any of the procedures outlined in this Policy. Any costs of accompaniment or representation are to be borne by the individual.

TIME LIMITATIONS FOR BRINGING FORWARD A COMPLAINT

46. There are no time limitations on bringing forward a Complaint. However, individuals are encouraged to report a Complaint at the earliest opportunity, as the longer the time lapse between the incident and the Complaint, the more difficult it becomes to investigate effectively. Once a Complaint is received, it will be dealt with as expeditiously as possible.

REPRISAL

47. The University prohibits reprisal or threats of reprisal against any person who, sincerely and in good faith, makes use of this Policy or participates in any process held under its jurisdiction. Any individual who is concerned that they are the subject of reprisals or threats should report their concerns to an Intake Office. Where appropriate, sanctions under the relevant policy (including this Policy, *Discrimination & Harassment Policy*, and/or the *Code of Student Rights and Responsibilities*) legislation or contract, may be applied against the individual(s) responsible for the reprisal.

INTERIM MEASURES AND ONGOING SUPPORT OF ALL PARTIES

48. At any stage in proceedings under this Policy it may be necessary to take Interim Measures in order to safeguard the environment of Community Members who are involved or may be affected. Interim Measures shall not be construed as evidence of either guilt or a finding of violation of this Policy, or as an affirmation of innocence/finding of non-violation of this Policy.

49. The authority to approve Interim Measures will rest with the relevant Decision-Maker in line with the Respondent's reporting structure.

50. Interim Measures will be reviewed on an ongoing basis by the Director of the appropriate Intake Office throughout the process to ensure the measures remain necessary and appropriate in the circumstances. Interim Measures are temporary and do not extend beyond the final resolution of a Complaint.

51. Interim Measures may include, but are not limited to, the rearrangement of academic/employment responsibilities or oversight, an administrative leave of absence, the rearrangement of residence location (where possible), adjustments in University activities (e.g. attendance at guest lectures, social events), issuance of a no contact order, or implementation of a *persona non grata* declaration.

52. In the event an Employee is directed to take an administrative leave as an Interim Measure, the conditions of the administrative leave shall accord with the terms of any applicable collective agreement. In the absence of an applicable collective agreement (e.g. where the employee is faculty or The Management Group (TMG)), the leave shall be without loss of pay or benefits. It is understood that an administrative leave as an Interim Measure is non-disciplinary and is designed to separate a person from a situation or another

person until the matter has been resolved. During such period, the person can continue to access relevant University Support Services.

53. Should an Investigation extend beyond six months, there will be a full review by the Response Team in consultation with the Decision-Maker to assess progress, to consider fairness to all parties, thoroughness, timeliness, and confidentiality, and to consider any necessary next steps.

DATA GATHERING & RECORD KEEPING

54. The Director (SVPRO) is responsible for: maintaining and reporting data relating to Sexual Violence consultations and disclosures as well as prevention education and response training initiatives and programs.

55. The Equity and Inclusion Office is responsible for collecting and reporting annual anonymized, aggregate data on Consultations, Disclosures, Complaints, Investigations, and all Outcomes and Sanctions, to the Senate and the Board of Governors.

56. Data for the annual report is collected and maintained by the Equity and Inclusion Office and includes data collected from the Sexual Violence Prevention and Response Office, the Human Rights and Dispute Resolution Program, Employee & Labour Relations, the Student Support & Case Management Office, the Faculty of Health Sciences Professionalism Office, and Security Services. The purpose of the annual report is to inform education and training initiatives.

57. In developing the annual report, the utmost care will be taken to ensure that individuals' identities remain confidential and that data gathering does not discourage individuals who wish to disclose from coming forward.

58. All notes, materials, Investigation reports, and decisions, pertaining to Complaints will be kept by the relevant Intake Office for seven years. These records may be retained longer, subject to the discretion of the appropriate Director.

SECTION V: ROLES AND RESPONSIBILITIES

SENIOR ADMINISTRATION

59. The Senior Administration has overarching responsibility for maintaining a University environment in which Sexual Violence is unacceptable, for providing the resources required to support such an environment, and for ensuring the timely development and review of relevant policies through Senate and Board of Governors procedures.

60. In addition, the Senior Administration is responsible for enabling Community Members to function with the highest standards of integrity, accountability, and responsibility. Activities may include disseminating information about the University's expectations and providing education to all Community Members on issues related to Sexual Violence.

ASSOCIATE VICE-PRESIDENT, EQUITY AND INCLUSION

61. The AVP Equity and Inclusion oversees the Equity and Inclusion Office, which houses the Sexual Violence Prevention and Response Program and the Human Rights and Dispute Resolution Program, both of which play roles in campus sexual violence prevention and response.

62. The AVP Equity and Inclusion is accountable for leading a coordinated campus sexual violence prevention and response effort in collaboration with campus partners, including convening a working group, representative of McMaster's diverse student, faculty and staff populations, to advise on the effectiveness of campus sexual violence prevention and response efforts.

DIRECTOR, SEXUAL VIOLENCE PREVENTION AND RESPONSE OFFICE

63. The Director (SVPRO), is responsible for establishing the Office as a central University resource for any Community Member who has experienced any form of Sexual Violence, including sexual assault, sexual harassment, and intimate partner violence, or any Community Member seeking information or consultation on issues related to trauma-informed response and support or prevention education and response training.

Inclusive, Trauma-Informed Response and Support

64. Community Members who Disclose an experience of Sexual Violence to a member of the Sexual Violence Prevention and Response Office, can expect that the Office will:
    a) provide trauma-informed response and support;
    b) consider safety measures that may be necessary;
    c) make a referral for medical services as needed;
    d) actively and empathically listen to individual needs and concerns without judgment;
    e) share reporting options available;
    f) clarify commitments to Confidentiality and its Limits;
    g) explain the difference between Disclosure and Reporting;
    h) make a referral to police if the individual chooses that option;
    i) conduct a Complaint intake if the individual chooses that option;
    j) assist the individual to navigate any relevant University systems and procedures;

k) facilitate workplace, academic, and/or residence accommodations;

l) consider differing cultural needs and offer/refer to culturally relevant supports;

m) provide information about and referral to campus and community services;

n) liaise with relevant partners to ensure coordinated response and support; and

o) facilitate ongoing assessment, planning and case management.

65. The Director (SVPRO) is responsible for providing guidance to Community Members who consult on Disclosures they receive, providing information on how to support the individual and facilitate a referral, and assessing whether the limits of confidentiality apply.

Prevention Education and Response Training

66. The Director (SVPRO) is responsible for overseeing a prevention education and training response program, including:

a) promoting the Health & Safety Training Program's *Violence & Harassment Prevention* training that is coordinated by Environmental & Occupational Health Support Services;

b) educational initiatives for the campus community that are attuned to the broader social context in which Sexual Violence occurs and includes topics such as: addressing sexual violence myths and misconceptions, promoting healthy masculinity, creating a culture of consent; and

c) training initiatives for frontline campus community and student-facing service providers, and for those with particular responsibilities related to this Policy, that integrate an intersectional anti-oppressive trauma-informed analysis of Sexual Violence. Training will include skill-building related to receiving Disclosures and providing appropriate support and referral to University and external resources for community members.

67. The University Secretary, in consultation with the Director (SVPRO) will ensure that the members of the Board-Senate Hearing Panel for Discrimination, Harassment, and Sexual Violence receive appropriate education and training on Sexual Violence .

INTAKE OFFICES

68. While encouraged to contact the Director (SVPRO) for disclosure support, complaint intake, and reporting options, Community Members who experience Sexual Violence may alternatively choose to file an incident report with their Supervisor (in the case of staff) or make a Complaint to one of the following Intake Offices:

a) Human Rights & Dispute Resolution Program (HRDR), Equity and Inclusion Office (All Community Members)

b) Student Support & Case Management Office (SSCM), Student Affairs (Students)

c) Employee and Labour Relations (ELR), Human Resources Services (Faculty and Staff members)

d) Faculty of Health Sciences (FHS) Professionalism Office (FHS Community Members)

69. Intake Coordinators are responsible for ensuring the Complainant fully understands the procedures of the Policy and what may result from the decision to file a Complaint, and for consulting with the Director (SVPRO) to ensure a trauma-informed and intersectional approach.

70. The statement of Complaint will be reviewed by the respective Intake Office Director, in consultation with the Director (HRDR), to determine the applicability of this Policy, the *Discrimination & Harassment Policy*, and/or other University policies.

71. The Director of the relevant Intake Office will review any Interim Measures on an ongoing basis throughout the process to ensure they remain necessary and appropriate in the circumstances.

DIRECTOR, HUMAN RIGHTS & DISPUTE RESOLUTION

72. The Director (HRDR) is responsible for assessing every Complaint received and making a determination as to the applicability of the Sexual Violence Policy, the *Discrimination & Harassment Policy*, or other University policies, in consultation with the Director (SVPRO) and with the respective Director(s) of the relevant Intake Offices(s). The Director (HRDR) is responsible for activating the Response Team, as required.

73. The Director (HRDR) is responsible for working in close partnership with individuals and offices involved in administering this Policy, including but not limited to: the Response Team, Investigators, Intake Offices, Decision-Makers, Senior Administrators, the University Secretariat, and University Counsel, to ensure the effective administration of this Policy and the *Discrimination & Harassment Policy*.

74. The Director (HRDR) will, in collaboration with the Director (SVPRO) and other relevant Intake Office Directors, consider Interim Measures as they relate to the parties involved in the matter and recommend them to the relevant Decision-Maker; recommend and/or facilitate any further safety planning and accommodations; and consider other University responses that may be necessary.

RESPONSE TEAM

75. The Response Team is activated by the Director (HRDR), where a case potentially presents community risk and/or requires consultation with multiple partners for a coordinated response.

76. The Response Team will be chaired by the Director (HRDR) and will include the Director (SVPRO), as a consultant, and, as appropriate in the circumstances, the Directors of other relevant campus partners.

77. As necessary the Director (HRDR) may draw upon representatives of other key services and/or departments (e.g. Director of Housing and Conference Services, Director of the Student Wellness Centre, etc.), disclosing identities only on a need-to-know basis in order to appropriately respond to the matter.

78. When the allegations include the potential for an ongoing/further risk of violence, the Director (HRDR) may, on behalf of the Response Team, consult with the Director of Security Services, disclosing identities on a need-to know basis.

INVESTIGATORS

79. All Investigators, whether internal or external to the University, will have training and expertise in the area of Sexual Violence and in using an intersectional, anti-oppressive, trauma-informed approach to investigation processes. Investigators will follow the mandate and scope of the Investigation as determined by the University.

DECISION-MAKERS FOR INTAKE AND INVESTIGATIONS

80. The Decision-Makers are, as applicable, the:
    a) Assistant Vice President & Chief Human Resources Officer for staff Respondents;
    b) Associate Vice-President (Students and Learning) & Dean of Students for student Respondents;
    c) Provost and Vice-President (Academic) for faculty Respondents; and
    d) Executive Vice-Dean & Associate Vice-President (Academic) for faculty Respondents in the Faculty of Health Sciences.

81. More than one Decision-Maker may be involved in cases where a Respondent has more than one type of relationship with the University (such as a student who also holds a staff appointment).

82. When the Respondent is a Community Member but is not currently a student, staff, or faculty member, the Investigation report will be reviewed by the Decision-Maker related to the Respondent's area of activity at the University.

83. Decision-Makers are responsible for reviewing and responding to Investigation Reports (see Investigation Procedures), and authorizing appropriate Interim Measures.

84. When the line of authority is unclear, the Provost or the Vice-President (Operations and Finance), as appropriate, will determine the appropriate individual in the line of authority.

85. Should there be a conflict of interest with a Decision-Maker, the appropriate Vice-President shall assume the responsibilities of the Decision-Maker. Similarly, if that Vice-President is in a conflict then another Vice-President or the President shall act.

86. Decision-Makers are responsible for determining whether Hamilton Police Services need to be notified and for authorizing that notification, as specified in clauses 38 - 39.

SECURITY SERVICES SPECIAL CONSTABLES

87. All Special Constables will receive training on intersectional, anti-oppressive, and trauma-informed response to Disclosures and Reports of Sexual Violence.

88. Security Services will respond to Community Member Disclosures and Reports, as follows:
    a) if the Community Member elects only to make a Disclosure or a Complaint under this Policy, Security Services will record the matter in their internal reports, refer the person to the Director (SVPRO) and will then take no further action (subject to clause 39);
    b) if the Community Member elects to make a Criminal Report, Security Services will report the incident to Hamilton Police Services, liaise with the person and police, and refer the individual to the Director (SVPRO) for ongoing support, accommodations that may be required, and for assessing whether the limits of confidentiality apply and a response may be required by the University.

89. Security Services will investigate all reports of Sexual Assault that:
    a) originate from a call received by a Special Constable to attend the scene of a reported Sexual Assault;

b) result from a Complainant electing to make a Criminal Report of Sexual Assault to a Special Constable; and/or

c) arise from a Special Constable observing, disrupting or arresting an individual in the act of committing a Sexual Assault.

SUPERVISORS

90. Within the University Community it is recognized that there are various types of supervisors: Academic Supervisors, Academic Administrators, and Workplace Supervisors. All such supervisors are responsible for:

a) modeling acceptable standards of behavior;

b) supporting any employee or student who, in good faith, reports a potential violation of the Policy;

c) contacting one of the Intake Offices for guidance and advice to address the matter as appropriate in the circumstances, and cooperating with Intake Offices during Investigations, and/or in the implementation of Interim Measures, and/or sanctions; and

d) completing all required training and ensuring that the people they are supervising are trained appropriately on the Policy and *RMM 300 Health and Safety Training Program*.

EMPLOYEES

91. Employees are required to complete initial and periodic refresher training in Violence and Harassment Prevention, in accordance with the *Health & Safety Training Program*.

92. Employees have additional legal obligations when they become aware of incidents of Workplace Harassment and Workplace Violence as follows:

a) in accordance with the *Occupational Health and Safety Act*, all employees of the University must report any incident of Workplace Harassment and/or Workplace Violence, which includes Sexual Violence, to their Supervisor or to an Intake Office. Any immediate or urgent incidents should also be reported to Security Services.

b) Workplace Supervisors must take every reasonable precaution to protect the safety of an employee. Supervisors are expected to follow the *Sexual Violence Response Protocol*, and to consult with either the Director (SVPRO) or Employee and Labour Relations (ELR) office when they receive a Disclosure, receive an incident report of Sexual Violence, or otherwise become aware of an incident of Sexual Violence in the workplace. Any immediate or urgent incidents should be reported to Security Services.

COMMUNITY MEMBERS

93. All Community Members are responsible for contributing to an environment that is free of Sexual Violence, and for participating in relevant education and training programs.

94. All Community Members are expected to be familiar with the *Sexual Violence Response Protocol*, and to act in accordance with the guidelines provided for supporting an individual who makes a Disclosure.

SECTION VI: INVESTIGATIONS

INTAKE AND INITIATION OF COMPLAINTS

95. If an individual wishes to file a Complaint of Sexual Violence for the University to address, they are encouraged to contact the Director (SVPRO) in the central **Sexual Violence Prevention and Response Office** for disclosure support, complaint intake, and reporting options; however, individuals may alternatively choose to file an Incident Report with their Supervisor or contact an Intake Coordinator in any one of the Intake Offices (refer to page 6).

96. Any Community Member who is the subject of an allegation under the Policy will be assisted by the Director (SVPRO) or another Intake Office Director who will ensure that they receive support and guidance and are in receipt of relevant information, services and supports relating to the Policy.

97. The Director (SVPRO) and all Intake Coordinators are responsible for:

    a) ensuring that Complainants are aware of the options available to them in seeking a response;

    b) assisting Complainants in understanding what may be involved in, and what may result from, each of the options; and

    c) assisting a Complainant who wishes to move forward with completing a **Complaint Intake Form**, which includes a description of: what happened; who was involved in the incident; when and where the incident occurred; who (if anyone) saw or heard the incident, or saw or heard something of relevance prior to or after the alleged incident(s) of Sexual Violence;

    d) individuals who contact an Intake Office and wish to file a Criminal Report will be assisted with contacting Security Services in order to file the report.

98. All Complaint Intake Forms are sent to the Director (HRDR), who will review and assess the Complaint, in consultation with the Director (SVPRO) and relevant Intake Office Director(s) on an immediate and priority basis in order to, as appropriate:

    a) confirm that it fits within the scope of the Policy;

    b) consider requirements pursuant to the *Occupational Health and Safety Act*;

    c) consider whether the parties are interested in voluntary resolution, and whether it is feasible/appropriate in the circumstances;

    d) determine if an Investigation is required, and, if so, set parameters accordingly, in consultation with the appropriate Decision-Maker (including, for example, which University office will be involved; internal or external investigator; timelines, mandate and scope for the Investigation);

    e) convene, at their discretion, the Response Team, to provide consultation;

    f) consider and coordinate appropriate Accommodations and/or Interim Measures as they relate to all parties involved in the matter; and

    g) as necessary, draw upon representatives of relevant services or departments in order to appropriately respond to the matter.

99. At any time during proceedings under this Policy, the Response Team, when convened, may determine it is necessary to disclose identities on a need-to know basis in order to administer the Policy.

Decision to Not Investigate

100. In some circumstances a decision may be made to not investigate. The decision will be communicated in writing, with reasons, to the Complainant by the relevant Decision-Maker. The Complainant will be informed of their right to make a written request for review of the decision to the Vice-President to whom the Decision-Maker reports.

UNIVERSITY INITIATED INVESTIGATION

101. The University may become aware of situations where a University-initiated Investigation may be warranted, including, but not limited to circumstances where:

a) allegations are made about the conduct of a Community Member by an individual who is not, or is no longer, a Community Member;

b) one or more individuals disclose experiences of Sexual Violence involving one individual or multiple individuals within a group/organizational environment;

c) the University has a duty to investigate pursuant to the *Occupational Health and Safety Act*;

d) the power differential in the alleged incident indicates the potential for a pattern of repeated Sexual Violence; and/or

e) situations reveal broader issues to be addressed, including concerns for a Poisoned Environment.

102. The Director (HRDR), in collaboration with the appropriate Intake Office Director(s), will consult with the appropriate Decision-Maker(s) to determine whether an Investigation is warranted, on the basis of both the circumstances and nature of the allegations.

103. Individuals have the right not to participate as a Complainant in any University-Initiated Investigation that may occur.

INVESTIGATION PROCEDURES

104. Respondents have the right to know the case against them, and to produce any relevant documentation, evidence, or other information, and identify witnesses to the Investigator in response to any allegations.

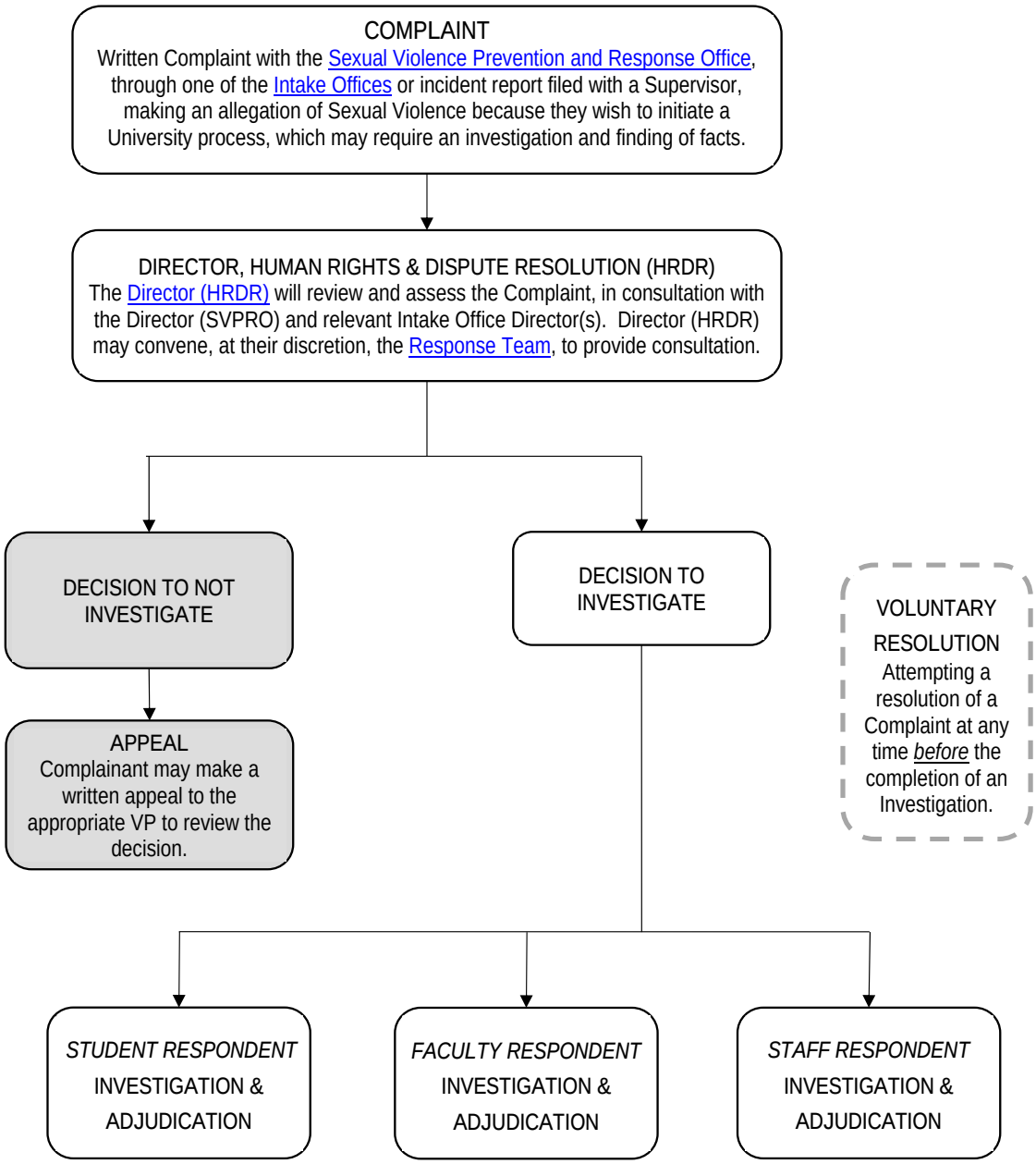
105. The Investigator will impartially collect evidence and interview those witnesses they deem relevant in relation to the Complaint. The Investigator may request that the appropriate authority at the University adjust the scope and the manner in which the Investigation will be conducted in order to ensure a thorough and fair investigation process.

106. All Community Members are expected to meet with the Investigator if requested to do so and to participate in good faith.

107. Complainants and Respondents have the option of being accompanied by a Support Person or Advisor.

108. All those who meet with an Investigator are required to keep confidential the Investigation and any information shared, to ensure the integrity of the proceedings. Failure to do so could be considered a breach of privacy and could be subject to a sanction under the relevant University policy.

109. An individual who was not previously identified as a Respondent but who, during the course of an Investigation, is identified as a potential Respondent (by the Investigator and with the approval of the University) will be notified and given an opportunity to meet with the Investigator and to respond to any allegations.


COMPLAINT
Written Complaint with the Sexual Violence Prevention and Response Office, through one of the Intake Offices or incident report filed with a Supervisor, making an allegation of Sexual Violence because they wish to initiate a University process, which may require an investigation and finding of facts.
DIRECTOR, HUMAN RIGHTS & DISPUTE RESOLUTION (HRDR)
The Director (HRDR) will review and assess the Complaint, in consultation with the Director (SVPRO) and relevant Intake Office Director(s). Director (HRDR) may convene, at their discretion, the Response Team, to provide consultation.
DECISION TO NOT INVESTIGATE
APPEAL
Complainant may make a written appeal to the appropriate VP to review the decision.
DECISION TO INVESTIGATE
VOLUNTARY RESOLUTION
Attempting a resolution of a Complaint at any time before the completion of an Investigation.
STUDENT RESPONDENT INVESTIGATION & ADJUDICATION
FACULTY RESPONDENT INVESTIGATION & ADJUDICATION
STAFF RESPONDENT INVESTIGATION & ADJUDICATION

SECTION VII: ADJUDICATION AND DECISIONS

ADJUDICATION

110. Decision-Makers shall decide, on a balance of probabilities, whether the alleged Violation of the Policy has occurred.

111. Where a Respondent has more than one type of relationship with the University (such as a student who also holds a staff appointment) the relevant Decision-Makers may decide to adjudicate the matter jointly and any sanctions and remedies may be administered under one or both of the processes relevant to the Respondent's status.

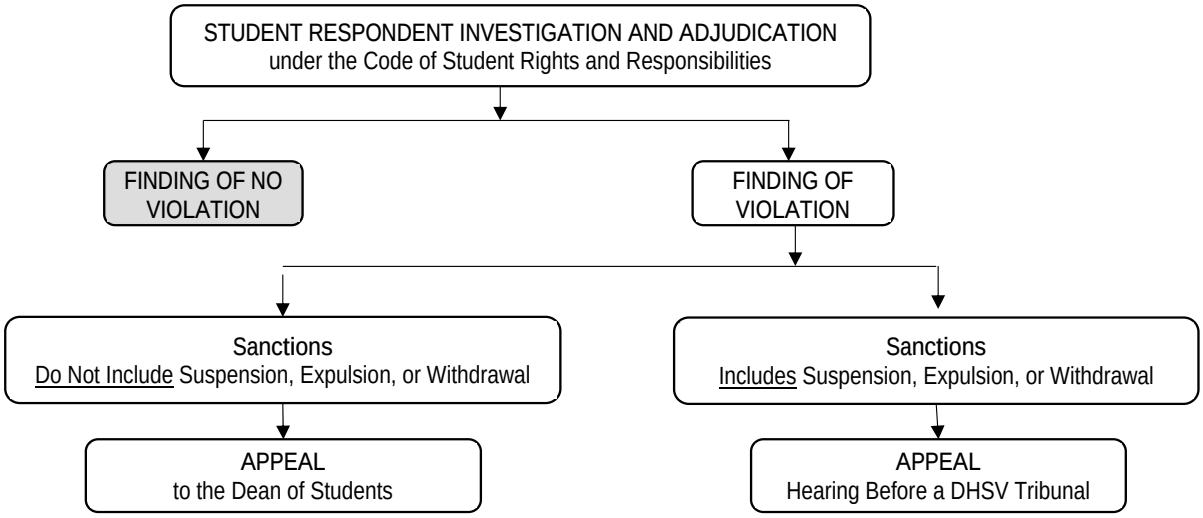
STUDENT RESPONDENT

112. The Investigation Report will be provided to the Director (SCCM) or Dean of Students as appropriate, to consider and decide upon the findings and recommendations contained in the report and adjudicate the outcome.

113. Sanctions and remedies will be processed in accordance with the procedures in the *Code of Student Rights and Responsibilities* ("the Code").

114. In matters where the sanctions **do not include** suspension, expulsion, or withdrawal (voluntary or involuntary), the Respondent may appeal the outcome to the Dean of Students. When the Decision-Maker is the Dean of Students, the appeal will be to the Provost.

115. In matters where the sanctions **include** a suspension, expulsion, or withdrawal (voluntary or involuntary), the Respondent may appeal the decision made by the Dean of Students to the Board-Senate Hearing Panel for Discrimination, Harassment, and Sexual Violence. (see Hearing Procedures).



FACULTY RESPONDENT

116. The Investigation Report will be provided to the Decision-Maker (the Provost or the Executive Vice-Dean & Associate Vice-President (Academic) as appropriate) to consider the findings and recommendations contained in the report.

117. When considering the findings and recommendations, the Decision-Maker may consult with relevant offices (e.g. the Equity and Inclusion Office, Employee & Labour Relations, etc.) to ensure that outcomes are consistently applied, and are appropriate to relevant legislation, professional standards and regulations, and/or licensing bodies.

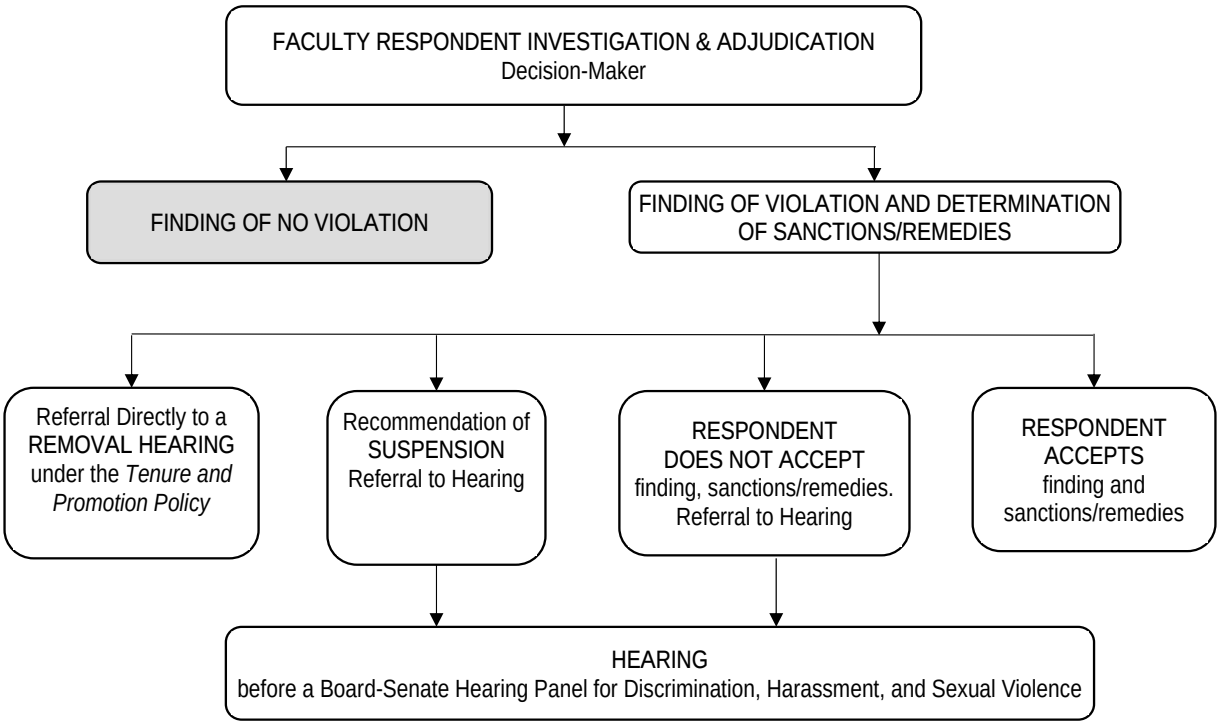
118. If the Decision-Maker makes a finding of violation of the Policy, the Decision-Maker will recommend the appropriate sanctions and/or remedies.

119. If the Respondent accepts the findings and the sanctions and/or remedies recommended by the Decision-Maker, the sanctions and/or remedies will be implemented, and the matter will be closed.

Referral to Hearing

120. If the Respondent does not accept the recommendations, or the Decision-Maker believes that suspension from the University is the appropriate sanction, the matter will be referred to a DHSV Tribunal for a hearing.

121. If it is determined by the Decision-Maker that Removal Proceedings should be initiated, the matter will be referred directly to the Procedures for Removal under the *Tenure and Promotion Policy*.



STAFF RESPONDENT

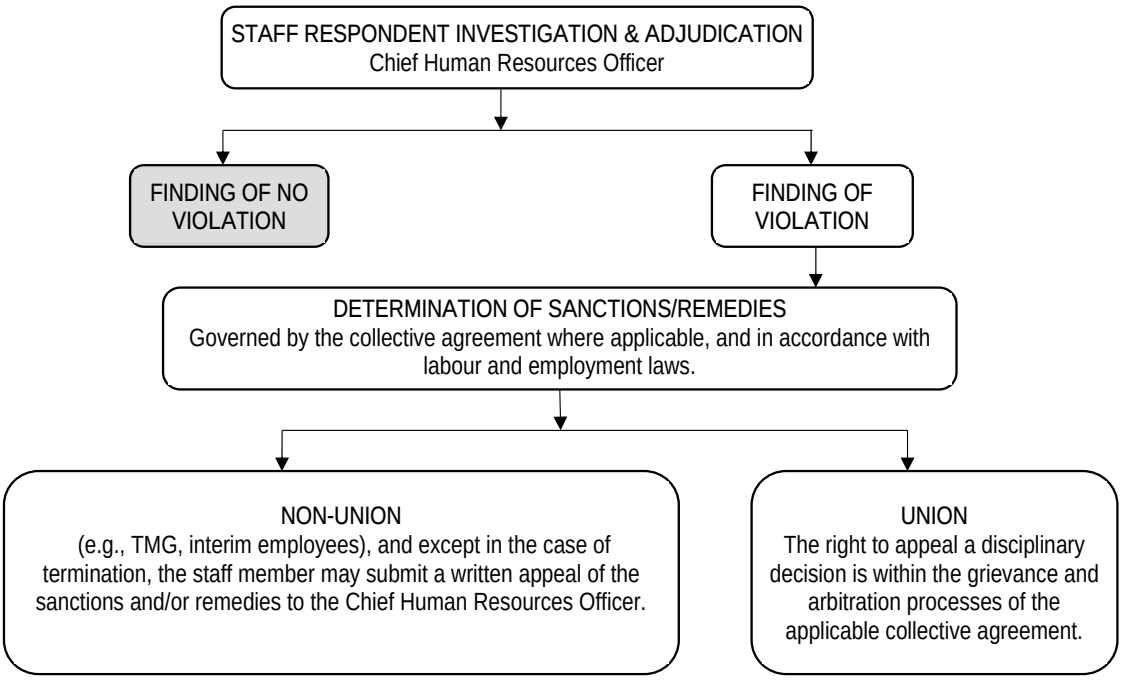
122. The Investigation Report will be provided to the Chief Human Resources Officer to consider the findings and recommendations contained in the report.

123. If the Chief Human Resources Officer makes a finding of violation of the Policy, the matter will be referred to the Director (ELR) to support the Workplace Supervisor in the processes to determine appropriate remedies and/or sanctions to ensure that outcomes are consistently applied, and are appropriate to relevant legislation, professional standards and regulations, collective agreements and/or licensing bodies.

124. In the case of a staff member who is a member of a union, the right to appeal the remedies and/or sanctions is within the grievance and arbitration processes of the collective agreement, as may be applicable.

125. In the case of a staff member who is not a member of a union (e.g., members of The Management Group, interim employees), and except in the case of termination, the staff member may submit a written appeal of the remedies and/or sanctions imposed by the Workplace Supervisor to the Chief Human Resources Officer.

126. In the case where the Respondent's reporting line is through to the Chief Human Resources Officer, the appeal will be made to the Vice-President (Operations and Finance).



COMMUNITY MEMBER RESPONDENT

127. When the Respondent is a Community Member but is **not** currently a student, staff, or faculty member, the relevant Decision-Maker (related to the Respondent's area of activity at the University) will consider the findings and recommendations contained in the report.

128. If the Decision-Maker makes a finding of violation of the Policy, the Decision-Maker will decide on the appropriate sanctions/remedies.

NOTIFICATION OF OUTCOME

Respondent

129. Respondents will receive a written decision from the relevant Decision-Maker, that will include:

a) the decision with respect to a **Finding** or **No Finding** of Violation of the Policy;

b) reasons for the decision;

c) a summary outlining the findings;

d) if the outcome is *no finding of violation* of the Policy the matter will be closed;

e) if the outcome is a *finding of violation* of the Policy, the Respondent will be informed of the process by which sanction(s) and/or remedies will be recommended or ordered (as per the relevant adjudication process related to the Respondent); and

f) where relevant, confirmation of any Interim Measures that will remain in place until sanctions are imposed.

Complainant

130. If the matter has been referred to a Hearing the Complainant will be informed of the referral.

131. Within the constraints of relevant legislation, the Complainant will be informed of the findings and reasons that are directly related to their complaint.

132. In all cases, information about any sanctions/remedies that have direct relevance to the Complainant will be provided to them.

Regulatory / Professional Licensing Bodies

133. Where required by a regulatory / professional licensing body, the relevant findings will be communicated to that professional licensing body.

Affected parties

134. Other affected parties will be informed about the findings and/or any sanctions/remedies that have a direct impact on them, within the constraints of relevant legislation.

SYSTEMIC AND PREVENTIVE INTERVENTIONS

135. Investigations may reveal broader systemic issues to be addressed as a future preventative measure, regardless of whether or not there has been a finding of Sexual Violence. In such instances, appropriate intervention measures may be recommended by Decision-Makers and /or the AVP Equity and Inclusion.

SECTION VIII: SANCTIONS AND REMEDIES

SANCTIONS

136. Sanctions shall be proportional to the severity of the offence, considering any aggravating, mitigating and/or contextual factors. Previous findings of a violation of this Policy or a related violation of the *Discrimination & Harassment Policy* will be taken into account when sanctions are determined, and the severity of sanctions may be greater as a result. Sanctions may be used independently or in combination for any single violation and may be varied and depending on the nature of the Respondent's relationship with the University may be administered under more than one process.

137. **Sanctions** may include, but are not limited to:

a) written reprimand;

b) inclusion of the decision, or summary of the decision as appropriate to comply with confidentiality requirements, in a specified file (e.g. Tenure & Promotion Dossier) of the Respondent, for a specified period of time;

c) the exclusion of the Respondent from, or oversight during, one or more designated University activities or duties;

d) a **No Contact Order**, which may include restrictions on: registration for specific classes, other academic/non-academic activities, attendance at specific meetings or events; direct or indirect contact (including but not limited to in person, by phone, email, text, social media, through a third party etc.) with a specific individual or group of individuals;

e) a **Persona Non Grata (PNG)** declaration, which is undertaken when an individual is denied the privilege of entering designated portion(s) of the University's buildings or grounds. If individuals issued a PNG are found or seen in the area they are denied, they may be subject to a charge by Security Services under the *Trespass to Property Act*;

f) for Student Respondents, all sanctions in the *Code of Student Rights and Responsibilities* for findings of Sexual Violence, including but are not limited to: behavioural contract/bond, suspension, expulsion; and for Residence students, residence probation, room transfer, denial of readmission, eviction;

g) for staff or faculty, **Suspension or Recommendation for Suspension**, as applicable, suspension involves relieving the Respondent of their University duties and denying them access to University facilities and services for a stated period of time and may be with or without pay and/or benefits. A recommendation for suspension of a **faculty** Respondent shall be dealt with in accordance with Section V of the *Tenure and Promotion Policy* and the common law where applicable; and/or

h) for staff or faculty, **Dismissal or Recommendation for Removal**, as applicable. A recommendation for removal of a **faculty** Respondent shall be dealt with in accordance with Section VI of the *Tenure and Promotion Policy* and the common law where applicable.

REMEDIES

138. **Remedies** may include but are not limited to:

a) mandated counselling;

b) training or coaching; and/or

c) Restoration Processes / Workplace Restoration Processes.

APPENDIX A: DEFINITIONS

All definitions in this Policy include, but are not limited to, the definitions articulated in the *Ontario Human Rights Code* and described in the *Occupational Health and Safety Act*.

Accommodations under this Policy are adjustments to individuals' academic, workplace, or residence arrangements made to support them and/ or enhance their safety (e.g. a change in assignment deadlines or tutorial group, a change in supervisory arrangements, a change in residence location).

Advisor: A person of the individual's choice who acts in an advisory role during the complaint and investigation process (e.g. friend, family member, union representative, legal counsel), but is not a witness or potential witness in the matter. The Advisor may be present during Investigation interviews but may not participate as a representative. The Advisor may assist the individual at a Hearing before a Tribunal of the Board-Senate Hearing Panel for Discrimination, Harassment, and Sexual Violence.

Agent: Anyone hired by the University or working on behalf of the University such as an external investigator or a physician or other health care professional.

Balance of Probabilities is the test to be met to show, by the weight of the evidence presented, that all of the facts necessary to make a determination that a violation of the Policy has occurred, have a greater likelihood of being true than not.

Community Members include, but are not limited to: students (graduate, undergraduate, and continuing education), staff, faculty, medical residents, volunteers, visitors (including visiting professors), and institutional administrators and officials representing McMaster University.

Complainant: The individual who files a Complaint alleging a violation of the Policy for the University's response.

Complaint: A Complaint is made when an individual notifies an Intake Coordinator of an allegation under the Policy or files an incident report with their Supervisor and seeks the University's response.

Confidentiality: Refers to the obligation of an individual or organization to safeguard entrusted information. The practice of confidentiality includes obligations to protect information from unauthorized access, use, disclosure, modification, loss or theft. Confidentiality differs from anonymity in that the identity of the person making the Disclosure is known to the person receiving the Disclosure.

Consent[2] in the context of sexual activity, is the voluntary agreement of an individual to engage in the sexual activity in question. The law also says that there is NO CONSENT where:

- the agreement is expressed by the words or conduct of a person *other* than the individual;
- the individual is incapable of consenting to the activity;
- the person induces the individual to engage in the activity by abusing a position of trust, power or authority;
- the individual expresses, by words or conduct, a lack of agreement to engage in the activity;
- the individual, having consented to engage in sexual activity, expresses, by words or conduct, a lack of agreement to continue to engage in the activity;
- the individual may be bodily harmed or is threatened with bodily harm; or

[2] Source: Criminal Code of Canada

- the individual is under the age of consent.

Criminal Report: Occurs when a person reports an experience of Sexual Violence to the police or to McMaster Security Services. Filing a report with Security Services will result in a report to Hamilton Police Service.

Disclosure: When an individual informs someone in the University community about an experience of Sexual Violence because they wish to access support, accommodations and/or information about their options.

Dismissal: Dismissal/termination proceedings for staff Respondents shall be dealt with in accordance with the established policies and procedures and by the terms of existing contracts of employment or collective agreements and the common law where applicable.

DHSV Tribunal: A Tribunal of the Board-Senate Hearing Panel for Discrimination, Harassment, and Sexual Violence.

Employee: Where applicable, employee is used to refer to staff (see below) and faculty (see below).

Event (Authorized): Authorized events are University scheduled or University approved activities, occurring on or off University premises, e.g. public lectures, performances, placements (co-op or clinical), athletic events, work or study-related conferences/training sessions, etc. These events can include work or study-related travel. Events that are approved under the *Policy on Students Groups (Recognition, Risk Assessment and Event Planning)* are also authorized events.

Event (Non-authorized):Non-authorized events are events that are not scheduled or approved by the University and may occur on or off University premises e.g. group trips that have not been approved under the *Policy on Students Groups (Recognition, Risk Assessment and Event Planning)* , drinking games in residence, house parties, etc.

Expulsion applies to student Respondents and is the loss of all academic privileges at the University for an indefinite period.

Faculty are defined as academic teaching staff, clinical faculty, and senior academic librarians who are members of the "teaching staff". Teaching staff as defined in the McMaster University Act means the employees of the University or of a college affiliated with the University who hold the academic rank of professor, associate professor, assistant professor or lecturer.

Incident Report: An incident report is a report completed by a Community Member and signed by their Supervisor when an incident/injury occurs in their working environment while they are engaged in University-related activities.

Interim Measures: Steps that are taken in order to safeguard the environments of individuals disclosing Sexual Violence and of individuals whose conduct is being questioned. Interim measures shall not be construed as evidence of either guilt or a finding of Sexual Violence, or as an affirmation of innocence or finding that no Sexual Violence occurred.

No Contact Order*:* Includes restrictions on: registration for specific classes, other academic or non-academic activities, or attendance at specific meetings or events; direct or indirect contact (including but not limited to in person, by phone, email, text, social media, through a third party etc.) with a specific individual or group of individuals.

Persona Non Grata (PNG): An official declaration that an individual is denied the privilege of entering designated portion(s) of the University's buildings or grounds. If individuals issued a PNG are found or seen in the area they are denied, they will be subject to a charge by Security Services under the *Trespass to Property Act*.

Poisoned Environment means an environment where harassing and/or discriminatory conduct, on the basis of a person's sexuality, gender identity or gender expression, is found to be sufficiently severe, intimidating, hostile, offensive, and/or pervasive to cause significant and unreasonable interference to a person's study or work environment. A Poisoned Environment can interfere with and/or undermine work or academic performance and can cause emotional and psychological stress for some employees or students not experienced by other employees or students. As such, it results in unequal terms and conditions of employment or study and prevents or impairs full and equal enjoyment of employment or educational services, benefits, or opportunities. Although a person may not be the target of the conduct, a person may feel the effects of certain harassing or discriminatory conduct at their place of work or study.

Recommendation for Removal: A recommendation for removal of a faculty Respondent will be dealt with in accordance with Section VI of the Tenure and Promotion Policy and the common law where applicable.

Respondent: Those about whom allegations have been made in a Complaint process.

Restoration Processes: Processes focusing on restoring the losses suffered by Complainants, holding Respondents accountable for the harm they have caused, and building peace within communities. Restoration Processes are premised on the voluntary and cooperative participation of all parties in the resolution process. This process, which may not be appropriate or viable in all cases, can be facilitated by an Intake Office.

Senior Administration: For the purposes of this Policy, Senior Administration refers to the President, Provost and Vice-President (Academic), and Vice-President (Operations and Finance).

Sexual Assault [3] is an assault committed in circumstances of a sexual nature such that the sexual integrity of an individual is violated, and it includes, but is not limited to, any unwanted, non-consensual, sexual activity, such as unwanted kissing, fondling, sexual grabbing, and/or intercourse/rape.

Sexual Harassment[4] means engaging in a course of vexatious comment or conduct against an individual because of sex, sexual orientation, gender identity or gender expression, where the course of comment or conduct is known or ought reasonably to be known to be unwelcome, or making a sexual solicitation or advance to an individual where the person making the solicitation or advance is in a position to confer, grant or deny a benefit or advancement to the individual and the person knows or ought reasonably to know that the solicitation or advance is unwelcome.

Sexual Violence[5] means any sexual act or act targeting a person's sexuality, gender identity or gender expression, whether the act is physical or psychological in nature, that is committed, threatened or attempted against a person without the person's consent, and includes sexual assault, sexual harassment, stalking, indecent exposure, voyeurism and sexual exploitation.

[3] Source: Criminal Code of Canada
[4] Source: Government of Ontario, Human Rights Code, 2019
[5] Source: Ministry of Training, Colleges and Universities Act, R.S.O. 1990, c. M.19

Staff: Employees of the University including, but not limited to: The Management Group (TMG), unionized employees, temporary employees, casual employees, non-teaching staff[6], Sessional Faculty, Post-doctoral Fellows, and Teaching Assistants.

Student: A student is any individual recorded by the University Registrar as enrolled in an educational course of study recognised by the Senate and for whom the University maintains education records.

Supervisor: there are various types of supervisors within the University Community, which include the following:

- Academic Supervisor who oversees the academic work of a student, the most common example being a faculty member overseeing a graduate student's academic work;
- Academic Administrator is any faculty or staff member acting in their capacity as supervisor/administrator within a Faculty, Academic Department, etc., which includes, but is not limited to, Department Chairs, Deans, or other supervisors who oversee the work of a Community Member (e.g. a faculty member overseeing a Post-Doctoral fellow / technician / undergraduate or graduate student performing research in the faculty member's laboratory).
- Workplace Supervisor is "a person who has charge of a workplace or authority over a Worker" (*Occupational Health and Safety Act).* Supervisors are responsible for knowing the *Duties of Supervisors* under the Act.

Support: The provision of resources appropriate to the individual and the circumstances. This may include access to the Student Wellness Centre, Employee Family Assistance Program, and/or McMaster Students Union (MSU). Support resources do not include the provision of legal counsel.

Support Person: A person of the individual's choice who acts in a supportive role but is not an active participant in the process (e.g. friend, Elder, parent, religious advisor). The Support Person may be present during Investigation interviews but may not participate as a representative.

Suspension involves relieving a faculty or staff Respondent of their University duties and denying them access to University facilities and services for a stated period of time, which may be with or without pay and/or benefits. A recommendation for suspension of a faculty member will be dealt with in accordance with Section V of the Tenure and Promotion policy and the common law where applicable. Suspensions of staff members will be dealt with in accordance with established policies and procedures and by the terms of existing contracts of employment or collective agreements and the common law where applicable. For a student Respondent, suspension is the loss of all academic privileges at the University for a specified period of time and/or until imposed conditions are met. The student is eligible to return after this time but may be required to fulfill specified non-academic conditions upon return.

Tenure and Promotion Policy: The McMaster University Revised Policy and Regulations with Respect to Academic Appointment, Tenure and Promotion.

Voluntary Resolution: Steps taken (e.g. arrangement of academic, work or living environment / conditions) to resolve or remedy a Complaint, with which both the Complainant and Respondent have agreed.

[6] "non-teaching staff" means the employees of the University and of a college affiliated with the University who are not members of the teaching staff –The McMaster University Act, 1976

Workplace Harassment[7] means engaging in a course of vexatious comment or conduct against a worker in a workplace that is known or ought reasonably to be known to be unwelcome; or workplace sexual harassment.

Workplace Restoration is the establishment or re-establishment of harmonious working relationships between individuals and within a team, group or unit.

Workplace Sexual Harassment [8] means engaging in a course of vexatious comment or conduct against a worker in a workplace because of sex, sexual orientation, gender identity or gender expression, where the course of comment or conduct is known or ought reasonably to be known to be unwelcome; or making a sexual solicitation or advance where the person making the solicitation or advance is in a position to confer, grant or deny a benefit or advancement to the worker and the person knows or ought reasonably to know that the solicitation or advance is unwelcome.

Workplace Violence[9] means: the exercise of physical force by a person against a worker, in a workplace, that causes or could cause physical injury to the worker; an attempt to exercise physical force against a worker, in a workplace, that could cause physical injury to the worker; a statement or behaviour that it is reasonable for a worker to interpret as a threat to exercise physical force against the worker, in a workplace, that could cause physical injury to the worker.

Worker: a person who performs work or supplies services for monetary compensation; and a person who performs work or supplies services for no monetary compensation under a program approved by a college of applied arts and technology, university or other post-secondary institution. Unpaid students, learners and trainees who are workers under the Occupational Health and Safety Act have the same duties and rights as paid workers. Placement employers have the same duties to protect the health and safety of unpaid students, learners or trainees who are workers under the Occupational Health and Safety Act as they do to protect their paid workers. The definition of "worker" does not include a volunteer who works for no monetary payment of any kind.

[7] Occupational Health and Safety Act
[8] Government of Canada Restoring The Workplace Following A Harassment Complaint: A Manager's Guide
[9] Occupational Health and Safety Act

APPENDIX B: RESOURCES

The *Sexual Violence Response Protocol* is an information resource for all Community Members making or receiving Disclosures of Sexual Violence. Additional resources include, but are not limited to:

Support for the University Community

- Sexual Violence Prevention and Response Office, Equity and Inclusion Office
- Human Rights & Dispute Resolution Program, Equity and Inclusion Office
- Faculty of Health Sciences Professionalism Office
- Security Services
- Chaplaincy Centre

Additional Support for Students

- Student Wellness Centre (personal counselling and medical services)
- Student Support & Case Management (support and guidance about the Code of Student Rights and Responsibilities)
- Indigenous Student Services (community support and resources for Indigenous students)
- Women and Gender Equity Network, McMaster Student Union (peer support and resources)
- Graduate Students Association Health & Dental Plans (health benefits include access to psychological counselling in the community)

Additional Support for Staff and Faculty

- Union or Association
- Employee & Labour Relations
- Employee Health Services
- Employee and Family Assistance Program (access to professional counsellors, legal guidance and other supportive services available to staff and faculty)

Support in the Broader Community

- Good2Talk (24/7 phone support for students offered by professional counsellors)
- Sexual Assault Centre Hamilton & Area (SACHA) (24/7 phone support, counselling, accompaniment)
- Sexual Assault/Domestic Violence Care Centre
- Hamilton Police Services – Victim Services Branch
- John Howard Society or Elizabeth Fry Society (for individuals in conflict with the law)

Guidance about a Policy and/or Procedures

- Equity and Inclusion Office
- Employee & Labour Relations
- Student Support & Case Management
- University Secretariat

Independent Resource

- Ombuds Office provides an independent, impartial, and confidential process through which students may pursue a just, fair and equitable resolution of a University related concern.

APPENDIX C: JURISDICTION

1. Complaints may be made, or Investigations initiated about any alleged violation of this Policy involving any Community Member, including members of recognized groups, teams and clubs. The Policy may extend to incidents that occur off campus where there is a clear nexus to the working and/or learning environment at the University and recognizes that social media conduct may give rise to a violation of the Policy.
2. Nothing in this Policy is meant to supersede the terms and conditions of any collective agreement, or any other contractual agreement, entered into by the University and its employee groups. In the event that the provisions of this Policy contradict any such collective or contractual agreement, the collective or contractual agreement governs, to the extent of the contradiction.
3. To the extent that this Policy affects the terms and conditions of employment of faculty of the University, it may be subject to discussion and/or approval in accordance with the University policy entitled, *The Joint Administration/Faculty Association Committee to Consider University Financial Matters and to Discuss and Negotiate Matters Related to Terms and Conditions of Employment of Faculty*, revised by the Board of Governors on October 20, 1988 (the 'Joint Administration/Faculty Association' policy).
4. Should a Complainant, with respect to the subject matter of a Complaint dealt with under this Policy and/or the *Discrimination & Harassment Policy*, seek redress under the *Ontario Human Rights Code*, the *Criminal Code*, the *Occupational Health and Safety Act*, the provisions of an applicable collective agreement, or through civil litigation, or any other forum external to the University, the appropriate Decision-Maker, in consultation with the Director (HRDR), and/or relevant Intake Office Director, will determine whether proceedings under this Policy will be initiated.
5. If proceedings under this Policy and/or the *Discrimination & Harassment Policy* have already been initiated, the appropriate Decision-Maker, in consultation with the Director (HRDR), and/or relevant Intake Office Director, will determine in the circumstances whether or not the proceedings under this Policy will:
   a) be permanently discontinued;
   b) be disallowed; or
   c) be suspended until proceedings in the external or other forum are concluded, although Interim Measures may be put in place to safeguard the environments of the parties involved.
6. If a jurisdictional issue arises between the University and an affiliate, off-site entity or other third party, a senior officer of the affiliate/third party, and the University Provost or Dean and Vice-President (Health Sciences) or relevant Decision-Maker in conjunction with the University Vice-President (Operations and Finance), will attempt a resolution, which may include a joint Investigation or an agreement to share the findings and/or other relevant outcomes with the other party. In the absence of any agreement to the contrary, the University will proceed with the Investigation according to University policy and procedures.
7. This Policy is not intended to supersede or interfere with the criminal justice system; all persons have the right to pursue legal avenues.
8. Respondents in a Complaint procedure must be Community Members. If a person alleged to have engaged in Sexual Violence is not currently a Community Member, the University has no jurisdiction to pursue or adjudicate the incident. However, the University reserves the right to take whatever steps it considers appropriate to safeguard the University Community.
9. As part of the University's commitment to a Discrimination and Harassment free working, studying and living environment, all external agencies, third-party service providers, and independent contractors who do business on the University and are considered agents of the University will be informed of the existence of this Policy and of the University's expectation that these external entities shall govern themselves accordingly while doing business with the University. Information to this effect will be included in all contracts.

APPENDIX D: RELATED POLICIES AND LEGISLATION

This Policy is to be read in conjunction with the following policies, statements, and collective agreements. Any question of the application of this Policy or related policies shall be determined by the Provost and Vice President (Academic) or the Vice President (Administration) as appropriate, and in conjunction with the administrator of the other policy or policies. The University reserves the right to amend or add to the University's policies and statements from time to time (this is not a comprehensive list):

- Academic Accommodation of Students with Disabilities
- Academic Freedom, Statement (SPS E1)
- Accessibility – University Policy on
- Code of Conduct for Faculty and Procedures for Taking Disciplinary Action
- Code of Student Rights and Responsibilities
- Complaint Resolution Procedure for TMG
- Conflict of Interest Guidelines- Undergraduate Studies and Graduate Studies
- Discrimination & Harassment Policy
- Employee & Labour Relations – Collective Agreements
- ~~Faculty General Grievance Procedure~~Faculty Grievance Policy
- Freedom of Information and Protection of Privacy Act
- Hearing Procedures for the Board-Senate Hearing Panel for Discrimination, Harassment and Sexual Violence
- Ministry of Training, Colleges and Universities Act
- Ontario Human Rights Code
- Occupational Health and Safety Act
- Personal Health Information Protection Act
- Professional Behavior Code for Graduate Learners, Health Sciences
- Professional Behavior Code for Undergraduate Learners, Health Sciences
- Senate Resolutions re Group Conflict
- Senate Mediation Procedures
- Sexual Violence Response Protocol
- Statement on Building an Inclusive Community with a Shared Purpose
- Inclusive Communications, Policy Statement and Guidelines on
- Students Groups (Recognition, Risk Assessment and Event Planning), Policy on
- Tenure and Promotion Policy (McMaster University Revised Policy and Regulations with Respect to Academic appointment, Tenure and Promotion)
- Trespass to Property Act
- Violence in the Workplace, Policy on
- Workplace Accommodation, Policy on
- Workplace & Environmental Health and Safety Policy

UNIVERSITY SECRETARIAT
- Board of Governors
- Senate

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REPORT TO THE BOARD OF GOVERNORS
from the
REMUNERATIONS COMMITTEE

APPROVAL

i. Ratification of Tentative Agreement – UNIFOR Local 5555, Unit 5 (Operations & Maintenance)

At its meeting on February 10, 2022, the Remunerations Committee reviewed and approved the tentative agreement between McMaster University and UNIFOR Local 5555, Unit 5 (Operations & Maintenance). Details of the tentative agreement are contained in the circulated report.

It is now recommended,

that the Board of Governors approve the tentative agreement between McMaster University and UNIFOR Local 5555, Unit 5 (Operations and Maintenance Employees) for a 4-year term effective October 1, 2021 and expiring November 30, 2025, with terms outlined in the circulated report.

Board of Governors: FOR APPROVAL
March 3, 2022

Request for Ratification of Tentative Agreement

between

McMaster University

and

Unifor Local 5555, Unit 5
Representing Operations and Maintenance Employees

Prepared for: Board of Governors

March 3, 2022

Background

The University has reached a tentative agreement for a 4-year renewal Collective Agreement, with Unifor Local 5555, Unit 5, representing operations and maintenance employees. The bargaining unit includes **274 employees**.

The provincial legislation *Protecting a Sustainable Public Sector for Future Generations Act, 2019, (*the "Act", previously referred to as Bill 124), passed in November 2019, restricts annual wage increases to 1%, and further restricts incremental increases to existing compensation entitlements to 1% (inclusive of wage increases). **The moderation period for this bargaining unit began December 1, 2020, and will end November 30, 2023.**

The University and the Union agreed to recommend the ratification of the tentative agreement to their respective principals. Unifor notified the University of their ratification on December 9, 2021.

The Remunerations Committee of Board of Governors met on February 10, 2022, and passed a motion to recommend that the Board of Governors ratify the tentative agreement with Unifor Local 5555, Unit 5.

SUMMARY OF TERMS OF TENTATIVE AGREEMENT

Term:

- 4-year term, beginning October 1, 2021 – November 30, 2025

Wages:

- Across-the-Board ("ATB") Wage Increases over the next 4 years = 1%, 1%, 2.5%, 2.5%
- Established the Custodian's job rate (Step 6) as the single wage rate for this class and eliminated the preliminary Steps 1-5 on that wage grid.
- Lump sum payment of $350 to non-custodial job classes (Year 4).

Other Compensation Items:

- Closure of Post-Retirement Benefit Plan to new hires after November 30, 2023.
- Provided Tuition Assistance in accordance with the Policy (pro-rated) for Part-time Employees.
- Provided University-paid benefits, life insurance and Group RRSP to all Full-time staff as of December 1, 2023 (Year 3) and aligned benefits more closely with other hourly employee groups, as part of progress toward simplifying and streamlining benefits plans.
- Incorporated pilot Sick Leave program on an ongoing basis, including a requalification period and providing 4 paid sick / personal days to Part-Time staff.
- Amended paid vacation accrual provisions to apply only on actual earnings during a leave of absence, rather than for the entire duration of the leave.
- Aligned Domestic Violence Leave to provisions in other employee groups, including 5 additional paid days above ESA entitlements.
- Supported an additional hour paid for employees to attend Unifor meetings.
- Increased annual uniform allotment to Part-time Employees
- Provided an additional $50 every 2 years for prescription safety glasses.

Operational Items:

- Improved recruitment provisions for both parties that support internal transfers and career growth opportunities for members of this unit.

- Commitment to establish an Apprenticeship program.

- Agreed to additional operational flexibility in hours of work for Part-Time staff (up to 32 hours).

Employment Equity Considerations:

- Introduced Racial Justice Advocate – an additional support from Unifor to support employees experiencing racism or race-related concerns and who may wish to discuss these experiences or concerns with someone who has lived experience, knowledge and skills related to racial justice (mirrors language bargained for Unifor Unit 3).

- Affirmed the parties' joint commitment to Employment Equity as part of recruitment - aligned with other employee groups

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PRESIDENT'S REPORT TO
McMASTER UNIVERSITY'S BOARD OF GOVERNORS
MARCH 3, 2022

Managing Through the Pandemic: The McMaster Approach

Over the last few weeks we have undertaken a careful and staged return back to campus, which has included welcoming the vast majority of our students, faculty, and staff back to our classrooms, labs, libraries, and campus-based facilities and resources. After almost two years of reduced in-person activity, it is extremely gratifying to see the campus coming fully back to life in such a positive way.

As I highlighted in my Report to the Board in December, we have drawn upon our in-house health, safety, and wellness teams and faculty experts to support our campus community through this period of transition, and have placed particular focus on mental health and well-being. The goal is to support our students, staff, and faculty to move through the transition back to in-person activities without unnecessary stress or distress, and enable all members of our community to perform to their fullest potential.

Our focus throughout the pandemic has been to manage the wide variety of risks, uncertainties, transitions, and required decisions in a way that supports and enables the academic and research mission of the University, prioritizes the health, safety, and well-being of all members of our community, and preserves and advances the University's reputation.

We developed guiding principles early in the pandemic and have used these principles to support and guide our decision-making processes and responses as the situation evolved over the last two years:

McMaster Guiding Framework for Planning Decisions During the Pandemic
(Updated November 2021)

1. *For the 2021/22 academic year, we will continue to deliver on the academic and research mission of the University, while prioritizing the health, safety, and well-being of all members of our community.*
2. *In doing so, we will remain focused on supporting and enabling the success of our students, delivering a high-quality learning environment and overall student experience.*
3. *Our goal is to welcome new and returning students back to campus as soon as this can be done safely and in accordance with Public Health guidance and government protocols.*
4. *We will support return to work plans that deliver our programs, support our students, learning and research, and enhance McMaster's sense of community.*
5. *While activities and people will return to their McMaster location in the new year, we support flexible arrangements that will strengthen the ability for people to contribute to the success of their students, programs, and departments.*

6. *We will maintain our focus on research excellence and on supporting the work of our researchers across all disciplines, as well as enabling and advancing our long history of creativity and innovation.*
7. *We will continue to uphold our core University values, principles, and policies, including our focus on inclusivity, accommodation, and respect for one another, and our collegial decision-making processes. Any revisions or updating of policies will continue to be developed through the University's pre-existing governance processes.*
8. *We will continue to make fiscally prudent decisions that support our ongoing stability and success as an institution, balancing risk with opportunity.*
9. *We will continue to work together as a community to support our students, faculty, and staff across the University and will ensure that information, plans, and decisions are communicated clearly and promptly.*

This principle-based approach has served us well and has provided a consistent and solid rationale for our decision-making. Throughout the pandemic the University leadership has also worked closely with a team of experts in a variety of areas, both internal and external to McMaster. These experts have provided invaluable advice, guidance, and context on operational questions and logistics ranging from data modelling and analysis, the evolution and transmissibility of the COVID-19 virus, the most effective means to implement Public Health measures and restrictions, the prioritization and distribution of available testing capability, the efficacy and appropriate use of various types of masks, to the implementation of effective ventilation systems. Such expert advice allows for an accurate assessment of risk, supports effective risk management processes, and enables timely and well-considered decision-making.

The University has also worked closely with our hospital partners and with Hamilton Public Health, and has been a key partner and contributor at the various community-level planning and discussion sessions that have taken place over the last two years. We have been able to draw upon the positive relationships and close connections developed over many years as we came together as a community to respond to the issues presented by the pandemic.

At the provincial level, the University has also been actively engaged, and has made significant contributions to policy making and scientific advice. Several McMaster faculty members have participated in the Ontario COVID-19 Science Advisory Table, a group of scientific experts and health system leaders with a mandate to provide weekly summaries of relevant scientific evidence for the province, integrating information from existing scientific tables, Ontario's universities and agencies, and the best global evidence. We continue to work closely with our peer instutitions across Ontario, including through the Council of Ontario Universities, which acts as a forum for collaboration and advocacy in support of the collective interests of the province's universities. Our Vice-President (Research), Karen Mossman, co-chairs the Council of Ontario COVID-19 Reference Table, which maintains a close connection with the Science Advisory Table, and I am serving as a member of the COU Strategy and Planning Working Group, which is focused on government policy of relevance to post secondary institutions and related advocacy efforts.

In addition to the broader strategic and policy-focused issues, the University has had a myriad of operational and logistical issues to manage during the pandemic. To do so effectively, the senior

team created a number of key operational groups, which have been meeting regularly. A core team involving leaders from Facility Services, Student Affairs, Housing and Conference Services, Human Resources Services, Environmental and Occupational Health Support Services, and Communications and Public Affairs has been meeting on a frequent and ongoing basis; the Provost's Office has for many months led a dedicated Return to Work group focused on managing the transition back to campus. This group is made up of key academic and administrative leaders, including the Faculty Deans; the office of the Vice-President (Research) has worked closely with researchers across the campus to guide and support the ongoing use of labs and critical in-person research operations, including the McMaster Nuclear Reactor, throughout the pandemic; and the President and Vice-Presidents' group continues to oversee the strategic direction of the University and key decision-making, including communications and reputation management.

Effective communication has been a core tenet of our work and has focused on ensuring the prompt and clear communication of plans, decisions, guidance, and information to members of our community and beyond, as well as positively advancing McMaster's reputation. The proactive communication of the many research successes and innovations, contributions to policy and decision-making, and community-focused work, undertaken by McMaster's researchers, both supports and enhances the University's profile at the local, national, and international levels.

At our meeting on March 3, Dr. Mossman will be leading a presentation focused on COVID-related research, highlighting the significant contributions and advances made by some of McMaster's faculty experts, and the positive impact of their work. Some of these key research successes are also highlighted in the research section of this report.

CAMPUS UPDATE

McMaster Ranks among Top 50 Most International Universities

McMaster recently ranked among the 50 most international universities in the world in a Times Higher Education ranking. McMaster also continues to rank among the country's most research-intensive universities – for both graduate students and faculty members – in the annual ranking of the country's Top 50 Research Universities. McMaster placed first in graduate student research intensity – averaging $68,900 per graduate student, and second in faculty research intensity – averaging $369,400 per faculty member; significantly above the national average for both.

McMaster Appointees to Order of Canada

McMaster Professor, Mehran Anvari, was named an officer of the Order of Canada for his decades of research in telerobotic surgery to help patients in remote regions. Four McMaster graduates were also appointed to the Order of Canada at the start of the year. Marine Biologist, Verena Tunnicliffe ('75 BSc.(H), Biology), for her pioneering work in the scientific exploration of the deep sea; Elizabeth McGregor ('68 BA & '72 MA, Geography) for her promotion of women in science; Barry Smit ('77 PhD, Geography) for his contributions to our understanding of climate change impacts and adaptation; and Former Nova Scotia Deputy Minister of Health

and Wellness Peter Vaughan ('82 MD) for his pioneering leadership in the establishment and advancement of digital health.

Research

Researchers confirm Newly-Developed Inhaled Vaccine Delivers Broad Protection against COVID-19 Variants of Concern
A team of McMaster scientists has begun human trials for two next-generation COVID-19 vaccines. Both vaccines are delivered by inhaled aerosol, not by injection, targeting the lungs and upper airways, where respiratory infections begin. These are two of the very few COVID vaccines being developed in Canada.

In February 2022, this team published new research, confirming the inhaled form of COVID vaccine can provide broad, long-lasting protection against the original strain of SARS-CoV-2 and variants of concern.

Heersink $32M Gift boosts McMaster's Biomedical and Global Health Innovation
A donation of more than $32M from Marnix Heersink, an Alabama physician and entrepreneur, will boost McMaster's role as a hub for biomedical innovation, entrepreneurship, and global health. The gift will create the Marnix E. Heersink School of Biomedical Innovation and Entrepreneurship to educate the next generation of entrepreneurial health innovators.

McMaster to Partner with Lund University
McMaster and Lund University, a leading Swedish institution, have entered into a promising new partnership that will advance research and education in both countries. Lund is a key player in Scandinavia's health sciences ecosystem and McMaster is home to Canada's Global Nexus on Pandemics and Biological Threats. The two institutions will work together to focus their research and training efforts to advance the fight against the COVID-19 pandemic.

Global Report Highlights the Importance of Providing Leaders with High-Quality Evidence
McMaster Health Forum Director, John Lavis, is co-lead of the Secretariat of the Global Commission on Evidence to Address Societal Challenges. The Secretariat has released a report analyzing the use of relevant evidence throughout the pandemic and the impact on decision-making as a result. The report highlights the importance of providing governments and leaders with high-quality evidence, and systematizing the aspects of using evidence that are going well, to help inform responses to other pressing issues and societal challenges.

Immune Response and Vaccine Hesitancy in First Nations Investigated
McMaster scientists are joining forces with First Nations, federal government, and academic partners to investigate vaccine effectiveness and hesitancy in three Indigenous communities across Canada. The COVID CommUNITY-First Nations study will collect, analyze, and report data relating to COVID-19 vaccine effectiveness and safety; as well as examine hesitancy in the Six Nations of the Grand River near Hamilton, Lac La Ronge Indian Band in Saskatchewan, and Wendake in Quebec.

McMaster and Cubic Reimagine the Future of Inclusive Mobility
Experts from the McMaster Automotive Resource Centre, led by Canada Research Chair in Transportation Electrification and Smart Mobility, Ali Emadi, are working with Cubic Transportation Services to reimagine the future of inclusive mobility. This long-term program will develop the building blocks to design the future of inclusive mobility through innovation and technology collaboration between government, academia, and the public and private sectors.

McMaster Economist Adam Lavecchia Awarded Polanyi Prize
McMaster's Adam Lavecchia has been awarded the 2021 Polanyi Prize in Economics for early-career researchers. The award was given in recognition of his work in several areas of public and labour economics, including minimum wage and interventions for underserved high school youth.

Ten McMaster Researchers Named Canada Research Chairs
Ten McMaster researchers across four Faculties have been named Canada Research Chairs as part of a national strategy to make Canada a global leader in research and development. Five of the researchers have had their chairs renewed, while five have been named new Canada Research Chairs – an investment of nearly $9M:

- **Ali Ashkar (Tier 1)** has established an active lab with a focus on innate immunity to cancer and viral infections.
- **Sara Bannerman (Tier 2)** examines how big tech can play a role in shaping global events and culture.
- **Katrina Choe (Tier 2)** studies how gene mutations associated with psychiatric disorders affect brain controls at molecular, cellular, circuit, and network levels.
- **Zeinab Hosseinidoust (Tier 2)** employs the intelligence of biological systems to tackle outstanding challenges related to human health.
- **Victor Kuperman (Tier 2)** studies how the COVID-19 pandemic has affected the social mobility of certain vulnerable segments of the Canadian population.
- **James MacKillop (Tier 1)** applies behavioural economics and neuroeconomics to understand addictive behavior. His recent work examines changes in alcohol and cannabis use during the pandemic.
- **Hsein Seow (Tier 2)** is focused on innovating the palliative care health system and improving quality of care.
- **Heather Sheardown (Tier 1)**, the Acting Dean of McMaster's Faculty of Engineering, is working to find ways to treat ocular diseases of the aging eye.
- **Sarah Styler (Tier 2)** aims to provide insight into the air quality of urban centres and in turn, the climate and health challenges these areas face.
- **Igor Zhitomirsky (Tier 1)** is focused on research in biomaterials, nanomaterials, energy storage, electrochemical technologies, and functional materials.

Community Engagement and Support

Celebrating Black Excellence: Black History Month at McMaster
Every year, the Equity and Inclusion Office coordinates the work of the Black History Month Planning Committee. This year, the Committee identified the goal of highlighting McMaster's ongoing commitments to attracting Black students, faculty, and staff and supporting their well-

being and success. To launch the month of virtual workshops, events, and storytelling, the Committee hosted a panel to both highlight Black-focused initiatives on campus, as well as the work still to be done.

Additional Mental Health Support Resources for Students

McMaster has received $100,000 from Bell Let's Talk to establish additional mental health support resources for students. The funding will enhance mental health supports and establish the Student Urgent Response Team (SURT). The service is designed to help students facing mental health crises on campus, providing both in-person and virtual support. McMaster is one of 16 Canadian colleges and universities receiving a grant from Bell Let's Talk to support mental health initiatives on campus.

McMaster Students Launch Community Fridge

Students from a Fall 2021 Sustainability course are working with the McMaster Student Wellness Centre, MSU Food Collective Centre, and others to install a community fridge on campus. The fridge will offer accessible, nutritious and free produce, packaged meals, and other food staples and be open 24/7 for all community members to access.

Student-led Group working on Overdose Prevention and Safe Substance Use

McMaster Social Work students, Olivia Mancini, Kayla Crabtree, and Samm Floren, have created the Student Overdose Prevention and Education Network (SOPEN), a volunteer-based program to teach youth about safe substance use and overdose prevention.

Prepared for the Board of Governors, McMaster University

March 2022

MCMASTER MUSEUM OF ART ANNUAL REPORT

THE ACCOUNTABLE MUSEUM

September 1, 2020 - August 31, 2021

BRIGHTER WORLD | mcmaster.ca

McMaster University | Museum of Art

McMaster University | Museum of Art

MCMASTER MUSEUM OF ART

THE ACCOUNTABLE MUSEUM

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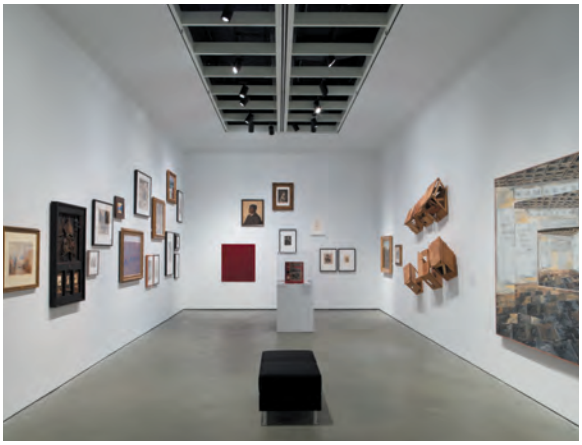
"The McMaster Museum of Art is a democratizing, inclusive and polyphonic space for critical dialogue about the pasts and the futures."

McMaster University | Museum of Art

Executive Summary

Over the course of the past year: the second calendar year of the pandemic and a year spent entirely in shut down mode to in-person traffic at the museum, the museum remained busy, if not busier, than usual. Guided by the new Strategic Vision for McMaster University and influenced by the COVID-19 pandemic and its societal impacts, the Museum maintained provision of its regular operations and roles, especially with respect to our focus on decoloniality, as well as substantially grew our on-line world. In terms of the former, collection development and maintenance, as well the production and presentation of new research and exhibition and education programs, continued unabated. Our decolonial strategy continued with seven team sessions, four delivered by outside consultants. In covering topics as specific as the TRC and UNDRIP as well as more broadly, topics such as EDI Fundamentals and the history of the colonial museum, the sessions provided museum staff with empowering learning opportunities as well as strategies to ally-up.

As well in the 2020/21 fiscal, our BIPOC Cultural Administrators Mentorship Program was initiated, offering BIPOC individuals wishing to enter the museum field, tangible paid opportunities to contribute to the museum and develop usable skills. In terms of our digital work in 2020/21, after almost a year of hardware, software, and technical up-grades, we launched a new website and redefined our social media presence as well as significantly enhanced and expanded our on-line database. While we had pivoted seamlessly to the provision of on-line programs for all educational and public programs by the close of March 2020, in 2020/21 we also landed on several creative platforms/means by which we could provide virtual exhibitions. Advancements in this area will continue into 2021/22. Combining the work of web designers and programmers with that of artists and other cultural producers, the Museum has found innovative ways to virtually support and reflect the creative work of our sector.



With the significant global societal shifts precipitated by the pandemic and the lessons learned navigating and providing service in this new and hybrid world, we gratefully and pro-actively head into 2021/22 thinking about and re-imagining colonial collections and re-envisioning how museums serve audiences in the 21st C.

The Organizational Overview, below, provides information on our core purpose and context. Details regarding highlights for the year 2020/21 follow the Overview.

"We gratefully and pro-actively head into 2021/22 thinking about and re-imagining colonial collections and re-envisioning how museums serve audiences in the 21st C."

McMaster University | Museum of Art

Organizational Overview

MISSION AND VISION

The McMaster Museum of Art is a meeting space for both the campus and the community situated within the traditional territories of the Mississauga and Haudenosaunee Nations. The Museum engages, educates and inspires through: growing an awareness of the interconnectivity of the past, present and future; advancing de-colonization; engaging in innovative and imaginative research; dismantling institutional and ideological boundaries; partnering and collaborating intentionally; diversifying the collection; and building capacity.

Mandate & Role

As a university-affiliated, public art museum, the McMaster Museum of Art is a democratizing, inclusive and polyphonic space for critical dialogue about the pasts and the futures. The Museum aims to be participatory and transparent and to work in active partnership with and for diverse communities to collect, preserve, research, interpret, exhibit, and enhance understandings of the world, aiming to contribute to human dignity and social justice, global equality and planetary wellbeing, (excerpted and adapted from the ICOM, 2019, definition of a museum). Within this framework, the role of the MMA is twofold: to support the academic mission of McMaster University and to contribute to the discourse on art in Canada.

"The role of the MMA is twofold: to support the academic mission of McMaster University and to contribute to the discourse on art in Canada."

The MMA partners with faculty across all disciplines to produce research, exhibitions, publications, and educational programs that nurture arts-based practices and ways of knowing. As well, the MMA contributes research to the broader Canadian arts milieu through exhibitions, ancillary programs, and publications, that reflect upon issues of concern in contemporary art in Canada. The MMA researches, presents, preserves, cares for and grows the internationally recognized University art collection. The MMA contributes directly to the academic mission of the University by providing arts-based education in formal courses (such as *The Art of Seeing*), through public and education programs (lectures, workshops, panels and tours), and through hands-on and experiential learning opportunities for students of all ages. The MMA provides significant community outreach beyond the walls of the museum through in-community partnerships and learning opportunities. The MMA contributes to the broader Canadian arts community by partnering on projects such as the national Holocaust-era provenance research project as well as on research and exhibitions with colleague institutions. The staff of the MMA regularly participate on various community-based juries, conferences, and events, as well as through the commissioning of new works of public art. The MMA's on-line presence is significant within the sector.

Hiba Abdallah, *We Remain Profoundly and Infinitely Connected*, 2019.

McMaster University | Museum of Art

Organizational Overview

Facility and Collection

The MMA resides in a purpose-renovated building located at the centre of McMaster University's main campus. It comprises 5 galleries, 5 on-site storage vaults, and attendant office and public areas. Specifically, these areas break down as follows: 1,700 net square feet of (non-collection area) public space; 5,000 net square feet of exhibition space; 4,000 net square feet of storage; and 1,200 net square feet of office/administration space. The physical plant of the MMA is maintained by the University proper. The Museum maintains and pays for its own collections insurance coverage as a sub-set of the University's larger institutional policy. The Museum maintains comprehensive security coverage in collaboration with an independent provider, Campus Security and the City of Hamilton police force. The Museum has 11 full-time staff: Director, Senior Curator, Curator of Indigenous Art, Collections Administrator, Senior Education Officer, Education Officer, Communications Officer, Installation Officer, and 3 Information Officers. The Curatorial staff is broadened by the addition of an Honorary Curator of Numismatics and Antiquities, a position currently held by Dr. Spencer Pope, Department of Classics, McMaster University. The Museum annually hosts a BIPOC Cultural Administrators Mentorship Program wherein two mentees per year are employed with the intention of building capacity for diverse cultural work, knowledge and transformation in the Canadian milieu. Various student and community volunteers round out the staff complement at the MMA, helping primarily with educational programming and events.

Storage vault at the museum. Photo by Georgia Kirkos, McMaster University.

Of the 40 university-affiliated art galleries/museums nation-wide, the MMA houses one of the top 3 collections in one of the best facilities in the country.

The collection at the MMA numbers 6,000+ works of art and contains important historical, modern and contemporary period works.

Highlights include:

- The Herman H. Levy Collection of Impressionist, Post-Impressionist and Modern work: including paintings by Caillebotte, Courbet, Derain, Marquet, Monet, Pissaro, Sickert, Soutine and Van Gogh;
- the Denner Wallace Collection, the most comprehensive collection of German Expressionist and Weimar period prints in Canada, including works by Barlach, Beckmann, Dix, Kirchner and Kollwitz;
- a significant holding of European Old Master works including 16th to 18th Century paintings and prints from Gosseart to Turner;
- 20th Century European art including modernist and contemporary artists from Duchamp, Nicholson and Rodchenko to Beuys, Kiefer, Kapoor and Richter:
- Canadian art including historical works by Thomson, Milne and the Group of Seven and including contemporary works by Andrews, Astman, Goodwin, Keeley, Maggs and Scherman;
- the Inuit collection with a focus on Cape Dorset prints and sculpture including works by Kenojuak, Pitseolak and Tookoome;
- and modern and contemporary First Nations Art, including works by artists of the Woodland School such as Kakegamic and Morrisseau; the first generation of "modernists" such as Ash Poitras, Beam, and Boyer; photo work by the likes of Thomas, Staats, and McMaster; and contemporary artists such as Sunny Assu, Catherine Blackburn, and Mary Anne Barkhouse.

Levy Storage Vault

McMaster University | Museum of Art

Organizational Overview

Exhibitions and Programs

The MMA produces on average 8 - 12 exhibitions annually and augments those exhibitions with research publications and ancillary programs (public and educational) geared to engage both the campus and broader community audiences. Throughout its history, the MMA has actively contributed to the dialogue on contemporary art while maintaining an active research program on the objects in the permanent collection. The Museum, from its outset, has maintained a "doors open" policy in terms of collections access.

Context/Milieu

The MMA is one among several cultural institutions in the Hamilton area. The City of Hamilton manages several historic buildings and homes – Dundurn Castle, Military Museum, Museum of Steam & Technology, Whitehern Historic House, and a Children's Museum; as well the city is home to the Art Gallery of Hamilton and the James Street North artists' district. The MMA attempts to distinguish its contribution to the arts scene in the area by directing a de-colonial lens on traditional museological practice; disrupting the normative narrative; facilitating the presentation of work by diverse voices; and providing programming that is directed toward scholarly research and inter-disciplinary projects.

The museum contributes to the national and international cultural community in terms of collaborative exhibition projects and the use of its collections by sister institutions. Works of art from the collection are borrowed by international institutions such as the Belvedere Palace, Vienna, Austria; Tate Modern, Tate Britain, Brooklyn Museum, and Kunsthalle Bremen, Denmark, among others. In Canada, MMA works are regularly borrowed by the Art Gallery of Hamilton, Winnipeg Art Gallery, Art Gallery of Ontario, Montreal Museum of Fine Arts and the National Gallery of Canada, among others.

(Refer to Appendix One: Institutional Achievements 2007-2021 for details regarding on-going developments in (exceptional) funding, organizational competence & development, digital & social media launches, platforms & development, collections management, facility maintenance, awards and, exceptional circumstances).

Guest curator William Kingfisher speaks to a group at the Lisa Myer's audio walk, part of the enwendewin/relationships exhibition, summer 2021. Photo by Mike Lalich.

A Naum Gabo sculpture (McMaster Museum of Art Collection) is packed up for loan to the Art Museum at the University of Toronto.

McMaster University | Museum of Art

2020/2021 Highlights

Administration

In 2020/21 the Museum saw the retirement of two long-time staff (26 and 33 years respectively!) and the subsequent replacement of those employees. In February we welcomed Elyse Vickers as Communications Officer and in July, Sam de Lange as Installation Officer. One in-gallery position, Information Officer, remained vacant for the reporting period as the museum was closed to in-person visits due to the COVID-19 pandemic. The Museum's BIPOC Cultural Administrators Mentorship Program successfully ran its first year of operations with mentees Erin Szikora and stylo starr completing research and exhibition/publication-production projects. The program is supported by funds from the Canada Council for the Arts and the Office of the Provost. The Nominations Sub-Committee of the MMA Advisory Committee also took the opportunity during summer 2021 to engage a roster of six new members as there were several members who came to the end of their three and/or six-year term(s) on June 30th, 2021. In the Faculty Category, we have welcomed Dr. Selina Mudavanhu, Assistant Professor, Communication Studies and Multimedia. In the Community Category, Dr. Clare Warner, Senior Advisor, Equity, Inclusion & Anti-Racism, Student Affairs, McMaster University; Leon Robinson, artist, Hamilton; Lorrie Gallant, Instructor, Six Nations Polytechnic Institute, Six Nations of the Grand River Territory; Alex Jacobs-Blum, Independent Curator, Hamilton; and Naomi Johnson, Executive Director, ImagineNative, Toronto. We look forward to welcoming these new members to the winter 2022 Advisory Committee meeting.

stylo starr and Erin Szikora, 2020/21 BIPOC Curatorial mentees

Our Decolonial Strategy continued through the 2020/21 year with the provision of seven sessions, four led by external consultants and three by in-house members. The external consultants included staff from McMaster University's Office of Equity, Diversity, and Inclusion, and staff from Cultural Pluralism in the Arts Movement Ontario (CPAMO). Topics covered included Language, Meaning & Action, EDI Fundamentals, Critical Institutional Responsiveness, the history of the colonial museum, a comprehensive review of the United Nations Declaration on the Rights of Indigenous Peoples, recommendations from the Truth & Reconciliation Commission, as well as a session designed for self-reflection following three years of decolonial working as a museum team. (Please see Appendix Two for details regarding sessions and readings lists for same).

Over the course of the summer, the museum was out-fitted with barriers, signage and PPE to prepare for the re-opening of the building to in-person visits in the Fall of 2021. No other major facility projects were required/undertaken in the reporting period.

In terms of revenues from external granting bodies, principally arts-related, the Museum had a very successful year. In 2020/21, we utilized a Sector Development Grant ($25,000) from the Canada Council for the Arts for our BIPOC Cultural Administrators Mentorship Program; a COVID Response Grant ($50,000) and an Arts Response Initiative Grant ($15,000) both from the Ontario Arts Council; a COVID-19 Emergency Support Fund for Cultural, Heritage and Sport Organization Grant ($100,000) from the Department of Canadian Heritage; and carried forward a Project Grant ($60,000) from the Canada Council for the Arts for an exhibition set for production in fall 2022. The CCA Mentorship Program grant was further supported by an $8,000 commitment to the Program from the Office of the Provost. In 2020/21, we also applied for and were successful in acquiring a Department of Canadian Heritage Re-opening Fund for Cultural, Heritage and Sport Organizations Grant ($100,000); and two grants from the Ontario Arts Council: an Operating Grant ($50,000) and a Project Grant ($16,200) for an exhibition in winter 2022. As well in 20/21 we received a special Project Grant ($45,500) from the National Sciences and

McMaster University | Museum of Art

2020/2021 Highlights

Engineering Research Council for a fall 2021 exhibition. At the time of writing, we await notification from the Department of Canadian Heritage on a submission to the Community, Sport, Multi-culturalism & Anti-Racism Initiative Grant program to cover two years of our BIPOC Mentorship Program ($169,000) for the period April 2022 (-March 2023) to (April 2023–) March 2024. The Office of the Provost has made a commitment to the latter grant opportunity by committing $10,000 per year for the term of the grant.

In the last year, the MMA was closed to in-person visits due to the COVID-19 pandemic. In terms of our on-line presence in the reporting period, numbers remained healthy. The Museum launched a new website in April 2021. The website boasted 37,707 page views. It is important to note that our engagement on our homepage compared to last year increased by over 7%. A decrease in pageviews is notable on the current and upcoming exhibitions page, which can be attributed to 1) exhibitions now appearing on the homepage – ie users do not need to click through several pages to find important exhibition information and 2) we had fewer exhibitions in the noted time period due to the physical museum being closed. With respect to the Museum's on-line database, e-museum, the site enjoyed 17,890 page views. In terms of our other digital platforms and social media, the Museum noted increasing figures in all areas, including the e-newsletter, 1,771 subscribers; Facebook, 2,685 followers; Instagram, 3,040 followers (increase of 35%!); and Twitter, 3,376 followers. The Museum's walking tour of campus saw a notable decline to 413 views (from 780 in 2019/20), (the fewer people on campus due to the pandemic, accounts for the decrease). Our GeoCache Art Adventure Coins, launched in 2011, continued to see activity with seven coins still in circulation, 50 logged visits in the current period (and 580 logged visits over the Coins lifetime).

The MMA received Hamilton Spectator Readers' Choice Awards in two categories, Best Art Gallery (Platinum) and, Best Museum (Shortlist - Top 10). Also of note: stylo starr, curator of *the cut, the tear & the remix: contemporary collage and Black futures* and participant in the BIPOC Curatorial Mentorship program at the MMA, won a Creator Award from the Hamilton Arts Awards in June 2021!

Collections

The pandemic brought a halt to our daily activities at the museum, but also gave us the opportunity to focus on doing the solitary job of conducting a massive in-house inventory. The work took place during regular check-ins to ensure the storage areas were maintained at the correct levels of temperature and humidity. From March 2020 through to May 2021 every work in the museum's paper centre, in excess of 4200 objects, were inventoried and examined. Archival materials such as tissue paper and drawer liner boards were replaced where necessary, and any stray works were relocated to their proper homes. Storage was streamlined and improved where possible.

Collections Administrator Julie Bronson in the Paper Centre. Photo by Georgia Kirkos, McMaster University

This undertaking also allowed for the continued examination of our collection following the best practices set out by the Holocaust-Era Provenance Research in Canadian Art Museums and Galleries (CHERP) initiated by the Canadian Art Museum Directors Organization (CAMDO). The museum has been a participant in CHERP's activities from its inception in 2013 and has continued to research and evaluate McMaster's collection using their guidebook. All artworks of European origin dating from 1945 or before were examined front and back for any unusual stamps or inscriptions.

The inventory has continued into our painting vaults this fall. To date it has been a fruitful undertaking in that we have verified locations and the condition of the objects, old archival materials have been replaced to ensure the longevity of the works in storage, and we have a better idea of what remaining space is available for our future storage needs.

McMaster University | Museum of Art

2020/2021 Highlights

Also, in the pandemic shutdown, the MMA undertook an exciting new upgrade of our online searchable database called eMuseum in 2021. Internationally renown software provider Gallery Systems in New York has become the industry standard for most North American galleries and museums. McMaster has been running their database software, The Museum System (TMS) since 2008, and its online counterpart, eMuseum, since 2011. eMuseum allows our web visitors to browse through McMaster's art collection and antiquities. In 2020 we decided to upgrade to the very latest software iteration, eMuseum 6.1, as it provided us with a fresh new look and added features such as:

- Cleaner interface which matches the museum's new branding
- Larger, more dynamic images of objects with deep zooming capabilities
- In-house customization to tailor different modules to suit our programming, from educational classes to curatorial projects and events
- Dashboard editing capabilities we control
- Object records which can be easily shared on multiple social media platforms
- Option to create favourites and individual collections

The upgrade was guided by the Research and High-Performance Computing Support (RHPCS) at McMaster, specifically our fabulous technical team Wale Soyinka, Senior Research Computing Specialist & RHPCS Representative, Faculty of Science and Todd Pfaff, Technical Director, RHPCS & Liaison, Faculty of Humanities, who ensured a smooth transition. The upgrade was two-fold, as we first needed to upgrade TMS to its most current version, which took place in the fall of 2020. A new server and appropriate hardware upgrades were up and running by December. From January through April, 2021, Gallery Systems took over customization of the site to match our branding and website. The staff reviewed the content and further edits took place over the summer, with the site going live on August 12, 2021.

In terms of on-going collection work, in 2020-2021 the Museum acquired forty-five works of art: one through purchase and forty-four through donation. Thirty-eight of the donated works were acquired through the generosity of long-time supporter and alumnus of McMaster University, John Hansler. Hansler's collection included outstanding works by Indigenous artist Arthur Shilling and by Canadians, Carl Schaefer, William Ronald, Kazuo Nakamura, Arthur Lismer, Fritz Brandtner and Harold Klunder among several others. In the reporting period, the Museum loaned six works of art from the permanent collection to sister cultural institutions: to the Art Gallery of Hamilton, Wanuskewin Galleries, Saskatoon; and the Vancouver Art Gallery. In 2020/21, the Museum wrapped up its touring exhibition, *#nofilterneeded: shining light on the Native Indian/Inuit Photographers Association*, which had toured to galleries in Gatineau (QC), Lethbridge (AB), and Thunder Bay (ON), following a successful run at the MMA. (Collection details regarding acquisitions, loans and touring exhibitions can be found in Appendices Three, Four and Five).

Fritz Brandtner, Mixed Media, 1936. McMaster Museum of Art Collection.

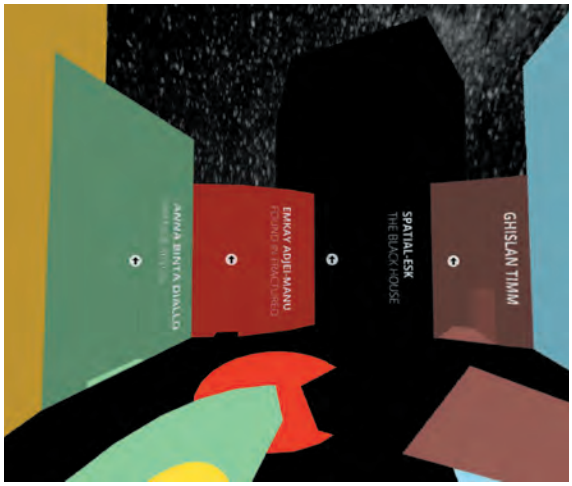
McMaster University | Museum of Art

2020/2021 Highlights

Exhibitions

For the entire reporting period, the Museum was closed to in-person visits due to the COVID-19 pandemic. Nevertheless, as reported last year, the Museum continued to contribute actively and significantly through the digital environment during this time wherein all tours, classes, courses, and special events (panels, lectures, receptions, etcetera) occurred on-line. In 2020/2021, after significant research and newly developed collaborations, the Museum added virtual exhibitions to our on-line offerings: for the annual School of the Arts graduating exhibition SUMMA 2021, as well as for the exhibition *the cut, the tear & the remix: contemporary collage and Black futures*. The latter exhibition brought together the work of eight contemporary artists (Emkay Adjei-Manu, Anna Binta Diallo, FEZA, Kofi Oduro, Sonya Mwambu, SPATIAL-ESK, Ghislan Timm, Yung Yemi) deeply engaged in the excavation of a future informed by their individual ancestral connections to the African and Caribbean diaspora and their varied interpretations of collage. This online exhibition presented "cut & paste" techniques in not only its traditional tactile paper and photomontage iterations, but also in uncharacteristic expressions of new media including video, text and design. The digital presentation of the remix, because of the global pandemic, was in and of itself an envisioning of the future of Black spatial and temporal experiences marking an invitation to participate in this new imagining.

The SUMMA 2021 student exhibition, entitled *Quixotic*, explored the quixotic, all that is deemed idealistic, starry-eyed and impractical. Working and creating under unusual circumstances, quixoticism has become a liberating vehicle for the student artists to explore and sharpen their craft. This show encapsulated the multiple ways that these bright young artists adapted and investigated the undeniable cruciality of art and quixotic perspective in tumultuous times. We also began in the 20/21 to create virtual exhibitions for both September 2021 exhibitions: *Immune Nations: The Vaccine Project* and *enawendewin: relationships*. The Museum broadened our capabilities with these projects and worked with local partners: media and artists alike.



Screen capture of the remix exhibition's virtual environment.

"The 2021 SUMMA exhibition explored the quixotic, all that is deemed idealistic, starry-eyed and impractical."

McMaster University | Museum of Art

2020/2021 Highlights

Finally in 2020/2021, the Museum also hosted out-door public art projects by Tracey-Mae Chambers with the installation *Hope & Healing Canada* located in the Museum's artists' garden on campus; and by Shellie Zhang's *To What Do We Owe This Honor?* in the downtown core in association with Hamilton's massive annual music and art festival, Supercrawl.

Chambers work is part of her #HopeAndHealingCanada project, which contemplates themes of connection, reflection, and healing in the wake of the COVID-19, and the daily news of unrest around the world. In recognizing the need to reconnect, #HopeAndHealingCanada created space for people to pause and reflect and heal towards a more hopeful and brighter future.The project continues a cross Canada tour.

Tracey-Mae Chambers installs #HopeAndHealingCanada in the Museum's artist garden, summer 2021. Photo by Georgia Kirkos.

Zhang's mural showed a collection of miniature decorative objects against a backdrop of a sky, creating a connection between the intimate setting of one's home and the shared realm of public space. The project was intended to prompt reflection on the objects we surround ourselves with and the monuments we adorn our cities with, questioning which symbols reflect our current collective values, whose legacies are given permanence and what histories are given a pedestal.

Shellie Zhang, *To What Do We Owe This Honour?*, 2020

SUPER CRAWL

Shellie Zhang, *To What Do We Owe This Honour?*, 2020, installed at 118 James St N

McMaster University | Museum of Art

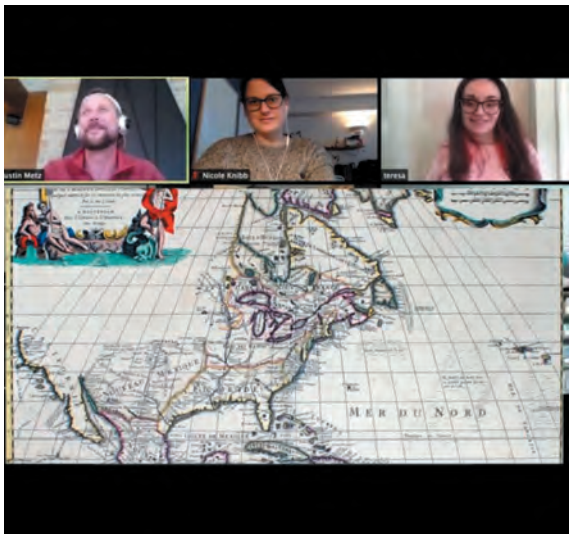
2020/2021 Highlights

Curatorial staff at the MMA on-goingly expand their reach into the community and contribute to the broader Canadian arts milieu through a variety of opportunities: guest lecturing and teaching, exhibition, publication and research collaborations, arts service organization and institutional governance participation, and conference and workshop presentations.

This past year, Pamela Edmonds, Senior Curator, worked alongside colleagues at Art Gallery of Peterborough, University of Utah, NIA Centre for the Arts, RACAR, CONTACT Photography Festival, Hamilton Arts Award, Museum Of Contemporary Canadian Art, Art Gallery of Greater Victoria/ Confederation Arts Centre, Royal Ontario Museum, Cultural Pluralism in the Arts Movement Ontario, Canadian Art Magazine and Supercrawl. Edmonds also initiated and submitted an Open Letter to Canadian Art Magazine (print and online) from Black Curators Forum in the special issue on "Chroma" Black Canadian Art - "A Letter from the Black Curators Forum to Contemporary Art Institutions and Organizations across This Land Called Canada." Rheanne Chartrand, Curator of Indigenous Art, taught at Ryerson University and University of Toronto. She is a continuing Board Member of the Shushkitew (Metis) Collective and the Indigenous Curatorial Collective. She has collaborated this past year with colleagues at Lulu World Arts & Music, Minneapolis Institute of Art, Ontario College of Art & Design University, and the Canadian Art Institute. Carol Podedworny, Director and Chief Curator collaborated with colleagues at University of Alberta, Supercrawl, Waterloo Region Arts Awards, Canadian Art Museum Directors Organization and University/College Art Gallery Association of Canada. She is a member of the latter's Anti-Racist Equity Committee.

Education and Public Programs

The Museum provides ancillary programming in two areas: education and public programs. Education programs are those programs geared towards groups (campus, community, and school), and are distinguished by offerings at the elementary, middle, high school, and community level as well as, post-secondary offerings. Educational programs take the form of formal courses, tours of exhibitions, hands-on workshops, and so forth. They are broadly content rich in areas related to art, culture and society, museum practices, and health and wellness, as well as reflecting on the thematic and artistic content of the exhibitions in the museum. Public programs are comprised of those events that specifically address the exhibition content in the museum at any given time and are geared towards a general museum-going audience. Public programs take the form of receptions, artists' talks, lectures by guest speakers, panel discussions, artists' performances, film and video screenings, music performances and so on. From year-to-year, the variety, breadth, and number of education and public programs produced by the MMA is truly astonishing!



MMA Education staff deliever a virtual map making program for Strata Montessori School

McMaster University | Museum of Art

2020/2021 Highlights

In 2020/21, the museum provided directed post-secondary educational programs to five groups through our partnership program with the Department of Family Medicine, *The Art of Seeing*, including courses through DFM and McMaster Continuing Education. Post-secondary offerings also included work with DeGroote School of Business, both their Health Leaders Academy and Medicine First Year Professional Competencies Course; McMaster University Nursing; McMaster Children & Youth University; McMaster Continuing Education, 55+ Courses; School of Graduate Studies, Creativity Courses; and an 'imagining' course for 2SLGBTQ workshop. Research collaborations at the post-secondary level took place between Museum education staff and DFM on three projects (visual inquiry, past participants, and Indigenous teaching through art), and with McMaster's iBiomed Program in association with the Health & Engineering, Science and Entrepreneurship Specialization program, as well as through the supervision of a student in the Health Sciences Inquiry course, 3H06.

Education officer Nicole Knibb delivers The Art of Seeing program at the Art Gallery of Hamilton

At the school and community level, the Museum developed and presented eight new programs in 2020/21 and developed (continuing and new) programs with the following: Hess Street Elementary School, Westdale High School, Hamilton Wentworth District School Board, Hamilton YMCA, McMaster University Sexual Violence Prevention and Reporting Office, McMaster Engineering, and McMaster Employee Health and Well-Being. More broadly, the Museum provided tours to thirteen campus groups, four community groups and nine school groups. The Museum continued to deliver its annual programming in support of several local campus and community events, among them Hamilton Winterfest, Hamilton Arts Week, Culture Days and Slow Art Day (national), as well as McMaster Alumni Day, Welcome Week, Take Our Kids to Work Day, and all Summer and March Break Camps.

Also in the community, the education staff of the MMA, Nicole Knibb, Senior Education Officer and Teresa Gregorio, Education Officer, actively participate in leadership roles in sector service organizations such as the Hamilton-Area Museum Educators and the Canadian Art Gallery Educators groups. (Details regarding specialized programs, general tours, research contributions and community outreach related to the educational programs of the MMA can be found in Appendix Six).

8 new programs

4 community groups

13 campus groups

9 school groups

McMaster University | Museum of Art

2020/2021 Highlights

Marketing and Promotion

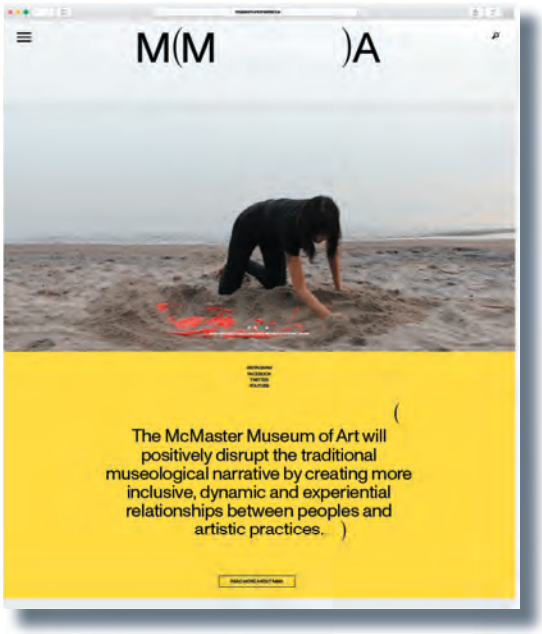
The MMA's website/digital engagement remained strong throughout the year, despite the physical museum being closed for the noted period. In response to the virtual environment, there was an effort to increase and broaden our social media presence. This resulted in 35% increase in followers on Instagram, 10% increase in views on our YouTube channel. In terms of media, there were a range of publications throughout the year, the most significant being a comprehensive and thoughtful 20-page print spread of the remix exhibition in Pitch Magazine, a Black arts & culture publication. The MMA also formed relationships with new media including collage focused publication Kolaj magazine and Indigenous publication Muskrat magazine. A new website and digital brand identity were launched in spring 2021 – more accurately representing the museum's commitment to digital innovation, open dialogue and collaboration. The new brand has been very well received both by industry peers and in the arts & the design industries, receiving positive reviews by respected design publications including Applied Arts Magazine, The Brand Identity, and esntial design.

In terms of media coverage in the reporting period, the Museum garnered print and digital articles in the following:

- AGO Insider
- Akimbo
- Applied Arts Magazine
- Beyond James
- CFMU 99.3
- Education News Canada
- Hamilton Spectator
- Incite Magazine
- Kolaj Magazine
- McMaster Daily News
- Muskrat Magazine
- PITCH magazine
- The Silhouette
- Tourism Hamilton
- Urbanicity Hamilton.

(Details with respect to communications and media coverage in the reporting period can be found in Appendices Seven: Communications Report and, Appendix Eight: Media Summary).

the remix Pitch Magazine feature



The Museum's new website and digital identity

MCMASTER MUSEUM OF ART ANNUAL REPORT APPENDICES

THE ACCOUNTABLE MUSEUM

BRIGHTER WORLD | mcmaster.ca

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Appendix One: Institutional Achievements, 2007 - 2022

OPERATIONS

Including: FUNDING (exceptional grants); ORGANIZATIONAL COMPETENCE & DEVELOPMENT; DIGITIAL & SOCIAL MEDIA LAUNCHES, PLATFORMS & DEVELOPMENT; COLLECTIONS MANAGEMENT; FACILITIES UP-GRADES; AWARDS; & exceptional circumstances.

2007 – 2015 City of Hamilton, COMMUNITY PARTNERSHIP GRANT (as of 2016, MMA no longer eligible for City grants.)

2007 FACEBOOK LAUNCHED

2008 LAUNCH OF INTER-DISCIPLINARY, COLLABORATIVE EXHIBITIONS WITH MCMASTER FACULTY (Psychology, Neuroscience & Behavior; Physics & Astronomy; Classics; Theatre & Film Studies; English & Cultural Studies; Indigenous Studies Program; Radiation Sciences; Anthropology; Studio Art; Department of Family Medicine, Psychiatry; History and so on)

2008 ONTARIO ASSOCIATION OF ART GALLERIES, Curatorial Writing Award, Guest Curator Mark Cheetham, for the essay "The Transformative Abstraction of Robert Houle," in the MMA publication, Troubling Abstraction: Robert Houle.

2009 STRATEGIC PLAN 2009-2014 (First in Museum's history, funded by a grant from Department of Canadian Heritage, facilitated by Lord Cultural Resources)

2009 FACILITY REPORT CREATED (UP-DATED 2022)

2009 BLOG LAUNCHED

2010 ADVISORY COMMITTEE, transition from Administrative Board to Advisory Committee, TERMS OF REFERENCE as per University/College Art Gallery Association of Canada

2010 EMERGENCY DISASTER RESPONSE PLAN CREATED (UP-DATED 2022)

2010 BUDGET REPORT (7 YRS FORWARD)

2010 University allocation to the MMA is increased by 60%.

2010 GEO-CACHE LAUNCHED

2010 DIGITIZATION OF PERMANENT COLLECTION (funded by a matching grant from Department of Canadian Heritage, matching component from private donor)

2010 TMS/THE MUSEUM SYSTEM COLLECTION DATABASE (acquired state-of-the-art, museum community inventory system and populated, funded by donation from private donor)

2010 MMA/DEPT OF FAMILY MEDICINE, VISUAL LITERACY PROGRAM, THE ART OF SEEING, Trade-marked in 2014; (1 of 4) Electives for Family Medicine Residents, CCE leadership course launched in 2016; among several others.

2010 ONTARIO ASSOCIATION OF ART GALLERIES, Design Award, Branka Vidovic, NeoGraphics, Hamilton, for the MMA publication Leonard Baskin.

2010 ONTARIO ASSOCIATION OF ART GALLERIES, Design Award, Underline Studios Inc., Toronto, for the publication Shelagh Keeley, MMA in partnership with the Robert McLaughlin Gallery, Oshawa.

2011- ON-GOING Ontario Arts Council Annual Operating Grant.

2011 INSURANCE REVIEW

2011 SECURITY UP-GRADE

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Appendix One: Institutional Achievements, 2007 - 2022

2011 GO-GREEN, E-INVITES

2011 TWITTER LAUNCHED

2011- 2014 PAINTING ANALYSIS RESEARCH PROJECT (funded by McMaster University, Office of Research and through a grant from Department of Canadian Heritage)

2011- 2015 ANTIQUITIES & NUMISMATIC RESEARCH PROJECT, Dr. Spencer Pope and the Department of Classics

2011 POLICIES & PROCEDURES MANUAL REVISED (UP-DATED IN 2021, decolonial review/CPAMO 2022)

2011 SECURITY & MONITORING PROCEDURES REVISED (UP-DATED IN 2019)

2012 E-MUSEUM LAUNCHED

2013 MMA YOUTUBE CHANNEL LAUNCHED

2014 WEB REDESIGN

2014 DEMOGRAPHIC/USER SURVEY (conducted by Hill Research Strategies Inc.)

2014 FIRE SYSTEM UP-GRADE

2014 DE-ACCESSIONING PLAN CREATED

2014 MUSEUMS ASSISTANCE PROGRAM, ACCESS TO HERITAGE GRANT, $189,000, for The Unvarnished Truth: exploring the material history of paintings. Department of Canadian Heritage.

2014 STRATEGIC PLAN, 2015-2020 (funded through a Compass Grant from the Ontario Arts Council, facilitated by Good Consulting)

2015 PARTNER. CAMDO HOLOCAUST-ERA PROVENANCE RESEARCH & BEST PRACTICES GUIDELINES. Along with Royal Ontario Museum, Montreal Museum of Fine Arts, National Gallery of Canada, Art Gallery of Ontario, Art Gallery of Windsor, University of Lethbridge Art Gallery and Winnipeg Art Gallery. To develop a Holocaust-era provenance research and restitution plan for Canada.

2015 The Unvarnished Truth: exploring the material history of paintings INTER-ACTIVE WEB SITE (New Motto, Hamilton), launched, active until end of tour, Summer 2017

2015 MUSEUMS ASSISTANCE PROGRAM, ACCESS TO HERITAGE GRANT, $100,000, Living Building Thinking: art and expressionism. Department of Canadian Heritage.

2015 – 2018 Living, Building, Thinking: art & expressionism EXHIBITION TOUR, Venues: Art Gallery of Alberta, Edmonton, AB; Vancouver Art Gallery, Vancouver, BC

2015 Launch of MMA IN THE COMMUNITY, public programs off-site with Carnegie Gallery, Super Crawl, Downtown Health Centre, Mills Hardware, b contemporary, and Hamilton Arts Council

2015 Launch of the MMA ARTISTS' GARDEN. An on-going garden site for artistic projects in front of the museum proper. New projects every two years.

2016 – 2017 The Unvarnished Truth: exploring the material history of paintings EXHIBITION TOUR, Venues: Art Gallery of Alberta, Edmonton, AB; Thunder Bay Art Gallery, Thunder Bay, ON; Agnes Etherington Art Centre, Queens University, Kingston, ON

2016 MUSEUM PERISCOPE LAUNCHED

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Appendix One: Institutional Achievements, 2007 - 2022

2016 MUSEUMS ASSISTANCE PROGRAM, ACCESS TO HERITAGE GRANT, $105,000, Levy Legacy: A Cultivating Journey. Department of Canadian Heritage.

2016 LIGHTING RENOVATION, Main Floor, Contemporary Galleries, funded by McMaster University.

2016 ABORIGINAL CURATORIAL RESIDENT, Rheanne Chartrand, July 2016 – June 2017, funded by the Office of the President and Office of the Provost, McMaster University.

2017 LIGHTING RENOVATION, Fourth Floor Galleries & Lobby, funded by McMaster University.

2017 – 2019 A Cultivating Journey: The Levy Legacy EXHIBITON TOUR, Venues: Vancouver Art Gallery, Vancouver, BC; & Kelowna Art Gallery, Kelowna, BC.

2017 - 2020 INDIGENOUS CURATOR, July 1, 2017 – June 30, 2019. Funded by the Office of the Provost, McMaster University.

2017 COLLECTIONS STORAGE UP-GRADE ($50,000). Funded by the Department of Canadian Heritage, Museum Assistance Program.

2017 LAUNCH OF N. GILLIAN COOPER EDUCATION PROGRAM, funded by donor N. Gillian Cooper.

2017/2018 UP-GRADE OF MUSEUM SECURITY SYSTEM/HARDWARE, funded by the Office of the Provost.

2018 EDUCATION PROGRAM expansion, from 2 to 5 education program staff.

2018 Launch of TAKING STOCK, a de-colonization strategy for the MMA.

2019 CURATOR OF INDIGENOUS ART, permanence.

2019 UP-GRADE TO MUSEUM ENVIRONMENTAL SYSTEM. Required 5-month facility shut down: March 25 through August 24, 2019.

2019 FACILITY REPORT revised

2019 SECURITY & MONITORING PROCEDURES revised

2019 ART IN THE SCHOOLS - April – August, 2019, taking art education to schools throughout the region: 114 teachers, 24 schools!

2019 PUBLIC ART PROJECT - commissioning of a public art work (neon) by Toronto-based artist, Hiba Abdallah, for the façade of Museum.

2019 SENIOR CURATOR – HIRE, Pamela Edmonds, with a curatorial practice based in cross-cultural and inclusive curatorial practice, de-colonization, cultural equity and emancipating collections

2019 PROJECT GRANT, for the production of the exhibition Peripheral Vision(s): Perspectives on the "Indian" image by 19th century Northern-Plains warrior-artists, Leonard Baskin and Fritz Scholder. $101,000 CDN. TERRA Foundation for American Art, USA.

2019 ONTARIO ASSOCIATION OF ART GALLERIES, 2019 VOLUNTEER OF THE YEAR AWARD, awarded to Dr. Douglas Davidson for over 26 years of work in support of the Museum's permanent collection.

2020 LAUNCH OF MMA STRATEGIC PLAN 2020 – 2025. Facilitated by Carol Good, Good Consulting, Inc. Funded, in part, by the Office of the Provost.

2020 MARCH – DECEMBER – COVID-19 PANDEMIC, Year One – CLOSED to in-person visits.

2020 INSTITUTIONAL RE-BRAND, M(M)A, led by Underline Studios Inc., Toronto, winner of the Advertising & Design Club of Canada's 2019 Design Studio of the Year Award.

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Appendix One: Institutional Achievements, 2007 - 2022

2020 DIGITAL UP-GRADES: Re-designed website and all social media platforms with Underline Studios; development by Pear Interactive; up-graded online database, e-museum, to most current edition with TMS; up-graded hardware requirements through McMaster's RHPCS; initiated Digital Strategies Committee to review potential for digital innovations including virtual exhibitions, augmented reality, open content publications, and digital storytelling, among other possibilities.

2020 SECTOR DEVELOPMENT GRANT, for the Museum's BIPOC CURATORIAL MENTORSHIP PROGRAM. The first program of its kind in Canada. Funded by Canada Council for the Arts and in part by the Office of the Provost.

2020 BIPOC CURATORIAL MENTORSHIP PROGRAM is launched with the first two mentees, Stylo Starr and Erin Szikora.

2020 COVID-19 EMERGENCY SUPPORT FUND FOR CULTURAL, HERITAGE & SPORT ORGANIZATIONS Grant, $100,000 for fiscal 2020-21. Department of Canadian Heritage.
COVID RESPONSE Grant, doubles our operating funds in 2021, $49,350. Ontario Arts Council.
ARTS RESPONSE INITIATIVE Grant, 2021, $15,000. Ontario Arts Council.
Above enable the move to the purely digital.

2021 JANUARY – AUGUST - COVID-19 PANDEMIC, Year Two – closed to in-person visits.

2021 PROJECT GRANT, a grant to "encourage vaccine confidence in Canada," to produce the exhibition Immune Nations: The Vaccine Project. $45,500. National Sciences & Engineering Research Council of Canada, (NSERC).

2021 MUSEUM RE-OPENS to in-person visits with two context-relevant exhibitions: Immune Nations/The Vaccine Project, encouraging vaccine confidence in Canada and enawendewin, Indigenous gardens and healing!

2021 LAUNCH OF NEW DIGITAL FACE OF THE MUSEUM, Spring 2021.

2022 RE-OPENING FUND FOR CULUTRAL, HERITAGE & SPORT ORGANIZATIONS, $100,000, for April 21 – March 22. Department of Canadian Heritage.

2022 COINS IN THE MCMASTER MUSEUM OF ART: THE GREEK AND ROMAN COLLECTIONS. First numismatic publication in the MMA's history, authored by Dr. Spencer Pope, Associate Professor, Department of Classics, McMaster University.

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De-colonizing the Museum: a process for the development of a de-colonizing, de-centering and anti-racist agenda for the MMA

TIMELINE

2006 – CP joins MMA, research, collections and exhibitions of Indigenous Art become a regular component of MMA work (16 exhibitions, solo and/or group, that include the work of Indigenous artists between 2006 and 2016)

July 2016 – June 2017 – Rhéanne Chartrand fills position of Aboriginal Curatorial Resident at the MMA, supported through the Offices of the President and the Provost. This is the first such position at the MMA

July 2017 – June 2020 – funding for the position of Curator of Indigenous Art is confirmed for 3 years, supported through the Office of the Provost

October 29, 2018 – *Taking Stock: An Assessment of the MMA*, Rhéanne Chartrand

» Chartrand presents Director / Chief Curator with a personal and critical assessment of the MMA—past and present—with recommendations for immediate and future actions the institution can undertake to advance institutional decolonization

January 15, 2019 – *De-colonizing the MMA/ A Response, Carol Podedworny*

» Formal response by Podedworny to Chartrand's assessment; acknowledgement of criticism and suggestion of next steps

» Formal in-person meeting to discuss next steps held February 27, 2019

March 11, 2019 – CP reaches out to Dr. Rick Monture, ISP and English & Cultural Studies, re: a joint partnership for a University-wide initiative (which he had presented to CP in the summer of 2018), don't speak again until summer 2019 where university-wide initiative is raised again

March 26, 2019 – CP reaches out to Dr. Arig al Shaibah, VP, Office of Equity & Inclusion, al Shaibah reaches out, Fall 2019, through Pamela Edmonds

May 8, 2019 – first *Taking Stock* staff session led by Chartrand

May 13, 2019 – Senior Curator, Pamela Edmonds joins the MMA Team

July 2019 – in advance of three-year timeframe, the position of Curator of Indigenous Art is permanently supported by the Board of Governors of the University through the Budget Committee

MEETINGS

2019

1. May 8th – led by Chartrand

session introduced the project/strategy; the foundational reading list; and an opportunity to share experiences.

2. June 5th - led by Chartrand & Edmonds

» Session was a focused on introducing Pamela to the team, getting the staff to talk a bit about their lived experiences, and

Appendix Two: Decolonial Strategy

discussing the articles; Carol provided insight into what it was like to curate in the 80s & why she stopped in the 90s.

*sometime in late July or August Pamela & Rhéanne develop a formal plan for four (4) sessions – only 3 of 4 were executed.

3. September 18 – led by Chartrand & Edmonds, "Deconstructing White Privilege"
» Session focused on self-reflective exercise of acknowledging privilege in case scenarios; discussed 3 articles: McIntosh, DiAngelo, and Tuck & Yang; assigned homework to complete worksheet on "Sources of Privilege & Power."

4. November 13 – led by Chartrand & Edmonds, "Acknowledging Privilege & Building Allyship"
» Took-up homework; discussion focused on workplace micro-aggressions and being allies; advanced the notion of "accomplice," not "ally" as the choice word/action through looking at the zine produced by Indigenous Action Media.

2020

5. February 26 – led by Chartrand & Edmonds, "Institutional Privilege and Institutional Critique: hierarchies, power dynamics, and the history of exhibitions of exclusion"
» Session looked at the *Turning the Page* document produced by CMA/AFN in late 80s in response to *The Spirit Sings*, a controversial exhibition which changed the landscape of Museum—Indigenous relations and emphasized that museums are not neutral spaces and that they cannot be apolitical, given their histories and collections; Pamela discussed the 1989-90 racist and demeaning ROM exhibition, *Into the Heart of Africa*, and its negative impact on Black Canadians and their relationship to institutions.

6. March 18 – cancelled due to COVID
» Was supposed to examine: "Operational & Structural Barriers…and Solutions," which would explore where barriers exist at the MMA: outreach strategies and their limits; collecting practices; wanted to assign an article about how Concordia University had divested funding from oil and gas industries as an expression of structural change (aligning actions with ethics); discussion would have centered on the questions: Who is at the table? Who has a seat and who does not? Who is missing? What seats at the table do not exist yet?

7. May 28 – led by Chartrand & Edmonds, re-examination of Tuck & Yang's article, "Decolonization is Not a Metaphor" – lengthy discussion with staff unpacking the article, read at a previous session but required further discussion.

8. June 3 - prompted both by the rise in global protests against systemic racism and reflections from the May 28 "Taking Stock" session, Chartrand and Edmonds co-authored an email to MMA staff explaining the necessity of a change in direction with respect to the MMA's decolonization process. The police-involved deaths of George Floyd and Regis Korchinski-Paquet, ongoing state violence against Black and Indigenous bodies, and the militarized responses to protest actions directed at dismantling monuments and memorials associated with colonial histories concretized for Chartrand and Edmonds the very real need to re-commit to radical, participatory, and active de-colonial work within the institution. To mark this shift—or re-commitment—it was suggested that staff participation in the "Taking Stock" sessions be voluntary moving forward and, in keeping with the action-oriented training focus and the larger institutional re-branding efforts, that "Taking Stock" be renamed to "MMA Decolonization Bootcamp."

9. July 17 - after consultations conducted by Carol Podedworny with the MMA staff, a subsequent email was sent postponing further sessions throughout the summer. Subsequently CP sent global museum related de-colonization strategy articles to all staff in August; and projected for the fall, 3 sessions facilitated by/with external consultants trained in cross-cultural and cultural sensitivity work.

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10. September 23rd with Michael Etherington, Indigenous Relations Consultant, Toronto

11. September 30th with Michael Etherington
» Sessions were focused on building a history and knowledge-base for understanding. Topics included terminology, addressing racism and discrimination, assimilation policy in Canada and treaties and inherent rights in Canada.

12. October 20th with Khadijeh Rake, Katelyn Knott and Tolu Ojo, McMaster EDI
» Session was focused on building shared intentions for on-going EDI work at the MMA. Session also included information on EDI fundamentals, Land Acknowledgements, De-colonization and Solidarity Movements, and Anti-Black Racism.

13. December 16th with Michael Etherington, Indigenous Relations Consultant, Toronto
» Session focused on organizational Indigenous Cultural Competency. Framework and planning principles for the MMA; the inter-play between the organization and the individual. Areas considered: cultural competency, cultural humility, implementation and implications of cultural competency.

2021

14. February 24th: with Charles C. Smith, Executive Director, Cultural Pluralism in the Arts Movement Ontario (CPAMO), Session focuses on Language, Meaning & Action with an anti-oppression lens.

15. March 10th: EDI Follow Up Fundamentals Session

16. April 30th: with Charles C. Smith, Executive Director, Cultural Pluralism in the Arts Movement Ontario (CPAMO), Session's focus, critical response process.

17. May 27th: In-house leads, Re-Cap of work to date and self-reflection on process

18. June 23rd: With Charles Smith and Clayton Windatt, CPAMO Reflections & Directed Action Plan for de-colonial work at the M(M)A

19. September 20th: In-house leads, Fundamentals of the Colonial Museum

20. November 29th: In-house leads, Review of UNDRIP and TRC in relation to M(M)A work

2022

21. January 31st: In-house leads, Building Group Intentions, Part I

22. February TBA: In-house leads, Building Group Intentions: Part II

23. TBA

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LIST OF READINGS

Original Document, References

Turning the Page: Forging New Partnerships Between Museums & First Peoples, (1987-1994), AFN/CMA Task Force on Museums and First Peoples
United Nations Declaration on the Rights of Indigenous Peoples, 2007
Understanding Aboriginal Arts in Canada Today: A Knowledge & Literature Review, 2011, France Trepanier and Chris Creighton, for the Canada Council for the Arts
Honouring the Truth, Reconciling the Future, 2015, Truth & Reconciliation Commission of Canada

First Session, Readings

White Privilege: Unpacking the Invisible Knapsack, 1989, Peggy McIntosh
Decolonization is not a metaphor, 2012, Eve Tuck and K. Wayne Yang
Turning the Page: Forging new Partnerships Between Museums and First Peoples, Task Force on Museums and First Peoples, 1987-1994
United Nations Declaration on the Rights of Indigenous Peoples, 2007
Honouring the Truth, Reconciling the Future, 2015, Truth & Reconciliation Commission of Canada
Troubling Good Intentions, 2013, Sarah de Leeuw et al

Other Readings, Sessions 2 through 7

A phenomenology of whiteness, 2011, Sara Ahmed
White Fragility, 2011, Robin DiAngelo
A Guide to Allyship, 2016
Exhibiting Change, 2019, Barbara Pollock
Hard Numbers: A Study on Diversity in Canada's Galleries, 2017, Michael Maranda, Canadian Art
Canada's Galleries Fall Short: The Not-So Great White North, 2017, Alison Cooley, Amy Luo and Caoimhe Morgan Feir, Canadian Art
Silence Breakers for Whites in Cross-Cultural Discussions, 2013, Anika Nailah and Robin DiAngelo
Accomplices not Allies, Abolishing the Ally Industrial Complex - An Indigenous Perspective, 2014, Indigenous Action Media
Anti-Black Racism in The Arts: *Discussion Document*, CPAMO, 2020.

Video Links

Tim Wise: On White Privilege
https://www.youtube.com/watch?v=J3Xe1kX7Wsc
Decolonizing Display
https://vimeo.com/277609160
We Must Decolonize Our Museums – Cinnamon Catlin-Legutko - TEDxDirigo
https://www.youtube.com/watch?v=jyZAgG8--Xg
Allyship and Solidarity Guidelines, Harsha Walia
https://unsettlingamerica.wordpress.com/allyship/
Five Tips For Being An Ally
https://www.youtube.com/watch?v=_dg86g-QIM0
Difficult Terrain Exhibition – Museum London

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https://www.tvo.org/article/why-museum-london-is-using-racist-artifacts-to-fight-prejudice
Reducing Bias: Museums and the Future of Work, Lecture by Dr. Nicole Ivy
https://vimeo.com/229592954

August 2020 (Remote) Readings
On the Limits of Care and Knowledge: 15 points Museums Must Understand to Dismantle Structural Injustice, 2020, Yesomi Umolu
Museums must evolve or they will not exist, 2020, Pablo Larios and Adam Szymczyk
Yvette Mutumba on Why Decolonizing Institutions "Has to Hurt," 2020, Pablo Larious
The Persistence of Structural Racism in Canadian Cultural Institutions, 2020, David Balzer
Interview with Museum Professionals of Colour, 2020, Denise Tenio, Dominica Tang, Chloe Houde and Megan Sue-Chue-Lan

September 23rd, September 30th, December 16th, 2020 - Readings, Etherington Sessions 1, 2, 3
United Nations Declaration on the Rights of Indigenous Peoples, 2007
Honouring the Truth, Reconciling the Future, 2015, Truth & Reconciliation Commission of Canada
Indigenous Writes: A Guide to First Nations, Metis and Inuit Issues in Canada, Chelsea Vowel, 2016.
21 Things you may not know about the Indian Act, Bob Joseph, 2018.
1491: New Revelations of the Americas Before Columbus, Charles C. Mann, 2006.
Indigenous Relations: Insights, Tips & Suggestions to Make Reconciliation a Reality, Bob Joseph, 2019.
Children of the Broken Treaty: Canada's Lost Promise and One Girl's Dream, Charlie Angus, 2015.

February 24th, April 20, 2021 – Readings, CPAMO Sessions 1 & 2
De-colonizing the Art Museum, The New York Times, Olga Viso, (May 1,2018).
Racial Microaggressions in Everyday Life: Implications for Clinical Practice, American Psychologist, Derald Wing Sue et al, (May-June 2007).
Style Guide for Reporting on Indigenous People, Journalists for Human Rights, (December 2017).
The Embodied Experience of Microaggressions: Implications for Clinical Practice, Journal of Multicultural Counseling and Development, Rae Johnson et al, (July 2018).
Critical Museum Theory/Museum Studies in Canada: A Conversation, Journal of the History of the Atlantic Region, Lianne McTavish et al, (2017).
Offensive Artwork Titles in Canadian Museums: What's in a name?, Canadian Art, Rosie Prata, (October 2016).

September 20th, 2021 – Readings, Fundamentals of the Colonial Museum
Duncan & Wallach (1980) - *The Universal Survey Museum*
Bennett (1995) - *Birth of the Museum: history, theory, politics* - Chapter 2 & Chapter 6
Human Zoos - https://youtu.be/nY6ZroI5QEk
Trapped in a Human Zoo: Eight Inuit On Display in Europe in 1880's | The Nature of Things - https://youtu.be/W2JmI5E6wo0
Heritage of Theft: On Museums and Cultural Restitution - https://youtu.be/CS5ERchbGgU

November 29th – Readings, UNDRIP & TRC Review
Turning the Page: Forging New Partnerships Between Museums & First Peoples, (1987-1994), AFN/CMA Task Force on Museums and First Peoples
United Nations Declaration on the Rights of Indigenous Peoples, 2007

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Honouring the Truth, Reconciling the Future, 2015, Truth & Reconciliation Commission of Canada
Garneau, David. *"Imaginary Spaces of Conciliation and Reconciliation: Art, Curation and Healing."* In Arts of Engagement: taking aesthetic action in and beyond the Truth and Reconciliation Commission of Canada, edited by Dylan Robinson and Keavy Martin, 21-41. Waterloo: Wilfred Laurier Press, 2016.

NB: TRC Executive Summary, focus on the following pages: "*Role of Canada's museums and archives in education for reconciliation*," 246-252 & "We are all Treaty people: Communities, alliances, and hope," 306-317.

January 31st – Readings, Building Group Intentions I
Dr. Lynn Gehl, *Ally Bill of Responsibilities*, 2 pp. http://www.lynngehl.com/uploads/5/0/0/4/5004954/ally_bill_of_responsibilities_poster.pdf
MASS Action Tool Kit, pp. 167-187 *How to Use this Section*; pp. 197-201 *Empathetic Museum Maturity Model; and White Supremacy Culture*, pp. 203-207.
https://static1.squarespace.com/static/58fa685dff7c50f78be5f2b2/t/59dcdd27e5dd5b5a1b51d9d8/1507646780650/TOOLKIT_10_2017.pdf
Resource Media, *Should Your Organization Issue a Statement of Solidarity?*, 2021
https://resource-media.org/should-your-organization-issue-a-statement-of-solidarity/

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Appendix Three: Acquisitions

Greg Staats (Mohawk, b. 1963)
objects of reciprocal thinking 2: a transmedial onkwehoweh installation

scar, 2019
canvas archival digital print on 2 inch stretcher with 4 cuts [scars] made by artists hand
68.6 × 101.6 cm

unsaid reunited, 2018
archival adhesive digital print, reclaimed Douglas fir
3.2 × 13.3 × 104.8 cm

good mind traumatic mind forward with our best thoughts, 2019,
stainless steel time capsule, wooden head-frames for 2 kahsto:wa [first head dress] and scotch pine tree needles
30.5 × 30.5 × 30.5 cm
Museum of Art Collection Trust, 2019
2019.004.0001

Hiba Abdallah (Canadian, b. 1990)
we remain profoundly and infinitely connected, 2019
Neon text sculpture
50 cm x 8.2 m
Donald Murray Shepherd Trust, 2019
2019.005.0001

Deanna Bowen (Canadian, b. U.S.A., 1969)
Donna (afterimage), 2019
Black opaque Plexiglas
73.6 x 180.3 cm
Museum of Art Collection Trust, 2020
2020.001.0001

Denyse Thomasos (Canadian, b. Trinidad 1964-2012)
Life, 2009
Acrylic on canvas
106.7 x 152.4 cm
Museum of Art Collection Trust, 2020
2020.002.0001

Shellie Zhang (Canadian, b. China, 1991)
Still Life with Citrus (from series Offerings to Both Past and Future), 2018 - 2020
C-print (Edition of 5)
45.7 x 61 cm
Donald Murray Shepherd Trust, 2020
2020.003.0001

Still Life with Dragonfruit (from series Offerings to Both Past and Future), 2018 - 2020
C-print (Edition of 5)
45.7 x 61 cm
Donald Murray Shepherd Trust, 2020
2020.003.0002

Cornucopia 5 (Apples, Pears, Lemons and Grapes), 2019-2020
Plastic, steel, wire, rubber, adhesive
40.6 x 40.6 cm (variable)
Donald Murray Shepherd Trust, 2020
2020.003.0003

Cornucopia 3 (Pomegranates, Dragonfruits, Soursops, King Mandarin and Grapes), 2019 - 2020
Plastic, steel, wire, rubber, adhesive
Donald Murray Shepherd Trust, 2020
2020.003.0004

Catherine Blackburn (Denesuline/European, b. 1984)
Trapline I, 2019
Edition 1 of 2
Rabbit fur, beads, artificial sinew, traps, wood beam, nails
185.4 x 108 x 25.4 cm
Donald Murray Shepherd Trust, 2020
2020.004.0001

Aboriginal Classics: Fireweed, 2019
Edition 1 of 1
Glass beads, teabag, birch bark, sinew, dried plants, acrylic gel medium, fur
5 x 4.4 x 14 cm
Naomi Jackson Groves Trust, 2020
2020.004.0002

Aboriginal Classics: Red Cedar, 2019
Edition 1 of 1
Glass beads, teabag, birch bark, sinew, dried plants, acrylic gel medium, fur
5 x 4.4 x 14 cm
Naomi Jackson Groves Trust, 2020
2020.004.0003

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Aboriginal Classics: Red Elderberry, 2019
Edition 1 of 1
Glass beads, teabag, birch bark, sinew, dried plants, acrylic gel medium, fur
5 x 4.4 x 14 cm
Naomi Jackson Groves Trust, 2020
2020.004.0004

Aboriginal Classics: Cow Parsnip, 2019
Edition 1 of 1
Glass beads, teabag, birch bark, sinew, dried plants, acrylic gel medium, fur
5 x 4.4 x 14 cm
Naomi Jackson Groves Trust, 2020
2020.004.0005

Aboriginal Classics: Lodgepole Pine, 2019
Edition 1 of 1
Glass beads, teabag, birch bark, sinew, dried plants, acrylic gel medium, fur
5 x 4.4 x 14 cm
Naomi Jackson Groves Trust, 2020
2020.004.0006

Aboriginal Classics: Red Osier Dogwood, 2019
Edition 1 of 1
Glass beads, teabag, birch bark, sinew, dried plants, acrylic gel medium, fur
5 x 4.4 x 14 cm
Naomi Jackson Groves Trust, 2020
2020.004.0007

Sonny Assu (Ligwlda'xm of the Kwakwaka'wakw Nations, b. 1975)
The Paradise Syndrome, Voyage #30, 2016
Archival pigment print
Edition of 5 + 2AP
88.9 x 76.2 cm
Museum of Art Collection Trust, 2020
2020.005.0001

The Paradise Syndrome, Voyage #32, 2016
Archival pigment print
Edition 3/5
88.9 × 76.2 cm
Museum of Art Collection Trust, 2020
2020.005.0002

The Paradise Syndrome, Voyage #36, 2016
Archival pigment print
Edition 3/5
88.9 × 76.2 cm
Museum of Art Collection Trust, 2020
2020.005.0003

The Paradise Syndrome, Voyage #37, 2016
Archival pigment print
Edition 3/5
88.9 × 76.2 cm
Museum of Art Collection Trust, 2020
2020.005.0004

The Paradise Syndrome, Voyage #38, 2016
Archival pigment print
Edition 3/5
53.3 x 91.4 cm
Museum of Art Collection Trust, 2020
2020.005.0005

The Paradise Syndrome, Voyage #39, 2016
Archival pigment print
Edition 3/5
88.9 × 76.2 cm
Museum of Art Collection Trust, 2020
2020.005.0006

They're Coming! Quick! I have a better hiding place for you. Dorvan V, you'll love it. 2015
Digital Intervention on an A.Y. Jackson Painting (Kispayaks Village, 1927)
Edition 5/5
55.9 × 71.1 cm
Museum of Art Collection Trust, 2020
2020.005.0007

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Appendix Four: Touring Exhibitions

Exhibition details/borrowing institution

#nofilterneeded: shining light on the Native Indian/Inuit Photographers' Association, 1985-1992

Organized by the McMaster Museum of Art in partnership with the Indigenous Art Centre, Indigenous & Northern Affairs Canada

Thunder Bay Art Gallery
April 12 – May 19, 2019

University of Lethbridge Art Gallery
November 7, 2019 – January 10, 2020

Works on loan

49 photographs by members of the Native Indian/Inuit Photographers' Association, loaned from the Collection of Crown-Indigenous Relations and Northern Affairs Canada, National Gallery of Canada and private collections

Artist Unknown
Untitled (Group photograph of founding NIIPA members standing in front of the Thunder Bay Art Gallery for the 2nd annual NIIPA conference), 1986
Reproduced with permission from the CMCP Archives, National Gallery of Canada
22.9 x 28 cm
Courtesy of CMCP Archives, National Gallery of Canada, Ottawa

Simon Brascoupe
Untitled
Colour photograph
26.7 x 21.6 cm
Collection of the artist

Untitled
Colour photograph
26.7 x 21.6 cm
Collection of the artist

Dorothy Chocolate
Feast, Fort Franklin, N.W.T., 1981
51 x 41 cm

Joan Nazon, Arctic Red River, N.W.T., 1984
49.5 x 39.5 cm

Verna Catholique and her Sons, Tutsel K'e, N.W.T., 1984
41 x 50.5 cm

William Nerysoo, Fort McPherson, N.W.T., 1984
40 x 50 cm

Valerie General
My Nephew, Lyle
33.5 x 38.5 cm

Pat Green
Remembering
35.5 x 30 cm

Tomorrow, 1984
30 x 35 cm

Richard W. Hill (Sr.)
Alma Hill - First Grandson, Tuscarora
34.5 x 42 cm

Charlotte Hill - Mohawk, Ohsweken, Ontario
34 x 42.8 cm

Dave Elliott - Urbanized, Buffalo, N.Y.
34.5 x 42.8 cm

Jacob Thomas - Cayuga Chief, Six Nations Reserve, Ontario
34 x 42.8 cm

Jake Skye, Darwin Joh, Philip Thompson - Iroquois Dancers - 11A
34 x 42.8 cm

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Joel Johnson
Rail Robot
41.5 x 36.5 cm

Robert "Tim" Johnson
Clan Mother - Marjorie Sky
53 x 45 cm

Keeping It Out
32 x 44.5 cm

Martin Akwiranoron Loft
Blake (Debassige) – Ojibway
44 x 44 cm

Evan (Adams) – Salish
44 x 44 cm

Jessie – Micmac
44 x 44 cm

Susie – Cree
44 x 44 cm

Yvonne Maracle
Visions 1985, 1985
mixed technique
45.5 x 51.5 cm

Jimmy Manning
Gas Can and Carving, 1984
Colour photograph
43.5 x 51 cm

Ice, 1984
Colour photograph
43.5 x 51 cm

Douglas Maracle
Untitled
42 x 37 cm

Untitled (Rear of Dundurn Castle from Burlington Bay, Hamilton, ON)
42 x 37 cm

Murray McKenzie
Native Studies 1984, 1984
52.5 x 45 cm

Native Studies 1985, 1985
52 x 44.5 cm

Brenda Mitten
Remember the Removal
34 x 41 cm

Singing at Redhouse
34 x 41.5 cm

Untitled (entrance to NIIPA's Gallery on James Street North, Hamilton, ON)
55.9 x 73.7 cm
Collection of the artist

Untitled (Shelley Niro sorting through paperwork and photographs at NIIPA office)
55.9 x 71 cm
Collection of the artist

Lance Mitten
Benji - Let the Drums of our People Speak Now and Speak Forever
41.5 x 38 cm

Fancy Dancer
43 x 38 cm

Pow Wow
32.7 x 39.8 cm

Shelley Niro
Crystal, c. 1987
42.3 x 34.5 cm

Sisters, c. 1987
42 x 34.5 cm

The Rebel, 1987
35 x 41.5 cm

Jolene Rickard
Sweika + Fish, 1986

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43.5 x 53.3 cm
Collection of the artist

Tuscarora Mimbres, 1986
43.5 x 53.3 cm
Collection of the artist

Greg Staats
A Conversation, 1984
silver emulsion print
30.5 x 35.5 cm

Mary, 1982
toned silver print
37 x 37 cm

Mary Laughing, 1982
28.5 x 28.5 cm

Morley J. Stewart
Alexandra Visitor, 1985
Colour photograph
38 x 42.8 cm

Wemindji, Spring 1982, Spring 1985
Colour photograph
38 x 42.5 cm

Jeffrey M. Thomas
Plenty Chief
39 x 49 cm

Shadow Dancer
38.5 x 49 cm

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Appendix Five: Collection Works on Loan

Exhibition details/borrowing institution

Artist's Dream: Works of French Symbolism

Art Gallery of Hamilton

February 1, 2020 – January 10, 2021

Works on loan

Odilon Redon (French, 1840-1916)
He Falls Head Foremost into the Abyss, Plate 17 from The Temptation of Saint Anthony, 1896
Lithograph on China paper mounted on ivory wove paper (chine collé)
31.3 x 24.1 cm
Wentworth House Art Committee Purchase, 1965

Anthony: What Is the Point of All This? The Devil: There Is No Point!, Plate 18 from The Temptation of Saint Anthony, 1896
Lithograph on China paper mounted on ivory wove paper (chine collé)
46.4 x 34.6 cm
Wentworth House Art Committee Purchase, 1968

...And the eyes without heads were floating like molluscs, Plate 13 from the Temptation of Saint Anthony, 1896
Lithograph on Holland paper
30.9 x 22.5 cm
Gift of Rabbi and Mrs. Bernard Baskin, 1988

Pierre Puvis de Chavannes (French, 1824-1898)
Femme Assise, c. 1890
Published in L'Art dans les Deux Mondes, Paris, 20 Nov. 1890
Sanguine and white chalk on tan paper
28.5 × 22 cm
Gift of Roald Nasgaard and Lori Walters, 2017

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Appendix Six: Education Programs

Senior Education Officer Programs
Lead, tours and programs for McMaster undergraduate, graduate and faculty; postsecondary, professional and adult programs; Assistant Professor (Adjunct) McMaster Department of Family Medicine

***The Art of Seeing* Program and Professional Workshops in partnership with the McMaster Department of Family Medicine**
- McMaster Department of Family Medicine Health Sciences Education Graduate Program Art of Seeing Workshop (virtual via Zoom September 2020)
- The Art of Seeing: McMaster Continuing Education offered in 2021 (offered virtually via Zoom)
- The Art of Seeing for McMaster University Continuing Education Strategic Leaders program (virtual via Zoom October 2020 and February 2021)
- The Art of Seeing for McMaster University Midwifery: Intersectionality in Healthcare (virtual via Zoom November 2020)
- The Art of Seeing for McMaster University DeGroote School of Business, Health Leaders Academy (virtual via Zoom May and August 2021)

McMaster University DeGroote School of Business, Health Leaders Academy Shift Program Design+Futures workshop (virtual March 2021)
- In collaboration with Dr. Sean Park

McMaster University Nursing 700: Philosophy of Nursing Research
- Nursing PhD students discuss art as a means to understand truth and reality and the history of science (virtual via Zoom September 2020)

McMaster University DeGroote School of Medicine First Year Professional Competencies Course (undergraduate) (virtual via Zoom December 2020)

McMaster Children and Youth University Workshop
- Integrated Role of Arts and Science & Society Mentorship for MCYU student-led children's workshop(s); listed as a community-mentor who will assist students in designing MCYU workshops as part of course credit (ongoing)

McMaster Continuing Education Learning for 55+ Short Courses Program *Mornings at the McMaster Museum of Art*
- 3 session program for adults (retirement-aged) people (virtual via Zoom November 2020)

School of Graduate Studies Programs
Drawing Conclusions: Creativity for Graduate Students Series
- Ongoing programs to spark imagination and creativity, welcome new graduate students to McMaster, combat social isolation and burnout for all graduate students

Drawing Conclusions 12 (DC12)
- 12-week program of hour-long sessions to look at and write about visual art from the M(M)A collection with learning hub on Avenue; created by request of participants of Drawing Conclusions for an ongoing program (virtual via Zoom in Fall 2020 semester)

2SLGBTQ Workshop: Imagining a Queer Utopia
- Museum collections-based program with collage/digital collage making
- Consultation and discussion co-facilitated by McMaster Alumnus, Kunal Tandan
- Co-designed and delivered by Teresa Gregorio

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Research and Publication
Zazulak, J. and Knibb, N. (2021). Time, Space, and Imagination: The Art of Seeing at McMaster University. In Artful Encounters: Sites of Visual Inquiry. Christina Smylitopoulos, Ed. University of Guelph.

The Art of Seeing Past Participants' Research Project
- Measuring the effectiveness of the program over the long-term via semi-structured interview and qualitative analysis
- Museum staff Kate Hand and Rachel Sullivan, volunteer Gurinder Multani recruiting, interviewing and transcribing
- Coding and qualitative thematic analysis underway

McMaster Department of Family Medicine Indigenous Teaching Through Art Research Project
- Research team: Dr. Joyce Zazulak, Nicole Knibb (Senior Education Officer) Lorrie Gallant (Haudenosaunee art and history educator), and Dr. Amy Montour (physician DFM Grand Erie Six Nations Brantford site), and Laura Cleghorn (DFM researcher) to do qualitative analysis of focus group transcripts and publication writing to measure the effectiveness of the DFM ITTA program at Woodland Cultural Centre, ongoing.

McMaster iBiomed Program Project with Sean Park (academic supervisor) and iBioMed student Raymond Tolentino
- Submitted a research paper based on findings from the student workshop held at the M(M)A in February 2020 called Subject to Change as part of Health Engineering, Science and Entrepreneurship Specialization program https://www.eng.mcmaster.ca/ibiomed/programs/degree-options/bhsc-hons/health-engineering-science-and-entrepreneurship-hese

Academic Supervision
Health Sciences Inquiry 3H06
- HTH SCI student Gurinder Multani's investigation into the effectiveness of the virtual Art of Seeing for McMaster Department of Family Medicine residents in 2020 on physicians' ability to provide virtual care

Volunteers and Co-op Students
Donna Nadeem, Julianna Biernacki, Jill Letten: Slow Art Day April 2021 https://www.youtube.com/watch?v=eNmBBPfoavA&t=1353s

Education Officer Programs
Lead, in-gallery and online museum tours and programs for preschool, elementary, secondary schools, and community groups.

In-school Programs for elementary and secondary schools and the general public (pivoted to virtual programming 2020).

NEW PROGRAMS CREATED 2020-2021
- Math Programs (elementary)
- Identity Program (elementary)
- Indigenous Art and Connection to Land (children-adults)
- Map Making (high school SHSM)
- "Queer Utopias" 2SLGBTQ+ workshop
- Gender x Art x Expression
- Memes (adults)
- McMaster "Rejuventated" Alumni event: benefits of sketchbook

NEW Programs being built IN PROGRESS
- remix program with stylo starr
- Connection with Pathways to Education https://compassch.org/programs-services/pathways-to-education
- Creative Process (launched September 2021)

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Appendix Six: Education Programs

» Asynchronous architecture tour

Partnerships and Programs Delivered
» Hess Street Elementary School (HWDSB) Partnership Program
» Office of Community Engagement Access Grant: High Priority School specialized program over the course of the academic year
» Offered annually, moving to virtual offering from 2020-2021
» News Story: https://museum.mcmaster.ca/about/news/hess/

Westdale Secondary School (HWDSB)
» Ongoing partnership in support of their Specialist High Skills Major in the Arts
» Behind the scenes tours, workshops, and entrepreneurship programs
» Annual Art Battle and exhibition

Specialist High Skills Major (SHSM) Program in GEDSB, HWDSB
» Specialist programs for the Arts & Culture and Geography streams for secondary school students

Sketching Thursdays
» In-gallery weekly drop-in drawing program hosted by McMaster Fine Art students
» Moved to online offering in September 2020
» Developed into full year course Sept 2020-August 2021

Hamilton YMCA Youth Connections
» Monthly tours promoting communication and self-discovery for youth seeking employment
» Winner of Impact & Innovation Award 2020 from First Work, Ontario Youth Employment Network

McMaster University Sexual Violence Prevention and Reporting Office,
Gender x Art x Expression Program 2021
Gender x Art x Expression explores work by artists who are engaged in questions and ideas around gender. This multi-week asynchronous program is hosted on Avenue to Learn and considers questions such as "How do we embody femininity and masculinity at the same time?" and "How are we pushed into the binary "man box" or "woman box" by others or ourselves?" Through guided looking, visual literacy, personal reflection, and art-making activities. This program is presented in collaboration between The Sexual Violence Prevention and Response Office and the McMaster Museum of Art, February 22 - March 19, 2021.

McMaster Engineering Welcome Week Art Attack Event 2020
» Three nights of digital programming, virtual sketching workshop, custom built

2SLGBTQ Workshop: Imagining a Queer Utopia
» Museum collections-based program with collage/digital collage making
» Consultation and discussion co-facilitated by McMaster Alumnus Kunal Tandan

McMaster Employee Health and Well-Being ongoing programs; Healthy Workplace committee
» Architecture and Sculpture Walking Tours of Campus
» Sketching Thursdays

Program breakdown: numbers
» Sketching (Welcome Week custom-built program) (1)
» Sketching Thursdays (a full year of weekly programs built from Sept 2020-August 2021)

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Appendix Six: Education Programs

- Hess Street: Introduction to sketching and looking at art (3)
- Indigenous Art and Connection to Land (15)
- Identity and Art (9)
- Math and Art: Pattern (NEW) (2)
- Math and Art: Transformations (NEW) (3)
- SHSM Mapmaking (6)
- Music and Art (4)
- Printmaking (1)
- TOKTWD custom-built program on looking at art and sketching (1)
- Westdale ICE (new program built yearly in collaboration with Westdale teachers) (2)
- Arts Matters: custom-built Meme program (1)
- Museum 101 program (1)
- McMaster "Rejuvenated" Alumni event: benefits of sketchbook (1)
- Archway Arts Coffeehouse: introduction to the Museum (1)

GROUPS

McMaster Groups

- McMaster Engineering Welcome Week Committee Online Orientation Event
- Drawing Conclusions 12 (online, asynchronous and synchronous)
- Sketching Thursdays Online (asynchronous and synchronous)
- Take our Kids to Work Day (online, synchronous)
- 2SLGBTQ+ Grad Students event (online, synchronous)
- Gender x Art x Expression Collab with SVPRO (online, asynchronous)
- Archway Arts Coffee House
- McMaster Humanities Society Arts Matters (Meme program, online, synchronous)
- McMaster "Rejuvenated" Alumni event (online, synchronous)
- McMaster INSPIRE 3EL3: Caribbean Diaspora
- McMaster Communication Studies and Multimedia
- Drawing Conclusions (online, synchronous)
- McMaster Alumni tour of "remix" (online, synchronous)

Community Groups

- Slow Art Day (online, synchronous)
- Hamilton Arts Week tour of "remix" (online, synchronous)
- Les Petites Pommes March Break Camp (online, synchronous)
- Les Petites Pommes Summer Camp (in person, outdoors)

School Groups

- Hess Street Program (Lorraine Cooper, Nick Berrafati, Denise Montgomery, Jacqueline Strecker, Rachel Opie)
- Highview School (HWDSB)
- Viscount Montgomery (HWDSB)
- Dundas Central (HWDSB)
- HWDSB remote classroom (across the board)
- Westdale ICE program (HWDSB)
- HWDSB SHSM (across the board)
- GECDSB SHSM (across the board)
- Hillcrest (HWDSB)

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Appendix Six: Education Programs

Professional development

- Masters of Museum Education, University of British Columbia (in progress, Sept 2020, estimated completion in Dec 2022)
- Suite of Accessibility Standards courses through McMaster Accessibility
- MacPherson Institute Partnered in Teaching and Learning: Shared Experience series (throughout the year)
- Cuseum webinars
- CAGE Speaker Series, Autumn 2020 and Spring 2021
- Speaking Presentation to AGH Docents, Online School Programs, November 2020
- Feminism, Decolonization, & the work of History, Dr. Adele Perry, Distinguished Professor, Director of the Centre for Human Rights Research, University of Manitoba, November 2020
- Centre Turbine Study Day: Art and Current Pedagogies http://centreturbine.org/sites/centreturbine.org/files/program_study_day.pdf, November 2020
- Inaugural Indigenous Digital Delegation at MIT, Elder Dr. Duke Redbird (Ojibway) will present a keynote talk titled "Dish with One Spoon", November 2020
- Future Digital Possibilities CINE partners Reflections & Experiences On community co-production, serious gaming in heritage, managing data, curating digital content, climate change, November 2020
- Constructivism – the good; the bad; and the abhorrent?, Dr. Keith S. Taber | Emeritus Professor of Science Education, University of Cambridge, December 2020
- Museums and the Web conference, Spring 2021
- Showcase of the Arts event HWDSB, February 2021
- Hammer Museum: Reimagining the Museum: Community, Collaboration & Radical Inclusion, March 2021
- Facing History and Ourselves: Racism as Reality in Public Education: The Past Collides with the Present, with Ontario Black History Society president Natasha Henry, April 2021
- Gathering Divergence Multi-Arts Festival, May 2021
- Summer Solstice Star Knowledge Seminar, Ingenium, Star knowledge from Africa and Rapanui, June 2021
- Pathways to Education Forum, June 2021
- Visitor Studies Association conference, July 2021
- Museum Next XR Summit, July 2021
- Six Nations Polytechnic microlearning course: Voices of Haudenosaunee Women, November 2021

Professional Community Involvement
Hamilton-Area Museum Educators (HME)
Teresa Gregorio, Coordinator

Canadian Art Gallery Educator (CAGE)
Nicole Knibb, Member at Large
Teresa Gregorio, Social Media & Blog

University Art Gallery Academic Engagement Group (Queen's University Agnes Etherington Art Centre initiative)

Carlton University Art Gallery interview re: COVID era museum education (summer 2021)

NEW Digital Program
Creative Process: Well-being through art with the McMaster Museum of Art (launched Sept 2021)

Annual Programming

- Hamilton Winterfest

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Appendix Six: Education Programs

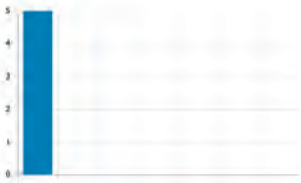
- Alumni Day
- Hamilton Arts Week
- McMaster Welcome Week
- Culture Days
- Take Our Kids to Work Day
- March Break Camps
- Summer Camps
- Slow Art Day
- MMA participated in the Okanagan Charter1 and McMaster-wide Accessibility Report

Online Program Feedback

1. How likely are you to recommend this program to a colleague?

More Details

Very likely	5
Likely	0
Neither likely nor unlikely	0
Unlikely	0
Very unlikely	0
Somewhat likely	0
Somewhat unlikely	0



2. What was the best thing your students got from this program?

5 Responses

ID↑	Name	Responses
1	anonymous	A new way to think about looking at artwork. A chance to share their ideas about art with their peers and inspiration to start their own art activity.
2	anonymous	The ability to think critically about indigenous art and make strong connections to music
3	anonymous	Engaging in learning with an expert and being challenged to think outside the box
4	anonymous	Everything.
		Almost felt like we were out of the classroom for this experience.

3. What could be changed about the program to better suit your needs?

5 Responses

ID↑	Name	Responses
1	anonymous	Nothing, I loved it!
2	anonymous	The ability to see the Art in person - but under the current pandemic conditions it just isn't possible.
3	anonymous	Of course, it would be better if the program were in person
4	anonymous	More historical information.
5	anonymous	Possibly share some installation shots and final exhibition shots to aid in the description of the process of curating and installing an exhibition.

4. Anything else you'd like to add?

5 Responses

ID↑	Name	Responses
1	anonymous	Teresa was absolutely great! She shared the information in a way that engaged the class and they loved her. Many of my students are looking forward to completing their own art and sharing it with Teresa. I'd gladly have her come back any day.
2	anonymous	The program exceeded my expectations! My students very much enjoyed the experience
3	anonymous	Thank you for providing this wonderful opportunity to our students!
4	anonymous	Nope.
5	anonymous	Overall, an excellent experience. Both the gr. 11 and the gr. 12 students appreciated the experience and are now really hoping to be able to travel and physically attend a gallery/museum sometime soon. thank you... karen

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TOUR ATTENDANCE, SEPTEMBER 2020 - AUGUST 2021		
September 2020		
Date	**Organization**	**Visitors**
September 1	McMaster Engineering Welcome Week Committee Online Orientation Event	20
September 2	McMaster Engineering Welcome Week Committee Online Orientation Event	25
September 3	Sketching Thursdays ONLINE	15
September 9	McMaster Department of Family Medicine Health Sciences Education Graduate Program Art of Seeing	30
September 10	Sketching Thursdays ONLINE	15
September 17	Drawing Conclusions 12 (DC12)	25
September 17	Sketching Thursdays ONLINE	15
September 22	McMaster Nursing Research Grad Class	5
September 24	Drawing Conclusions 12 (DC12)	25
September 24	Sketching Thursdays ONLINE	15
Total Monthly Visitors		**190**
October 2020		
Date	**Organization**	**Visitors**
October 1	Drawing Conclusions 12 (DC12)	25
October 1	Sketching Thursdays ONLINE	15
October 8	Drawing Conclusions 12 (DC12)	25
October 8	Sketching Thursdays ONLINE	13
October 21	Art of Seeing Residents' Program	15
October 22	Hess Street School Program	22
October 22	Hess Street School Program	22
October 22	Drawing Conclusions 12 (DC12)	25
October 22	Sketching Thursdays ONLINE	13
October 26	Highview School (HWDSB)	26

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October 26	Highview School (HWDSB)	26
October 28	Art of Seeing Residents' Program	15
October 29	Drawing Conclusions 12 (DC12)	25
October 29	Sketching Thursdays ONLINE	13
Total Monthly Visitors		**280**
November 2020		
Date	**Organization**	**Visitors**
November 4	McMaster Take Our Kids to Work Day	7
November 4	Art of Seeing Residents' Program	15
November 5	Sketching Thursdays ONLINE	11
November 11	Art of Seeing Residents' Program	15
November 12	Drawing Conclusions 12 (DC12)	25
November 12	Sketching Thursdays ONLINE	10
November 13	Viscount Montgomery grade 6 Identity and Art	25
November 19	McMaster CCE Learning for 55+ ONLINE	6
November 19	Drawing Conclusions 12 (DC12)	25
November 19	Sketching Thursdays ONLINE	10
November 23	Dundas Central; Land Program lesson one	22
November 23	HWDSB remote classroom (home school Dundas Central)	25
November 23	McMaster Midwifery Art of Seeing	50
November 13	Hess Street gr 6/7	22
November 24	Dundas Central; Land Program lesson two	22
November 26	Dundas Central; Land Program lesson three	22
November 26	McMaster CCE Learning for 55+ ONLINE	6
November 26	Drawing Conclusions 12 (DC12)	25

Appendix Six: Education Programs

November 26	Sketching Thursdays ONLINE	10
Total Monthly Visitors		**353**
December 2020		
Date	**Organization**	**Visitors**
December 1	McMaster School of Medicine 1st Year Professional Competencies Course	10
December 3	McMaster CCE Learning for 55+ ONLINE	6
December 3	Drawing Conclusions 12 (DC12)	25
December 3	Sketching Thursdays ONLINE	8
December 9	Westdale ICE pitch	25
December 9	2SLGBTQ+ Grad Students event	15
December 10	Drawing Conclusions 12 (DC12)	25
December 10	Sketching Thursdays ONLINE	8
December 11	Identity and Art program; Hess street grade 5/6	20
December 15	NEW Math program; Hess Street gr 5/6	20
Total Monthly Visitors		**162**
January 2021		
Date	**Organization**	**Visitors**
Jan 7	Sketching Thursdays	
Jan 12	HWDSB SHSM; Indigenous Art and Connection to Land	20
Jan 13	HWDSB SHSM; Indigenous Art and Connection to Land	20
Jan 14	Sketching Thursdays	
Jan 21	Sketching Thursdays	5
Jan 28	Sketching Thursdays	5
Total Monthly Visitors		**50**

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February 2021		
Date	**Organization**	**Visitors**
February 1	Winterfest	20
February 4	Sketching Thursdays	
February 11	Sketching Thursdays	
February 16	HWDSB SHSM Map Making	25
February 17	Art of Seeing CE Strat Leaders Program	25
February 22	Gender x Art x Expression Collab with SVPRO	3
February 23	HWDSB SHSM Map Making; Geography teachers INTERDISCIPLINARY STUDIES IDC4U1	70
February 23	GECDSB SHSM: Indigenous Art and Connection to Land	30
February 25	Sketching Thursdays	5
Total Monthly Visitors		**178**
March 2021		
Date	**Organization**	**Visitors**
March 1	Gender x Art x Expression Collab with SVPRO	3
March 2	GECDSB SHSM: Indigenous Art and Connection to Land	30
March 4	Sketching Thursdays	5
March 5	Archway Arts Coffee House	50
March 8	Gender x Art x Expression Collab with SVPRO	3
March 9	Arts Matters	5
March 11	Sketching Thursdays	5
March 11	McMaster Health Leaders Academy Shift Program Design+Futures workshop	47
March 12	GECDSB SHSM: Indigenous Art and Connection to Land	20
March 12	GECDSB SHSM: Indigenous Art and Connection to Land	25

Appendix Six: Education Programs

March 15	Gender x Art x Expression Collab with SVPRO	3
March 18	Sketching Thursdays	
March 25	Sketching Thursdays	3
March 26	Hess Street School HWDSB gr 5/6	25
Total Monthly Visitors		**224**
April 2021		
Date	**Organization**	**Visitors**
Apr 1	Sketching Thursdays	3
Apr 8	Sketching Thursdays: NOTE: from this point forward to Dec 2021, Sketching Thursday is entirely asyncrhonous on Avenue to Learn	3
April 10	Slow Art Day	10
April 13	Les Petites Pommes	25
April 14	Les Petites Pommes	25
April 15	"Rejuvenated" program with Alumni	150
Total Monthly Visitors		**216**
May 2021		
Date	**Organization**	**Visitors**
May 6	Sketching Thursdays	3
May 8	Art of Seeing for the Emerging Health Leaders Program, McMaster Health Leaders Academy	37
May 13	Sketching Thursdays	3
May 18	HWDSB SHSM art class Map Making	22
May 19	HWDSB SHSM Indigenous Art and Connection to Land	15
May 20	Sketching Thursdays	
May 25	HWDSB Dundas Central grade 6	24
May 25	HWDSB SHSM art class Map Making	22

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May 25	McMaster INSPIRE 3EL3: Carribbean Diaspora	9
May 26	Hess Street gr 5/6	23
May 27	Hillcrest gr 7/8 Math and Transformations	25
May 27	Sketching Thursdays	3
May 28	HWDSB Westdale, gr 11	24
May 31	HWDSB Westdale, gr 11	24
Total Monthly Visitors		**234**
June 2021		
Date	**Organization**	**Visitors**
June 3	McMaster Communication Studies and Multimedia	40
June 3	Sketching Thursdays	3
June 9	Hamilton Arts Week	5
June 9	Drawing Conclusions	15
June 16	Drawing Conclusions	15
June 23	Drawing Conclusions	15
June 30	Drawing Conclusions	15
Total Monthly Visitors		**108**
July 2021		
Date	**Organization**	**Visitors**
July 7	McMaster Alumni tour of remix	85
Total Monthly Visitors		**85**
August 2021		
Date	**Organization**	**Visitors**
Aug 3	Les Petites Pommes	35
Aug 10	Les Petites Pommes	33

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Appendix Six: Education Programs

Aug 21	Art of Seeing workshop for McMaster health Leaders Academy Emerging Health Leaders Program	27
Aug 24	Les Petites Pommes	35
Aug 31	Les Petites Pommes	35
Total Monthly Visitors		**165**

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Appendix Seven: Communications Report

Communications Summary

- M(M)A's website/digital engagement remained strong throughout the year, despite the physical museum being closed for the noted period
- In response to the virtual environment, there was an effort to increase and broaden our social media presence. This resulted in:
  - 35% increase in followers on Instagram
  - 10% increase in views on our YouTube channel
- In terms of media, there were a range of publications throughout the year, the most significant being a comprehensive and thoughtful 20-page print spread of the remix exhibition in Pitch Magazine, a Black arts & culture publication
- The MMA also formed relationships with new media including collage focused publication Kolaj magazine and Indigenous publication Muskrat magazine
- A new website and digital brand identity were launched in spring 2021 – more accurately representing the museum's commitment to digital innovation, open dialogue and collaboration. The new brand has been very well received both by industry peers and in the arts & the design industries, receiving positive reviews by respected design publications including Applied Arts Magazine, The Brand Identity, and esntial design

Awards

- Hamilton Spectator Readers' Choice Awards
  - Best Art Gallery (Platinum)
  - Best Museum (Shortlist - Top 10)
- Also of note: stylo starr, curator of *the cut, the tear & the remix: contemporary collage and Black futures* and participant in the BIPOC Curatorial Mentorship program at the MMA won a Creator Award from the Hamilton Arts Awards in June 2021

Website

- museum.mcmaster.ca
  - New website launched in April 2021
  - Reviewed in: The Brand Idenitity, Applied Arts Magazine, esntial design
  - 37 707 page views by 13 000 + users
  - 29 514 unique page views
  - Important to note that our engagement on our homepage compared to last year increased by over 7%

Page	Pageviews	% Pageviews
/		
Sep 1, 2020 - Aug 31, 2021	10,204	27.06%
Sep 2, 2019 - Aug 31, 2020	9,474	23.96%
% Change	7.71%	12.93%

Appendix Seven: Communications Report

- A decrease in pageviews is notable on the current and upcoming exhibitions page, which can be attributed to 1) exhibitions now appearing on the homepage – ie users do not need to click through several pages to find important exhibition information and 2) we had fewer exhibitions in the noted time period due to the physical museum being closed

- emuseum.mcmaster.ca
  - 17 890 page views
  - 15 794 unique users

Email/Newsletter

- 1771 subscribers (287 new)
  - Bi-monthly e-newsletter engagement remains strong - open rate averages above 30%
  - New look for e-newsletter was introduced in spring 2021 and received positive response

Social Media

Summary

- Objective: Enhance the MMA's public presence, engagement and relationship with: the McMaster community, the arts community (local, national, international), and the general public
- Frequency: Social media feeds are updated regularly: at least 3x week on Instagram, with daily posts on Instagram stories, 3x week on Facebook, and 2-5x week on Twitter
- Content: Exhibitions, education, collection, industry/community
- Demographics: Predominantly female audience across all platforms (over 70%), 25-45 years of age

YouTube

- 16 025 views (increase of 10%)
- 76 new subscribers – 391 total
- 30 new videos published (including SUMMA artist talks)

Instagram

- 3 040 followers (increase of 35%)

Twitter

- 3 376 followers

Facebook

- 2 685 followers

Other

- Walking Tour of McMaster Campus Sculpture
- 413 views
- Noted: significant decrease in # of people on campus

Geocache

- Nearly 100 Art Adventure Geocoins were launched in 2011. Each coin is named for an artist in McMaster's collection and tasked with a mission: to travel to the birthplace of the artist (or the equivalent distance) and then return home to McMaster
- 7 Geocoins are still circulating in 2020/2021
- Approximately 50 logged visits over this period (580 logged visits in lifetime)

Media

Print & digital articles about McMaster exhibitions, programs, and activities appeared in: AGO Insider, Akimbo, Applied Arts Magazine, Beyond James, CFMU 99.3. Education News Canada, Hamilton Spectator, Incite Magazine, Kolaj Magazine. McMaster Daily News, Muskrat Magazine, PITCH magazine, The Silhouette, Tourism Hamilton, Urbanicity Hamilton

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Appendix Eight: Media Summary

IN THE NEWS - McMaster Museum of Art

Prevec, Rose Anne. "BFA Students present their art in virtual graduation exhibition" *DailyNews* (online). September 10, 2020. https://dailynews.mcmaster.ca/articles/bfa-students-present-their-art-in-virtual-graduation-exhibition/

"Prefix ICA Introduces the Prefix Prize" *Akimbo* (online – PE mention). September 23, 2020. https://akimbo.ca/listings/prefix-ica-introduces-the-prefix-prize/

Park, Subin. "Navigating through the virtual world Unguarded" *The Silhouette* (online). September 24, 2020. https://www.thesil.ca/navigating-through-the-virtual-world-unguarded

"Museum launches curatorial mentorship program for BIPOC leadership" *DailyNews* (online). October 7, 2020. https://dailynews.mcmaster.ca/articles/museum-launches-curatorial-mentorship-program-for-bipoc-leadership/

Kras, Michael. "A new large-scale piece of public art is now up on James North" *Urbanicity* (online – Supercrawl). October 30, 2020. https://urbanicity.com/hamilton/city/2020/10/a-new-large-scale-piece-of-public-art-is-now-up-on-james-north/

"A guide to Hamilton street art" *Tourism Hamilton* (online – Supercrawl). November 20, 2020. https://tourismhamilton.com/street-art-guide

"the cut, the tear & the remix: contemporary collage & Black futures" *Pitch Magazine* (Print). Issue 3, Pages 39-80. April 2021.

"the cut, the tear & the remix: contemporary collage & Black futures" *Incite Magazine* (e-newsletter). April 16, 2021.

"McMaster Museum of Art by Underline Studio" *esntial design* (online). April 2020. https://esntial.design/feed/mc-master-museum-of-art-by-underline-studio

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Laux, Sara. "How to be good guests on stolen land" *DailyNews* (online – mention). May 11, 2021. https://dailynews.mcmaster.ca/articles/how-to-be-good-guests-on-stolen-land/

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McMaster University | Museum of Art

Appendix Eight: Media Summary

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McMaster University | Museum of Art

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REPORT TO THE BOARD OF GOVERNORS
from the
PLANNING AND RESOURCES COMMITTEE

At its meeting on February 17, 2022, the Planning and Resources Committee received for information and approved for recommendation to the Board of the Directors:

i. Sustainability Strategy (Information)

ii. Salaried Pension Plans Actuarial Evaluations (Approval)

It is now recommended,

That the Board of Governors approve the results of the Actuarial Valuation for Funding Purposes as at July 1, 2021 for the Contributory Pension Plan for Salaried Employees of McMaster University Including McMaster Divinity College (Plan 2000) and the Actuarial Valuation for Funding Purposes as at July 1, 2021 for the Contributory Pension Plan for Salaried Employees of McMaster University Including McMaster Divinity College (Original Plan) and be filed with the Financial Services Regulatory Authority of Ontario and the Canada Revenue Agency.

Board of Governors: FOR INFORMATION/APPROVAL
March 3, 2022

McMaster's Sustainability Strategy

FOCUSED ON A
BRIGHTER WORLD

A Living Laboratory for Sustainability: 2022 | 26

McMaster University

This page: *McMaster campus foliage in the summer.*
Front cover: *Adding bamboo to the one of the many solitary bee homes on campus. Solitary bees use the bamboo to lay their eggs.*

Table of Contents:

Land Acknowledgement:

McMaster University recognizes and acknowledges that it is located on the traditional territories of the Mississauga and Haudenosaunee nations, and within the lands protected by the Dish With One Spoon wampum agreement.

President's Letter

Transforming McMaster's campus into a **living laboratory for sustainability, accessibility, and inclusion** is a university priority.

This was clear from the many discussions I engaged in to develop McMaster's institutional priorities and strategic framework in 2020.

To lead by example and respond to our community, McMaster is determined to address some of the most pressing challenges facing our planet, including those concerning sustainability in all its forms.

McMaster's first university-wide Sustainability Strategy aligns with our vision to advance human and societal health and well-being. To develop this strategy, we engaged our community, asking them to provide input and feedback on how we can become a living laboratory for sustainability.

The four strategic drivers in McMaster's Sustainability Strategy were developed via cross-campus collaboration in light of McMaster's responsibility to address the **United Nation's Sustainable Development Goals (UN SDGs)** across disciplines, faculties and units. The strategy includes ways to build a culture of sustainability and create a more self-sustaining campus. This strategy focuses on carbon reduction, energy and waste management, with the ultimate goal of being a carbon free campus. Sustainability-centred research and learning opportunities are integral to this strategy's success.

In the coming years, there will be lot of work to do together to ensure this strategy comes fully to life. Part of this involves strengthening existing ties and developing new relationships.

Listening to the voices of our community helped us develop principles to guide this strategy, and these include looking through a lens of Indigeneity, and focuses on equity, diversity, accessibility, and inclusion in our sustainability efforts. We must strive to collaborate across our university, continue to listen and seek feedback, and set ambitious, time-bound goals. We will measure our progress and share it with our community. This is our collective commitment.

David Farrar
President and Vice-Chancellor

David Farrar, President and Vice-Chancellor at McMaster University.

Sustainability Strategy Development Timeline

Summer 2021

Engagement begins

The Office of Sustainability held interviews with 130 McMaster community members, conducted over 89 engagement meetings with student groups, faculty members and staff. In alignment with the President's Strategic Priorities Framework, feedback was provided on how McMaster can transform into a living laboratory for sustainability.

Fall 2021

Call to shape the sustainability strategy

A digital survey was shared with the McMaster community, including all students, faculty members and staff. The survey sought to clarify potential elements of the strategy based on the feedback from the previously held interviews. Over 2600 responses came in.

Test and reflect

All information collected is distilled into strategic drivers and themes. Students, faculty members, and staff participate in focus groups to test, explore, and revise the strategy. Feedback is incorporated and the strategy takes shape.

Winter 2022

Stamp of approval

Review by McMaster University leadership and Board of Governors.

Spring 2022

Strategy Launch

McMaster's inaugural, university-wide Sustainability Strategy is shared with the community.

2022 to 2026

... and Beyond

Some of the strategic drivers will include themes where goals could be set and achieved in the time period of this strategy. Others will require continuous effort moving forward. Future timelines will be shaped and shared in upcoming annual sustainability reports.

McMaster's campus has 200 plus water stations on campus, diverting over 20 million plastic bottles from landfill.

Survey Results

A digital survey was developed by the Office of Sustainability and coordinated with the Office of Institutional Research and Analysis. The survey collected the experiences and opinions of the university community with respect to McMaster's sustainability efforts to help inform McMaster's inaugural Sustainability Strategy.

The survey was administered from October 14th, 2021 to November 8th, 2021 and it was directed to students, faculty members and staff at the university. The collective number of completed surveys was over 2,600.

The results showed that students, faculty and staff care strongly about sustainability issues, with most respondents indicating that they would like to be more involved with sustainability efforts and initiatives on campus. Students felt less aware of sustainability activities both on and off campus, as well as sustainability-focused research on campus.

The survey measured awareness about academic and non-academic sustainability activity at McMaster. Students indicated that they are more aware of sustainability-focused academic courses and less aware of non-academic sustainability activity on campus and sustainability-centred research. Faculty members and staff indicated that they are generally aware of sustainability activities that are academic, research or campus related.

A general theme for barriers to full participation in sustainability efforts at McMaster was not knowing enough about these activities, not having enough time or resources to participate, or being unsure who to contact to get involved.

Overall, the survey results indicated that the top drivers of sustainability are:

- ★ Sustainable infrastructure, energy, and water
- ★ Waste management
- ★ Community engagement
- ★ Biodiversity maintenance and protection
- ★ Responsible investing (such as decarbonization, divestment and alignment with UN SDGs)

Students, faculty, and staff members were aligned in their selection of top drivers for a sustainable campus.

The sustainability strategic drivers that survey respondents indicated are of most significance are indicated in this report with a star symbol.

A Living Laboratory for Sustainability

These guiding principles are the foundation of our strategy and will be interwoven throughout the strategic drivers.
The icons on this page will act as a visual reminder of the guiding principles and appears on every page describing the drivers.

GUIDING PRINCIPLES

In the summer of 2021, engagement sessions took place with various student, faculty, and staff from across the campus community and from this a set of principles to help guide the strategy were developed.

In an open survey, the majority of students, faculty and staff who responded agreed with the proposed guiding principles.

The following principles will guide us as we transform our campus into a living laboratory for sustainability:

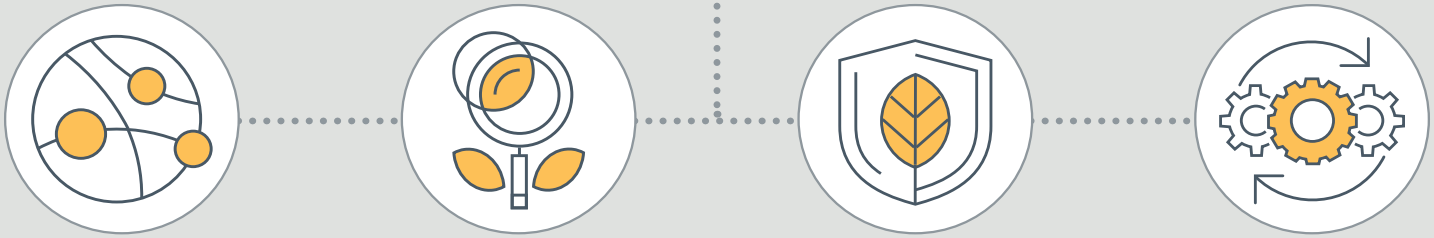
- We look through a lens of Indigeneity in our sustainability efforts
- We focus on equity, diversity, accessibility, and inclusion in our sustainability efforts
- We see sustainability work as a collaborative, evolving effort
- We strive for innovative solutions tailored to our community
- We share and recognize our sustainability progress and achievements across our community

McMaster's Sustainability Strategy 2022-2026:

A LIVING LABORATORY FOR SUSTAINABILITY

GUIDING PRINCIPLES

SUSTAINABILITY STRATEGY



STRATEGIC DRIVER 1:
Culture Focused on Sustainability

STRATEGIC DRIVER 2:
Teaching, Learning and Research

STRATEGIC DRIVER 3:
Self-Sustaining Campus and Sites

STRATEGIC DRIVER 4:
Operational Excellence

STRATEGIC DRIVER 1:

Culture Focused on Sustainability

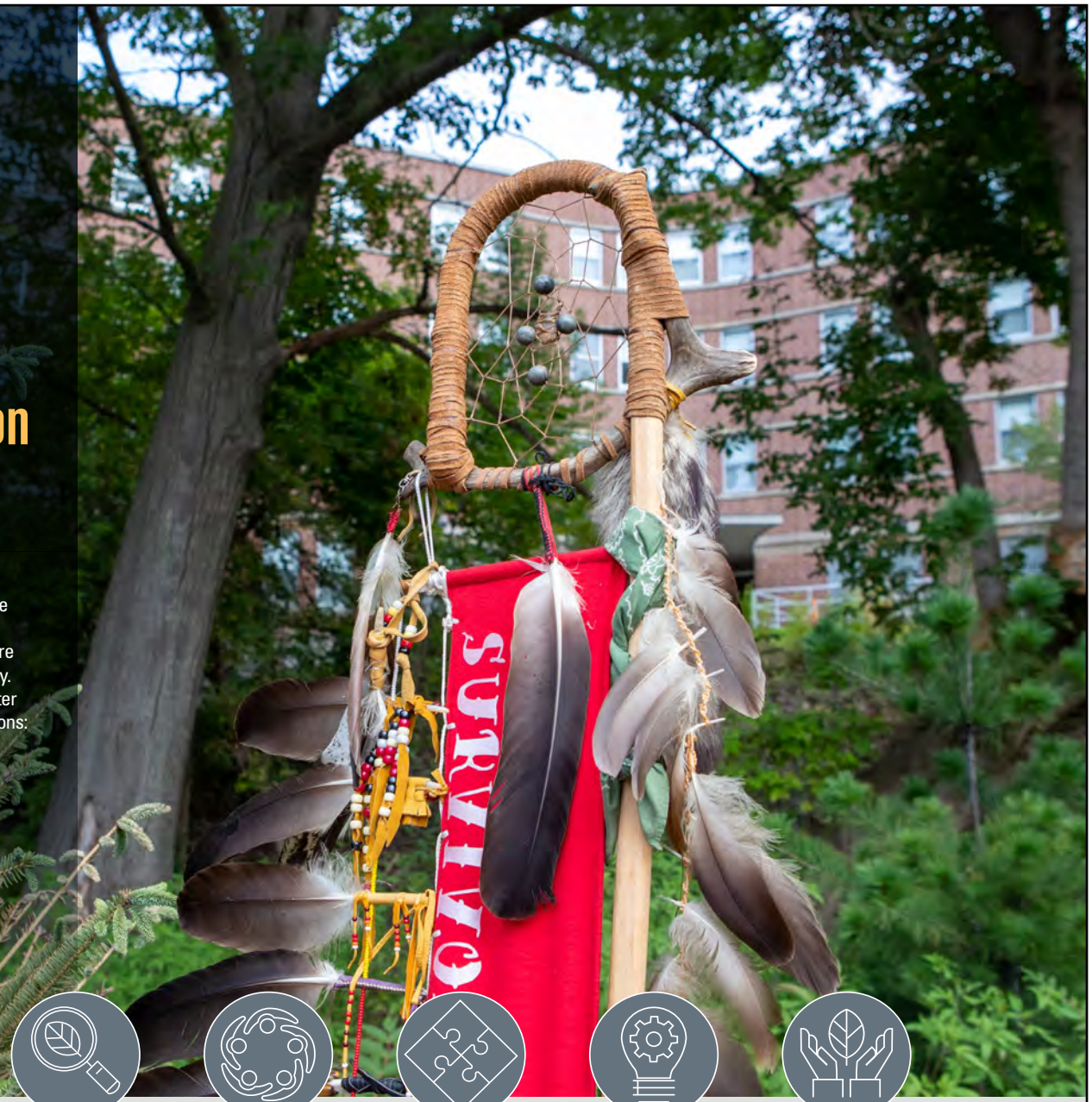
An abundance of initiatives are already occurring across McMaster by students, faculty members, and employees to promote sustainability. McMaster plans to grow its commitment to collaborating across the entire campus to promote a culture of sustainability. With feedback from the community, McMaster identified the following areas to focus our actions:

Leadership and Vision

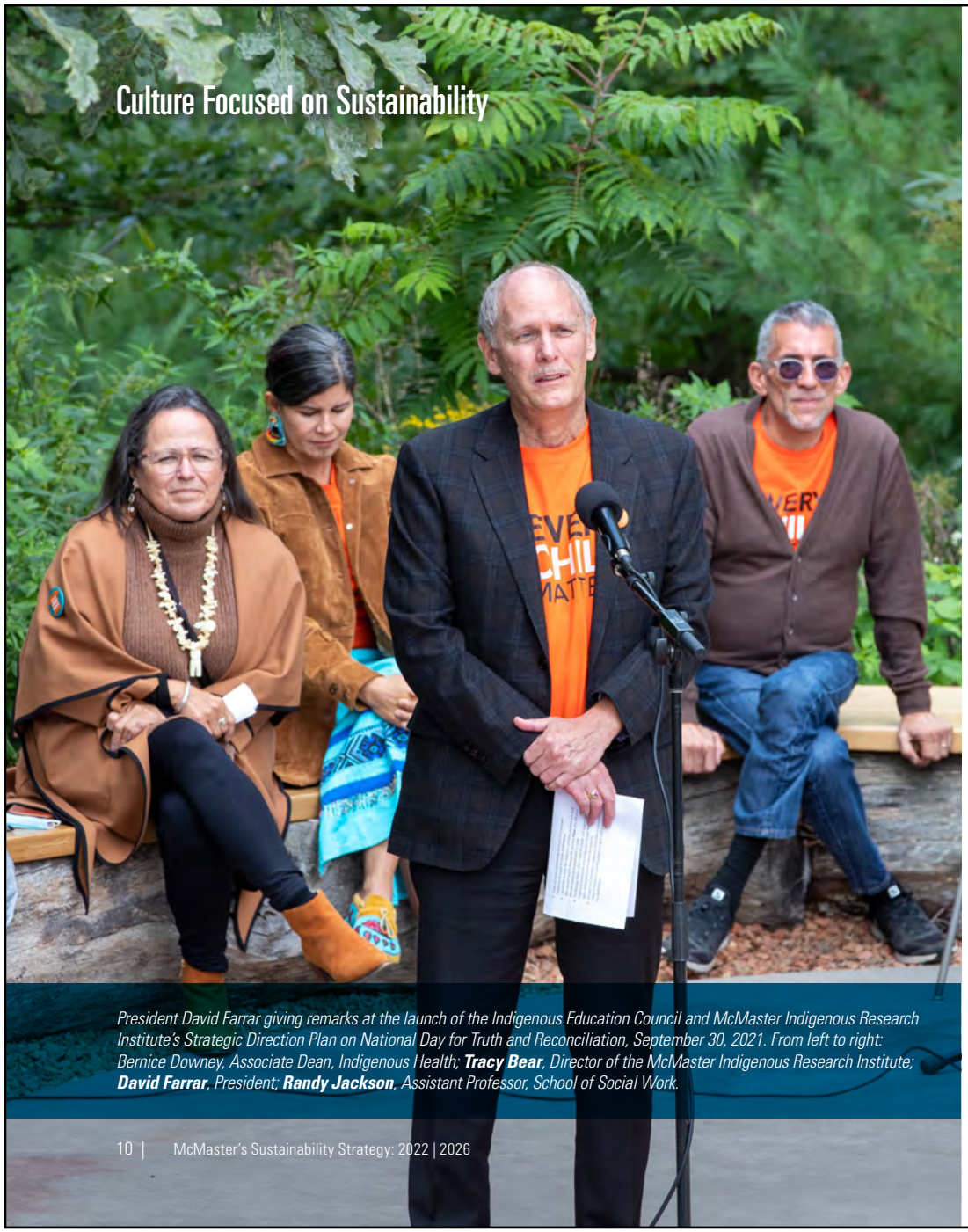
Communications

Strategic Partnership and Continued Engagement

Learning and Development



Culture Focused on Sustainability



President David Farrar giving remarks at the launch of the Indigenous Education Council and McMaster Indigenous Research Institute's Strategic Direction Plan on National Day for Truth and Reconciliation, September 30, 2021. From left to right: Bernice Downey, Associate Dean, Indigenous Health; ***Tracy Bear****, Director of the McMaster Indigenous Research Institute;* ***David Farrar****, President;* ***Randy Jackson****, Assistant Professor, School of Social Work.*

Leadership and Vision

McMaster's leaders have prioritized sustainability. Their vision, support, and partnership are a key element to this strategy's success. As part of this McMaster will:

- Create strategic alignment pan university and develop clear action plans.
- Implement the strategy and recognize achievements.
- Be engaged in acting as sustainability stewards
- Align sustainability efforts with the Indigenous Strategic Directions.
- Encourage dialogue and action around sustainability, accessibility, and inclusion.
- Empower its community, including teams and individuals, to advance sustainability efforts to across the university. Resource the Office of Sustainability to facilitate this work.
- Establish and share qualitative metrics that align with this Sustainability Strategy.

Communications

McMaster's community identified that awareness impacts individual participation in sustainability efforts on campus. McMaster will increase awareness, promotion, and celebration of sustainability efforts by:

- Developing sustainability literacy and better defining what sustainability means to McMaster.
- Creating active communication networks focused on sustainability across the university.
- Sharing sustainability-related policies and standards across the university.
- Continuing to produce an annual sustainability report sharing this strategy's progress.

Culture Focused on Sustainability

CityLAB Semester in Residence (SIR) is a unique community engagement program for students to collaborate on strategic initiatives with staff from the City of Hamilton and community partners to achieve tangible, real-world results.

Strategic Partnership and Continued Engagement

To create a living laboratory for sustainability, the university's community members will need to collaborate in new and existing ways. As part of this, McMaster will:

- Expand and leverage partnerships in the community and across the university.
- Explore various models to engage our community and partners in our sustainability initiatives.
- Partner with students and include the student voice.
- Recognize Indigenous knowledges and the importance of Indigenous perspectives on sustainability efforts on campus.
- Continue to engage diverse communities in sustainability decision making.

Learning and Development

To create a culture of sustainability at the university, McMaster's community has asked for opportunities to learn more about adopting sustainability-minded practices. To provide this, McMaster will:

- Provide sustainability-focused professional development opportunities to staff and faculty members.
- Further develop McMaster Continuing Education offerings related to sustainability.
- Foster behavioural changes across the university that encourage a sustainability-minded lifestyle.

A MESSAGE FROM

Susan Tighe, Provost & Vice-President (Academic)

McMaster is ranked among the top 80 universities globally because of our dedication to collaborative, impactful research and world class teaching and learning.

McMaster's **Teaching and Learning Strategy** aligns with many aspects of our first university-wide Sustainability Strategy. Both reference the importance of partnering with students, interdisciplinary learning, leveraging digital environments, and inclusivity.

Transforming our campus into a living laboratory of sustainability is named explicitly in McMaster's strategic priorities. To take part in a living laboratory we must be open to new ideas, collaborative research, and experimentation. We must develop more meaningful connections between McMaster's academic community, researchers, and students with the university's operations, administration, and physical campus, as well as with neighbouring and surrounding communities.

This strategy is an opportunity for our research and learning communities to further collaborate and address challenges related to sustainability in all its forms, including climate change, the environment, societal health and well-being. Committing to this transformation will help position McMaster as a leader in sustainability and will make a real impact on our community and beyond.

STRATEGIC DRIVER 2:

Teaching, Learning and Research

McMaster researchers are working every day to tackle the most pressing challenges facing our communities and our planet. McMaster also depends on its students to be active partners in sustainability. McMaster will support sustainable research, teaching, and learning in the following areas:

Sustainable Research

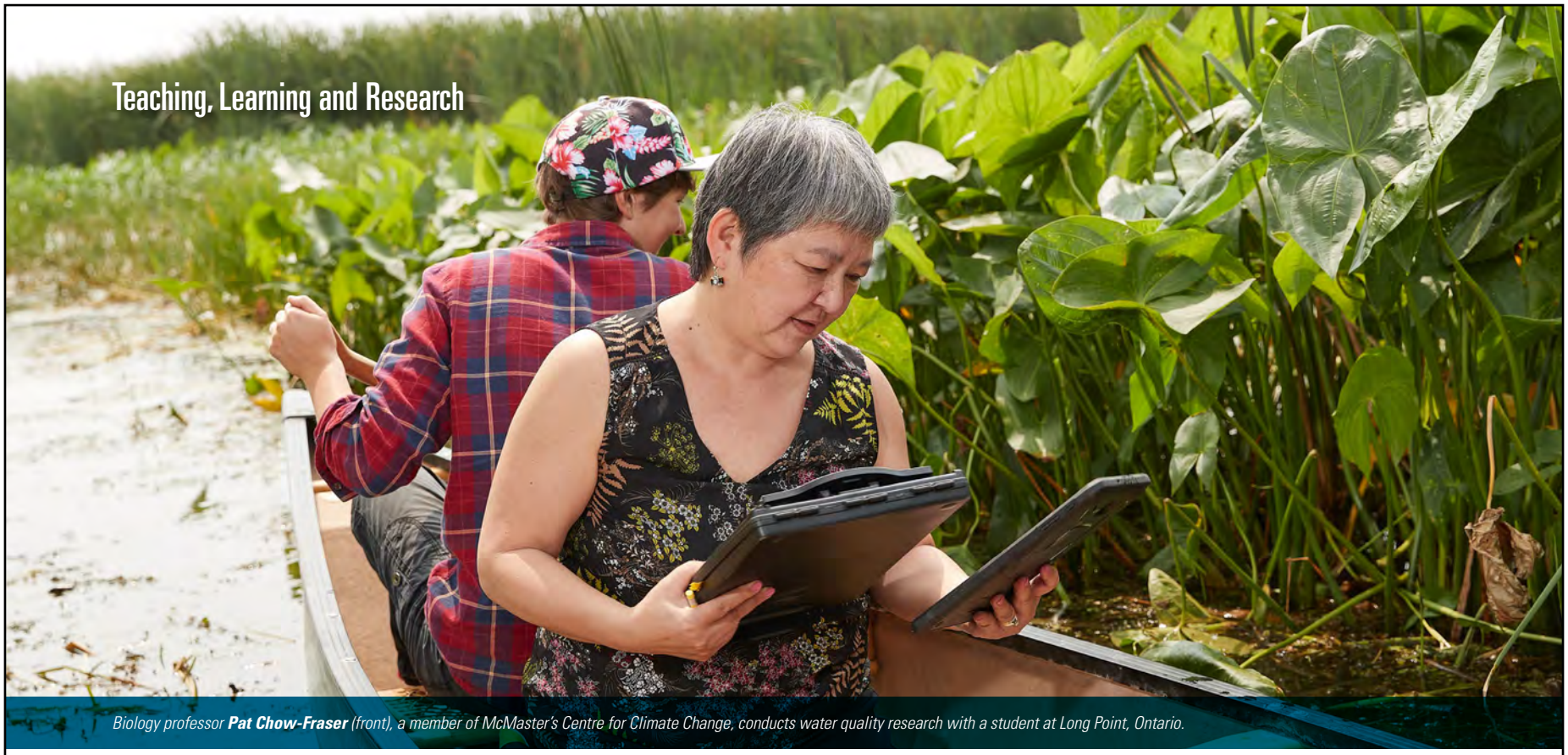
Interdisciplinary Learning

Campus as a Living Laboratory

Digital Learning and Environment

***Altaf Arain**, professor and director, McMaster Centre for Climate Change, established Turkey Point Observatory comprising for flux tower stations to examine the impacts of climate change and extreme weather events on forest ecosystems.*

Teaching, Learning and Research



*Biology professor **Pat Chow-Fraser** (front), a member of McMaster's Centre for Climate Change, conducts water quality research with a student at Long Point, Ontario.*

Sustainable Research

Research at McMaster will play an important role in addressing global and local sustainability challenges. Here are some of the ways McMaster's community, including students and faculty members, identified that sustainable research can be supported to have a positive impact:

- Provide more sustainability related research opportunities for students and faculty.
- Increase interdisciplinary networking and collaboration to tackle sustainability related challenges.
- Strengthen partnerships between the university's administration and academy on sustainability related research that informs operational decision-making.

Interdisciplinary Learning

McMaster is dedicated to enhancing its students' ability to drive real, sustainable change through experience-based and interdisciplinary learning. McMaster community members identified the following ways the university could provide the kind of learning opportunities that will inspire the sustainability leaders of tomorrow:

- Bolster and integrate curricular, co-curricular, and extra-curricular opportunities related to sustainability.
- Increase experiential learning that exists within the surrounding community.
- Build shared resources for experiential learning opportunities.

Teaching, Learning and Research

*Academic Sustainability Program students from the Solitary Bee Project and Facility Services leaders with five of the 75 bee homes installed on campus. From left: **Samara Hasan**, Science student; **Callum Hales**, Business student; **Debbie Martin**, Assistant Vice-President and Chief Facilities Officer; **Abbie Little**, Community Relations Coordinator; **Waslat Waizi**, Science student; and **Craig MacDonald**, Director of Maintenance Services. (Photo by Georgia Kirkos/McMaster University)*

Campus as a Living Laboratory

McMaster is continuing its commitment to creating a living laboratory where students, faculty, and staff from across campus come together to solve problems, innovate, and promote sustainability. To do so, McMaster will:

- Invite all university community members to think of campus as a place to pilot new sustainability-related ideas and projects.
- Explore opportunities to share research project concepts and streamline approvals.
- Support and resource more innovative, sustainability-related student-led ideas and collaborative projects.

Digital Learning and Environment

McMaster recognizes how online and virtual classrooms have changed the teaching and learning environment for everyone. In alignment with McMaster's Teaching and Learning Strategy, the university will:

- Integrate a lens of sustainability into digital learning tools and strategies.
- Support opportunities for sustainable learning and research through use of digital tools and infrastructure.

A MESSAGE FROM

Saher Fazilat, Vice-President, Operations and Finance

This is a pivotal moment to be a sustainability-focused leader at McMaster University.

By developing the first university-wide Sustainability Strategy at McMaster, we embarked on mapping and committing to improve the ways sustainability runs through every part of the institution, from innovative teaching and research, to the campus environment and operations. This strategy is building on a strong foundation. McMaster's first campus-wide **Sustainability Report** provided many examples of how our university has shown commitment to the conservation of natural resources, creating sustainable food systems, and responsible investments. McMaster builds and operates its campus with sustainability in mind, including water, energy, green-house gas (GHG) emissions and waste reduction initiatives. This strategy will increase and evolve these efforts to achieve that next level of environmental, social and economic sustainability our community requires of us.

Our university's operations and administrative teams collaborate with McMaster students on experiential-learning projects that shape our sustainability related decisions. The work of our researchers informs how leaders think about climate change, human health and well-being, locally and around the world. We will look to this world class knowledge and collaborative opportunities with our students, researchers, and community to help bring our Sustainability Strategy to life.

I would like to thank those involved in the development of this inaugural strategy, including the team members from the Office of Sustainability in Facility Services, members of the McMaster Sustainability Advisory Council, and the many other student, faculty and staff members who provided input and feedback during this process.

STRATEGIC DRIVER 3:

Self-Sustaining Campus and Sites

McMaster is recognizing the interconnectedness between the health of the environment and the community's well-being. To create a self-sustaining campus, McMaster will focus on:

Active and Alternative Transportation

Eco Parks and Greenspace

Health and Well-being

Photo: *McMaster campus in the springtime.*

Self-Sustaining Campus and Sites

Bike repair station on McMaster campus.

Active and Alternative Transportation

McMaster intends to support students, faculty members, and staff in choosing active and alternative modes of transportation:

- Further develop the multi-modal transportation systems that connect to campus.
- Gather data on work-related transportation behaviour.
- Promote inclusive, alternative, and active modes of transportation.
- Keep inclusive, active, and alternative modes of transportation top of mind when developing McMaster's next Campus Master Plan.

Eco Parks and Greenspace

McMaster's commitment to greenspace goes beyond our 300-acre campus. To preserve natural lands, McMaster will:

- Coordinate and partner with our neighbouring ecological stewards.
- Promote healthy ecosystems by planting native trees and plant species.
- Protect biodiverse ecosystems within the university's natural lands.
- Explore new opportunities to include greenspace in teaching, learning, and research.

Self-Sustaining Campus and Sites

Academic Sustainability Programs student at tree planting event.

Health and Well-being

McMaster recognizes the intersection between human health and sustainability. To support well-being, McMaster will:

- Explore how greenspace can promote mental well-being.
- Respond to the ways climate change and colonization impacts well-being.
- Create a strategy for self-sustaining food systems on campus, including food production via community gardens and other mechanisms, while also addressing food insecurity.
- Develop more sustainability-minded food procurement processes at our sites.

STRATEGIC DRIVER 4:

Operational Excellence

McMaster is dedicated to transforming our administrative and operational practices to be more sustainable with a focus on the following areas:

Sustainable Infrastructure, Energy, and Water

Waste

Responsible Investing and Sustainable Procurement

Metrics

***Alvin Baldovino**, Assistant Director, Engineering Operations at McMaster University on the Ivor Wynne Centre roof top with solar panels on campus. McMaster's 60 solar panels on campus provide pre-heating to a large swimming pool area.*

Operational Excellence

The Choose to Reuse takeout container program at McMaster's Hospitality Services locations encourages students, staff and faculty to participate in closing the loop while dining on campus.

Sustainable Infrastructure, Energy, and Water

McMaster is focusing on carbon and energy reduction, with the goal of being a carbon free campus. To address this, McMaster will:

- Implement a Net Zero Carbon Roadmap with options for an accelerated timeline.
- Increase usage of renewable energy systems.
- Re-evaluate the way McMaster builds sustainability into our infrastructure.
- Reduce water usage across our facilities.
- Manage storm water considering environmental impacts.

Waste

McMaster is committed to reducing, reusing, and recycling waste and continuing to increase the percentage of waste diverted from landfill. To do so, McMaster will:

- Improve and standardize recycling initiatives at our sites, including traditional streams like recyclables, as well as specialized streams like IT equipment and furniture reuse and recycling.
- Educate and promote reuse initiatives at our sites.
- Expand and encourage participation in composting at our sites.

The McMaster community diverted 780 kgs of used technology from landfill through donation at the ACCESS Tech Drive in 2021. Students helped prepare technology for donation to Hamiltonian families in need at the event on campus.

Responsible Investing and Sustainable Procurement

McMaster University's invested asset pools each use a responsible investment strategy. Responsible investing involves the incorporation of environmental, social, and governance (ESG) considerations. The university also recognizes its responsibility to consider the social, environmental, and economics of the goods and services purchased. To address this, McMaster is committed to:

- Decarbonization and putting in place a strategy to divest fossil fuels from the university's institutional investment pool as soon as possible.
- Sustainable procurement practices and ensuring suppliers meet our standards.
- Aligning with UN Sustainable Development Goals throughout its financial affairs processes.

Metrics

Collaborating to develop metrics that indicate our progress will be a key part of delivering on this strategy. To develop quantitative metrics that support decision-making in pursuit of more sustainable operations, McMaster will:

- Collaborate across the institution to develop and integrate quantitative sustainability metrics into operations and administration.
- Develop time-bound goals using metrics as a benchmark.
- Review and update sustainability-related policies.

Sharing Progress

McMaster University will share the progress of its Sustainability Strategy in multiple ways. Most notably, the university will continue to produce an annual Sustainability Report.

The inaugural university-wide Sustainability Report developed last year in 2020 offered a glimpse into McMaster's collective ambition to create a more sustainable campus and world. The next report will make connections to this strategy and every year provide more progress on how the strategy is being implemented.

Along the way McMaster will share accomplishments and recognize milestones by telling the stories of those who are living the sustainability strategy.

If you are interested in learning more about this strategy, wondering how to get involved, or are aware of a sustainability related story you think should be told, please connect with the Office of Sustainability at McMaster by emailing **sustainability@mcmaster.ca**.

Connection to United Nations Sustainable Development Goals

McMaster's Sustainability Strategy is in alignment with multiple United Nations (UN) Sustainable Development Goals (SDG). The annual Sustainability Report will detail how this strategy's progress is connected to the UN SDGs, by topic area and initiatives.

McMaster University | BRIGHTER WORLD

McMaster University

Deidre ("Dee") L. Henne
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February 10, 2022

To: Planning and Resources Committee

From: AVP (Administration) & CFO, Treasurer

Subject: **2021 Salaried Pension Plan Valuations**

Recommendation

That the Planning and Resources Committee approve, for recommendation to the Board of Governors, that the results of the Actuarial Valuation for Funding Purposes as at July 1, 2021 for the Contributory Pension Plan for Salaried Employees of McMaster University Including McMaster Divinity College (Plan 2000) and the Actuarial Valuation for Funding Purposes as at July 1, 2021 for the Contributory Pension Plan for Salaried Employees of McMaster University Including McMaster Divinity College (Original Plan) and be filed with the Financial Services Regulatory Authority of Ontario and the Canada Revenue Agency.

Background

In accordance with the requirements of the Ontario Pension Benefits Act and Regulations thereunder, as well as the Income Tax Act, McMaster University is required to submit an actuarial valuation for the Contributory Pension Plan for Salaried Employees of McMaster University Including Divinity College (Plan 2000) and the Contributory Pension Plan for Salaried Employees of McMaster University Including Divinity College (Original Plan) (together known as "the Salaried Pension Plans") as at July 1, 2021.

2021 Valuation Reports

The Salaried Pension Plans draft valuation reports reflect the amendments to the Regulations to *the Pension Benefits Act (Ontario)*. The draft valuation reports for the Salaried Pension Plans and associated valuation assumptions have been reviewed and approved by the Pension Trust Committee at the January 20, 2022 meeting. The detailed and summary valuation results for the Salaried Pension Plans are attached to this memo as:

Appendix A. Mercer Presentation – Summary Actuarial Reports for Plan 2000 and Original Plan,
Appendix B. Actuarial Valuation - Plan 2000, and
Appendix C. Actuarial Valuation - Original Plan.

The valuation results for the Salaried Pension Plans have been prepared by our actuary, Mercer, and reviewed by Management to ensure that the assumptions agreed to at the Pension Trust Committee have been incorporated into the valuation, and that the underlying data provided by Human Resources regarding plan members is accurate and appropriate, and the summary of plan provisions is accurate.

The valuations are due to be filed with the Financial Services Regulatory Authority of Ontario (FSRA) and the Canada Revenue Agency (CRA) by March 31, 2022.

Funding Status

The updated valuations result in lower funding requirements for the University over the next three-year period due to an improved funded position and updated Pension Benefit Act (PBA) definitions. McMaster's Provision for Adverse Deviation (PfAD) has declined due to favourable investment performance and refined plan PBA definition as open to new entrants. The improved funded position lowers net required payments (no special payments) relative

to the previous July 1, 2018 filing. The following summarizes the University's Salaried Pension Plans valuation funding status as at July 1, 2021:

- The funded status on a going concern basis of the Salaried Pension Plans improved relative to the previous valuation as at July 1, 2018. Plan 2000's going concern funded status improved to a surplus of $128.2 million vs. a shortfall of $143.4 million as at the previous filing.
- The Original Plan's going concern surplus reduced to $0.9 million vs. $0.6 million as at July 1, 2018.
- The improvement in the going concern position was largely due to stronger investment returns relative to the growth in liabilities. In addition to the benefit of strong market performance, the application of updated rules which reclassified Plan 2000 as an open plan from a closed plan reduced the amount it must hold as a PfAD.
- As permitted under pension regulations, McMaster is smoothing adjustments to determine the solvency position, to be consistent with the approach used on the going concern measures, as at July 1, 2021 (no smoothing adjustments to solvency position in the previous filing).
- Plan 2000 reported a $147.6 million solvency deficit versus a $197.2 million solvency deficit in 2018. The solvency position of Plan 2000 before smoothing adjustments is a surplus of $51.6 million (102% solvency ratio[1] up from 91% in 2018). The improvement in the Plan 2000 solvency position was primarily attributable to special payment funding, as the strong investment performance was muted by smoothing adjustments
- The Original Plan valuation solvency surplus is $105,000 versus $153,000 solvency surplus at July 1, 2018. The solvency position of the Original Plan before smoothing adjustments is a surplus of $389,000 (110% solvency ratio[1] up from 106%). The reduction in the solvency surplus for the Original plan was driven by smoothing adjustments, which were not used in the previous valuation filing.
- The University's current service cost (inclusive of PfAD) as a percentage of employee contributions declined from 123% to 115% for Plan 2000 and declined from 280% to 258% for the Original Plan. The decreased requirement for Plan 2000 was due primarily to reduced PfAD requirements. For the Original Plan, the reduced requirement was associated with the change in the remaining active population (2 actives remain at July 1, 2021).
- Due to the improved financial position, the pension special payment in 2021/22 for Plan 2000 is $0 ($18.9 million annually based on the July 1, 2018 valuation report).
- The estimated minimum total annual funding requirement (University's service cost only) for Plan 2000 is $34.4 million in 2021/22 ($54.0 million in 2020/21, composed of $35.1 million for the University's service cost and $18.9 million for special payments based on the July 1, 2018 valuation report).
- The estimated minimum total annual funding requirement for the Original Plan is $93,000 in 2021/22 and 2022/23 ($115,000 annually based on the July 1, 2018, valuation report).
- The annual Pension Benefits Guarantee Fund (PBGF) fees for Plan 2000 decline to $0.4 million[2] per year from approximately $1.8 million per year, based on July 1, 2018 valuation.

The Pension Trust Committee discussed the valuation results with its actuary, Mercer, and recommends to the Planning and Resources Committee that the 2021 Actuarial Valuation Reports for the Salaried Pension Plans be submitted to FSRA and the CRA.

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[1] Solvency ratio (excludes smoothing) must be at least 85% at valuation date to continue a triennial filing cycle. If solvency ratio is below 85%, annual valuations are required.
[2] Applicable until July 1, 2024, Valuation date

Appendix A. Mercer Presentation – Summary of Actuarial Reports for Plan 2000 and Original Plan

Mercer

McMaster University
Pension Trust Committee Meeting

July 1, 2021 Funding Valuation Results of Original Plan and Plan 2000

January 20, 2022

Bill Watson, Chad Spence

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Agenda

July 1, 2021 Funding Valuation Results

- Overview/Executive Summary
- Valuation Results
- Next Steps

Mercer

Overview

- Last filed funding valuations for the Original Plan and Plan 2000 (collectively, the "Plans") were as at July 1, 2018, prepared under the new Ontario funding rules
- Funding valuations as at July 1, 2021 are required to be filed with regulators
  - Due date for filing is no later than March 31, 2022
- The funding valuations are prepared on going-concern and solvency/wind-up bases, which determine the funding requirements for the Plans
- This document outlines the July 1, 2021 final valuation results, based on the funding assumptions presented to PTC on September 23rd approved by the Planning Resources Committee on October 7th
- The only updates from the preliminary results shared on November 11th are to reflect audited asset values

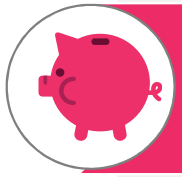
Mercer

Since the last actuarial valuation …

Investments

- Change to target asset mix
- Favourable investment returns

2018/2019	2019/2020	2020/2021
5.8%	4.7%	16.7%

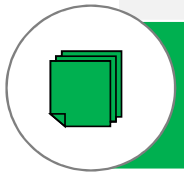


Contributions

Plan 2000	2018/2019	2019/2020	2020/2021
Members	$27.5M	$27.7M	$28.6M
University current service	$34.0M	$34.6M	$36.1M
University special payments	$19.6M	$18.9M	$18.9M

Funding Rules & Assumptions

- Decrease in going-concern discount rate to 5.1% (from 5.6%)
- Demographic assumptions updated to reflect Experience Study
- Changes to application of Provision for Adverse Deviation (PfAD), reduced from 13.8% to 8% for Plan 2000
- Wind up measurement includes 5 years of future pension increases
- Solvency measurement applies smoothing and excludes future pension increases



Membership

- Net increase in membership – 7,147 compared to 6,773 for Plan 2000
- $243.1M paid as monthly pensions and $70.3M paid in lump sum transfers for Plan 2000

Mercer

Valuation highlights

- The funded status of the Plans improved as at July 1, 2021
  - The going concern funded ratio of Plan 2000 has increased from 93% to 106% (Original Plan has increased from 117% to 121%)
  - The wind-up ratio of Plan 2000 has increased from 91% to 99% (Original Plan has increased from 106% to 107%)
  - Solvency ratio remains above 85% threshold for both plans
- The July 1, 2021 valuation revealed:
  - University current service cost for Plan 2000 decreases from 123% of member contributions to 115% (including PfAD[1], 100% net of PfAD)
  - Special payments to Plan 2000 are no longer required
  - Reductions in PfAD, caused by regulatory and asset mix changes, translate to improved going concern funded position and lower funding requirements
  - Annual PBGF premiums for Plan 2000 will decrease significantly
- Both plans remain on a triennial filing cycle. Next valuations are required as at July 1, 2024

[1] "PfAD" refers to the Provision for Adverse Deviations, a prescribed margin for conservatism included in the going concern valuation, introduced in 2018 as part of Ontario's pension reform.

Mercer

Final Valuation Results as at July 1, 2021

The funding valuation measures
How the plan is meeting its objectives

GOING CONCERN
"Long-term view"
of the plan

- Concerned with sustainability and inter-generational equity
- Determines level of current service cost contributions and level of special payments toward deficits (if any)
- Assumptions must be best estimate, independently reasonable
- Discount rate assumption takes into consideration of target asset mix and expectations of future assets returns

HYPOTHETICAL WIND-UP
"Snapshot view"
of the plan

- Focus on short term security of accrued benefits
- For benefits assumed to be settled by annuity purchase, actuary needs to estimate the cost of annuity purchase
- For benefits assumed to be settled by lump sum, must be calculated in accordance with the Canadian Institute of Actuaries Commuted Value Standards
- Discount rate and mortality table assumptions are prescribed
- Discount rates are derived from Government bond yields

SOLVENCY
Wind-up, "with adjustments"

- Can exclude certain benefits such as future post-retirement pension increases
- Annual valuations required if solvency ratio is below 85%
- May result in additional special payments if solvency ratio is below 85%
- Option to smooth assets and liabilities for purposes of determining special payments (if any)

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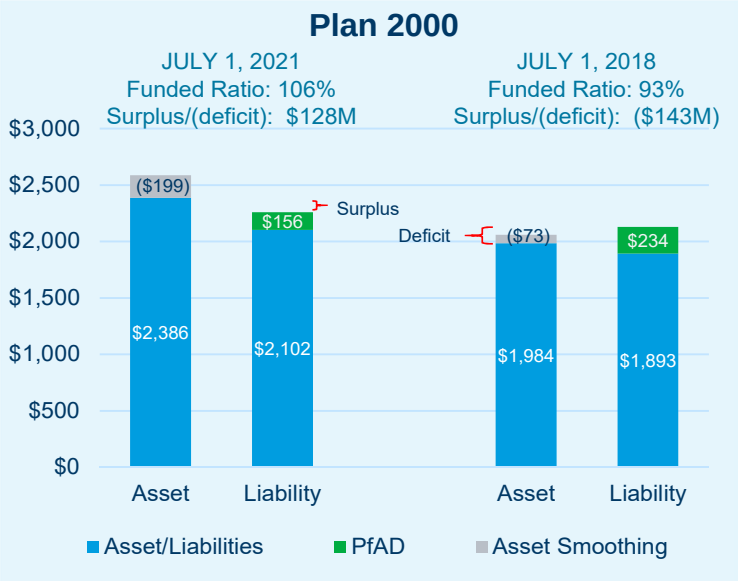
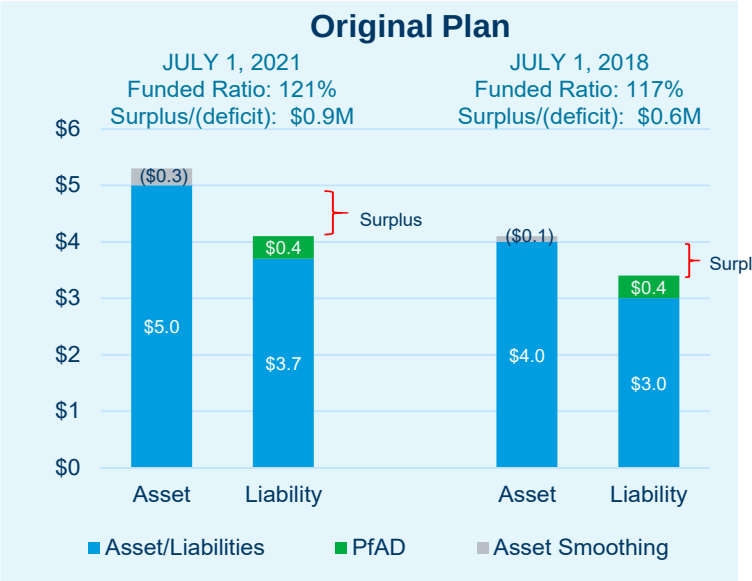
Going concern position ($M)





HIGHLIGHTS OF THE RESULTS

- Solid investment returns, special payment funding, and a reduced PfAD have contributed to the improved funded position.
- Active membership count increased from 3,612 to 3,837.
- Going concern special payments are no longer required.

HIGHLIGHTS OF THE RESULTS

- Solid investment returns and gains due to demographic experience were partially offset by assumption changes.
- Active membership count decreased from 3 to 2.
- Since the plan is well funded on this basis, no going concern special payments are required.

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Wind-up funded position
as at July 1, 2021 ($ M's)

Funded Position	Plan 2000	Original Plan
Wind-up assets	$2,584	$5.2
Total wind-up liability	$2,611	$4.9
Wind-up excess (shortfall)	($27)	$0.3
Available Actuarial Surplus	$0	$0.1
Wind-up ratio	99%	107%
Wind-up ratio at July 1, 2018	91%	106%

- The improved wind-up position reduces the PBGF assessment amounts for Plan 2000 (from $1.8M to $0.4M)
- The Original Plan now has Available Actuarial Surplus, which means the University could consider reducing current service costs in the Original Plan

Note: though the funded position of both plans is strong, they remain exposed to various market and demographic risks. For example, a 20% equity market correction could drop the plans' transfer ratio by 11% or more.

Mercer

Solvency funded position
as at July 1, 2021 ($ M's)

Funded Position	Plan 2000	Original Plan
Wind-up assets	$2,584	$5.2
Impact of asset smoothing	($200)	($0.3)
Smoothed solvency assets	$2,384	$4.9
Total wind-up liability	$2,611	$4.9
Exclusion of future post-retirement pension increases	($79)	($0.1)
Impact of liability smoothing	$0	$0.0
Smoothed solvency liabilities	$2,532	$4.8
Smoothed solvency surplus (shortfall)	($148)	$0.1
Solvency ratio[1]	102%	110%

- Since the solvency ratio of both plans remains above 85%, a triennial valuation filing cycle may continue and no solvency special payments are required.

[1] Before smoothing, as per pension regulations

Mercer

University current service cost
As at July 1, 2021 ($ 000's)

Contributions in year following valuation	Plan 2000 Annual Amount	Plan 2000 As a % of Member Contributions	Original Plan Annual Amount	Original Plan As a % of Member Contributions
Estimated Member contributions	$29,879		$36	
University contribution				
- University current service cost (before PfAD)	$29,811	100%	$80[2]	222%
- PfAD in respect of current service cost[1]	$4,570	15%	$13	36%
- University current service cost plus PfAD	$34,381	115%	$93	258%
Special payments	$0		$0	
Total Minimum University contribution	$34,381		$93	

- The University's current service cost was 98% of member contributions (before PfAD) for Plan 2000 at the prior valuation.

[1] PfAD of 8% for Plan 2000 and 12% for Original Plan on total (University plus member) current service cost
[2] Prior to any application of Available Actuarial Surplus. Includes a $25,000 allowance for future administrative expenses in excess of the allowance in the discount rate

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Next Steps

July 1, 2021 Funding Valuation
Next steps

- COMPLETE - Review of preliminary valuation results by Pension Trust Committee on November 11, 2021
- Recommend approval of valuation reports by Pension Trust Committee on January 20, 2022
- Approval of valuation reports by Planning Resources Committee on February 17, 2022
- Approval of valuation reports by Board of Governors on March 3, 2022
- FSRA filing of valuation reports by no later than March 31, 2022
- Contribution adjustments to reflect new filed valuation reports

Mercer

Important Notices

Mercer has prepared this report exclusively for McMaster to present results of July 1, 2021 funding valuations of Plan 2000 and the Original Plan. This report may not be used or relied upon by any other party or for any other purpose; Mercer is not responsible for the consequences of any such other use. Its content may not be modified, incorporated into or used in other material, sold or otherwise provided, in whole or in part, to any other person or entity, without Mercer's permission.

All parts of this report, including any documents incorporated by reference, are integral to understanding and explaining its contents; no part may be taken out of context, used or relied upon without reference to the report as a whole.

The results presented herein are preliminary and subject to change. This report is not a substitute for a formal valuation report.

Decisions about benefit changes, granting new benefits, investment policy, funding policy, benefit security and/or benefit-related issues should not be made solely on the basis of this preliminary valuation, but only after careful consideration of alternative economic, financial, demographic and societal factors, including financial scenarios that assume future sustained investment losses.

McMaster is responsible for selecting the plan's funding policy (including margins, if any, for adverse deviations in the going concern valuation), the actuarial and asset valuation methods in the going concern valuation, and other methodologies permitted by legislation for the solvency valuation.

The actuarial assumptions used in the going concern valuation reflect the actuary's best estimate. McMaster is responsible for reviewing the going concern valuation assumptions referenced and advising Mercer as to any information it deems worthy of consideration in the determination of such assumptions.

To prepare the results in this report, actuarial assumptions are used to model a single scenario from a range of possibilities for each valuation basis. The results based on that single scenario are included in this report. However, the future is uncertain and the plan's actual experience will differ from those assumptions; these differences may be significant or material. Different assumptions or scenarios within the range of possibilities may also be reasonable, and results based on those assumptions would be different.

Furthermore, actuarial assumptions may be changed from one valuation to the next because of changes in regulatory and professional requirements, developments in case law, plan experience, changes in expectations about the future and other factors. The assumptions used for the valuation are described in the Appendix of this report.

Important Notices (cont'd)

Mercer has used and relied on the membership data as supplied by McMaster. If the data supplied are not sufficient and reliable for its intended purpose, the results of our calculation may differ significantly from the results that would be obtained with such data. Although Mercer has reviewed the suitability of the data for its intended use in accordance with accepted actuarial practice in Canada, Mercer has not verified or audited any of the data or information provided. Statistics on, reconciliation of and distribution of the membership data are provided in the year-end reconciliation files.

Mercer has used and relied on the plan documents, including amendments, and interpretations of plan provisions, supplied by McMaster. If any plan provisions supplied are not accurate and complete, the results of any calculation may differ significantly from the results that would be obtained with accurate and complete information. Moreover, plan documents may be susceptible to different interpretations, each of which could be reasonable, and the results of estimates under each of the different interpretations could vary. There were no changes made to the plan provisions since the previous valuation

We used the auditors' reports prepared by KPMG without further audit. Customarily, this information would not be verified by a plan's actuary. We have reviewed the information for internal consistency and general reasonableness.

Funding calculations reflect our understanding of the requirements of Ontario's legislation, the Income Tax Act and related regulations that are effective as of the valuation date. Mercer is not a law firm, and this analysis is not intended to be a legal opinion. You should consider securing the advice of legal counsel with respect to any legal matters related to this document and any attachments.

The plan administrator is solely responsible for selecting the plan's investment policies, asset allocations and individual investments.

Important Notices

Mercer does not provide tax or legal advice. You should contact your tax advisor, accountant and/or attorney before making any decisions with tax or legal implications. This does not constitute an offer to purchase or sell any securities. The findings, ratings and/or opinions expressed herein are the intellectual property of Mercer and are subject to change without notice. They are not intended to convey any guarantees as to the future performance of the investment products, asset classes or capital markets discussed. For Mercer's conflict of interest disclosures, contact your Mercer representative or see www.mercer.com/conflictsofinterest.

This does not contain investment advice relating to your particular circumstances. No investment decision should be made based on this information without first obtaining appropriate professional advice and considering your circumstances.

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Appendix B. Actuarial Valuation - Plan 2000

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Contributory Pension Plan for Salaried Employees of McMaster University including McMaster Divinity College 2000

Report on the Actuarial Valuation for Funding Purposes as at July 1, 2021

DRAFT – January 2022

Financial Services Regulatory Authority of Ontario Registration Number: 1079920

Canada Revenue Agency Registration Number: 1079920

A business of Marsh McLennan

Note to reader regarding actuarial valuations:

This valuation report may not be relied upon for any purpose other than those explicitly noted in the Introduction, nor may it be relied upon by any party other than the parties noted in the Introduction. Mercer is not responsible for the consequences of any other use. A valuation report is a snapshot of a plan's estimated financial condition at a particular point in time; it does not predict a pension plan's future financial condition or its ability to pay benefits in the future. If maintained indefinitely, a plan's total cost will depend on a number of factors, including the amount of benefits the plan pays, the number of people paid benefits, the amount of plan expenses, and the amount earned on any assets invested to pay the benefits. These amounts and other variables are uncertain and unknowable at the valuation date. The content of the report may not be modified, incorporated into or used in other material, sold or otherwise provided, in whole or in part, to any other person or entity, without Mercer's permission. All parts of this report, including any documents incorporated by reference, are integral to understanding and explaining its contents; no part may be taken out of context, used, or relied upon without reference to the report as a whole.

To prepare the results in this report, actuarial assumptions are used to model a single scenario from a range of possibilities for each valuation basis. The results based on that single scenario are included in this report. However, the future is uncertain and the Plan's actual experience will differ from those assumptions; these differences may be significant or material. Different assumptions or scenarios within the range of possibilities may also be reasonable, and results based on those assumptions would be different. Furthermore, actuarial assumptions may be changed from one valuation to the next because of changes in regulatory and professional requirements, developments in case law, plan experience, changes in expectations about the future, and other factors.

The valuation results shown in this report also illustrate the sensitivity to one of the three key actuarial assumptions, including the discount rate, and the sensitivity to three adverse scenarios. We note that the results presented herein rely on many assumptions, all of which are subject to uncertainty, with a broad range of possible outcomes, and the results are sensitive to all the assumptions used in the valuation.

Should the Plan be wound up, the going concern funded status and solvency financial position, if different from the wind-up financial position, become irrelevant. The hypothetical wind-up financial position estimates the financial position of the Plan assuming it is wound up on the valuation date. Emerging experience will affect the wind-up financial position of the Plan assuming it is wound up in the future. In fact, even if the Plan were wound up on the valuation date, the financial position would continue to fluctuate until the benefits are fully settled.

Decisions about benefit changes, granting new benefits, investment policy, funding policy, benefit security, and/or benefit-related issues should not be made solely on the basis of this valuation, but only after careful consideration of alternative economic, financial, demographic, and societal factors, including financial scenarios that assume future sustained investment losses.

Funding calculations reflect our understanding of the requirements of the Pension Benefits Act (Ontario), the Income Tax Act, and related regulations that are effective as of the valuation date. Mercer is not a law firm, and the analysis presented in this report is not intended to be a legal opinion. You should consider securing the advice of legal counsel with respect to any legal matters related to this report.

Contents

Section 1

Summary of results

($000's)	07.01.2021	07.01.2018
Going Concern Financial Status		
Smoothed value of assets	$2,385,832	$1,983,556
Going concern funding liabilities	$2,101,572	$1,892,602
Provision for adverse deviations in respect of the going concern liabilities	$156,056	$234,374
Funding excess (shortfall)	$128,204	($143,420)
Hypothetical Wind-up Financial Position		
Wind-up assets	$2,583,910	$2,055,505
Wind-up liability	$2,611,032	$2,252,753
Wind-up excess (shortfall)	($27,122)	($197,248)
Transfer ratio	99%	91%
Solvency Financial Position		
Wind-up assets	$2,583,910	$2,055,505
Solvency asset adjustment	($198,978)	$0
Smoothed solvency assets	$2,384,932	$2,055,505
Wind-up liability	$2,611,032	$2,252,753
Value of excluded benefits	($78,696)	$0
Solvency liability adjustment	$229	$0
Smoothed solvency liabilities	$2,532,565	$2,252,753
Solvency surplus (shortfall)	($147,633)	($197,248)
Solvency ratio[1]	102%	91%

[1] Before smoothing impacts, per pension regulations

($000's)	07.01.2021	07.01.2018
Funding Requirements in the Year Following the Valuation[2]		
Total current service cost	$59,690	$56,413
Provision for adverse deviations in respect of current service cost	$4,570	$7,228
Estimated members' required contributions	($29,879)	($28,481)
Estimated University's current service cost	$34,381	$35,160
University's current service cost and provision for adverse deviations in respect of the current service cost expressed as a percentage of members' required contributions	115%	123%
Minimum special payments	$0	$6,028
Estimated minimum University contribution	$34,381	$41,188
Estimated maximum eligible University contribution	$61,503	$232,408
Next required valuation date	July 1, 2024	July 1, 2021

[2] Provided for reference purposes only. Contributions must be remitted to the Plan in accordance with the Minimum Funding Requirements and Maximum Eligible Contributions sections of this report.

Section 2
Introduction

To McMaster University

At the request of McMaster University, we have conducted an actuarial valuation of the Contributory Pension Plan for Salaried Employees of McMaster University including McMaster Divinity College 2000 (the "Plan"), sponsored by McMaster University (the "University"), as at the valuation date, July 1, 2021. We are pleased to present the results of the valuation.

Purpose

The purpose of this valuation is to determine:

- The funded status of the Plan as at July 1, 2021 on going concern, hypothetical wind-up, and solvency bases;
- The minimum required funding contributions from July 1, 2021, in accordance with the *Pension Benefits Act (Ontario)* (the "Act"); and
- The maximum permissible funding contributions from July 1, 2021, in accordance with the *Income Tax Act.*

The information contained in this report was prepared for the internal use of the University, and for filing with the Financial Services Regulatory Authority of Ontario and with the Canada Revenue Agency, in connection with our actuarial valuation of the Plan. This report will be filed with the Financial Services Regulatory Authority of Ontario and with the Canada Revenue Agency. This report is not intended or suitable for any other purpose.

In accordance with pension benefits legislation, the next actuarial valuation of the Plan will be required as at a date not later than July 1, 2024 or as at the date of an earlier amendment to the Plan depending on any funding implications.

Terms of Engagement

In accordance with our terms of engagement with McMaster University, our actuarial valuation of the Plan is based on the following material terms:

- It has been prepared in accordance with applicable pension legislation and actuarial standards of practice in Canada.
- As instructed by the University, we have not reflected a margin for adverse deviations in the going concern valuation in excess of the provision for adverse deviations prescribed by the Act.
- We have reflected the McMaster University's decisions for determining the solvency funding requirements, summarized as follows:

- The same plan wind-up scenario was hypothesized for both hypothetical wind-up and solvency valuations.
- Certain excludable benefits were excluded from the solvency liabilities.
- Solvency smoothing was used.

See the Valuation Results – Solvency section of the report for more information.

Events since the Last Valuation at July 1, 2018

Pension Plan

There have been no special events since the last valuation date.

This valuation reflects the provisions of the Plan as at July 1, 2021. The Plan has been amended since the date of the previous valuation to reflect changes made for compliance or clarification and to decrease required contributions for various employee classes as a result of recent negotiations. We are not aware of any pending definitive or virtually definitive amendments coming into effect during the period covered by this report. The Plan provisions are summarized in Appendix F.

Assumptions

We have used the same going concern valuation assumptions and methods as were used for the previous valuation, except for the following:

	Current valuation	Previous valuation
Discount rate:	5.1%	5.6%
Interest on employee contributions:	5.1%	5.6%

	Current valuation	Previous valuation
Post-retirement pension increases:	Unifor Hired on or After May 1, 2010 **Year** / **Rate** 2022 / 1.63% 2023 / 2.00% 2024 / 2.00% 2025 / 2.00% 2026 / 2.00% 2027 onwards / 0.10% Other **Year** / **Rate** 2022 / 1.45% 2023 / 2.00% 2024 / 2.00% 2025 / 2.00% 2026 / 2.00% 2027 onwards / 0.60%	Unifor Hired on or After May 1, 2010 **Year** / **Rate** 2019 / 1.89% 2020 / 2.00% 2021 / 1.47% 2022 / 2.24% 2023 / 1.14% 2024 onwards / 0.60% Other **Year** / **Rate** 2019 / 1.89% 2020 / 2.00% 2021 / 1.97% 2022 / 2.03% 2023 / 1.64% 2024 onwards / 1.10%
Retirement rates:	Not eligible for unreduced pension: 5% under age 60, 10% at each of ages 60-64. Eligible for an unreduced pension: 8% under age 60, 12% at each of ages 60-64. All members: 30% at age 65, 20% at each of ages 66-70, 100% at age 71.	15% retire when first eligible for an unreduced pension, 10% retire at each age thereafter up to age 64, 20% retire at age 65, 50% retire at each of the ages 66-69, remainder retire at age 70
Mortality rates:	90% of the rates of the 2014 Public Sector Canadian Pensioners Mortality Table (CPM2014Publ)	85% of the rates of the 2014 Public Sector Canadian Pensioners Mortality Table (CPM2014Publ)
Form of benefit elected:	65% of terminations and 10% of retirements are assumed to receive a lump sum transfer.	95% of terminations and 5% of retirements are assumed to receive a lump sum transfer.
Discount rate for benefits assumed to be settled through a lump sum:	1.8% for 10 years, 3.3% thereafter	2.9% for 10 years, 3.2% thereafter

	Current valuation	Previous valuation
Eligible spouse at retirement:	70%	85%
Spousal age difference:	Male spouse is 2 years older	Male spouse is 3 years older

In addition to the assumption changes, the Provision for Adverse Deviations has decreased from 13.8% to 8.0% to reflect changes to the target asset allocation as well as revisions to the Regulations to the Ontario Pension Benefits Act with respect to the definition of “closed plan”. A summary of the going concern methods and assumptions is provided in Appendix C.

The hypothetical wind-up and solvency assumptions have been updated to reflect market conditions at the valuation date. A summary of the hypothetical wind-up and solvency methods and assumptions is provided in Appendix D.

Regulatory Environment and Actuarial Standards

There have been a number of changes to the Act and regulations that impact the funding of the Plan.

On May 21, 2019, amendments to the Regulations to the Ontario Pension Benefits Act were released. These amendments were intended to provide additional clarity to the operation of the new funding rules including revisions to the definition of “closed plan”. On May 29, 2019, Bill 100 received Royal Assent. Bill 100 included several amendments to the Pension Benefits Act, including adjustments to permit the use of the Prior Year Credit Balances to pay for employer’s current service cost.

On September 21, 2020, the Ontario government filed Regulation 520/20, providing potential temporary funding relief for eligible single employer defined benefit pension plans registered in Ontario. The new regulation allows sponsors of eligible plans to defer required employer contributions starting with those contributions due in October 2020 and ending with contributions due in March 2021. Each deferred monthly contributions plus interest are due to be paid in 2 consecutive monthly payments ranging no later than April/May 2021 to February/March 2022.

On July 2, 2020, the Minister of Finance of Canada released draft regulations that would permit sponsors of pension plans to recognize full pensionable service in 2020 for employees who are working reduced hours or who are receiving reduced earnings. The eligible period of reduced pay will be subject to the limit of five years of full-time equivalent compensation.

On July 23, 2020, the CIA published the final version of Section 3500 of the Standards of Practice on Pension Commuted Values and confirmed that the effective date of the new standards is December 1, 2020.

From the effective date, the revised standards affect the assumptions used to value the solvency and wind-up liabilities for benefits assumed to be settled through a lump sum transfer. They will also affect the assumptions used to determine the commuted values payable upon termination for members assumed to elect a lump sum transfer under the going concern basis. The financial impact of those changes is reflected in this actuarial valuation on a going concern basis and on a solvency and hypothetical wind-up basis.

Subsequent Events

After checking with representatives of the University, to the best of our knowledge there have been no events subsequent to the valuation date that, in our opinion, would have a material impact on the results of the valuation as at July 1, 2021. Our valuation reflects the financial position of the Plan as of the valuation date and does not take into account any experience after the valuation date.

Impact of Case Law

This report has been prepared on the assumption that all claims on the Plan after the valuation date will be in respect of benefits payable to members of the Plan determined in accordance with the Plan terms and that all Plan assets are available to provide for these benefits. It is possible that court and regulatory decisions and changes in legislation could give rise to additional entitlements to benefits under the Plan and cause the results in this report to change. By way of example, we bring your attention to the following decisions:

- The Ontario Court of Appeal's 2003 decision in *Aegon Canada Inc. and Transamerica Life Canada versus ING Canada Inc.* restricted the use of original plan surplus where two or more pension plans were merged.
- The Supreme Court of Canada's 2004 decision in *Monsanto Canada Inc. versus Superintendent of Financial Services* upheld the requirement, with retroactive effect, to distribute surplus on partial plan wind-up under the *Pension Benefits Act (Ontario).*

We are not in a position to assess the impact that such decisions or changes could have on the assumption that all plan assets on the valuation date are available to provide for benefits determined in accordance with the Plan terms. If such a claim arises subsequent to the date of this report, the consequences will be dealt with in a subsequent report. We are making no representation as to the likelihood of such a claim.

Section 3

Valuation results – Going concern

Financial Status

A going concern valuation compares the relationship between the value of Plan assets and the present value of expected future benefit cash flows in respect of accrued service, assuming the Plan will be maintained indefinitely.

The results of the current valuation, compared with those from the previous valuation, are summarized as follows:

($000's)	07.01.2021	07.01.2018
Assets		
Market value of assets	$2,584,810	$2,056,405
Asset smoothing adjustment	($198,978)	($72,849)
Smoothed value of assets	$2,385,832	$1,983,556
Going concern funding target		
Going concern liabilities:		
• Active members	$956,330	$882,404
• Pensioners and survivors	$1,092,168	$966,090
• Deferred pensioners	$53,074	$44,108
Subtotal	$2,101,572	$1,892,602
Provision for adverse deviations in respect of going concern liabilities as prescribed by the Act	$156,056	$234,374
Total	$2,257,628	$2,126,976
Funding excess (shortfall)[3]	$128,204	($143,420)

The going concern liabilities at July 1, 2021 do not include an additional margin for adverse deviations beyond the provision for adverse deviations prescribed by the Act.

[3] Funding excess (shortfall) may or may not be equal to the going concern excess (unfunded liability) as described in the Act. Details of the going concern excess (unfunded liability) are provided in Appendix A.

Reconciliation of Financial Status ($000's)

Funding excess (shortfall) as at previous valuation		($143,420)
Provision for Adverse Deviations (PfAD) at previous valuation		$234,374
Funding excess (shortfall) before PfAD		$90,954
Interest on funding excess (shortfall) before PfAD at 5.60% per year		$16,152
University's special payments, with interest		$62,398
Expected funding excess (shortfall)		$169,504
Net experience gains (losses)		
• Net investment return	$232,924	
• Impact of asset smoothing	($113,192)	
• Increases in pensionable earnings	$4,068	
• Increase in YMPE/maximum pension	($2,704)	
• Indexation	$8,410	
• Mortality	$5,868	
• Retirement	$17,521	
• Termination	$964	
• Interest on employee contributions	($7,470)	
Total experience gains (losses)		$146,389
Impact of changes in assumptions		
• Discount rate	($107,782)	
• Interest rates for determining commuted values	($7,304)	
• Post-retirement pension increase assumption	$30,963	
• Mortality	$20,418	
• Retirement	$22,848	
• Form of benefit election	($2,555)	
• Eligible spouse at retirement and spousal age difference	$7,328	
Total assumption changes impact		($36,084)
Net impact of other elements of gains and losses		$4,451
Funding excess (shortfall) before PfAD		$284,260
Provision for Adverse Deviations at current valuation		($156,056)
Funding excess (shortfall) as at current valuation		$128,204

Current Service Cost

The current service cost is an estimate of the present value of the additional expected future benefit cash flows in respect of pensionable service that will accrue after the valuation date, assuming the Plan will be maintained indefinitely. A provision for adverse deviations in respect of the current service cost is determined in accordance with the Act.

The current service cost and the provision for adverse deviations in respect of the current service cost, during the year following the valuation date, compared with the corresponding values determined in the previous valuation, is as follows:

($000's)	2021/2022	2018/2019
Total current service cost[4] excluding the provision for adverse deviations	$59,690	$56,413
Provision for adverse deviations in respect of the current service cost (based on the percentage defined in Appendix A)		
• As a dollar amount per year	$4,570	$7,228
• As a percentage of members' required contributions	15%	25%
Estimated members' required contributions	($29,879)	($28,481)
Total estimated University's current service cost		
• As a dollar amount per year	$34,381	$35,160
• As a percentage of members' required contributions	115%	123%

The key factors that have caused a change in the University's current service cost, excluding the provision for adverse deviations, since the previous valuation are summarized in the following table:

University's current service cost as at previous valuation	98%
Demographic changes	(1%)
Changes in assumptions	3%
University's current service cost as at current valuation	100%

[4]Total current service cost includes $2,565,000 in estimated future costs for escalated adjustments as defined in the Act.

Discount Rate Sensitivity ($000's)

The following table summarizes the effect on the going concern liabilities and current service cost shown in this report of using a discount rate that is 1% lower than that used in the valuation. For the purposes of the illustration, we have not changed the interest rate used to determine commuted values upon termination of employment. The effect of a change in the discount rate on the provision for adverse deviations is not reflected.

Scenario	Valuation Basis	Reduce Discount Rate by 1%
Going concern funding liabilities	$2,101,572	$2,369,292
Current service cost		
• Total current service cost	$59,690	$70,201
• Estimated members' required contributions	($29,879)	($29,879)
Estimated University's current service cost	$29,811	$40,322

Plausible Adverse Scenarios

The financial impact on the going concern results of plausible adverse scenarios that would pose threats to the Plan's future financial condition is presented in Appendix G.

Section 4

Valuation results – Hypothetical wind-up

Financial Position

When conducting a hypothetical wind-up valuation, we determine the relationship between the respective values of the Plan's assets and its liabilities assuming the Plan is wound up and settled on the valuation date, assuming benefits are settled in accordance with the Act and under circumstances consistent with the hypothesized scenario on the valuation date. More details on such scenario are provided in Appendix D.

The hypothetical wind-up financial position as of the valuation date, compared with that at the previous valuation, is as follows:

($000's)	07.01.2021	07.01.2018
Assets		
Market value of assets	$2,584,810	$2,056,405
Termination expense provision	($900)	($900)
Wind-up assets	$2,583,910	$2,055,505
Present value of accrued benefits for:		
• Active members	$1,261,383	$1,113,978
• Pensioners and survivors	$1,275,281	$1,076,952
• Deferred pensioners	$74,368	$61,823
Total wind-up liability	$2,611,032	$2,252,753
Wind-up excess (shortfall)	($27,122)	($197,248)
Transfer ratio	99%	91%

Wind-up Incremental Cost

The wind-up incremental cost is an estimate of the present value of the projected change in the hypothetical wind-up liabilities from the valuation date until the next scheduled valuation date, adjusted for the benefit payments expected to be made in that period.

The hypothetical wind-up incremental cost determined in this valuation, compared with the corresponding value determined in the previous valuation, is as follows:

($000's)	07.01.2021	07.01.2018
Number of years covered by report	3 years	3 years
Total hypothetical wind-up liabilities at the valuation date (A)	$2,611,032	$2,252,753
Present value at the valuation date of projected hypothetical wind-up liability at the next required valuation (including expected new entrants) plus expected benefit payments until the next required valuation (B)	$2,869,507	$2,506,892
Hypothetical wind-up incremental cost (B – A)	$258,475	$254,139

The incremental cost is not an appropriate measure of the contributions that would be required to maintain the windup position of the Plan even if actual experience is exactly in accordance with the going concern valuation assumptions. For example, the expected return on plan assets (based on the going concern assumptions) is greater than the discount rate used to determine the hypothetical wind-up liabilities.

Discount Rate Sensitivity ($000's)

The following table summarizes the effect on the hypothetical wind-up liabilities shown in this report of using a discount rate that is 1% lower than that used in the valuation:

Scenario	Valuation Basis	Reduce Discount Rate by 1%
Total hypothetical wind-up liability	$2,611,032	$3,001,848

Plausible Adverse Scenarios

The financial impact on the hypothetical wind-up financial position of plausible adverse scenarios that would pose threats to the Plan's future financial condition is presented in Appendix G.

Section 5

Valuation results – Solvency

Overview

The Act also requires the financial position of the Plan to be determined on a solvency basis. The financial position on a solvency basis is determined in a similar manner to the Hypothetical Wind-up Basis, except for the following:

Exceptions	Reflected in valuation based on the terms of engagement
The circumstance under which the Plan is assumed to be wound up could differ for the solvency and hypothetical wind-up valuations.	The same circumstances were assumed for the solvency valuation as were assumed for the hypothetical wind-up valuation.
Certain benefits can be excluded from the solvency financial position. These include: (a) any escalated adjustment (e.g. indexing), (b) certain plant closure benefits, (c) certain permanent layoff benefits, (d) special allowances other than funded special allowances, (e) consent benefits other than funded consent benefits, (f) prospective benefit increases, (g) potential early retirement window benefit values, and (h) pension benefits and ancillary benefits payable under a qualifying annuity contract.	The following benefits were excluded from the solvency liabilities shown in this valuation: • Post-retirement indexing
The financial position on the solvency basis needs to be adjusted for any Prior Year Credit Balance.	Not applicable.
The solvency financial position can be determined by smoothing assets and the solvency discount rate over a period of up to 5 years.	Solvency assets and liabilities were smoothed over 5 years.
The benefit rate increases coming into effect after the valuation date can be reflected in the solvency valuation.	Not applicable.

Financial Position

The financial position on a solvency basis, compared with the corresponding figures from the previous valuation, is as follows:

($000's)	07.01.2021	07.01.2018
Assets		
Market value of assets	$2,584,810	$2,056,405
Termination expense provision	($900)	($900)
Net assets	$2,583,910	$2,055,505
Liabilities		
Total hypothetical wind-up liabilities	$2,611,032	$2,252,753
Difference in circumstances of assumed wind-up	$0	$0
Value of excluded benefits	($78,696)	$0
Liabilities on a solvency basis	$2,532,336	$2,252,753
Surplus (shortfall) on a market value basis	$51,574	($197,248)
Solvency liability adjustment	$229	$0
Solvency asset adjustment	($198,978)	$0
Solvency surplus (shortfall)	($147,633)	($197,248)
Solvency ratio	102%	91%

Plausible Adverse Scenarios

The financial impact on the solvency financial position of plausible adverse scenarios that would pose threats to the Plan's future financial condition is presented in Appendix G.

Section 6

Minimum funding requirements

The Act prescribes the minimum contributions that the University must make to the Plan. The minimum contributions in respect of a defined benefit component of a pension plan are comprised of going concern current service cost, the provision for adverse deviations in respect of the current service cost, and special payments to fund any funding shortfall or solvency shortfall that exceeds the level set out under the Act.

On the basis of the assumptions and methods described in this report, no special payments are required. However, since the available actuarial surplus is zero, the Act requires the University to contribute the current service cost including the provision for adverse deviations. The determination of the provision for adverse deviations is shown in Appendix A. On the basis of the assumptions and methods described in this report, the rule for determining the minimum required University monthly contributions, as well as an estimate of the employee and University contributions, from the valuation date until the next required valuation are as follows:

Period beginning	Monthly Employee Contribution	Estimated University's contributions			
		Provision for adverse deviations related to monthly current service cost	Monthly current service cost and provision for adverse deviations	Available actuarial surplus applied[5]	Minimum monthly contributions
July 1, 2021	$2,490,000	$381,000	$2,865,000	$0	$2,865,000
July 1, 2022	$2,490,000	$381,000	$2,865,000	$0	$2,865,000
July 1, 2023	$2,490,000	$381,000	$2,865,000	$0	$2,865,000

Period beginning	University's contribution rule		
	Monthly current service cost[6]	Provision for adverse deviations in respect of current service cost	Explicit monthly expense allowance[7]
July 1, 2021	100%	15%	$0
July 1, 2022	100%	15%	$0
July 1, 2023	100%	15%	$0

[5] Notwithstanding the available actuarial surplus in the Plan, the terms of the Plan may require the University to make current service cost contributions.

[6] Expressed as a percentage of members' required contributions.

[7] Includes Provision for Adverse Deviations in respect of expense allowance.

The estimated contribution amounts above are based on projected members' required contributions. Therefore, the actual University's current service cost and provision for adverse deviations in respect of the current service cost may be different from the above estimates and, as such, the contribution requirements should be monitored closely to ensure contributions resume in accordance with the Act.

Other Considerations

Differences between Valuation Bases

There is no provision in the minimum funding requirements to fund the difference between the hypothetical wind-up and reduced solvency shortfalls, if any.

In addition, although minimum funding requirements do include a requirement to fund the going concern current service cost and a provision for adverse deviations in respect of the current service cost, there is no requirement to fund the expected growth in the hypothetical wind-up or solvency liability after the valuation date, which could be greater.

Timing of Contributions

Funding contributions are due on a monthly basis. Contributions for current service cost and the provision for adverse deviations must be made within 30 days following the month to which they apply. Special payment contributions must be made in the month to which they apply.

Retroactive Contributions

The University must contribute the excess, if any, of the minimum contribution recommended in this report over contributions actually made in respect of the period following the valuation date. This contribution, along with an allowance for interest, is due no later than 60 days following the date this report is filed.

Payment of Benefits

The Act imposes certain restrictions on the payment of lump sums from the Plan when the transfer ratio revealed in an actuarial valuation is less than one. If the transfer ratio shown in this report is less than one, the plan administrator should ensure that the monthly special payments are sufficient to meet the requirements of the Act to allow for the full payment of benefits, and otherwise should take the prescribed actions.

Additional restrictions are imposed when:

- The transfer ratio revealed in the most recently filed actuarial valuation is less than one and the administrator knows or 'ought to know' that the transfer ratio of the Plan has declined by 10% or more since the date the last valuation was filed.

- The transfer ratio revealed in the most recently filed actuarial valuation is greater than or equal to one and the administrator knows or 'ought to know' that the transfer ratio of the Plan has declined to less than 0.9 since the date the last valuation was filed.

As such, the administrator should monitor the transfer ratio of the Plan and, if necessary, take the prescribed actions.

Section 7

Maximum eligible contributions

The *Income Tax Act* (the "ITA") limits the amount of employer contributions that can be remitted to the defined benefit component of a registered pension plan. For purposes of this section on maximum eligible contributions only, any reference to the current service cost includes the provision for adverse deviations in respect of the current service cost.

In accordance with Section 147.2 of the ITA and *Income Tax Regulation* 8516, for a plan that is underfunded on either a going concern or on a hypothetical wind-up basis, the maximum permitted contributions are equal to the employer's current service cost, including the explicit expense allowance if applicable, plus the greater of the going concern funding shortfall and hypothetical wind-up shortfall.

For a plan that is fully funded on both going concern and hypothetical wind-up bases, the employer can remit a contribution equal to the employer's current service cost, including the explicit expense allowance if applicable, as long as the surplus in the plan does not exceed a prescribed threshold. Specifically, in accordance with Section 147.2 of the ITA, for a plan that is fully funded on both going concern and hypothetical wind-up bases, the plan may not retain its registered status if the employer makes a contribution while the going concern funding excess exceeds 25% of the going concern funding target.

Notwithstanding the above, any contributions that are required to be made in accordance with pension benefits legislation are eligible contributions in accordance with Section 147.2 of the ITA and can be remitted.

Schedule of Maximum Contributions

The University is permitted to fully fund the greater of the going concern and hypothetical wind-up shortfalls ($27,122,000), as well as make current service cost contributions. The portion of this contribution representing the payment of the hypothetical wind-up shortfall can be increased with interest at 2.57% per year from the valuation date to the date the payment is made, and must be reduced by the amount of any deficit funding made from the valuation date to the date the payment is made.

Assuming the University contributes the greater of the going concern and the hypothetical wind-up shortfall of $27,122,000 as of the valuation date, the rule for determining the estimated maximum eligible annual contributions, as well as an estimate of the maximum eligible contributions until the next valuation, are as follows:

Year beginning	University's contribution rule	Estimated University's contributions	
	Monthly current service cost including provision for adverse deviations [8]	Deficit Funding	Monthly current service cost including expense allowance
July 1, 2021	115%	n/a	$2,865,000
July 1, 2022	115%	n/a	$2,865,000
July 1, 2023	115%	n/a	$2,865,000

The University's current service cost in the above table was estimated based on projected members' required contributions. The actual University's current service cost will be different from these estimates and, as such, the contribution requirements should be monitored closely to ensure compliance with the ITA.

[8] Expressed as a percentage of members' required contributions.

Section 8

Actuarial opinion

In our opinion, for the purposes of the valuations,

- The membership data on which the valuation is based are sufficient and reliable;
- The assumptions are appropriate; and
- The methods employed in the valuation are appropriate.

This report has been prepared, and our opinions given, in accordance with accepted actuarial practice in Canada. It has also been prepared in accordance with the funding and solvency standards set by the *Pension Benefits Act (Ontario)*.

DRAFT

Chad Spence
Fellow of Society of Actuaries
Fellow of the Canadian Institute of Actuaries

Date

DRAFT

Bill Watson
Fellow of Society of Actuaries
Fellow of the Canadian Institute of Actuaries

Date

Appendix A
Prescribed disclosure

Definitions

The Act defines a number of terms as follows:

Defined Term	Description		Result
Going concern assets	Total smoothed value of assets plus the sum of the following:		$2,385,832,000
	(a) the present value of special payments in respect of any past service unfunded liability identified in a previously filed report	$0	
	(b) the present value of special payments in respect of any plan amendment that increases going concern liabilities	$0	
	(c) present value of special payments in respect of going concern unfunded liabilities identified in a previously filed report that are scheduled for payment within one year of the date of this report	$0	
Going concern excess / (unfunded liability)	The Going Concern Assets minus the sum of the following:		$128,204,000
	a. the going concern liabilities		
	(i) liabilities excluding the value of escalated adjustments	$1,950,697,000	
	(ii) liabilities in respect of escalated adjustments	$150,875,000	
	b. the provision for adverse deviations in respect of the going concern liabilities excluding the value of escalated adjustments	$156,056,000	
	c. Prior Year Credit Balance	$0	

Defined Term	Description	Result
Going concern funded ratio	The ratio of: (a) Total smoothed value of assets (excluding letters of credit) less the Prior Year Credit Balance; to (b) going concern liabilities	1.14
Transfer Ratio	The ratio of: (a) Solvency Assets minus the lesser of the Prior Year Credit Balance and the minimum required University contributions including the provision for adverse deviations until the next required valuation; to (b) The sum of the Solvency Liabilities and liabilities for benefits, other than benefits payable under qualifying annuity contracts that were excluded in calculating the Solvency Liabilities.	0.99
Solvency Ratio	The ratio of: (a) Solvency Assets related to defined benefits and ancillary benefits plus the total amount of any letters of credit minus the Prior Year Credit Balance (b) the sum of the Solvency Liabilities related to defined benefits and ancillary benefits	1.02
Prior Year Credit Balance	Accumulated sum of contributions made to the pension plan in excess of the minimum required contributions (note: only applies if the University chooses to treat the excess contributions as a Prior Year Credit Balance).	$0
Solvency Assets	Market value of assets including accrued or receivable income and excluding the value of any qualifying annuity contracts.	$2,584,810,000

Defined Term	Description	Result
Solvency Asset Adjustment	The sum of:	
	(a) the difference between smoothed value of assets and the market value of assets	($198,978,000)
	(b) the present value of going concern special payments required to liquidate any past service unfunded liability	$0
	(c) the present value of going concern special payments identified in July 1, 2018 valuation and scheduled for payment between July 1, 2021 and June 30, 2022.	$0
	(d) the present value of going concern special payments (identified in this report) that are scheduled for payment within 6 years following the valuation date	$0
	(e) the present value of any previously scheduled solvency special payments (excluding those identified in this report)	$0
	(f) the total value of all letters of credit in respect of the special payments due before the valuation date, subject to the limit of 15% of solvency liabilities	$0
		($198,978,000)
Solvency Liabilities	Liabilities determined as if the plan had been wound up on the valuation date, including liabilities for plant closure benefits or permanent layoff benefits that would be immediately payable if the University's business were discontinued on the valuation date of the report, but, if elected by the plan sponsor, excluding liabilities for,	$2,532,336,000
	(a) any escalated adjustment,	
	(b) excluded plant closure benefits,	
	(c) excluded permanent layoff benefits,	
	(d) special allowances other than funded special allowances,	
	(e) consent benefits other than funded consent benefits,	
	(f) prospective benefit increases,	
	(g) potential early retirement window benefit values, and	

Defined Term	Description	Result
	(h) pension benefits and ancillary benefits payable under a qualifying annuity contract.	
Solvency Liability Adjustment	The amount by which Solvency Liabilities are adjusted as a result of using a solvency valuation interest rate that is the average of market interest rates calculated over the period of time used in the determination of the smoothed value of assets.	$229,000
Solvency Deficiency	The amount, if any, by which the sum of:	
	(a) the Solvency Liabilities	$2,532,336,000
	(b) the Solvency Liability Adjustment	$229,000
	(c) the Prior Year Credit Balance	$0
		$2,532,565,000
	Exceeds the sum of	
	(d) the Solvency Assets net of estimated termination expenses[9]	$2,583,910,000
	(e) the Solvency Asset Adjustment	($198,978,000)
		$2,384,932,000
		$147,633,000
Reduced Solvency Deficiency / (Solvency Excess)	The sum of:	
	(a) 85% of the Solvency Liabilities	$2,152,486,000
	(b) 85% of the Solvency Liability Adjustment	$195,000
	(c) the Prior Year Credit Balance	$0
		$2,152,681,000
	minus the sum of:	
	(d) the Solvency Assets net of estimated termination expenses[8]	$2,583,910,000
	(e) the Solvency Asset Adjustment	($198,978,000)
		$2,384,932,000
		($232,251,000)

[9] In accordance with accepted actuarial practice, for purposes of determining the financial position, the market value of plan assets was reduced by a provision for estimated termination expenses payable from the Plan's assets that may reasonably be expected to be incurred in terminating the Plan and to be charged to the Plan.

Provision for Adverse Deviations

The provision for adverse deviations has been established in accordance with regulations taking into account the following parameters:

Defined Amount		Results
Fixed Income Component (L)	The sum of the Plan's target allocation of assets (excluding those allocated to annuity contracts and meeting the minimum rating requirement) as described in the regulations according to the investment policy applicable at the valuation date: **Investment** — **Target** Universe bonds — 10.0% Long-term bonds — 25.0%	35.0%
Alternative Investment Component (M)	The sum of the Plan's target allocation of assets (excluding those allocated to annuity contracts) meeting requirements as described in the regulations according to the investment policy applicable at the valuation date: **Investment** — **Target** Real assets — 10.0%	10.0%
Investment Component (N)	Plan's target asset allocation for mutual, pooled or segregated funds	0.0%
Investment Component Fixed Income % (P)	Portion of Investment Component (N) that is allocated to investment categories accounted for in Fixed Income Component (L)	0.0%
Investment Component Alternative Investment % (Q)	Portion of Investment Component (N) that is allocated to investment categories accounted for in Alternative Income Component (M)	0.0%
Annuity Contract Allocation (R)	Annuity contracts that have been purchased from an insurance company and excluded from the Fixed Income Component (L) and Alternative Investment Component (M)	0.0%

Combined Target Asset Allocation for Fixed Income Assets (J)			
Sum of			
• Fixed Income Component (L)	35.0%		
• 0.5 × Alternative Investment Component (0.5 × M)	5.0%		
• Investment Component × Investment Component Fixed Income % (N × P)	0.00%		
• 0.5 × Investment Component × Investment Component Alternative Investment % (0.5 x N × Q)	0.00%		
		40.0%	
Divided by			
• 100% - Annuity Contract Allocation (100% - R)		100.0%	
Combined Target Asset Allocation for Fixed Income Assets			**40.0%**

Combined Target Asset Allocation for Non-Fixed Income Assets (K)	
100% – Combined **Target** Asset Allocation for Fixed Income Assets (100% - J)	**60.0%**
Duration of going concern liabilities at valuation date	
= (F - G) / (G × 0.01) where,	**11.94**
G = going concern liabilities excluding liabilities in respect of escalated adjustments and liabilities in respect of benefits for which an annuity contract has been purchased at valuation date established using the discount rate determined for this valuation	$1,950,697,000
F = going concern liabilities excluding liabilities in respect of escalated adjustments and liabilities in respect of benefits for which an annuity contract has been purchased established using the discount rate minus 1%	$2,183,662,000

Benchmark Discount Rate (E)	
Base rate	0.50%
Effective yield from CANSIM Series V39056 (H)	1.84%
1.5% x Combined **Target** Asset Allocation for Fixed Income Assets (1.5% × J)	0.60%
5.0% x Combined **Target** Asset Allocation for Non-Fixed Income Assets (5.0% × K)	3.00%
Benchmark Discount Rate	5.94%

Provision for Adverse Deviations		
i. 5.0% for a closed plan and 4.0% for a Plan that is not a closed plan		4.0%
ii. Provision based on Combined Target Asset Allocation for Non-Fixed Income Assets		4.0%
iii. Greater of zero and the		
• Duration of going concern liabilities at valuation date	11.94	
Multiplied by:		
– Going concern valuation gross discount rate net of active investment management fees (D), less	5.10%	
– Benchmark Discount Rate (E)	5.94%	0.0%
Provision for Adverse Deviations (i. + ii. + iii.)		8.0%

The available actuarial surplus that may be used according to the Act is established as follows:

Available actuarial surplus			
Excess of			
• Assets determined on basis of going concern valuation including accrued and receivable income but excluding the value of any letters of credit		$2,385,832,000	
Over			
• Going concern liabilities	$2,101,572,000		
• Provision for adverse deviations in respect of the going concern liabilities	$156,056,000		
• Prior Year Credit Balance	$0		
		$2,257,628,000	
		$128,204,000	(a)
Excess of			
• Solvency assets excluding the value of any letters of credits and lesser of Prior Year Credit Balance and minimum required University contributions, including the provision for adverse deviations until the next required valuation		$2,584,810,000	
Over			
• Wind-up liabilities × 105%		$2,741,584,000	
		$0	(b)
The available actuarial surplus = the lesser of a) and b) above		$0	

Timing of Next Required Valuation

In accordance with the Act the next valuation of the Plan would be required at an effective date within one year of the current valuation date if:

- The ratio of solvency assets to solvency liabilities is less than 85%.
- The University elected to exclude plant closure or permanent lay-off benefits under Section 5(18) of the regulations, and has not rescinded that election.

Otherwise, the next valuation of the Plan would be required at an effective date no later than three years after the current valuation date.

Accordingly, the next valuation of the Plan will be required as of July 1, 2024.

Special Payments

As the Plan does not have a funding shortfall, going concern special payments revealed in the previous valuation are no longer required. Since there is a solvency excess ($232,251,000), as outlined in the Definitions section of this appendix, no solvency special payments are required.

Pension Benefits Guarantee Fund (PBGF) Assessment

A PBGF assessment is required to be paid under Section 37 of the Act. The PBGF assessment base and additional information required under Section 3 of the Regulation 909 under the Act is as follows:

Solvency assets	$2,584,810,000	(a)
PBGF liabilities	$2,532,336,000	(b)
Solvency liabilities	$2,532,336,000	(c)
Ontario asset ratio	100.0%	(d) = (b) ÷ (c)
Ontario portion of the fund	$2,584,810,000	(e) = (a) × (d)
PBGF assessment base	$0	(f) = max(0, (b) – (e))
Amount of additional liability for plant closure and/or permanent layoff benefits which is not funded and subject to the 3% assessment pursuant to s.37(4)	$0	(g)

Modified PBGF liabilities	$1,198,700,426	
Number of Ontario Plan beneficiaries	7,147	
Number of Ontario Plan beneficiaries receiving monthly pensions (including bridge benefit) of $1,500 or less	833	
Number of Ontario Plan beneficiaries who have accrued monthly pensions (including bridge benefit) of $1,500 or less	3,405	
Amount of largest monthly pension or monthly pension benefit (including bridge benefit) that has accrued under the plan to an Ontario beneficiary	$11,468	

Percentiles of amounts payable under Plan to Ontario beneficiaries (in reference to all accrued monthly pensions, including bridge benefits)	Accrued monthly pension (including bridge benefit)	PBGF liabilities
90th	$4,093	$704,658,903
80th	$2,148	$418,975,937

70th	$1,414	$248,705,775
60th	$938	$139,108,552
50th	$570	$75,275,359
40th	$319	$40,427,112
30th	$191	$20,260,908
20th	$110	$7,900,803
10th	$46	$1,789,049

Percentiles of amounts payable under Plan to Ontario beneficiaries (in reference to all monthly pensions in pay, including bridge benefits)	Accrued monthly pension (including bridge benefit)	PBGF liabilities
90th	$6,823	$861,849,301
80th	$5,217	$650,808,606
70th	$4,014	$470,861,368
60th	$3,065	$328,618,657
50th	$2,386	$215,975,411
40th	$1,749	$132,565,100
30th	$1,280	$73,562,757
20th	$890	$32,518,363
10th	$449	$8,705,499

Appendix B
Plan assets

The pension fund is held by CIBC Mellon Trust Company. In preparing this report, we have relied upon the auditors' report prepared by KPMG without further audit. Customarily, this information would not be verified by a plan's actuary. We have reviewed the information for internal consistency and we have no reason to doubt its substantial accuracy.

Reconciliation of Market Value of Plan Assets

The pension fund transactions since the last valuation are summarized in the following table:

($000's)	July 1, 2018 to July 1, 2019	July 1, 2019 to July 1, 2020	July 1, 2020 to July 1, 2021
July1	$2,063,331	$2,168,315	$2,241,311
PLUS			
Members' contributions	$27,546	$27,743	$28,641
University's contributions			
• Current service	$33,973	$34,602	$36,136
• Past service	$19,633	$18,885	$18,885
Investment income	$50,800	$55,413	$51,440
Net capital gains (losses)	$76,034	$51,416	$328,141
Transfer to the Plan	$76	$692	$193
	$208,062	$188,751	$463,436
LESS			
Pensions paid	$77,067	$81,292	$84,730
Lump-sums paid	$19,319	$28,508	$22,496
Administration and investment fees	$6,692	$5,955	$6,491
	$103,078	$115,755	$113,717
July 1	$2,168,315	$2,241,311	$2,591,030
Gross rate of return[10]	6.18%	4.97%	17.05%
Rate of return net of expenses[11]	5.84%	4.68%	16.73%

[10] Assuming mid-period cash flows.
[11] Assuming mid-period cash flows.

The market value of assets shown in the above table is adjusted to reflect in-transit amounts as follows:

($000's)	Current Valuation	Previous Valuation
Market value of invested assets	$2,591,030	$2,063,331
In-transit amounts		
• Benefit payments	($6,220)	($6,926)
Market value of assets adjusted for in-transit amounts	$2,584,810	$2,056,405

We have tested the pensions paid, the lump-sums paid, and the contributions for consistency with the membership data for the Plan members who have received benefits or made contributions. The results of these tests were satisfactory.

Investment Policy

The plan administrator has adopted a statement of investment policy and procedures (approved December 17, 2020). This policy is intended to provide guidelines for the manager(s) as to the level of risk that is consistent with the Plan's investment objectives. A significant component of this investment policy is the asset mix.

The plan administrator is solely responsible for selecting the Plan's investment policies, asset allocations, and individual investments.

The constraints on the asset mix and the actual asset mix at the valuation date are provided for information purposes:

	Investment Policy			Actual asset Mix as at July 1, 2021
	Minimum	Target	Maximum	
Canadian Equities	8%	13%	18%	14.6%
Foreign Equities	25%	42%	59%	46.2%
Real Assets	5%	10%	15%	4.9%
Bonds	20%	35%	50%	33.6%
Cash and cash equivalents	0%	0%	10%	0.7%
		100%		100%

Because the Plan's assets (which are invested in accordance with the above investment policy) are not matched to the Plan's liabilities (which tend to behave like long bonds), the Plan's financial position will fluctuate over time. These fluctuations could be significant and could cause the Plan to become underfunded or overfunded even if the University contributes to the Plan based on the funding requirements presented in this report.

Appendix C

Methods and assumptions – Going concern

Valuation of Assets

For this valuation, we have used an adjusted market-value method to determine the smoothed value of assets. Under this method, investment experience gains (losses) (actual versus the expected investment return on assets, net of expenses) arising during a given year are spread on a straight-line basis over 5 years in accordance with the schedule shown in the following table:

Year	Percentage of Gains (Losses) Unrecognized
2020/2021	80%
2019/2020	60%
2018/2019	40%
2017/2018	20%
before 2017	0%

The asset values produced by this method are related to the market value of the assets, with the advantage that, over time, the market-related asset values will tend to be more stable than market values. To the extent that more investment experience gains than losses will arise over the long term, the smoothed value will tend to be lower than the market value.

The smoothed value of the assets at July 1, 2021 was derived as follows:

($000's)			
Market value of assets			$2,591,030
LESS			
Unrecognized investment gains/(losses)	2020/2021:	$248,231 × 80% =	$198,585
	2019/2020:	($19,771) × 60% =	($11,863)
	2018/2019:	$5,020 × 40% =	$2,008
	2017/2018:	$51,239 × 20% =	$10,248
			$198,978
Smoothed value of assets			$2,392,052

The smoothed value of assets shown in the above table is adjusted to reflect in-transit amounts as follows:

($000's)	Current Valuation	Previous Valuation
Smoothed value of assets	$2,392,052	$1,990,482
In-transit amounts		
• Benefit payments	($6,220)	($6,926)
Smoothed value of assets, adjusted for in-transit amounts	$2,385,832	$1,983,556

Going Concern Funding Target

Over time, the real cost to the employer of a pension plan is the excess of benefits and expenses over member contributions, if any, and investment earnings. The actuarial cost method allocates this cost to annual time periods.

For purposes of the going concern valuation, we have continued to use the projected unit credit actuarial cost method. Under this method, we determine the present value of benefit cash flows expected to be paid in respect of service accrued prior to the valuation date, based on projected final average earnings. This is referred to as the funding target.

The funding excess or funding shortfall, as the case may be, is the difference between the market or smoothed value of assets and the funding target. A funding excess on a market value basis indicates that the current market value of assets and expected investment earnings are expected to be sufficient to meet the cash flows in respect of benefits accrued to the valuation date as well as expected expenses – assuming the plan is maintained indefinitely. A funding shortfall on a market value basis indicates the opposite – that the current market value of the assets is not expected to be sufficient to meet the plan's cash flow requirements in respect of accrued benefits, absent additional contributions.

As required under the Act, a funding shortfall (including the prior year credit balance) and the provision for adverse deviations must be amortized over no more than 10 years through special payments beginning one year after the valuation date. A funding excess may, from an actuarial standpoint, be applied immediately to reduce required employer current service contributions unless precluded by the terms of the plan or by legislation.

The actuarial cost method used for the purposes of this valuation produces a reasonable matching of contributions with accruing benefits. Because benefits are recognized as they accrue, the actuarial cost method provides an effective funding target for a plan that is maintained indefinitely.

Current Service Cost

The current service cost is the present value of projected benefits to be paid under the plan with respect to service expected to accrue during the period until the next valuation.

The University's current service cost is the total current service cost reduced by the members' required contributions.

The University's current service cost has been expressed as a percentage of the members' required contributions to provide an automatic adjustment in the event of fluctuations in membership and/or pensionable earnings.

Under the projected unit credit actuarial cost method, the current service cost for an individual member will increase each year as the member approaches retirement. However, the current service cost of the entire group, expressed as a percentage of the members' required contributions, can be expected to remain stable as long as the average age distribution of the group remains constant.

Actuarial Assumptions – Going Concern Basis

The present value of future benefit payment cash flows is based on economic and demographic assumptions. At each valuation we determine whether, in our opinion, the actuarial assumptions are still appropriate for the purposes of the valuation, and we revise them, if necessary. Emerging experience will result in gains or losses that will be revealed and considered in future actuarial valuations.

The table below shows the various assumptions used in the current valuation in comparison with those used in the previous valuation.

Assumption	Current valuation	Previous valuation
Discount rate:	5.10%	5.60%
Explicit expenses:	$0	$0
Inflation:	2.00%	2.00%
ITA limit / YMPE increases:	3.00%	3.00%
Pensionable earnings increases:	Unifor members 3.0% per year TMG members 3.0% per year MUFA members 4.0% per year Clinical Faculty members 4.0% per year Others 4.0% per year	Unifor members 3.0% per year TMG members 3.0% per year MUFA members 4.0% per year Clinical Faculty members 4.0% per year Others 4.0% per year

Assumption	Current valuation	Previous valuation
Post-retirement pension increases:	Unifor Hired on or After May 1, 2010 **Year** / **Rate** 2022 / 1.63% 2023 / 2.00% 2024 / 2.00% 2025 / 2.00% 2026 / 2.00% 2027 onwards / 0.10% Other **Year** / **Rate** 2022 / 1.45% 2023 / 2.00% 2024 / 2.00% 2025 / 2.00% 2026 / 2.00% 2027 onwards / 0.60%	Unifor Hired on or After May 1, 2010 **Year** / **Rate** 2019 / 1.89% 2020 / 2.00% 2021 / 1.47% 2022 / 2.24% 2023 / 1.14% 2024 onwards / 0.60% Other **Year** / **Rate** 2019 / 1.89% 2020 / 2.00% 2021 / 1.97% 2022 / 2.03% 2023 / 1.64% 2024 onwards / 1.10%
Interest on employee contributions:	5.10%	5.60%
Retirement rates:	Not eligible for unreduced pension 5% under age 60, 10% at each of ages 60-64 Eligible for an unreduced pension 8% under age 60, 12% at each of ages 60-64 All members 30% at age 65, 20% at each of ages 66-70, 100% at age 71	15% retire when first eligible for an unreduced pension, 10% retire at each age thereafter up to age 64, 20% retire at age 65, 50% retire at each of the ages 66-69, remainder retire at age 70

Assumption	Current valuation		Previous valuation	
Termination rates:	**Age**	**Rate**	**Age**	**Rate**
	Under 25	15.0%	Under 25	15.0%
	25	13.0%	25	13.0%
	30	8.0%	30	8.0%
	35	5.5%	35	5.5%
	40	3.5%	40	3.5%
	45	3.0%	45	3.0%
	50	3.0%	50	3.0%
	55 and older	0.0%	55 and older	0.0%
	15% of terminations are assumed to be involuntary without cause		15% of terminations are assumed to be involuntary without cause	
Mortality rates:	90% of the rates of the 2014 Public Sector Canadian Pensioners Mortality Table (CPM2014Publ)		85% of the rates of the 2014 Public Sector Canadian Pensioners Mortality Table (CPM2014Publ)	
Mortality improvements:	Fully generational using CPM Improvement Scale B (CPM-B)		Fully generational using CPM Improvement Scale B (CPM-B)	
Disability rates:	None		None	
Form of benefit elected:	65% of terminations and 10% of retirements are assumed to receive a lump sum transfer.		95% of terminations and 5% of retirements are assumed to receive a lump sum transfer.	
Actuarial basis for benefits assumed to be settled through a lump sum:	Discount rate: 1.8% for 10 years, 3.3% thereafter Mortality rates: CPM2014 with fully generational improvements using CPM-B		Discount rate: 2.9% for 10 years, 3.2% thereafter Mortality rates: CPM2014 with fully generational improvements using CPM-B"	
Eligible spouse at retirement:	70%		80%	
Spousal age difference:	Male spouse is 2 years older		Male spouse is 3 years older	

The assumptions are best estimates and do not include a margin for adverse deviations.

Pensionable Earnings

The benefits ultimately paid will depend on each member's final average earnings. To calculate the pension benefits payable upon retirement, death, or termination of employment, we have taken rate of pay on July 1, 2021 and assumed that such pensionable earnings will increase at the assumed rate.

Rationale for Assumptions

A rationale for each of the assumptions used in the current valuation is provided below.

Discount Rate

We have discounted the expected benefit payment cash flows using the expected investment return on the smoothed value of the fund net of fees and less a margin for adverse deviations. Other bases for discounting the expected benefit payment cash flows may be appropriate, particularly for purposes other than those specifically identified in this valuation report.

The discount rate is comprised of the following:

- An **assumed investment return** based on estimated returns for each major asset class that are consistent with market conditions on the valuation date modified to include a provision for increases in market interest rates to a level higher than current historically low levels, on the expected time horizon over which benefits are expected to be paid, and on the target asset mix specified in the Plan's investment policy.
- An **assumed passive investment management expense provision** which represents the hypothetical fees for passive investment management of assets based on estimated fees charged by index managers for balanced mandates.
- An **active investment management expense provision**. We have assumed that these fees would be offset by an equivalent **additional return resulting from active investment management**.
- An **implicit non-investment management expense provision** determined as the average rate of non-investment expenses paid from the fund over the last 3 years. These would include all fees payable from the fund (administration, custodial, audit, consulting, etc.) except those payable to investment managers, to the extent that these fees are not covered in an explicit provision for expenses added to the current service cost.

The discount rate was developed as follows:

Assumed investment return	5.25%
Provision for administrative, actuarial and passive investment management fees	(0.20%)
Rounding to nearest 10 basis points	0.05%
Net discount rate	5.10%

Inflation

The inflation assumption is based on the mid-point of the Bank of Canada's inflation target range of between 1% and 3%.

Income Tax Act Pension Limit and Year's Maximum Pensionable Earnings

The assumption is based on historical real economic growth and the underlying inflation assumption.

Pensionable Earnings

The assumption is based on general wage growth assumptions increased by our best estimate of future merit and promotional increases over general wage growth considering the University's expectations.

Post-Retirement Pension Increases

The assumption is based on the Plan formula, as well as the future investment return and inflation assumption above.

Retirement Rates

The assumption is based on experience over the years 2008 to 2020.

Termination Rates

Use of a different assumption would not have a material impact on the valuation.

Mortality Rates

The assumption for the mortality rates is based on the Canadian Pensioners' Mortality (CPM) study published by the Canadian Institute of Actuaries in February 2014. Considering the characteristics of the group, it was considered appropriate to use the CPM mortality rates from the public sector over the combined public/private sector experience as a reference table.

The mortality rates selected reflect plan-specific experience over the years 2008 to 2020. However, due to the size of the Plan, this mortality experience is not fully credible. The CPM mortality rates from the public sector have been adjusted after considering the plan-specific experience and member and plan-specific characteristics through the Mercer Mortality Model, with those characteristics including pension amount, lifestyle information extracted from postal codes, and broad classification of type of work. Mercer has compiled detailed mortality experience data from a diverse set of large and mid-sized Canadian pension plans and analyzed the experience across a number of those key characteristics. This has led to the creation of numerous mortality tables varying according to the different characteristics, and forms the Mercer Mortality Model.

There is broad consensus among actuaries and other longevity experts that mortality improvement will continue in the future, but the degree of future mortality improvement is uncertain. Two mortality improvement scales published by the Canadian Institute of Actuaries (CIA) are generally adopted for Canadian pension valuations:

- The Canadian Pensioners Mortality (CPM) study published in February 2014 included CPM Improvement Scale B (CPM-B).
- A report released by the Task Force on Mortality Improvement on September 20, 2017 included an analysis of the rate of mortality improvement for the Canadian population and provides for mortality improvement scale MI-2017 to be considered for the purpose of reflecting future mortality improvement in Canadian actuarial work, while acknowledging that it might be appropriate to use alternative mortality improvement assumptions to reflect the nature of the work.

The CIA Committee on Pension Plan Financial Reporting published a revised version of the Educational Note on the Selection of Mortality Assumptions for Pension Plan Valuations on December 21, 2017. The Educational Note indicated that given the recent publication of the CPM-B and MI-2017 improvement scales and the similar data sets used in their development, it may be appropriate to use either scale in the absence of credible information to the contrary, such as the publication of a successor scale by the CIA.
COVID-19 has impacted mortality rates globally. Statistics Canada reported excess mortality in 2020 for the general Canadian population and other peer countries globally have also seen excess mortality over the course of the pandemic. Mortality experience for the plan has been reflected up to the date of the valuation. We have not adjusted the expected mortality rates for Plan members after the valuation date. The long-term implications of the pandemic on mortality rates is unclear as at the date of this report. Credible plan specific experience and relevant broader observed mortality trends after the report date will be reflected in future valuations.
For the current valuation, we have continued to use the CPM-B scale, which is a reasonable outlook for future mortality improvement.

Based on the assumption used, the life expectancy of a member age 65 at the valuation date is 23.8 years for males and 25.7 years for females.

Interest on Employee Contributions

The assumption is based on Plan terms and the underlying investment return assumption.

Disability Rates

Use of a different assumption would not have a material impact on the valuation.

Form of benefit elected and cost of future lump sums

The assumption for the percentage of eligible plan participants that will elect to receive their benefit as a lump sum transfer from the plan is based on experience from 2008 to 2020.

The cost of future lump sums will depend on the level of market interest rates at the time the lump sum is paid and any changes in the applicable actuarial standards for the determination of pension plan commuted values. The assumed cost of future lump sums is based on the average expected level of market interest rates over the period during which lump sums are expected to be paid, taking into account market conditions on the valuation date and the new CIA CV Standard. We have also assumed that future lump sums elected by eligible plan participants will be calculated using the mortality basis applicable under the actuarial standards as of the valuation date.

Eligible Spouse

The assumption is based on an industry standard for non-retired members (actual status used for retirees).

Spousal Age Difference

The assumption is based on an industry standard showing males are typically 2 years older than their spouse.

Appendix D

Methods and assumptions – Hypothetical wind-up and solvency

Hypothetical Wind-up Basis

The Canadian Institute of Actuaries requires actuaries to report the financial position of a pension plan on the assumption that the plan is wound up on the effective date of the valuation, with benefits determined on the assumption that the pension plan has neither a surplus nor a deficit.

To determine the actuarial liability on the hypothetical wind-up basis, we have valued those benefits that would have been paid had the Plan been wound up on the valuation date, with all members fully vested in their accrued benefits.

The Standards of Practice of the Canadian Institute of Actuaries require that the scenario upon which the hypothetical wind-up valuation is based be postulated. However, there are no benefits under the Plan contingent upon the circumstances of the plan wind-up or contingent upon other factors. Therefore, it was not necessary to postulate a scenario upon which the hypothetical wind-up valuation is made. No benefits payable on plan wind-up were excluded from our calculations. The plan wind-up is assumed to occur in circumstances that maximize the actuarial liability.

Upon plan wind-up, members are given options for the method of settling their benefit entitlements. The options vary by eligibility and by province of employment, but in general, involve either a lump sum transfer or an immediate or deferred pension.

The value of benefits assumed to be settled through a lump sum transfer is based on the assumptions described in Section 3500 – *Pension Commuted Values* of the Canadian Institute of Actuaries' Standards of Practice applicable for July 1, 2021.

Benefits provided as an immediate or deferred pension are assumed to be settled through the purchase of annuities based on an estimate of the cost of purchasing annuities.

However, there is limited data available to provide credible guidance on the cost of a purchase of indexed annuities in Canada. In accordance with the *Canadian Institute of Actuaries Educational Note: Assumptions for Hypothetical Wind-up and Solvency Valuations with Effective Dates on and after December 31, 2020 and no later than December 30, 2021 (the "Educational Note")*, we have assumed that an appropriate proxy for estimating the cost of such purchase is using the yield on the long-term Government of Canada Real Return bonds, reduced by 0.5%.

The Educational Note provides guidance on estimating the cost of annuity purchases assuming a typical group of annuitants. That is, no adjustments for sub- or super-standard mortality are considered. However, it is expected that insurers will consider plan experience

and certain plan-specific characteristics when determining the mortality basis for a particular group. The Educational Note states that the actuary would be expected to make an adjustment to the regular annuity purchase assumptions where there is demonstrated substandard or super-standard mortality or where an insurer might be expected to assume so. In such cases, the actuary would be expected to make an adjustment to the mortality assumption in a manner consistent with the underlying annuity purchase basis. Given the uncertainty surrounding the actual mortality basis that would be typical of a group annuity purchase, it is reasonable to assume that there is a range of bases that can be expected not to be materially different from the actual mortality basis. Therefore, an adjustment to the regular annuity purchase assumptions would be warranted when the plan's assumed basis falls outside that range. In this context, we have determined that an adjustment to the mortality rates used in the regular annuity purchase assumptions is required.

We have not included a margin for adverse deviations in the solvency and hypothetical wind-up valuations.

The assumptions are as follows:

Form of Benefit Settlement Elected by Member	
Lump sum:	70% of active and deferred members under age 55, and 50% of active and deferred members over age 55, elect to receive their benefit entitlement in a lump sum
Annuity purchase:	All remaining members are assumed to elect to receive their benefit entitlement in the form of a deferred or immediate pension. These benefits are assumed to be settled through the purchase of deferred or immediate annuities from a life insurance company.
Basis for Benefits Assumed to be Settled through a Lump Sum	
Mortality rates:	100% of the rates of the 2014 Canadian Pensioners Mortality Table (CPM2014) with fully generational improvements using CPM Scale B
Interest rate:	1.80% per year for 10 years, 3.30% per year thereafter (2.16% per year for 10 years, 3.18% per year thereafter, for solvency liability adjustment)
Basis for Benefits Assumed to be Settled through the Purchase of an Annuity	
Mortality rates:	100% of the rates of the 2014 Canadian Pensioners Public Sector Mortality Table (CPM2014Publ) with fully generational improvements using CPM Scale B
Adjustment to mortality rates:	Above mortality rates reduced by 10% to reflect super-standard mortality
Interest rate:	2.90% (2.83% for solvency liability adjustment) per year based on a duration of 11.67 years determined for the liabilities assumed to be settled through the purchase of an annuity.

Post-retirement pension increases:

Unifor Hired on or After May 1, 2010

Year	Rate
2022	1.63%
2023	1.66%
2024	1.61%
2025	1.02%
2026	0.67%
2027 onwards	0.00%

Other Members

Year	Rate
2022	1.45%
2023	1.66%
2024	1.66%
2025	1.52%
2026	1.17%
2027 onwards	0.00%

Retirement Age	
Benefits assumed to be payable through a lump sum:	Members are assumed to retire with a 50% probability at the age that maximizes the value of their entitlement from the Plan and a 50% probability at the member's earliest unreduced age in accordance with applicable legislation and based on the eligibility requirements that have been met at the valuation date
Benefits assumed to be settled through the purchase of an annuity:	Members are assumed to retire at the age that maximizes the value of their entitlement from the Plan, based on the eligibility requirements that have been met at the valuation date
Grow-in:	The benefit entitlement and assumed retirement age of Ontario members whose age plus service equals at least 55 at the valuation date reflect their entitlement to grow into early retirement subsidies
Other Assumptions	
Final average earnings:	Based on actual pensionable earnings over the averaging period
Family composition:	Same as for going concern valuation
Maximum pension limit:	$3,245.56 for 2021 increasing at 2.08% per year for 10 years, 3.06% per year thereafter (2.06% per year for 10 years, 2.70% for solvency liability adjustment)
Termination expenses:	$900,000

To determine the hypothetical wind-up position of the Plan, a provision has been made for estimated termination expenses payable from the Plan's assets in respect of actuarial and administration expenses that may reasonably be expected to be incurred in terminating the Plan and to be charged to the Plan.

Because the settlement of all benefits on wind-up is assumed to occur on the valuation date and is assumed to be uncontested, the provision for termination expenses does not include custodial, investment management, auditing, consulting, and legal expenses that would be incurred between the wind-up date and the settlement date or due to the terms of a wind-up being contested.

Expenses associated with the distribution of any surplus assets that might arise on an actual wind-up are also not included in the estimated termination expense provisions.

In determining the provision for termination expenses payable from the Plan's assets, we have assumed that the plan sponsor would be solvent on the wind-up date. We have also assumed, without analysis, that the Plan's terms as well as applicable legislation and court decisions would permit the relevant expenses to be paid from the Plan.

Although the termination expense assumption is a best estimate, actual fees incurred on an actual plan wind-up may differ materially from the estimates disclosed in this report.

Incremental Cost

In order to determine the incremental cost, we estimate the hypothetical wind-up liabilities at the next valuation date. We have assumed that the cost of settling benefits by way of a lump sum or purchasing annuities remains consistent with the assumptions described above. Since the projected hypothetical wind-up liabilities will depend on the membership in the Plan at the next valuation date, we must make assumptions about how the Plan membership will evolve over the period until the next valuation.

We have assumed that the Plan membership will evolve in a manner consistent with the going concern assumptions as follows:

- Members terminate, retire, and die consistent with the termination, retirement, and mortality rates used for the going concern valuation.
- Pensionable earnings, the Income Tax Act pension limit, and the Year's Maximum Pensionable Earnings increase in accordance with the related going concern assumptions.
- Active members accrue pensionable service in accordance with the terms of the Plan.
- To reflect the cost of new entrants to the Plan, we have added to the projected liability an amount equal to the liability of new entrants that have joined the Plan since the previous valuation.
- Post-retirement pension increases are consistent with the inflation assumption used for the going concern valuation.

Solvency Basis

In determining the financial position of the Plan on the solvency basis, we have used the same assumptions and methodology as were used for determining the financial position of the Plan on the hypothetical wind-up basis, except as noted in Section 5 of this report.

The solvency position is determined in accordance with the requirements of the Act.

Appendix E
Membership data

Analysis of Membership Data

The actuarial valuation is based on membership data as at July 1, 2021, provided by McMaster University.

We have applied tests for internal consistency, as well as for consistency with the data used for the previous valuation. These tests were applied to membership reconciliation, basic information (date of birth, date of hire, date of membership, gender, etc.), pensionable earnings, credited service, contributions accumulated with interest, and pensions to retirees and other members entitled to a deferred pension. Contributions, lump sum payments, and pensions to retirees were compared with corresponding amounts reported in financial statements. The results of these tests were satisfactory.

If the data supplied are not sufficient and reliable for its intended purpose, the results of our calculation may differ significantly from the results that would be obtained with such data. Although Mercer has reviewed the suitability of the data for its intended use in accordance with accepted actuarial practice in Canada, Mercer has not verified or audited any of the data or information provided.

Plan membership data are summarized below. For comparison, we have also summarized corresponding data from the previous valuation.

	07.01.2021	07.01.2018
Active Members		
Full-time		
Number	3,409	3,301
Average pensionable earnings for the following year	$98,740	$94,578
Average years of pensionable service	11.8	12.2
Average age	46.8	47.2
Accumulated contributions with interest	$395,742,182	$343,817,997
Part-time		
Number	428	311
Average pensionable earnings for the following year	$65,086	$64,978
Average years of pensionable service	7.9	7.5
Average age	45.7	46.4
Accumulated contributions with interest	$22,643,884	$14,074,902
Deferred Pensioners		
Number	916	916
Average annual pension	$5,325	$4,786
Average age	52.5	51.0
Pensioners and Survivors		
Number	2,394	2,245
Total annual lifetime pension	$86,340,746	$75,025,172
Total annual temporary pension	$587,945	$462,018
Average annual lifetime pension	$36,065	$33,419
Average age	74.9	73.9

The membership movement for all categories of membership since the previous actuarial valuation is as follows:

	Actives	Deferred Pensioners	Pensioners and Survivors	Total
Total at 07.01.2018	3,612	916	2,245	6,773
New entrants	842			842
Rehires:	9	(9)		-
Terminations:				
• Transfers/lump sums	(248)	(55)		(303)
• Deferred pensions	(120)	120		-
Deaths	(19)	(4)	(203)	(226)
Retirements	(237)	(33)	270	-
Beneficiaries			81	81
Benefits expired			(1)	(1)
Data adjustments	(2)	(19)	2	(19)
Total at 07.01.2021	3,837	916	2,394	7,147

The distribution of the active members by age and pensionable service as at the valuation date is summarized as follows:

	Years of Pensionable Service									
Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
Under 25	22									22
	48,108									48,108
25 to 29	242	12								254
	55,727	62,347								56,039
30 to 34	297	98	11							406
	66,247	66,134	60,439							66,062
35 to 39	289	155	85	7						536
	80,044	80,228	77,757	66,499						79,558
40 to 44	181	132	111	69	8					501
	83,203	98,153	97,979	90,296	78,865					91,324
45 to 49	119	109	115	136	38	3				520
	73,206	93,107	121,813	113,015	91,538	68,961				99,854
50 to 54	73	67	95	165	97	30	10			537
	88,645	82,937	103,580	123,328	135,944	92,133	73,971			109,697
55 to 59	43	62	95	143	105	36	59	13		556
	72,953	85,337	93,628	124,667	141,206	133,595	89,067	78,025		109,812
60 to 64	30	36	52	70	53	41	52	21	7	362
	71,116	93,534	94,960	115,394	127,459	121,825	154,724	113,003	78,763	113,913
65 to 69	14	9	14	18	15	6	32	16	6	130
	102,271	132,950	138,070	106,838	133,073	209,707	158,147	164,984	128,661	140,086
70 +				1	3		2	4	3	13
				*	88,080		*	243,073	250,735	201,352
Total	1,310	680	578	609	319	116	155	54	16	3,837
	71,982	85,560	99,938	115,734	128,960	120,977	125,747	129,619	129,719	94,986

*For individual cells with information on two members or less, the average earnings are not disclosed for confidentiality reasons.

The distribution of the inactive members by age as at the valuation date is summarized as follows:

	Deferred Pensioners			Pensioners and Survivors	
Age	Number	Average Annual Pension		Number	Average Annual Pension
Under 25	1	*			
25 – 29	12	534			
30 – 34	34	1,220			
35 – 39	72	2,348			
40 – 44	108	4,913			
45 – 49	115	5,160		1	*
50 – 54	166	5,942		3	30,419
55 – 59	177	6,630		65	31,143
60 – 64	143	8,065		241	34,367
65 – 69	59	2,793		453	34,567
70 – 74	22	2,295		553	36,512
75 – 79	7	1,173		436	42,996
80 – 84				289	37,457
85 – 89				195	31,694
90 – 94				116	29,505
95 – 99				36	24,166
100 +				6	7,344
Total	916	5,325		2,394	36,065

*For individual cells with information on two members or less, the average earnings are not disclosed for confidentiality reasons.

Appendix F

Summary of plan provisions

Mercer has used and relied on the plan documents, including amendments and interpretations of plan provisions, supplied by McMaster University. If any plan provisions supplied are not accurate and complete, the results of any calculation may differ significantly from the results that would be obtained with accurate and complete information. Moreover, plan documents may be susceptible to different interpretations, each of which could be reasonable, and the results of estimates under each of the different interpretations could vary.

This valuation is based on the plan provisions in effect on July 1, 2021. Since the previous valuation, the Plan has been amended to reflect changes made for compliance or clarification and to decrease required contributions for various employee classes as a result of recent negotiations.

The following is a summary of the main provisions of the Plan in effect on July 1, 2021. This summary is not intended as a complete description of the Plan.

Eligibility for Membership	Full-time employees may elect to join the Plan immediately but are required to join on the July 1st following completion of six month's employment. Part-time employees who either earn at least 35% of the YMPE or work for at least seven hundred hours in each of the two preceding consecutive calendar years for the University are eligible and are required to join under the same criteria as above. All members of the Plan (active and inactive) as of July 1, 2000 and new employees who joined the Original Plan between July 1, 2000 and December 31, 2000 have been transferred to this Plan if they voted in favour of the Surplus Sharing Agreement. In addition, members who joined the Original Plan between January 1, 2001 and January 14, 2003 have been transferred to this Plan following the approval of the asset transfer by the Financial Services Commission of Ontario. The Plan was completely closed to new SAAO employees or TMG employees who were hired after June 16, 2009 and to MUALA (Librarians) hired after March 16, 2010.

Employee Contributions

Effective at the dates and for the periods shown in the table below member required contribution rates for specific member groups as follows:

Class of Member	Period	Contribution Rate below/above YMPE
A.1 Faculty Members	July 1, 2013 to June 30, 2018 July 1, 2018 onwards	7.0% / 10.0% 8.0% / 11.0%
A.2 TMG Members	July 7, 2013 to July 28, 2018 July 29, 2018 onwards	7.0% / 10.0% 8.0% / 11.0%
SAAO Members	July 7, 2013 to July 28, 2018 July 29, 2018 onwards	7.0% / 10.0% 8.0% / 11.0%
B. Librarians	July 1, 2013 to June 30, 2018 July 1, 2018 onwards	7.0% / 10.0% 8.0% / 11.0%
C.1 Unifor Local 5555 Members hired prior to May 1, 2010	Jan. 14, 2018 to Apr. 30, 2018 May 1, 2018 to Dec. 14, 2019 Dec. 15, 2019 onwards	7.646% / 10.646% 8.646% / 11.646% 8.423% / 11.423%
C.2 Unifor Local 5555 Members hired after to May 1, 2010	Sept. 14, 2014 to Jan. 13, 2018 Jan. 14, 2018 to Dec. 14, 2019 Dec. 15, 2019 onwards	7.56% / 10.56% 7.646% / 10.646% 7.423% / 10.423%
D1. Members who are employees of: • McMaster Association of Part Time Students • McMaster University Faculty Association • Divinity College • Members who are non-union employees of Regional Medical Associates of Hamilton	July 27, 2014 onwards	7.00% / 10.00%
D2. Members who are employees of: • McMaster Children's Centre Inc. • Divinity College • Members who are non-union employees of Regional Medical Associates of Hamilton	July 28, 2018 onwards	8.0% / 11.0%

Employee Contributions (continued)

Class of Member	Period	Contribution Rate below/above YMPE
E. Members who are union employees of Regional Medical Associates of Hamilton	Sept. 14, 2014 to Jan. 13, 2018 Jan. 14, 2014 to Apr. 30, 2018 May 1, 2018 to Dec 14, 2019 Dec. 15, 2019 onwards	7.56% / 10.56% 7.646% / 10.646% 8.646% / 11.646% 8.423% / 11.423%
F. Full-time clinical faculty members of the Faculty of Health Sciences who must maintain membership in the Regional Medical Associate of Hamilton	Feb. 2, 2014 to July 28, 2018 July 29, 2018 onwards	7.0% / 10.0% 8.0% / 11.0%
G. Other Members (not included above)	July 27, 2014 to July 28, 2018 July 29, 2018 onwards	7.0% / 10.0% 8.0% / 11.0%
H. MUALA Members	July 1, 2016 to July 31, 2019 Aug. 1, 2019 onwards	7.00% / 10.00% 8.0% / 11.0%
Member required contributions are limited to the contribution arising when the applicable employee contribution rate is applied to the Maximum Annual Salary under the Plan. The Maximum Annual Salary is the salary rate that produces an annual pension amount equal to the maximum pension limit under the *Income Tax Act* for that year.		

Retirement Dates

Normal retirement is the first day of the month in which the member attains age 65.

However, a member may retire and receive an unreduced pension on their Special Retirement Date. The number of points required for Special Retirement Date is as follows:

Class	Retirement Date	Points Required
SAAO Members and TMG Members who are employees on June 30, 2006 and who retire on or after July 1, 2006	July 1, 2006 to December 31, 2011	80
	January 1, 2012 to December 31, 2012	81
	January 1, 2013 to December 31, 2013	82
	January 1, 2014 to December 31, 2014	83
	January 1, 2015 to December 31, 2015	84
	January 1, 2016 onwards	85
MUALA Members who are employees on March 15, 2010 and who retire on or after March 16, 2010	April 1, 2010 to December 31, 2011	80
	January 1, 2012 to December 31, 2012	81
	January 1, 2013 to December 31, 2013	82
	January 1, 2014 to December 31, 2014	83
	January 1, 2015 to December 31, 2015	84
	January 1, 2016 onwards	85

Retirement Dates (continued)

Class	Retirement Date	Points Required
Faculty Members who are employees on June 30, 2006 and who retire on or after July 1, 2006 And Librarians who are employees on June 15, 2006 and who retire on or after June 16, 2006	July 1, 2006 to December 31, 2011	80
	January 1, 2012 to December 31, 2012	81
	January 1, 2013 to December 31, 2013	82
	January 1, 2014 to December 31, 2014	83
	January 1, 2015 to December 31, 2015	84
	January 1, 2016 to December 31, 2018	85
	January 1, 2019 to December 31, 2019	86
	January 1, 2020 to December 31, 2020	87
	January 1, 2021 to December 31, 2021	88
	January 1, 2022 to December 31, 2022	89
	January 1, 2023 onwards	90
SAAO and TMG Members who become Employees on or after July 1, 2006		85
Faculty Members who become Employees on or after July 1, 2006 and Librarians who become Employees on or after June 16, 2006	July 1, 2006 to December 31, 2018	85
	January 1, 2019 to December 31, 2019	86
	January 1, 2020 to December 31, 2020	87
	January 1, 2021 to December 31, 2021	88
	January 1, 2022 to December 31, 2022	89
	January 1, 2023 onwards	90

Retirement Dates (continued)

Class	Retirement Date	Points Required
Members who are employees of: • McMaster Association of Part Time Students • McMaster Children's Centre Inc. • McMaster University Faculty Association • Divinity College and Members who are non-union employees of Regional Medical Associates of Hamilton	July 1, 2006 to December 31, 2011	80
	January 1, 2012 to December 31, 2012	81
	January 1, 2013 to December 31, 2013	82
	January 1, 2014 to December 31, 2014	83
	January 1, 2015 to December 31, 2015	84
	January 1, 2016 onwards	85
Unifor Local 5555 member and Members who are union employees of Regional Medical Associates of Hamilton	Age + plan participation equals at least 80. Members who are newly hired by the University on or after May 1, 2010 and in respect of service as a Unifor Local 5555 Member only, the unreduced early retirement date is the first day of any month coincident with or following the date on which the Member, has (1) attained age 60, and (2) the sum of the Member's age and years and participation in the Plan equals at least 80.	
Full-time clinical faculty members of the Faculty of Health Sciences who must maintain membership in the Regional Medical Associates of Hamilton	Prior to February 1, 2014	80
	February 1, 2014 to December 31, 2014	81
	January 1, 2015 to December 31, 2015	82
	January 1, 2016 to December 31, 2016	83
	January 1, 2017 to December 31, 2017	84
	January 1, 2018 onwards	85

A member may postpone his actual retirement and commencement of pension (with University consent prior to December 12, 2006), but in any event his pension shall commence no later than the 1st of December of the year of attainment of age 71. He will continue to make contributions and his benefits under the Plan will continue to accrue until such postponed retirement date.

	Class	Retirement Date	Points Required
Retirement Dates (continued)	Other Members (not included above) who are employees on June 30, 2007 and who retired on or after July 1, 2007	July 1, 2006 to December 31, 2011	80
		January 1, 2012 to December 31, 2012	81
		January 1, 2013 to December 31, 2013	82
		January 1, 2014 to December 31, 2014	83
		January 1, 2015 to December 31, 2015	84
		January 1, 2016 onwards	85
	Other Members (not included above) who become Employees on or after July 1, 2007		85

Pension Benefits	**Members other than Unifor Local 5555 Members hired on or after May 1, 2010** The amount of annual payable to a member at his unreduced retirement age will be: a) 1.4% of Best Average Salary up to the Average Year's Maximum Pensionable Earnings times years of pensionable service, plus b) 2.0% of Best Average Salary in excess of the Average Year's Maximum Pensionable Earnings times years of pensionable service. Best Average Salary means the annualized average of the 48 highest months of earnings while a Plan participant. Average Year's Maximum Pensionable Earnings means the pro-rated average Yearly Maximum Pensionable Earnings, in the same 48 months as are used to calculate Best Average Salary. **Unifor Local 5555 Members hired on or after May 1, 2010** The amount of annual pension payable to a member at his unreduced retirement age will be: a) 1.0% of Best Average Salary up to the Average Year's Maximum Pensionable Earnings times years of pensionable service, plus b) 1.6% of Best Average Salary in excess of the Average Year's Maximum Pensionable Earnings times years of pensionable service. Best Average Salary means the annualized average of the 60 highest months of earnings while a Plan participant. Average Year's Maximum Pensionable Earnings means the pro-rated average Yearly Maximum Pensionable Earnings, in the same 60 months as are used to calculate Best Average Salary. **All Members** Members on LTD will have their salary adjusted each July 1st by the percentage increase applied to pensions in payment. This increase will be applied from the later of July 1, 1990 or the July 1st following disability. A member may retire early with a reduced pension at any time during the 10-year period preceding his normal retirement date. The reduction will be 0.5% for each month by which actual retirement precedes age 65. A member may retire early with an unreduced pension once they have attained the criteria set out in the table above. A member may postpone his actual retirement and commencement of pension (with University consent prior to December 12, 2006), but in any event his pension shall commence no later than the 1st of December of the year of attainment of age 71. The member will continue to make contributions and their benefits under the Plan will continue to accrue until such postponed retirement date.
Bridge Benefits	Effective July 1, 1997, members who retire early and have attained the requisite number of points to receive an unreduced pension will receive a bridge benefit equal to $19.00 per month per year of credited service accrued to June 30, 1996 to a maximum of 20 years of service. The bridge benefit is payable from the later of the member's early retirement date and age 60 and ceases payment on attainment of age 65 or death, if earlier.

Minimum Benefits	If the member's total Required Contributions plus net interest are greater than 50% of the commuted value of a member's retirement and bridge pensions, the excess amount will be refunded to the member as a lump sum payment.
Maximum Benefits	The total annual pension payable from the Plan upon retirement, death or termination of employment cannot exceed the lesser of: • 2% of the average of the best three consecutive years of total compensation paid to the member by the University, multiplied by total credited service; and • $3,245.56 or such other maximum permitted under the Income Tax Act, multiplied by the member's total credited service. The maximum pension is determined at the date of pension commencement.
Death Benefits	**Pre-retirement:** On the death of a member prior to retirement, his beneficiary or estate is entitled to receive a death benefit equal to his required contributions accrued to December 31, 1986 accumulated with net interest on the fund, and his beneficiary or estate shall receive the commuted value of the member's pension accrued after December 31, 1986, plus any required contributions made after December 31, 1986, accumulated with net interest on the fund, in excess of 50% of the commuted value. **Post retirement:** The benefit is payable for life, but guaranteed for seven years in any event. In the case of a member with a spouse, 50% of the benefit is continued to the spouse for life and at least the remainder of the guaranteed seven years' payments will be made. There is no required adjustment in respect of this surviving spouse's benefit. Prior to July 1, 1997, the normal form of benefit was as described above with a five-year guarantee in place of the seven-year guarantee. Alternative forms of pension are available in actuarial equivalent amounts and for members who have a spouse and who retire after December 31, 1987, the automatic form of pension will be an actuarially reduced benefit which continues 60% of the pension to a surviving spouse for life.

Post-Retirement Indexation (COLA)	Pensions in payment will be increased from January 1st each year on a pro-rated basis (using the number of months the pensioner has been retired in the previous Plan Year) by the excess over 4.5% (5.0% for Unifor Local 5555 Members hired on or after May 1, 2010) of the average annual rate of return earned on the assets of the Plan over the previous five Plan Years, subject to a maximum of that year's rate of increase in the Consumer Price Index. Effectively July 1, 1997, if there is any year where the percentage calculated under the excess interest formula exceeds the rate of increase in the Consumer Price Index, the excess will be used to provide a supplementary increase to the pensions in pay for which the annual pension increase in any of the three previous years was based on the excess interest formula, provided that the supplementary increase will be limited to 100% of CPI increases in each of the three preceding years.
Termination Benefits	If a Member terminates employment for any reason other than death or disability, he may elect to receive one of the following: 1) A refund of his required contributions, with Net Interest on the Fund. 2) A transfer of the greater of twice his Required Contributions plus Net Interest and the commuted value of his deferred pension to another locked-in registered pension vehicle. 3) A deferred pension, payable at Normal Retirement Date, equal to the pension earned to the date of termination. * Unifor Local 5555 members hired on or after May 1, 2010 and Faculty members or Librarians hired after July 1, 2013 will not be entitled to option 2). However such member will be entitled to transfer the commuted value of his deferred pension to another locked-in registered pension vehicle. In addition, a member is entitled to a refund of the excess of his Required Contributions plus Net Interest over 50% of the commuted value of the deferred pension described in 3) above. The excess is measured separately for required contributions with interest and pension benefits accrued before and after January 1, 1987.

Appendix G

Plausible adverse scenarios

In this Appendix, the financial impact on the Plan's going concern results (i.e., going concern financial position at the valuation date and current service cost from the valuation date to the next valuation date), on the Plan's hypothetical wind-up and solvency financial positions at the valuation date and on the special payments of plausible adverse scenarios that would pose threats to the Plan's future financial condition is illustrated for the following risks:

- Interest rate risk, the potential that interest rates will be lower than expected;
- Deterioration of asset values; and
- Longevity risk, the potential that pension plan members will live longer than expected.

The following tables summarize the results, where we assumed for:

- Interest rate risk, an immediate parallel decrease in market interest rates of 80 basis points
- Deterioration of asset values, an immediate decrease of 14% in the market value of non-fixed income assets; and
- Longevity risk, that life expectancy from the valuation date at age 65 for a male and a female would increase by 1.7 years and 1.4 years, respectively.

($000's) Scenario	Going Concern Valuation Results as at 07.01.2021	Plausible Adverse Scenario Results as at 07.01.2021		
		Interest Rate Risk	Deterioration of Asset Values	Longevity Risk
Market Value of Assets	$2,584,810	$2,684,565	$2,349,026	$2,584,810
Going Concern Financial Status				
Smoothed value of assets	$2,385,832	$2,405,783	$2,338,675	$2,385,832
Going concern funding target	$2,101,572	$2,173,940	$2,101,572	$2,160,537
Provision for Adverse Deviations	$156,056	$161,430	$156,056	$160,434
Funding excess (shortfall)	$128,204	$70,413	$81,047	$64,861
Estimated University's Current Service Cost including Provision for Adverse Deviations				
July 1, 2021	$34,381	$37,282	$34,381	$36,175
July 1, 2022	$34,381	$37,282	$34,381	$36,175
July 1, 2023	$34,381	$37,282	$34,381	$36,175

Scenario	Hypothetical Wind-Up and Solvency Position as at 07.01.2021	Plausible Adverse Scenario Results as at 07.01.2021		
		Interest Rate Risk	Deterioration of Asset Values	Longevity Risk
Hypothetical Wind-up Financial Position				
Market value of assets	$2,584,810	$2,684,565	$2,349,026	$2,584,810
Termination expense provision	($900)	($900)	($900)	($900)
Wind-up assets	$2,583,910	$2,683,665	$2,348,126	$2,583,910
Wind-up liabilities	$2,611,032	$2,915,298	$2,611,032	$2,677,332
Wind-up excess (shortfall)	($27,122)	($231,633)	($262,906)	($93,422)
Solvency Financial Position				
Reduction in wind-up liabilities due to excluded benefits	$78,696	$86,575	$78,696	$80,735
Solvency liability adjustment	($229)	$241,448	($229)	($235)
Solvency asset adjustment	($198,978)	($278,782)	($10,351)	($198,978)
Solvency surplus (shortfall)	($147,633)	($182,392)	($194,790)	($211,900)
Solvency ratio	102%	95%	93%	100%
Transfer ratio	99%	92%	90%	97%

Scenario	Minimum Annual Special Payments as at 07.01.2021[12]	Plausible Adverse Scenario Results as at 07.01.2021		
		Interest Rate Risk	Deterioration of Asset Values	Longevity Risk
July 1, 2021	$0	$0	$0	$0
July 1, 2022	$0	$0	$0	$0
July 1, 2023	$0	$0	$0	$0

If the University sponsoring the Plan became insolvent and unable to continue making contributions to meet the minimum funding requirements described in the report, the Plan would likely be wound up. The impact of this adverse scenario, as measured at July 1, 2021, would be a shortfall in the Plan of $27,122,000.

The balance of this Appendix provides details of the plausible adverse scenarios selected and the determination of their impact on valuation results.

[12] A new special payment is assumed to start 1 year after the valuation date.

Interest Rate Risk

The purpose of this scenario is to illustrate the sensitivity of the Plan's valuation results to the potential that interest rates will be lower than expected. For this purpose, we have assumed an immediate parallel decrease in market interest rates underlying fixed income investments, where fixed income investments include the Bonds as shown in the investment policy summarized in Appendix B.

Using a methodology consistent with the one used to determine the going concern discount rate, we have determined that a parallel decrease in market interest rates of 80 basis points would have a non-trivial probability (between 1 in 10 and 1 in 20) of occurring within the year following the valuation date. For purpose of this scenario, we have assumed that such a decrease in market interest rates would occur immediately on the valuation date and would have the following impact on the value of assets and going concern assumptions:

Defined Term	Description
Market value of assets	The decrease in market interest rates has been assumed to affect only the market value of the fixed income investments. The decrease is assumed to have occurred immediately on the valuation date.
Smoothed value of assets	Going concern: For purposes of determining the smoothed value of assets, 20% of the change in the market value of asset has been recognized in the smoothed value of assets. Solvency: For purposes of determining the smoothed value of assets, 20% of the change in the market value of asset has been recognized in the smoothed value of assets.
Discount rate assumption	Going concern: It was assumed that the decrease in market interest rates affects only the expected return on assets for the fixed income portion of assets. The discount rate (and interest on employee contributions) assumption was therefore decreased from 5.10% to 4.80%. Hypothetical wind-up: The interest rates used in the valuation were reduced by 80 basis points Solvency: The interest rates used in the valuation were reduced by 80 basis points. For purposes of determining the solvency liability adjustment, the interest rates used in the valuation were reduced by 16 basis points.
Other assumptions	Except as mentioned above, all assumptions used were the same as those used for this valuation. In particular, the discount rate used to value benefits assumed to be settled through a lump sum was not changed.
Provision for Adverse Deviations	The above changes would not affect the calculation of the Provision for Adverse Deviations

Deterioration of Asset Values

The purpose of this scenario is to illustrate the sensitivity of the Plan's valuation results to a deterioration of asset values. For this purpose, we assumed an immediate reduction in the

market value of the Plan's non-fixed income assets, where non-fixed income investments include the following categories as shown in the investment policy summarized in Appendix B:

- Canadian Equities
- Foreign Equities
- Real Assets

Using a methodology consistent with the one used to determine the going concern discount rate, we have determined that a decrease of 14% in the market value of value of non-fixed income assets would have a non-trivial probability (between 1 in 10 and 1 in 20) of occurring within the year following the valuation date. For purpose of this scenario, we have assumed that such a decrease would occur immediately on the valuation date and would have the following impact on the value of assets and valuation assumptions:

Market value of assets	The decrease in the market value of the non-fixed income portion of assets is assumed to have occurred immediately on the valuation date.
Smoothed value of assets	For purposes of determining the smoothed value of assets, 20% of the change in the market value of assets has been recognized in the smoothed value of assets.
Going concern assumptions	This scenario is assumed to have no impact on the assumptions used for this valuation.
Wind-up & solvency assumptions	This scenario is assumed to have no impact on the assumptions used for this valuation.

Longevity Risk

The purpose of this scenario is to illustrate the sensitivity of the Plan's valuation results to the potential that pension plan members will live longer than expected. For this purpose, we have determined that a plausible adverse scenario would be to assume that future mortality improvements[13] will be in line with the average improvements experienced by the Canadian population over the most recent 15-year period available, with uniform improvement rates for all future years but varying by age[14] and gender.

The table below summarizes the improvement rates under the plausible adverse scenario compared to those currently assumed under the CPM-B scale and is based on Canadian population experience from the Human Mortality Database (HMD) from 2002 to 2016.

	Males				Females			
	CPM-B			Adverse Scenario	CPM-B			Adverse Scenario
Age	2020	2025	2030+		2020	2025	2030+	
20	1.59%	1.20%	0.80%	1.68%	0.98%	0.89%	0.80%	1.47%

[13] i.e. starting one year after the valuation in this context
[14] improvement rates below age 45 are set to those at age 45

	Males				Females			
	CPM-B			Adverse	CPM-B			Adverse
Age	2020	2025	2030+	Scenario	2020	2025	2030+	Scenario
30	1.88%	1.34%	0.80%	1.68%	0.98%	0.89%	0.80%	1.47%
40	1.80%	1.30%	0.80%	1.68%	1.17%	0.98%	0.80%	1.47%
50	1.17%	0.98%	0.80%	1.76%	0.98%	0.89%	0.80%	1.34%
55	1.47%	1.13%	0.80%	1.67%	1.11%	0.96%	0.80%	1.14%
60	1.77%	1.28%	0.80%	1.75%	1.24%	1.02%	0.80%	1.34%
65	2.06%	1.43%	0.80%	2.11%	1.36%	1.08%	0.80%	1.65%
70	2.06%	1.43%	0.80%	2.48%	1.36%	1.08%	0.80%	1.77%
75	2.01%	1.41%	0.80%	2.66%	1.36%	1.08%	0.80%	1.93%
80	1.96%	1.38%	0.80%	2.63%	1.36%	1.08%	0.80%	2.03%
85	1.38%	1.03%	0.68%	2.32%	1.31%	0.99%	0.68%	1.98%
90	0.75%	0.62%	0.48%	1.68%	0.75%	0.62%	0.48%	1.60%
95	0.16%	0.25%	0.34%	1.04%	0.16%	0.25%	0.34%	1.12%
100	0.14%	0.22%	0.30%	0.64%	0.14%	0.22%	0.30%	0.80%
105	0.14%	0.22%	0.30%	0.38%	0.14%	0.22%	0.30%	0.55%

Appendix H

University certification

With respect to the Report on the Actuarial Valuation for Funding Purposes as at July 1, 2021 of the Contributory Pension Plan for Salaried Employees of McMaster University including McMaster Divinity College 2000, I hereby certify that, to the best of my knowledge and belief:

- The valuation reflects the terms of the University's engagement with the actuary described in Section 2 of this report, particularly the decision to not include a margin for adverse deviations in the going concern valuation, and the University's decisions in regards to determining the going concern and solvency funding requirements.
- A copy of the official plan documents and of all amendments made up to July 1, 2021 was provided to the actuary and is reflected appropriately in the summary of Plan provisions contained herein.
- The determination of the fixed income component for purposes of establishing the provision for adverse deviations reflects the Plan's asset mix.
- The asset information summarized in Appendix B is reflective of the Plan's assets.
- The membership data provided to the actuary included a complete and accurate description of every person who is entitled to benefits under the terms of the Plan for service up to July 1, 2021.
- All events subsequent to July 1, 2021 that may have an impact on the Plan have been communicated to the actuary.

Date

Signed

Name

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Appendix C. Actuarial Valuation - Original Plan

welcome to brighter

Contributory Pension Plan for Salaried Employees of McMaster University Including McMaster Divinity College

Report on the Actuarial Valuation for Funding Purposes as at July 1, 2021

DRAFT - January 2022

Financial Services Regulatory Authority of Ontario Registration Number: 0215400

Canada Revenue Agency Registration Number: 0215400

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Note to reader regarding actuarial valuations:

This valuation report may not be relied upon for any purpose other than those explicitly noted in the Introduction, nor may it be relied upon by any party other than the parties noted in the Introduction. Mercer is not responsible for the consequences of any other use. A valuation report is a snapshot of a plan's estimated financial condition at a particular point in time; it does not predict a pension plan's future financial condition or its ability to pay benefits in the future. If maintained indefinitely, a plan's total cost will depend on a number of factors, including the amount of benefits the plan pays, the number of people paid benefits, the amount of plan expenses, and the amount earned on any assets invested to pay the benefits. These amounts and other variables are uncertain and unknowable at the valuation date. The content of the report may not be modified, incorporated into or used in other material, sold or otherwise provided, in whole or in part, to any other person or entity, without Mercer's permission. All parts of this report, including any documents incorporated by reference, are integral to understanding and explaining its contents; no part may be taken out of context, used, or relied upon without reference to the report as a whole.

To prepare the results in this report, actuarial assumptions are used to model a single scenario from a range of possibilities for each valuation basis. The results based on that single scenario are included in this report. However, the future is uncertain and the Plan's actual experience will differ from those assumptions; these differences may be significant or material. Different assumptions or scenarios within the range of possibilities may also be reasonable, and results based on those assumptions would be different. Furthermore, actuarial assumptions may be changed from one valuation to the next because of changes in regulatory and professional requirements, developments in case law, plan experience, changes in expectations about the future, and other factors.

The valuation results shown in this report also illustrate the sensitivity to one of the three key actuarial assumptions, including the discount rate, and the sensitivity to three adverse scenarios. We note that the results presented herein rely on many assumptions, all of which are subject to uncertainty, with a broad range of possible outcomes, and the results are sensitive to all the assumptions used in the valuation.

Should the Plan be wound up, the going concern funded status and solvency financial position, if different from the wind-up financial position, become irrelevant. The hypothetical wind-up financial position estimates the financial position of the Plan assuming it is wound up on the valuation date. Emerging experience will affect the wind-up financial position of the Plan assuming it is wound up in the future. In fact, even if the Plan were wound up on the valuation date, the financial position would continue to fluctuate until the benefits are fully settled.

Decisions about benefit changes, granting new benefits, investment policy, funding policy, benefit security, and/or benefit-related issues should not be made solely on the basis of this valuation, but only after careful consideration of alternative economic, financial, demographic, and societal factors, including financial scenarios that assume future sustained investment losses.

Funding calculations reflect our understanding of the requirements of the Pension Benefits Act (Ontario), the Income Tax Act, and related regulations that are effective as of the valuation date. Mercer is not a law firm, and the analysis presented in this report is not intended to be a legal opinion. You should consider securing the advice of legal counsel with respect to any legal matters related to this report.

Contents

Section 1

Summary of results

	07.01.2021	07.01.2018
Going Concern Financial Status		
Smoothed value of assets	$4,967,000	$3,962,000
Going concern funding liabilities	$3,688,000	$3,011,000
Provision for adverse deviations in respect of the going concern liabilities	$409,000	$369,000
Funding excess (shortfall)	$870,000	$582,000
Hypothetical Wind-up Financial Position		
Wind-up assets	$5,186,000	$3,978,000
Wind-up liability	$4,938,000	$3,825,000
Wind-up excess (shortfall)	$248,000	$153,000
Transfer ratio	107%	106%
Solvency Financial Position		
Wind-up assets	$5,186,000	$3,978,000
Solvency asset adjustment	($294,000)	$0
Smoothed solvency assets	$4,892,000	$3,978,000
Wind-up liability	$4,938,000	$3,825,000
Value of excluded benefits	($141,000)	$0
Solvency liability adjustment	($10,000)	$0
Smoothed solvency liabilities	$4,787,000	$3,825,000
Solvency surplus (shortfall)	$105,000	$153,000
Solvency ratio[1]	110%	106%

[1] Before smoothing impacts, per pension regulations

	07.01.2021	07.01.2018
Funding Requirements in the Year Following the Valuation[2]		
Total current service cost	$91,000	$117,000
Estimated members' required contributions	($36,000)	($41,000)
Estimated University's current service cost	$55,000	$76,000
Provision for adverse deviations in respect of current service cost	$10,000	$14,000
Expense allowance including provision for adverse deviations in respect of expense allowance	$28,000	$25,000
Total estimated University's current service cost	$93,000	$115,000
University's current service cost and provision for adverse deviations expressed as a percentage of members' required contributions	258%	280%
Minimum special payments	$0	$0
Estimated minimum University contribution[3]	$17,000	$78,000
Estimated maximum eligible University contribution	$93,000	$115,000
Next required valuation date	July 1, 2024	July 1, 2021

[2] Provided for reference purposes only. Contributions must be remitted to the Plan in accordance with the Minimum Funding Requirements and Maximum Eligible Contributions sections of this report.

[3] Assumes that the prescribed application to FSRA will be made to use available actuarial surplus as a contribution holiday.

Section 2
Introduction

To McMaster University

At the request of McMaster University, we have conducted an actuarial valuation of the Contributory Pension Plan for Salaried Employees of McMaster University Including McMaster Divinity College (the "Plan"), sponsored by McMaster University (the "University"), as at the valuation date, July 1, 2021. We are pleased to present the results of the valuation.

Purpose

The purpose of this valuation is to determine:

- The funded status of the Plan as at July 1, 2021 on going concern, hypothetical wind-up, and solvency bases;
- The minimum required funding contributions from July 1, 2021, in accordance with the *Pension Benefits Act (Ontario)* (the "Act"); and
- The maximum permissible funding contributions from July 1, 2021, in accordance with the *Income Tax Act.*

The information contained in this report was prepared for the internal use of the University, and for filing with the Financial Services Regulatory Authority of Ontario and with the Canada Revenue Agency, in connection with our actuarial valuation of the Plan. This report will be filed with the Financial Services Regulatory Authority of Ontario and with the Canada Revenue Agency. This report is not intended or suitable for any other purpose.

In accordance with pension benefits legislation, the next actuarial valuation of the Plan will be required as at a date not later than July 1, 2024 or as at the date of an earlier amendment to the Plan depending on any funding implications.

Terms of Engagement

In accordance with our terms of engagement with McMaster University, our actuarial valuation of the Plan is based on the following material terms:

- It has been prepared in accordance with applicable pension legislation and actuarial standards of practice in Canada.
- As instructed by the University, we have not reflected a margin for adverse deviations in the going concern valuation in excess of the provision for adverse deviations prescribed by the Act.
- We have reflected the University's decisions for determining the solvency funding requirements, summarized as follows:
  - The same plan wind-up scenario was hypothesized for both hypothetical wind-up and solvency valuations.

- Certain excludable benefits were excluded from the solvency liabilities.
- Solvency smoothing was used.

See the Valuation Results – Solvency section of the report for more information.

Events since the Last Valuation at July 1, 2018

Pension Plan

There have been no special events since the last valuation date.

This valuation reflects the provisions of the Plan as at July 1, 2021. The Plan has not been amended since the date of the previous valuation, and we are not aware of any pending definitive or virtually definitive amendments coming into effect during the period covered by this report. The Plan provisions are summarized in Appendix F.

Assumptions

We have used the same going concern valuation assumptions and methods as were used for the previous valuation, except for the following:

	Current valuation		Previous valuation	
Discount rate:	5.1%		5.6%	
Interest on employee contributions:	5.1%		5.6%	
Post-retirement pension increases:	**Year**	**Rate**	**Year**	**Rate**
	2022	1.45%	2019	1.89%
	2023	2.00%	2020	2.00%
	2024	2.00%	2021	1.97%
	2025	2.00%	2022	2.03%
	2026	2.00%	2023	1.64%
	2027 onwards	0.60%	2024 onwards	1.10%
Mortality rates:	90% of the rates of the 2014 Public Sector Canadian Pensioners Mortality Table (CPM2014Publ)		85% of the rates of the 2014 Public Sector Canadian Pensioners Mortality Table (CPM2014Publ)	

In addition to the assumption changes, the Provision for Adverse Deviations has decreased from 13.8% to 12.0% to reflect changes to the target asset allocation. A summary of the going concern methods and assumptions is provided in Appendix C.

The hypothetical wind-up and solvency assumptions have been updated to reflect market conditions at the valuation date. A summary of the hypothetical wind-up and solvency methods and assumptions is provided in Appendix D.

Regulatory Environment and Actuarial Standards

There have been a number of changes to the Act and regulations that impact the funding of the Plan.

On May 21, 2019, amendments to the Regulations to the Ontario Pension Benefits Act were released. These amendments were intended to provide additional clarity to the operation of the new funding rules. On May 29, 2019, Bill 100 received Royal Assent. Bill 100 included several amendments to the Pension Benefits Act, including adjustments to permit the use of the Prior Year Credit Balances to pay for University's current service cost.

On September 21, 2020, the Ontario government filed Regulation 520/20, providing potential temporary funding relief for eligible single University defined benefit pension plans registered in Ontario. The new regulation allows sponsors of eligible plans to defer required University contributions starting with those contributions due in October 2020 and ending with contributions due in March 2021. Each deferred monthly contributions plus interest are due to be paid in 2 consecutive monthly payments ranging no later than April/May 2021 to February/March 2022.

On July 2, 2020, the Minister of Finance of Canada released draft regulations that would permit sponsors of pension plans to recognize full pensionable service in 2020 for employees who are working reduced hours or who are receiving reduced earnings. The eligible period of reduced pay will be subject to the limit of five years of full-time equivalent compensation.

On July 23, 2020, the CIA published the final version of Section 3500 of the Standards of Practice on Pension Commuted Values and confirmed that the effective date of the new standards is December 1, 2020.

From the effective date, the revised standards affect the assumptions used to value the solvency and wind-up liabilities for benefits assumed to be settled through a lump sum transfer. The financial impact of those changes is reflected in this actuarial valuation and on a solvency and hypothetical wind-up basis.

Subsequent Events

After checking with representatives of the University, to the best of our knowledge there have been no events subsequent to the valuation date that, in our opinion, would have a material impact on the results of the valuation as at July 1, 2021. Our valuation reflects the financial position of the Plan as of the valuation date and does not take into account any experience after the valuation date.

Impact of Case Law

This report has been prepared on the assumption that all claims on the Plan after the valuation date will be in respect of benefits payable to members of the Plan determined in accordance with the Plan terms and that all Plan assets are available to provide for these benefits. It is possible that court and regulatory decisions and changes in legislation could give rise to additional entitlements to benefits under the Plan and cause the results in this report to change. By way of example, we bring your attention to the following decisions:

- The Ontario Court of Appeal's 2003 decision in *Aegon Canada Inc. and Transamerica Life Canada versus ING Canada Inc.* restricted the use of original plan surplus where two or more pension plans were merged.
- The Supreme Court of Canada's 2004 decision in *Monsanto Canada Inc. versus Superintendent of Financial Services* upheld the requirement, with retroactive effect, to distribute surplus on partial plan wind-up under the *Pension Benefits Act (Ontario).*

We are not in a position to assess the impact that such decisions or changes could have on the assumption that all plan assets on the valuation date are available to provide for benefits determined in accordance with the Plan terms. If such a claim arises subsequent to the date of this report, the consequences will be dealt with in a subsequent report. We are making no representation as to the likelihood of such a claim.

Section 3

Valuation results – Going concern

Financial Status

A going concern valuation compares the relationship between the value of Plan assets and the present value of expected future benefit cash flows in respect of accrued service, assuming the Plan will be maintained indefinitely.

The results of the current valuation, compared with those from the previous valuation, are summarized as follows:

	07.01.2021	07.01.2018
Assets		
Market value of assets	$5,261,000	$4,053,000
Asset smoothing adjustment	($294,000)	($91,000)
Smoothed value of assets	$4,967,000	$3,962,000
Going concern funding target		
Going concern liabilities:		
• Active members	$2,164,000	$2,810,000
• Pensioners and survivors	$1,317,000	$23,000
• Deferred pensioners	$207,000	$178,000
Subtotal	$3,688,000	$3,011,000
Provision for adverse deviations in respect of going concern liabilities as prescribed by the Act	$409,000	$369,000
Total	$4,097,000	$3,380,000
Funding excess (shortfall)[4]	$870,000	$582,000

The going concern liabilities at July 1, 2021 do not include an additional margin for adverse deviations beyond the provision for adverse deviations prescribed by the Act.

[4] Funding excess (shortfall) may or may not be equal to the going concern excess (unfunded liability) as described in the Act. Details of the going concern excess (unfunded liability) are provided in Appendix A.

Reconciliation of Financial Status

Funding excess (shortfall) as at previous valuation		$582,000
Provision for Adverse Deviations (PfAD) at previous valuation		$369,000
Funding excess (shortfall) before PfAD		$951,000
Interest on funding excess (shortfall) before PfAD at 5.60% per year		$169,000
University's special payments, with interest		$40,000
Expected funding excess (shortfall)		$1,160,000
Net experience gains (losses)		
• Net investment return	$524,000	
• Impact of asset smoothing	($187,000)	
• Increase in YMPE/maximum pension	($18,000)	
• Indexation	$1,000	
• Mortality	$11,000	
• Retirement	$33,000	
• Expenses	($185,000)	
Total experience gains (losses)		$179,000
Impact of changes in assumptions		
• Discount rate	($236,000)	
• Post-retirement pension increase assumption	$118,000	
• Mortality	$35,000	
Total assumption changes impact		($83,000)
Net impact of other elements of gains and losses		$23,000
Funding excess (shortfall) before PfAD		$1,279,000
Provision for Adverse Deviations at current valuation		($409,000)
Funding excess (shortfall) as at current valuation		$870,000

Current Service Cost

The current service cost is an estimate of the present value of the additional expected future benefit cash flows in respect of pensionable service that will accrue after the valuation date, assuming the Plan will be maintained indefinitely. A provision for adverse deviations in respect of the current service cost is determined in accordance with the Act.

The current service cost and the provision for adverse deviations in respect of the current service cost, during the year following the valuation date, compared with the corresponding values determined in the previous valuation, is as follows:

	2021/2022	2018/2019
Total current service cost[5] excluding expense allowance	$91,000	$117,000
Estimated members' required contributions	($36,000)	($41,000)
Estimated University's current service cost excluding expense allowance	$55,000	$76,000
Estimated University's current service cost excluding expense allowance as a percentage of members' required contributions	153%	185%
Provision for adverse deviations in respect of the current service cost (based on the percentage defined in Appendix A)		
• As a dollar amount per year	$10,000	$14,000
• As a percentage of members' required contributions	28%	34%
Expense allowance	$25,000	$25,000
Provision for adverse deviations in respect of expense allowance	$3,000	$0
• As a dollar amount per year	$28,000	$25,000
• As a percentage of members' required contributions	77%	61%
Total estimated University's current service cost		
• As a dollar amount per year	$93,000	$115,000
• As a percentage of members' required contributions	258%	280%

The key factors that have caused a change in the University's current service cost, excluding the provision for adverse deviations, since the previous valuation are summarized in the following table:

University's current service cost as at previous valuation	246%
Demographic changes	(21%)
Changes in assumptions	5%
University's current service cost as at current valuation	230%

[5]Total current service cost includes $6000 in estimated future costs for escalated adjustments as defined in the Act.

Discount Rate Sensitivity

The following table summarizes the effect on the going concern liabilities and current service cost shown in this report of using a discount rate that is 1% lower than that used in the valuation. The effect of a change in the discount rate on the provision for adverse deviations is not reflected.

Scenario	Valuation Basis	Reduce Discount Rate by 1%
Going concern funding liabilities	$3,688,000	$4,197,000
Current service cost		
• Total current service cost	$91,000	$106,000
• Estimated members' required contributions	($36,000)	($36,000)
Estimated University's current service cost	$55,000	$70,000

Plausible Adverse Scenarios

The financial impact on the going concern results of plausible adverse scenarios that would pose threats to the Plan's future financial condition is presented in Appendix G.

Section 4

Valuation results – Hypothetical wind-up

Financial Position

When conducting a hypothetical wind-up valuation, we determine the relationship between the respective values of the Plan's assets and its liabilities assuming the Plan is wound up and settled on the valuation date, assuming benefits are settled in accordance with the Act and under circumstances consistent with the hypothesized scenario on the valuation date. More details on such scenario are provided in Appendix D.

The hypothetical wind-up financial position as of the valuation date, compared with that at the previous valuation, is as follows:

	07.01.2021	07.01.2018
Assets		
Market value of assets	$5,261,000	$4,053,000
Termination expense provision	($75,000)	($75,000)
Wind-up assets	$5,186,000	$3,978,000
Present value of accrued benefits for:		
• Active members	$3,157,000	$3,583,000
• Pensioners and survivors	$1,532,000	$26,000
• Deferred pensioners	$249,000	$216,000
Total wind-up liability	$4,938,000	$3,825,000
Wind-up excess (shortfall)	$248,000	$153,000
Transfer ratio	107%	106%

Wind-up Incremental Cost

The wind-up incremental cost is an estimate of the present value of the projected change in the hypothetical wind-up liabilities from the valuation date until the next scheduled valuation date, adjusted for the benefit payments expected to be made in that period.

The hypothetical wind-up incremental cost determined in this valuation, compared with the corresponding value determined in the previous valuation, is as follows:

	07.01.2021	07.01.2018
Number of years covered by report	3 years	3 years
Total hypothetical wind-up liabilities at the valuation date (A)	$4,938,000	$3,825,000
Present value at the valuation date of projected hypothetical wind-up liability at the next required valuation plus expected benefit payments until the next required valuation (B)	$5,205,000	$4,287,000
Hypothetical wind-up incremental cost (B – A)	$267,000	$462,000

The incremental cost is not an appropriate measure of the contributions that would be required to maintain the windup position of the Plan even if actual experience is exactly in accordance with the going concern valuation assumptions. For example, the expected return on plan assets (based on the going concern assumptions) is greater than the discount rate used to determine the hypothetical wind-up liabilities.

Discount Rate Sensitivity

The following table summarizes the effect on the hypothetical wind-up liabilities shown in this report of using a discount rate that is 1% lower than that used in the valuation:

Scenario	Valuation Basis	Reduce Discount Rate by 1%
Total hypothetical wind-up liability	$4,938,000	$5,616,000

Plausible Adverse Scenarios

The financial impact on the hypothetical wind-up financial position of plausible adverse scenarios that would pose threats to the Plan's future financial condition is presented in Appendix G.

Section 5

Valuation results – Solvency

Overview

The Act also requires the financial position of the Plan to be determined on a solvency basis. The financial position on a solvency basis is determined in a similar manner to the Hypothetical Wind-up Basis, except for the following:

Exceptions	Reflected in valuation based on the terms of engagement
The circumstance under which the Plan is assumed to be wound up could differ for the solvency and hypothetical wind-up valuations.	The same circumstances were assumed for the solvency valuation as were assumed for the hypothetical wind-up valuation.
Certain benefits can be excluded from the solvency financial position. These include: (a) any escalated adjustment (e.g. indexing), (b) certain plant closure benefits, (c) certain permanent layoff benefits, (d) special allowances other than funded special allowances, (e) consent benefits other than funded consent benefits, (f) prospective benefit increases, (g) potential early retirement window benefit values, and (h) pension benefits and ancillary benefits payable under a qualifying annuity contract.	The following benefits were excluded from the solvency liabilities shown in this valuation: - Post-retirement indexing
The financial position on the solvency basis needs to be adjusted for any Prior Year Credit Balance.	Not applicable.
The solvency financial position can be determined by smoothing assets and the solvency discount rate over a period of up to 5 years.	Solvency assets and liabilities were smoothed over 5 years.
The benefit rate increases coming into effect after the valuation date can be reflected in the solvency valuation.	Not applicable.

Financial Position

The financial position on a solvency basis, compared with the corresponding figures from the previous valuation, is as follows:

	07.01.2021	07.01.2018
Assets		
Market value of assets	$5,261,000	$4,053,000
Termination expense provision	($75,000)	($75,000)
Net assets	$5,186,000	$3,978,000
Liabilities		
Total hypothetical wind-up liabilities	$4,938,000	$3,825,000
Difference in circumstances of assumed wind-up	$0	$0
Value of excluded benefits	($141,000)	$0
Liabilities on a solvency basis	$4,797,000	$3,825,000
Surplus (shortfall) on a market value basis	$389,000	$153,000
Solvency liability adjustment	$10,000	$0
Solvency asset adjustment	($294,000)	$0
Solvency surplus (shortfall)	$105,000	$153,000
Solvency ratio	110%	106%

Plausible Adverse Scenarios

The financial impact on the solvency financial position of plausible adverse scenarios that would pose threats to the Plan's future financial condition is presented in Appendix G.

Section 6

Minimum funding requirements

The Act prescribes the minimum contributions that the University must make to the Plan. The minimum contributions in respect of a defined benefit component of a pension plan are comprised of going concern current service cost, the provision for adverse deviations in respect of the current service cost, and special payments to fund any funding shortfall or solvency shortfall that exceeds the level set out under the Act.

On the basis of the assumptions and methods described in this report, the Plan has a funding excess on a going concern basis inclusive of the provision for adverse deviations, and the transfer ratio is greater than 105%. Under these circumstances, the Act does not require the University to contribute to the Plan until the available actuarial surplus has been applied towards the University's current service cost and the provision for adverse deviations in respect of the current service cost, provided that the required application has been made to regulator. Details on the determination of the provision for adverse deviations and on the available actuarial surplus are shown in Appendix A.

Once the available actuarial surplus has been so applied, monthly University contributions must resume. On the basis of the assumptions and methods described in this report, the rule for determining the minimum required University monthly contributions, as well as an estimate of the employee and University contributions, from the valuation date until the next required valuation are as follows:

		Estimated University's contributions			
Period beginning	Monthly Employee Contribution	Provision for adverse deviations related to monthly current service cost	Monthly current service cost and provision for adverse deviations and expense allowance	Available actuarial surplus applied[6]	Minimum monthly contributions
July 1, 2021	$3,000	$833	$7,750	$7,750	$0
April 1, 2022	$3,000	$833	$7,750	$6,250	$1,500
May 1, 2022	$3,000	$1,083	$7,750	$0	$7,750
July 1, 2022	$3,000	$1,083	$7,750	$0	$7,750
July 1, 2023	$3,000	$1,083	$7,750	$0	$7,750

[6] Notwithstanding the available actuarial surplus in the Plan, the terms of the Plan may require the Company to make current service cost contributions.

Period beginning	University's contribution rule		
	Monthly current service cost[7]	Provision for adverse deviations in respect of current service cost	Explicit monthly expense allowance[8]
July 1, 2021	230%	28%	$2,333
July 1, 2022	230%	28%	$2,333
July 1, 2023	230%	28%	$2,333

The estimated contribution amounts above are based on projected members' required contributions. Therefore, the actual University's current service cost and provision for adverse deviations in respect of the current service cost may be different from the above estimates and, as such, the contribution requirements should be monitored closely to ensure contributions resume in accordance with the Act.

Other Considerations

Differences between Valuation Bases

There is no provision in the minimum funding requirements to fund the difference between the hypothetical wind-up and reduced solvency shortfalls, if any.

In addition, although minimum funding requirements do include a requirement to fund the going concern current service cost and a provision for adverse deviations in respect of the current service cost, there is no requirement to fund the expected growth in the hypothetical wind-up or solvency liability after the valuation date, which could be greater.

Timing of Contributions

Funding contributions are due on a monthly basis. Contributions for current service cost and the provision for adverse deviations including the expense allowance must be made within 30 days following the month to which they apply. Special payment contributions must be made in the month to which they apply.

Retroactive Contributions

The University must contribute the excess, if any, of the minimum contribution recommended in this report over contributions actually made in respect of the period following the valuation date. This contribution, along with an allowance for interest, is due no later than 60 days following the date this report is filed.

Payment of Benefits

The Act imposes certain restrictions on the payment of lump sums from the Plan when the transfer ratio revealed in an actuarial valuation is less than one. If the transfer ratio shown in

[7] Expressed as a percentage of members' required contributions.

[8] Includes Provision for Adverse Deviations in respect of expense allowance.

this report is less than one, the plan administrator should ensure that the monthly special payments are sufficient to meet the requirements of the Act to allow for the full payment of benefits, and otherwise should take the prescribed actions.

Additional restrictions are imposed when:

- The transfer ratio revealed in the most recently filed actuarial valuation is less than one and the administrator knows or 'ought to know' that the transfer ratio of the Plan has declined by 10% or more since the date the last valuation was filed.
- The transfer ratio revealed in the most recently filed actuarial valuation is greater than or equal to one and the administrator knows or 'ought to know' that the transfer ratio of the Plan has declined to less than 0.9 since the date the last valuation was filed.

As such, the administrator should monitor the transfer ratio of the Plan and, if necessary, take the prescribed actions.

Section 7

Maximum eligible contributions

The *Income Tax Act* (the "ITA") limits the amount of University contributions that can be remitted to the defined benefit component of a registered pension plan. For purposes of this section on maximum eligible contributions only, any reference to the current service cost includes the provision for adverse deviations in respect of the current service cost.

In accordance with Section 147.2 of the ITA and *Income Tax Regulation* 8516, for a plan that is underfunded on either a going concern or on a hypothetical wind-up basis, the maximum permitted contributions are equal to the employer's current service cost, including the explicit expense allowance if applicable, plus the greater of the going concern funding shortfall and hypothetical wind-up shortfall.

For a plan that is fully funded on both going concern and hypothetical wind-up bases, the employer can remit a contribution equal to the employer's current service cost, including the explicit expense allowance if applicable, as long as the surplus in the plan does not exceed a prescribed threshold. Specifically, in accordance with Section 147.2 of the ITA, for a plan that is fully funded on both going concern and hypothetical wind-up bases, the plan may not retain its registered status if the employer makes a contribution while the going concern funding excess exceeds 25% of the going concern funding target.

Notwithstanding the above, any contributions that are required to be made in accordance with pension benefits legislation are eligible contributions in accordance with Section 147.2 of the ITA and can be remitted.

Schedule of Maximum Contributions

Since the surplus does not exceed 25% of the going concern funding target, the University may make monthly contributions of up to 258% of required member contributions until the next valuation.

Section 8

Actuarial opinion

In our opinion, for the purposes of the valuations,

- The membership data on which the valuation is based are sufficient and reliable;
- The assumptions are appropriate; and
- The methods employed in the valuation are appropriate.

This report has been prepared, and our opinions given, in accordance with accepted actuarial practice in Canada. It has also been prepared in accordance with the funding and solvency standards set by *the Pension Benefits Act (Ontario).*

DRAFT

Chad Spence
Fellow of Society of Actuaries
Fellow of the Canadian Institute of Actuaries

Date

DRAFT

Bill Watson
Fellow of Society of Actuaries
Fellow of the Canadian Institute of Actuaries

Date

Appendix A
Prescribed disclosure

Definitions

The Act defines a number of terms as follows:

Defined Term	Description		Result
Going concern assets	Total smoothed value of assets plus the sum of the following:		$4,967,000
	(a) the present value of special payments in respect of any past service unfunded liability identified in a previously filed report	$0	
	(b) the present value of special payments in respect of any plan amendment that increases going concern liabilities	$0	
	(c) present value of special payments in respect of going concern unfunded liabilities identified in a previously filed report that are scheduled for payment within one year of the date of this report	$0	
Going concern excess / (unfunded liability)	The Going Concern Assets minus the sum of the following:		$870,000
	a. the going concern liabilities		
	(i) liabilities excluding the value of escalated adjustments	$3,409,000	
	(ii) liabilities in respect of escalated adjustments	$279,000	
	b. the provision for adverse deviations in respect of the going concern liabilities excluding the value of escalated adjustments	$409,000	
	c. Prior Year Credit Balance	$0	

Defined Term	Description	Result
Going concern funded ratio	The ratio of: (a) Total smoothed value of assets (excluding letters of credit) less the Prior Year Credit Balance; to (b) going concern liabilities	1.35
Transfer Ratio	The ratio of: (a) Solvency Assets minus the lesser of the Prior Year Credit Balance and the minimum required employer contributions including the provision for adverse deviations until the next required valuation; to (b) The sum of the Solvency Liabilities and liabilities for benefits, other than benefits payable under qualifying annuity contracts that were excluded in calculating the Solvency Liabilities.	1.07
Solvency Ratio	The ratio of: (a) Solvency Assets related to defined benefits and ancillary benefits plus the total amount of any letters of credit minus the Prior Year Credit Balance (b) the sum of the Solvency Liabilities related to defined benefits and ancillary benefits	1.10
Prior Year Credit Balance	Accumulated sum of contributions made to the pension plan in excess of the minimum required contributions (note: only applies if the Company chooses to treat the excess contributions as a Prior Year Credit Balance).	$0
Solvency Assets	Market value of assets including accrued or receivable income and excluding the value of any qualifying annuity contracts.	$5,261,000
Solvency Asset Adjustment	The sum of:	
	(a) the difference between smoothed value of assets and the market value of assets	($294,000)
	(b) the present value of going concern special payments required to liquidate any past service unfunded liability	$0
	(c) the present value of going concern special payments identified in July 1, 2018 valuation and scheduled for payment between July 1, 2021 and June 30, 2022.	$0
	(d) the present value of going concern special payments (identified in this report) that are scheduled for payment within 6 years following the valuation date	$0
	(e) the present value of any previously scheduled solvency special payments (excluding those identified in this report)	$0
	(f) the total value of all letters of credit in respect of the special payments due before the valuation date, subject to the limit of 15% of solvency liabilities	$0
		($294,000)

Defined Term	Description	Result
Solvency Liabilities	Liabilities determined as if the plan had been wound up on the valuation date, including liabilities for plant closure benefits or permanent layoff benefits that would be immediately payable if the employer's business were discontinued on the valuation date of the report, but, if elected by the plan sponsor, excluding liabilities for, (a) any escalated adjustment, (b) excluded plant closure benefits, (c) excluded permanent layoff benefits, (d) special allowances other than funded special allowances, (e) consent benefits other than funded consent benefits, (f) prospective benefit increases, (g) potential early retirement window benefit values, and (h) pension benefits and ancillary benefits payable under a qualifying annuity contract.	$4,797,000
Solvency Liability Adjustment	The amount by which Solvency Liabilities are adjusted as a result of using a solvency valuation interest rate that is the average of market interest rates calculated over the period of time used in the determination of the smoothed value of assets.	($10,000)
Solvency Deficiency	The amount, if any, by which the sum of:	
	(a) the Solvency Liabilities	$4,797,000
	(b) the Solvency Liability Adjustment	($10,000)
	(c) the Prior Year Credit Balance	$0
		$4,787,000
	Exceeds the sum of	
	(d) the Solvency Assets net of estimated termination expenses[9]	$5,186,000
	(e) the Solvency Asset Adjustment	($294,000)
		$4,892,000
		$0
Reduced Solvency Deficiency / (Solvency Excess)	The sum of:	
	(a) 85% of the Solvency Liabilities	$4,077,000
	(b) 85% of the Solvency Liability Adjustment	($9,000)
	(c) the Prior Year Credit Balance	$0
		$4,068,000

[9] In accordance with accepted actuarial practice, for purposes of determining the financial position, the market value of plan assets was reduced by a provision for estimated termination expenses payable from the Plan's assets that may reasonably be expected to be incurred in terminating the Plan and to be charged to the Plan.

Defined Term	Description	Result
	minus the sum of:	
	(d) the Solvency Assets net of estimated termination expenses[8]	$5,186,000
	(e) the Solvency Asset Adjustment	($294,000)
		$4,892,000
		($824,000)

Provision for Adverse Deviations

The provision for adverse deviations has been established in accordance with regulations taking into account the following parameters:

Defined Amount		Results
Fixed Income Component (L)	The sum of the Plan's target allocation of assets (excluding those allocated to annuity contracts and meeting the minimum rating requirement) as described in the regulations according to the investment policy applicable at the valuation date: **Investment** — **Target** Universe bonds — 10.0% Long-term bonds — 25.0%	35.0%
Alternative Investment Component (M)	The sum of the Plan's target allocation of assets (excluding those allocated to annuity contracts) meeting requirements as described in the regulations according to the investment policy applicable at the valuation date: **Investment** — **Target** Real assets — 10.0%	10.0%
Investment Component (N)	Plan's target asset allocation for mutual, pooled or segregated funds	0.0%
Investment Component Fixed Income % (P)	Portion of Investment Component (N) that is allocated to investment categories accounted for in Fixed Income Component (L)	0.0%
Investment Component Alternative Investment % (Q)	Portion of Investment Component (N) that is allocated to investment categories accounted for in Alternative Income Component (M)	0.0%
Annuity Contract Allocation (R)	Annuity contracts that have been purchased from an insurance company and excluded from the Fixed Income Component (L) and Alternative Investment Component (M)	0.0%

Combined Target Asset Allocation for Fixed Income Assets (J)			
Sum of			
• Fixed Income Component (L)	35.0%		
• 0.5 × Alternative Investment Component (0.5 × M)	5.0%		
• Investment Component × Investment Component Fixed Income % (N × P)	0.00%		
• 0.5 × Investment Component × Investment Component Alternative Investment % (0.5 x N × Q)	0.00%		
		40.0%	
Divided by			
• 100% - Annuity Contract Allocation (100% - R)		100.0%	
Combined Target Asset Allocation for Fixed Income Assets			**40.0%**

Combined Target Asset Allocation for Non-Fixed Income Assets (K)	
100% – Combined **Target** Asset Allocation for Fixed Income Assets (100% - J)	**60.0%**
Duration of going concern liabilities at valuation date	
= (F - G) / (G × 0.01) where,	**13.41**
G = going concern liabilities excluding liabilities in respect of escalated adjustments and liabilities in respect of benefits for which an annuity contract has been purchased at valuation date established using the discount rate determined for this valuation	$3,409,000
F = going concern liabilities excluding liabilities in respect of escalated adjustments and liabilities in respect of benefits for which an annuity contract has been purchased established using the discount rate minus 1%	$3,866,000

Benchmark Discount Rate (E)	
Base rate	0.50%
Effective yield from CANSIM Series V39056 (H)	1.84%
1.5% x Combined **Target** Asset Allocation for Fixed Income Assets (1.5% × J)	0.60%
5.0% x Combined **Target** Asset Allocation for Non-Fixed Income Assets (5.0% × K)	3.00%
Benchmark Discount Rate	5.94%

Provision for Adverse Deviations		
i. 5.0% for a closed plan and 4.0% for a Plan that is not a closed plan		5.0%
ii. Provision based on Combined Target Asset Allocation for Non-Fixed Income Assets		7.0%
iii. Greater of zero and the		
• Duration of going concern liabilities at valuation date	13.41	
Multiplied by:		
– Going concern valuation gross discount rate net of active investment management fees (D), less	5.10%	
– Benchmark Discount Rate (E)	5.94%	0.0%
Provision for Adverse Deviations (i. + ii. + iii.)		12.0%

The available actuarial surplus that may be used according to the Act is established as follows:

Available actuarial surplus			
Excess of			
• Assets determined on basis of going concern valuation including accrued and receivable income but excluding the value of any letters of credit		$4,967,000	
Over			
• Going concern liabilities	$3,688,000		
• Provision for adverse deviations in respect of the going concern liabilities	$409,000		
• Prior Year Credit Balance	$0		
		$4,097,000	
		$870,000	(a)
Excess of			
• Solvency assets excluding the value of any letters of credits and lesser of Prior Year Credit Balance and minimum required employer contributions, including the provision for adverse deviations until the next required valuation		$5,261,000	
Over			
• Wind-up liabilities × 105%		$5,185,000	
		$76,000	(b)
The available actuarial surplus = the lesser of a) and b) above		$76,000	

Timing of Next Required Valuation

In accordance with the Act the next valuation of the Plan would be required at an effective date within one year of the current valuation date if:

- The ratio of solvency assets to solvency liabilities is less than 85%.
- The employer elected to exclude plant closure or permanent lay-off benefits under Section 5(18) of the regulations, and has not rescinded that election.

Otherwise, the next valuation of the Plan would be required at an effective date no later than three years after the current valuation date.

Accordingly, the next valuation of the Plan will be required as of July 1, 2024.

Special Payments

As the Plan does not have a funding shortall and there is a solvency excess, no special payments are required.

Pension Benefits Guarantee Fund (PBGF) Assessment

A PBGF assessment is required to be paid under Section 37 of the Act. The PBGF assessment base is derived as follows:

Solvency assets	$5,261,000	(a)
PBGF liabilities	$4,797,000	(b)
Solvency liabilities	$4,797,000	(c)
Ontario asset ratio	100.0%	(d) = (b) ÷ (c)
Ontario portion of the fund	$5,261,000	(e) = (a) × (d)
PBGF assessment base	$0	(f) = max(0, (b) – (e))
Amount of additional liability for plant closure and/or permanent layoff benefits which is not funded and subject to the 2% (3% for years after 2018) assessment pursuant to s.37(4)	$0	(g)

Appendix B

Plan assets

The pension fund is held by CIBC Mellon Trust Company. In preparing this report, we have relied upon the auditors' report prepared by KPMG without further audit. Customarily, this information would not be verified by a plan's actuary. We have reviewed the information for internal consistency and we have no reason to doubt its substantial accuracy.

Reconciliation of Market Value of Plan Assets

The pension fund transactions since the last valuation are summarized in the following table:

	July 1, 2018 to July 1, 2019	July 1, 2019 to July 1, 2020	July 1, 2020 to July 1, 2021
July 1	$4,060,000	$4,326,000	$4,490,000
PLUS			
Members' contributions	$33,000	$31,000	$32,000
Company's contributions			
• Current service	$92,000	$111,000	$114,000
• Past service	$35,000	$0	$0
Investment earnings	$102,000	$113,000	$106,000
Net Capital gains (losses)	$139,000	$105,000	$679,000
	$401,000	$360,000	$931,000
LESS			
Pensions paid	$3,000	$141,000	$91,000
Lump-sums paid	$7,000	$0	$7,000
Administration and Investment fees	$125,000	$55,000	$62,000
	$135,000	$196,000	$160,000
July 1	$4,326,000	$4,490,000	$5,261,000
Gross rate of return[10]	5.92%	5.07%	17.51%
Rate of return net of expenses[11]	2.81%	3.77%	16.02%

[10] Assuming mid-period cash flows.
[11] Assuming mid-period cash flows.

The market value of assets shown in the above table is adjusted to reflect in-transit amounts as follows:

	Current Valuation	Previous Valuation
Market value of invested assets	$5,261,000	$4,060,000
In-transit amounts		
• Benefit payments	($0)	($7,000)
Market value of assets adjusted for in-transit amounts	$5,261,000	$4,053,000

We have tested the pensions paid, the lump-sums paid, and the contributions for consistency with the membership data for the Plan members who have received benefits or made contributions. The results of these tests were satisfactory.

Investment Policy

The plan administrator has adopted a statement of investment policy and procedures (approved December 17, 2020). This policy is intended to provide guidelines for the manager(s) as to the level of risk that is consistent with the Plan's investment objectives. A significant component of this investment policy is the asset mix.

The plan administrator is solely responsible for selecting the Plan's investment policies, asset allocations, and individual investments.

The constraints on the asset mix and the actual asset mix at the valuation date are provided for information purposes:

	Investment Policy			Actual asset Mix as at July 1, 2021
	Minimum	Target	Maximum	
Canadian Equities	8%	13%	18%	14.6%
Foreign Equities	25%	42%	59%	46.2%
Real Assets	5%	10%	15%	4.9%
Bonds	20%	35%	50%	33.6%
Cash and cash equivalents	0%	0%	10%	0.7%
		100%		100%

Because the Plan's assets (which are invested in accordance with the above investment policy) are not matched to the Plan's liabilities (which tend to behave like long bonds), the Plan's financial position will fluctuate over time. These fluctuations could be significant and could cause the Plan to become underfunded or overfunded even if the University contributes to the Plan based on the funding requirements presented in this report.

Appendix C

Methods and assumptions – Going concern

Valuation of Assets

For this valuation, we have used an adjusted market-value method to determine the smoothed value of assets. Under this method, realized and unrealized capital gains (losses) arising during a given year are spread on a straight-line basis over 5 years in accordance with the schedule shown in the following table:

Year	Percentage of Gains (Losses) Recognized
2020/2021	80%
2019/2020	60%
2018/2019	40%
2017/2018	20%
before 2017	0%

The asset values produced by this method are related to the market value of the assets, with the advantage that, over time, the market-related asset values will tend to be more stable than market values. To the extent that more capital gains than losses will arise over the long term, the smoothed value will tend to be lower than the market value.

The smoothed value of the assets at July 1, 2021 was derived as follows:

Market value of assets			$5,261,000
LESS			
Unrecognized investment gains/(losses)	2020/2021:	$470,000 × 80% =	$376,000
	2019/2020:	($79,000) × 60% =	($47,000)
	2018/2019:	($116,000) × 40% =	($46,000)
	2017/2018:	$57,000 × 20% =	$11,000
			$294,000
Smoothed value of assets			$4,967,000

The smoothed value of assets shown in the above table is adjusted to reflect in-transit amounts as follows:

	Current Valuation	Previous Valuation
Smoothed value of assets	$4,967,000	$3,969,000
In-transit amounts		
• Benefit payments	($0)	($7,000)
Smoothed value of assets, adjusted for in-transit amounts	$4,967,000	$3,962,000

Going Concern Funding Target

Over time, the real cost to the employer of a pension plan is the excess of benefits and expenses over member contributions, if any, and investment earnings. The actuarial cost method allocates this cost to annual time periods.

For purposes of the going concern valuation, we have continued to use the projected unit credit actuarial cost method. Under this method, we determine the present value of benefit cash flows expected to be paid in respect of service accrued prior to the valuation date, based on projected final average earnings. This is referred to as the funding target.

The funding excess or funding shortfall, as the case may be, is the difference between the market or smoothed value of assets and the funding target. A funding excess on a market value basis indicates that the current market value of assets and expected investment earnings are expected to be sufficient to meet the cash flows in respect of benefits accrued to the valuation date as well as expected expenses – assuming the plan is maintained indefinitely. A funding shortfall on a market value basis indicates the opposite – that the current market value of the assets is not expected to be sufficient to meet the plan's cash flow requirements in respect of accrued benefits, absent additional contributions.

As required under the Act, a funding shortfall (including the prior year credit balance) and the provision for adverse deviations must be amortized over no more than 10 years through special payments beginning one year after the valuation date. A funding excess may, from an actuarial standpoint, be applied immediately to reduce required employer current service contributions unless precluded by the terms of the plan or by legislation.

The actuarial cost method used for the purposes of this valuation produces a reasonable matching of contributions with accruing benefits. Because benefits are recognized as they accrue, the actuarial cost method provides an effective funding target for a plan that is maintained indefinitely.

Current Service Cost

The current service cost is the present value of projected benefits to be paid under the plan with respect to service expected to accrue during the period until the next valuation.

The University's current service cost is the total current service cost reduced by the members' required contributions.

The University's current service cost is the total current service cost reduced by the members' required contributions.

The University's current service cost has been expressed as a percentage of the members' required contributions to provide an automatic adjustment in the event of fluctuations in membership and/or pensionable earnings.

Under the projected unit credit actuarial cost method, the current service cost for an individual member will increase each year as the member approaches retirement. However, the current service cost of the entire group, expressed as a percentage of the members' required contributions, can be expected to remain stable as long as the average age distribution of the group remains constant.

Actuarial Assumptions – Going Concern Basis

The present value of future benefit payment cash flows is based on economic and demographic assumptions. At each valuation we determine whether, in our opinion, the actuarial assumptions are still appropriate for the purposes of the valuation, and we revise them, if necessary. Emerging experience will result in gains or losses that will be revealed and considered in future actuarial valuations.

The table below shows the various assumptions used in the current valuation in comparison with those used in the previous valuation.

Assumption	Current valuation		Previous valuation	
Discount rate:	5.10%		5.60%	
Explicit expenses:	$25,000		$25,000	
Inflation:	2.00%		2.00%	
ITA limit / YMPE increases:	3.00%		3.00%	
Pensionable earnings increases:	MUFA members 4.0% per year Clinical Faculty members 4.0% per year		MUFA members 4.0% per year Clinical Faculty members 4.0% per year	
Post-retirement pension increases:	**Year**	**Rate**	**Year**	**Rate**
	2022	1.45%	2019	1.89%
	2023	2.00%	2020	2.00%
	2024	2.00%	2021	1.97%
	2025	2.00%	2022	2.03%
	2026	2.00%	2023	1.64%
	2027 onwards	0.60%	2024 onwards	1.10%
Interest on employee contributions:	5.10%		5.60%	

Assumption	Current valuation	Previous valuation
Retirement rates:	15% retire when first eligible for an unreduced pension, remainder retire at age 65	15% retire when first eligible for an unreduced pension, remainder retire at age 65
Termination rates:	None	None
Mortality rates:	90% of the rates of the 2014 Public Sector Canadian Pensioners Mortality Table (CPM2014Publ)	85% of the rates of the 2014 Public Sector Canadian Pensioners Mortality Table (CPM2014Publ)
Mortality improvements:	Fully generational using CPM Improvement Scale B (CPM-B)	Fully generational using CPM Improvement Scale B (CPM-B)
Disability rates:	None	None
Eligible spouse at retirement:	Actual marital status	Actual marital status
Spousal age difference:	Actual	Actual

The assumptions are best estimates and do not include a margin for adverse deviations.

Pensionable Earnings

The benefits ultimately paid will depend on each member's final average earnings. To calculate the pension benefits payable upon retirement, death, or termination of employment, we have taken rate of pay on July 1, 2021 and assumed that such pensionable earnings will increase at the assumed rate.

Rationale for Assumptions

A rationale for each of the assumptions used in the current valuation is provided below.

Discount Rate

We have discounted the expected benefit payment cash flows using the expected investment return on the smoothed value of the fund net of fees and less a margin for adverse deviations. Other bases for discounting the expected benefit payment cash flows may be appropriate, particularly for purposes other than those specifically identified in this valuation report.

The discount rate is comprised of the following:

- An **assumed investment return** based on estimated returns for each major asset class that are consistent with market conditions on the valuation date modified to include a provision for increases in market interest rates to a level higher than current historically low levels, on the expected time horizon over which benefits are expected to be paid, and on the target asset mix specified in the Plan's investment policy.
- An **assumed passive investment management expense provision** which represents the hypothetical fees for passive investment management of assets based on estimated fees charged by index managers for balanced mandates.
- An **active investment management expense provision**. We have assumed that these fees would be offset by an equivalent **additional return resulting from active investment management**.
- An **implicit non-investment management expense provision** determined as the average rate of non-investment expenses paid from the fund over the last 3 years. These would include all fees payable from the fund (administration, custodial, audit, consulting, etc.) except those payable to investment managers, to the extent that these fees are not covered in an explicit provision for expenses added to the current service cost.

The discount rate was developed as follows:

Assumed investment return	5.25%
Allowance for administrative, actuarial and passive investment management fees	(0.20%)
Rounding to nearest 10 basis points	0.05%
Net discount rate	5.10%

Expenses

The assumption is based on the average amount of investment and administrative expenses over the last 3 years.

Inflation

The inflation assumption is based on the mid-point of the Bank of Canada's inflation target range of between 1% and 3%.

Income Tax Act Pension Limit and Year's Maximum Pensionable Earnings

The assumption is based on historical real economic growth and the underlying inflation assumption.

Pensionable Earnings

The assumption is based on general wage growth assumptions increased by our best estimate of future merit and promotional increases over general wage growth considering University expectations.

Post-Retirement Pension Increases

The assumption is based on the Plan formula, as well as the future investment return and inflation assumption above.

Retirement Rates

The assumption is based on experience over the years 2002 to 2008. Subsequent experience has been consistent with these rates.

Termination Rates

Use of a different assumption would not have a material impact on the valuation.

Mortality Rates

The assumption for the mortality rates is based on the Canadian Pensioners' Mortality (CPM) study published by the Canadian Institute of Actuaries in February 2014. Considering the characteristics of the group, it was considered appropriate to use the CPM mortality rates from the public sector over the combined public/private sector experience as a reference table.

The mortality rates selected reflect plan-specific experience over the years 2008 to 2020. However, due to the size of the Plan, this mortality experience is not fully credible. The CPM mortality rates from the public sector have been adjusted after considering the plan-specific experience and member and plan-specific characteristics through the Mercer Mortality Model, with those characteristics including pension amount, lifestyle information extracted from postal codes, and broad classification of type of work. Mercer has compiled detailed mortality experience data from a diverse set of large and mid-sized Canadian pension plans and analyzed the experience across a number of those key characteristics. This has led to the creation of numerous mortality tables varying according to the different characteristics, and forms the Mercer Mortality Model.

There is broad consensus among actuaries and other longevity experts that mortality improvement will continue in the future, but the degree of future mortality improvement is uncertain. Two mortality

Mortality Rates

improvement scales published by the Canadian Institute of Actuaries (CIA) are generally adopted for Canadian pension valuations:

- The Canadian Pensioners Mortality (CPM) study published in February 2014 included CPM Improvement Scale B (CPM-B).
- A report released by the Task Force on Mortality Improvement on September 20, 2017 included an analysis of the rate of mortality improvement for the Canadian population and provides for mortality improvement scale MI-2017 to be considered for the purpose of reflecting future mortality improvement in Canadian actuarial work, while acknowledging that it might be appropriate to use alternative mortality improvement assumptions to reflect the nature of the work.

The CIA Committee on Pension Plan Financial Reporting published a revised version of the Educational Note on the Selection of Mortality Assumptions for Pension Plan Valuations on December 21, 2017. The Educational Note indicated that given the recent publication of the CPM-B and MI-2017 improvement scales and the similar data sets used in their development, it may be appropriate to use either scale in the absence of credible information to the contrary, such as the publication of a successor scale by the CIA.

COVID-19 has impacted mortality rates globally. Statistics Canada reported excess mortality in 2020 for the general Canadian population and other peer countries globally have also seen excess mortality over the course of the pandemic. Mortality experience for the plan has been reflected up to the date of the valuation. We have not adjusted the expected mortality rates for Plan members after the valuation date. The long-term implications of the pandemic on mortality rates is unclear as at the date of this report. Credible plan specific experience and relevant broader observed mortality trends after the report date will be reflected in future valuations.

For the current valuation, we have continued to use the CPM-B scale, which is a reasonable outlook for future mortality improvement.

Based on the assumption used, the life expectancy of a member age 65 at the valuation date is 23.8 years for males and 25.7 years for females.

Interest on Employee Contributions

The assumption is based on Plan terms and the underlying investment return assumption.

Disability Rates

Use of a different assumption would not have a material impact on the valuation.

Eligible Spouse

Due to the small plan size, the actual marital status was used.

Spousal Age Difference

Due to the small plan size, the actual spousal age difference was used.

Appendix D

Methods and assumptions – Hypothetical wind-up and solvency

Hypothetical Wind-up Basis

The Canadian Institute of Actuaries requires actuaries to report the financial position of a pension plan on the assumption that the plan is wound up on the effective date of the valuation, with benefits determined on the assumption that the pension plan has neither a surplus nor a deficit.

To determine the actuarial liability on the hypothetical wind-up basis, we have valued those benefits that would have been paid had the Plan been wound up on the valuation date, with all members fully vested in their accrued benefits.

The Standards of Practice of the Canadian Institute of Actuaries require that the scenario upon which the hypothetical wind-up valuation is based be postulated. However, there are no benefits under the Plan contingent upon the circumstances of the plan wind-up or contingent upon other factors. Therefore, it was not necessary to postulate a scenario upon which the hypothetical wind-up valuation is made. No benefits payable on plan wind-up were excluded from our calculations. The plan wind-up is assumed to occur in circumstances that maximize the actuarial liability.

Upon plan wind-up, members are given options for the method of settling their benefit entitlements. The options vary by eligibility and by province of employment, but in general, involve either a lump sum transfer or an immediate or deferred pension.

The value of benefits assumed to be settled through a lump sum transfer is based on the assumptions described in Section 3500 – *Pension Commuted Values* of the Canadian Institute of Actuaries' Standards of Practice applicable for July 1, 2021.

Benefits provided as an immediate or deferred pension are assumed to be settled through the purchase of annuities based on an estimate of the cost of purchasing annuities.

However, there is limited data available to provide credible guidance on the cost of a purchase of indexed annuities in Canada. In accordance with the *Canadian Institute of Actuaries Educational Note: Assumptions for Hypothetical Wind-up and Solvency Valuations with Effective Dates on and after December 31, 2020 and no later than December 30, 2021 (the "Educational Note")*, we have assumed that an appropriate proxy for estimating the cost of such purchase is using the yield on the long-term Government of Canada Real Return bonds, reduced by 0.5%.

The Educational Note provides guidance on estimating the cost of annuity purchases assuming a typical group of annuitants. That is, no adjustments for sub- or super-standard mortality are considered. However, it is expected that insurers will consider plan experience

and certain plan-specific characteristics when determining the mortality basis for a particular group. The Educational Note states that the actuary would be expected to make an adjustment to the regular annuity purchase assumptions where there is demonstrated substandard or super-standard mortality or where an insurer might be expected to assume so. In such cases, the actuary would be expected to make an adjustment to the mortality assumption in a manner consistent with the underlying annuity purchase basis. Given the uncertainty surrounding the actual mortality basis that would be typical of a group annuity purchase, it is reasonable to assume that there is a range of bases that can be expected not to be materially different from the actual mortality basis. Therefore, an adjustment to the regular annuity purchase assumptions would be warranted when the plan's assumed basis falls outside that range. In this context, we have determined that an adjustment to the mortality rates used in the regular annuity purchase assumptions is required.

We have not included a margin for adverse deviations in the solvency and hypothetical wind-up valuations.

The assumptions are as follows:

Form of Benefit Settlement Elected by Member	
Lump sum:	70% of active and deferred members under age 55, and 50% of active and deferred members over age 55, elect to receive their benefit entitlement in a lump sum
Annuity purchase:	All remaining members are assumed to elect to receive their benefit entitlement in the form of a deferred or immediate pension. These benefits are assumed to be settled through the purchase of deferred or immediate annuities from a life insurance company.
Basis for Benefits Assumed to be Settled through a Lump Sum	
Mortality rates:	100% of the rates of the 2014 Canadian Pensioners Mortality Table (CPM2014) with fully generational improvements using CPM Scale B
Interest rate:	1.80% per year for 10 years, 3.30% per year thereafter (2.16% per year for 10 years, 3.18% per year thereafter, for solvency liability adjustment).
Basis for Benefits Assumed to be Settled through the Purchase of an Annuity	
Mortality rates:	100% of the rates of the 2014 Canadian Pensioners Mortality Table (CPM2014Publ) with fully generational improvements using CPM Scale B
Adjustment to mortality rates:	Above mortality rates reduced by 10% to reflect super-standard mortality
Interest rate:	2.90% (2.83% for solvency liability adjustment) per year based on a duration of 11.67 years determined for the liabilities assumed to be settled through the purchase of an annuity.

Post-retirement pension increases:	**Year** / **Rate** 2022 / 1.45% 2023 / 1.66% 2024 / 1.66% 2025 / 1.52% 2026 / 1.17% 2027 onwards / 0.00%
Retirement Age	
Benefits assumed to be payable through a lump sum:	Members are assumed to retire with a 50% probability at the age that maximizes the value of their entitlement from the Plan and a 50% probability at the member's earliest unreduced age in accordance with applicable legislation and based on the eligibility requirements that have been met at the valuation date
Benefits assumed to be settled through the purchase of an annuity:	Members are assumed to retire at the age that maximizes the value of their entitlement from the Plan, based on the eligibility requirements that have been met at the valuation date
Grow-in:	The benefit entitlement and assumed retirement age of Ontario members whose age plus service equals at least 55 at the valuation date reflect their entitlement to grow into early retirement subsidies
Other Assumptions	
Final average earnings:	Based on actual pensionable earnings over the averaging period
Family composition:	Same as for going concern valuation
Maximum pension limit:	$3,245.56 for 2021 increasing at 2.08% per year for 10 years, 3.06% per year thereafter (2.06% per year for 10 years, 2.70% for solvency liability adjustment)
Termination expenses:	$75,000

To determine the hypothetical wind-up position of the Plan, a provision has been made for estimated termination expenses payable from the Plan's assets in respect of actuarial and administration expenses that may reasonably be expected to be incurred in terminating the Plan and to be charged to the Plan.

Because the settlement of all benefits on wind-up is assumed to occur on the valuation date and is assumed to be uncontested, the provision for termination expenses does not include custodial, investment management, auditing, consulting, and legal expenses that would be incurred between the wind-up date and the settlement date or due to the terms of a wind-up being contested.

Expenses associated with the distribution of any surplus assets that might arise on an actual wind-up are also not included in the estimated termination expense provisions.

In determining the provision for termination expenses payable from the Plan's assets, we have assumed that the plan sponsor would be solvent on the wind-up date. We have also assumed, without analysis, that the Plan's terms as well as applicable legislation and court decisions would permit the relevant expenses to be paid from the Plan.

Although the termination expense assumption is a best estimate, actual fees incurred on an actual plan wind-up may differ materially from the estimates disclosed in this report.

Incremental Cost

In order to determine the incremental cost, we estimate the hypothetical wind-up liabilities at the next valuation date. We have assumed that the cost of settling benefits by way of a lump sum or purchasing annuities remains consistent with the assumptions described above. Since the projected hypothetical wind-up liabilities will depend on the membership in the Plan at the next valuation date, we must make assumptions about how the Plan membership will evolve over the period until the next valuation.

We have assumed that the Plan membership will evolve in a manner consistent with the going concern assumptions as follows:

- Members terminate, retire, and die consistent with the termination, retirement, and mortality rates used for the going concern valuation.
- Pensionable earnings, the Income Tax Act pension limit, and the Year's Maximum Pensionable Earnings increase in accordance with the related going concern assumptions.
- Active members accrue pensionable service in accordance with the terms of the Plan.
- Post-retirement pension increases are consistent with the inflation assumption used for the going concern valuation.

Solvency Basis

In determining the financial position of the Plan on the solvency basis, we have used the same assumptions and methodology as were used for determining the financial position of the Plan on the hypothetical wind-up basis, except as noted in Section 5 of this report.

The solvency position is determined in accordance with the requirements of the Act.

Appendix E
Membership data

Analysis of Membership Data

The actuarial valuation is based on membership data as at July 1, 2021, provided by McMaster University.

We have applied tests for internal consistency, as well as for consistency with the data used for the previous valuation. These tests were applied to membership reconciliation, basic information (date of birth, date of hire, date of membership, gender, etc.), pensionable earnings, credited service, contributions accumulated with interest, and pensions to retirees and other members entitled to a deferred pension. Contributions, lump sum payments, and pensions to retirees were compared with corresponding amounts reported in financial statements. The results of these tests were satisfactory.

If the data supplied are not sufficient and reliable for its intended purpose, the results of our calculation may differ significantly from the results that would be obtained with such data. Although Mercer has reviewed the suitability of the data for its intended use in accordance with accepted actuarial practice in Canada, Mercer has not verified or audited any of the data or information provided.

Plan membership data are summarized below. For comparison, we have also summarized corresponding data from the previous valuation.

	07.01.2021	07.01.2018
Active Members		
Number	2	3
Total pensionable earnings for the following year	*	*
Average pensionable earnings for the following year	*	*
Average years of pensionable service	23.8	23.8
Average age	59.7	61.6
Accumulated contributions with interest	*	*
Deferred Pensioners		
Number	30	30
Total annual pension	$11,694	$12,030
Average annual pension	$390	$401
Average age	61.4	58.7
Pensioners and Survivors		
Number	3	1
Total annual lifetime pension	*	*
Total annual temporary pension	*	*
Average annual lifetime pension	*	*
Average age	*	*

*For individual cells with information on three members or less, are not disclosed for confidentiality reasons.

The membership movement for all categories of membership since the previous actuarial valuation is as follows:

	Actives	Deferred Pensioners	Pensioners and Survivors	Total
Total at 07.01.2018	3	30	1	34
New entrants				
Terminations:				
• Transfers/lump sums				
• Deferred pensions				
Deaths				
Retirements	(1)	(1)	2	0
Beneficiaries				
Corrections		1		1
Total at 07.01.2021	2	30	3	35

The distribution of the active members by age and pensionable service as at the valuation date is summarized as follows:

	Years of Pensionable Service							
Age	0-4	5-9	10-14	15-19	20-24	25-29	30 +	Total
Under 20								
20 to 24								
25 to 29								
30 to 34								
35 to 39								
40 to 44								
45 to 49								
50 to 54								
55 to 59					1			1
60 to 64						1		1
65 +								
Total					1	1		2

The distribution of the inactive members by age as at the valuation date is summarized as follows:

	Deferred Pensioners			Pensioners and Survivors	
Age	Number	Average Annual Pension		Number	Average Annual Pension
Under 45	4	166			
45 – 49	3	*			
50 – 54	4	211			
55 – 59	5	771			
60 – 64	4	289			
65 – 69	3	*		1	*
70 – 74	2	*		1	*
75 – 79	2	*		1	*
80 – 84	1	*			
85 – 89					
90 – 94					
95 – 99	1	*			
100 +	1	*			
Total	30	390		3	*

*For individual cells with information on three members or less, the average pensions are not disclosed for confidentiality reasons.

Appendix F

Summary of plan provisions

Mercer has used and relied on the plan documents, including amendments and interpretations of plan provisions, supplied by McMaster University. If any plan provisions supplied are not accurate and complete, the results of any calculation may differ significantly from the results that would be obtained with accurate and complete information. Moreover, plan documents may be susceptible to different interpretations, each of which could be reasonable, and the results of estimates under each of the different interpretations could vary.

This valuation is based on the plan provisions in effect on July 1, 2021.

The following is a summary of the main provisions of the Plan in effect on July 1, 2021. This summary is not intended as a complete description of the Plan.

Eligibility for Membership

Members who joined the Plan between January 1, 2001 and January 14, 2003 have been transferred to the Contributory Pension Plan for Salaried Employees of McMaster University Including McMaster Divinity College 2000 ("Plan 2000") following the approval of the asset transfer by the Financial Services Commission of Ontario.

No new entrants are permitted after January 14, 2003.

Employee Contributions

Effective at the dates and for the periods shown in the table below member required contribution rates for specific member groups as follows:

Contribution Rate below/above YMPE	Faculty Members
4.25% / 5.75%	July 1, 2006 to June 30, 2007
5.0% / 6.5%	July 1, 2007 to July 1, 2011
5.75% / 7.65%	July 2, 2011 to June 30, 2012
6.5% / 8.75%	July 1, 2012 to June 30, 2013
7.0% / 10.0%	July 1, 2013 to June 30, 2018
8.0% / 11.0%	July 1, 2018 forward

Contribution Rate below/above YMPE	Non Faculty Members
3.5% / 5.0%	July 1, 2006 to June 30, 2009
5.5% / 7.0%	July 1, 2009 to February 1, 2014
7.0% / 10.0%	February 2, 2014 forward

Member required contributions are limited to the contribution arising when the applicable employee contribution rate is applied to the Maximum Annual Salary under the Plan. The Maximum Annual Salary is the salary rate that produces an annual pension amount equal to the maximum pension limit under the *Income Tax Act* for that year.

Retirement Dates

Normal retirement is the first day of the month in which the member attains age 65.

Effective February 1, 2014, the number of points required to retire early and receive an unreduced pension and a bridge benefit for members who are not Faculty Members is as follows:

Retirement Date	Points Required
Prior to February 1, 2014	80
February 1, 2014 to December 31, 2014	81
January 1, 2015 to December 31, 2015	82
January 1, 2016 to December 31, 2016	83
January 1, 2017 to December 31, 2017	84
January 1, 2018 forward	85

Effective July 1, 2006 the number of points required to retire early and receive an unreduced pension and a bridge benefit for Faculty Members is as follows:

Retirement Date	Points Required
July 1, 2008 to December 31, 2011	80
January 1, 2012 to December 31, 2012	81
January 1, 2013 to December 31, 2013	82
January 1, 2014 to December 31, 2014	83
January 1, 2015 to December 31, 2015	84
January 1, 2016 to December 31, 2018	85
January 1, 2019 to December 31, 2019	86
January 1, 2020 to December 31, 2020	87
January 1, 2021 to December 31, 2021	88
January 1, 2022 to December 31, 2022	89
January 1, 2023 forward	90

A member may postpone his actual retirement and commencement of pension (with University consent prior to December 12, 2006), but in any event his pension shall commence no later than the 1st of December of the year of attainment of age 71. He will continue to make contributions and his benefits under the Plan will continue to accrue until such postponed retirement date.

Pension Benefits	The amount of annual pension payable to a member at his unreduced retirement age will be: (a) 1.4% of Best Average Salary up to the Average Year's Maximum Pensionable Earnings times years of pensionable service, plus (b) 2.0% of Best Average Salary in excess of the Average Year's Maximum Pensionable Earnings times years of pensionable service. Best Average Salary means the annualized average of the 48 highest months of earnings while a Plan participant. Average Year's Maximum Pensionable Earnings means the pro-rated average Yearly Maximum Pensionable Earnings, in the same 48 months as are used to calculate Best Average Salary. In addition, members on LTD will have their salary adjusted each July 1st by the percentage increase applied to pensions in payment. This increase will be applied from the later of July 1, 1990 or the July 1st following disability.
Bridge Benefits	Effective July 1, 1997, members who retire early and have attained the unreduced early retirement criteria will receive a bridge benefit equal to $19.00 per month per year of credited service accrued to June 30, 1996 to a maximum of 20 years of service. The bridge benefit is payable from the later of the member's early retirement date and age 60 and ceases payment on attainment of age 65 or death, if earlier.
Minimum Benefits	If the member's total Required Contributions plus net interest are greater than 50% of the commuted value of a member's retirement and bridge pensions, the excess amount will be refunded to the member as a lump sum payment. In addition, the member will receive a refund of his voluntary contributions with interest, if any.
Early Retirement Pension	A member may retire early with a reduced pension at any time during the 10-year period preceding his normal retirement date. The reduction will be 0.5% for each month by which actual retirement precedes age 65. A member may retire early with an unreduced pension once they have attained the criteria set out in the table above.
Maximum Benefits	The total annual pension payable from the Plan upon retirement, death or termination of employment cannot exceed the lesser of: • 2% of the average of the best three consecutive years of total compensation paid to the member by the University, multiplied by total credited service; and • $3,245.56 or such other maximum permitted under the Income Tax Act, multiplied by the member's total credited service. The maximum pension is determined at the date of pension commencement.
Death Benefits	**Pre-retirement:** On the death of a member prior to retirement, his beneficiary or estate is entitled to receive a death benefit equal to his required contributions accrued to December 31, 1986 accumulated with net interest on the fund, and his beneficiary or estate shall receive the commuted value of the member's pension accrued after December 31, 1986, plus any required contributions

	made after December 31, 1986, accumulated with net interest on the fund, in excess of 50% of the commuted value. In addition, his beneficiary or estate will receive a refund of his voluntary contributions with interest, if any. **Post retirement:** The benefit is payable for life, but guaranteed for seven years in any event. In the case of a member with a spouse, 50% of the benefit is continued to the spouse for life and at least the remainder of the guaranteed seven years' payments will be made. There is no required adjustment in respect of this surviving spouse's benefit. Prior to July 1, 1997, the normal form of benefit was as described above with a five-year guarantee in place of the seven-year guarantee. Alternative forms of pension are available in actuarial equivalent amounts and for members who have a spouse and who retire after December 31, 1987, the automatic form of pension will be an actuarially reduced benefit which continues 60% of the pension to a surviving spouse for life.
Termination Benefits	If a Member terminates employment prior to retirement, he may elect to receive one of the following: 1) A refund of his required contributions, with Net Interest on the Fund. 2) A transfer of the greater of twice his Required Contributions plus Net Interest and the commuted value of his deferred pension to another locked-in registered pension vehicle. 3) A deferred pension, payable at Normal Retirement Date, equal to the pension earned to the date of termination. A Member who has met the minimum locking-in criteria under the *Pension Benefits Act (Ontario)*, determined separately for service and benefits before and after January 1, 1987, may elect only 2) or 3). In addition, a member is entitled to a refund of the excess of his Required Contributions plus Net Interest over 50% of the commuted value of the deferred pension described in 3) above. The excess is measured separately for required contributions with interest and pension benefits accrued before and after January 1, 1987.
Post-Retirement Pension Increases (COLA)	Pensions in payment will be increased from January 1st each year on a pro-rated basis (using the number of months the pensioner has been retired in the twelve months) by the excess over 4.5% of the average annual rate of return earned on the assets of the Plan over the previous five Plan Years, subject to a maximum of that year's rate of increase in the Consumer Price Index. Effective July 1, 1997, if there is any year where the percentage calculated under the excess interest formula exceeds the rate of increase in the Consumer Price Index, the excess will be used to provide a supplementary increase to the pensions in pay for which the annual pension increase in any of the three previous years was based on the excess interest formula, provided that the supplementary increase will be limited to 100% of CPI increases in each of the three preceding years.

Appendix G

Plausible adverse scenarios

In this Appendix, the financial impact on the Plan's going concern results (i.e., going concern financial position at the valuation date and current service cost from the valuation date to the next valuation date), on the Plan's hypothetical wind-up and solvency financial positions at the valuation date and on the special payments of plausible adverse scenarios that would pose threats to the Plan's future financial condition is illustrated for the following risks:

- Interest rate risk, the potential that interest rates will be lower than expected;
- Deterioration of asset values; and
- Longevity risk, the potential that pension plan members will live longer than expected.

The following tables summarize the results, where we assumed for:

- Interest rate risk, an immediate parallel decrease in market interest rates of 80 basis points
- Deterioration of asset values, an immediate decrease of 14% in the market value of non-fixed income assets; and
- Longevity risk, that life expectancy from the valuation date at age 65 for a male and a female would increase by 1.7 years and 1.4 years, respectively.

Scenario	Going Concern Valuation Results as at 07.01.2021	Plausible Adverse Scenario Results as at 07.01.2021		
		Interest Rate Risk	Deterioration of Asset Values	Longevity Risk
Market Value of Assets	$5,261,000	$5,455,000	$4,777,000	$5,261,000
Going Concern Financial Status				
Smoothed value of assets	$4,967,000	$5,006,000	$4,870,000	$4,967,000
Going concern funding target	$3,688,000	$3,831,000	$3,688,000	$3,815,000
Provision for Adverse Deviations	$409,000	$425,000	$409,000	$423,000
Funding excess (shortfall)	$870,000	$750,000	$773,000	$729,000
Estimated Employer's Current Service Cost including expense allowance and Provision for Adverse Deviations				
July 1, 2021	$93,000	$98,000	$93,000	$97,000
July 1, 2022	$93,000	$98,000	$93,000	$97,000
July 1, 2023	$93,000	$98,000	$93,000	$97,000

Scenario	Hypothetical Wind-Up and Solvency Position as at 07.01.2021	Plausible Adverse Scenario Results as at 07.01.2021		
		Interest Rate Risk	Deterioration of Asset Values	Longevity Risk
Hypothetical Wind-up Financial Position				
Market value of assets	$5,261,000	$5,455,000	$4,777,000	$5,261,000
Termination expense provision	($75,000)	($75,000)	($75,000)	($75,000)
Wind-up assets	$5,186,000	$5,380,000	$4,702,000	$5,186,000
Wind-up liabilities	$4,938,000	$5,469,000	$4,938,000	$5,062,000
Wind-up excess (shortfall)	$248,000	($89,000)	($236,000)	$124,000
Solvency Financial Position				
Reduction in wind-up liabilities due to excluded benefits	$141,000	$155,000	$141,000	$145,000
Solvency liability adjustment	$10,000	$428,000	$10,000	$10,000
Asset smoothing adjustment	($294,000)	($449,000)	$93,000	($294,000)
Solvency surplus (shortfall)	$105,000	$45,000	$8,000	($15,000)
Solvency ratio	110%	103%	100%	107%
Transfer ratio	107%	100%	97%	104%

Scenario	Minimum Annual Special Payments as at 07.01.2021[12]	Plausible Adverse Scenario Results as at 07.01.2021		
		Interest Rate Risk	Deterioration of Asset Values	Longevity Risk
July 1, 2021	$0	$0	$0	$0
July 1, 2022	$0	$0	$0	$0
July 1, 2023	$0	$0	$0	$0

If the University sponsoring the Plan became insolvent and unable to continue making contributions to meet the minimum funding requirements described in the report, the Plan would likely be wound up. The impact of this adverse scenario, as measured at July 1, 2021, would be a surplus in the Plan of $248,000.

[12] A new special payment is assumed to start 1 year after the valuation date.

The balance of this Appendix provides details of the plausible adverse scenarios selected and the determination of their impact on valuation results.

Interest Rate Risk

The purpose of this scenario is to illustrate the sensitivity of the Plan's valuation results to the potential that interest rates will be lower than expected. For this purpose, we have assumed an immediate parallel decrease in market interest rates underlying fixed income investments, where fixed income investments includes the 'Bonds' category as shown in the investment policy summarized in Appendix B.

Using a methodology consistent with the one used to determine the going concern discount rate, we have determined that a parallel decrease in market interest rates of 80 basis points would have a non-trivial probability (between 1 in 10 and 1 in 20) of occurring within the year following the valuation date. For purpose of this scenario, we have assumed that such a decrease in market interest rates would occur immediately on the valuation date and would have the following impact on the value of assets and going concern assumptions:

Defined Term	Description
Market value of assets	The decrease in market interest rates has been assumed to affect only the market value of the fixed income investments. The decrease is assumed to have occurred immediately on the valuation date.
Smoothed value of assets	Going concern: For purposes of determining the smoothed value of assets, 20% of the change in the market value of asset has been recognized in the smoothed value of assets. Solvency: For purposes of determining the smoothed value of assets, 20% of the change in the market value of asset has been recognized in the smoothed value of assets.
Discount rate assumption	Going concern: It was assumed that the decrease in market interest rates affects only the expected return on assets for the fixed income portion of assets. The discount rate assumption (and interest on employee contributions) was therefore decreased from 5.10% to 4.80%. Hypothetical wind-up: The interest rates used in the valuation were reduced by 80 basis points Solvency: The interest rates used in the valuation were reduced by 80 basis points. For purposes of determining the solvency liability adjustment, the interest rates used in the valuation were reduced by 16 basis points.
Other assumptions	Except as mentioned above, all assumptions used were the same as those used for this valuation. In particular, the discount rate used to value benefits assumed to be settled through a lump sum was not changed.
Provision for Adverse Deviations	The above changes would not affect the calculation of the Provision for Adverse Deviations

Deterioration of Asset Values

The purpose of this scenario is to illustrate the sensitivity of the Plan's valuation results to a deterioration of asset values. For this purpose, we assumed an immediate reduction in the market value of the Plan's non-fixed income assets, where non-fixed income investments include the following categories as shown in the investment policy summarized in Appendix B:

- Canadian Equities
- Foreign Equities
- Real Assets

Using a methodology consistent with the one used to determine the going concern discount rate, we have determined that a decrease of 14% in the market value of value of non-fixed income assets would have a non-trivial probability (between 1 in 10 and 1 in 20) of occurring within the year following the valuation date. For purpose of this scenario, we have assumed that such a decrease would occur immediately on the valuation date and would have the following impact on the value of assets and valuation assumptions:

Market value of assets	The decrease in the market value of the non-fixed income portion of assets is assumed to have occurred immediately on the valuation date.
Smoothed value of assets	For purposes of determining the smoothed value of assets, 20% of the change in the market value of assets has been recognized in the smoothed value of assets.
Going concern assumptions	This scenario is assumed to have no impact on the assumptions used for this valuation.
Wind-up & solvency assumptions	This scenario is assumed to have no impact on the assumptions used for this valuation.

Longevity Risk

The purpose of this scenario is to illustrate the sensitivity of the Plan's valuation results to the potential that pension plan members will live longer than expected. For this purpose, we have determined that a plausible adverse scenario would be to assume that future mortality improvements[13] will be in line with the average improvements experienced by the Canadian population over the most recent 15-year period available, with uniform improvement rates for all future years but varying by age[14] and gender.

The table below summarizes the improvement rates under the plausible adverse scenario compared to those currently assumed under the CPM-B scale and is based on Canadian population experience from the Human Mortality Database (HMD) from 2002 to 2016.

[13] i.e. starting one year after the valuation in this context

[14] improvement rates below age 45 are set to those at age 45

	Males				Females			
	CPM-B			Adverse	CPM-B			Adverse
Age	2020	2025	2030+	Scenario	2020	2025	2030+	Scenario
20	1.59%	1.20%	0.80%	1.68%	0.98%	0.89%	0.80%	1.47%
30	1.88%	1.34%	0.80%	1.68%	0.98%	0.89%	0.80%	1.47%
40	1.80%	1.30%	0.80%	1.68%	1.17%	0.98%	0.80%	1.47%
50	1.17%	0.98%	0.80%	1.76%	0.98%	0.89%	0.80%	1.34%
55	1.47%	1.13%	0.80%	1.67%	1.11%	0.96%	0.80%	1.14%
60	1.77%	1.28%	0.80%	1.75%	1.24%	1.02%	0.80%	1.34%
65	2.06%	1.43%	0.80%	2.11%	1.36%	1.08%	0.80%	1.65%
70	2.06%	1.43%	0.80%	2.48%	1.36%	1.08%	0.80%	1.77%
75	2.01%	1.41%	0.80%	2.66%	1.36%	1.08%	0.80%	1.93%
80	1.96%	1.38%	0.80%	2.63%	1.36%	1.08%	0.80%	2.03%
85	1.38%	1.03%	0.68%	2.32%	1.31%	0.99%	0.68%	1.98%
90	0.75%	0.62%	0.48%	1.68%	0.75%	0.62%	0.48%	1.60%
95	0.16%	0.25%	0.34%	1.04%	0.16%	0.25%	0.34%	1.12%
100	0.14%	0.22%	0.30%	0.64%	0.14%	0.22%	0.30%	0.80%
105	0.14%	0.22%	0.30%	0.38%	0.14%	0.22%	0.30%	0.55%

Appendix H

University certification

With respect to the Report on the Actuarial Valuation for Funding Purposes as at July 1, 2021 of the Contributory Pension Plan for Salaried Employees of McMaster University Including McMaster Divinity College, I hereby certify that, to the best of my knowledge and belief:

- The valuation reflects the terms of University's engagement with the actuary described in Section 2 of this report, particularly the decision to not include a margin for adverse deviations in the going concern valuation, and the University's decisions in regards to determining the going concern and solvency funding requirements.
- A copy of the official plan documents and of all amendments made up to July 1, 2021 was provided to the actuary and is reflected appropriately in the summary of Plan provisions contained herein.
- The determination of the fixed income component for purposes of establishing the provision for adverse deviations reflects the Plan's asset mix.
- The asset information summarized in Appendix B is reflective of the Plan's assets.
- The membership data provided to the actuary included a complete and accurate description of every person who is entitled to benefits under the terms of the Plan for service up to July 1, 2021.
- All events subsequent to July 1, 2021 that may have an impact on the Plan have been communicated to the actuary.

Date

Signed

Name

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REPORT TO THE BOARD OF GOVERNORS
from the
AUDIT and RISK COMMITTEE

INFORMATION

i. Health and Safety Annual Report

At its meeting on February 19, 2022, the Audit and Risk Committee reviewed for information, the attached Health and Safety Annual Report. It is being circulated to the Board for information.

Board of Governors: FOR INFORMATION
March 3, 2022

Health and Safety

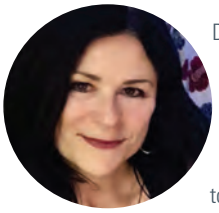
ANNUAL REPORT

2021

BRIGHTER WORLD

McMaster University

MESSAGE FROM THE DIRECTOR



Dear Colleagues,

The Health, Safety and Risk Management (HSRM) team provides expert guidance, advice and tools, working collaboratively with many campus partners to promote McMaster University as a safe and healthy environment to study, work and learn.

McMaster's dedication to health and safety has never been more obvious then it has through Covid 19. While McMaster has had comprehensive health and safety programming for many years, responding to the pandemic refocused the entire campus community on safety and the need to get through this together.

On behalf of the HSRM team, I am pleased to share the 2021 Health and Safety Annual Report which provides an overview of safety on campus and highlights key service deliverables.

Finally, on a personal note, I write this letter on the eve of my retirement from McMaster after 36 years of dedicated service and commitment to safety at McMaster. I will miss my colleagues, the students, and the many friends I have made at McMaster. I retire knowing the safety culture at McMaster is active and well positioned for the future.

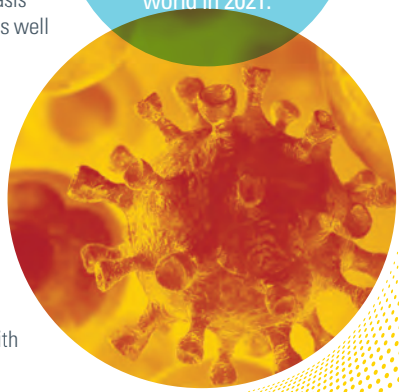
Lisa Morine
Director, Health, Safety and Risk Management

Table of Contents:

SECTION 1

Health and Safety Overview

The emergency response required by COVID-19 continued to take centre stage for the university and the world in 2021.



This report provides an annual perspective on the state of health and safety at McMaster University.

The structure of the university's Health and Safety System is outlined in the next section and forms the basis for program development and delivery ensuring the safety and well-being of staff, faculty and students, as well as mitigating serious risk at the institution.

The emergency response required by COVID-19 took centre stage for the university and the world continued through 2021. The university's ability to respond with strong programming guidance and support demonstrated the strength of the health and safety structure at McMaster.

Health, Safety and Risk Management (HSRM) was responsible for creating guidance documents and standard operating procedures, providing updates in alignment with the evolution of the pandemic and public health guidance, and ongoing support to many areas of the university. The HSRM team provided expert input into university strategy, responded to staff and faculty COVID-19 cases, developed Back to Mac COVID-19 training, and was actively involved in the development of MacCheck, the University's digital reporting tool. As mental health concerns increased through the pandemic, the team responded with expanded mental health and psychological safety programming and training.

The pandemic continuously underscored the need for proactive risk management measures, which will influence the work and focus of this group in the future.

In addition to the unplanned pandemic work required to support the university, regular health and safety programming in our research-intensive University also continued.

Reporting to Human Resources Services, the HSRM team includes three primary areas of responsibility:

- Environmental and Occupational Health Support Services (EOHSS)
- Employee Health Services (EHS)
- Risk and Insurance Policy Portfolio

Health, Safety and Risk Management Infrastructure

McMaster's Workplace and Environmental Health and Safety Policy guides the activities and priorities of the Health, Safety and Risk Management infrastructure.

McMASTER UNIVERSITY WORKPLACE AND ENVIRONMENTAL HEALTH AND SAFETY POLICY

McMaster University is committed to providing and maintaining healthy and safe working and learning environments for all workers, students, volunteers and visitors. This is achieved by observing best practices which meet or exceed the standards to comply with legislative requirements as contained in the Ontario Occupational Health and Safety Act (OHSA), Environmental Protection Act, Nuclear Safety and Control Act and other statutes, their regulations, and the policies, programs and procedures established by the university.

To support this commitment both McMaster University and its workers, as defined by OHSA, are responsible jointly to implement and maintain an Internal Responsibility System directed at promoting health and safety, preventing incidents involving occupational injuries and illnesses or adverse effects upon the natural environment.

McMaster University is equally committed to preventing accidents in the workplace. This is achieved by continuous improvement of risk management programs, workplace inspections and health and safety training programs. The university is committed to a fair and consistent approach to early and safe reintegration to the workplace following occupational injuries and illnesses.

The university is responsible for the provision of information, training, equipment and resources to support the Internal Responsibility System to ensure compliance with all relevant statutes, this policy and internal health and safety programs. Managers and Supervisors are accountable for the safety of workers within their area, for compliance with statutory and university requirements, and are required to support Joint Health and Safety Committees. Workers are required to work in compliance with statutory and university requirements, and to report unsafe conditions to their supervisors.

Contractors and subcontractors undertaking to perform work for McMaster University must, as part of their contract, comply with all relevant workplace and environmental health and safety statutes and meet or exceed the university's Workplace & Environmental Health and Safety Program requirements. In addition to the above stated managerial responsibilities, Deans, Directors, Chairs, Research Supervisors and other Managers are also accountable for the safety and prevention of accidents involving students, volunteers and visitors who work and/or study within their area of jurisdiction.

Students are required by university policy to comply with all university health, safety and environmental programs.

McMaster Health and Safety System

Identification and need that these risks must be collectively managed through a series of programs that comprise the university's Risk Management System.

The key elements of McMaster's Risk Management System, RMM 101 (Health and Safety Risk Management System) are:

This system, in place since 1999, drives the development and maintenance of the university's Health & Safety Risk Management Manual (RMM).

The RMM contains more than 75 individual programs dedicated to identifying areas of risk to provide responsibilities for senior management, supervisors and employees who work with specific hazards.

2021 Metrics

Community Feedback

The importance of cross-campus partnerships are often understated. Every department, faculty, stakeholder group works to deliver on its strategies and goals. In our experience, to work in collaboration with EOHSS, always yields better results, outcomes. I have worked closely with many members of McMaster's EOHSS team, and they are quick to respond, happy to share knowledge and work towards common goals that benefit all stakeholders. One might initially think that EOHSS's role is simply to create barriers when asked for approval. But, in fact, they are true partners who want what is in the best interest of the university's reputational brand along with the needs of individual employees, students and/or faculty members.

I am proud of the partnership between DeGroote and EOHSS - one that is truly pivotal in keeping every McMaster stakeholder safe and healthy - during a pandemic and beyond.

***Jennifer McCleary**, Director,*
Student Experience, DeGroote School of Business

Throughout the pandemic questions arose requiring the expertise of EOHSS. In each case EOHSS personnel were quick to respond, promptly providing an answer or advising that they were engaging in outreach and would follow up once further detail was known. Their consistently prompt and well-considered responses were much appreciated.

***Kathy Charters**, Assistant Vice-President,*
Research Administration, Vice-President Research

On behalf of CCOHS, wanted to thank you all once again. Roger (Couldrey), Dane (DeMan), you both brought such value to Safety and Health Week 2021 - and through Tracey's excellent moderation (Sonya's health and safety supports too), a fruitful dialogue. You also provided tangible advice and examples on how to lead health, safety and well-being. As Roger and Dane both put it - with structure, responsiveness, communication and let's not forget, risk management - as key components of successful programming, ongoing.

Wishing you all a safe, healthy and well time at McMaster University as a important "community within our community" (says Sue, Hamilton born and raised - and a "continuing ed" alum of Mac).

***Sue Freeman**, Outreach Program Manager,*
Canadian Centre for Occupational Health and Safety

Metrics 2021

metrics

182
JHSC meetings held across 28 university JHSC's

21
COVID-19 Guidance Documents/Checklists/ SOP Updated

64
Reported Positive COVID-19 Cases (staff, faculty and students)

2020: 145 JHSC meetings | **2019:** 131 JHSC meetings

Fire Drills

2021 annual compliance Ontario Fire Code. Fire drills are completed annually for every campus building.

Total CLOTH MASKS PROVIDED to Support Fall term Back to Mac:

34,500

Student Events

2021: 2751 events reviewed and approved
2020: 2359 events reviewed and approved
2019: 4476 events reviewed and approved

Student events approved by EOHSS. More information found on the **student event** webpage.

55,202

Number of HEALTH AND SAFETY TRAINING SESSIONS completed

2020: 28,302 | **2019:** 29,122

214 INCIDENTS

2020: 212 incidents | **2019:** 465 incidents

Total COVID-19 TRAINING:

15,435

Including staff, faculty and students

Over **61,000** clicks on the EOHSS Health and Safety website

Highlights COVID-19 Projects/Programs 2021		
McMaster COVID Safety Plan	Return to Work Employee Experience	Back to In-Person Student Events
Active Screening process	COVID Case Reporting Tool in Mosaic	Athletics Summer Camp Process Review
New Signage	Vaccine Policy	Athletics Reopening Plans
COVID Inspection Form Lab/Office Updated	COVID Vaccine Education Creation and Implementation	Welcome Week Planning
Risk Assessment/SOP template Updated	Back to Mac COVID Awareness Training and Implementation	Student Placement Review
Hierarchy of Controls Updated	MacCheck Process	International Travel Permissions Change
Step by Step Guides Updated	Guidance Documents Updated	Supervisor/Employee/Researcher Checklist Updated

Mental Health Programming

McMaster takes a systemic, preventative, and holistic approach to overall employee well-being, and facilitates numerous mental health initiatives.

Recent initiatives include:

- Continued enhancements to mental health benefits provided to employees for treatment received from registered psychologists, psychotherapists, and social workers.
- Employee & Family Assistance Program (EFAP) delivered virtually and in-person.
- Toolkits and resources for leaders on engagement, virtual work environmental and challenges.
- Workplace restoration and reintegration support.
- Partnership with Student Affairs on complex matters where students are also employees.
- Okanagan Charter – confirms and promotes McMaster's commitment to health and well-being, including input into the recent Mental Health Task Force.
- Numerous policies, programs and initiatives to enable a positive workplace culture including McMaster's Health and Safety Policy.
- Online self-care toolkits and resources were developed to support employees during the pandemic.
- Activities and initiatives supporting the 13 psychosocial factors related to the National Standard of Canada Psychological Health and Safety in the Workplace promoting.

In 2021 additional input was received through various employee groups surveys, a metrics assessment and a health promotion best practice audit was conducted. As a result, the Healthy Workplace Committee was expanded, and health promotion programming was restructured to enhance and elevate employee's well-being. An enhanced website has been developed along with an annual calendar structured quarterly to focus on a specific theme (physical, nutrition, emotional and psychological).

Incident/Injury Reporting at McMaster

The first chart outlines incident types reported by category at McMaster between 2016-2021. This data includes staff, students, volunteers and visitors.

In 2021 additional input was received through various employee groups surveys, a metrics assessment and a health promotion best practice audit was conducted. As a result, the Healthy Workplace Committee was expanded, and health promotion programming was restructured to enhance and elevate employees well-being. An enhanced website has been developed along with an annual calendar structured quarterly to focus on a specific theme (physical, nutrition, emotional and psychological).

Reported Incidents at McMaster 2016-2021

Type of Injury	2016	2017	2018	2019	2020	2021
Abrasion/Contusion	73	55	63	55	35	28
Allergic Reaction	6	4	4	8	4	1
Burn	25	30	29	16	6	13
Cuts & Lacerations	73	65	55	69	38	29
Fracture	6	6	7	12	2	4
Hazard (no Injury)	103	80	110	115	47	52
Irritation (epidermis, eyes, ears)	17	11	3	32	11	15
Medical Symptoms (faint, fatigue, head, thoracic, abdominal, insect etc.)	43	23	26	28	16	14
Puncture	17	13	17	20	14	12
Sprain/Strain	107	69	95	110	39	46
Total Incidents	**470**	**356**	**409**	**465**	**212**	**214**

McMaster Incidents/Injuries

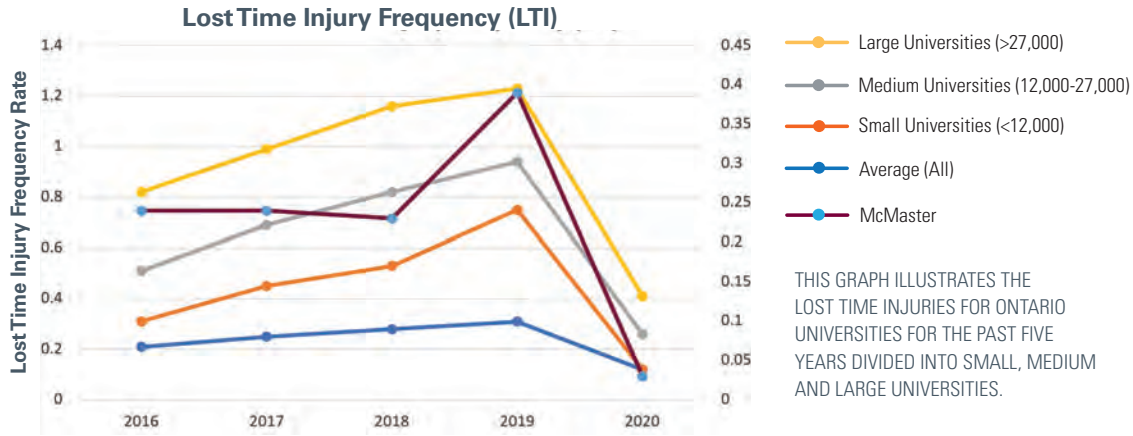
	2016	2017	2018	2019	2020	2021
Incidents	470	356	409	465	212	214
No lost time injuries	55	54	69	69	26	33
Lost time injuries	16	18	20	33	3	18
Lost Time Days	241 Days	355 Days	127 Days	363 Days	23 Days	111 Days

Lost Time Injury Frequency

The Lost Time Injury frequency rate (LTI) is a way to measure an organization's safety performance. It represents the number of lost time injuries that have occurred within a calendar year and is relative to the total number of hours worked. The purpose of calculating this rate and using this metric is to help us measure our safety programming.

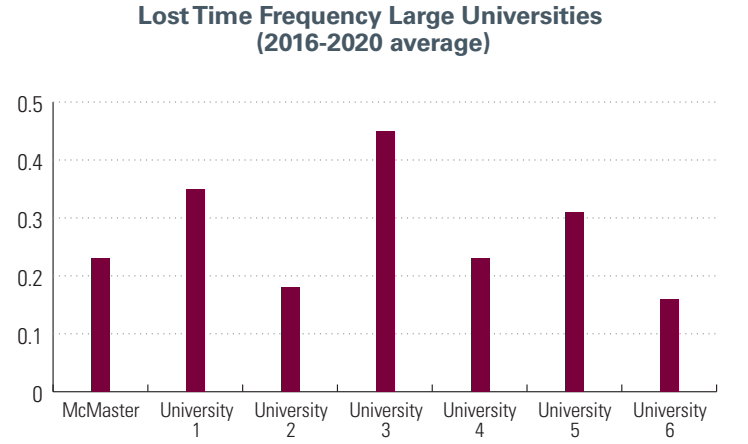
Below you will find a chart that outlines the LTI in relation to other large universities. From the data in the chart below, you will see McMaster University continues to have a lower LTI and NLTI than most large universities for 2020.

These numbers tell us that our current safety programs, early and safe return to work initiatives, and injury prevention initiatives are helping to keep the McMaster community safe and at work.

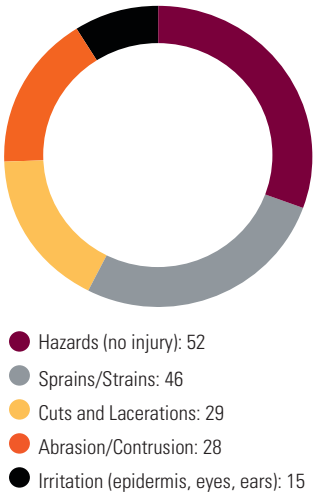


THIS GRAPH ILLUSTRATES THE LOST TIME INJURIES FOR ONTARIO UNIVERSITIES FOR THE PAST FIVE YEARS DIVIDED INTO SMALL, MEDIUM AND LARGE UNIVERSITIES.

Source: Council of Environmental Health and Safety Officers (CEHSO), Council of Ontario Universities affiliate.



THIS GRAPH ILLUSTRATES THE LOST TIME INJURY FREQUENCY FOR PAST FIVE YEARS WITH MCMASTER UNIVERSITY COMPARED TO THE OTHER LARGE UNIVERSITIES IN ONTARIO



Workplace Safety and Insurance Board (WSIB)

In January 2020 WSIB introduced a new Rate Framework to replace the previous NEER (New Experimental Experience Rating) framework. The new approach uses a two-step approach to set and adjust premium rates for businesses.

- Determines an average rate for each industry class
- Considers individual business claim history and compares this to the rest of the business in the same class.

As such the overall rate under the new model will reflect the organization's individual claims experience and risk.

The following are McMaster's current rating details based on the Education Sector and McMaster's individual performance for the period of 2015 – 2021.

McMaster's 2021 WSIB Rating Details: 2012-2020

Predominant Class	Predictability	Education Sector Class Rate	McMaster University Current Rate	McMaster University Rate 2022
D1 - Education	100%	$0.34	$0.24	$0.23

The current and projected rates are lower than the class rate for the Education Sector indicating that McMaster's accident and lost time experience is better than the sector average. The Rate Framework allows for predictability and stability of rates. The WSIB will no longer be applying surcharge or rebates in this new Rate Framework. The next report to the Board in 2022 will reflect the premium paid by McMaster as a result of the new Framework.

WSIB's Excellence Program vs Health and Safety Excellence Program

Since the WSIB NEER program was discontinued in favour of a new framework, the ability to receive surcharges or rebates was also changed.

As such, the only manner in which an institution can obtain premium discounts is to create new health and safety programming and have this assessed by WSIB. A maximum of five programs may be created a year, resulting in a maximum premium discount of 1.4% per year. McMaster registered for the WSIB Excellence Program in spring 2020 along with 14 other universities in Ontario. The timeline for assessment by WSIB has been extended by six months due to COVID.

Working collaboratively with our safety association sponsor for this program; Public Services Health and Safety Association (PSHSA) submitting 3 topics. These topics included:

- Control of Hazards - COVID-19
- Emergency Prevention and Preparedness
- Workplace Health Promotion

As part of the submission an action plan and evidence were included. Topic submissions went through a validation process of which WSIB approved all three of our submissions.

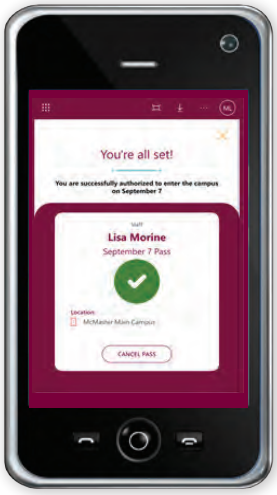
SECTION 3

Key Focus and Achievements in 2021

Provide guidance, support and expertise related to COVID-19

The team continues to participate and support several Return to Campus committees, in addition to the Central Joint Health and Safety Committee, and our many Joint Health and Safety Committees. This work includes the development and update of comprehensive tools for the university community to mitigate risk and maximize health and safety of all individuals on campus, including:

- Updating the Framework for decision making
- Updating the Hierarchy of Controls
- Continued review and update of the 20 Guidance documents
- Developed and implemented a positive case protocol for faculty, staff and students.
- Part of MacCheck creation and implementation team
- Participated in Vaccination policy creation
- Templates for departments to create safe standard operating procedures (SOPs)
- Ongoing advice, support and approvals for departments unsure about appropriate actions required
- Direct correspondence with public health to understand restrictions, provincial legislation, and notification of active/suspected positive cases on campus
- Participated and collaborated to assist in providing consultation for research fieldwork, teaching and laboratory activities
- Back to Mac COVID-19 training for faculty, staff and students
- Set guidelines for campus access, clinical studies, research activity



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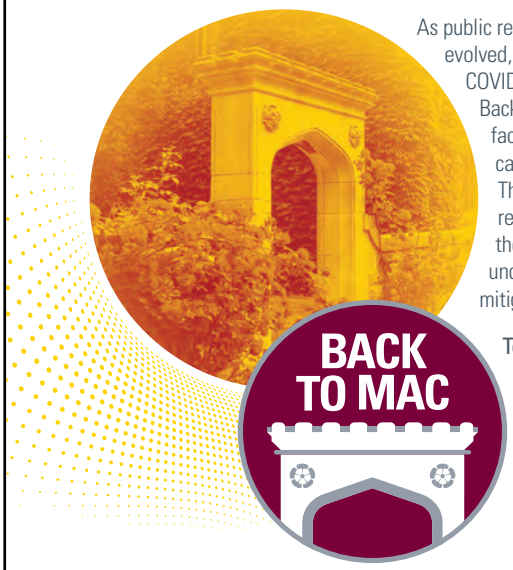
- Created checklist and physical inspection forms for supervisors in varying capacities to ensure COVID protocols were followed
- Provided additional physical health and mental health resources for employees working remotely
- Developed employee-facing material to support an ergonomic workspace for remote work
- Ensured all buildings were signed appropriately with new protocols and regulations
- Designed and implemented a COVID-19 self-screening reporting process for McMaster faculty, staff and students that is integrated with Mosaic



As public restrictions and provincial guidelines evolved, HSRM launched the second COVID-19 Awareness training titled Back to Mac for any staff, student or faculty member returning to McMaster campus during this pandemic phase. The training focused on the protocols required to enter campus to ensure the McMaster community members understand how to take action to mitigate the risk.

To date in 2021, more than 15,000 have completed Covid-19 health and safety training.

Guidance Documents

- Research Lab Use
- Vehicle Use
- Fieldwork
- Access/Working in Shared Studio Spaces
- Building Evacuations
- Face Coverings and Masks
- Clinical Areas and Waiting Rooms
- Client Facing Areas
- Research Involving Human Participants
- Training of Research Personnel
- Use of Physical Barriers
- Undergraduate Classroom/Lab Use
- Emergency Response for Virtual Sessions
- Meetings on Campus
- COVID-19 Checklists (Supervisor/Lab Worker/Employee/Researcher, Contracting Work, Instructor, Supplemental JHSC, Supervisor Inspection)
- COVID-19 SOP
- Hierarchy of Controls

Supplemental Information

McMaster University | Health Safety & Risk Management

Additional HSRM program information is available on all of the below topics on the **Safety Programs Supporting the University** webpage.

A. Health and Safety Training
B. Joint Health and Safety Committees (JHSCs)
C. Workplace Safety and Insurance Board
D. Ergonomics Safety Program
E. Workplace Health Promotion
F. Employee and Family Assistance Program
G. Fire Prevention
H. Workplace Well-being Newsletter
I. Mental Health Initiatives
J. Student Event Risk Management
K. Student Placements
L. Researcher/Fieldwork
M. Occupational Hygiene
N. Higher Education Cooperative for Hazardous Materials and Equipment Tracking system (HECHMET)
O. Chemical and Biological Hazardous Waste Use
P. Violence Risk