McMaster University | UNIVERSITY SECRETARIAT

Board of Governors | Senate
Gilmour Hall, Room 210
1280 Main Street West
Hamilton, ON L8S 4L8

(905) 525-9140 x 24337
board@mcmaster.ca
senate@mcmaster.ca
secretariat.mcmaster.ca

BOARD OF GOVERNORS

8:30 AM, Thursday, March 7, 2024
Gilmour Hall, Council Room (Room 111)

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.

a. Actions Taken on Behalf of the Board
Information

272 - 273 i. Terms of Reference - Establishment of the Joseph & Amy Ip Chair in Bio-innovation

REGULAR

9. Business Arising

10. Communications

11. President's Report to the Board (8:40 AM)

274 - 281 President's Report to the Board

12. Committee Reports (9:05 AM)

1. Remunerations Committee (9:05 AM)
M. Shoukri

282 Report from the Remunerations Committee

283 - 286 **a. New Policy: Definition of Retiree and Eligibility for Supplemental Benefits for Retirees of McMaster University**
W. McKenna
Approval
Eligibility for Supplemental Benefits for Retirees

13. Presentation to the Board of Governors (9:10 AM)

Name: Dr. Jerry Hurley, Dean, Faculty of Social Sciences
Title: Faculty of Social Sciences

14. Other Business

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REPORT TO THE BOARD OF GOVERNORS
from the
SENATE

At its meeting on February 14, 2024, the Senate approved the following and now recommends the item to the Board of Governors for Information:

FOR INFORMATION

i. Terms of Reference

a. Establishment of the Dr. David Weaver Distinguished Engineering Professor and the Dr. Simon Haykin Distinguished Engineering Professor

Board of Governors: FOR INFORMATION
March 7, 2024

[Please Note: material for all of the above items is available from the University Secretariat at board@mcmaster.ca]

Prepared for the
Board of Governors,
McMaster University
March 2024

MCMASTER MUSEUM OF ART ANNUAL REPORT

PRACTICING DECOLONIALITY, VISUALIZING COLLABORATION

September 1, 2022 - August 31, 2023

BRIGHTER WORLD | mcmaster.ca

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MCMASTER MUSEUM OF ART

PRACTICING DECOLONIALITY, VISUALIZING COLLABORATION

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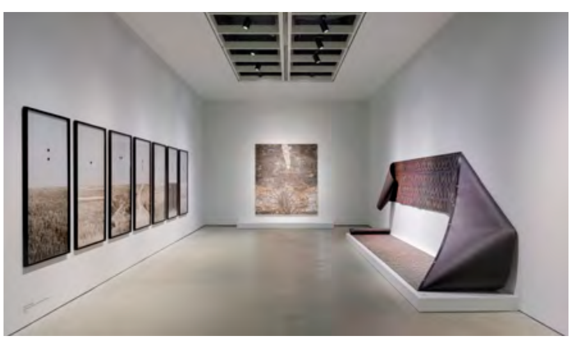
"If decolonization were to be meaningful, it must necessarily entail a series of actions that aim to redistribute power and open up the museum – as a closed disputed space, as a territory – to a more diverse population."
-Dr. Errol Francis, Executive Director of *Culture&*

McMaster University | Museum of Art

Executive Summary

In 2022/23, following the world-wide social, political, cultural, and environmental crises precipitated by the pandemic, Black Lives Matter, climate catastrophes, the disintegration of democracy, and their combined fallout, the Canadian museum community renewed commitments to activate UNDRIP, TRC Call to Action #67, and the creation of a National Museum Policy. Museum sector arts service organizations challenged the status quo with conferences, annual general meetings, and symposia with topics that both recognized the issues as well as the need for transformation in the sector: *The Power of Museums* (ICOM, International Museum Day '22); *Practice over Permanence* (Ontario Museums Association); *The Future is Collaboration* (Canadian Museums Association); *Indigenous Futures* (Galeries Ontario Galleries); and *Museums, Sustainability and Well-Being* (ICOM), to name just a few. Not surprisingly, during this same period, the strategic priorities of the Ontario Arts Council and the Canada Council for the Arts championed the need for change in the sector. For instance, the OAC's 2022-2027 strategic plan, entitled *Reset, Renew, Revitalize*, notes a call to such actions because of the recent "period of significant cultural transition due to sweeping changes in the social, environmental, and technological landscapes." The Canada Council for the Arts 2021-2026 Strategic Plan, entitled *Art, Now More than Ever*, likewise notes that the "pandemic highlighted the shortfalls and inequities of our systems, and caused us to recognize the need for a resilient, accessible, equitable, and inclusive sector."

One of the most significant challenges in 2023 in the museum sector worldwide was around the question of its colonial legacy. As the Executive Director of the UK-based culture think tank, Culture&, (as well as *Culture Box* and *The Centre for Cultural Value*), Dr. Errol Francis noted, "this has been the most tumultuous year of my (35+ year) career in the arts." And further, "If decolonization were to be meaningful, it must necessarily entail a series of actions that aim to redistribute power and open up the museum – as a closed disputed space, as a territory – to a more diverse population. To decolonise is basically to transfer power and to cede territory …" Actions proposed in a *Culture&* charter are as follows: the diversification of the workforce at *all* levels; dealing with contested provenance, restitution, and repatriation; revealing the colonial histories of objects; opening up interpretation and education to diverse narratives; devising public programmes that engage more inclusive audiences; and protecting the lives of those in the workforce at risk from Covid-19.



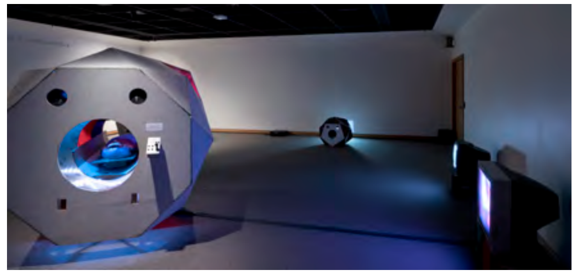
Installation view *Chasm* (on view May 18, 2023 – January 26, 2024). Photo by Darren Rigo.

At the M(M)A, we have been addressing the charter's calls in almost all areas. Key amongst our significant work in 2022/23 were the following: ongoing diversification of our workforce and volunteers; ongoing anti-colonial development for staff; ongoing IBPOC curatorial mentorship program; movement toward the restitution and repatriation of several objects; and ongoing research, presentation, and interpretation of exhibitions that take the unique vantage point of critiquing the power dynamics of colonialism from within the museum.

Amidst the above noted transformative actions at the M(M)A, and following a major facilities refurbishment which caused a 6 months shut down in 2019; pandemic shut downs of nearly two years throughout 2020 and 2021; as well as the retirement of two senior positions at the Museum: (Senior Curator in 2022 (after 3 years) and Curator of Indigenous Art in 2023 (after 8 years)); operationally, 2022/23 became a year for stabilization. In addition to the actions towards decoloniality, the M(M)A presented ten exhibitions in the reporting period: *what sustains us*; *NIIPA 20/20*; *we are made of stardust*; *self/same/other*; *Movers & Makers*; *Fugue*; *Salients*; *The Haunted Scanner*; *This Must Be The Place*; and *Where We Intersect: Identities, Environments, Activisms* (details on all exhibitions in the Highlights section). All research, education programs, and public programs were developed from the curatorial exhibition framework.

McMaster University | Museum of Art

Organizational Overview


Installation view *The Haunted Scanner* by Sally McKay and Von Bark, (January 17 – May 19, 2023). Photo by Bob McNair.

Mission & 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.

The McMaster (Museum) of Art will positively disrupt the traditional museological narrative by creating more inclusive, dynamic, and experiential relationships between peoples and artistic practices

Mandate & Role

As a university-affiliated, public art museum, the McMaster (Museum) of Art is "a not-for-profit, permanent institution in the service of society that researches, collects, conserves, interprets and exhibits tangible and intangible heritage. Open to the public, accessible and inclusive, the M(M)A fosters diversity. It operates and communicates ethically, professionally and with the participation of communities, offering varied experiences for education, enjoyment, reflection, and knowledge sharing," (excerpted from ICOM, August 24, 2022). Within this framework, the role of the M(M)A 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 M(M)A contributes research and sector development to the broader Canadian arts milieu through the production of exhibitions, ancillary programs, and publications; as well as through innovation in museological practice. The M(M)A partners with faculty across all disciplines to produce research, exhibitions, publications, and educational programs that nurture arts-based practices and ways of knowing. The M(M)A researches, presents, preserves, cares for, and grows the internationally recognized University art collection. The M(M)A 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 M(M)A provides significant community outreach beyond the walls of the museum through in-community partnerships and learning opportunities. The M(M)A contributes to the broader Canadian arts community by partnering on projects such as the national Holocaust-era provenance research project, research and exhibitions with colleague institutions, and in contributing to sector discussions around de-colonizing the museum as a cultural institution. The staff of the M(M)A regularly participate in various community-based juries, conferences, and events, as well as through the commissioning of new works of public art. The M(M)A's on-line presence is significant within the university-affiliated sector.

McMaster University | Museum of Art

Organizational Overview

Facility and Collection

The M(M)A 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 M(M)A 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 IBPOC Curatorial 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 M(M)A, assisting primarily with educational programming and events.

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

The collection at the MMA numbers **7,000+ works of art** and contains important historical, modern and contemporary period works.

Highlights of the collection include:

- The Herman H. Levy Collection of Impressionist, Post-Impressionist and Modern work: including paintings by Caillebotte, Courbet, Derain, Marquet, Monet, Pissarro, 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;
- modern and contemporary Indigenous Art (Inuit) with a focus on Cape Dorset prints and sculpture including works by Kenojuak, Pitseolak and Tookoome;
- modern and contemporary Indigenous Art (First Nations, Metis), 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.

McMaster University | Museum of Art

Organizational Overview

Exhibitions and Programs

The M(M)A 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 audience of the region. Throughout its history, the M(M)A 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

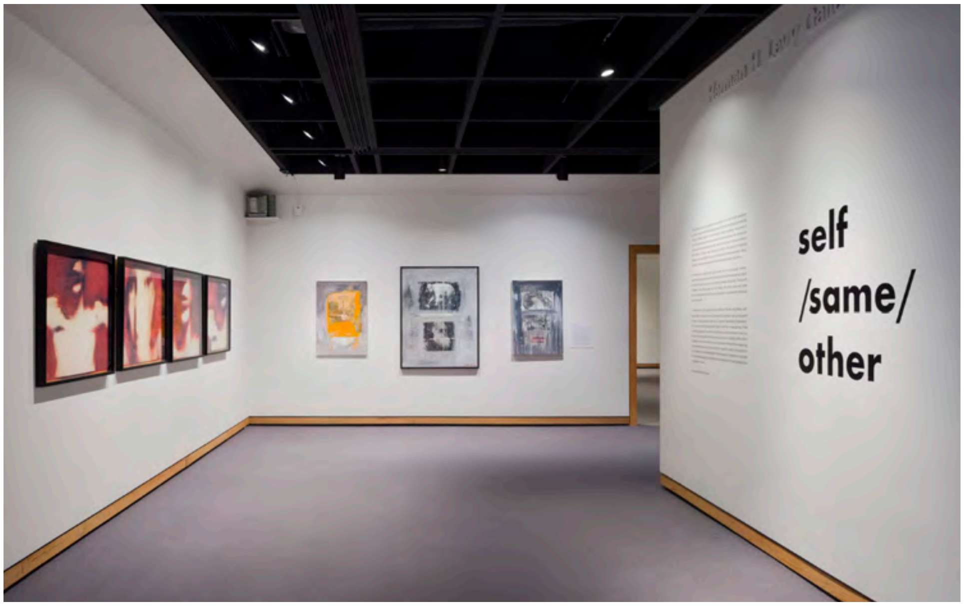
The M(M)A is one among several cultural institutions in the Hamilton area. The City of Hamilton manages several historic buildings and homes – Dundurn Castle, Military Museum, Museum of Steam & Technology, Whitehern Historic House, and a Children's Museum; as well the city is home to the Art Gallery of Hamilton and the James Street North artists' district. The M(M)A 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.

Dr. Spencer Pope, Department of Classics, installing *Crossing Borders: Coins from Around the World* at McMaster Museum of Art (on view May 2, 2023 – April 30, 2024).

Ornate Chinese vessel on view in *Crossing Borders*, 3D imaging courtesy of Serena Walk from McMaster Sari-Sari Xchange.

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, M(M)A 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.

(Appendix I: *Institutional Achievements 2007-2023* details on-going developments in (exceptional) funding, organizational competence & development, digital & social media launches, platforms & development, collections management, facility maintenance, awards, and exceptional circumstances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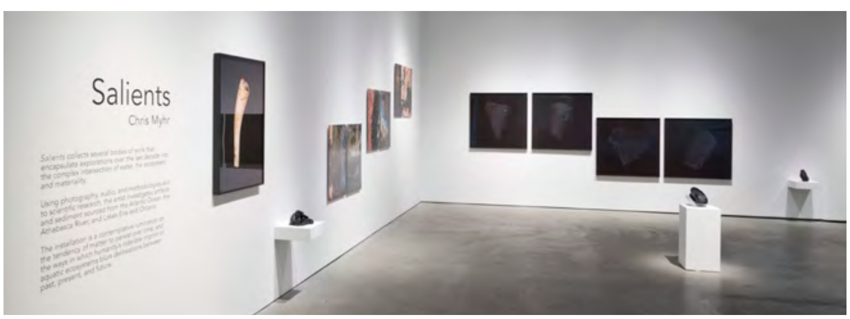
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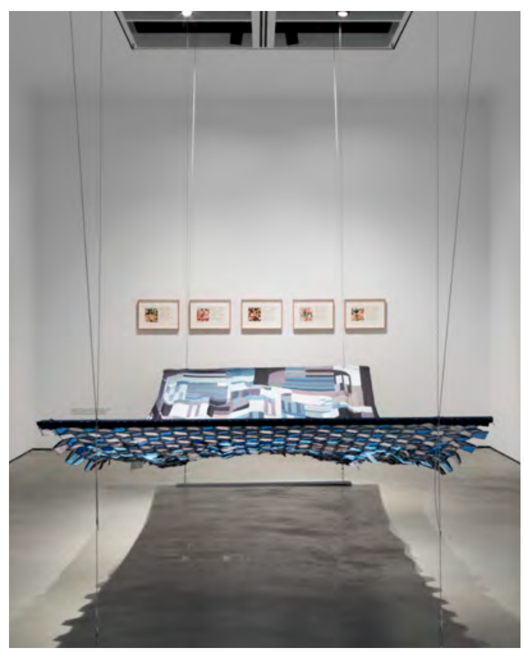


we remain profoundly and infinitely connected
McMASTER MUSEUM OF ART

McMaster University | Museum of Art

2022/2023 Highlights

Administration

Staff

In the reporting period, the staff composition changed very little, with the addition of two Information Assistants to the museum's front -of -house roster: Olga Kolotylo and Paula Rebello. As well, the M(M)A Advisory Committee (the museum's volunteer governance body), saw two long time members retire, Mike Noseworthy (Biomedical Engineering) and David Wilkinson (Engineering); the nomination of one new faculty member, Chris Myhr (Communications & Multi-Media); and the appointment of one new community member, Mosa McNeilly (artist). The Advisory Committee also saw a transition of leadership with the retirement of Chairperson, Joyce Zazulak (Department of Family Medicine), and the appointment of Teal McAteer (DeGroote School of Business). The M(M)A Advisory is comprised of 4 ex officio members; 2 museum; 5 faculty; and 5 community members. In terms of equity and inclusion, the current membership is 50% IBPOC. Mentees in the M(M)A's *IBPOC Curatorial Mentorship Program* during the reporting period were Sarah-Tai Black who worked with former Senior Curator, Pamela Edmonds to produce an exhibition in collaboration with Cambridge Galleries; and Alex Jacobs-Blum, working with Adjunct Senior Curator, Betty Julian, assisting with exhibition production and education for the Museum's collection exhibition, *Chasm*.

All curatorial and education staff contributed to the broader Canadian arts sector in terms of their work with arts service organizations, colleague institutions, and McMaster associates.

Paper centre at the museum. Photo by Georgia Kirkos, McMaster University.

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2022/2023 Highlights

Strategy for decoloniality
Since 2018, the M(M)A has led an in-house anticolonial strategy that includes readings, videos, and training sessions on topics as varied as anti-Black racism, decoloniality, allyship, and truth and reconciliation. In the reporting period, 5 sessions, led by external consultants were held. The topics covered were: White Privilege, Collaborative Futures, Anti-Oppressive Practice, Transformative Justice, and Divesting from White Supremacy. The Museum's anti-colonial strategy is an ongoing endeavour of the institution.

(Appendix II: MMA Anti-colonial Strategy details timeline, training, and resources to date

Physical Plant
In 2022/23, the Museum underwent regular maintenance around fire safety: replacement of extinguishers and hoses, as well as the much-needed installation of AODA compliant mechanisms for the accessible washroom. The up grades to the Museum's Security System (2017/18) and refurbishment of its environmental system (2019), continue to serve the institution very well.

Guest reads archival media on display in *The Contemporaries* (January 17 – May 19, 2023). Photo by Brendan Cao.

Installation view *Chasm*, collection exhibition curated by Pamela Edmonds and Betty Julian. Photo by Darren Rigo.

Revenues
Revenues remained fairly constant in the period, though donations, reduced during the pandemic months, continued to be low. Grants were received from the Ontario Arts Council (Operating Grant); the Canada Council for the Arts (Digital Generator, Project Grant); as well as the final year of funding (of two years), from the Department of Canadian Heritage (Community Support, Multiculturalism, & Anti-Racism Initiatives Grant).

Attendance
According to the American Alliance of Museums, in-person attendance figures at cultural institutions across North American will not return to pre-COVID numbers before 2024. At the Museum we find this to be true, notably, our in-person numbers continue to rise slowly, with 24,000 through the gate in 2022/23. However, it should be noted that we enjoyed an increase in followers across all social media platforms: 64,4434 web views; 1,516 e-news subscribers; 3,075 facebook followers; 4,382 instagram followers; 480 followers on the new threads platform and 3,377 followers on X (formerly Twitter). Our YouTube channel saw 11,989 views.

Awards
The McMaster (Museum) of Art was awarded Best Art Gallery (Platinum) in *The Spectator Readers' Choice Awards* in 2023.

McMaster University | Museum of Art

2022/2023 Highlights

Collections

In the reporting period, the museum acquired 9 works of art: 6 by donation and 3 through purchase. The purchased works continued to support the Museum's conscientious commitment to expand the scope of the collection through the addition of works by racialized and women artists. Highlights of the collecting year were the purchase of works by Governor General Visual Arts Award-winning artists Shelly Niro, Stan Douglas, and Tim Whiten. The latter also donated a work to the collection.

Fourteen works from the collection were loaned during 2022/23 to cultural institutions across Canada and in the United States of America. Amongst domestic borrowing institutions were the Art Gallery of Ontario and the Art Gallery of Alberta. Amongst international, The University of Buffalo Art Gallery and the School of Art & Architecture, Temple University, Philadelphia.

As an up-date and reminder to last year's reporting on this activity in terms of the museum's ongoing provenance-era research work on the permanent collection (following best practices as set out by the Holocaust-Era Provenance Research in Canadian Art Museums and Galleries (CHERP) guidelines initiated by the Canadian Art Museum Directors Organization (CAMDO)) in 2017, the museum discovered one painting from the permanent collection which was listed on a lost art database, one of many websites created to search for looted artwork from World War II. Further research was carried out by museum staff over several years to attempt to identify the original owner. In 2022, a French notarial firm representing a family claiming ownership of this painting contacted the museum. We have since hired a consultant with expertise in Holocaust-era provenance research, and exchanged correspondence, legal documentation, and archival materials with the notaries in France in order to fully examine the validity of this claim. We are in the final stages of discussions and look forward to an amicable resolution in 2023/2024.

In 2022 a guest Inuit curator alerted museum staff to the possible need to repatriate two ceremonial wooden masks in the collection: one from Kodiak Island, the other from St. Lawrence Island. Following a period of research and connecting internationally with colleagues, we were able to locate institutions in the home territories of said masks: the Katirvik Cultural Centre in Nome, Alaska, and the Alutiiq Museum & Archaeological Repository in Kodiak, Alaska. Following consultations with McMaster Indigenous Education Council in Fall 2023, we hope to repatriate these wooden masks to their rightful communities. There are no other ethnographic objects in the Museum's collections.

Shelley Niro's *Nature's Wild Children,* acquired for the MMA's permanent collection. Shown here on display in the exhibition *Chasm*, photo by Darren Rigo.

(Appendix III: Acquisitions
(Appendix IV: Loans

McMaster University | Museum of Art

2022/2023 Highlights

Exhibitions

In 2022/23, the Museum produced the first full year of in-person exhibitions since Winter 2020. Ten exhibitions were produced in the period: comprised of 5 thematic, 3 (of which were) collection-based, 4 local/faculty/alumni projects, and the annual graduating exhibition of the School of the Arts studio program. In September 2022, the fall season was opened with *we are made of stardust*, a rumination on Indigenous interpretations and associations with the night sky. The project was funded in part by a grant from the Canada Council for the Arts, and public programming was carried out in collaboration with the department of Physics and Astronomy and the McCallion Planetarium. At the same time, the museum produced the thematic collection project, *self/same/other* in juxtaposition with the guest curated project, *Movers & Makers*. *self/same/other* comprised mostly photo-based works from the permanent collection that investigated diverse ways of exploring self-imaging and subjectivity through different types of photo-based media. Expanding the genres of portraiture and self-portraiture, together the images revealed how the camera and its reproducible technologies is used to explore changes in bodily perception and identity in art and mass culture across time. The exhibition has been nominated for a Galeries Ontario Galleries award for "innovation in a collection-based exhibition" (announcement fall 2023). At the same time and in an adjacent gallery, *Movers & Makers*, was guest-curated by Betty Julian. The exhibition featured the work of four emerging Black artists working out of Toronto. The exhibition thesis pondered the devastating impact of the last few years, especially for those of the Black diaspora as the two overlapping catastrophes of racism and the pandemic took their toll. *Movers & Makers* spoke to the challenges of the present moment by invoking a desired future of Black optimism. The exhibition provided the opportunity for the artists to address their subjectivity through artistic strategies of photographic experimentation, and by doing so, aligned with and expanded the narrative of *self/same/other* in profound ways.

Artist Claudia Manley and guests during the Opening Reception for *Fugue* (January 10 – March 24, 2023) Photo by Brendan Cao.

Winter 2023 saw the production of 4 exhibitions with ties to McMaster University. Communications & Multi-Media Faculty member Chris Myhr's *Salients* was a solo exhibition of work by the Hamilton-based artist and researcher. The exhibition brought together photographs from an interrelated series developed by Myhr between 2016 and 2022, exploring themes related to water, the ecosystem, complex interconnectivity, and materiality through a photo-based approach. Likewise, *Fugue* presented the work of Communications & Multi-Media faculty member, Liss Platt and her colleagues Claudia Manley and Adriana Kuiper. *Fugue* was a sculptural installation that materialized the artists' shared and individual experiences of living through the COVID-19 pandemic. Comprised of a large 6' x 18' suspended collaborative quilt made up of 6' x 6' panels, the artists deployed muted tones of blues/greys/blacks combined with abstract patterns to narrate their personal stories of living through such haunting conditions throughout the last two years. Both literally and figuratively, the installation invoked many meanings of "fugue" – fugue as a metaphor for the artists' mental/emotional states during the pandemic, fugue as a formal principle of design, fugue as a form of psychological disassociation wherein one's senses are compromised, and lastly fugue as the musical composition based on imitation and repetition. The final faculty-based exhibition in winter 2023 was *The Haunted Scanner* by Sally McKay, School of the Arts, and her colleague George von Bussell. Based on magnetic imaging and subsequently working with McMaster Biomedical Imaging professor, Dr. Mike Noseworthy, McKay and von

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2022/2023 Highlights

Bussell contemplated magnetic resonance imaging, but at the DIY level. The resulting installation pondered scientific, medical, and spiritual functioning - where this technology came from, why it survives and what it might mean and imagine for our futures.

The final local exhibition in winter term 2023 brough together the work of 8 McMaster SOTA alumnus: Ferdinando Bilanzola, Judi Burgess, Raffaele Caternini, Paul Cvetich, John Kinsella, Janice Kovar, Paul Ropel-Moriski and Lisa Wöhrle. All McMaster University art graduates, they formed the artist collective "The Contemporaries" in the late 1980s and exhibited extensively in the Hamilton region until the mid 90s. *The Contemporaries: This Must Be The Place* brought the artists back together in an exhibition that focused on their current practices, while also taking a look back at the early days. The connections that drew *The Contemporaries* together – deep ties to friendship, art and their shared history with McMaster and Hamilton – have remained intact throughout the years. The exhibition was augmented by a historical summary by the local arts rag *Hamilton Arts & Letters*. In spring 2023 another exhibition featured the work of graduates of the studio program, McMaster University School of the Arts. *SUMMA 2023, Where We Intersect: Identities, Environments, Activisms* was a group exhibition featuring the work of the graduating Studio Arts students. The exhibition represented a diversity of artistic and thematic explorations from a compelling cohort of undergraduate students. The title of the exhibition speaks to a collective impetus to find points of connections within a heterogeneity of approaches, perspectives, identities, and motivations. The spectrum of expressions is indicative of a group of emerging artists wrestling with making sense of a contemporary moment defined by a global pandemic, by senseless violence, astonishing waste, environmental devastation, and existential angst. The *SUMMA* exhibition marks the culmination of the students' four-year undergraduate degree at McMaster University, guest-curated in 2023 by local artist Mosa McNeilly.

Spring/Summer term 2023 (continuing throughout the Fall 2023 term), saw the production and installation of two collection-based exhibitions: *Crossing Borders* and *Chasm*. The exhibitions occupy all 5 exhibition galleries in the museum and were curated by Honorary Curator of the M(M)A numismatic collection, Dr. Spencer Pope (Department of Classics), and Adjunct Senior Curator, Betty Julian, with guest colleague, Pamela Edmonds, respectively. *Crossing Borders* examines numismatic connections across time and place and presents similarities in materiality, design, and style that derive from the specific needs of coinage. This display invites the visitor to focus on the practical and aesthetic considerations made by coin's issuing authority. The exhibition was augmented with the production of the first permanent collection catalogue of the Numismatic Collection. In similar critical mode, *Chasm* continues a series of recent exhibitions exploring the permanent collection at the M(M)A through critical curatorial frameworks. The exhibition offers diverse and transcultural perspectives and interpretations of the museum's holdings, including recent acquisitions. The exhibition takes the unique vantage point of critiquing the power dynamics of colonialism from within the museum, informed by the transcultural positions of resistance that seek Indigenous sovereignty and Black liberation. This critical and exploratory exhibition makes connections to art discourses and ideologies related to modernism, critiques of the white cube gallery, alterity, and ontological space. The co-curators' interests are to consider and to actively shift hegemonic paradigms through a radical rethinking of the exhibition space. Their critical curatorial tasks have been to find ways through our work to redress and resist the cultural amnesia surrounding intersecting systems of colonialism, patriarchy, capitalism, and the anti-Black racism inherent in the foundation of our art institutions. The exhibition is a radical revelation and unique in a sector searching for methods to re-think the colonial museum and its settler collections. These exhibitions will continue into the fall 2023 programming period.

(Appendix V: Exhibitons

The 2023 SOTA graduating class at the artist talk for *SUMMA 2023: Where We Intersect: Identities, Environments, Activisms.*

McMaster University | Museum of Art

2022/2023 Highlights

Education & 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 M(M)A is significant. Notable in the current period is the on-going commitment to the provision of hybrid programs.

In 2022/23, the museum provided directed post-secondary (undergraduate, graduate and faculty), and postsecondary professional and adult, programs through a variety of courses and workshops. The Museum and Department of Family Medicine (DFM) program, *The Art of Seeing*, provided sessions for DFM; Family Medicine, Palliative Care; Health Sciences, Continuing Professional Development; Midwifery; Health Sciences Education Graduate Program; Health Leadership Academy National Fellows Program; Stonehenge Therapeutic Community Clinicians & Staff Retreat; Continuing Education Strategic Leaders Program; Health Sciences Continuing Professional Development; Addictions & Mental Health Ontario Board of Governors Strategic Planning Retreat; Biochemisty & Biomedical Sciences; Midwifery Intersectionality in Healthcare; and the Ontario College of Physicians Centre for Effective Practice Board Members' Retreat. *The Art of Seeing* team also collaborated on program development for a "virtual care with the visual arts" program with Gurinder Multani, student in Master of Global Health and, Nika Elmi, Doctor of Medicine; Strategic Planning Retreat for Oncology, Juravinski Cancer Centre; and with Student Wellness (ARMS) and Centre [3] on *Resilience + Connection: Artistic Explorations of Mental Health*. Senior Education Officer Nicole Knibb also contributed to the DFM research project, *Past Participants*; and to their *Indigenous Teaching Through Art* research project. In terms of academic teaching and supervision, Knibb contributed to the Health Sciences Praxis Pathways HTH SCI 3X00 and 4XP3; Master of Global Health Scholarly Paper; Health Sciences HTH SCI Inquiry 3H03; and Applied Art History ARTHIST 3AB3.

Guests enjoy the exhibition *Chris Myhr: Salients* (December 20, 2022 – March 24, 2023). Photo by Brendan Cao.

At the school and community level, the Museum developed and presented four new programs in 2022/23: Coding & Art; STEM Discovery; Engineering Explorations; and Art & Social Justice. Partnerships in programming were delivered to the following: Hess Street Elementary School, Westdale High School, Hamilton Wentworth District School Board, and on campus with McMaster Employee Health and Well-Being, Sketching Thursdays, The Creative Process, and the Planetarium/Indigenous Student Services. More broadly, the Museum provided tours to fifty-one campus groups, eleven community groups and forty-four school groups. The Museum continued to deliver its annual programming in support of thirteen 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 M(M)A, 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, the Canadian Art Gallery Educators, and the University Art Gallery Academic Engagement Group.

(Appendix VI: Tour Groups
(Appendix VII: Tour Schedule

2022/2023 Highlights

Marketing & Promotion

Communications

The museum's communications operations include promoting exhibitions and events, handling strategic media outreach, managing the museum's website, and maintaining the museum's presence on social media and other online platforms.

As the university saw more emphasis on in-person experiences, the museum transitioned to providing more in-person event experiences whilst maintaining a strong virtual presence with a quality-oriented focus. Workshops and artist talk events during this period often sold out when ticketed, suggesting that a portion of our audiences were seeking out in-person events to attend. Artist talks were not presented virtually in a live format but were instead shared as polished asynchronous videos, allowing us to provide reliable closed captioning and prioritize accessibility.

Efforts to increase and broaden our digital presence continued, resulting in a steady increase in followers across social media platforms in this reporting period. We saw increases across all social media platforms except for **Twitter/X**, which has experienced a global downturn consistent with bad company press and the introduction of a competitor app. The most significant increase was on **Instagram (22%)**, follower increases remain consistent on **YouTube (8%)**. Follower increases have slowed significantly on **Facebook (2%)** however this reflects the site's lack of use with young adults, our main audience.

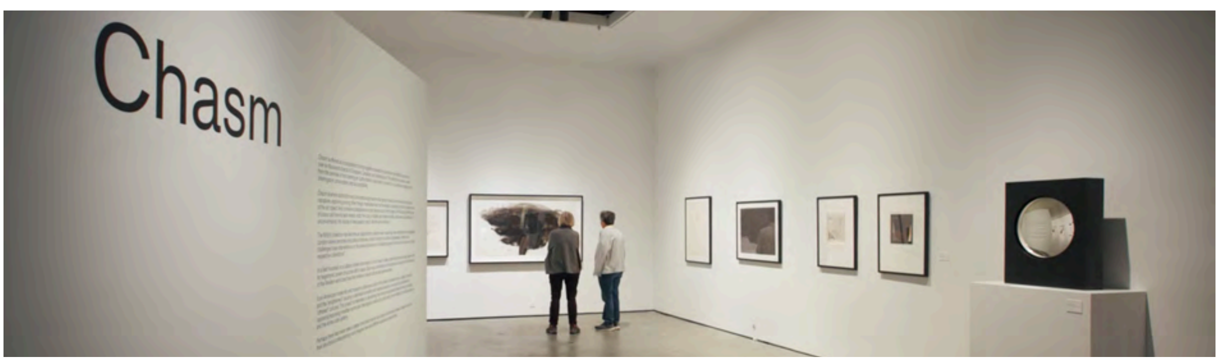
Our website presence continued to improve, seeing **an increase of 18% in page views** in comparison to the previous reporting period. This steady increase can be attributed to the natural growth of our audiences proceeding the previous reporting period, which saw a more radical increase due to the launch of a new website alongside the museum's rebrand in 2021.

Media

The M(M)A appeared in approximately **20+ pieces of news media** during this reporting period, with a strong emphasis on local media coverage mirroring the local nature of several of the offered exhibitions.

Print & digital articles about McMaster exhibitions, programs, and activities appeared in stories with local and national publications throughout the period, including: Akimbo, Beyond James, Border Crossings, CBC News, Centred.ca, Doors Open Hamilton, Hamilton Spectator, Hamilton City Magazine Global News Hamilton, McMaster Daily News, McMaster Faculty of Humanities, Muskrat Magazine, Peripheral Review, Peterborough Blog, Slow Art Day, The Arty Crowd, The Conversation, The Silhouette. The nature and number of these publications reflected the number and scale of exhibitions offered during the reporting period. Links to articles can be found in the Media Summary document.

(Appendix VIII: Communications Operations Summary
(Appendix IX: Media Summary



Installation view *Chasm*, captured from curators' talk video.

THE HAMILTON SPECTATOR

ARTS OPINION

Forever young: 'The Contemporaries' return with first show in years at McMaster

Hamilton's most beloved art collective returns to the campus where it all started 40 years ago in 'This Must Be the Place' at McMaster Museum of Art, Jeff Mahoney writes.

By **Jeff Mahoney** Spectator Reporter
Sat., Feb. 11, 2023 | 4 min. read

JOIN THE CONVERSATION

Review of *The Contemporaries: This Must Be The Place* exhibition in The Hamilton Spectator, February 2023

The Young Contemporaries find themselves convened again after many years, by special order of their own historical importance, in a return to the cradle of their creative awakening.

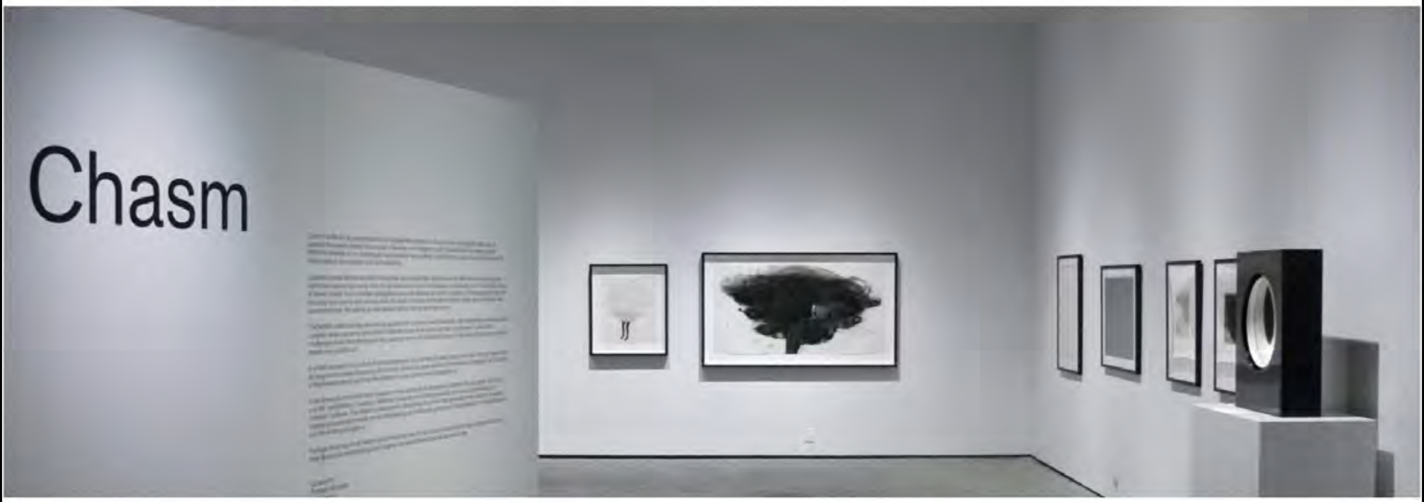
The legendary art collective is back on campus, the scene of the crime, so to speak, of their origin story, 40 years ago, at the invitation of alma mater McMaster. They're there in order to, among other things, take a bow. Those other things might include a kind of completion of the circle that began there

Review of *Chasm* exhibition in Hamilton City Magazine, June 2023

ARTS + CULTURE

MCMASTER MUSEUM OF ART UNVEILS BOLD NEW LOOK AT MUSEUMS

By HCM / Jun 14, 2023

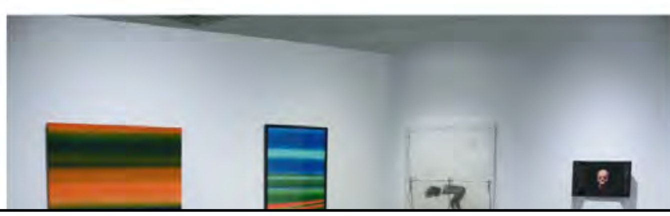


***Chasm* demands exploration of the oppressive systems embedded in traditional museum practices.**

The McMaster Museum of Art is undertaking a bold rethinking of the museum concept. Beginning June 13, curators Pamela Edmonds and Betty Julian are presenting an exploratory collection exhibition that looks inward at the museum, reframes acquisitions to reflect on inequitable power dynamics and encourages critical dialogue of the oppressive systems embedded in museum practices. The exhibition will be followed up with program of public events in the fall that will be announced soon.

"*Chasm* is both a challenge and an invitation to the visitor," says Carol Podedworny, M(M)A director and chief curator. "As museums seek to transform themselves in terms of for whom they exist, what role they play, what stories they tell, what ideological direction they record and influence; the M(M)A is determined to not just listen to the conversations but contribute to them in meaningful and active ways."

Chasm continues a series of recent exhibitions exploring the permanent collection at the McMaster Museum of Art through critical curatorial frameworks. This exhibition offers diverse and transcultural perspectives and interpretations of the museum's holdings, including recent acquisitions. *Chasm* takes the unique vantage point of critiquing the power dynamics of colonialism from within the museum, informed by the transcultural positions of resistance that seek Indigenous sovereignty and Black liberation.



Recent Posts

MCMASTER MUSEUM OF ART UNVEILS BOLD NEW LOOK AT MUSEUMS

HAMILTON IS CHICKENING OUT ON BACKYARD FOWL

CROWN & PRESS CELEBRATES OTTAWA STREET OPENING

THINGS TO DO IN HAMILTON, BURLINGTON

PREACHING TO THE CONVERTED: NEW LIFE FOR OLD CHURCHES

BREWING UP THE DAILY GRIND

"CHASM" AT THE McMASTER MUSEUM OF ART LOOKS INWARD AT THE MUSEUM. *PHOTO: DARREN RIGO*

McMASTER MUSEUM OF ART

McMaster Museum of Art is a public art gallery, offering free admission, nestled in the McMaster University campus. The M(M)A follows a mandate of positively disrupting previously accepted narratives by including greater experiential and dynamic relationships between peoples and artistic practices, advancing decolonization, and collaborating with intention.

Its current exhibition "Chasm" rethinks the museum concept. The exploratory collection exhibition looks inward at the museum, reframes acquisitions to reflect on inequitable power dynamics and encourages critical dialogue of the oppressive systems embedded in museum practices. It is accompanied by a series of public events this fall.

"Chasm" is primarily interested in illuminating the centuries-old authoritarian forces that have generated divisive social structures and dominated museum culture.

"Chasm" invites visitors to challenge convention with an experience that seamlessly weaves together culture, politics, and language. Through art that explores colonialism and patriarchy, multiculturalism, love and loss, land, and language, it confronts preconceived notions of the traditional white cube gallery. The complex nature of the art object itself within a space and place provokes unexpected internal dialogues.

Guest curator and former M(M)A senior curator Pamela Edmonds, and M(M)A adjunct senior curator Betty Julian worked together to select significant pieces from the MMA's more than 6,000 pieces of European, Canadian, and Indigenous art.

"Our interests are to consider and to actively shift hegemonic paradigms through a radical rethinking of the exhibition space," say Edmonds and Julian.

It offers the opportunity to continue the conversation surrounding the elitism inherent in the foundations of many art institutions, and the social reform that can be realized through critical discussion and accessible, diverse, inclusive spaces.

"Chasm" includes the work of Canadian abstract artist Yves Gaucher's (1934-2000), which creates a stark esthetical juxtaposition of black and white, while in the same space Abenaki painter Rita Letendre's (1928-2021) vivid works fill the space with bold colour and magical movement.

Francisco de Goya's visual protest, "Lo Mismo" (1810-1820) urges the viewer to confront the atrocities of past injustice while simultaneously resonating with a future promise of reform.

Chasm is, above all, a diverse collection of transcultural perspectives and interpretations of selected works from the museum's permanent collection with the addition of more recent post-pandemic acquisitions from the 1990s onward.

Visitors have a chance to look beyond themselves, to glimpse the bigger picture, with a number of progressive curatorial choices that have created a successful space for introspection and contemplation. The exhibit explores powerful subjects of pain, grief, and divide, yet concurrently offers an antithetical whimsical ride.

"Chasm" is [illegible] of our existence and is "inescapably hybrid, [illegible]

Review of *Chasm* exhibition in Hamilton City Magazine, October 2023

CHASM

Curated by Pamela Edmonds and Betty Julian

Opening reception: Thursday, Sept. 28, 5 p.m.-8 p.m.

Runs until Dec. 8

OTHER LOCAL GALLERIES

EARL'S COURT GALLERY

215 Ottawa St. N.

A major supporter of Hamilton's art institutions for the last half century, this year marks Earl's 50th anniversary. Owner Bob Daniels started the gallery in 1973 on George Street and moved to the current location in 2009.

■ **Upcoming exhibit:** Barry Hodgson and Murray Gainer exhibition featuring soft oil paintings inspired by the Sandbanks region and Prince Edward County.

Oct. 5-Nov. 11, opening reception: Oct. 5, 7 p.m.-9 p.m.

CARNEGIE GALLERY

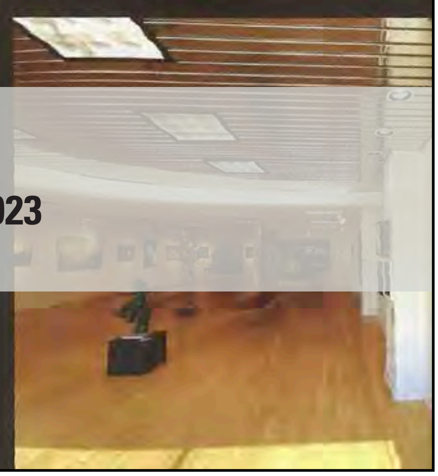
10 King St. W, Dundas

Housed within the 1910 historic Andrew Carnegie Public Library in downtown Dundas, the Carnegie Gallery is a not-for-profit gallery and shop, run by the Dundas Art and Craft Association since 1980. Exhibitions of art and crafts rotate monthly, and artists are encouraged to apply for membership.

Upcoming exhibits:

■ John Miecznikowski (1943-2021)

A memorial exhibition of drawings, paintings, and sculpture by this Hamilton artist, a master of the portrait tradition and accomplished sculptor. Miecznikowski's public sculptures includes monuments to Frederick Banting and John Galt, and portrait busts of prominent Canadians Gerhard Herzberg, David Suzuki, and Margaret Atwood.



MCMASTER MUSEUM OF ART

ANNUAL REPORT APPENDICES

PRACTICING DECOLONIALITY, VISUALIZING COLLABORATION

McMaster University | Museum of Art

Appendix One: Institutional Achievements, 2007 - 2023

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 (UPDATED 2019, 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 (UPDATED 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

McMaster University | Museum of Art

Appendix One: Institutional Achievements, 2007 - 2023

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 (UPDATED IN 2021, decolonial review/CPAMO 2022, updated 2024)

2011 SECURITY & MONITORING PROCEDURES REVISED (UPDATED IN 2019, 2023)

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; Agnes Etherington Art Centre, Queens University, Kingston, ON

2016 MUSEUM PERISCOPE LAUNCHED

McMaster University | Museum of Art

Appendix One: Institutional Achievements, 2007 - 2023

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 updated

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.

McMaster University | Museum of Art

Appendix One: Institutional Achievements, 2007 - 2023

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 IBPOC 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 IBPOC 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 M(M)A's history, authored by Dr. Spencer Pope, Associate Professor, Department of Classics, McMaster University.

2022 Revisions to following institutional documents: Emergency Disaster Response Plan, Fire Procedures, Security & Monitoring Procedures, Facility Report.

2022 Research into Donor/Naming history of the McMaster Museum of Art and its galleries.

2022 COMMUNITY SUPPORT, MULTICULTURALISM AND ANTI-RACISM INITIATIVES, $169,000 over two years, March 2022 – March 2024. Department of Canadian Heritage.

2023 Digital Generator Grant, $22,000, Canada Council for the Arts.

McMaster University | Museum of Art

Appendix Two: Anti-Colonial Strategy, Timeline, Training Sessions, Resources

TIMELINE

2006	CP joins MMA, with a 22-year history of working with Indigenous artists, art, and curators. As such, the research, collection and exhibition of Indigenous Art becomes 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 critique 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.
JANUARY 2022	Initiate discussions with Cultural Pluralism in the Arts Movement Ontario (CPAMO) on revising the Museum's Policies & Procedures Manual through a de-colonial lens.
AUGUST 2022	Senior Curator, Pamela Edmonds resigns to take on directorship of the Dalhousie University Art Gallery, Nova Scotia.
SEPTEMBER 2022	Independent Curator, Betty Julian assumes the position of Adjunct Senior Curator for a limited term, to September 2024.
JULY 2023	Indigenous Curator, Rhéanne Chartrand separates from the M(M)A.
PROJECTED IN 2024	Work begins on M(M)A Strategic Plan, 2025-2023, with CPAMO as facilitators. Hiring of Curator of Indigenous Art.

McMaster University | Museum of Art

Appendix Two: Anti-Colonial Strategy, Timeline, Training Sessions, Resources

TRAINING SESSIONS

2019

1. MAY 8 – led by **Rhéanne Chartrand**
Session introduced the project/strategy; the foundational reading list; and an opportunity to share experiences.

2. JUNE 5 – led by **Rhéanne Chartrand & Pamela Edmonds**
Session was a focused on introducing Pamela to the team, getting the staff to talk a bit about their lived experiences, and 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/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 '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 M(M)A: 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 M(M)A staff explaining the necessity of a change in direction with respect to the M(M)A'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

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keeping with the action-oriented training focus and the larger institutional re-branding efforts, that "Taking Stock" be renamed to "M(M)A Decolonization Bootcamp."

All staff voluntarily sign on to the strategy.

9. JULY 17 – after consultations conducted by Carol Podedworny with the M(M)A 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.

10. SEPTEMBER 23 – with **Michael Etherington**, Indigenous Relations Consultant, Toronto

11. SEPTEMBER 30 – 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 20 – with **Khadijeh Rake, Katelyn Knott and Tolu Ojo**, McMaster EDI
Session was focused on building shared intentions for on-going EDI work at the M(M)A. Session also included information on EDI fundamentals, Land Acknowledgements, De-colonization and Solidarity Movements, and Anti-Black Racism.

13. DECEMBER 16 – with **Michael Etherington**, Indigenous Relations Consultant, Toronto
Session focused on organizational Indigenous Cultural Competency. Framework and planning principles for the M(M)A; the inter-play between the organization and the individual. Areas considered: cultural competency, cultural humility, implementation and implications of cultural competency.

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14. FEBRUARY 24 – with **Charles C. Smith**, Executive Director, Cultural Pluralism in the Arts Movement Ontario (CPAMO)
Session focused on Language, Meaning & Action with an anti-oppression lens.

15. MARCH 10 – **EDI** Follow Up Fundamentals Session

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

17. MAY 27 – **In-house leads**, Re-Cap of work to date and self-reflection on process

18. JUNE 23 – with **Charles Smith and Clayton Windatt, CPAMO** Reflections & Directed Action Plan for de-colonial work at the M(M)A

19. SEPTEMBER 20 – **In-house leads**, Fundamentals of the Colonial Museum

20. NOVEMBER 29 – **In-house leads**, Review of UNDRIP and TRC in relation to M(M)A work

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21. JANUARY 31 – **In-house leads**, Building Group Intentions, Part I

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22. APRIL 18 – **Rick Monture**, History of Six Nations & ISP at McMaster University

23. APRIL 27 – **CPAMO** meet with Advisory Committee to review and discuss institutional Policies and Procedures Manual with a decolonial lens

24. MAY 30 – **Camille Dundas, Making Change Group**, *How to recognize and confront anti-black racism in the workplace community*, for white staff only. BIPOC staff to participate in Preview Session prior to May 30.

24. SEPTEMBER 12 – **Madeline Khan, Making Change Group**, *White Privilege: Unpacking the Invisible Backpack*, for white staff.

25. OCTOBER 17 – **Rania El Mugammar**, *Doing the Work: Radical Solidarity for a Collaborative Future.*

26. NOVEMBER 21 – **Rania El Mugammar**, *Contemporary Art Institutions: Anti-Oppressive Practice.*

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27. JANUARY 9 – **Rania El Mugammar**, *Towards Liberation: Transformative Justice.*

28. MARCH 13 – **Rania El Mugammar**, *TDivesting from White Supremacy*, for white staff only.

RESOURCES
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

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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-QlM0

Difficult Terrain Exhibition – Museum London
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.

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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/W2Jml5E6wo0

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
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 to the Permanent Collection in 2022/23

Conrad Furey (Canadian 1954-2008)
Untitled (men in boats), n.d.
painting
Gift from the Biology Department, McMaster University, from the collection of Douglas Davidson
2022.015.0001

Levi Qumaluk (Inuit, Puvirnituq, Quebec, 1919 – 1997)
Untitled, n.d.
black stone
Gift from the Biology Department, McMaster University, from the collection of Douglas Davidson
2022.015.0002

Anirnik Ragee (Inuk, b. 1935)
Bird, 1982
green serpentine
Gift from the Biology Department, McMaster University, from the collection of Douglas Davidson
2022.015.0003

Unknown artist
Untitled, undated
pastel on Ingres paper
45.8 x 60.6 cm
Gift from the Biology Department, McMaster University, from the collection of Douglas Davidson
2022.015.0004

Robin Fraser-Paye (Canadian)
Jacques de Boys from As You Like It, 1977
Stratford theatre costume sketch
watercolour on paper
56 x 38 cm
Gift from the Biology Department, McMaster University, from the collection of Douglas Davidson
2022.015.0005

Tim Whiten (Canadian, b. U.S.A., 1941)
T after Tom, 2002
installation dimensions variable
glass wall, cast glass 31" x 9" x 36"
level, cast glass, 3" x 1" x 36"
square, etched glass, brass, 6" x 12" x 1/4"
plumb bob, cast glass, brass, 8" x 3"
divider, etched glass, brass, 26" x 7" x 3/4"
Purchase, 2023
2023.001.0001

Tim Whiten (Canadian, b. U.S.A., 1941)
Chasing Cobald, 2016-2018
wood (ash, basswood, maple), found glass (crushed)
64" x 19" x 19"
Promised gift of the artist, 2023
2023.001.0002

Shelley Niro (Mohawk, b. 1954)
Nature's Wild Children, 2022
Archival Inkjet Print; edition of 20
40"x 30"
Purchase, 2023
2023.002.0001

Stan Douglas (Canadian, b. 1960)
Schmoo, 1996
Laserlight jet print and mounted on 3mm Dibond; edition 3/5
23" x 18"
Purchase, 2023
2023.003.0001

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Appendix Four: Works on Loan in 2022/2023

Exhibition Details / Borrowing Institution	Works on loan
O'NIGÖËI:YO:H: THINKING IN INDIAN UB Art Galleries, State University of New York at Buffalo, July 14 – October 2, 2022	**Shelley Niro** (Mohawk, b. 1954) *Untitled*, 2000-2001 Oil pastel and liquid correction fluid on tar paper roll Installed: 91.4 × 1524 cm Museum purchase, 2001
Denyse Thomasos: just beyond Art Gallery of Ontario, October 5, 2022 - February 20, 2023 Remai Modern, Saskatoon, April 15 - September 3, 2023 Two additional venues to be added: touring until 2025	**Denyse Thomasos** (Canadian, b. Trinidad 1964-2012) *Life*, 2009 Acrylic on canvas 106.7 x 152.4 cm Museum of Art Collection Trust, 2020
Beyond the Words of Earth: Rajni Perera Tyler Galleries of Tyler School of Art and Architecture of Temple University, Philadelphia, December 2, 2022 – March 3, 2023	**Rajni Perera** (Canadian, b. Sri Lanka 1985) *Flood Mask*, 2020 Textile on gasmask 27.94 x 30.48 x 20.32 cm Museum of Art Collection Trust, 2021
Tim Whiten - Elemental: Earthen Art Gallery of Peterborough, January 21 – May 21, 2023	**Levantine** (c. 8th to 6th century BCE) *Storage Jar* Baked clay H: 22 cm; W: 10 cm Gift of Theodore and Jennifer Arcand in honour of Leslie and Ivy Ashmore, 1995 **Bronze Roman Republic coin** (2nd - 1st century BCE) *Obverse:* Head of Asklepios right. *Reverse:* Serpent coiled around a crooked staff (no legend); border of dots. AE 4.74 g. 15.5 mm Minted at Pergamon Gift of Farhan Yaghi, 1997 **Silver Roman Republic denarius** (64 BCE) *Obverse:* Head of Juno Sospita, r., prow symbol as control mark behind, L.ROSCI below, border of dots. *Reverse:* Girl and snake facing each other, acrostolium symbol as control mark to left, FABATI in exergue, border of dots. AR 3.30 g. Denarius. 17.8 mm Minted under the auspices of L. ROSCI(us) FABATI(us). Museum collection, 1946

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Exhibition Details / Borrowing Institution	Works on loan
William Hogarth: Gone to the Dogs Art Gallery of Alberta, Edmonton, April 1 – August 13, 2023	**William Hogarth** (English, 1697-1764) *William Hogarth and his Dog Trump*, reverse copy of Hogarth's own plate *Gulielmus Hogarth*, 1748-49 (edition c. 1820-1830) Etching and stipple on paper Plate: 35.8 x 27.8 cm Support: 45.8 x 34.7 cm Permanent loan from Dundurn National Historic Site, 1965 *The Distressed Poet*, 1740 (edition c. 1820-1830) Engraving and etching on paper; State 3 of 3 Plate: 36 x 40.8 cm Support: 40.5 x 45.6 cm Permanent loan from Dundurn National Historic Site, 1965 *The Enraged Musician*, 1741 (edition c. 1820-1830) Engraving and etching on paper; State 3 of 3 Plate: 36.4 x 41.1 cm Support: 40.6 x 51 cm Permanent loan from Dundurn National Historic Site, 1965 *Marriage à-la-Mode*, Plates 1 through 6, 1745 (edition c. 1820-1830) Engraving and etching on paper; Final state Plate: 38.6 x 46.5 cm Support: 43.2 x 50.8 cm Permanent loan from Dundurn National Historic Site, 1965 *The Four Stages of Cruelty*, 1750-51 (edition c. 1820-1830) Engraving and etching on paper; Final state Plate: 38.4 x 32.4 cm Support: 50.4 x 40.6 cm Permanent loan from Dundurn National Historic Site, 1965 *Beer Street*, 1751 (edition c. 1820-1830) Engraving on paper; Final state Plate: 35 x 33 cm Support: 65.7 x 45.5 cm Gift of Dr. Paul Fritz, 1994 *Gin Lane*, 1751 (edition c. 1820-1830) Engraving on paper; Final state Plate: 38.7 x 33 cm Gift of Dr. Paul Fritz, 1994 *Morning*, *Noon*, *Evening*, and *Night* from *The Four Times of Day*, 1738 (edition c. 1820-1830) Engraving on paper; Final state Plate: 49 x 40 cm Support: 65.3 x 48.5 cm Gift of Dr. Paul Fritz, 1994

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Appendix Five: Exhibitions in 2022/2023

we are made of stardust Curated by Rhéanne Chartrand	August 16 – December 2, 2022
self/same/other Curated by Pamela Edmonds	September 15 – December 22, 2022
Movers & Makers Curated by Betty Julian	September 15 – December 22, 2022
Chris Myhr: Salients Produced by Carol Podedworny	December 20, 2022 – March 24, 2023
Fugue Produced by Carol Podedworny	January 10 – March 24, 2023
The Contemporaries: This Must Be The Place Produced by Carol Podedworny	January 27 – May 19, 2023
The Haunted Scanner Produced by Carol Podedworny	January 27 – May 19, 2023
SUMMA 2023 Produced by Betty Julian, Guest Curated by Mosa McNeilly	April 6 – 28, 2023
Crossing Borders Curated by Dr. Spencer Pope	May 2, 2023 – April 30, 2024
Chasm Curated by Betty Julian and Pamela Edmonds	May 18, 2023 – January 26, 2024

Appendix Six: Tour Groups

McMaster Groups

- McMaster University Medical Centre Library and Archives
- McMaster Students' Union
- McMaster Psychology Department
- McMaster Healthy Workplace Committee
- McMaster University Office for the Registrar
- McMaster Biology
- McMaster University McPherson Institute
- McMaster Retirees Association
- McMaster MEDIAART 3BB3 - New Media Art Practices
- McMaster Indigenous Creative Arts & Drama INDIG ST 3G03
- Provost's Council
- Theatre & Film Studies THTRFLM 3QA3
- McMaster Student Wellness
- Social Work 2BB3: Anti-Oppressive Social Work
- Artists at McMaster
- McMaster iArts first year class
- McMaster Health Sciences staff retreat
- McMaster ENVSOCTY 4US3 Sustainable Cities
- McMaster HTH SCI Praxis 3X00 and 4XP3
- McMaster Chemistry & Chemical Biology
- McMaster Open Circle
- McPherson Institute 2022 Innovations in Education Conference
- McMaster Classics Graduate Numismatics seminar
- McMaster Fine Art
- McMaster Fine Art Making and Understanding Images
- McMaster Fine Art Introduction to Curatorial Practice
- Student Accessibility Services
- McMaster Nursing Graduate class Serious Illness Communication
- McMaster Biomedical Graphics
- 3BB3 Indig ArtVis Cult 1960 - Pres
- LATAM 3A03 – Critical Contemporary Issues in Latin American and Latinx Studies Black Latin America: Belonging, Refusal, Resistance
- McMaster Queer and Trans Colour Club
- McMaster Classics Club
- Gilbrea Centre for Studies in Aging
- McMaster MSU CANFAR
- inSTEM, Mac Venture Camp and Six Nations Polytechnic (gr 9-12)
- Department of Electrical and Computer Engineering Graduate Social Club
- University Technology Services EDI Group
- Department of Chemistry & Chemical Biology department's EDI Committee
- McMaster Innovation in Education Conference delegates
- McMaster University Technology Services
- McMaster International Student Summer Camp
- McMaster RHPCS
- McMaster Venture Camps
- McMaster MERGE Program
- McMaster MELD program
- McMaster STEP Program
- McMaster Pediatric Eating Disorders Staff
- McMaster Alumni
- McMaster Security and Technology

Annual Programming

- Hamilton Winterfest
- Alumni Day
- Hamilton Arts Week
- McMaster Welcome Week
- Culture Days
- Take Our Kids to Work Day
- March Break Camps
- Summer Camps
- Slow Art Day
- Clubsfest
- Doors Open
- McMaster Thrive Week
- MMA participated in the Okanagan Charter and McMaster-wide Accessibility Report

Public Groups

- Oakcrossing Retirement Living (London, ON) (online, synchronous)
- Victoria Place Adult Residence (online, synchronous)
- Adults in Motion
- Pathways to Education
- Hamilton Bike Share Black Lives Matter Working Group (staff and board members)
- Les Petites Pommes
- St Joe's Health Centre for Integrated Care Team
- Hamilton Health Sciences + McMaster University Dept of Oncology Academic Retreat
- Partners in Art
- Home School Group
- Childventure Camps

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Appendix Six: Tour Groups

School Groups

- Dundas Valley Montessori Elementary School
- Renison University College
- Westdale Secondary (HWDSB)
- I.L. Thomas Elementary School
- Cairn Christian School
- Columbia International College
- Hess Street Elementary School (HWDSB)
- Nations & NewStart Alternative Education, Hagersville Secondary School (GEDSB)
- St. Julia Elementary (DPCDSB)
- Galt Collegiate Institute
- North Park Collegiate
- District School Board of Niagara
- Tecumseh Public School (HDSB)
- Holy Trinity Secondary (HCDSB)
- Learning Recovery Intermediate Instrumental Music Grade 8s Program, Adelaide Hoodless and Lisgar Schools (HWDSB)
- SHAE; Strengthening Hamilton Aboriginal Education (HWDSB) (program with Planetarium and ISS)
- Mohawk College Communication for Life / Community Studies
- JC Hill (program with Planetarium and ISS) gr 4-8
- Strathcona Elementary (HWDSB)
- Lisgar Elementary (HWDSB)
- Viscount Montgomery Elementary (HWDSB)
- DSBN gr 11 students from Welland
- Guy B. Brown Elementary (HWDSB)
- Cathy Wever Elementary (HWDSB)
- Tapleytown Elementary (HWDSB)
- Dr. Davey Elementary (HWDSB)
- River Heights Elementary (GEDSB)
- Prince of Wales Elementary (HWDSB)
- Hillcrest Elementary (HWDSB)
- Central Elementary (HWDSB)
- Grade six students from across HDSB
- St. Joseph Elementary (HWCDSB)
- Lake Avenue Elementary (HWDSB)
- Chedoke Elementary (HWDSB)
- Rockway Mennonite Collegiate
- Adelaide Hoodless Elementary (HWDSB)
- Tiffany Hills Elementary (HWDSB)
- Cootes Paradise Elementary (HWDSB)
- Pauline Johnson Elementary (HWDSB)
- Frank Panabaker Elementary (HWDSB)
- Allan A. Greenleaf Elementary (HWDSB)
- James MacDonald Elementary (HWDSB)
- Mary Hopkins Elementary (HWDSB)
- Queensdale Elementary (HWDSB)

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Appendix Seven: Tour Schedule

TOUR ATTENDANCE, SEPTEMBER 2022 - AUGUST 2023		
September 2022 Tour Schedule		
Date	**Organization**	**Visitors**
September 1	Canadian Centre for Electron Microscopy (at McMaster) microscope event for Welcome Week	drop-in
September 1	McMaster University Medical Centre Library and Archives	4
September 6	McMaster Students' Union Clubsfest	drop-in
September 7	McMaster Students' Union Clubsfest	drop-in
September 8	Creative Process 1/8 on A2L	18
September 9	McMaster Psychology Department Welcome Week	30
September 12	Victoria Place	25
September 22	Adults in Motion https://adultsinmotion.org/about/	14
September 22	Creative Process 2/8 on A2L	18
September 23	Dundas Valley Montessori Elementary School	25
September 24	Bus Tour	60
September 26	Victoria Place	25
September 26	Art and Society Course, Renison University College	20
September 27	McMaster Healthy Workplace Committee	15
September 27	Adults in Motion Oakville	13
September 28	McMaster University Office for the Registrar	20
September 28	McMaster Biology	30
September 29	Westdale Secondary	40
September 29	Culture Days	35
September 30	McMaster University McPherson Institute	35
September 2022 Total Attendance		**427**
October 2022 Tour Schedule		
Date	**Organization**	**Visitors**
October 4	Oakcrossing Retirement Living	25
October 4	McMaster Retirees Association	40
October 5	McMaster MEDIAART 3BB3 - New Media Art Practices	40
October 6	Creative Process 3/8 on A2L	18
October 6	McMaster Indigenous Creative Arts & Drama INDIG ST 3G03	40
October 12	McMaster Continuing Ed Strategic Leaders Art of Seeing	25
October 19	Provost's Council	20

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October 19	I.L. Thomas Elementary School grades 4 - 6	120
October 20	Theatre & Film Studies THTRFLM 3QA3	45
October 20	Cairn Christian School grade 8	22
October 20	Creative Process 4/8 on A2L	18
October 20	McMaster Student Wellness Inking Workshop	15
October 21	I.L. Thomas Elementary School grades 6 - 8	120
October 21	Columbia International College, gr 12	37
October 25	McMaster Midwifery Art of Seeing	47
October 26	Art of Seeing for Mac Family Med Residents	20
October 28	Hess Street School	25
October 28	Art of Seeing for Ontario College of Physicians Centre for Effective Practice Board Members Retreat	10
October 31	Hess Street gr 7/8	25
October 2022 Total Attendance		**712**
November 2022 Tour Schedule		
Date	**Organization**	**Visitors**
November 1	McMaster Midwifery Art of Seeing	47
November 2	Nations & NewStart Alternative Education Teacher GEDSB Hagersville Secondary School	20
November 2	Art of Seeing for Mac Family Med Residents	8
November 3	Creative Process 5/8 on A2L	18
Nov 3 Online	Social Work class	75
November 7	Pathways	8
November 9	Hess Street gr 7/8	25
November 9	Art of Seeing for Mac Family Med Residents	8
November 10	McMaster Social Work class	75
November 10	Artists at McMaster	35
November 11	McMaster iArts first year class	30
November 11	McMaster Health Sciences staff retreat	15
November 14	Victoria Place	25
November 14	Hess Street, gr 7/8	25
November 16	Art of Seeing for Mac Family Med Residents	8
November 16	McMaster ENVSOCTY 4US3 Sustainable Cities	50
November 17	Creative Process 6/8 on A2L	18
November 17	Social Work class	75
November 17	McMaster HTH SCI Praxis 3X00 and 4XP3	20
November 18	McMaster HTH SCI Praxis class	20
November 18	Art of Seeing for McMaster Department of Biochemistry and Biomedical Sciences	16

Appendix Seven: Tour Schedule

November 18	St. Julia Elementary 6770 Historic Trail, Mississauga	35
November 19	McMaster HTH SCI Praxis 3X00 and 4XP3	20
November 19	Hamilton Bike Share Black Lives Matter Working Group (staff and board members)	15
November 21	Hess St gr 7/8	25
November 21	Hess Street School gr 6/7	25
November 22	Columbia International College, grade 11	20
November 22	Galt Collegiate Institute grade 11-12	24
November 23	Hess Street gr 7/8	25
November 23	North Park Collegiate	35
November 24	The Art of Seeing for Addictions and Mental Health Ontario Board of Governors	15
November 25	McMaster Chemistry & Chemical Biology	20
November 29	District School Board of Niagara students (rotate with Planetarium)	35 + 35
November 2022 Total Attendance		**950**
December 2022 Tour Schedule		
Date	**Organization**	**Visitors**
December 1	Creative Process 7/8 on A2L	18
December 1	Tecumseh Public School, Burlington	35
December 1	McMaster Open Circle	5 - 10
December 5	Hess St gr 7/8	25
December 5	Hess St gr 7/8	22
December 6	Hess St gr 7/8	25
December 8	McMaster Open Circle	10
December 9	Holy Trinity HS, HCDSB	20
December 9	McPherson Institute 2022 Innovations in Education Conference	25
December 12	Pathways to Education	10
December 13	Hess St gr 7/8	25
December 14	Hess St gr 7/8	25
December 15	Creative Process 8/8 on A2L	18
December 20	Hess St gr 5/6	25
December 2022 Total Attendance		**283**
January 2023 Tour Schedule		
Date	**Organization**	**Visitors**
January 10	McMaster Fine Art	30
January 10	McMaster Classics Graduate Numismatics seminar	15
January 12	Creative Process 1/8 on A2L	31
January 13	Victoria Place	20

McMaster University | Museum of Art

Appendix Seven: Tour Schedule

January 13	McMaster Open Circle	25
January 17	McMaster Fine Art Making and Understanding Images 1st year class	30
January 17	HWDSB Learning Recovery Intermediate Instrumental Music Grade 8s Program (Adelaide Hoodless and Lisgar Schools)	66
January 17	McMaster Classics Graduate Numismatics seminar	15
January 18	Art of Seeing for Continuing Professional Development Office MERIT Program Faculty of Health Sciences	10
January 18	McMaster HTH SCI Praxis 3X00 and 4XP3	25
January 19	McMaster HTH SCI Praxis 3X00 and 4XP3	25
January 20	McMaster Open Circle	25
January 24	McMaster Classics Graduate Numismatics seminar	15
January 24	McMaster Fine Art Introduction to Curatorial Practice	30
January 25	McMaster Thrive Week Drawing/Inking Workshop	20
January 26	Creative Process 2/8 on A2L	31
January 27	McMaster Open Circle	25
January 27	Student Accessibility Services Retreat	22
January 31	McMaster Classics Graduate Numismatics seminar	15
January 2023 Total Attendance		**475**
February 2023 Tour Schedule		
Date	**Organization**	**Visitors**
February 1	McMaster Nursing Graduate class Serious Illness Communication	25
February 2	Winterfest Linocut workshop	20
February 3	Victoria Place	20
February 3	McMaster Biomedical Graphics	12
February 3	McMaster Open Circle	25
February 7	Art of Seeing for the Stonehenge Therapeutic Community	60
February 7	McMaster Classics Graduate Numismatics seminar	15
February 8	SHAE; Strengthening Hamilton Aboriginal Education (HWDSB) (program with Planetarium and ISS)	20
February 9	Creative Process 3/8 on A2L	31
February 9	John Bentley from McMaster Customs and Traffic	5
February 10	McMaster Open Circle	25
February 13	Mohawk College Communication for Life / Community Studies	20
February 14	McMaster Classics Graduate Numismatics seminar	15
February 14	Valentine's Day Tour & Art-making workshop	20
February 15	McMaster CE Strategic Leaders Program	25
February 17	McMaster Open Circle	25
February 21	McMaster Classics Graduate Numismatics seminar	15

McMaster University | Museum of Art

Appendix Seven: Tour Schedule

February 23	Creative Process 4/8 on A2L	31
February 24	McMaster Open Circle	25
February 27	Pathways	6
February 28	McMaster Fine Art	30
February 28	McMaster Classics Graduate Numismatics seminar	15
February 2023 Total Attendance		**483**
March 2023 Tour Schedule		
Date	**Organization**	**Visitors**
March 3	3BB3 Indig ArtVis Cult 1960 - Pres	23
March 3	McMaster Open Circle	25
March 7	Art History 3BB3 student in to see work in PC	1
March 7	McMaster Classics Graduate Numismatics seminar	15
March 9	Creative Process 5/8 on A2L	31
March 10	McMaster Open Circle	25
March 14	McMaster Fine Art Introduction to Curatorial Practice	30
March 14	McMaster Classics Graduate Numismatics seminar	15
March 16	Les Petites Pommes, 6-12 years old	26
March 17	McMaster Open Circle	25
March 20	Strathcona, gr 4/5	30
March 21	Hess Street gr 7/8	25
March 21	McMaster Classics Graduate Numismatics seminar	15
March 23	Creative Process 6/8 on A2L	31
March 24	Victoria Place	20
March 24	McMaster Biomedical Graphics	12
March 24	McMaster Open Circle	25
March 27	Lisgar Elementary gr 7/8	45
March 28	Hess Street gr 7/8	25
March 28	McMaster Classics Graduate Numismatics seminar	15
March 29	LATAM 3A03 – Critical Contemporary Issues in Latin American and Latinx Studies Black Latin America: Belonging, Refusal, Resistance	33
March 30	St Joe's Health Centre for Integrated Care Team	20
March 30	McMaster Queer and Trans Colour Club	20
March 30	Mac Classics Club	20
March 31	Viscount Montgomery gr 4/5 IN SCHOOL	24
March 31	McMaster Open Circle	25
March 2023 Total Attendance		**690**

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Appendix Seven: Tour Schedule

April 2023 Tour Schedule		
Date	**Organization**	**Visitors**
April 2	McMaster DeGroote Health Leaders Academy National Health Fellows Program	25
April 3	Hess, gr 5/6	25
April 4	Hess Street gr 7/8	25
April 4	McMaster Classics Graduate Numismatics seminar	15
April 5	DSBN gr 11 students from Welland	35
April 5	Gilbrea Centre for Studies in Aging	10
April 6	Creative Process 7/8 on A2L	31
April 10	Victoria Place ONLINE	25
April 11	Guy B. Brown School, HWDSB, grades 5-7	26 + 26
April 11	McMaster Classics Graduate Numismatics seminar	15
April 11	McMaster MSU CANFAR event	45
April 12	Guy B. Brown School, HWDSB, grades 5-7	75
April 13	Pathways	12
April 14	Cathy Wever, gr 6, 7, 8	40
April 17	Tapleytown Elementary, gr 5/6	22
April 18	Hess gr 5/6	25
April 19	Dr Davey, gr 5	22
April 20	Creative Process 8/8 on A2L	31
April 20	River Heights gr 6, GEDSB	75
April 21	Prince of Wales, gr 7	20
April 24	Hillcrest, gr 7 and 8	65
April 25	Central School, gr 4 (2 classes)	50
April 25	McMaster Classics Graduate Numismatics seminar	15
April 26	Hess; 4 classes, prep for microscope art	45
April 26	Art of Seeing City of Hamilton Public Health Nurses	30
April 28	two grade 6 classes, HDSB	30 + 30
April 2023 Total Attendance		**890**

May 2023 Tour Schedule		
Date	**Organization**	**Visitors**
May 1	St Joseph elementary gr 1	19
May 4	Creative Process 1/8 on A2L	22
May 5	Hamilton Health Sciences + McMaster University Dept of Oncology Academic Retreat	25
May 6 and 7	Doors Open Hamilton	self-guided
May 8	Lake Avenue Elementary, gr 6/7	26
May 9	Rockway Mennonite College	20

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Appendix Seven: Tour Schedule

May 11	Faculty of Social Sciences Donor	3
May 12	Chedoke Elementary, gr 6	27
May 15	Adelaide Hoodless Elementary, gr 4	23
May 16	Tiffany Hills gr 4	22
May 16	Partners In Art	20
May 18	Hess, Westdale, CCEM collab	20
May 18	Creative Process 2/8 on A2L	22
May 19	Cootes Paradise gr 4/5	18
May 23	Pauline Johnson, gr 4	24
May 23	Research appointment to see Otto Dix works	2
May 24	Frank Panabaker Elementary, gr 5/6	24
May 24	Homeschool Group (4 children ages 4.5, 6.5, 9, 11.5)	5
May 26	James MacDonald elementary, gr 4	27
May 29	Allan A Greenleaf Elementary, gr 7	28
May 30	Westdale Secondary Fine Art	25
May 2023 Total Attendance		**402**
June 2023 Tour Schedule		
Date	**Organization**	**Visitors**
June 1	Creative Process 3/8 on A2L	22
June 2	Victoria Place	20
June 6	inSTEM, Mac Venture Camp and Six Nations Polytechnic (gr 9-12)	50
June 6	Art of Seeing for McMaster Health Science Education Graduate Program	45
June 7	Frank Panabaker gr 5	23
June 12	Mary Hopkins Elementary, gr 5	20
June 13	Hess street gr 7/8	25
June 14	Cathy Wever gr 7/8	30
June 14	Department of Electrical and Computer Engineering Graduate Social Club	30
June 15	Creative Process 4/8 on A2L	22
June 15	UTS EDI	25
June 16	Department of Chemistry & Chemical Biology department’s EDI Committee	15
June 19	Tiffany Hills, gr. 6	25
June 22	Art of Seeing for McMaster Master of Midwifery Residency Program (5 instructors and staff)	24 + 5
June 23	Queensdale gr 6/7	19 + 19
June 27	Joyce and her sisters!	4
June 27	McMaster Innovation in Education Conference delegates	10
June 28	Art of Seeing for Continuing Professional Development Office, MERIT Program,Faculty of Health Sciences	15
June 29	Creative Process 5/8 on A2L	22

McMaster University | Museum of Art

Appendix Seven: Tour Schedule

June 29	McMaster U21 Innovation in Education Conference delegates	4
June 30	McMaster Innovation in Education Conference delegates	10
June 2023 Total Attendance		**484**
July 2023 Tour Schedule		
Date	**Organization**	**Visitors**
July 5	McMaster School of the Arts Fine Art First Year	100
July 12	McMaster UTS retreat	20 + 20
July 13	Creative Process 6/8 on A2L	22
July 18	Les Petites Pommes	25 + 25
July 18	McMaster International Student Summer Camp	25
July 19	McMaster RHPCS	10
July 19	Venture Camps (20 gr 5/6 students, 2 adults, 3 high school volunteers)	25
July 20	Childventure Camps (ages 5-10)	30 + 30
July 21	Victoria Place	20
July 26	Venture Camps (20 gr 5/6 students, 2 adults, 3 high school volunteers)	25
July 27	MERGE program	15
July 27	Venture Camps (20 gr 5/6 students, 2 adults, 3 high school volunteers)	25
July 27	Creative Process 7/8 on A2L	22
July 2023 Total Attendance		**399**
August 2023 Tour Schedule		
Date	**Organization**	**Visitors**
August 1	Les Petites Pommes	25 + 25
August 2	McMaster STEP program (undergrads)	20
August 2	Venture Camps (20 gr 5/6 students, 2 adults, 3 high school volunteers)	25
August 3	Venture Camps (20 gr 5/6 students, 2 adults, 3 high school volunteers)	25
August 4	Art of Seeing for McMaster Family Med Palliative Care	25
August 10	Creative Process 8/8 on A2L	22
August 14	Les Petites Pommes	30
August 16	Venture Camps (20 gr 5/6 students, 2 adults, 3 high school volunteers)	25
August 17	Venture Camps (20 gr 5/6 students, 2 adults, 3 high school volunteers)	25
August 22	McMaster Security and Technology	5
August 25	Victoria Place	20
August 28	Les Petites Pommes	23
August 30	McMaster Pediatric Eating Disorders Staff	3
August 31	McMaster Alumni	14
August 2023 Total Attendance		**317**

McMaster University | Museum of Art

Appendix Eight: Communications Operations Summary

Additional communications projects were completed during the reporting period, including:

- Production of a new M(M)A tote bag which centres the M(M)A branding, with the goal of implementing recognition with incoming students and using merchandizing to connect new visitors. These tote bags were used in a giveaway on Tuesday, August 29, to encourage museum attendance during Welcome Week, and will be given away at Clubs Fest and throughout the 2023 year.
- Providing digital and logistical support for the *refuge (SIREN)* virtual exhibition as an offshoot of the past exhibition *nichola feldman-kiss \ Scapegoat*.
- Siting support and signage production for an off-site public art project in Gage Park, the audio walking tour and placemaking project *Lisa Myers: Finding what Grows*.
- Began production of the outdoor signage for the remaining M(M)A owned campus sculpture *Core* by Simon Frank, with the goal of completing the past year's project of providing context and information about artworks and highlighting the museum's physical presence throughout campus.
- Advising on design decisions for the creation of the *self/same/other* exhibition catalogue as a record of the museum's continuing series of exploratory collection exhibitions.

Awards

- Hamilton Spectator Readers' Choice Awards 2023 - Best Art Gallery (Platinum)
- AGO Gershon Iskowitz prize and Governor General's Awards in Visual and Media Arts awarded to **Tim Whiten**, artist of recent exhibition *Elemental: Ethereal* part of a multi-venue retrospective series.
- Pollock-Krasner Foundation Artist Grant awarded to **Bidemi Oloyede**, exhibiting artist in *Movers and Makers*.

WEBSITE - museum.mcmaster.ca

- Google Analytics transitioned from Standard Universal Analytics (UA) to Google Analytics 4 (GA4) in July, 2023. Key differences include: UA measures screen views whereas GA4 tracks user interactions, or "events" as they happen, and GA4 tracks app data in an integrated way.
- Please note that both GA4 & UA count Total Users and New/Returning Users, but they are defined differently in each platform so this data cannot be compared.
- Both GA4 & UA count Views similarly (repeated views of a single screen or page are counted), so this metric can be compared with accuracy. GA4 does not offer a metric that is comparative to UA's Unique Pageviews (aggregate pageviews generated by the same user during the same session).

Views	All Website Pages
UA September 1, 2022 – July 4, 2023 GA4 July 5, 2023 – August 31, 2023 **September 1, 2022 – August 31, 2023**	UA 58,218 GA4 6,216 **Total: 64,434**
September 1, 2021 – August 31, 2022	**54,223**

- 64,434 page views (increase of 18%) by roughly 29,000+ users (increase of 16% - please note that this data is not reflective of the full reporting period)

McMaster University | Museum of Art

Appendix Eight: Communications Operations Summary

EMAIL/E-NEWSLETTER

- E-newsletter engagement has continued to grow, open rate continues to average above 30%. Open rate from September 2022-August 2023 compared to the previous 365 days shows an **increase in open rates of 7.3%**, with the average open rate reaching 46% (this is highly competitive compared to the average of our industry peers: 37.6%).
- **1,516** subscribers
- Our subscribers have reduced since last year but the increase in our average open rate indicates that we are producing a more targeted audience, successfully reaching subscribers who are engaged and removing emails that are no longer active.
- 13 newsletters sent out during the period, ~1/month

SOCIAL MEDIA

Summary

- Objective: Continue to enhance the M(M)A's public presence, engagement and relationship with the McMaster community, the arts community (local, national, international), and the public.
- Frequency: Social media feeds are updated regularly:
  at least 3x week on Instagram, Instagram Stories, and Facebook
  2-5x week on Twitter/X and Threads
- Content: Exhibitions, education, public events, collection, industry/community
- Demographics: Predominantly female audience across all platforms (over 70%), 25-45 years of age. Audience is mostly based in Hamilton (27%) and Toronto (16%).
- Threads, a new Instagram-cohesive platform which has similar properties to Twitter was launched in July. We are still in the process of building this audience but some of our existing Instagram audience migrated here, allowing us to start strong.

In this reporting period we saw increases across all social media platforms except for **Twitter/X**, which has experienced a global downturn consistent with bad company press and the introduction of a competitor app. The most significant increase was on **Instagram (22%)**, follower increases remain consistent on **YouTube (8%)**. Follower increases have slowed significantly on **Facebook (2%)** however this reflects the site's lack of use with young adults, our main audience.

YouTube

- 11989 views, and 424.3 hours watched.
- 504 total subscribers (40 new subscribers)
- 5 new full-length artist/curator/panel talk videos, all accurately subtitled.

Instagram

- 4382 followers (increase of 22%)

Threads

- Audience has grown to 480 in only two months.

Facebook

- 3075 followers (increase of 2%)

McMaster University | Museum of Art

Appendix Eight: Communications Operations Summary

X/Twitter (renamed "X" this year)

- 3377 followers (decrease of 1%)
- This follower decrease is consistent with current trends – Twitter has experienced a steady decline in web visits and app usage since Elon Musk took over the platform in October 2022, and continues to sink after the introduction of competitor Threads in July 2023.
- Substantial layoffs in the company's workforce and a temporary office closure in November 2023 led to negative press for Twitter and Musk. This timing correlates with our largest follower drop (-35) and follows the trend of deactivated accounts.

OTHER

Walking Tour of McMaster Campus Architecture

- 614 views
- Included as an attraction for **Doors Open Hamilton**: May 6-7, 2023. Event marketing and dates coincided with spikes in engagement.

Walking Tour of McMaster Campus Sculpture

- 313 views
- **Summer Instagram Story series** – clickable tour link placed on videos of sculptures around campus, used to increase outdoor engagement and market the tour to our existing audience. Videos posted on: June 20 (142 accounts reached), July 4 (144), July 14 (80), August 8 (141), August 31 (158).

SketchFab

- SketchFab is the platform used to host interactive 3D scans of antiquities objects. This site and the iPads in the E. Togo Salmon Gallery were updated with 2 new object scans to correlate with the new numismatics exhibition *Crossing Borders: Coins from Around the World*. These scans have been newly embedded and are viewable on our website's exhibition page.
- These new 3D scans were produced by Serena Walk through the McMaster Sari-Sari Xchange: Building Asian Diasporic Community Through Emergent Media.
- 2k total views of 4 collection objects

Eventbrite

- Eventbrite is used to ticket for programs and events with limited seating such as artist talks, workshops, tours.
- In this period, we hosted 9 ticketed events. All events were either sold out or had only one ticket remaining.

Geocache

- Approximately 33 logged visits over this period, 623 logged visits in lifetime.

McMaster University | Museum of Art

Appendix Nine: M(M)A In the News

Baleiro, Beatriz. “McMaster Museum of Art event brings live music and an art market” Hamilton Spectator (Cosmos Concert and Moon Market). September 29, 2022.
https://www.thespec.com/entertainment/hamilton-region/mcmaster-museum-of-art-event-brings-live-music-and-an-art-market/article_83d41705-db7e-501e-9ee9-147b93ad8cff.html

“Critics picks: 5 events to check out this September” Beyond James (Contemporary Art Bus Tour). September 1, 2022.
https://beyondjames.com/sept22picks/?utm_source=rss&utm_medium=rss&utm_campaign=sept22picks

Nickerson, Cara. “It’s back! 6 things you won’t want to miss at Supercrawl this weekend” CBC News Hamilton (MMA). September 9, 2022. https://www.cbc.ca/news/canada/hamilton/supercrawl-2022-music-art-food-drive-1.6576443

“McMaster Museum of Art produces their 9th Slow Art Day” (Slow Art Day). September 6, 2022.
https://www.slowartday.com/mcmaster-museum-of-art-produces-their-9th-slow-art-day/

“Snapshots: The Week of September 9” Beyond James (Movers and Makers, self/same/other). September 12, 2022.
https://beyondjames.com/snapshots-sept922/

“Pushing Photography’s Boundaries” Hamilton City Magazine (Movers and Makers, self/same/other). October 12, 2022.
https://hamiltoncitymagazine.ca/pushing-the-boundaries-of-photography/

Baleeiro, Beatriz. “McMaster holds opening reception for two new exhibitions” Hamilton Spectator (print and online – Movers and Makers, self/same/other). October 17, 2022.
https://www.thespec.com/entertainment/art/2022/10/17/mcmaster-holds-opening-reception-for-two-new-exhibits.html

Varghese, Ricky. “Elemental: Oceanic at the Robert McLaughlin Gallery” Peripheral Review (Tim Whiten Elemental). November 1, 2022.
https://www.peripheralreview.com/elemental-oceanic-at-the-robert-mclaughlin-gallery/

“New Year, New Look: Five Local Galleries Have Exhibits Starting This Month” Beyond James Blog (The Haunted Scanner). January 9, 2023. https://beyondjames.com/5galleriesjan23/

Laux, Sara. “Museum’s new exhibitions have close ties to Humanities and campus community” Daily News (Winter 2023 Exhibitions). January 24, 2023.
https://dailynews.mcmaster.ca/articles/museums-new-exhibitions-have-close-ties-to-humanities-and-campus-community/

Mahoney, Jeff. “Forever young: ‘The Contemporaries’ return with first show in years at McMaster” Hamilton Spectator (The Contemporaries: This Must Be The Place). February 11, 2023. https://www.thespec.com/entertainment/visual-arts/forever-young-the-contemporaries-return-with-first-show-in-years-at-mcmaster/article_6e266bb6-de2a-5ae6-afcd-d68614b1e4a0.html

Scarisbrick, Valerie. “McMaster’s historically known artists make a return to Hamilton” Cekan (The Contemporaries: This Must Be The Place). February 21, 2023. https://cekan.ca/hamilton/mcmasters-historically-known-artists-make-a-return-to-hamilton/

Appendix Nine: M(M)A In the News

Myhr, Chris. "How images of the 2011 tsunami in Japan led me to examine connections with water in photography, sound and sculpture" The Conversation (Chris Myhr: Salients). March 19, 2023. https://theconversation.com/how-images-of-the-2011-tsunami-in-japan-led-me-to-examine-connections-with-water-in-photography-sound-and-sculpture-200723

Vegh, Stephanie. "Artist Chris Myhr Makes a Salient Point" Hamilton City Magazine (online and print - Chris Myhr: Salients). March 23, 2023. https://hamiltoncitymagazine.ca/artist-chris-myhr-makes-a-salient-point/

Massey, Felicia. "New Art Gallery of Peterborough Exhibit Features Award-Winning Artist Tim Whiten" Peterborough Blog (Tim Whiten Elemental). March 31, 2023.
https://www.ptbocanada.com/journal/new-art-gallery-of-peterborough-exhibit-features-award-winning-artist-tim-whiten

Nur Ahmed, Abonti. "SUMMA 2023 tells the story of McMaster's graduating class of Studio Artists" The Silhouette (SUMMA 2023). April 13, 2023. https://thesil.ca/summa-2023-tells-the-story-of-mcmasters-graduating-class-of-studio-artists/

"Personal Stories and Interactive Art at SUMMA 2023" McMaster Faculty of Humanities (SUMMA 2023). April 13, 2023.
https://www.humanities.mcmaster.ca/stories/personal-stories-and-interactive-art-at-summa-2023/

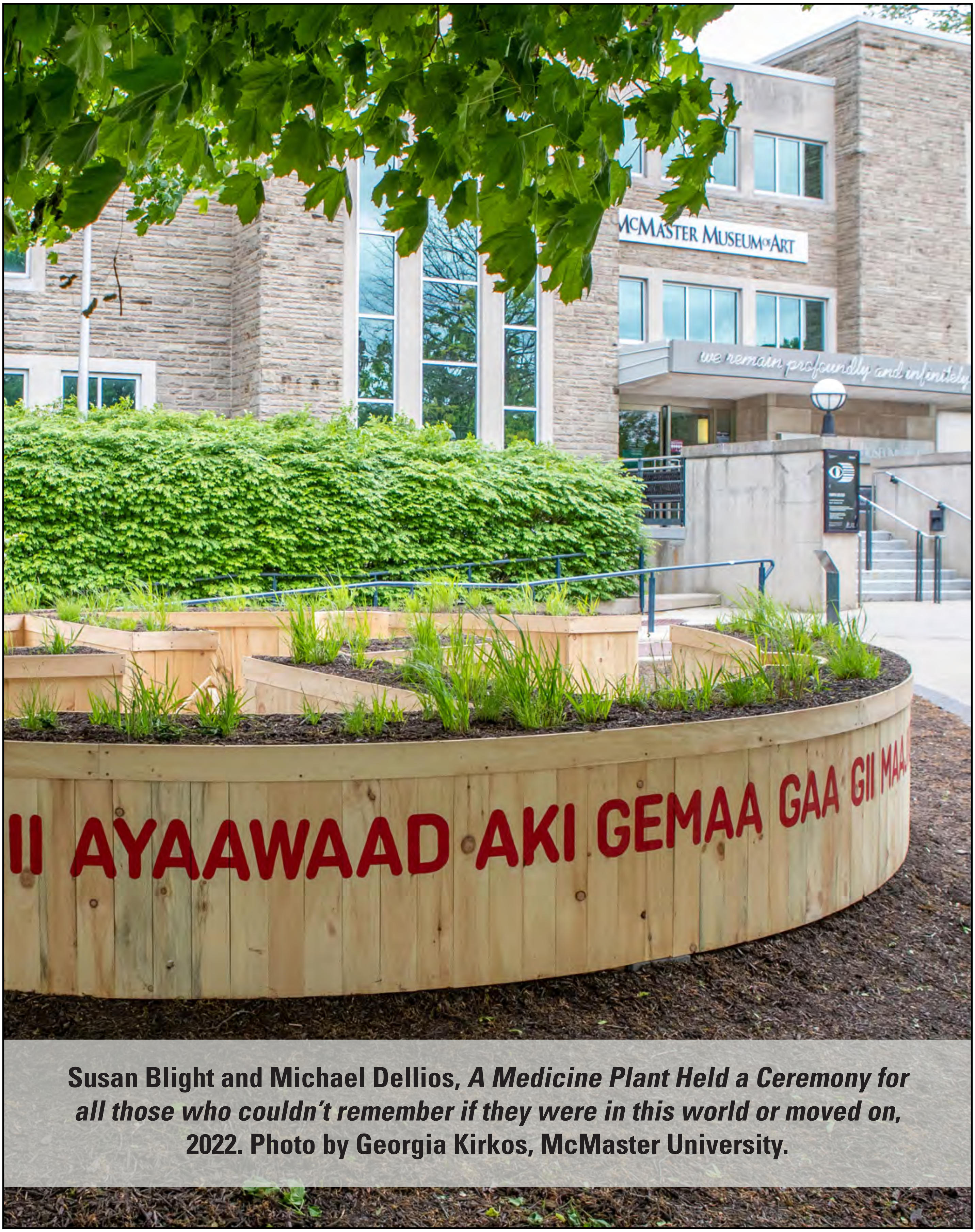
"McMaster University Campus Architecture Tour" Doors Open Hamilton (Campus Architecture Tour). May 5, 2023.
https://www.doorsopenontario.on.ca/hamilton-1/mcmaster-university-campus-architecture-tour

McNeil, Mark. "Touring McMaster's wide-ranging architecture with your smartphone" Hamilton Spectator (Campus Architecture Tour). May 9, 2023. https://www.thespec.com/news/hamilton-region/flashbacks-hamilton/touring-mcmaster-s-wide-ranging-architecture-with-your-smartphone/article_e9f4daa2-50f2-5cf0-b219-d74d0113f50d.html

"Critics' Picks: 5 Must-See Performances This June" Beyond James (Lisa Myers: Finding what Grows). June 1, 2023.
https://beyondjames.com/june23picks/

"McMaster Museum of Art Unveils Bold New Look at Museums" Hamilton City Magazine (Chasm). June 14, 2023, pp. 16-17.
https://hamiltoncitymagazine.ca/mcmaster-museum-of-art-unveils-bold-new-look-at-museums/

Edmund, Sydney. "Five free on-campus activities for students" The Daily News (MMA). August 25, 2023.
https://dailynews.mcmaster.ca/articles/five-free-on-campus-activities-for-students/



Susan Blight and Michael Dellios, *A Medicine Plant Held a Ceremony for all those who couldn't remember if they were in this world or moved on,* 2022. Photo by Georgia Kirkos, McMaster University.

GOVERNANCE BODY	Board of Governors/Audit & Risk Committee
ITEM/SUBJECT	Health, Safety and Well-being Report
DATE	January 25, 2024
LEAD(S)	Wanda McKenna, Associate Vice-President & Chief Human Resources Officer Maggie Pooran, Executive Director, Health, Safety, Well-being & Labour Relations Dane DeMan, Associate Director, University Health & Safety
GOVERNANCE PATH	Board of Governors/Audit & Risk Committee
MOTION (*If this is for information only, please note here)*	For information
**JURISDICTION (*If applicable) *****include associated bylaw or policy*	RMM 100 – Workplace and Environmental Health and Safety Policy
SUPPLEMENTAL MATERIALS	N/A

EXECUTIVE SUMMARY

This report is presented as a regular update by the Health, Safety, Well-being & Labour Relations portfolio of Human Resources Services, which works in cooperation with other University partners to promote the health, safety, well-being, and engagement of all McMaster employees. Highlights from the report include:

- Health and safety training – new S.A.F.E. training module launched in November 2023 to all employees (new and existing).
- The University received a $50,238.03 WISB premium refund as a result of achievements against program deliverables under the WSIB excellence program.
- Annual completion of building fire drills.
- Summary of injuries, incidents and hazardous situations reported over the reporting period.
- WSIB Lost Time and Health Care Claims Update.
- Summary of workplace well-being initiatives over the reporting period.

McMaster University

BACKGROUND

Quarterly update on the health, safety, and well-being programming at the University.

STRATEGIC ALIGNMENT

The University health, safety and well-being programming promotes a healthy and safe environment where all members of the community can work towards the strategic priorities of inclusive excellence, teaching and learning, research and scholarship, engagement with community and operational excellence.

RISK AND RISK MITIGATION STRATEGIES

N/A

RECOMMENDATIONS AND NEXT STEPS

N/A

KEY TERMS

The Risk Management Manual (RMM) contains the programs and policies designed to implement and support the Risk Management System at the University.

https://hr.mcmaster.ca/employees/health_safety_well-being/our-safety/risk-management-manuals-rmms/

QUESTIONS AND ANSWERS

N/A

Health, Safety and Well-being Report

Report 2024-1 for the period October 1, 2023 – December 31, 2023

This report is presented by the Health, Safety, Well-being & Labour Relations portfolio of Human Resources Services, which works in cooperation with other University partners to promote the health, safety, well-being, and engagement of all McMaster employees.

Training and Loss Prevention Initiatives

- The launch of the new mandatory health and safety training module (S.A.F.E.) which replaces the previous modules of Slips/Trips/Falls, Asbestos Awareness, Fire Safety & Ergonomics, was expanded to all existing employees in November 2023. The initial launch included only new employees. The module requires a refresh every five years. Work will commence in 2024 on an update to both the University Violence in the Workplace Program and the Violence and Harassment Prevention training module.

- Development of a new health and safety training compliance dashboard is underway within Mosaic. The dashboard will enable supervisors to manage training compliance within their respective departments and provide an overall University health and safety training compliance measurement.

- A recommendation to improve campus pedestrian safety was sent forward to the University by the Central Joint Health and Safety Committee in October 2023. The University confirmed agreement with the recommendation and a working group is developing a short, medium & long-term action plan to present to the CJHSC in April 2024.

- Annual fire drills were completed for all McMaster buildings per the requirements of the Ontario Fire Code.

- The UHS team successfully completed a second WISB Excellence Program submission, which has resulted in a **$50,238.03 WSIB premium refund** to the University. This program allows organizations to submit up to five topic modules annually where a new health and safety program has been introduced or significant changes to an existing program have been made. UHS submitted three modules on the topics of First Aid, Slips, Trips & Falls, & Ergonomics. The refunded dollars will be reinvested into health and safety programming. Work is underway on a third submission for 2024.

- In partnership with Facility Services, Parking Services, and Communication, Marketing & Public Affairs, the UHS team launched a Winter slips/falls prevention campaign targeted at reducing slips/falls injuries related to ice & snow. These injuries are often serious in nature and can result in significant claims costs to the University.

- The UHS team provided health and safety advice and support to departments and student groups for events on campus related to the ongoing war in the Middle East.

- UHS provides ongoing support to the McMaster research community through the weekly management of chemical and biohazardous waste disposal, proactive audits which provide researchers with support in compliance with various University lab-specific programs including the Laser Safety program and the Designated Substances program, management of the University chemical inventory program (HECHMET), and lab-specific health and safety expertise to support new and emerging research initiatives.

Injuries/Incidents

The following summarizes injuries, incidents and hazardous situations reported to health and safety offices over the reporting period. University prevention programming is prioritized based on incident trends. All injury/incident reports are reviewed by the immediate supervisors and shared with the local Joint Health and Safety Committee (JHSC). The annual summary of incidents, and a year over year comparison will be included in the annual report for 2023 and shared in the next reporting period.

Type of Injury	Oct 1 – Dec 31, 2023		
	Employee	Student	Visitor
Abrasion/Contusion	5	1	0
Allergic Reaction	2	0	0
Burn	2	0	0
Cuts & Lacerations	21	23	1
Fracture	2	0	0
Irritation (epidermis, eyes, ears)	1	1	0
Medical Symptoms (faint, fatigue, head, thoracic, abdominal, insect etc.)	7	1	0
Psychological	1	1	0
Puncture	4	2	0
Sprain/Strain	14	0	0
Total	**59**	**29**	**1**
Hazard (no injury)	**20**	**4**	**1**

*Incident data is used to examine trends and identify opportunities for new programs, enhancements to existing programs, and where necessary, targeted prevention initiatives in specific subject areas or Faculties/Departments within the University.

Critical Injuries

There were two critical injuries reported to the Ministry of Labour, Immigration, Training and Skills Development (MOLITSD) during the reporting period.

Regulatory Visits

The MOLITSD attended the David Braley Health Sciences Centre on November 27, 2023, following a critical injury reported by the University. A Hospitality employee rolled their ankle on the curb outside of the building resulting in a fracture to their ankle. No orders issued.

The MOLSTD attended main campus on October 30, 2023, following a critical injury reported by the University. An Athletics & Recreation employee fell from the climbing wall while performing a bouldering activity that was not part of their assigned job duties, resulting in a fracture to their leg. No orders issued.

WSIB Lost Time and Health Care Claims Update

The Employee Health & Well-being Team actively manages WSIB as well as salary continuance, sick leave, employee accommodation requests and long-term disability claims. This team collaborates on a regular basis with departments and faculties to develop and maintain proactive strategies with the goal of helping employees stay at work and reduce lost time.

The chart below illustrates the number of incidents, the number of WSIB-approved and pending claims for health care and lost time days, for the past six years. It should be noted that the University employee population has continued to grow over this reporting period and includes a wide variety of job types and work environments. Details on the employee population are provided in the HRS Annual Report.

	2019	2020	2021	2022	2023 Jan 1 – Dec 31	2023 Q4
Total Claims Reported to WSIB	134	42	66	76	79	22
Approved No Lost Time Injuries	69	29	33	36	39	9
Approved Lost Time Injuries	33	2	18	18	17	5
Lost Time Days	363	44	113	303	121	33
Average Lost Time Duration	11	22	6.28	16.8	7.12	6.6

Early intervention and the focus of early and safe return to work has been important in reducing lost time days for lost time claims in 2023. The University had 5 lost time claims during the reporting period for a total of thirty-three lost time days in this 4th quarter of 2023.

Workplace Well-being Initiatives

McMaster has a strong commitment to mental health and well-being and uses the 13 psychosocial factors related to the National Standard of Canada for Psychological Health and Safety in the Workplace to guide our organizational health programming. McMaster regularly hosts a wide range of activities and initiatives to promote 4 determinants of health and well-being: mental, physical, social, and financial. Activities during the reporting period include:

Mental Health & Well-being

- Delivered 5 sessions of *The Working Mind* (3 for people leaders, and 2 for staff), training a total of 75 McMaster employees.
- Delivered 8 custom coaching, teambuilding and workshop sessions on topics including Change Fatigue, Perfectionism, Boundary Setting for Well-being.

Physical Health & Well-being

- Launched McMaster United Way Campaign and Pull4Mac Bus Pull, an engagement program for over 150 employees, which raised approximately $7,000 for the United Way of Halton and Hamilton.

Social Health & Well-being

- Executed the McMaster Children's Party, a holiday social for McMaster employees and their children. 375 children and over 1000 people attended the first in-person party since 2019.
- Delivered an in-person Take Our Kids to Work Day program for 85 grade 9 students for the first time since 2019, including keynote presentations and a campus tour.

Financial Health & Well-being

- Delivered Retirement Planning webinars as part of Financial Literacy Month

McMaster University | UNIVERSITY SECRETARIAT

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Hamilton, ON L8S 4L8

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Report to the Board of Governors
from the
Planning and Resources Committee

APPROVAL

a. Rescindment of Policies

i. Guaranteed Housing Loans to Faculty and Staff – 1987

At its meeting on February 8, 2024, the Planning and Resources Committee approved the termination of the Guaranteed Housing Loans to Faculty and Staff Policy. Further details are contained within the circulated material.

It is now recommended,

that the Board of Governors approve the termination of the Guaranteed Housing Loans to Faculty and Staff Policy.

ii. Policy on Approval Authorities for Construction and Maintenance Policy (2014)

At the same meeting, the Planning and Resources Committee also approved the termination of the Policy on Approval Authorities for Construction and Maintenance Policy (2014). Further details are contained within the circulated material.

It is now recommended,

that the Board of Governors approve the termination of the Policy on Approval Authorities for Construction and Maintenance Policy (2014).

b. Funding Valuations for Original Pension Plan as at July 1, 2023

At the same meeting, the Planning and Resources Committee approved the results of the Actuarial Valuation for Funding Purposes as at July 1, 2023 for the Contributory Pension Plan for Salaried Employees of McMaster University Including McMaster Divinity College (Original Plan) and its filing with the Financial Services Regulatory Authority of Ontario and the Canada Revenue Agency. Further details are contained within the circulated material.

It is now recommended,

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that the Board of Governors approve the results of the Actuarial Valuation for Funding Purposes as at July 1, 2023 for the Contributory Pension Plan for Salaried Employees of McMaster University Including McMaster Divinity College (Original Plan) and its filing with the Financial Services Regulatory Authority of Ontario and the Canada Revenue Agency.

c. Funding Valuations for Pension Plan 2000 as at July 1, 2023

At the same meeting, the Planning and Resources Committee approved the results of the Actuarial Valuation for Funding Purposes as at July 1, 2023 for the Contributory Pension Plan for Salaried Employees of McMaster University Including McMaster Divinity College 2000 (Plan 2000) and its filing with the Financial Services Regulatory Authority of Ontario and the Canada Revenue Agency.

It is now recommended,

that the Board of Governors approve the results of the Actuarial Valuation for Funding Purposes as at July 1, 2023 for the Contributory Pension Plan for Salaried Employees of McMaster University Including McMaster Divinity College 2000 (Plan 2000) and its filing with the Financial Services Regulatory Authority of Ontario and the Canada Revenue Agency.

d. Statement of Investment Pool Policies and Procedures - Investment Pool

At the same meeting, the Planning and Resources Committee approved the updated Statement of Investment Policies and Procedures, including an updated Asset Mix, for the Investment Pool. Further details are contained within the circulated materials.

It is now recommended,

that the Board of Governors approve the updated Statement of Investment Policies and Procedures, including updated Asset Mix, for the Investment Pool.

Board of Governors
FOR APPROVAL: March 7, 2024

McMaster University

GOVERNANCE BODY	*PRC and Board*
ITEM/SUBJECT	*Guaranteed Housing Loans to Faculty and Staff*
DATE	*Feb. 8, 2024*
LEAD(S)	*Lil Scime, Acting Associate Vice-President & CFO* *Andrea Thyret-Kidd, University Secretary*
GOVERNANCE PATH	
MOTION (*If this is for information only, please note here)*	*That the Planning and Resources Committee approve, for recommendation to the Board of Governors, the termination of the* ***Guaranteed Housing Loans to Faculty and Staff Policy.***
JURISDICTION **(*If applicable)*** **include associated bylaw or policy*	*Board of Governors*
SUPPLEMENTAL MATERIALS	*1. Guaranteed Housing Loans to Faculty and Staff policy*

EXECUTIVE SUMMARY

The **Guaranteed Housing and Loans to Faculty and Staff Policy** is an inactive Board approved policy and the motion is to terminate the policy.

BACKGROUND

The policy was created in 1987, revised in 2008. The last loan was issued in 2005, and the policy was removed from the Secretariat website in 2018 but formally closing the policy was not done at that time.

The request to terminate the policy is a house-keeping item to ensure that only active policies are on the books.

STRATEGIC ALIGNMENT

Maintaining current policies is aligned with operational excellence.

RISK AND RISK MITIGATION STRATEGIES

Risk	Risk Mitigation Strategy
Having outdated policies that are technically still approved policies.	Rescind the policy formally.

BRIGHTER WORLD

McMaster University

RECOMMENDATIONS AND NEXT STEPS

Once PRC has approved the termination, it will be forwarded to the Board for approval. The policy has already been removed from the Secretariat policy website so no further steps are necessary.

KEY TERMS

N/A

QUESTIONS AND ANSWERS

N/A

Policies, Procedures and Guidelines

Complete Policy Title: Guaranteed Housing Loans to Faculty and Staff	Policy Number (if applicable):
Approved by: Board of Governors	Date of Most Recent Approval: March 19, 1987 *(reviewed October 2008)*
Date of Original Approval(s):	Supersedes/Amends Policy dated:
Responsible Executive : Director, Financial Services	Enquiries: 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.*

POLICY

SCOPE

All full-time faculty on term or tenure appointment and staff members on continuing appointment of McMaster University who may qualify for assistance under the conditions for guaranteed loans as set forth in this policy.

1. QUALIFICATIONS AND CONDITIONS

1. The home must be located within the City of Hamilton, Ontario or its vicinity within daily commuting distance to and from the main Campus.
2. The loans are confined to a purchase of a principal residence in the area or refinancing an existing loan but not extending it unless it is for the purpose of renovations.
3. The signing officers of the University must be satisfied that the loan does not constitute an undue risk to the University.
4. The borrower (Faculty and Staff) must be appointed on a continuing full-time basis (contractually limited appointments of less than three years' duration are excluded) to a position established in the University's funded positions.

5. The proceeds of such a housing loan shall be used as part of the purchase price or refinancing of a principal residence for an employee of the University. The home must be a one family dwelling house; to be actually and *bona fide* occupied by the applicant as his or her principal residence during the tenure of the loan in conformity with all relevant municipal by-laws in effect from time-to-time; and not employed in any commercial manner.

6. Such residence shall be only for occupancy by the borrower and immediate family, except that the residence may be rented during an absence resulting from an approved leave of absence.

7. The borrower, or the borrower and spouse, shall have an equity in such property of approximately 10% of the greater of the purchase price or market value thereof, the latter to be determined in accordance with condition 1.11 of this policy.

8. The loan to be guaranteed shall not be in excess of $70,000, the loan to run for a term not longer than the lesser of 20 years or the period extending to the borrower's normal University retirement date, and the total principal and interest payments for all mortgages plus taxes shall not exceed 30% of the combined total of the employee's gross earnings and 50% of the spousal income.

9. The said loan shall bear interest at a rate not in excess of one-half of one percent above the prime lending rate of the Canadian Imperial Bank of Commerce for a repayment up to 15 years and at a rate not in excess of three-quarter of one percent above the lending rate of the Canadian Imperial Bank of Commerce for a repayment in excess of 15 years.

10. The monthly payments of principal and interest will be determined by the Bank and the borrower over a period not to exceed that established in condition 1.8 of this policy.

11. The borrower, at the borrower's expense, may be required to provide the University with a written opinion, from a duly qualified appraiser, or real estate broker, as to the market value of the residence property.

12. The borrower at the borrower's expense, and in form satisfactory to the solicitors of McMaster University, shall give to the University a mortgage on the property being purchased or financed, such mortgage to be subject only to any mortgage arranged or assumed at the time of the purchase of the property and as stated on the application form for the loan; the said mortgage shall be drawn for the principal amount of the loan received by the borrower from the Canadian Imperial Bank of Commerce, with interest on the mortgage at the above noted Bank rate; the University's obligation to complete any loan shall be conditional upon the University receiving from its solicitor and at the borrower's expense, an opinion that the title to the property which is the subject matter of the mortgage loan, is a

clear title in fee simple free and clear of any and all encumbrances except as those stated on the application form, and that the University further receives from its solicitors such further and other opinions as are relevant to the satisfactory completion of the mortgage loan: the mortgage given pursuant to this policy shall be payable in full to the University on termination of the term contained in the mortgage or upon the earlier occurrence of any of the following:

a. upon retirement or termination of the borrower's employment with the University;
b. upon completion of any sale or transfer of said property;
c. upon the leasing of said premises for a term certain in excess of sixteen (16) months, or upon the expiration of sixteen (16) consecutive months of an indefinite leasing period, unless the mortgagor is seconded to another institution or country under a formal exchange program or is on other approved leave;
d. save as 1.12c aforesaid, upon the termination of the use of said residence for occupancy by the said borrower and his immediate family as their principal residence; or
e. upon the death of the borrower when the surviving owner is not a borrower, payment is to be made from the insurance assigned to the University.

In the case of number 1.12a and 1.12c and 1.12d, a period of ninety (90) days will be allowed for the convenience of the borrower in the completion of the sale of the property from the date when any of these events occur, but in any event the final payment of any principal plus interest owing with regard to any mortgage shall become due at the end of the ninety (90) day period referred to within this paragraph whether or not the sale of the property has been effected. The borrower, upon repayment of said loan, is to be responsible for the legal expenses incurred in the preparation of the discharge of the mortgage.

13. Guarantees must be approved by and bear the signatures of the appropriate signing officers of the University.

14. Unless the loan is otherwise insured, the borrower shall transfer and assign to the University, as collateral security to the mortgage, all his/her right, title and interest in the Sun Life Assurance Company, Group Life Policy No. 653G, and shall arrange for the transfer, assignment and release, to the University of the interest therein, of any named beneficiary. The policy to be reassigned to the borrower upon termination of or satisfaction of the liability to the University under its guarantee.

15. That the premises contained on the lands which are the subject of the mortgage in favour of McMaster University, shall be insured to a value of at least the total of all mortgages placed on such lands, and the interest of McMaster University shall be shown thereon.

McMaster
University

16. The plan shall be continued from time to time at the sole discretion of McMaster University and on the condition that it continues to be supported by the University's Bank.

17. The financial procedure provides for the forms required and the method of application, approval and authorization, and the processing of such guaranteed loans in accordance with the condition as set forth in this policy.

2. GUARANTEE TO BANK

1. The attached form of guarantee is hereby adopted as the form of guarantee to be given on behalf of the Board of Governors to the Canadian Imperial Bank of Commerce.

3. ACCEPTANCE OF APPLICATIONS

1. As a separate condition for the granting of the loan, the University requires that the applicant meet the bank's guidelines of credit analysis and gross dept servicing ratios. These guidelines are established to ensure that the applicant is not undertaking a too onerous burden of debt.

4. LIMITATION

1. The total of all guarantees to be granted on behalf of the Board of Governors, outstanding at any one time, shall not exceed five million dollars ($5,000,000).

FINANCIAL PROCEDURE

Intent

To establish a method whereby qualified Faculty and Staff members of the University may apply for financial assistance to purchase or refinance a principal residence by way of a University guaranteed housing loan as arranged with the Canadian Imperial Bank of Commerce, Westdale Branch, Hamilton (the 'Bank').

Such a loan is subject to the period, terms, conditions and limitations as set forth in the Policy Guide of the University.

Scope

All applications from qualified full-time continuing Faculty and Staff members of the University requiring financing for the purchase or refinancing of a principal residence and requesting a McMaster University Guaranteed Housing Loan with the Bank.

General Information

Application forms are available from the Director of Financial Services Office of the University. The Faculty or Staff member must submit a properly completed application form in duplicate to the University for acceptance and approval of the member as a candidate for a University Guaranteed Housing Loan from the Bank.

The loan to be guaranteed shall not be in excess of $70,000, the loan to run for a term not longer than the lesser of 20 years, or the period extending to the borrower's normal University retirement date and the total principal and interest payments for all mortgages plus taxes shall not exceed 30% of the combined total of the employee's gross earnings from the University and 50% of the spousal income.

The residence to be financed must be located in the City of Hamilton or vicinity and be within daily commuting distance to and from the main Campus of McMaster University.

The borrower at the borrower's expense, and in form satisfactory to the solicitors of McMaster University, shall give to the University a mortgage to be subject only to any mortgage arranged or assumed at the time of the purchase or refinancing of the property and as stated on the application form for the loan; the said mortgage shall be drawn for the principal amount of the loan received by the borrower from the Canadian Imperial Bank of Commerce, with interest on the mortgage at the Bank rated noted below; the University's obligation to complete any loan shall be conditional upon the University receiving from its solicitor and at the borrower's expense, an opinion that the title to the property which is the subject matter of the mortgage loan, is a clear title in fee simple free and clear of any and all encumbrances except as those stated on the application form, and that the University further receives from its solicitors such further and other opinions as are relevant to the satisfactory completion of the mortgage loan: the mortgage given pursuant to this policy shall be payable in full to the University upon termination of the term contained in the mortgage or upon the earlier occurrence of any of the following:

a. upon retirement or termination of the borrower's employment with the University;
b. upon completion of any sale or transfer of said property;
c. upon the leasing of said premises for a term certain in excess of sixteen (16) months, unless the mortgagor is seconded to another institution or country under a formal exchange program or on other approved leave;
d. upon the termination of the use of said residence for occupancy by the said borrower and his immediate family as their principal residence;
e. upon the death of the borrower when the surviving owner is not a borrower, payment is to be made from the insurance assigned to the University.

The said loan shall bear interest at a rate not in excess of one half of one percent above the prime lending rate of the Canadian Imperial Bank of Commerce for a repayment up to 15 years and at a rate not in excess of three quarter of one percent above the prime lending rate of the Canadian Imperial Bank of Commerce for a repayment in excess of

15 years. The monthly payments of principal and interest will be as determined by the Bank and the borrower over a period not to exceed that established in condition 1.8 of this policy.

Subject to the qualifications and conditions, the general information and the procedures stated herein are subject to change by the University without prior notice.

PROCEDURE

1. Application to the University by Candidate

(1) An application form must be completed and submitted to the Office of the Director of Financial Services. All loan applications are to be reviewed for funding and verification of credit status by the Director of Financial Services prior to the approval by the Officers mentioned below. All loan applications require the approval of either Vice-President (Administration), the Assistant Vice-President (Financial Services), or the Director of Financial Services, and are subject to the aggregate University's guarantee limitation not to exceed five million dollars ($5,000,000) outstanding at any one time.

(2) All applications, upon approval and acceptance, will be returned to the Director of Financial Services for transcribing onto the member's personnel file and for notification of acceptance letter to the member. The member may then approach the Bank to initiate the loan. Approved application notice will indicate that letter of approval will remain in effect for a period of four (4) months from the date of the letter at which time an extension may be given upon application should the purchase information remain the same, or a new application may be submitted should a change of information or content be in evidence. The Director of Financial Services will be responsible for notifying the Bank.

(3) Upon approval and acceptance, the borrower shall transfer and assign to the University, as collateral security to the mortgage, all his/her right, title, and interest in the Sun Life Assurance Company, Group Life Policy No. 653G and shall arrange for the transfer, assignment and release, to the University of the interest therein, of any named beneficiary.

(4) The borrower shall provide the University with satisfactory proof that the building is insured as set forth in the Policy Guide, (see 1.16) of the University.

(5) The member or the member's solicitor should contact the University's solicitors to arrange the execution of the said mortgage and other required documentation in good time prior to the closing date.

(6) Human Resources will be responsible to notify the Director of Financial Services of the University should a member, who has an approved Guaranteed Housing Loan, leave the employ of the University, obtain a leave of absence for a period while the loan is in effect, or change the address of his or her residence.

(7) The Bank will report to the Director of Financial Services quarterly, the loan amounts to which the University Guarantee applies and the names of the members who have discharged their liability by repayment of the loaned amount.

The Director of Financial Services will be responsible to forward a copy of the list of members who have fully paid up loans to the Director of Human Resources to have the personnel file purged of the fully repaid loans.

See following page for sample agreement form (not currently available as an on-line application).

McMaster University

APPLICATION FOR GUARANTEED HOUSING LOAN

PLEASE COMPLETE EACH ITEM

Full Name: ____

Name of Spouse: ____

Present Address: ____

____

Rank and Position at the University:

____

Department and Office Telephone Number:

____

Employee's Gross Income:

____

Spousal Gross Income: ______________________

Employer: ______________________

Bank Reference:

____

Present Obligations:

____

____

____

____

Lawyer's Name and Address:

____

____

Amount of Loan which the University is asked to Guarantee: ___________

To Mature in [Year] (Maximum 20 years) Initial Interest Rate: ______%

Date When Funds Required: ____________________________________

PARTICULARS OF PROPERTY TO BE MORTGAGED:

Address: ____

Lot No: ____________________________ Plan No: ________________

Municipality: _________________________ County: ________________

Type of House: _______________________ Purchase Price: __________

First Mortgage:

Name of Mortgagee: ____

Address: ____

____

Outstanding Principal Amount: _______________________

Interest Rate: ______________% Maturing in: ________________________

Payments: Percentage of Equity in House: _________
(Minimum 10%)

Are there any other mortgages, encumbrances or liens on the Property? _________

Assessed Value: Land: $________ Building: $ __________ Taxes: $ _________

Current Leases or Tenancies, if any: ______________________________________

Present Insurance on the House:

Company: ____

Agent: ____

Amount of Insurance on Buildings: $ ______________ Expiry Date: _____________

I certify that the information given above is correct and that the house will be occupied by me as my home. It is understood that the legal and administrative expenses incidental to this loan will be paid by me and that an up-to-date survey will be provided.

I authorize the Canadian Imperial Bank of Commerce at any time and from time to time to inform the University of the state of the loan account and such information from the Bank shall be conclusive evidence thereof.

McMaster University

I undertake to open and maintain a personal account at the University branch of the Canadian Imperial Bank of Commerce and authorize the University to deposit to that account such salary payments as are due to me from time to time, installment payments on this loan are to be charged to this account.

In respect of a loan granted by the Canadian Imperial Bank of Commerce under this agreement, I agree that the whole balance of any principal outstanding together with interest accrued due becomes immediately due and payable if:

a. I cease for any reason to be employed by McMaster University; or
b. I cease to occupy as my usual and principal place of residence the house for which the loan was made; or
c. I sell, convey, assign or otherwise become deprived of my interest in the said land and premises.

I agree to transfer and assign to the University, as collateral security to the mortgage, my rights, title and interest in the Sun Life Assurance Company, Group Life Policy No. 653G and shall arrange for the transfer, assignment and release, to the University of the interest therein.

I agree to assume the costs of preparing and registering a discharge of the mortgage on repayment of the loan.

Dated: ________________________ Signed: ___________________________

Signed: ___________________________

(If the property is to be registered jointly, please have spouse sign.)

TO THE CANADIAN IMPERIAL BANK OF COMMERCE:

Subject to the execution by the applicant of a mortgage in favour of the University, the University agrees to guarantee a loan to this applicant upon the terms of the agreement between the University and Bank dated

Principal Amount: $ _____________ **Maturity Date:** ___________________

McMaster University

Per: ___________________

Per: ___________________

McMaster University

McMaster University

GOVERNANCE BODY	*PRC and Board*
ITEM/SUBJECT	*Rescinding the Policy on Approval Authorities for Construction and Maintenance Projects*
DATE	*February 8, 2024*
LEAD(S)	*Debbie Martin, Associate Vice-President & Chief Facilities Officer (Acting)* *Saher Fazilat, Vice-President (Operations & Finance)* *Andrea Thyret-Kidd, University Secretary*
GOVERNANCE PATH	*List what committees/other bodies have previously received/approved*
MOTION (*If this is for information only, please note here)*	*That the Planning and Resources Committee approve, for recommendation to the Board of Governors, the termination of the* ***Policy on Approval Authorities for Construction Maintenance Projects (2014)****, as circulated.*
**JURISDICTION (*If applicable)* ****include associated bylaw or policy*	*Policy of the Board of Governors*
SUPPLEMENTAL MATERIALS	*1. Executive Summary* *2. Policy on Approval Authorities for Construction and Maintenance Projects (2014)* *3. Capital Projects Planning and Implementation Policy (2023)*

EXECUTIVE SUMMARY

The ***Policy on Approval Authorities for Construction and Maintenance Policy (2014)*** is an inactive Board-approved policy that was replaced by the ***Capital Projects Planning and Implementation Policy (2023)***, and the motion is to terminate the policy.

BACKGROUND

At its meeting on November 30, 2023, the Planning and Resources Committee approved the *Capital Projects Planning and Implementation Policy*. This policy was intended to replace the *Policy on Approval Authorities for Construction and Maintenance Projects*, but this detail was inadvertently excluded from the motion. Since the legacy policy is no longer applicable, we request to terminate it as a housekeeping item to ensure that only active policies are on the books.

STRATEGIC ALIGNMENT

Maintaining current policies is aligned with operational excellence.

RISK AND RISK MITIGATION STRATEGIES

Risk	Risk Mitigation Strategy
Having outdated policies that are technically still approved policies.	Rescind the policy formally.

RECOMMENDATIONS AND NEXT STEPS

Once PRC has approved the termination, it will be forwarded to the Board for approval. The policy has already been removed from the Secretariat policy website, so no further steps are necessary.

KEY TERMS

n/a

QUESTIONS AND ANSWERS

n/a

Policies, Procedures and Guidelines

Complete Policy Title: Approval Authorities for Construction and Maintenance Projects	Policy Number (if applicable):
Approved by: Board of Governors	Date of Most Recent Approval: June 5, 2014
Date of Original Approval(s): April 1, 2008	Supersedes/Amends Policy dated: August 16, 2008
Responsible Executive: Assistant Vice-President & Chief Facilities Officer	Specific Policy Enquiries: Assistant Vice-President & Chief Facilities Officer
	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.*	

1. Purpose

The purpose of this policy is to set out the responsibilities and accountabilities associated with the efficient and economic use of physical/capital resources regarding the construction of new buildings and for additions, alterations or renovations to existing buildings. This policy applies to all McMaster University faculty and staff and includes projects using operating funds, capital funds, internally restricted funds, restricted funds from trusts, and research funds under the administration of the University.

Individual faculties and departments may not approve or undertake construction and maintenance projects without the approval of Facility Services.

2. Annual Major Capital Program

The Annual Major Capital Program is developed based on the approved Capital Plan and in accordance with the approved Capital Planning Process. The Capital Program and its individual projects will be approved according to the University governance process.

Any change of land use or change in the Campus Plan requires University Planning Committee, Planning and Building Committee, Senate and Board of Governors approval.

3. Overall Budget for Individual Project Approval

The overall project budget for individual construction and maintenance projects, including any changes to buildings or building systems, requires approvals as stated in the Execution of Instruments.
The Overall budget for Projects can be approved as part of group submission such as CFI group submission.

4. Appointment of Architects and Professional Consultants Approval

The appointment of architects and professional consultants requires the approval levels indicated in the Execution of Instruments. Appointments are confirmed by contract and Purchase Order.

Following the award of contract, the successful bid, with the statement that it was the low acceptable bid, shall be announced publicly

All requests for proposals for architects or engineering or other design consultants must be initiated through Facility Services. Contracts with architectural and engineering or other design consultants must be administered and managed by Facility Services.

5. Tenders

Refer to Purchasing Policy (SP-01)

6. Award of Contracts/Issuing Purchase Orders for Contractors

The award of contracts for construction or maintenance projects must be authorized as indicated in the Execution of Instruments.
Following the award of contract, the successful bid, with the statement that it was the low acceptable bid, shall be announced publicly.

7. Change Orders to existing Contracts / Purchase Orders

8. Change Orders to existing Contracts / Purchase Orders which do not increase the approved Overall Project Budget require approval as per the Execution of Instrument (Capital Fund – Award of Cost Overruns

a- Low bid exceeds the project estimate for a project component but the total project cost remains within the approved overall project budget.

The Assistant Vice-President and Chief Facilities Officer has authority to review with the low bidder the specifications of the project to identify changes in the scope of work which will bring the project within the approved overall project budget.

b- Costs exceed the approved overall project budget:
As per the Execution of Instrument (Capital Fund – Project Approval).

9. Payments

Invoices and payment to contractors and consultants will be approved by either the Assistant Vice President and Chief Facilities Officer, the Director of Design & Construction, the Director of Maintenance or the Director of Energy Management and Utilities.

10. Definitions

a) Project: is the total scope of work that is required to meet the needed modifications, upgrades or new facility. It might require the engagement of different vendors with different expertise with separate Contracts or Purchase Orders for each vendor.

b) Overall Project Budget: is the total amount of allocated funds that is required to complete the full Project scope. It will cover different work components such as Design, Construction; Permit Fees, Project Management, etc.
Purchase Orders / Contracts).

c) Contract / Purchase Order: is a document that is issued to one vendor to deal with a specific portion or a component of the overall Project Scope. It deals with only a portion of the approved Overall Project Budget.

d) Change Order: is a required change of the scope of one of the contracts or Purchase orders that is forming part of the Overall Project Budget.

e) Cost Overrun: Is an increase in the approved Overall Project Budget.

McMaster University

McMaster University

GOVERNANCE BODY	Planning and Resource Committee (PRC)
ITEM/SUBJECT	Salaried Pension Plans Actuarial Valuations as at July 1, 2023
DATE	February 8, 2024
LEAD	Steven Moore, University Treasurer
GOVERNANCE PATH	Pension Trust Committee, Planning and Resources Committee, Board of Governors
FOR APPROVAL	**That the Planning and Resources Committee approve, for recommendation to the Board of Governors, the results of the Actuarial Valuation for Funding Purposes as at July 1, 2023 for the Contributory Pension Plan for Salaried Employees of McMaster University Including McMaster Divinity College 2000 (Plan 2000) and the Actuarial Valuation for Funding Purposes as at July 1, 2023 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.**
JURISDICTION	N/A
SUPPLEMENTAL MATERIALS	

EXECUTIVE SUMMARY

The draft actuarial valuation reports as at July 1, 2023, for the Contributory Pension Plan for Salaried Employees of McMaster University Including McMaster Divinity College 2000 (Plan 2000) and the Contributory Pension Plan for Salaried Employees of McMaster University Including McMaster Divinity College (Original Plan), and associated valuation assumptions have been reviewed and approved by the Pension Trust Committee at the February 1, 2024 meeting. The funded status improved for both Salaried Pension Plans (Salaried Plans), which will result in stabilized employer contributions and reduced Pension Benefit Guarantee Fund premiums.

BACKGROUND

McMaster University sponsors and acts as administrator for two contributory pension plans for salaried employees, Plan 2000 and Original Plan, together identified as the Salaried Pension Plans (Salaried Plans). The Original Plan is a closed pension plan with a membership consisting of 33 members. Plan 2000 is an open pension plan consisting of 7,684 members. In accordance with the requirements of the Ontario Pension Benefits Act and Regulations thereunder (the "Pension Rules"), as well as the Income Tax Act, McMaster University is required to file an actuarial valuation for the Salaried Plans no less frequently than every three years. McMaster has elected to file the valuation as at July 1, 2023, instead of July 1, 2024. The valuations have been prepared by the plan Actuary (Mercer) in accordance with the Pension Rules. The valuation date of the next valuation for the Salaried Plans shall be no later than July 1, 2026.

Funded Status

The Salaried Plan valuations, as at July 1, 2023, will result in stabilized funding/payment requirements for the University over the next three-year period. Due to an improved funded position, driven primarily by higher interest rates, the annual premiums payable to the Pension Benefit Guarantee Fund (PBGF) will decline by $65,300/year.

The primary valuation ratios that are monitored are the Going Concern Funded Ratio and Solvency Ratio (refer to table below for more information). The Going Concern Funded Ratio takes a long-term view of the plan's health as an ongoing entity. The Solvency Ratio reflects the amount of funding McMaster must pay to settle the obligation in an immediate wind-up scenario. Estimated funded status and ratios are monitored quarterly.

	Plan 2000		Original Plan		
	July 1, 2023	July 1, 2021	July 1, 2023	July 1, 2021	Ontario Pension Funding Rules Threshold
Going Concern Funded Ratio	111%	106%	120%	121%	100% or greater to avoid deficit payments (amortized over 10 yrs.)
Solvency Ratio*	114%	102%	119%	110%	Greater than 85% - triennial filing & no solvency special payments

The University may not contribute to the Salaried Plans while the going concern ratio including PfAD exceeds 125%. *The Transfer Ratio for both Salaried Plans is 100% or greater which means there are no current restrictions on lump sum commuted value payments.

The current service cost based on July 1, 2023 valuation results, expressed as a percentage of member contributions, for Plan 2000 and Original Plan is 102% and 262%, respectively.

STRATEGIC ALIGNMENT

Maintaining strong Salaried Plans with stable funding ratios is important to minimize the variability of employer and employees' pension contributions, and to ensure that the plan can meet its ongoing and future benefit obligations.

RISK AND RISK MITIGATION STRATEGIES

Risk	**Mitigation Strategy**
If the Salaried Plans valuation results are unfavourable, McMaster will be subject to special/unplanned contributions and/or increasing employee contributions to ensure that the plan funded status remains in line with regulatory expectations.	The risk is currently low. Future risk is managed by monitoring solvency and going concern ratios on a quarterly basis and managing the Salaried Plan benefits, benefit rates and investments to maintain strong pension plans.

RECOMMENDATIONS AND NEXT STEPS:

The Pension Trust Committee discussed the valuation results with its actuary, Mercer, and recommends to the Planning and Resources Committee that the Salaried Plans July 1, 2023 Actuarial Valuation Reports be filed with the Financial Services Regulatory Authority of Ontario and the Canada Revenue Agency.

Mercer

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, 2023

Draft – January 2024

Financial Services Regulatory Authority of Ontario Registration Number: 0215400

Canada Revenue Agency Registration Number: 0215400

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

	07.01.2023	07.01.2021
Going Concern Financial Status		
Smoothed value of assets	$5,240,000	$4,967,000
Going concern funding liabilities	$3,959,000	$3,688,000
Provision for adverse deviations in respect of the going concern liabilities	$424,000	$409,000
Funding excess (shortfall)	$857,000	$870,000
Funded ratio	120%	121%
Hypothetical Wind-up Financial Position		
Wind-up assets	$4,909,000	$5,186,000
Wind-up liability	$4,332,000	$4,938,000
Wind-up excess (shortfall)	$577,000	$248,000
Transfer ratio[1]	116%	107%
Solvency Financial Position		
Wind-up assets	$4,909,000	$5,186,000
Solvency asset adjustment	$231,000	($294,000)
Smoothed solvency assets	$5,140,000	$4,892,000
Wind-up liability	$4,332,000	$4,938,000
Value of excluded benefits	($132,000)	($141,000)
Solvency liability adjustment	$630,000	($10,000)
Smoothed solvency liabilities	$4,830,000	$4,787,000
Solvency surplus (shortfall)	$310,000	$105,000
Solvency ratio[2]	119%	110%

[1] Asset value for transfer ratio is based on market value of assets before termination expense provision.

[2] Solvency ratio is based on market value of assets before termination expense provision and before smoothing impacts, per pension regulations.

	07.01.2023	07.01.2021
Funding Requirements in the Year Following the Valuation [3]		
Total current service cost	$102,000	$91,000
Provision for adverse deviations in respect of current service cost	$11,000	$10,000
Estimated members' required contributions	($39,000)	($36,000)
Expense allowance including provision for adverse deviations in respect of expense allowance	$28,000	$28,000
Total estimated University's current service cost	$102,000	$93,000
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	262%	258%
Minimum special payments	$0	$0
Estimated minimum University contribution	$0[4]	$17,000
Estimated maximum eligible University contribution	$102,000	$93,000
Next required valuation date	July 1, 2026	July 1, 2024

[3] 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.

[4] 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, 2023. 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, 2023 on going concern, hypothetical wind-up, and solvency bases;
- The minimum required funding contributions from July 1, 2023, in accordance with the Pension Benefits Act (Ontario) (the "Act"); and
- The maximum permissible funding contributions from July 1, 2023, 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, 2026 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.

- As instructed by the University, we have reflected the impact of various plausible adverse scenarios on the going concern financial position.

Events since the Last Valuation at July 1, 2021

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, 2023. 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:	5.70%		5.10%	
Interest on member contributions:	5.70%		5.10%	
Post-retirement pension increases:	**Year**	**Rate**	**Year**	**Rate**
	2024	0.85%	2022	1.45%
	2025	0.82%	2023	2.00%
	2026	1.03%	2024	2.00%
	2027	0.00%	2025	2.00%
	2028	2.59%	2026	2.00%
	2029 onwards	1.20%	2027 onwards	0.60%

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 September 14, 2021, the Canadian Institute of Actuaries (the "CIA") published a revised version of Section 3500 of the Standards of Practice on Pension Commuted Values (the "Commuted Value Standards") which became effective February 1, 2022.

The revised Commuted Value Standards affect implied rates of inflation used for purposes of calculating commuted values from registered pension plans and affirmed that the select and ultimate non-indexed interest rates cannot be less than zero. 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 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. There is no financial impact to the Plan related to these changes.

Subsequent Events

The statement of investment policies and procedures for the Plan has been amended effective October 26, 2023 to revise, among other things, the Plan's target asset mix. As permitted by actuarial standards, the impact of this change will be reflected in future valuations. After checking with representatives of the University, to the best of our knowledge there have been no other 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, 2023. 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:

	07.01.2023	07.01.2021
Assets		
Market value of assets	$5,009,000	$5,261,000
Asset smoothing adjustment	$231,000	($294,000)
Smoothed value of assets	$5,240,000	$4,967,000
Going concern funding target		
Going concern liabilities:		
• Active members	$2,552,000	$2,164,000
• Pensioners and survivors	$1,193,000	$1,317,000
• Deferred pensioners	$214,000	$207,000
Subtotal	$3,959,000	$3,688,000
Provision for adverse deviations in respect of going concern liabilities as prescribed by the Act	$424,000	$409,000
Total	$4,383,000	$4,097,000
Funding excess (shortfall)[5]	$857,000	$870,000

The going concern liabilities at July 1, 2023 do not include an additional margin for adverse deviations beyond the provision for adverse deviations prescribed by the Act.

[5] 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		$870,000
Provision for Adverse Deviations (PfAD) at previous valuation		$409,000
Funding excess (shortfall) before PfAD		$1,279,000
Interest on funding excess (shortfall) before PfAD at 5.10% per year		$134,000
Expected funding excess (shortfall)		$1,413,000
Net experience gains (losses)		
• Net investment return	($769,000)	
• Impact of asset smoothing	$556,000	
• Increases in YMPE/maximum pension limit	($47,000)	
• Indexation	$49,000	
• Mortality	($47,000)	
• Retirement	$52,000	
Total experience gains (losses)		($206,000)
Impact of changes in assumptions		
• Discount rate	$266,000	
• Post-retirement pension increase assumption	($203,000)	
Total assumption changes impact		$63,000
Net impact of other elements of gains and losses		$11,000
Funding excess (shortfall) before PfAD		$1,281,000
Provision for Adverse Deviations at current valuation		($424,000)
Funding excess (shortfall) as at current valuation		$857,000

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:

	2023/2024	2022/2023
Total current service cost[6] excluding expense allowance and PfAD	$102,000	$91,000
Expense allowance	$25,000	$25,000
Estimated members' required contributions	($39,000)	($36,000)
Estimated University's current service cost including expense allowance, including PfAD	$88,000	$80,000
• As a percentage of members' required contributions	226%	222%
PfAD in respect of the current service cost and expense allowance (based on the percentage defined in Appendix A)		
• As a dollar amount per year	$14,000	$13,000
• As a percentage of members' required contributions	36%	36%
Total estimated University's current service cost		
• As a dollar amount per year	$102,000	$93,000
• As a percentage of members' required contributions	262%	258%

The key factors that have caused a change in the University's current service cost, including the provision for adverse deviations, since the previous valuation are summarized in the following table:

University's current service cost as at previous valuation	258%
Demographic changes	(2%)
Plan amendments	0%
Changes in assumptions and methods	6%
University's current service cost as at current valuation	262%

[6] Total current service cost includes $12,000 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	$3,959,000	$4,462,000
Current service cost		
• Total current service cost	$102,000	$117,000
• Estimated members' required contributions	($39,000)	($39,000)
Estimated University's current service cost	$63,000	$78,000

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:

	07.01.2023	07.01.2021
Assets		
Market value of assets	$5,009,000	$5,261,000
Termination expense provision	($100,000)	($75,000)
Wind-up assets	$4,909,000	$5,186,000
Present value of accrued benefits for:		
• Active members	$2,904,000	$3,157,000
• Pensioners and survivors	$1,209,000	$1,532,000
• Deferred pensioners	$219,000	$249,000
Total wind-up liability	$4,332,000	$4,938,000
Wind-up excess (shortfall)	$577,000	$248,000
Transfer ratio	116%	107%

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:

	07.01.2023	07.01.2021
Number of years covered by report	3 years	3 years
Hypothetical wind-up incremental cost (B – A)	$25,000	$267,000

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	$4,332,000	$4,817,000

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:

	07.01.2023	07.01.2021
Assets		
Market value of assets	$5,009,000	$5,261,000
Termination expense provision	($100,000)	($75,000)
Net assets	$4,909,000	$5,186,000
Liabilities		
Total hypothetical wind-up liabilities	$4,332,000	$4,938,000
Difference in circumstances of assumed wind-up	$0	$0
Value of excluded benefits	($132,000)	($141,000)
Liabilities on a solvency basis	$4,200,000	$4,797,000
Surplus (shortfall) on a market value basis	$709,000	$389,000
Solvency liability adjustment	($630,000)	$10,000
Solvency asset adjustment	$231,000	($294,000)
Solvency surplus (shortfall)	$310,000	$105,000
Solvency ratio	119%	110%

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 member contributions	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[7]	Minimum monthly contributions
July 1, 2023	$3,250	$917	$8,500	$8,500	$0
July 1, 2024	$3,250	$917	$8,500	$8,500	$0
July 1, 2025	$3,250	$917	$8,500	$8,500	$0

[7] Notwithstanding the available actuarial surplus in the Plan, the terms of the Plan or collective agreement may require the Company to make current service cost contributions.

Period beginning	University's contribution rule[8]		
	Monthly current service cost and expense allowance	Provision for adverse deviations in respect of current service cost and expense allowance	Total
July 1, 2023	226%	36%	262%
July 1, 2024	226%	36%	262%
July 1, 2025	226%	36%	262%

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

[8] Expressed as a percentage of members' required contributions.

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

Since the surplus does not exceed 25% of the going concern funding target, the University may make monthly contributions of up to 262% 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

DRAFT

Bill Watson
Fellow of Society of Actuaries
Fellow of the Canadian Institute of Actuaries

Date

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:			$5,240,000
	(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:			$857,000
	a.	the going concern liabilities		
		(i) liabilities excluding the value of escalated adjustments	$3,534,000	
		(ii) liabilities in respect of escalated adjustments	$425,000	
	b.	the provision for adverse deviations in respect of the going concern liabilities excluding the value of escalated adjustments	$424,000	
	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	1.32
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.	1.16
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	1.19
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.	$5,009,000

Defined Term	Description	Result
Solvency Asset Adjustment	The sum of:	
	(a) the difference between smoothed value of assets and the market value of assets	$231,000
	(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, 2021 valuation and scheduled for payment between July 1, 2023 and June 30, 2024	$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
		$231,000
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, (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.	$4,200,000
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.	$630,000

Defined Term	Description	Result
Solvency Deficiency	The amount, if any, by which the sum of:	
	(a) the Solvency Liabilities	$4,200,000
	(b) the Solvency Liability Adjustment	$630,000
	(c) the Prior Year Credit Balance	$0
		$4,830,000
	Exceeds the sum of	
	(d) the Solvency Assets net of estimated termination expenses[9]	$4,909,000
	(e) the Solvency Asset Adjustment	$231,000
		$5,140,000
		$0
Reduced Solvency Deficiency / (Solvency Excess)	The sum of:	
	(a) 85% of the Solvency Liabilities	$3,570,000
	(b) 85% of the Solvency Liability Adjustment	$536,000
	(c) the Prior Year Credit Balance	$0
		$4,106,000
	minus the sum of:	
	(d) the Solvency Assets net of estimated termination expenses[8]	$4,909,000
	(e) the Solvency Asset Adjustment	$231,000
		$5,140,000
		($1,034,000)

[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%	
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 University 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)	0.0%		
• 0.5 × Investment Component × Investment Component Alternative Investment % (0.5 x N × Q)	0.0%		
		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,	**11.86**
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	$3,534,000
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%	$3,953,000

Benchmark Discount Rate (E)	
Base rate	0.50%
Effective yield from CANSIM Series V39056 (H)	3.09%
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	7.19%

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	11.86	
Multiplied by:		
– Going concern valuation gross discount rate net of active investment management fees (D), less	5.70%	
– Benchmark Discount Rate (E)	7.19%	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		$5,240,000	
Over			
• Going concern liabilities	$3,959,000		
• Provision for adverse deviations in respect of the going concern liabilities	$424,000		
• Prior Year Credit Balance	$0		
		$4,383,000	
		$857,000	(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		$5,009,000	
Over			
• Wind-up liabilities × 105%		$4,549,000	
		$460,000	(b)
The available actuarial surplus = the lesser of a) and b) above		$460,000	

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 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, 2026.

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	\$5,009,000	(a)
PBGF liabilities	\$4,200,000	(b)
Solvency liabilities	\$4,200,000	(c)
Ontario asset ratio	100.0%	(d) = (b) ÷ (c)
Ontario portion of the fund	\$5,009,000	(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, 2021 to July 1, 2022	July 1, 2022 to July 1, 2023
July 1	$5,261,000	$4,461,000
PLUS		
Members' contributions	$33,000	$35,000
University's contributions		
• Current service	$87,000	$91,000
• Past service	$0	$0
Investment income	$108,000	$103,000
Net capital gains (losses)	($776,000)	$480,000
	($548,000)	$709,000
LESS		
Pensions paid	$85,000	$93,000
Lump-sums paid	$48,000	$0
Administration and investment fees	$119,000	$68,000
	$252,000	$161,000
July 1	$4,461,000	$5,009,000
Gross rate of return[10]	-12.86%	13.12%
Rate of return net of expenses[9]	-14.98%	11.50%

[10] 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	$5,009,000	$5,261,000
In-transit amounts		
• Benefit payments	($0)	($0)
Market value of assets adjusted for in-transit amounts	$5,009,000	$5,261,000

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, 2023
	Minimum	Target	Maximum	
Canadian Equities	8%	13%	18%	11.2%
Foreign Equities	25%	42%	59%	48.3%
Real Assets	5%	10%	15%	8.6%
Bonds	20%	35%	50%	31.6%
Cash and cash equivalents	0%	0%	10%	0.4%
		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
2022/2023	80%
2021/2022	60%
2020/2021	40%
2019/2020	20%
before 2019	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, 2023 was derived as follows:

Market value of assets			$5,009,000
LESS			
Unrecognized investment gains (losses)	2022/2023:	$287,000 × 80% =	$230,000
	2021/2022:	($1,055,000) × 60% =	($633,000)
	2020/2021:	$470,000 × 40% =	$188,000
	2019/2020:	($79,000) × 20% =	($16,000)
			($231,000)
Smoothed value of assets			$5,240,000

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	$5,240,000	$4,967,000
In-transit amounts		
• Benefit payments	($0)	($0)
Smoothed value of assets, adjusted for in-transit amounts	$5,240,000	$4,967,000

Going Concern Funding Target

Over time, the real cost to the University 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 University 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:	5.70%		5.10%	
Explicit expenses:	$25,000		$25,000	
Inflation:	2.00%		2.00%	
ITA limit / YMPE increases:	3.00%		3.00%	
Pensionable earnings increases:	4.00%		4.00%	
Post-retirement pension increases:	**Year**	**Rate**	Year	Rate
	2024	0.85%	2022	1.45%
	2025	0.82%	2023	2.00%
	2026	1.03%	2024	2.00%
	2027	0.00%	2025	2.00%
	2028	2.59%	2026	2.00%
	2029 onwards	1.20%	2027 onwards	0.60%
Interest on member contributions:	5.70%		5.10%	
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		90% of the rates of the 2014 Public Sector Canadian	

Assumption	Current valuation	Previous valuation
	Pensioners Mortality Table (CPM2014Publ)	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 for 2023/2024 and assumed that such pensionable earnings will increase at the assumed rate from July 1, 2024.

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. 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 (fixed-income investments reflect a transition from current market interest rates to an equilibrium yield curve), 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 for the University's salaried pension plans combined. These 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	5.88%
Provision for administrative, actuarial and passive investment management fees	(0.20%)
Rounding to nearest 10 basis points	0.02%
Net discount rate	5.70%

Explicit Expenses

The assumption is based on the average amount of investment and administrative expenses of the Plan over the last 3 years in excess of the implicit provisions in the discount rate.

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 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 23.9 years for males and 25.8 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 and the availability of data, the actual spouse 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, 2023.

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, 2022 and no later than June 29, 2024 (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 0.2%.

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:	4.40% per year for all future years (2.88% per year for 10 years, 3.60% 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 (CPM2014) 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:	4.86% (3.48% for solvency liability adjustment) per year based on a duration of 9.42 years determined for the liabilities assumed to be settled through the purchase of an annuity.

Post-retirement pension increases:	**Year**	**Rate**
	2023	0.85%
	2024	0.66%
	2025	0.69%
	2026	0.00%
	2027	1.93%
	202 onwards	0.36%

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:	$3,506.67 for 2023 increasing at 2.72% per year for all future years (2.24% per year for 10 years, 2.70% for solvency liability adjustment)
Termination expenses:	$100,000

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, 2023, 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.

	07.01.2023	07.01.2021
Active Members		
Number	2	2
Total pensionable earnings for the following year	*	*
Average pensionable earnings for the following year	*	*
Average years of pensionable service	25.8	23.8
Average age	61.7	59.7
Accumulated contributions with interest	*	*
Deferred Pensioners		
Number	28	30
Total annual pension	$11,543	$11,694
Average annual pension	$412	$390
Average age	62.6	61.4
Pensioners and Survivors		
Number	3	3
Total annual lifetime pension	*	*
Total annual temporary pension	*	*
Average annual lifetime pension	*	*
Average age	75.5	73.5

*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 07.01.2021	2	30	3	35
New entrants				
Terminations:				
• Transfers/lump sums		(1)	-	(1)
• Deferred pensions				
Deaths		(1)	-	(1)
Retirements				
Beneficiaries				
Total at 07.01.2023	2	28	3	33

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								
60 to 64					1	1		2
65 +								
Total					1	1		2

The distribution of the inactive members by age as at the valuation date is summarized as follows:

Age	Deferred Pensioners Number	Deferred Pensioners Average Annual Pension		Pensioners and Survivors Number	Pensioners and Survivors Average Annual Pension
45 – 49					
50 – 54	5	193			
55 – 59	5	218			
60 – 64	4	224			
65 – 69	6	717			
70 – 74	2	*			
75 – 79	1	*		1	*
80 – 84	2	*		2	*
85 – 89	1	*			
90 – 94					
95 – 99					
100 +	2	*			
Total	28	412		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, 2023.

The following is a summary of the main provisions of the Plan in effect on July 1, 2023. 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 • $3,506.67 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 previous Plan Year) 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) that would pose threats to the Plan's future financial condition is illustrated in 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 90 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 1.5 years, respectively.

	Going Concern Valuation Results as at 07.01.2023	Plausible Adverse Scenario Results as at 07.01.2023		
		Interest Rate Risk	Deterioration of Asset Values	Longevity Risk
Market value of assets	$5,009,000	$5,199,000	$4,593,000	$5,009,000
Going Concern Financial Status				
Smoothed value of assets	$5,240,000	$5,278,000	$5,157,000	$5,240,000
Going concern funding target	$3,959,000	$4,101,000	$3,959,000	$4,096,000
Provision for Adverse Deviations	$424,000	$439,000	$424,000	$439,000
Funding excess (shortfall)	$857,000	$738,000	$774,000	$705,000
Estimated University's Current Service Cost including expense allowance and Provision for Adverse Deviations				
July 1, 2023	$102,000	$106,000	$102,000	$106,000
July 1, 2024	$102,000	$106,000	$102,000	$106,000
July 1, 2025	$102,000	$106,000	$102,000	$106,000

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 include 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 90 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.
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 was therefore decreased from 5.70% to 5.40%.
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.

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[11] will be in line with the average improvements experienced by the Canadian population[12] over the most recent 15-year period available, with uniform improvement rates for all future years but varying by age[13] 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.

[11] i.e. starting one year after the valuation in this context
[12] Based on Canadian population experience from the Human Mortality Database from 2002 to 2016
[13] improvement rates below age 45 are set to those at age 45

Appendix H

University certification

With respect to the Report on the Actuarial Valuation for Funding Purposes as at July 1, 2023 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, 2023 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, 2023.
- All events subsequent to July 1, 2023 that may have an impact on the Plan have been communicated to the actuary.

Date	Signed
	Saher Fazilat
	Name

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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, 2023

Draft – January 2024

Financial Services Regulatory Authority of Ontario Registration Number: 1079920

Canada Revenue Agency Registration Number: 1079920

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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

($000's)	07.01.2023	07.01.2021
Going Concern Financial Status		
Smoothed value of assets	$2,506,851	$2,385,832
Going concern funding liabilities	$2,112,081	$2,101,572
Provision for adverse deviations in respect of the going concern liabilities	$155,373	$156,056
Funding excess (shortfall)	$239,397	$128,204
Funded ratio	111%	106%
Hypothetical Wind-up Financial Position		
Wind-up assets	$2,452,502	$2,583,910
Wind-up liability	$2,211,461	$2,611,032
Wind-up excess (shortfall)	$241,041	($27,122)
Transfer ratio[1]	111%	99%
Solvency Financial Position		
Wind-up assets	$2,452,502	$2,583,910
Solvency asset adjustment	$53,349	($198,978)
Smoothed solvency assets	$2,505,851	$2,384,932
Wind-up liability	$2,211,461	$2,611,032
Value of excluded benefits	($66,406)	($78,696)
Solvency liability adjustment	$322,966	$229
Smoothed solvency liabilities	$2,468,021	$2,532,565
Solvency surplus (shortfall)	$37,830	($147,633)
Solvency ratio[2]	114%	102%

[1] Asset value for transfer ratio is based on market value of assets before termination expense provision.

[2] Solvency ratio is based on market value of assets before termination expense provision and before smoothing impacts, per pension regulations.

($000's)	07.01.2023	07.01.2021
Funding Requirements in the Year Following the Valuation[3]		
Total current service cost	$63,240	$59,690
Provision for adverse deviations in respect of current service cost	$4,757	$4,570
Estimated members' required contributions	($33,617)	($29,879)
Estimated University's current service cost	$34,380	$34,381
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	102%	115%
Minimum special payments	$0	$0
Estimated minimum University contribution	$0[4]	$34,381
Estimated maximum eligible University contribution	$34,380	$61,503
Next required valuation date	July 1, 2026	July 1, 2024

[3] 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.

[4] 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 2000 (the "Plan"), sponsored by McMaster University (the "University"), as at the valuation date, July 1, 2023. 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, 2023 on going concern, hypothetical wind-up, and solvency bases;
- The minimum required funding contributions from July 1, 2023, in accordance with the *Pension Benefits Act (Ontario)* (the "Act"); and
- The maximum permissible funding contributions from July 1, 2023, 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, 2026 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.

- As instructed by the University, we have reflected the impact of various plausible adverse scenarios on the going concern, solvency and hypothetical wind-up financial position.

Events since the Last Valuation at July 1, 2021

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, 2023. The Plan has been amended since the date of the previous valuation to reflect the increase in required contributions for certain 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:	5.70%	5.10%
Interest on member contributions:	5.70%	5.10%
Post-retirement pension increases:	Unifor Hired on or After May 1, 2010 **Year** / **Rate** 2024 0.35% 2025 0.32% 2026 0.53% 2027 0.00% 2028 2.10% 2029 onwards 0.70% Other **Year** / **Rate** 2024 0.85% 2025 0.82% 2026 1.03% 2027 0.00% 2028 2.59% 2029 onwards 1.20%	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%
Discount rate for benefits assumed to be settled through a lump sum:	4.40% for all future years	1.8% for 10 years, 3.3% thereafter

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 September 14, 2021, the Canadian Institute of Actuaries (the “CIA”) published a revised version of Section 3500 of the Standards of Practice on Pension Commuted Values (the “Commuted Value Standards”) which became effective February 1, 2022.

The revised Commuted Value Standards affect implied rates of inflation used for purposes of calculating commuted values from registered pension plans and affirmed that the select and ultimate non-indexed interest rates cannot be less than zero. 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 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. There is no financial impact to the Plan related to these changes.

Subsequent Events

The statement of investment policies and procedures for the Plan has been amended effective October 26, 2023 to revise, among other things, the Plan’s target asset mix. As permitted by actuarial standards, the impact of this change will be reflected in future valuations. After checking with representatives of the University, to the best of our knowledge, there have been no other 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, 2023. 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)	07.01.2023	07.01.2021
Assets		
Market value of assets	$2,453,502	$2,584,810
Asset smoothing adjustment	$53,349	($198,978)
Smoothed value of assets	$2,506,851	$2,385,832
Going concern funding target		
Going concern liabilities:		
• Active members	$957,620	$956,330
• Pensioners and survivors	$1,099,281	$1,092,168
• Deferred pensioners	$55,180	$53,074
Subtotal	$2,112,081	$2,101,572
Provision for adverse deviations in respect of going concern liabilities as prescribed by the Act	$155,373	$156,056
Total	$2,267,454	$2,257,628
Funding excess (shortfall)[5]	$239,397	$128,204

The going concern liabilities at July 1, 2023 do not include an additional margin for adverse deviations beyond the provision for adverse deviations prescribed by the Act.

[5] 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		$128,204
Provision for Adverse Deviations (PfAD) at previous valuation		$156,056
Funding excess (shortfall) before PfAD		$284,260
Interest on funding excess (shortfall) before PfAD at 5.10% per year		$29,734
University's special payments, with interest		$13,181
Expected funding excess (shortfall)		$327,175
Net experience gains (losses)		
• Net investment return	($327,506)	
• Impact of asset smoothing	$273,140	
• Increases in pensionable earnings	($4,271)	
• Increases in YMPE/maximum pension limit	($4,304)	
• Indexation	$39,575	
• Mortality	$9,320	
• Retirement	$5,077	
• Termination	($730)	
• Interest on member contributions	($5,245)	
Total experience gains (losses)		($14,944)
Impact of changes in assumptions		
• Discount rate	$125,425	
• Interest rates for determining commuted values	$25,117	
• Post-retirement pension increase assumption	($69,083)	
Total assumption changes impact		$81,459
Net impact of other elements of gains and losses		$1,080
Funding excess (shortfall) before PfAD		$394,770
Provision for Adverse Deviations at current valuation		($155,373)
Funding excess (shortfall) as at current valuation		$239,397

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)	2023/2024	2021/2022
Total current service cost[6] excluding the provision for adverse deviations	$63,240	$59,690
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	$4,757	$4,570
• As a percentage of members' required contributions	14%	15%
Estimated members' required contributions	($33,617)	($29,879)
Total estimated University's current service cost		
• As a dollar amount per year	$34,380	$34,381
• As a percentage of members' required contributions	102%	115%

The key factors that have caused a change in the University's current service cost, including the provision for adverse deviations, since the previous valuation are summarized in the following table:

University's current service cost as at previous valuation	115%
Demographic changes	(6%)
Plan amendments	(2%)
Changes in assumptions and methods	(5%)
University's current service cost as at current valuation	102%

[6] Total current service cost includes $3,782,000 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	$2,112,081	$2,358,413
Current service cost		
• Total current service cost	$63,240	$72,406
• Estimated members' required contributions	($33,617)	($33,617)
Estimated University's current service cost	$29,623	$38,789

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)	07.01.2023	07.01.2021
Assets		
Market value of assets	$2,453,502	$2,584,810
Termination expense provision	($1,000)	($900)
Wind-up assets	$2,452,502	$2,583,910
Present value of accrued benefits for:		
• Active members	$1,031,976	$1,261,383
• Pensioners and survivors	$1,119,943	$1,275,281
• Deferred pensioners	$59,542	$74,368
Total wind-up liability	$2,211,461	$2,611,032
Wind-up excess (shortfall)	$241,041	($27,122)
Transfer ratio	111%	99%

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)	07.01.2023	07.01.2021
Number of years covered by report	3 years	3 years
Hypothetical wind-up incremental cost	$187,015	$258,475

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	$2,211,461	$2,457,493

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)	07.01.2023	07.01.2021
Assets		
Market value of assets	$2,453,502	$2,584,810
Termination expense provision	($1,000)	($900)
Net assets	$2,452,502	$2,583,910
Liabilities		
Total hypothetical wind-up liabilities	$2,211,461	$2,611,032
Difference in circumstances of assumed wind-up	$0	$0
Value of excluded benefits	($66,406)	($78,696)
Liabilities on a solvency basis	$2,145,055	$2,532,336
Surplus (shortfall) on a market value basis	$307,447	$51,574
Solvency liability adjustment	($322,966)	($229)
Solvency asset adjustment	$53,349	($198,978)
Solvency surplus (shortfall)	$37,830	($147,633)
Solvency ratio	114%	102%

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 member contributions	Provision for adverse deviations related to monthly current service cost	Monthly current service cost and provision for adverse deviations	Available actuarial surplus applied[7]	Minimum monthly contributions
July 1, 2023	$2,801,000	$396,000	$2,865,000	$2,865,000	$0
July 1, 2024	$2,801,000	$396,000	$2,865,000	$2,865,000	$0
July 1, 2025	$2,801,000	$396,000	$2,865,000	$2,865,000	$0

[7] Notwithstanding the available actuarial surplus in the Plan, the terms of the Plan may require the University to make current service cost contributions.

Period beginning	University's contribution rule[8]		
	Monthly current service cost	Provision for adverse deviations in respect of current service cost	Total
July 1, 2023	88%	14%	102%
July 1, 2024	88%	14%	102%
July 1, 2025	88%	14%	102%

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 are made 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

[8] Expressed as a percentage of members' required contributions.

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

Since the surplus does not exceed 25% of the going concern funding target, the University may make monthly contributions of up to 102% 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:		$2,506,851,000
	(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:		$239,397,000
	a. the going concern liabilities		
	(i) liabilities excluding the value of escalated adjustments	$1,942,158,000	
	(ii) liabilities in respect of escalated adjustments	$169,923,000	
	b. the provision for adverse deviations in respect of the going concern liabilities excluding the value of escalated adjustments	$155,373,000	
	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	1.19
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.	1.11
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	1.14
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.	$2,453,502,000

Defined Term	Description	Result
Solvency Asset Adjustment	The sum of:	
	(a) the difference between smoothed value of assets and the market value of assets	$53,349,000
	(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, 2021 valuation and scheduled for payment between July 1, 2023 and June 30, 2024.	$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
		$53,349,000
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, (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.	$2,145,055,000
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.	$322,966,000

Defined Term	Description	Result
Solvency Deficiency	The amount, if any, by which the sum of:	
	(a) the Solvency Liabilities	$2,145,055,000
	(b) the Solvency Liability Adjustment	$322,966,000
	(c) the Prior Year Credit Balance	$0
		$2,468,021,000
	Exceeds the sum of	
	(d) the Solvency Assets net of estimated termination expenses[9]	$2,452,502,000
	(e) the Solvency Asset Adjustment	$53,349,000
		$2,505,851,000
		$0
Reduced Solvency Deficiency / (Solvency Excess)	The sum of:	
	(a) 85% of the Solvency Liabilities	$1,823,297,000
	(b) 85% of the Solvency Liability Adjustment	$274,521,000
	(c) the Prior Year Credit Balance	$0
		$2,097,818,000
	minus the sum of:	
	(d) the Solvency Assets net of estimated termination expenses[8]	$2,452,502,000
	(e) the Solvency Asset Adjustment	$53,349,000
		$2,505,851,000
		($408,033,000)

[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 University 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)	0.0%		
• 0.5 × Investment Component × Investment Component Alternative Investment % (0.5 x N × Q)	0.0%		
		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,	**10.09**
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	$1,942,158,000
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%	$2,138,128,000

Benchmark Discount Rate (E)	
Base rate	0.50%
Effective yield from CANSIM Series V39056 (H)	3.09%
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	7.19%

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	10.09	
Multiplied by:		
– Going concern valuation gross discount rate net of active investment management fees (D), less	5.70%	
– Benchmark Discount Rate (E)	7.19%	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		$2,506,851,000	
Over			
• Going concern liabilities	$2,112,081,000		
• Provision for adverse deviations in respect of the going concern liabilities	$155,373,000		
• Prior Year Credit Balance	$0		
		$2,267,454,000	
		$239,397,000	(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		$2,453,502,000	
Over			
• Wind-up liabilities × 105%		$2,322,034,000	
		$131,468,000	(b)
The available actuarial surplus = the lesser of a) and b) above		$131,468,000	

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 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, 2026.

Special Payments

As the Plan does not have a funding shortfall 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 and additional information required under Section 3 of the Regulation 909 under the Act is as follows:

Solvency assets	$2,453,502,000	(a)
PBGF liabilities	$2,145,055,000	(b)
Solvency liabilities	$2,145,055,000	(c)
Ontario asset ratio	100.0%	(d) = (b) ÷ (c)
Ontario portion of the fund	$2,453,502,000	(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	$981,038,000
Number of Ontario Plan beneficiaries	7,684
Number of Ontario Plan beneficiaries receiving monthly pensions (including bridge benefit) of $1,500 or less	875
Number of Ontario Plan beneficiaries who have accrued monthly pensions (including bridge benefit) of $1,500 or less	3,815
Amount of largest monthly pension or monthly pension benefit (including bridge benefit) that has accrued under the plan to an Ontario beneficiary	$12,491

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	$3,858	$545,787,953
80th	$2,045	$313,543,858
70th	$1,240	$178,449,083
60th	$746	$99,256,571
50th	$404	$58,327,189
40th	$242	$34,381,300
30th	$133	$21,081,981
20th	$66	$14,351,195
10th	$27	$11,178,640

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	$6,988	$753,439,245
80th	$5,272	$564,777,165
70th	$4,011	$412,487,478
60th	$3,086	$289,898,456
50th	$2,369	$193,097,211
40th	$1,759	$118,804,460
30th	$1,302	$66,881,234
20th	$917	$29,618,281
10th	$451	$7,467,406

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, 2021 to July 1, 2022	July 1, 2022 to July 1, 2023
July 1	$2,591,030	$2,211,844
PLUS		
Members' contributions	$30,974	$32,911
University's contributions		
• Current service	$35,055	$36,935
• Past service	$12,233	$0
Investment income	$53,058	$50,597
Net capital gains (losses)	($385,091)	$235,968
	($253,771)	$356,411
LESS		
Pensions paid	$88,524	$91,801
Lump-sums paid	$29,542	$13,695
Administration and investment fees	$7,349	$7,646
	$125,415	$113,142
July 1	$2,211,844	$2,455,113
Gross rate of return[10]	-12.93%	13.08%
Rate of return net of expenses[9]	-13.20%	12.71%

[10] 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	$2,455,113	$2,591,030
In-transit amounts		
• Benefit payments	($1,611)	($6,220)
Market value of assets adjusted for in-transit amounts	$2,453,502	$2,584,810

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, 2023
	Minimum	Target	Maximum	
Canadian Equities	8%	13%	18%	11.2%
Foreign Equities	25%	42%	59%	48.3%
Real Assets	5%	10%	15%	8.5%
Bonds	20%	35%	50%	31.6%
Cash and cash equivalents	0%	0%	10%	0.4%
		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) Recognized
2022/2023	80%
2021/2022	60%
2020/2021	40%
2019/2020	20%
before 2019	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, 2023 was derived as follows:

($000's)		
Market value of assets		$2,455,113
LESS		
Unrecognized investment gains/(losses)	2022/2023: $167,024 × 80% =	$133,619
	2021/2022: ($470,510) × 60% =	($282,306)
	2020/2021: $248,231 × 40% =	$99,292
	2019/2020: ($19,771) × 20% =	($3,954)
		($53,349)
Smoothed value of assets		$2,508,462

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	$2,508,462	$2,392,052
In-transit amounts		
• Benefit payments	($1,611)	($6,220)
Smoothed value of assets, adjusted for in-transit amounts	$2,506,851	$2,385,832

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:	5.70%	5.10%
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
Post-retirement pension increases:	Unifor Hired on or After May 1, 2010 **Year** **Rate** 2024 0.35% 2025 0.32% 2026 0.53% 2027 0.00% 2028 2.10%	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%

Assumption	Current valuation		Previous valuation	
	2029 onwards	0.70%	2027 onwards	0.10%
	Other		Other	
	Year	**Rate**	**Year**	**Rate**
	2024	0.85%	2022	1.45%
	2025	0.82%	2023	2.00%
	2026	1.03%	2024	2.00%
	2027	0.00%	2025	2.00%
	2028	2.59%	2026	2.00%
	2029 onwards	1.20%	2027 onwards	0.60%
Interest on member contributions:	5.70%		5.10%	
Retirement rates:	<u>Not eligible for unreduced pension</u> 5% under age 60, 10% at each of ages 60-64 <u>Eligible for an unreduced pension</u> 8% under age 60, 12% at each of ages 60-64 <u>All members</u> 30% at age 65, 20% at each of ages 66-70, 100% at age 71		<u>Not eligible for unreduced pension</u> 5% under age 60, 10% at each of ages 60-64 <u>Eligible for an unreduced pension</u> 8% under age 60, 12% at each of ages 60-64 <u>All members</u> 30% at age 65, 20% at each of ages 66-70, 100% at age 71	
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		90% of the rates of the 2014 Public Sector Canadian Pensioners	

Assumption	Current valuation	Previous valuation
	Mortality Table (CPM2014Publ)	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	65% of terminations and 10% of retirements are assumed to receive a lump sum transfer
Actuarial basis for benefits assumed to be settled through a lump sum:	Discount rate: 4.40% for all future years Mortality rates: CPM2014 with fully generational improvements using CPM-B	Discount rate: 1.8% for 10 years, 3.3% thereafter Mortality rates: CPM2014 with fully generational improvements using CPM-B
Eligible spouse at retirement:	70%	70%
Spousal age difference:	Male spouse is 2 years older	Male spouse is 2 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 for 2023/2024 and assumed that such pensionable earnings will increase at the assumed rate from July 1, 2024.

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. 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 (fixed-income investments reflect a transition from current market interest rates to an equilibrium yield curve), 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 for the University's salaried pension plans combined. These 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	5.88%
Provision for administrative, actuarial and passive investment management fees	(0.20%)
Rounding to nearest 10 basis points	0.02%
Net discount rate	5.70%

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 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.

Mortality Rates
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 23.9 years for males and 25.8 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, 2023.

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, 2022 and no later than June 29, 2024 (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 0.2%.

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:	4.40% per year for all future years (2.88% per year for 10 years, 3.60% 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 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:	4.86% (3.48% for solvency liability adjustment) per year based on a duration of 9.47 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
2024	0.35%
2025	0.16%
2026	0.19%
2027	0.00%
2028	1.43%
2029 onwards	0.00%

Other Members

Year	Rate
2024	0.85%
2025	0.66%
2026	0.69%
2027	0.00%
2028	1.93%
2029 onwards	0.36%

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:	$3,506.67 increasing at 2.72% per year for all future years (2.24% per year for 10 years, 2.70% for solvency liability adjustment).
Termination expenses:	$1,000,000

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 for the next 3 years, we have added to the projected liability an amount equal to 150% of the liability of new entrants that have joined the Plan in the 2 years 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, 2023, 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.

	07.01.2023	07.01.2021
Active Members		
Full-time		
Number	3,724	3,409
Average pensionable earnings for the following year	$101,850	$98,740
Average years of pensionable service	11.0	11.8
Average age	46.1	46.8
Accumulated contributions with interest	$442,101,510	$395,742,182
Part-time		
Number	485	428
Average pensionable earnings for the following year	$67,998	$65,086
Average years of pensionable service	5.8	7.9
Average age	43.3	45.7
Accumulated contributions with interest	$19,113,253	$22,643,884
Deferred Pensioners		
Number	951	916
Average annual pension	$5,526	$5,325
Average age	51.7	52.5
Pensioners and Survivors		
Number	2,524	2,394
Total annual lifetime pension	$93,244,861	$86,340,746
Total annual temporary pension	$370,799	$587,945
Average annual lifetime pension	$36,943	$36,065
Average age	75.4	74.9

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 01.07.2021	3,837	916	2,394	7,147
New entrants	986			986
Rehires	6	(6)		0
Terminations:				
• Transfers/lump sums	(267)	(75)		(342)
• Deferred pensions	(161)	161		0
Deaths	(13)	(3)	(141)	(157)
Retirements	(178)	(39)	217	0
Beneficiaries			53	53
Benefit expired			(3)	(3)
Data adjustments	(1)	(3)	4	0
Total at 01.07.2023	4,209	951	2,524	7,684

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	Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 +	Total
Under 25	62									62
	54,724									54,724
25 to 29	306	13								319
	61,125	69,398								61,463
30 to 34	378	120	5							503
	70,739	71,844	71,757							71,013
35 to 39	349	169	76	10						604
	82,418	84,036	78,902	79,229						82,375
40 to 44	227	152	110	66	4					559
	80,748	106,165	99,824	86,772	113,532					92,359
45 to 49	148	107	124	106	58	2				545
	85,373	96,126	124,241	124,891	95,875	*				105,048
50 to 54	96	78	85	129	126	34	7			555
	92,577	100,905	113,752	122,800	141,434	96,684	109,919			115,577
55 to 59	61	42	66	126	132	45	33	8	1	514
	90,073	85,078	97,531	114,146	153,582	150,185	85,962	98,019	*	117,927
60 to 64	35	27	53	83	83	36	39	26	4	386
	72,119	88,103	92,917	112,430	139,810	144,716	156,496	112,729	64,660	117,270
65 to 69	10	13	16	13	26	12	25	19	7	141
	76,129	124,651	149,323	144,420	178,817	124,110	173,632	185,840	151,350	154,029
70+	2	2	1	1	3		6	5	1	21
	*	*	*	*	163,043		162,924	148,005	*	150,974
Total	1,674	723	536	534	432	129	110	58	13	4,209
	75,529	91,111	104,887	114,968	140,859	130,775	136,617	137,691	124,033	97,949

*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:

Age	Deferred Pensioners			Pensioners and Survivors	
	Number	Average Annual Pension		Number	Average Annual Pension
Under 25	1	*			
25 - 29	24	693			
30 - 34	53	1,515			
35 - 39	58	2,840			
40 - 44	124	4,483			
45 - 49	124	6,259			
50 - 54	153	5,840		5	31,368
55 - 59	195	7,398		57	29,432
60 - 64	150	7,438		221	35,636
65 - 69	47	3,664		471	34,483
70 - 74	19	1,853		530	38,035
75 - 79	3	733		512	40,127
80 - 84				336	41,366
85 - 89				231	34,949
90 - 94				119	30,488
95 - 99				35	25,897
100+				7	11,869
Total	951	5,526		2,524	36,943

*For individual cells with information on two 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, 2023. Since the previous valuation, the Plan has been amended to reflect the increase in required contributions for certain 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, 2023. 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 participated in 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 to June 11, 2022 June 12, 2022 onwards	7.646% / 10.646% 8.646% / 11.646% 8.423% / 11.423% 8.73% / 11.73%
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 to June 11, 2022 June 12, 2022 onwards	7.56% / 10.56% 7.646% / 10.646% 7.423% / 10.423% 7.73% / 10.73%
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	7.0% / 10.0%
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 Oct. 6, 2019 onwards	7.0% / 10.0% 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 + Pensionable Service 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 Pensionable Service 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.

Retirement Dates (continued)	Class	Retirement Date	Points Required
	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 • \$3,506.67 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 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 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 90 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 1.5 years, respectively.

($000's)	Going Concern Valuation Results as at 07.01.2023	Plausible Adverse Scenario Results as at 07.01.2023		
		Interest Rate Risk	Deterioration of Asset Values	Longevity Risk
Market value of assets	$2,453,502	$2,546,796	$2,249,728	$2,453,502
Going Concern Financial Status				
Smoothed value of assets	$2,506,851	$2,525,509	$2,466,096	$2,506,851
Going concern funding target	$2,112,081	$2,178,127	$2,112,081	$2,169,422
Provision for Adverse Deviations	$155,373	$160,231	$155,373	$159,591
Funding excess (shortfall)	$239,397	$187,151	$198,642	$177,838
Estimated University's Current Service Cost including Provision for Adverse Deviations				
July 1, 2023	$34,380	$36,860	$34,380	$36,056
July 1, 2024	$34,380	$36,860	$34,380	$36,056
July 1, 2025	$34,380	$36,860	$34,380	$36,056

($000's)	Hypothetical Wind-Up and Solvency Position as at 07.01.2023	Plausible Adverse Scenario Results as at 07.01.2023		
		Interest Rate Risk	Deterioration of Asset Values	Longevity Risk
Hypothetical Wind-up Financial Position				
Market value of assets	$2,453,502	$2,546,796	$2,249,728	$2,453,502
Termination expense provision	($1,000)	($1,000)	($1,000)	($1,000)
Wind-up assets	$2,452,502	$2,545,796	$2,248,728	$2,452,502
Wind-up liabilities	$2,211,461	$2,428,249	$2,211,461	$2,255,241
Wind-up excess (shortfall)	$241,041	$117,547	$37,267	$197,261
Solvency Financial Position				
Reduction in wind-up liabilities due to excluded benefits	$66,406	$72,916	$66,406	$67,721
Solvency liability adjustment	($322,966)	($167,257)	($322,966)	($337,821)
Solvency asset adjustment	$53,349	($21,287)	$216,368	$53,349
Solvency surplus (shortfall)	$37,830	$1,919	($2,925)	($19,490)
Solvency ratio	114%	108%	105%	112%
Transfer ratio	111%	105%	102%	109%

	Minimum Annual Special Payments as at 07.01.2023[11]	Plausible Adverse Scenario Results as at 07.01.2023		
		Interest Rate Risk	Deterioration of Asset Values	Longevity Risk
July 1, 2023	$0	$0	$0	$0
July 1, 2024	$0	$0	$0	$0
July 1, 2025	$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, 2023, would be an excess in the Plan of $241,041,000.

[11] A new special payment is assumed to start 1 year have 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 include the following categories 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 90 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 5.70% to 5.40%. Hypothetical wind-up: The interest rates used in the valuation were reduced by 90 basis points. Solvency: The interest rates used in the valuation were reduced by 90 basis points. For purposes of determining the solvency liability adjustment, the interest rates used in the valuation were reduced by 18 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[12] will be in line with the average improvements experienced by the Canadian population[13] 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.

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[12] i.e. starting one year after the valuation in this context
[13] Based on Canadian population experience from the Human Mortality Database from 2002 to 2016
[14] improvement rates below age 45 are set to those at age 45

Appendix H

University certification

With respect to the Report on the Actuarial Valuation for Funding Purposes as at July 1, 2023 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 reflect 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, 2023 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, 2023.
- All events subsequent to July 1, 2023 that may have an impact on the Plan have been communicated to the actuary.

Date	Signed
	Saher Fazilat
	Name

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McMaster University

GOVERNANCE BODY	Planning and Resources Committee (PRC)
ITEM/SUBJECT	**Statement of Investment Policies and Procedures**
DATE	February 8, 2024
LEADS	Steven Moore, University Treasurer
GOVERNANCE PATH	Investment Pool Committee (IPC), **PRC**, Board of Governors
MOTION	That the Planning and Resources Committee approve, for recommendation to the Board of Governors, the updated Statement of Investment Policies and Procedures, including updated Asset Mix, for the Investment Pool
JURISDICTION	n/a
SUPPLEMENTAL MATERIALS	Statement of Investment Policies and Procedure Investment Pool

EXECUTIVE SUMMARY

The IPC reviewed and approved the updated Statement of Investment Policies and Procedures ("SIPP") and updated asset allocation ("Asset Mix") at the December 7, 2023 meeting. The Asset Mix reflects Phase 1 of the transition to the longer-term strategic asset mix developed based on the most recently completed endowment sustainability & asset allocation and climate risk review ("Investment Strategy Review"). The longer-term strategic asset mix once implemented is expected to improve return and reduce risk (refer to Appendix A for a detailed summary of the Investment Strategy Review).

The implementation of the transition to the strategic asset mix will be completed over three phases with target completion by 2026. The first phase is reflected in the recommended changes to the Asset Mix included in the updated SIPP, which include updates as follows:

1. Increase allocation to Real Assets from 20% to 25%, funded by reducing allocation to equities.
2. Reduce allocation to Canadian Equities from 10% to 5%.

BACKGROUND

Investment Strategy Review

Investment Strategy Reviews are conducted every five years to determine whether changes would be beneficial to meet Investment Pool objectives. The results of the Investment Strategy Review concluded that the implemented investment strategy recommendations from the previous review remain appropriate, with some refinements. The previous Investment Strategy Review's primary recommendation was to implement a transition to include 20% in real assets. This has been completed. The benefit of the increased allocation to real assets is an expected improvement in risk and return. The probability of achieving the real return target has improved from 29%, measured at last study, to 42%. The goal is to increase the probability to 50%, such that it is expected that the portfolio achieves the real return of CPI+5% in the next 10-year period.

The current Investment Strategy Review recommends building on the real asset portfolio by increasing real assets by 5% from 20% to 25% and also recommends allocations to two new diversifiers: (1) non-traditional fixed income (return seeking bonds) and (2) private credit, each for a 5% allocation respectively. These recommended allocations are to be funded by reducing the allocation to public equities by 15% from 60% to 45%. The Real Assets implementation will focus on infrastructure investments. In addition, it is recommended that the public equities investments portfolio transition from regional allocations to global allocations, which will further optimize the expected return and risk profile, by allowing managers to deploy investments in the best ideas globally.

These changes to the asset mix, once implemented, is expected to increase expected return by 15 bps, reduce risk (expected volatility) by 105 bps, and increase probability of achieving the real return objective to 44%. In addition, the updated target asset mix is expected to improve the portfolio's exposure to negative case climate value at risk over the 10-year horizon.

SIPP Annual Review

The Investment Pool Statement of Investment Policy and Procedures (SIPP) is reviewed annually. Aon (investment consultant to IPC) has reviewed the existing policy in detail. The proposed revisions update the policy to reflect the Asset Mix recommendation associated with Phase 1 of the Investment Strategy Review recommendations and to reflect several items of a housekeeping nature (summarized in Table 1).

Refer to Appendix A. for Investment Strategy Review (page 3), Appendix B. SIPP (Clean version), Appendix C SIPP (Blacklined Version), Appendix D. SIPP (Current version).

Table 1. Summary of Proposed SIPP Changes (material changes - not an exhaustive list)

Reference	Comments
Section 8 (pg. 7)	Strategic Asset Allocation has been updated to reflect the recommendations from the most recently completed investment strategy review. The updated Strategic Asset Allocation reflects the phase 1 implementation of the Investment Strategy Review recommendations.

STRATEGIC ALIGNMENT

The IPC monitors investment performance and provides oversight to ensure funds are invested responsibly and are aligned with investment objectives of the Investment Pool. The work of the IPC is aligned with McMaster's strategic plan with a focus on operational excellence and sustainability.

RISK AND MITIGATION STRATEGIES

Risk	Risk Mitigation Strategy
Risk that the SIPP and Asset Mix are not aligned with Investment Pool objective and climate-related risk objectives	Mitigation strategies include quarterly monitoring of Investment Pool relative to objectives and undertaking an Investment Strategy Review every five years to ensure asset allocation and performance expectations reasonably align with investment objectives.

RECOMMENDATIONS AND NEXT STEPS

Following Board approval of the recommended SIPP, the implementation of Phase 1 of the transition plan (refer to page 5) will begin. The transition plan actions include but are not limited to manager searches, asset mix rebalancing, and obtaining the necessary governance approvals.

Appendix A. Background – Endowment Spending and Asset Allocation Analysis

The Investment Pool Committee ("Committee") met to review assumptions, analysis and detailed reports prepared by Aon related to the endowment & asset allocation study and climate risk review ("Investment Strategy Review"). The Committee met on June 29, 2023, to review the final Investment Strategy Review recommendations (summarized in Exhibit A: Summary of the Impact of Transitioning to Recommended Strategic Asset Mix, pg.6)

The analysis included traditional asset classes plus real estate and infrastructure ("Real Assets"), return seeking fixed income[1] and private investments, incorporated endowment target spending levels, and the impact of different asset mixes on achieving long-term endowment spending as well as climate risk scenarios. The asset classes selected for inclusion followed a review of a range of options presented by Aon.

The endowment spending and strategic asset allocation review objectives were set by management and the Committee. These included:

- maximizing the probability of achieving real return objectives to support the goal of intergenerational equity.
- reducing risk as measured by volatility & improve expected return; and
- climate risk assessment of investment strategies - goal of reducing exposure to downside climate risk scenarios.

The analysis was developed using Aon's stochastic endowment payout analysis model and primary inputs included projected economic factors such as inflation, interest rates, and asset class returns. The model produced a distribution of results for the key measurements (i.e., expected returns and volatility and probability of achieving the real return target) for the current asset mix along with alternative portfolios. In addition, the analysis included Aon developed climate related scenarios[2] to assess the resiliency of the current investment strategy relative to other alternative investment strategies.

The stochastic analysis model integrates projected fund inflows, spending policy and investment returns to gain a better understanding of the likelihood of meeting the University's goals:

- Model projects 5,000 annual simulations of spending and asset values, over the next 10 years
- The output consists of percentile values for asset values and spending for 95th (most optimistic), 75th, median 50th(expected), 25th and 5th (most pessimistic) in both nominal and real terms.
- Determine the probability of preserving purchasing power (achieving CPI+5%)

Analysis and Observations

The objective of the analysis was to identify opportunities to improve probability of achieving real return objectives over the 10-year projection period, while reducing risk (measured by volatility of return) and improving expected return relative to the current strategic asset mix.

The analysis highlighted that the current strategic asset allocation has a 42% probability of achieving the required real return of 5% over the next ten-year period, which is a significant improvement up from 29% at the last endowment spend analysis 2018. The primary reason for the increased probability was due to the implementation of the approved real asset strategy which increased real assets by 15% from 5% to 20%.

Although there is an improvement, the current strategic asset allocations expected nominal return of 6.7% is expected to fall short of Aon's estimate of the required nominal return of 7.3% to achieve the target real return over the next 10-year period.

[1] Return Seeking Fixed Income – Includes as diversified portfolio of fixed income investments. For asset/liability modeling purposes – the model portfolio included investment allocations as follows: 1/3rd. Bank loans, 1/3rd unhedged foreign currency bonds (emerging market debt) and 1/3rd high yield bonds.
[2] The climate risk study used five deterministic scenarios, based on assumed temperature rise by the year 2100, to estimate potential impact returns for the investment portfolio. The five scenarios included: 1. No transition (4-degree scenario), 2. Disorderly transition (3-degree scenario), 3. abrupt transition (1.5 to 2-degree scenario) 4. Orderly transition (1.3 to 2-degree scenario) and 5. Smooth transition (less than 1.5- degree scenario).

Aon used its multi-variate stochastic simulation model, to narrow down the potential strategic asset allocation options that would support the goal of increasing the likelihood of achieving the target return for the endowment while reducing risk.

Five alternative portfolios were reviewed with the committee, which included the addition of new asset classes and mix shifts in a stepwise fashion. All of the proposed alternative asset mixes increased the expected return and reduced the downside negative returns. The reason for this is the addition of new asset classes improves diversification and investment outcomes. The primary driver is transitioning away from public equities to private assets reduces volatility (Aon adjusted private returns for the valuation lag impacts for an apples-to-apples comparison).

In addition, Aon prepared a climate risk analysis which examined the impact of various adverse scenarios on the current and proposed investment mix. The climate risk analysis was used as an additional lens to examine the current and alternative strategic asset allocations. Aon applied five deterministic scenarios, based on assumed temperature rise by the year 2100, to estimate potential impact returns for the investment portfolio. The five scenarios included: 1. No transition (4-degree scenario), 2. Disorderly transition (3-degree scenario), abrupt transition (1.5 to 2-degree scenario) 4. Orderly transition (1.3-to-2-degree scenario) and 5. Smooth transition (less than 1.5-degree scenario). All of the proposed portfolios improved exposure to the climate risk adverse scenario over the 10-year horizon, relative to the current portfolio asset mix.

Aon and the IPC reviewed the five proposed portfolios and the impact on return, liquidity risk and climate risk.

Key observations:

- Addition of return seeking fixed income and private credit, while reducing equities and increasing Real Assets, improved return, and improved risk to extremely negative outcomes – Portfolio C (refer to Exhibit A, pg. 6)
- Addition of private equity while reducing public equity could further enhance return.

Current Versus Proposed Allocations

Based on Aon's 10-Year Capital Market Assumptions as of 12/31/2022

		2024 Phase 1 A	2025 Phase 2 B	Target 2026 Phase 3 C
	Current[3]	Increase Infrastructure	Add Return-Seeking FI, Add Global Equity	Add PD
Canadian Equity	10	5	5	5
U.S. Large Cap	20	20	–	–
U.S. Small Cap	5	5	5	5
International Developed Equity	25	25	5	–
Global Equity	–	–	35	35
Private Equity	–	–	–	–
Liquid Return-Seeking Fixed[1]	–	–	5	5
Private Credit[2]	–	–	–	5
Core U.S. Real Estate	10	10	10	10
Infrastructure	10	15	15	15
Total Return-Seeking Assets	**80%**	**80%**	**80%**	**80%**
Universe Bonds	20	20	20	20
Total Risk-Reducing Assets	**20%**	**20%**	**20%**	**20%**

1) Modeled as 1/3 high yield bonds, 1/3 emerging market bonds and 1/3 bank loans
2) Represents by mostly U.S. middle market, senior corporate loans
3) Current is modeled assuming 12.5% U.S. Large Cap is hedged and 7.5% is unhedged

Key Takeaways

- Adding new asset classes in a stepwise fashion improves returns and lowers volatility relative to the current portfolio
- Reducing home country bias and moving to a global equity portfolio will provide greater flexibility to add value
- Reduce overall public equity exposure and diversify among other return-seeking assets
- Additional investments in private assets takes advantage of the illiquidity premium

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Conclusion of the analysis:

Transition to increase allocation to alternative assets such as infrastructure, private credit and return seeking fixed income while reducing allocations to public equities is expected to generate higher expected returns relative to the existing asset mix, while reducing risk. The selective addition of private assets monetizes the illiquidity premium.

The Committee discussed various topics including the impact of the high inflation environment, the lag effect of private asset valuations on volatility measurement, passive investment management, geographic restrictions for global mandates.

The Committee deliberated over the long-term strategy mix that McMaster should proceed with the implementation of Portfolio C – which entails a transition from regional equity allocations to global equities mandates, retaining a 5% allocation each to Canada and U.S. small cap equities, a 5% increased allocation to infrastructure, and a 5% allocation each to return seeking fixed income and private debt, as the updated target strategic asset allocation. The Committee acknowledged that the recommended changes would be beneficial, given the potential improvement in risk return profile, through better diversification of the return seeking assets. (refer to Exhibit A)

It should be noted that IPC also reviewed the merits of incorporating private equity (Portfolio D and E) which could further enhance return. The IPC concluded that the incorporation of new asset classes should be staged commencing with implementation of private debt and return seeking fixed income in multi-phased plan in order to manage the transition. IPC concluded that private equity should be considered at a future date following the successful transition to the new target asset mix (Portfolio C).

Transition Plan

Aon and Treasury presented a transition plan which transitioned to the longer-term asset mix. Key aspects are:

Phase 1:
- Reduce allocation to Canadian Equities by 5% from 10% to 5%. Target Completion: June 30, 2024
- Real asset transition: Increase allocation to Infrastructure investments by 5% to 25% funded by reducing equities allocation by 5%. Target completion: December 31, 2024

Phase 2:
- Add a 5% allocation each to Return Seeking Fixed Income funded by reducing the current allocation to equities by 5%. Target completion date: December 31, 2025

Phase 3:
- Add a 5% allocation to Private Credit funded by reducing the equities allocation by 5%.
- Complete transition to Global Equities from Regional Equities. Target completion date: December 31, 2026

The Committee reviewed the Aon proposal and agreed to proceed with the proposed transition plan to implement Portfolio C, with a near term focus on Phase 1 of the transition plan.

Exhibit A. Summary of Impact of Transitioning to Recommended Strategic Asset Mix

Executive Summary – Impact of transition to Portfolio C

Asset Allocation – Strategic Asset Mix

	Recommended	Current SIPP
FTSE TMX Canada - Universe	20.0%	20.0%
FTSE TMX Canada + 1% - Return Seeking FI	5.0%	0.0%
Private Credit	5.0%	0.0%
Real Assets	25.0%	20.0%
Canadian Equities	5.0%	10.0%
U.S. Large Cap Equities	0.0%	20.0%
U.S. Small Cap Equities	5.0%	5.0%
Int'l Equities	0.0%	25.0%
Global Equities	35.0%	0.0%
Fixed Income Assets	**20.0%**	**20.0%**
Return-Seeking Assets	**80.0%**	**80.0%**
Alternative Assets	**35.0%**	**20.0%**
Total Equities (Public)	**45.0%**	**60.0%**

Risk-Reward Relationship

	Recommended	Current SIPP
Fixed Income Percentage	20.0%	20.0%
Average Compound Return	6.8%	6.6%
Sharpe Ratio	0.4	0.3
Probability of Preserving Purchasing Power*	44%	42%

	Current SIPP	Recommended
Expected Real Return 10-Yr	4.4%	4.6%
Expected Volatility	10.6%	9.5%
1-Yr 5th Percentile Return	-12.9%	-10.0%
Climate 10-Years Value at Risk	-19.0%	-18.0%

- Re-structuring the portfolio to:
  - Global Equities
  - Increased allocation to Real Assets
  - Revision of fixed income assets to include Return Seeking Bonds and Private Credit

*50% is the probability equal to expecting to preserve purchasing power (i.e. endowment payout, CPI+4%, and admin costs)

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Appendix B. SIPP (Clean version)

BRIGHTER WORLD

Policies, Procedures and Guidelines

DRAFT

Complete Policy Title

Statement of Investment Policies and Procedures – Investment Pool

Policy Number (if applicable):

Approved by

Board of Governors

Date of Most Recent Approval

March 7, 2024

Date of Original Approval(s)

October 19, 1995

Supersedes/Amends Policy dated

April 21, 2022

Responsible Executive

Assistant Vice-President (Administration) & Chief Financial Officer

Policy Specific Enquiries

Assistant Vice-President (Administration) & Chief Financial Officer

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.*

Table of Contents

Section 1 – Preamble

University funds, including specific purpose endowed funds and reserves, and a portion of working capital, are pooled and unitized for investment purposes to create a large investment pool. The larger size of the pool creates greater investment opportunities and benefits from economies of scale.

Section 2 – Definitions

Fund refers to the combined assets of the Investment Pool.

Fund Manager is an external investment manager who invests a segment of the Fund according to guidelines specified in this policy and the mandate given by the University.

Investment Consultant is the external advisor, AON Solutions Canada Inc, selected by the Fund oversightcommittee.

Long Term is defined as a period of 10 years or longer.

Oversight Committee is defined as the Investment Pool Committee, which is a sub-committee of the Planning and Resources under the Board of Governors. Where plural, refers to reporting beyond the Investment Pool Committee to the Planning and Resources Committee unless otherwise noted,

Real Assets refer to real estate and infrastructure investments.

Related Party is defined to be administrator of the Fund, including any officer, director or employee, or any person who is a member of the oversight committees, up to the Board of Governors. Including Fund Manager's and their employees, a spouse or child of the persons named previously, or a corporation that is directly or indirectly controlled by the persons named previously, among others. The concept of "related party" does not include government or a government agency, or a bank, trust company or other financial institution that holds the assets of the Fund, where that person is not the administrator of the Fund.

Total Rate of Return is the time-weighted rate of return based on the change in market value of the Fund over a measured period, calculated in conformity with the standards established by the CFA Institute.

Section 3 – Governance

The University is the administrator of the Investment Pool and the Board of Governors is responsible for the overall management. The Board of Governors has delegated certain duties and responsibilities (including the power to sub-delegate) to the Planning and Resources Committee which, in turn, has delegated certain duties and responsibilities to the Investment Pool Committee, Financial Affairs, and third-party agents to carrying out the Investment Pool duties and adhere to this policy.

Section 4 – Investment Objectives

The primary objective is to generate Long Term average returns sufficient to meet the needs of the University, defined as a Total Rate of Return of 5.0%, after inflation and fees. Subject to an overriding commitment to financial prudence, investment decisions must align with the University's sustainability commitments as a signatory to the United Nations Principles for Responsible Investment (UNPRI) and support a transition to a sustainable, just, and net zero carbon economy and society.

The Principles for Responsible Investment (PRI) is a United Nations-supported international network of investors working six principles:

- **Principle 1**: Signatories will incorporate ESG issues into investment analysis and decision-making p
- **Principle 2**: Signatories will be active owners and incorporate ESG issues into our ownership policies and practices.
- **Principle 3**: Signatories will seek appropriate disclosure on ESG issues by the entities in which we invest.
- **Principle 4**: Signatories will promote acceptance and implementation of the Principles within the investment industry.

- **Principle 5**: Signatories will work together to enhance our effectiveness in implementing the Principles.
- **Principle 6**: Signatories will each report on our activities and progress towards implementing the Principles.

As such, the University's responsible investing approach integrates environmental, social, and governance factors across portfolio strategy, risk management, fund selection, management, monitoring metrics and targets, and reporting.

The secondary objective of the Fund is : Establishing phased action plans toward a net zero (scope 1 and 2) carbon profile across invested assets as soon as practical with periodic target reduction milestones. The Fund will ambitiously target to reduce the carbon intensity of publicly traded assets with milestone objectives of **65%** lower weighted average carbon intensity by 2025, **75%** by 2030, and an aspirational objective of the remainder, thereafter, compared to a 2018 baseline.

Section 5 - Responsible Investing

The University's responsible investing approach integrates environmental, social and governance (ESG) considerations that could pose material risks to or otherwise impact (for better or worse) Long Term return. Further, the University is committed to aligning this policy with the UNPRI principles (above) and reporting its net zero strategy, targets and progress using widely recognized recommendations from the Task Force on Climate-related Financial Disclosures (TCFD). Finally, the University seeks to support positive societal impact that align with the United Nations Sustainable Development Goals (SDGs) and as such will work to measure, track, and reduce carbon intensity across investments while increasing green revenues and holdings in sustainable, renewable, green, and other clean technologies.

ESG considerations are identified as, not limited to, the following:

Environmental: How a company evaluates its operational impact and stewardship on physical natural resources and wild animal life, as well as the exposure of that company to the risks created by climate change. These factors include a company's impact on climate change, including greenhouse gas emissions, biodiversity loss, deforestation, changing land use, air, water, natural resource depletion, waste management, along with impacts on animal habitat, and ocean acidification, as well as physical and transition risks to commercial operations.

Social: How a company evaluates risks associated with human capital through business relationships and agile practices. Factors include a company's policies and approaches on human rights, labour standards, employment equity, diversity, child, slave and bonded labour,workplace health and safety, freedom of association and freedom of expression, human capital management, employee relations. In addition, we will consider where material community impact, activities in conflict zones, health and access to medicine and finance, consumer protections, and relation to controversial weapons and activities. Further, where applicable, social factors extend to a company's position on animal use and/or testing, and how animals are bred or used in food supply chains.

Governance: How a company evaluates operational risks associated with corporate behaviours. These factors include effective disclosures that are relevant, complete, transparent, accurate, and consistent that provide details about a company's board structure, director nomination processes, composition, size, executive pay, shareholder voting rights, diversity skills, independence, stakeholder rights, business ethics, anti-bribery policies, corruption involvement, tax avoidance activity, internal controls, cyber-security, and conflict of interest policies. This area includes a company's position and oversight on sustainability plans and integration of those plans into employee performance assessments and compensation.

Section 6 – Investment Beliefs

The University has a belief that the Fund is a Long-Term asset that requires primarily active management and prudent diversification across asset classes, geographies, and fund manager styles, that taken together will generate fund performance within tolerable volatility and risk profiles and have appropriate liquidity for annual needs. To deliver the objectives of this policy, the University believes the use of third-party experts is appropriate.

Section 7 – Risk

The University takes into consideration the Long-Term nature of the fund and in accordance with the enterprise risk management framework the fund has a high-risk appetite, defined as 10% of available expendable resources. Risk is multi-faceted and cannot be expressed in a single measure and, as such, the University considers and works to manage the following risks and other such other risks that may emerge over time when setting asset mix, targets, and other limits within this policy:

Risk Item	Risk Description	Risk Mitigation Strategy
Volatility Risk	Market cycles and economic disruption impact orderly and smooth return performance of the Fund.	Quarterly the aggregate Fund volatility is reviewed against the permissible ranges determined by the strategic asset allocation within the Fund scorecard. Additionally, Fund Manager volatility is reviewed within the Investment Consultant quarterly report.
Concentration Risk	The Fund asset mix and geography allocations across Fund Managers fails to achieve effective diversification resulting in concentration (or holdings overlap) that is otherwise undetected.	Annually the Fund oversight committee will discuss concentration risk and assess whether any actions are necessary. An investment in the shares of any single company should not exceed 10% of the total market value of all equities held in the investment pool.
Impairment Risk	A decline in the Fund's purchasing power over the Long Term.	Fund performance is monitored quarterly, annually (from inception), and on 4-year annualized return basis to relative benchmarks.
Currency Risk	Exposures to foreign currency can impact return and need to be considered when establishing asset mix.	A minimum of 20% of foreign currencies will be hedged to Canadian currency.
Liquidity Risk	The ability of the Fund to maintain sufficient liquidity to meet spending requirements.	Annual spend requirements are reviewed to ensure the percentage of funds held in illiquid assets will not affect spending requirements.
Governance Risk	Failure to undertake, or demonstrate where delegated, good stewardship and positive engagement activities in relation to Fund assets.	An annual report on active engagements and proxy voting by Fund Managers will be reviewed along with University engagements direct and indirect through partnerships.
Reputation Risk	Failure of the plan to effectively convey is strategic, risk management, metrics, and targets through widely accepted reporting principles to the	The University is a signatory of UNPRI. The plan is also following accelerated decarbonization strategy is underway to deliver a net zero portfolio. A globally recognized reporting framework TCFD has been adopted to promote transparency in the Annual

	satisfaction of broad and varied interest groups.	Financial Report and on the Responsible Investing website.
ESG and Climate-Risk	ESG and climate change implications can have a material impact on the future performance of the Fund, both associated with physical risks and transition risks. Physical risks include acute or increased chronic extreme weather event driven risks. Transition risks include impacts associated with policy, legal, technology, market, and reputation risks.	Fund Managers are asked to report, at minimum annually, on how physical and transition risks (and opportunities) are factored into individual company selection and the overall product profile. Fund Managers are required to consider the emissions profile of the companies held and assess company transition initiatives against global sustainability objectives. Additionally, the Investment Consultant and other third-party experts will report on ESG integration, total Fund physical and transition risk (and opportunities).
Net Zero Risk	The objective to achieve net zero within an acerated timeline, fails to be achieved wither in concert with the primary Investment Objective or due to lack of data availability and transparency to effectively track.	Consistent with the UN-convened Net-Zero Asset Owner Alliance, the Fund shall monitor its decarbonization (using the carbon intensity measure for scope 1 and 2 emissions) and investment performance together. Further, five (5) year carbon reduction milestones will be used to measure the net zero path of the Fund.
Investment Consultant Risk	Failure of the Investment Consultant to ensure the University oversight bodies are kept informed on evolving practices aligned to this policy and provide effective summary reporting on the Fund performance and other key metrics against established targets or maximum tolerances.	The oversight committee will review quarterly reporting prepared by the Investment Consultant, discuss evolving practice changes arising from global investment practice consortiums and standards setting bodies, and engage in discussions about the overall Fund profile, performance, and attainment of Investment Objectives.
Fund Manager Risk	Failure of a Fund Manager to meet Investment Objectives of the Fund while adopting evolving CFA Institute guidance requiring integration of ESG considerations, active engagement with companies held, and effective reporting to the University.	Each Fund Manager will report quarterly on its performance and product alignment to this policy. At least annually the Fund Manager will provide a report on its selection and monitoring approaches as aligned to CFA Institute (including ESG) guidance. Further, the Fund Manager will provide an annual proxy voting summary ideally organized by ESG and/or SDG topics and confirm discretionary votes were made in alignment of this policy.
Transition Cost Risk	Risk that portfolio turnover costs impact the performance of investments.	The Fund oversight committee will review net fees and investment strategy relative to anticipated transition costs to ensure costs do not have a materially detrimental impact on achieving the Investment Objectives.

Section 8 – Strategic Asset Allocation

Given the perpetual nature of the Investment Pool, asset allocation will be the most important determinant of long-term success. The target allocation balances the need to satisfy the long-term return objective and to minimize total investment risk.

Asset Class	**Long-Term**			**BenchmarkIndex**	**Value-Add***
	Target Allocation^	**Permissible Range**			
		Minimum	Maximum		
Canadian Equities	5%	0%	15%	S&P/TSX Composite Index	75 basis points
US Large Cap (Hedged)	20%	10%	30%	Russell 1000 Index (Hedged)	50 basis points
US Small Cap	5%			Russell 2000 Index(Cdn. $)	50 basis points
Non-North American Equities	25%	10%	30%	MSCI EAFE Index(Net)	150 basis points
Bonds	20%	15%	30%	FTSE TMX Universe BondIndex	20 basis points
Short/MediumTerm Bonds	0%			FTSE TMX Universe+Maple Short-term Corporate Bond Index	20 basis points
Real Assets	25%	15%	35%	CPI + 4%	200 basis points

*The expectation of value added over the benchmark index on a 4-year rolling annualized basis for active classes.
^The benchmark for performance measurement purposes will be adjusted to reflect amounts invested in real assets when funded. Amounts that are not invested in real assets will be benchmarked against the Universe Bonds Index.

Expectations from Active Management

Based upon policy weighted allocations, the gross expectation for value added from active management is approximately 100 basis points before fees achieved approximately 60% of the time. Therefore, the long-term value-added gross expectation is pro-rated to 60basis points and performance of the Fund from active management shall be considered satisfactory if the total annualized returns earned by the Fund exceed by 60 basis points (refer also to Appendix 1) the returns that could be earned on a passive basis.

Investment Return Volatility

The expected volatility of returns for the Fund is directly related to the strategic asset allocation. Volatility is inherent in investing and will be managed according to the permissible ranges.

Rebalancing Policy

Should any asset class fall outside of the minimum and maximum ranges, excluding the Real Asset Benchmark allocation, outlined on the previous page, the Treasurer shall rebalance the total Fund back to the Benchmark Portfolio. The Treasurer shall rebalance as soon as is practicable, but not later than three months after any breach of the ranges.

Section 9 – Permitted Investments

The following investments may be made either directly, through pooled or mutual funds, through private partnerships, or through insurance contracts. The list of permitted investments and constraints outlined below apply to all relevant mandates.

Additional constraints may be imposed on the Fund Managers through their specific mandate.

- Publicly traded Canadian common stocks, rights, warrants, instalment receipts and debt securities convertible into common stock.
- Publicly traded U.S. and international common stocks, American depository receipts, global depository receipts, rights, warrants, instalment receipts and debt securities convertible into common stock.
- Debt securities of Canadian issuers, including bonds, debentures, or other debt instruments of corporations, Canadian Governments, Canadian Government agencies, or guaranteed by Canadian Governments; mortgage-backed securities; asset-backed securities; and real return bonds.
- Foreign issuers of Canadian-denominated bonds.
- Publicly traded preferred shares.
- Initial public offerings.
- Exchange traded funds.
- Foreign bonds.
- Real estate.
- Infrastructure.
- Publicly traded income trusts.
- Private placements.
- Mortgages.
- Canadian cash on hand, demand deposits, treasury bills, short-term notes and bankers' acceptances, term deposits and guaranteed investment certificates having a term of equal or less than one year.

The Fund Manager will serve as active stewards, engaging with the companies it holds and voting proxies. The Fund Manager will promote alignment to widely accepted global standards relating to ESG, such as meeting the Paris Agreement targets. The Fund Manager shall exercise opportunities to divest itself from any company that fails to demonstrate, within a reasonable timeline, a transition plan with science-based metrics and targets aligned with UN supported directions. The Fund Manager will inform the company and the oversight committee of its reasons for any ESG related divestments. The Fund Manager may reinvest where the company effectively addresses the reasons for divestment and fits with the Fund Manager's selection approach.

Limitations and Restrictions
An investment in the shares of any single company should not exceed 10% of the total market value of all equities held in the investment pool.

Derivatives

Derivatives such as options, futures, swaps, and forward contracts on any permissible investment is allowable, including but not limited to index option and futures, index participation units and equivalents. Derivatives may not be used speculatively, however may be used to:

- Hedge investment risk, including market interest rate, credit, liquidity, and currency risk.
- replicate direct investments in asset classes (to lower cost or market exposure for example).
- effect cash and asset mix rebalancing.

The Fund Managers shall be responsible for assessing all counter party risks associated with derivative instruments, including credit rating and total exposure limits for each derivative securities dealer and bank.

The minimum credit quality for the counter party of any derivative transaction shall be consistent with the credit quality requirements set out in the Fund Manager's mandate. The Fund Manager's shall implement internal procedures and controls in order to ensure that derivatives are always used in compliance with this Statement and their mandate.

Quality & Quantity Requirements

Minimum quality requirements and maximum quantity limited are established by the oversight committee and included in each Fund Manager's mandate, which may vary between managers within an asset class and across asset classes.

Copies of mandates are available for review in the Treasury Department.

Section 10– Proxy Voting Rights

The proxy voting rights for Fund assets are delegated to the Fund Managers with the responsibility of exercising all voting rights acquired through the Fund. The Fund Managers shall exercise such voting rights in alignment with this Statement with the intent of fulfilling the Fund Investment Objectives.

The Fund Manager's will at least annually provide their proxy voting policy with an annual summary outlining how proxies were voted, ideally identifying the vote relationship to ESG considerations, where possible further linked to related SDGs, and any departures from, or exceptions to, the policies and any other extraordinary matters. This annual report will be available to the oversight committees up to including the Board of Governors. Fund Managers associated with Real Assets are excluded from this requirement.

Section 11 –Selection Requirements

The selection and appointment process for Fund Managers and investment consultants shall ensure that the final candidates are selected in accordance with the University procurement policies. Further, that the candidate and final selection process aligns to the University's overall investment objectives, investment beliefs and other policy matters in this Statement.

The selection process will include, where applicable, an assessment by the Investment Pool Committee whether the prospective candidates can demonstrate all or most of the following criteria, which are evolving in public practice and availability globally:

Prospective Investment Consultants shall:

- Be a signatory to UNPRI and provide disclosure of recent UNPRI assessment reports.
- Provide documentation that responsible investing is integrated with advisory services offered.
- Demonstrate capability to accommodate the University's responsible investment priorities.
- Demonstrate that it has access to ESG data and analytical tools to support recommendations.
- Confirm that standard Fund reporting will integrate both performance data with carbon and other ESGmeasurement data.

Prospective Fund Managers shall:

- Be a signatory to UNPRI and provide disclosure of recent UNPRI assessment reports.
- Provide documentation demonstrating its responsible investment policy, its responsible investing approach is appropriate for the asset class it manages, aligned to CFA Institute guidance, and proxy voting policy, including frequency of policy reviews (whether annual or otherwise).
- Demonstrate active engagement strategy and activities during a given year.
- Articulate an escalation strategy when an underlying company has ESG issues or where initial engagement efforts are unsuccessful.

- Be committed (or within a reasonable timeline) to reporting aligned to the Task Force Recommendations on Climate-Related Financial Disclosures (TCFD).
- Engage in discussion, measures, and disclosures available associated with climate- related risks and opportunities, as defined by TCFD.
- Measure weighted average carbon intensity (WACI) of the Fund and carbon footprint, as defined by TCFD, and confirm that these measures will be available in quarterly reports along with standard performance results.
- Provide documentation for the Fund Manger's mandate and its carbon-related reduction targets, if any, associated with the WACI or carbon footprint measure, or other targets on matters such as energy consumption, waster tonnage, water shed, land repatriation, diversity, equity, etc.
- Demonstrate actions and/or provide case studies where the Fund Manager is working with the companies it invests in to adopt TCFD reporting and provide evidence as to how many of its investee companies have already adopted TCFD, as a percentage of the Fund. Further, confirm that adoption rates will be reported to the committee annually.
- Provide investment assessment approach and disclosure for fossil fuel holdings within the Fund, and in particular rationale for any holdings on the Carbon Underground 200 list, representing the top 100 coal and 100 oil reserve owning companies ("CU200") annually.
- Provide confirmation of the number of companies within the Fund that have a current Sustainability Plan; in relation to carbon emissions whether reduction targets exist in alignment to the Paris Agreement (or better); how underlying company ESG metrics and targets are monitored by the Fund Manager.
- Provide disclosure of the Fund Manager's other memberships associated with responsible investing and disclosure on how resources within the Fund Manager organization are directly or indirectly responsible for responsible investing.
- Demonstrate commitment to incorporate material ESG factors into its investment and stewardship activities.
- Provide disclosure and/or the policy the Fund Manager is deploying to ensure diversity and equity is addressed within the Fund Manager's organization, and whether employment census data reflects societal census data (if not, whether plans exist to address differences).

  The above criteria are not exhaustive. Since responsible investment selection criteria is evolving it is not expected that Fund Managers and/or Investment Consultant will meet all the criteria identified. The oversight committee will treat this as an evolving list, reflective of emerging global ESG practice, as guidance during the Fund Manager and Investment Consultant selection processes. In some cases, the criteria may not be applicable depending on Fund Manager's asset class and/or the Investment Consultant business mix. The Investment Pool Committee will review these criteria at the onset of each selection process.

Documentation to be reviewed in the selection and appointment process includes, but is not limited to, standard client reporting, general and responsible investment policy and reports, investment methodology, proxy voting and engagement policy, historical voting and engagement activities withinvestees, and policy makers, compliance reports, controversies, and incidence reports. Reports provided may be redacted in some cases to protect proprietary information.

Section 12–Reporting Requirements

Fund Managers will make a presentation to the Investment Pool Committee on a periodic basis, however each Fund Manager shall provide quarterly statements that include performance, attribution of the performance, carbon measures (WACI and/or carbon footprint), future investment strategy, compliance with the mandate and a listing of the assets in the portfolio.

At least annually, each fund manager shall provide the annual proxy voting report described in section 10.

At lease annually, the Fund Manager will also respond to the Responsible Investing (RI) Questionnaire, whereby responses will be posted on the University's Responsible Investing website. The RI

Questionnaire may be updated annually to capture evolving practice matters and will include for example:

- ESG integration approach, highlighting any changes made over the last 12 months, and how is it used in the company selection process to build the product (pooled or segregated) and used ongoing to monitor risk of individual holdings, and any ESG incidents in the portfolio.
- Percentage of underlying companies in the Fund that:
- Are UNPRI signatories
- Adopted TCFD Measures: WACI and/or Carbon Footprint and have a reduction target
- Have a current Sustainability Plan that materially addresses the UN SDGs
- Explain how climate-related risks are assessed at the pooled fund or segregated fund level, with explanation covering climate-related transition risk considerations (policy, legal, technology, market, and reputational risks) and physical risks (acute and chronic), as defined by TCFD.
- Explain how climate-related opportunities are assessed at the pooled or segregated fund level, with explanation covering resource efficiency, energy source, products and services, new markets, and resilience, as defined by TCFD.
- Report on any CU200 fossil fuel investment positions held and the rationale why the position is aligned to the University's investment beliefs and its carbon reduction target.
- An annual carbon intensity measurement and carbon footprint, where measured, in comparison to the University assigned benchmark and/or another ex-fossil fuel measure appropriate for the asset class.
- Additional aggregated annual measurements, where measured, energy consumption, water shed, waste tonnage, land use and repatriation.
- Progress made within Fund Manager's organization on diversity and inclusion strategies.
- Fund managers whose hiring date precedes the date of this policy ("Legacy Fund Managers") and do not have Responsible Investment reporting and investment criteria included in Investment Management Agreements are not subject to negative action associated with Responsible Investment reporting and policy requirements. However, all Legacy Fund Managers will be asked to submit an action plan to the oversight committee that demonstrates compliance with the Responsible Investment requirements of this Statement within a reasonable timeline.

If a Fund Manager is not in compliance with their mandate, the Fund Manager is required to notify the Treasurer as to the reasons for the non-compliance and to outline the course of action, including timing that will rectify the situation. The Treasurer will inform the oversight committee of the situation.

Section 13 – Other Policy Items

Valuation of Securities

It is expected that all the securities held by the Fund will have an active market and that the values of such securities will be based on their market values. The exception to this is Real Assets (Private Infrastructure and Private Real Estate) where it will be based generally on appraisals conducted on aperiodic basis.

Investments that are not regularly traded shall be valued at least annually by the Fund's custodian in co-operation with the Fund Manager. In making such valuations, consideration shall be given to bid and ask prices, previous transaction prices, discounted cash flow, independent appraisal values, the valuations of other comparable publicly- traded investments and other valuation techniques that are judged relevant to the specific situation.

Securities Lending

Securities held by the Fund may be loaned by the Trustee under a properly approved contract with the University. Such loans must be secured by cash or readily marketable securities with a quality rating of R1 or higher, a market value of at least 105% with the level of security maintained daily, and an indemnity by the custodian against all losses because of the custodian's securities lending program. Collateral provided with respect to any such securities lending agreement must have free and clear title and may not be subject to any right of set-off. It is recognized that this policy on security lending is not enforceable to the extent that the investment is in pooled funds.

Related Party Transactions

The Fund may not enter into a transaction with a related party unless the transaction is both required for operation and or administration of a Fund and the terms and conditions of the transaction are not less favourable than market terms and conditions; or Securities of the related party are acquired at a public exchange.

Conflict of Interest

A conflict of interest is an event where any employee, hired third party to support the Fund, or member of the oversight committees directly or indirectly gains financial or other advantage from his or her role with respect to the Fund. Or, where circumstances exist that could reasonably impair his or her ability to render unbiased and objective advise compromising his or her fiduciary responsibility to act in the interest of the Fund. In the situation of a conflict of interest it is the duty of the individual ("Affected Person") to disclose any material conflict of interest relating to them, or any material ownership of securities, which could impair their ability to render unbiased advice, or to make unbiased decisions, affecting the administration of the Fund's assets.

Further, it is required that no Affected Person shall make any personal financial gain (direct or indirect) because of his or her fiduciary position. However, normal, and reasonable fees and expenses incurred in the discharge of his/her responsibilities are permitted if documented and approved by the University.

No Affected Person shall accept a gift or gratuity or other personal favour that is material, from a person with whom the Affected Person deals in the course of performance of his or her duties and responsibilities for the Fund.

It is incumbent on any Affected Person who believes that he or she may have a conflict of interest, or who is aware of any conflict of interest, to disclose full details of the situation in writing to the oversight committee Chair within three business days. The disclosure should also be made orally if awareness of the conflict occurs during the discussion of the Fund's business. The respective committee, in turn, will decide what action is appropriate under the circumstances but, at a minimum, will table the matter at the next regular meeting of the oversight committee.

Normally, the individual disclosing the conflict of interest shall withdraw from the meeting during discussion of and vote on the issue causing the conflict of interest. The individual may be permitted, at the Committee's request, to participate in the discussion but he/she shall not be present for the vote.

The disclosure of a conflict of interest, the name of the individual declaring the conflict and the way the conflict was resolved will be recorded in the minutes of the oversight committee.

Conflict between Policy and Pooled Fund Investment Policies

While the guidelines in this Policy are intended to guide the management of the Fund, it is recognized that, due to the use of pooled funds, there may be instances where there is a conflict between this policy and the investment policy of a pooled fund. In that case, the pooled fund policy shall dominate. However, wherever such a conflict results in non- compliance with the Policy, the Fund Manager must report this conflict explicitly in its compliance report.

Policy Review

This Statement shall be reviewed at least annually by the oversight committees up to the Board of Governors with respect to the appropriateness of the policies and objectives contained therein.

Appendix 1

MCMASTER UNIVERSITY
INVESTMENT POOL VALUE ADDED RATE OF RETURN OBJECTIVE

ASSET CLASS	ALLOCATION TO ACTIVE MANAGEMENT %	EXPECTED ANNUALIZED VALUE ADDED BY ASSET CLASS (bps) (a)	ACTIVE COMPONENT OF ASSET MIX % (b)	EXPECTED ANNUALIZED VALUE ADDED FROM ACTIVE MANAGEMENT (bps) (a x b)
CANADIAN EQUITY	100%	75	10	7.5
U.S. EQUITY	100%	50	25	12.5
EAFE EQUITY	100%	150	25	37.5
BONDS	79%	20	20	4
REAL ASSETS	100%	200	20	40
				101.5
	Assume 60% Success Rate (Management Estimate)			60%
	Total Fund Value Added Rate of Return Objective*			60

*intentionally rounded down from 60.9 to 60 bps.

(1) Pending the full funding of the Real Asset portion of the portfolio, we expect the Total Fund Value Added Rate of Return Objective to be lower than what is stated in the table above.

Appendix C SIPP (Blacklined Version)

BRIGHTER WORLD

McMaster University

Policies, Procedures and Guidelines

Complete Policy Title

Statement of Investment Policies and Procedures – Investment Pool

Policy Number (if applicable):

Approved by

Board of Governors

Date of Most Recent Approval

[March 7, 2024]31, ~~2022 / April 21, 2022~~

Date of Original Approval(s)

October 19, 1995

Supersedes/Amends Policy dated

~~August 5, 2021~~April 21, 2022

Responsible Executive

Assistant Vice-President (Administration) & Chief Financial Officer

Policy Specific Enquiries

Assistant Vice-President (Administration) & Chief Financial Officer

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.*

Table of Contents

Section 1 – Preamble

University funds, including specific purpose endowed funds and reserves, and a portion of working capital, are pooled and unitized for investment purposes to create a large investment pool. The larger size of the pool creates greater investment opportunities and benefits from economies of scale.

Section 2 – Definitions

Fund refers to the combined assets of the Investment Pool.

Fund Manager is an external investment manager who invests a segment of the Fund according to guidelines specified in this policy and the mandate given by the University.

Investment Consultant is the external advisor, AON Solutions Canada Inc,~~Consulting,~~ selected by the Fund oversightcommittee.

Long Term is defined as a period of 10 years or longer.

Oversight Committee is defined as the Investment Pool Committee, which is a sub-committee of the Planning and Resources under the Board of Governors. Where plural, refers to reporting beyond the Investment Pool Committee to the Planning and Resources Committee unless otherwise noted,

Real Assets refer to real estate and infrastructure investments.

Related Party is defined to be administrator of the Fund, including any officer, director or employee, or any person who is a member of the oversight committees,~~.~~ up to the Board of Governors. Including Fund Manager's and their employees, a spouse or child of the persons named previously, or a corporation that is directly or indirectly controlled by the persons named previously, among others. The concept of "related party" does not include government or a government agency, or a bank, trust company or other financial institution that holds the assets of the Fund, where that person is not the administrator of the Fund.

Total Rate of Return is the time-weighted rate of return based on the change in market value of the Fund over a measured period, calculated in conformity with the standards established by the CFA Institute.

Section 3 – Governance

The University is the administrator of the Investment Pool and the Board of Governors is responsible for the overall management. The Board of Governors has delegated certain duties and responsibilities (including the power to sub-delegate) to the Planning and Resources Committee which, in turn, has delegated certain duties and responsibilities to the Investment Pool Committee, Financial Affairs, and third-party agents to carrying out the Investment Pool duties and adhere to this policy.

Section 4 – Investment Objectives

The primary objective is to generate Long Term average returns sufficient to meet the needs of the University, defined as a Total Rate of Return of 5.0%, after inflation and fees. Subject to an overriding commitment to financial prudence, investment decisions must align with the University's sustainability commitments as a signatory to the United Nations Principles for Responsible Investment (UNPRI) and support a transition to a sustainable, just, and net zero carbon economy and society.

The Principles for Responsible Investment (PRI) is a United Nations-supported international network of investors working six principles:

- **Principle 1**: Signatories will incorporate ESG issues into investment analysis and decision-making p
- **Principle 2**: Signatories will be active owners and incorporate ESG issues into our ownership policies and practices.
- **Principle 3**: Signatories will seek appropriate disclosure on ESG issues by the entities in which we invest.
- **Principle 4**: Signatories will promote acceptance and implementation of the Principles within the investment industry.

- **Principle 5**: Signatories will work together to enhance our effectiveness in implementing the Principles.
- **Principle 6**: Signatories will each report on our activities and progress towards implementing the Principles.

As such, the University's responsible investing approach integrates environmental, social, and governance factors across portfolio strategy, risk management, fund selection, management, monitoring metrics and targets, and reporting.

The secondary objective of the Fund is : Establishing phased action plans toward a net zero (scope 1 and 2) carbon profile across invested assets as soon as practical with periodic target reduction milestones. The Fund will ambitiously target to reduce the carbon intensity of publicly traded assets with milestone objectives of **65%** lower weighted average carbon intensity by 2025, **75%** by 2030, and an aspirational objective of the remainder, thereafter, compared to a 2018 baseline.

Section 5 - Responsible Investing

The University's responsible investing approach integrates environmental, social and governance (ESG) considerations that could pose material risks to or otherwise impact (for better or worse) Long Term return. Further, the University is committed to aligning this policy with the UNPRI principles (above) and reporting its net zero strategy, targets and progress using widely recognized recommendations from the Task Force on Climate-related Financial Disclosures (TCFD). Finally, the University seeks to support positive societal impact that align with the United Nations Sustainable Development Goals (SDGs) and as such will work to measure, track, and reduce carbon intensity across investments while increasing green revenues and holdings in sustainable, renewable, green, and other clean technologies.

ESG considerations are identified as, not limited to, the following:

Environmental: How a company evaluates its operational impact and stewardship on physical natural resources and wild animal life, as well as the exposure of that company to the risks created by climate change. These factors include a company's impact on climate change, including greenhouse gas emissions, biodiversity loss, deforestation, changing land use, air, water, natural resource depletion, waste management, along with impacts on animal habitat, and ocean acidification, as well as physical and transition risks to commercial operations.

Social: How a company evaluates risks associated with human capital through business relationships and agile practices. Factors include a company's policies and approaches on human rights, labour standards, employment equity, diversity, child, slave and bonded labour,workplace health and safety, freedom of association and freedom of expression, human capital management, employee relations. In addition, we will consider where material community impact, activities in conflict zones, health and access to medicine and finance, consumer protections, and relation to controversial weapons and activities. Further, where applicable, social factors extend to a company's position on animal use and/or testing, and how animals are bred or used in food supply chains.

Governance: How a company evaluates operational risks associated with corporate behaviours. These factors include effective disclosures that are relevant, complete, transparent, accurate, and consistent that provide details about a company's board structure, director nomination processes, composition, size, executive pay, shareholder voting rights, diversity skills, independence, stakeholder rights, business ethics, anti-bribery policies, corruption involvement, tax avoidance activity, internal controls, cyber-security, and conflict of interest policies. This area includes a company's position and oversight on sustainability plans and integration of those plans into employee performance assessments and compensation.

Section 6 – Investment Beliefs

The University has a belief that the Fund is a Long-Term asset that requires primarily active management and prudent diversification across asset classes, geographies, and fund manager styles, that taken together will generate fund performance within tolerable volatility and risk profiles and have appropriate liquidity for annual needs. To deliver the objectives of this policy, the University believes the use of third-party experts is appropriate.

Section 7 – Risk

The University takes into consideration the Long-Term nature of the fund and in accordance with the enterprise risk management framework the fund has a high-risk appetite, defined as 10% of available expendable resources. Risk is multi-faceted and cannot be expressed in a single measure and, as such, the University considers and works to manage the following risks and other such other risks that may emerge over time when setting asset mix, targets, and other limits within this policy:

Risk Item	Risk Description	Risk Mitigation Strategy
Volatility Risk	Market cycles and economic disruption impact orderly and smooth return performance of the Fund.	Quarterly the aggregate Fund volatility is reviewed against the permissible ranges determined by the strategic asset allocation within the Fund scorecard. Additionally, Fund Manager volatility is reviewed within the Investment Consultant quarterly report.
Concentration Risk	The Fund asset mix and geography allocations across Fund Managers fails to achieve effective diversification resulting in concentration (or holdings overlap) that is otherwise undetected.	Annually the Fund oversight committee will discuss concentration risk and assess whether any actions are necessary. An investment in the shares of any single company should not exceed 10% of the total market value of all equities held in the investment pool.
Impairment Risk	A decline in the Fund's purchasing power over the Long Term.	Fund performance is monitored quarterly, annually (from inception), and on 4-year annualized return basis to relative benchmarks.
Currency Risk	Exposures to foreign currency can impact return and need to be considered when establishing asset mix.	A minimum of 20% of foreign currencies will be hedged to Canadian currency.
Liquidity Risk	The ability of the Fund to maintain sufficient liquidity to meet spending requirements.	Annual spend requirements are reviewed to ensure the percentage of funds held in illiquid assets will not affect spending requirements.
Governance Risk	Failure to undertake, or demonstrate where delegated, good stewardship and positive engagement activities in relation to Fund assets.	An annual report on active engagements and proxy voting by Fund Managers will be reviewed along with University engagements direct and indirect through partnerships.
Reputation Risk	Failure of the plan to effectively convey is strategic, risk management, metrics, and targets through widely accepted reporting principles to the	The University is a signatory of UNPRI. The plan is also following accelerated decarbonization strategy is underway to deliver a net zero portfolio. A globally recognized reporting framework TCFD has been adopted to promote transparency in the Annual

	satisfaction of broad and varied interest groups.	Financial Report and on the Responsible Investing website.
ESG and Climate-Risk	ESG and climate change implications can have a material impact on the future performance of the Fund, both associated with physical risks and transition risks. Physical risks include acute or increased chronic extreme weather event driven risks. Transition risks include impacts associated with policy, legal, technology, market, and reputation risks.	Fund Managers are asked to report, at minimum annually, on how physical and transition risks (and opportunities) are factored into individual company selection and the overall product profile. Fund Managers are required to consider the emissions profile of the companies held and assess company transition initiatives against global sustainability objectives. Additionally, the Investment Consultant and other third-party experts will report on ESG integration, total Fund physical and transition risk (and opportunities).
Net Zero Risk	The objective to achieve net zero within an acerated timeline, fails to be achieved wither in concert with the primary Investment Objective or due to lack of data availability and transparency to effectively track.	Consistent with the UN-convened Net-Zero Asset Owner Alliance, the Fund shall monitor its decarbonization (using the carbon intensity measure for scope 1 and 2 emissions) and investment performance together. Further, five (5) year carbon reduction milestones will be used to measure the net zero path of the Fund.
Investment Consultant Risk	Failure of the Investment Consultant to ensure the University oversight bodies are kept informed on evolving practices aligned to this policy and provide effective summary reporting on the Fund performance and other key metrics against established targets or maximum tolerances.	The oversight committee will review quarterly reporting prepared by the Investment Consultant, discuss evolving practice changes arising from global investment practice consortiums and standards setting bodies, and engage in discussions about the overall Fund profile, performance, and attainment of Investment Objectives.
Fund Manager Risk	Failure of a Fund Manager to meet Investment Objectives of the Fund while adopting evolving CFA Institute guidance requiring integration of ESG considerations, active engagement with companies held, and effective reporting to the University.	Each Fund Manager will report quarterly on its performance and product alignment to this policy. At least annually the Fund Manager will provide a report on its selection and monitoring approaches as aligned to CFA Institute (including ESG) guidance. Further, the Fund Manager will provide an annual proxy voting summary ideally organized by ESG and/or SDG topics and confirm discretionary votes were made in alignment of this policy.
Transition Cost Risk	Risk that portfolio turnover costs impact the performance of investments.	The Fund oversight committee will review net fees and investment strategy relative to anticipated transition costs to ensure costs do not have a materially detrimental impact on achieving the Investment Objectives.

Section 8 – Strategic Asset Allocation

Given the perpetual nature of the Investment Pool, asset allocation will be the most important determinant of long-term success. The target allocation balances the need to satisfy the long-term return objective and to minimize total investment risk. ~~The long-term strategic asset allocations to real assets (real estate and infrastructure) will be achievedover several quarterly cycles, as such an interim asset allocation will be used until such time the long-term allocation is achieved.~~

Asset Class	Long-Term Target Allocation^	Permissible Range Minimum	Permissible Range Maximum	BenchmarkIndex	Value-Add*
Canadian Equities	**5%~~10%~~**	0%~~5%~~	15%~~20%~~	S&P/TSX Composite Index	75 basis points
~~US Large Cap~~	**~~7.5%~~**		~~30%~~	~~Russell 1000 Index(Cdn. $)~~	~~50 basis points~~
US Large Cap (Hedged)	**~~12.5%~~20%**	10%	30%	Russell 1000 Index (Hedged)	50 basis points
US Small Cap	**5%**			Russell 2000 Index(Cdn. $)	50 basis points
Non-North American Equities	**25%**	10%	30%	MSCI EAFE Index(Net)	150 basis points
Bonds	**20%**	15%	30%	FTSE TMX Universe BondIndex	20 basis points
Short/MediumTerm Bonds	**0%**			FTSE TMX Universe+Maple Short-term Corporate Bond Index	20 basis points
Real Assets	**25%~~20%~~**	15%~~10%~~	35%~~30%~~	CPI + 4%	200 basis points

*The expectation of value added over the benchmark index on a 4-year rolling annualized basis for active classes.
^ The benchmark for performance measurement purposes will be adjusted to reflect amounts invested in real assets when funded. Amounts that are not invested in real assets will be benchmarked against the Universe Bonds Index.

Expectations from Active Management

Based upon policy weighted allocations, the gross expectation for value added from active management is approximately 100 basis points before fees achieved approximately 60% of the time. Therefore, the long-term value-added gross expectation is pro-rated to 60basis points and performance of the Fund from active management shall be considered satisfactory if the total annualized returns earned by the Fund exceed by 60 basis points (refer also to Appendix 1) the returns that could be earned on a passive basis.

Investment Return Volatility

The expected volatility of returns for the Fund is directly related to the strategic asset allocation. Volatility is inherent in investing and will be managed according to the permissible ranges.

Rebalancing Policy

Should any asset class fall outside of the minimum and maximum ranges, excluding the Real Asset Benchmark allocation, outlined on the previous page, the Treasurer shall rebalance the total Fund back to the Benchmark Portfolio. The Treasurer shall rebalance as soon as is practicable, but not later than three months after any breach of the ranges.

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Additional constraints may be imposed on the Fund Managers through their specific mandate.

▪ Publicly traded Canadian common stocks, rights, warrants, instalment receipts and debt securities convertible into common stock. ▪ Publicly traded U.S. and international common stocks, American depository receipts, global depository receipts, rights, warrants, instalment receipts and debt securities convertible into common stock. ▪ Debt securities of Canadian issuers, including bonds, debentures, or other debt instruments of corporations, Canadian Governments, Canadian Government agencies, or guaranteed by Canadian Governments; mortgage-backed securities; asset-backed securities; and real return bonds. ▪ Foreign issuers of Canadian-denominated bonds.	▪ Publicly traded preferred shares. ▪ Initial public offerings. ▪ Exchange traded funds. ▪ Foreign bonds. ▪ Real estate. ▪ Infrastructure. ▪ Publicly traded income trusts. ▪ Private placements. ▪ Mortgages. ▪ Canadian cash on hand, demand deposits, treasury bills, short-term notes and bankers' acceptances, term deposits and guaranteed investment certificates having a term of equal or less than one year.

The Fund Manager will serve as active stewards, engaging with the companies it holds and voting proxies. The Fund Manager will promote alignment to widely accepted global standards relating to ESG, such as meeting the Paris Agreement targets. The Fund Manager shall exercise opportunities to divest itself from any company that fails to demonstrate, within a reasonable timeline, a transition plan with science-based metrics and targets aligned with UN supported directions. The Fund Manager will inform the company and the oversight committee of its reasons for any ESG related divestments. The Fund Manager may reinvest where the company effectively addresses the reasons for divestment and fits with the Fund Manager's selection approach.

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- Hedge investment risk, including market interest rate, credit, liquidity, and currency risk.
- replicate direct investments in asset classes (to lower cost or market exposure for example).
- effect cash and asset mix rebalancing.

The Fund Managers shall be responsible for assessing all counter party risks associated with derivative instruments, including credit rating and total exposure limits for each derivative securities dealer and bank. The minimum credit quality for the counter party of any derivative transaction shall be consistent with the credit quality requirements set out in the Fund Manager's mandate. The Fund Manager's shall implement internal procedures and controls in order to ensure that derivatives are always used in compliance with this Statement and their mandate.

Quality & Quantity Requirements

Minimum quality requirements and maximum quantity limited are established by the oversight committee and included in each Fund Manager's mandate, which may vary between managers within an asset class and across asset classes.

Copies of mandates are available for review in the Treasury Department.

Section 10– Proxy Voting Rights

The proxy voting rights for Fund assets are delegated to the Fund Managers with the responsibility of exercising all voting rights acquired through the Fund. The Fund Managers shall exercise such voting rights in alignment with this Statement with the intent of fulfilling the Fund Investment Objectives.

The Fund Manager's will at least annually provide their proxy voting policy with an annual summary outlining how proxies were voted, ideally identifying the vote relationship to ESG considerations, where possible further linked to related SDGs, and any departures from, or exceptions to, the policies and any other extraordinary matters. This annual report will be available to the oversight committees up to including the Board of Governors. Fund Managers associated with Real Assets are excluded from this requirement.

Section 11 –Selection Requirements

The selection and appointment process for Fund Managers and investment consultants shall ensure that the final candidates are selected in accordance with the University procurement policies. Further, that the candidate and final selection process aligns to the University's overall investment objectives, investment beliefs and other policy matters in this Statement.

The selection process will include, where applicable, an assessment by the Investment Pool Committee whether the prospective candidates can demonstrate all or most of the following criteria, which are evolving in public practice and availability globally:

Prospective Investment Consultants shall:

- Be a signatory to UNPRI and provide disclosure of recent UNPRI assessment reports.
- Provide documentation that responsible investing is integrated with advisory services offered.
- Demonstrate capability to accommodate the University's responsible investment priorities.
- Demonstrate that it has access to ESG data and analytical tools to support recommendations.
- Confirm that standard Fund reporting will integrate both performance data with carbon and other ESGmeasurement data.

Prospective Fund Managers shall:

- Be a signatory to UNPRI and provide disclosure of recent UNPRI assessment reports.
- Provide documentation demonstrating its responsible investment policy, its responsible investing approach is appropriate for the asset class it manages, aligned to CFA Institute guidance, and proxy voting policy, including frequency of policy reviews (whether annual or otherwise).
- Demonstrate active engagement strategy and activities during a given year.
- Articulate an escalation strategy when an underlying company has ESG issues or where initial engagement efforts are unsuccessful.
- Be committed (or within a reasonable timeline) to reporting aligned to the Task Force Recommendations on Climate-Related Financial Disclosures (TCFD).
- Engage in discussion, measures, and disclosures available associated with climate- related risks and opportunities, as defined by TCFD.
- Measure weighted average carbon intensity (WACI) of the Fund and carbon footprint, as defined by TCFD, and confirm that these measures will be available in quarterly reports along with standard performance results.
- Provide documentation for the Fund Manger's mandate and its carbon-related reduction targets, if any,

associated with the WACI or carbon footprint measure, or other targets on matters such as energy consumption, waster tonnage, water shed, land repatriation, diversity, equity, etc.

- Demonstrate actions and/or provide case studies where the Fund Manager is working with the companies it invests in to adopt TCFD reporting and provide evidence as to how many of its investee companies have already adopted TCFD, as a percentage of the Fund. Further, confirm that adoption rates will be reported to the committee annually.
- Provide investment assessment approach and disclosure for fossil fuel holdings within the Fund, and in particular rationale for any holdings on the Carbon Underground 200 list, representing the top 100 coal and 100 oil reserve owning companies ("CU200") annually.
- Provide confirmation of the number of companies within the Fund that have a current Sustainability Plan; in relation to carbon emissions whether reduction targets exist in alignment to the Paris Agreement (or better); how underlying company ESG metrics and targets are monitored by the Fund Manager.
- Provide disclosure of the Fund Manager's other memberships associated with responsible investing and disclosure on how resources within the Fund Manager organization are directly or indirectly responsible for responsible investing.
- Demonstrate commitment to incorporate material ESG factors into its investment and stewardship activities.
- Provide disclosure and/or the policy the Fund Manager is deploying to ensure diversity and equity is addressed within the Fund Manager's organization, and whether employment census data reflects societal census data (if not, whether plans exist to address differences).

  The above criteria are not exhaustive. Since responsible investment selection criteria is evolving it is not expected that Fund Managers and/or Investment Consultant will meet all the criteria identified. The oversight committee will treat this as an evolving list, reflective of emerging global ESG practice, as guidance during the Fund Manager and Investment Consultant selection processes. In some cases, the criteria may not be applicable depending on Fund Manager's asset class and/or the Investment Consultant business mix. The Investment Pool Committee will review these criteria at the onset of each selection process.

Documentation to be reviewed in the selection and appointment process includes, but is not limited to, standard client reporting, general and responsible investment policy and reports, investment methodology, proxy voting and engagement policy, historical voting and engagement activities withinvestees, and policy makers, compliance reports, controversies, and incidence reports. Reports provided may be redacted in some cases to protect proprietary information.

Section 12–Reporting Requirements

Fund Managers will make a presentation to the Investment Pool Committee on a periodic basis, however each Fund Manager shall provide quarterly statements that include performance, attribution of the performance, carbon measures (WACI and/or carbon footprint), future investment strategy, compliance with the mandate and a listing of the assets in the portfolio.

At least annually, each fund manager shall provide the annual proxy voting report described in section 10.

At lease annually, the Fund Manager will also respond to the Responsible Investing (RI) Questionnaire, whereby responses will be posted on the University's Responsible Investing website. The RI Questionnaire may be updated annually to capture evolving practice matters and will include for example:

- ESG integration approach, highlighting any changes made over the last 12 months, and how is it used in the company selection process to build the product (pooled or segregated) and used ongoing to monitor risk of individual holdings, and any ESG incidents in the portfolio.
- Percentage of underlying companies in the Fund that:
- Are UNPRI signatories

- Adopted TCFD Measures: WACI and/or Carbon Footprint and have a reduction target
- Have a current Sustainability Plan that materially addresses the UN SDGs
- Explain how climate-related risks are assessed at the pooled fund or segregated fund level, with explanation covering climate-related transition risk considerations (policy, legal, technology, market, and reputational risks) and physical risks (acute and chronic), as defined by TCFD.
- Explain how climate-related opportunities are assessed at the pooled or segregated fund level, with explanation covering resource efficiency, energy source, products and services, new markets, and resilience, as defined by TCFD.
- Report on any CU200 fossil fuel investment positions held and the rationale why the position is aligned to the University's investment beliefs and its carbon reduction target.
- An annual carbon intensity measurement and carbon footprint, where measured, in comparison to the University assigned benchmark and/or another ex-fossil fuel measure appropriate for the asset class.
- Additional aggregated annual measurements, where measured, energy consumption, water shed, waste tonnage, land use and repatriation.
- Progress made within Fund Manager's organization on diversity and inclusion strategies.
- Fund managers whose hiring date precedes the date of this policy ("Legacy Fund Managers") and do not have Responsible Investment reporting and investment criteria included in Investment Management Agreements are not subject to negative action associated with Responsible Investment reporting and policy requirements. However, all Legacy Fund Managers will be asked to submit an action plan to the oversight committee that demonstrates compliance with the Responsible Investment requirements of this Statement within a reasonable timeline.

If a Fund Manager is not in compliance with their mandate, the Fund Manager is required to notify the Treasurer as to the reasons for the non-compliance and to outline the course of action, including timing that will rectify the situation. The Treasurer will inform the oversight committee of the situation.

Section 13 – Other Policy Items

Valuation of Securities

It is expected that all the securities held by the Fund will have an active market and that the values of such securities will be based on their market values. The exception to this is Real Assets (Private Infrastructure and Private Real Estate) where it will be based generally on appraisals conducted on aperiodic basis.

Investments that are not regularly traded shall be valued at least annually by the Fund's custodian in co-operation with the Fund Manager. In making such valuations, consideration shall be given to bid and ask prices, previous transaction prices, discounted cash flow, independent appraisal values, the valuations of other comparable publicly- traded investments and other valuation techniques that are judged relevant to the specific situation.

Securities Lending

Securities held by the Fund may be loaned by the Trustee under a properly approved contract with the University. Such loans must be secured by cash or readily marketable securities with a quality rating of R1 or higher, a market value of at least 105% with the level of security maintained daily, and an indemnity by the custodian against all losses because of the custodian's securities lending program. Collateral provided with respect to any such securities lending agreement must have free and clear title and may not be subject to any right of set-off. It is recognized that this policy on security lending is not enforceable to the extent that the investment is in pooled funds.

Related Party Transactions

The Fund may not enter into a transaction with a related party unless the transaction is both required for operation and or administration of a Fund and the terms and conditions of the transaction are not less favourable than market terms and conditions; or Securities of the related party are acquired at a public exchange.

Conflict of Interest

A conflict of interest is an event where any employee, hired third party to support the Fund, or member of the oversight committees directly or indirectly gains financial or other advantage from his or her role with respect to the Fund. Or, where circumstances exist that could reasonably impair his or her ability to render unbiased and objective advise compromising his or her fiduciary responsibility to act in the interest of the Fund. In the situation of a conflict of interest it is the duty of the individual ("Affected Person") to disclose any material conflict of interest relating to them, or any material ownership of securities, which could impair their ability to render unbiased advice, or to make unbiased decisions, affecting the administration of the Fund's assets.

Further, it is required that no Affected Person shall make any personal financial gain (direct or indirect) because of his or her fiduciary position. However, normal, and reasonable fees and expenses incurred in the discharge of his/her responsibilities are permitted if documented and approved by the University.

No Affected Person shall accept a gift or gratuity or other personal favour that is material, from a person with whom the Affected Person deals in the course of performance of his or her duties and responsibilities for the Fund.

It is incumbent on any Affected Person who believes that he or she may have a conflict of interest, or who is aware of any conflict of interest, to disclose full details of the situation in writing to the oversight committee Chair within three business days. The disclosure should also be made orally if awareness of the conflict occurs during the discussion of the Fund's business. The respective committee, in turn, will decide what action is appropriate under the circumstances but, at a minimum, will table the matter at the next regular meeting of the oversight committee.

Normally, the individual disclosing the conflict of interest shall withdraw from the meeting during discussion of and vote on the issue causing the conflict of interest. The individual may be permitted, at the Committee's request, to participate in the discussion but he/she shall not be present for the vote.

The disclosure of a conflict of interest, the name of the individual declaring the conflict and the way the conflict was resolved will be recorded in the minutes of the oversight committee.

Conflict between Policy and Pooled Fund Investment Policies

While the guidelines in this Policy are intended to guide the management of the Fund, it is recognized that, due to the use of pooled funds, there may be instances where there is a conflict between this policy and the investment policy of a pooled fund. In that case, the pooled fund policy shall dominate. However, wherever such a conflict results in non- compliance with the Policy, the Fund Manager must report this conflict explicitly in its compliance report.

Policy Review

This Statement shall be reviewed at least annually by the oversight committees up to the Board of Governors with respect to the appropriateness of the policies and objectives contained therein.

Appendix 1

MCMASTER UNIVERSITY
INVESTMENT POOL VALUE ADDED RATE OF RETURN OBJECTIVE

ASSET CLASS	ALLOCATION TO ACTIVE MANAGEMENT %	EXPECTED ANNUALIZED VALUE ADDED BY ASSET CLASS (bps) (a)	ACTIVE COMPONENT OF ASSET MIX % (b)	EXPECTED ANNUALIZED VALUE ADDED FROM ACTIVE MANAGEMENT (bps) (a x b)
CANADIAN EQUITY	100%	75	10	7.5
U.S. EQUITY	100%	50	25	12.5
EAFE EQUITY	100%	150	25	37.5
BONDS	79%	20	20	4
REAL ASSETS	100%	200	20	40
				101.5
	Assume 60% Success Rate (Management Estimate)			60%
	Total Fund Value Added Rate of Return Objective*			60

*intentionally rounded down from 60.9 to 60 bps.

(1) Pending the full funding of the Real Asset portion of the portfolio, we expect the Total Fund Value Added Rate of Return Objective to be lower than what is stated in the table above.

Appendix D. SIPP (Current Version)

BRIGHTER WORLD

Policies, Procedures and Guidelines

Complete Policy Title

Statement of Investment Policies and Procedures – Investment Pool

Policy Number (if applicable):

Approved by

Board of Governors

Date of Most Recent Approval

March 31, 2022 /

April 21, 2022

Date of Original Approval(s)

October 19, 1995

Supersedes/Amends Policy dated

August 5, 2021

Responsible Executive

Assistant Vice-President (Administration) & Chief Financial Officer

Policy Specific Enquiries

Assistant Vice-President (Administration) & Chief Financial Officer

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.*

Table of Contents

Section 1 – Preamble

University funds, including specific purpose endowed funds and reserves, and a portion of working capital, are pooled and unitized for investment purposes to create a large investment pool. The larger size of the pool creates greater investment opportunities and benefits from economies of scale.

Section 2 – Definitions

Fund refers to the combined assets of the Investment Pool.

Fund Manager is an external investment manager who invests a segment of the Fund according to guidelines specified in this policy and the mandate given by the University.

Investment Consultant is the external advisor, AON Consulting, selected by the Fund oversight committee.

Long Term is defined as a period of 10 years or longer.

Oversight Committee is defined as the Investment Pool Committee, which is a sub-committee of the Planning and Resources under the Board of Governors. Where plural, refers to reporting beyond the Investment Pool Committee to the Planning and Resources Committee unless otherwise noted,

Real Assets refer to real estate and infrastructure investments.

Related Party is defined to be administrator of the Fund, including any officer, director or employee, or any person who is a member of the oversight committees. up to the Board of Governors. Including Fund Manager's and their employees, a spouse or child of the persons named previously, or a corporation that is directly or indirectly controlled by the persons named previously, among others. The concept of "related party" does not include government or a government agency, or a bank, trust company or other financial institution that holds the assets of the Fund, where that person is not the administrator of the Fund.

Total Rate of Return is the time-weighted rate of return based on the change in market value of the Fund over a measured period, calculated in conformity with the standards established by the CFAInstitute.

Section 3 – Governance

The University is the administrator of the Investment Pool and the Board of Governors is responsible for the overall management. The Board of Governors has delegated certain duties and responsibilities (including the power to sub-delegate) to the Planning and Resources Committee which, in turn, has delegated certain duties and responsibilities to the Investment Pool Committee, Financial Affairs, and third-party agents to carrying out the Investment Pool duties and adhere to this policy.

Section 4 – Investment Objectives

The primary objective is to generate Long Term average returns sufficient to meet the needs of the University, defined as a Total Rate of Return of 5.0%, after inflation and fees. Subject to an overriding commitment to financial prudence, investment decisions must align with the University's sustainability commitments as a signatory to the United Nations Principles for Responsible Investment (UNPRI) and support a transition to a sustainable, just, and net zero carbon economy and society.

The Principles for Responsible Investment (PRI) is a United Nations-supported international network of investors working six principles:

- **Principle 1**: Signatories will incorporate ESG issues into investment analysis and decision-making p
- **Principle 2**: Signatories will be active owners and incorporate ESG issues into our ownership policies and practices.
- **Principle 3**: Signatories will seek appropriate disclosure on ESG issues by the entities in which we invest.
- **Principle 4**: Signatories will promote acceptance and implementation of the Principles within the investment industry.

- **Principle 5**: Signatories will work together to enhance our effectiveness in implementing the Principles.
- **Principle 6**: Signatories will each report on our activities and progress towards implementing the Principles.

As such, the University's responsible investing approach integrates environmental, social, and governance factors across portfolio strategy, risk management, fund selection, management, monitoring metrics and targets, and reporting.

The secondary objective of the Fund is : Establishing phased action plans toward a net zero (scope 1 and 2) carbon profile across invested assets as soon as practical with periodic target reduction milestones. The Fund will ambitiously target to reduce the carbon intensity of publicly traded assets with milestone objectives of **65%** lower weighted average carbon intensity by 2025, **75%** by 2030, and an aspirational objective of the remainder, thereafter, compared to a 2018 baseline.

Section 5 - Responsible Investing

The University's responsible investing approach integrates environmental, social and governance (ESG) considerations that could pose material risks to or otherwise impact (for better or worse) Long Term return. Further, the University is committed to aligning this policy with the UNPRI principles (above) and reporting its net zero strategy, targets and progress using widely recognized recommendations from the Task Force on Climate-related Financial Disclosures (TCFD). Finally, the University seeks to support positive societal impact that align with the United Nations Sustainable Development Goals (SDGs) and as such will work to measure, track, and reduce carbon intensity across investments while increasing green revenues and holdings in sustainable, renewable, green, and other clean technologies.

ESG considerations are identified as, not limited to, the following:

Environmental: How a company evaluates its operational impact and stewardship on physicalnatural resources and wild animal life, as well as the exposure of that company to the risks created by climate change. These factors include a company's impact on climate change, including greenhouse gas emissions, biodiversity loss, deforestation, changing land use, air, water, natural resource depletion, waste management, along with impacts on animal habitat, and ocean acidification, as well as physical and transition risks to commercial operations.

Social: How a company evaluates risks associated with human capital through business relationships and agile practices. Factors include a company's policies and approaches on human rights, labour standards, employment equity, diversity, child, slave and bonded labour,workplace health and safety, freedom of association and freedom of expression, human capital management, employee relations. In addition, we will consider where material community impact, activities in conflict zones, health and access to medicine and finance, consumer protections, and relation to controversial weapons and activities. Further, where applicable, social factors extend to a company's position on animal use and/or testing, and how animals are bred or used in food supply chains.

Governance: How a company evaluates operational risks associated with corporate behaviours. These factors include effective disclosures that are relevant, complete, transparent, accurate, and consistent that provide details about a company's board structure, director nomination processes, composition, size, executive pay, shareholder voting rights, diversity skills, independence, stakeholder rights, business ethics, anti-bribery policies, corruption involvement, tax avoidance activity, internal controls, cyber-security, and conflict of interest policies. This area includes a company's position and oversight on sustainability plans and integration of those plans into employee performance assessments and compensation.

Section 6 – Investment Beliefs

The University has a belief that the Fund is a Long-Term asset that requires primarily active management and prudent diversification across asset classes, geographies, and fund manager styles, that taken together will generate fund performance within tolerable volatility and risk profiles and have appropriate liquidity for annual needs. To deliver the objectives of this policy, the University believes the use of third-party experts is appropriate.

Section 7 – Risk

The University takes into consideration the Long-Term nature of the fund and in accordance with the enterprise risk management framework the fund has a high-risk appetite, defined as 10% of available expendable resources. Risk is multi-faceted and cannot be expressed in a single measure and, as such, the University considers and works to manage the following risks and other such other risks that may emerge over time when setting asset mix, targets, and other limits within this policy:

Risk Item	Risk Description	Risk Mitigation Strategy
Volatility Risk	Market cycles and economic disruption impact orderly and smooth return performance of the Fund.	Quarterly the aggregate Fund volatility is reviewed against the permissible ranges determined by the strategic asset allocation within the Fund scorecard. Additionally, Fund Manager volatility is reviewed within the Investment Consultant quarterly report.
Concentration Risk	The Fund asset mix and geography allocations across Fund Managers fails to achieve effective diversification resulting in concentration (or holdings overlap) that is otherwise undetected.	Annually the Fund oversight committee will discuss concentration risk and assess whether any actions are necessary. An investment in the shares of any single company should not exceed 10% of the total market value of all equities held in the investment pool.
Impairment Risk	A decline in the Fund's purchasing power over the Long Term.	Fund performance is monitored quarterly, annually (from inception), and on 4-year annualized return basis to relative benchmarks.
Currency Risk	Exposures to foreign currency can impact return and need to be considered when establishing asset mix.	A minimum of 20% of foreign currencies will be hedged to Canadian currency.
Liquidity Risk	The ability of the Fund to maintain sufficient liquidity to meet spending requirements.	Annual spend requirements are reviewed to ensure the percentage of funds held in illiquid assets will not affect spending requirements.
Governance Risk	Failure to undertake, or demonstrate where delegated, good stewardship and positive engagement activities in relation to Fund assets.	An annual report on active engagements and proxy voting by Fund Managers will be reviewed along with University engagements direct and indirect through partnerships.
Reputation Risk	Failure of the plan to effectively convey is strategic, risk management, metrics, and targets through widely accepted reporting principles to the	The University is a signatory of UNPRI. The plan is also following accelerated decarbonization strategy is underway to deliver a net zero portfolio. A globally recognized reporting framework TCFD has been adopted to promote transparency in the Annual

	satisfaction of broad and varied interest groups.	Financial Report and on the Responsible Investing website.
ESG and Climate-Risk	ESG and climate change implications can have a material impact on the future performance of the Fund, both associated with physical risks and transition risks. Physical risks include acute or increased chronic extreme weather event driven risks. Transition risks include impacts associated with policy, legal, technology, market, and reputation risks.	Fund Managers are asked to report, at minimum annually, on how physical and transition risks (and opportunities) are factored into individual company selection and the overall product profile. Fund Managers are required to consider the emissions profile of the companies held and assess company transition initiatives against global sustainability objectives. Additionally, the Investment Consultant and other third-party experts will report on ESG integration, total Fund physical and transition risk (and opportunities).
Net Zero Risk	The objective to achieve net zero within an acerated timeline, fails to be achieved wither in concert with the primary Investment Objective or due to lack of data availability and transparency to effectively track.	Consistent with the UN-convened Net-Zero Asset Owner Alliance, the Fund shall monitor its decarbonization (using the carbon intensity measure for scope 1 and 2 emissions) and investment performance together. Further, five (5) year carbon reduction milestones will be used to measure the net zero path of the Fund.
Investment Consultant Risk	Failure of the Investment Consultant to ensure the University oversight bodies are kept informed on evolving practices aligned to this policy and provide effective summary reporting on the Fund performance and other key metrics against established targets or maximum tolerances.	The oversight committee will review quarterly reporting prepared by the Investment Consultant, discuss evolving practice changes arising from global investment practice consortiums and standards setting bodies, and engage in discussions about the overall Fund profile, performance, and attainment of Investment Objectives.
Fund Manager Risk	Failure of a Fund Manager to meet Investment Objectives of the Fund while adopting evolving CFA Institute guidance requiring integration of ESG considerations, active engagement with companies held, and effective reporting to the University.	Each Fund Manager will report quarterly on its performance and product alignment to this policy. At least annually the Fund Manager will provide a report on its selection and monitoring approaches as aligned to CFA Institute (including ESG) guidance. Further, the Fund Manager will provide an annual proxy voting summary ideally organized by ESG and/or SDG topics and confirm discretionary votes were made in alignment of this policy.
Transition Cost Risk	Risk that portfolio turnover costs impact the performance of investments.	The Fund oversight committee will review net fees and investment strategy relative to anticipated transition costs to ensure costs do not have a materially detrimental impact on achieving the Investment Objectives.

Section 8 – Strategic Asset Allocation

The long-term strategic asset allocations to real assets (real estate and infrastructure) will be achieved over several quarterly cycles, as such an interim asset allocation will be used until such time the long-term allocation is achieved.

Asset Class	Interim			Long-Term			Benchmark Index	Value-Add*
	Target Allocation	Permissible Range		Target Allocation	Permissible Range			
		Minimum	Maximum		Minimum	Maximum		
Canadian Equities	**10%**	5%	20%	**10%**	5%	20%	S&P/TSX Composite Index	75 basis points
US Large Cap	**7.5%**	10%	30%	**7.5%**	10%	30%	Russell 1000 Index (Cdn. $)	50 basis points
US Large Cap (Hedged)	**12.5%**			**12.5%**			Russell 1000 Index (Hedged)	50 basis points
US Small Cap	**5%**			**5%**			Russell 2000 Index (Cdn. $)	50 basis points
Non-North American Equities	**25%**	10%	30%	**25%**	10%	30%	MSCI EAFE Index (Net)	150 basis points
Bonds	**25%**	15%	45%	**20%**	15%	30%	FTSE TMX Universe Bond Index	20 basis points
Short/Medium Term Bonds	**2.5%**			**0%**			FTSE TMX Universe+Maple Short-term Corporate Bond Index	20 basis points
Real Assets	**12.5%**	5%	20%	**20%**	10%	30%	CPI + 4%	200 basis points

*The expectation of value added over the benchmark index on a 4-year rolling annualized basis for active classes.

Expectations from Active Management

Based upon policy weighted allocations, the gross expectation for value added from active management is approximately 100 basis points before fees achieved approximately 60% of the time. Therefore, the long-term value-added gross expectation is pro-rated to 60basis points and performance of the Fund from active management shall be considered satisfactory if the total annualized returns earned by the Fund exceedby 60 basis points (refer also to Appendix 1) the returns that could be earned on a passive basis.

Investment Return Volatility

The expected volatility of returns for the Fund is directly related to the strategic asset allocation. Volatility is inherent in investing and will be managed according to the permissible ranges.

Rebalancing Policy

Should any asset class fall outside of the minimum and maximum ranges, excluding the Real Asset Benchmark allocation, outlined on the previous page, the Treasurer shall rebalance the total Fund back to the Benchmark Portfolio. The Treasurer shall rebalance as soon as is practicable, but not later than three months after any breach of the ranges.

Section 9 – Permitted Investments

The following investments may be made either directly, through pooled or mutual funds, through private partnerships, or through insurance contracts. The list of permitted investments and constraints outlined below apply to all relevant mandates.

Additional constraints may be imposed on the Fund Managers through their specific mandate.

▪ Publicly traded Canadian common stocks, rights, warrants, instalment receipts and debt securities convertible into common stock. ▪ Publicly traded U.S. and international common stocks, American depository receipts, global depository receipts, rights, warrants, instalment receipts and debt securities convertible into common stock. ▪ Debt securities of Canadian issuers, including bonds, debentures, or other debt instruments of corporations, Canadian Governments, Canadian Government agencies, or guaranteed by Canadian Governments; mortgage-backed securities; asset-backed securities; and real return bonds. ▪ Foreign issuers of Canadian-denominated bonds.	▪ Publicly traded preferred shares. ▪ Initial public offerings. ▪ Exchange traded funds. ▪ Foreign bonds. ▪ Real estate. ▪ Infrastructure. ▪ Publicly traded income trusts. ▪ Private placements. ▪ Mortgages. ▪ Canadian cash on hand, demand deposits, treasury bills, short-term notes and bankers' acceptances, term deposits and guaranteed investment certificates having a term of equal or less than one year.

The Fund Manager will serve as active stewards, engaging with the companies it holds and voting proxies. The Fund Manager will promote alignment to widely accepted global standards relating to ESG, such as meeting the Paris Agreement targets. The Fund Manager shall exercise opportunities to divest itself from any company that fails to demonstrate, within a reasonable timeline, a transition plan with science-based metrics and targets aligned with UN supported directions. The Fund Manager will inform the company and the oversight committee of its reasons for any ESG related divestments. The Fund Manager may reinvest where the company effectively addresses the reasons for divestment and fits with the Fund Manager's selection approach.

Limitations and Restrictions

An investment in the shares of any single company should not exceed 10% of the total market value of all equities held in the investment pool.

Derivatives

Derivatives such as options, futures, swaps, and forward contracts on any permissible investment is allowable, including but not limited to index option and futures, index participationunits and equivalents. Derivatives may not be used speculatively, however may be used to:

- Hedge investment risk, including market interest rate, credit, liquidity, and currency risk.
- replicate direct investments in asset classes (to lower cost or market exposure for example).
- effect cash and asset mix rebalancing.

The Fund Managers shall be responsible for assessing all counter party risks associated with derivative instruments, including credit rating and total exposure limits for each derivative securities dealer and bank. The minimum credit quality for the counter party of any derivative transaction shall be consistent with the credit quality requirements set out in the Fund Manager's mandate. The Fund Manager's shall implement internal procedures and controls in order to ensure that derivatives are always used in compliance with this Statement and their mandate.

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Minimum quality requirements and maximum quantity limited are established by the oversight committee and included in each Fund Manager's mandate, which may vary between managers within an asset class and acrossasset classes.

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The Fund Manager's will at least annually provide their proxy voting policy with an annual summary outlining how proxies were voted, ideally identifying the vote relationship to ESG considerations, where possible further linked to related SDGs, and any departures from, or exceptions to, the policies and any other extraordinary matters. This annual report will be available to the oversight committees up to including the Board of Governors. Fund Managers associated with Real Assets are excluded from this requirement.

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The selection and appointment process for Fund Managers and investment consultants shall ensure that the final candidates are selected in accordance with the University procurement policies. Further, that the candidate and final selection process aligns to the University's overall investment objectives, investment beliefs and other policy matters in this Statement.

The selection process will include, where applicable, an assessment by the Investment Pool Committee whether the prospective candidates can demonstrate all or most of the following criteria, which are evolving in public practice and availability globally:

Prospective Investment Consultants shall:

- Be a signatory to UNPRI and provide disclosure of recent UNPRI assessment reports.
- Provide documentation that responsible investing is integrated with advisory services offered.
- Demonstrate capability to accommodate the University's responsible investment priorities.
- Demonstrate that it has access to ESG data and analytical tools to support recommendations.
- Confirm that standard Fund reporting will integrate both performance data with carbonand other ESG measurement data.

Prospective Fund Managers shall:

- Be a signatory to UNPRI and provide disclosure of recent UNPRI assessment reports.
- Provide documentation demonstrating its responsible investment policy, its responsible investing approach is appropriate for the asset class it manages, aligned to CFA Institute guidance, and proxy voting policy, including frequency of policy reviews (whether annualor otherwise).
- Demonstrate active engagement strategy and activities during a given year.
- Articulate an escalation strategy when an underlying company has ESG issues or where initial engagement efforts are unsuccessful.
- Be committed (or within a reasonable timeline) to reporting aligned to the Task Force Recommendations on Climate-Related Financial Disclosures (TCFD).
- Engage in discussion, measures, and disclosures available associated with climate- related risks and opportunities, as defined by TCFD.
- Measure weighted average carbon intensity (WACI) of the Fund and carbon footprint, as defined by TCFD, and confirm that these measures will be available in quarterly reports along with standard performance results.
- Provide documentation for the Fund Manger's mandate and its carbon-related reduction targets, if any,

associated with the WACI or carbon footprint measure, or other targets on matters such as energy consumption, waster tonnage, water shed, land repatriation, diversity, equity, etc.

- Demonstrate actions and/or provide case studies where the Fund Manager is working with the companies it invests in to adopt TCFD reporting and provide evidence as to how many of its investee companies have already adopted TCFD, as a percentage of the Fund. Further, confirm that adoption rates will be reported to the committee annually.
- Provide investment assessment approach and disclosure for fossil fuel holdings within the Fund, and in particular rationale for any holdings on the Carbon Underground 200 list, representing the top 100 coal and 100 oil reserve owning companies ("CU200") annually.
- Provide confirmation of the number of companies within the Fund that have a current Sustainability Plan; in relation to carbon emissions whether reduction targets exist inalignment to the Paris Agreement (or better); how underlying company ESG metrics and targets are monitored by the Fund Manager.
- Provide disclosure of the Fund Manager's other memberships associated with responsible investing and disclosure on how resources within the Fund Manager organization are directly or indirectly responsible for responsible investing.
- Demonstrate commitment to incorporate material ESG factors into its investment and stewardship activities.
- Provide disclosure and/or the policy the Fund Manager is deploying to ensure diversity and equity is addressed within the Fund Manager's organization, and whether employment census data reflects societal census data (if not, whether plans exist to address differences).

  The above criteria are not exhaustive. Since responsible investment selection criteria is evolving it is not expected that Fund Managers and/or Investment Consultant will meet all the criteria identified. The oversight committee will treat this as an evolving list, reflective of emerging global ESG practice, as guidance during the Fund Manager and Investment Consultant selection processes. In some cases, the criteria may not be applicable depending on Fund Manager's asset class and/or the Investment Consultant business mix. The Investment Pool Committee will review these criteria at the onset of each selection process.

Documentation to be reviewed in the selection and appointment process includes, but is not limitedto, standard client reporting, general and responsible investment policy and reports, investment methodology, proxy voting and engagement policy, historical voting and engagement activities withinvestees, and policy makers, compliance reports, controversies, and incidence reports. Reports provided may be redacted in some cases to protect proprietary information.

Section 12–Reporting Requirements

Fund Managers will make a presentation to the Investment Pool Committee on a periodic basis, however each Fund Manager shall provide quarterly statements that include performance, attribution of the performance, carbon measures (WACI and/or carbon footprint), future investment strategy, compliance with the mandate and a listing of the assets in the portfolio.

At least annually, each fund manager shall provide the annual proxy voting report described in section 10.

At lease annually, the Fund Manager will also respond to the Responsible Investing (RI) Questionnaire, whereby responses will be posted on the University's Responsible Investing website. The RI Questionnaire may be updated annually to capture evolving practice matters and will include for example:

- ESG integration approach, highlighting any changes made over the last 12 months, and how is it used in the company selection process to build the product (pooled or segregated) and used ongoing to monitor risk of individual holdings, and any ESG incidents in the portfolio.
- Percentage of underlying companies in the Fund that:
- Are UNPRI signatories

- Adopted TCFD Measures: WACI and/or Carbon Footprint and have a reduction target
- Have a current Sustainability Plan that materially addresses the UN SDGs
- Explain how climate-related risks are assessed at the pooled fund or segregated fund level, with explanation covering climate-related transition risk considerations (policy, legal, technology, market, and reputational risks) and physical risks (acute and chronic), as defined by TCFD.
- Explain how climate-related opportunities are assessed at the pooled or segregated fund level, with explanation covering resource efficiency, energy source, products and services, new markets, and resilience, as defined by TCFD.
- Report on any CU200 fossil fuel investment positions held and the rationale why the position is aligned to the University's investment beliefs and its carbon reduction target.
- An annual carbon intensity measurement and carbon footprint, where measured, in comparison to the University assigned benchmark and/or another ex-fossil fuel measure appropriate for the asset class.
- Additional aggregated annual measurements, where measured, energy consumption, water shed, waste tonnage, land use and repatriation.
- Progress made within Fund Manager's organization on diversity and inclusion strategies.
- Fund managers whose hiring date precedes the date of this policy ("Legacy Fund Managers") and do not have Responsible Investment reporting and investment criteria included in Investment Management Agreements are not subject to negative action associated with Responsible Investment reporting and policy requirements. However, all Legacy Fund Managers will be asked to submit an action plan to the oversight committee that demonstrates compliance with the Responsible Investment requirements of this Statement within a reasonable timeline.

If a Fund Manager is not in compliance with their mandate, the Fund Manager is required to notify the Treasurer as to the reasons for the non-compliance and to outline the course ofaction, including timing that will rectify the situation. The Treasurer will inform the oversight committee of the situation.

Section 13 – Other Policy Items

Valuation of Securities

It is expected that all the securities held by the Fund will have an active market and that the values of such securities will be based on their market values. The exception to this is Real Assets (Private Infrastructure and Private Real Estate) where it will be based generally on appraisals conducted on aperiodic basis.

Investments that are not regularly traded shall be valued at least annually by the Fund's custodian in co-operation with the Fund Manager. In making such valuations, consideration shall be given to bid and ask prices, previous transaction prices, discounted cash flow, independent appraisal values, the valuations of other comparable publicly- traded investments and other valuation techniques that are judged relevant to the specific situation.

Securities Lending

Securities held by the Fund may be loaned by the Trustee under a properly approved contract with the University. Such loans must be secured by cash or readily marketable securities with a quality rating of R1 or higher, a market value of at least 105% with the level of security maintained daily, and an indemnity by the custodian against all losses because of the custodian's securities lending program. Collateral provided with respect to any such securities lending agreement must have free and clear title and may not be subject to any right of set-off. It is recognized that this policy on security lending is not enforceable to the extent that the investment is in pooled funds.

Related Party Transactions

The Fund may not enter into a transaction with a related party unless the transaction is both required for operation and or administration of a Fund and the terms and conditions of the transaction are not less favourable than market terms and conditions; or Securities of the related party are acquired at a public exchange.

Conflict of Interest

A conflict of interest is an event where any employee, hired third party to support the Fund, or member of the oversight committees directly or indirectly gains financial or other advantage from his or her role with respect to the Fund. Or, where circumstances exist that could reasonably impair his or her ability to render unbiased and objective advise compromising his or her fiduciary responsibility to act in the interest of the Fund. In the situation of a conflict of interest it is the duty of the individual ("Affected Person") to disclose any material conflict of interest relating to them, or any material ownership of securities, which could impair their ability to render unbiased advice, or to make unbiased decisions, affecting the administration of the Fund's assets.

Further, it is required that no Affected Person shall make any personal financial gain (direct or indirect) because of his or her fiduciary position. However, normal, and reasonable fees and expenses incurred in the discharge of his/her responsibilities are permitted if documented and approved by theUniversity.

No Affected Person shall accept a gift or gratuity or other personal favour that is material, from a person with whom the Affected Person deals in the course of performance of his or her duties andresponsibilities for the Fund.

It is incumbent on any Affected Person who believes that he or she may have a conflict of interest, or who is aware of any conflict of interest, to disclose full details of the situation in writing to the oversight committee Chair within three business days. The disclosure should also be made orally if awareness of the conflict occurs during the discussion of the Fund's business. The respective committee, in turn, will decide what action is appropriate under the circumstances but, at a minimum, will table the matter at the next regular meeting of the oversight committee.

Normally, the individual disclosing the conflict of interest shall withdraw from the meeting during discussion of and vote on the issue causing the conflict of interest. The individual may be permitted, at the Committee's request, to participate in the discussion but he/she shall not be present for the vote.

The disclosure of a conflict of interest, the name of the individual declaring the conflict and the way the conflict was resolved will be recorded in the minutes of the oversight committee.

Conflict between Policy and Pooled Fund Investment Policies

While the guidelines in this Policy are intended to guide the management of the Fund, it is recognized that, due to the use of pooled funds, there may be instances where there is a conflict between this policy and the investment policy of a pooled fund. In that case, the pooled fund policy shall dominate. However, wherever such a conflict results in non- compliance with the Policy, the Fund Manager must report this conflict explicitly in its compliance report.

Policy Review

This Statement shall be reviewed at least annually by the oversight committees up to the Board of Governors with respect to the appropriateness of the policies and objectives contained therein.

Appendix 1

MCMASTER UNIVERSITY
INVESTMENT POOL VALUE ADDED RATE OF RETURN OBJECTIVE

ASSET CLASS	ALLOCATION TO ACTIVE MANAGEMENT %	EXPECTED ANNUALIZED VALUE ADDED BY ASSET CLASS (bps) (a)	ACTIVE COMPONENT OF ASSET MIX % (b)	EXPECTED ANNUALIZED VALUE ADDED FROM ACTIVE MANAGEMENT (bps) (a x b)
CANADIAN EQUITY	100%	75	10	7.5
U.S. EQUITY	100%	50	25	12.5
EAFE EQUITY	100%	150	25	37.5
BONDS	79%	20	20	4
REAL ASSETS	100%	200	20	40
				101.5
	Assume 60% Success Rate (Management Estimate)			60%
	Total Fund Value Added Rate of Return Objective*			60

*intentionally rounded down from 60.9 to 60 bps.

(1) Pending the full funding of the Real Asset portion of the portfolio, we expect the Total Fund Value Added Rate of Return Objective to be lower than what is stated in the table above.

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

FOR INFORMATION

a. **Actions Taken on Behalf of the Board of Governors**

At its meeting on February 5, 2024, the Executive & Governance Committee approved the Terms of Reference for the Establishment of the Joseph & Amy Ip Chair in Bio-innovation, on behalf of the Board of Governors. Further details can be found in the circulated materials.

i. **Establishment of the Joseph & Amy Ip Chair in Bio-innovation**

Board of Governors: INFORMATION
March 7, 2024

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MEMORANDUM

Date: December 14, 2023

To: Senate Committee on Appointments

Cc: Susan Tighe, Provost & Vice-President, Academic
Steve Hranilovic, Vice-Provost & Dean of Graduate Studies

From: Heather Sheardown, Dean and Professor

SUBJECT: **New Terms of Reference – The Joseph & Amy Ip Chair in Bio-innovation**

Following receipt of a generous gift of $1,000,000 to establish The Joseph & Amy Ip Chair in Bio-innovation as per the attached gift agreement, and in preparation for a search to select a Chair for a five-year term, I wish to recommend the attached terms of reference for approval by the Senate Committee on Appointments at their upcoming meeting on December 11th.

A copy of the terms of reference is attached and has been revised to remove wording related to the Donor's participation in the selection process. The Donor will not be involved in that process as per the standard process. The term 'institute' has been used to maintain consistency in the wording.

To confirm, every donor-funded chairholder in the Faculty of Engineering prepares an annual stewardship report for the information of the donor.

Thank you.

TERMS OF REFERENCE THE JOSEPH & AMY IP CHAIR IN BIO-INNOVATION
FUNCTIONS:
The Joseph & Amy Ip Chair in Bio-innovation is a research leadership position to oversee a joint engineering and health sciences institute. The primary objective of this role is to create and share biomedical engineering-focused knowledge and work using an interdisciplinary approach in the area of bio-innovation.
ACCOUNTABILITIES:
The holder of the Chair will provide an annual report of their teaching and research activities to the Dean of the Faculty of Engineering, who will provide a copy to the Donor. The incumbent will acknowledge that they hold The Joseph & Amy Ip Chair in Bio-innovation at McMaster University in all publications, lectures, and any other activities supported through the Fund. This Chair will be a highly accomplished researcher and visionary leader who, over a five-year term, will spearhead the continued collaboration between the Faculty of Engineering and the Faculty of Health Sciences, develop a sustainable plan for the launch of a proposed bio-innovation institute, and build a strong team of scientists, professors, students, research coordinators and assistants who will be critical to the growth of artificial intelligence in healthcare and bioengineering in Canada and internationally.
TIMELINES:
August: Annual Chair Report will be available for the Dean to present to the Donor
QUALIFICATIONS/ATTRIBUTES OF A SUCCESSFUL CANDIDATE:
The ideal candidate for this position will be an accomplished researcher, excellent undergraduate mentor, and full-time continuing faculty member within the Faculty of Engineering. The incumbent should have extensive experience in graduate and undergraduate education; a strong understanding of and commitment to experiential education in engineering; experience working with diverse communities and furthering equity and inclusion goals in higher education; demonstrated success in networking, collaboration and securing research funding from a variety of sources; and excellent interpersonal and communication skills.
DURATION OF APPOINTMENT
5-year term, renewable
SELECTION PROCESS
An ad hoc Selection Committee, constituted and chaired by the Associate Dean, Research, Innovation & Partnerships, will seek nominations and complete a selection process every five years or if/when the chair becomes vacant.

Drafted: November 1, 2023
Revised: December 14, 2023

President's Report to
McMaster University's Board of Governors
March 7, 2024

Spotlight on Teaching and Learning

McMaster has long been recognized as a global leader in teaching and learning innovation. We remain committed to creating the best possible learning environment for our students, and ensuing students are equipped with the knowledge and skills needed to make a transformative impact on our world.

We are continuing to innovate in this critical area, focusing on the expansion of active, experience-based, interdisciplinary, partnered and inclusive learning. We are developing innovative and varied approaches that incorporate global insights and encourage creativity, risk-taking and reflection, while embracing virtual learning approaches and new digital tools such as artificial intelligence.

I would like to highlight advances in this important priority area.

The Future of Teaching and Learning

Outcomes of the Generative AI Task Force

As Board members know, the Task Force on Generative AI in Teaching and Learning was convened in May 2020 to provide guidance to the McMaster community on the use of AI in academic programming. In August of 2023, the task force shared its Provisional Guidelines on the Use of Generative AI in Teaching and Learning, recommended revisions to the academic integrity policy, and endorsed resources created to support educators and programs.

The MacPherson Institute has taken a leading role in enabling instructors to be responsive to the evolving AI landscape, producing an asynchronous, self-paced module, two Guidebooks, a podcast series, assessment workshops, and facilitated more than 40 departmental or program workshops with over 500 educators participating.

The MacPherson Institute is also hosting a post-doctoral fellow focused on theorizing new models of assessment in the era of generative AI. This post-doc is working with an independent contractor to develop a unique assessment tool designed to enable customized, learner-centered assessments across all disciplines and levels of instruction.

McMaster will continue to explore the use of generative AI in Teaching and Learning through a new ongoing committee, as was recommended by the task force. That committee will be in place in the coming weeks.

This work, undertaken jointly by the Office of the Vice-Provost Teaching and Learning, the Deputy Provost and the MacPherson Institute, represents McMaster's commitment to responding to the challenges and opportunities of generative AI, and is an example of the leadership role McMaster is taking in this increasingly important area.

Supporting Digital Learning

Nearly a year ago, McMaster launched its Digital Learning Strategic Framework (DLSF). As part of implementing this important strategy, the Office of the Vice-Provost, Teaching and Learning and the MacPherson Institute have partnered in the development of the Online Learning Fellowship Program

The program supports faculty members in the design, development and delivery of high-quality online or hybrid courses at McMaster and helps connect educators with colleagues and units on campus to build capacity, celebrate innovative teaching, and demonstrate that online and flexible learning is valued at McMaster.

The target is to have 24 courses across two cohorts completed by the end of the winter 2025 term. This new program will serve to enhance flexible learning opportunities for McMaster students and open learning opportunities to non-McMaster students while developing the skills and expertise of McMaster instructors in the area of online and hybrid teaching.

The first cohort of learners is set to begin in the spring/summer of 2024. It is another example of how McMaster is creating innovative new opportunities for both faculty and students in the digital learning space.

Innovations in Education Conference

In December 2023, McMaster hosted the annual Innovations in Education Conference for educators across campus. Participants explored the theme, "Taking risks and embracing challenge," which was intended to foster a dynamic exchange of ideas, experiences, and best practices among educators, researchers, administrators, and other stakeholders in the field of teaching and learning.

Faculty members had the opportunity to share examples of how instructors are thinking "outside the box" and addressing new challenges by taking risks to enhance the student learning experience. The conference featured programming that explored the opportunities and challenges that arise from innovation, such as personalized learning, collaborative teaching models, interdisciplinary approaches, and inclusive education. Keynote speaker, Ronald A. Beghetto, delivered a timely and relevant session titled "Cultivating Creative Agency in the Face of Uncertainty, Risk and Artificial Intelligence," to initiate an engaging conversation about the possibilities and challenges faced by the teaching and learning field in the wake of this new technology.

Opportunities like this are critical to challenging our faculty to explore new ways of approaching teaching and learning and are imperative to ensuring McMaster remains on the cutting-edge of educational innovation nationally and globally.

<u>Supporting Innovation Within and Beyond the Classroom</u>

Excellence in Experiential Learning

As the home of problem-based learning, McMaster has long been committed to providing our students with opportunities to build hands-on skills through experiential learning.

Over the last three years, the Office of the Vice-Provost Teaching and Learning (OVPTL), with funding from McMaster's Strategic Alignment Fund has been working to develop infrastructure to support experiential learning initiatives. This project has been made possible by working with staff across the

Faculties, the Student Success Center (SSC), the MacPherson Institute, and the Office of Community Engagement.

Some of the key advances in this critical area include the development of EXPLORE: an Experiential Learning Opportunities Resource for students co-developed with the SSC; the creation of an Experiential Learning Network with staff representing co-op, career and experiential learning teams across Faculties; and the development of an experiential learning framework for the institution.

The next steps include a set of recommendations for developing additional infrastructure to support experiential learning, as well as the creation of a central website to provide educators and learners with coordinated support and resources for experiential teaching and learning.

INSPIRE Courses

In 2020, McMaster established the INSPIRE Office of Flexible Learning to help advance our strategic goal of developing holistic, transformational, and personalized student experiences. Since then, the INSPIRE office, in partnership with central units, Faculties and other areas on campus, have developed a range of interdisciplinary courses that are uniquely scheduled to allow for flexibility, and which are open to all undergraduate students, at all levels, without pre-requisites.

The goal of these courses is to provide students with opportunities to explore topics outside of their own discipline, learn from campus and community partners in small, interdisciplinary groups, and engage in experiential or outdoor learning in the city of Hamilton and surrounding areas, including urban and natural spaces. These courses are available as ongoing courses, as four-week "intersession" courses (offered in May), or as spring/summer courses.

Examples of these courses include The Voice of Refugees and Displaced Persons, Critical AI Literacies, Multidisciplinary Experiential Learning Opportunities, Language and Communication in Autism Spectrum Disorder, and Hamilton: A City in 10 Objects. As part of the suite of courses available, students can also take African and Black Diaspora courses, and courses in Latin American and Latinx Studies.

To support the goal of creating more flexible and personalized options for students, the INSPIRE Office is developing more opportunities for online and hybrid INSPIRE courses, in alignment with our Digital Learning Strategy. Also, by offering spring, summer and intercession courses, we are increasing the usage of campus learning spaces – including labs, studios and makerspaces – from May to August, and are able to attract new learners through workshops, certificates and microcredentials during the spring and summer months. This provides flexibility for a new demographics of students who may have off-campus responsibilities and presents an opportunity to generate new revenue through the Summer@Mac experience.

As well, INSPIRE courses have provided an important professional development opportunity for our instructors, as they are encouraged and supported in experimenting with new teaching approaches, team-teaching, and incorporating interdisciplinary topics and approaches.

These courses have seen a healthy growth in enrolment, demonstrating the strong demand for this kind of flexible, interdisciplinary learning, and are an outstanding example of the continuous innovation in our teaching and learning practises.

Supporting Accessible and Inclusive Teaching and Learning

In response to the need to foster greater inclusivity in our teaching and learning practices, McMaster, with the leadership of the MacPherson Institute, has developed a variety of resources and workshops focused on enhancing accessibility and inclusive excellence practices in course design and delivery.

Resources designed to improve **accessibility** in teaching and learning include:

- A five-part workshop series on Universal Design for Learning (offered once per term).
- Accessible document creation and remediation workshops.
- Assessment development workshops focused on accessibility, including customized workshops for various Faculties and departments on the topic of Universal Design for Learning.
- A new online learning module, which is being developed for the MacPherson Institute's Learning Catalogue. The focus of this new module is to provide an online learning course for instructors that focuses on the principles and application of Universal Design for Learning.

To embed the principles of **inclusive excellence** in teaching and learning practices across McMaster, the MacPherson Institute – in partnership with the Equity and Inclusion Office, and with input from students and faculty – launched the Inclusive Teaching and Learning Resources website.

This new website connects instructors to a variety of resources, links and tools they can use to support building inclusive teaching and learning spaces. Resources on the webpage are categorized into four themes of inclusive practice: anti-racist pedagogies, decolonization, accessibility and assessment and grading.

As Board members know, McMaster is deeply committed to supporting and advancing inclusive and scholarly teaching, and these resources exemplify the innovative ways in which McMaster is embedding the principles of inclusion into our teaching and practices.

CAMPUS UPDATES

Message from McMaster's Provost: We are committed to our international students

"McMaster University remains steadfast in our commitment to international scholars and to our position as a global leader dedicated to the pursuit of academic excellence. I can assure you that this will continue to be a cornerstone of our institutional identity." – Susan Tighe, Provost and Vice-President (Academic)

AI and international recruitment: A Q&A with Deputy Provost Matheus Grasselli

Eighteen months after becoming McMaster's inaugural deputy provost, Matheus Grasselli talks with us about his focus for the year ahead, the importance of pivoting when important issues arise, and some pleasant surprises in his new role.

An update in how McMaster is addressing financial challenges

"Careful planning and seeking out of efficiencies across all units, especially during the past three years, have ensured McMaster continues to be in a strong financial position to support the mission of the university and the aspirations of our students, faculty, researchers and staff while continuing to operate as normal." – Susan Tighe, Provost and Vice-President (Academic)

A chance for students to connect with nuclear industry professionals

McMaster's annual Nuclear Industry Night connected students with local nuclear industry professionals from a diverse range of fields. More than 150 students attended the event and had the chance to network with leaders from 12 companies – including Bruce Power, Kinetrics, Westinghouse, BWXT Technologies and AtkinsRéalis – to learn more about co-op opportunities, career paths in nuclear and emerging areas of focus in the industry.

INCLUSIVE EXCELLENCE

Black History Month at McMaster begins with infectious beats and optimism

Organized by the BHM at McMaster committee led by the Equity and Inclusion Office, McMaster celebrated the launch of Black History month with an event that featured local Black-owned business vendors, tables for campus groups and programs, plus live music, poetry and dance performances.

New webinars foster a community of inclusion and belonging

The Equity and Inclusion Office (EIO) along with campus partners, including Student Affairs, Faculty of Health Sciences and Employee & Labour Relations are inviting students, faculty and staff to attend a series of webinars that cover topics like respect, inclusion, belonging, effective intragroup dialogue and human rights. "In light of the recent world events, we want to offer a space for students, faculty and staff to learn about McMaster's foundational commitment to human rights, as well as our collective responsibility to learn, teach and work in an environment that is free from discrimination," says Barrington Walker, Vice-Provost, Equity and Inclusion.

Employment Equity Census aims to better understand composition of McMaster's workforce

Open to all employees of the university, the Employment Equity Census is an important tool that helps the university better understand its workforce composition. It measures progress and informs continuous efforts towards inclusive excellence at McMaster. "The data from the census is essential in ensuring we are working toward and reaching our goal of inclusive excellence," says Wanda McKenna, Associate Vice-President and Chief Human Resources Officer. "This is all part of McMaster's efforts to increase representation, remove biases and inequities within our systems, and build a sense of community and belonging on campus."

TEACHING AND LEARNING

Students help community members adopt sustainable habits

Students in SUSTAIN 3S03, a course dedicated to implementing sustainable change through experiential learning and community engagement projects, have developed two new projects that are helping improve sustainability in the local community. The first project saw students promote more active modes of transportation — like walking and wheeling – to and from school at an elementary school in downtown Hamilton. The second project included the launch of the 'Trash to Treasure Program,' which helps community members find new owners for their unwanted office supply items, keeping them out of landfills and giving them a second life.

Narrative arts certificate provides space for writers to evolve and connect

In 2022, the Department of English and Cultural Studies began welcoming students into its newly founded Concurrent Certificate in Creative Writing and Narrative Arts (CWNA). The department knew that a supportive community would be key to each student's success. With the first cohort having earned their certificates, and applications now open for the next round of students, the CWNA program provides the opportunity for students from across the university to strengthen their writing skills though the support and guidance of mentors, and a community of their peers.

RESEARCH AND SCHOLARSHIP

Researchers chronical travels of a woolly mammoth that roamed earth more than 14,000 years ago

An international team of researchers from McMaster University, University of Alaska Fairbanks and the University of Ottawa has tracked and documented the movements and genetic connections of a female woolly mammoth that roamed the earth more than 14,000 years ago. Researchers conducted a detailed isotopic analysis of a complete tusk and genetic analyses of remains of many other individual mammoths to piece together their subject's movements and relationships to other mammoths at the same site and in the vicinity.

McMaster and ALK researchers discover new cell that remembers allergies

Researchers with McMaster University and Denmark-based pharmaceutical company ALK-Abello A/S have discovered a new cell, called a "type-2 memory B cell" that remembers allergies. B cells are a type of immune cell that make antibodies – they can help fight off infections but can also cause allergies. Researchers found that those with allergies had many memory B cells, but non-allergic people had few, if any. This discovery gives scientists and researchers a new target in treating allergies and could lead to new therapeutics.

New Professor Entrepreneurship Fellowship supports McMaster start-up founders

The Office of the Vice-President, Research and Office of the Provost have launched a new fellowship program designed to support professors pursuing entrepreneurship. The fellowship releases full-time faculty members who have started companies that involve McMaster intellectual property (IP) from teaching one course or equivalent for one year. The fellowship may be renewed for an additional year. As part of the program, fellows will also have the opportunity to engage in entrepreneurship programming and quarterly mentorship and support meetings.

ENGAGING LOCAL, NATIONAL, INDIGENOUS AND GLOBAL COMMUNITIES

New program will take McMaster students to Africa for internships

McMaster is now a partner in a new program that will provide support for our students and other youth from across Canada to go on internships in Liberia and Ghana. The African Youth International Internship Project is a partnership between McMaster, Empowerment Squared (E2) and the charitable organization Schools of Dreams. The project is set to launch later this year and run until December 2027 after receiving $4.9 million in funding from Global Affairs Canada.

OPERATIONAL EXCELLENCE

Sustainability report showcases campuswide initiatives

The third annual Sustainability Report showcases student, faculty and staff initiatives that highlight McMaster's commitment to transforming campus into a living laboratory for sustainability. Featuring a podcast with the president, a robotic arm in space, repurposing pizza oven heat and students encouraging all of campus to bring your own bottle (BYOB), this report shares the university's progress within the four strategic drivers: A culture focused on sustainability, teaching, learning and research, self-sustaining campus and sites, and operational excellence.

TMG Peer-to-Peer Awards recognize six extraordinary employees

Six McMaster employees from The Management Group (TMG) were recognized by their colleagues for their outstanding work and exemplary leadership capabilities through the annual TMG Peer-to-Peer Recognition program. After being nominated by their peers, recipients are assessed by a selection committee, and the awards are given based on their demonstration of one or more of McMaster's six core leadership capabilities.

AWARDS AND ACCOLADES

McMaster Scientist receives biological chemistry award for cutting-edge research

The Canadian Society for Chemistry (CSC) is honouring McMaster scientist John Whitney with a New Investigator award in biological chemistry. Whitney is an associate professor in the Faculty of Health Sciences' department of Biochemistry and Biomedical Sciences and a member of the Michael G. DeGroote Institute for Infectious Disease Research. He will receive the 2024 Melanie O'Neill Award for his cutting-edge research into the molecular mechanisms of antibacterial toxins. The award is presented to a scientist working in Canada who has made significant contributions to biological chemistry or biophysical methods during the early phases of their research career.

Two student-run projects win 2023 Climate Change and Health Innovation Award

Two student-run projects have been recognized for their efforts to address complex sustainability challenges. The projects, which grew out of experiential learning projects through McMaster's Academic Sustainability Programs (ASP) Office, are the winners of the 2023 Climate Change and Health – Innovation Award. The award, established in 2017, is intended to recognize students who have achieved excellence in creating an innovative solution that positively impacts climate change and health.

Health Sciences Dean Paul O'Byrne appointed to Order of Canada

Paul O'Byrne, Dean and Vice-President of the Faculty of Health Sciences, has been appointed an Officer of the Order of Canada for his global impact on the concept and treatment of asthma. His appointment to was announced December 28th by the Office of the Governor General of Canada. The Order of Canada, one of the country's highest civilian honours, recognizes individuals with extraordinary achievements, who have demonstrated outstanding dedication to their field.

Assistant professor Ryan Cloutier awarded Polanyi Prize in Physics

Ryan Cloutier, an assistant professor in the Department of Physics & Astronomy at McMaster, has been awarded the prestigious Polanyi Prize in Physics for 2023. The Polanyi Prize is awarded annually to researchers from Ontario universities who are in the early stages of their careers in the fields of physics, chemistry, literature, economic science and physiology/medicine.

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REPORT TO THE BOARD OF GOVERNORS
from the
REMUNERATIONS COMMITTEE

FOR APPROVAL

a. New Policy: Definition of Retiree and Eligibility for Supplemental Benefits for Retirees of McMaster University

At its meeting on February 15, 2024, the Remunerations Committee reviewed and approved the new policy titled "Definition of Retiree and Eligibility for Supplemental Benefits for Retirees of McMaster University." Further details are contained within the circulated materials.

It is recommended,

that the Board of Governors approve the proposed new policy titled "Definition of Retiree and Eligibility for Supplemental Benefits for Retirees of McMaster University", effective March 7, 2024 and as circulated.

Board of Governors
FOR APPROVAL: March 7, 2024

Appendix 1 – Definition of Retiree and Eligibility for Supplemental Benefits for Retirees of McMaster University

Complete Policy Title	Policy Number (if applicable):
Definition of Retiree and Eligibility for Supplemental Benefits for Retirees of McMaster University	
Approved by	**Date of Most Recent Approval**
Board of Governors	TBA
Date of Original Approval(s)	**Supersedes/Amends Policy dated**
TBA	
Responsible Executive	**Policy Specific Enquiries**
Assistant Vice-President & Chief Human Resources Officer (CHRO)	Human Resources Services
	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.*

FORMAT: *If you require this document in an accessible format, please email policy@mcmaster.ca.*

BRIGHTER WORLD

INTRODUCTION

1. McMaster University provides employees who retire with certain benefits that facilitate ongoing connection to the University community and access to specific facilities and services. These benefits are referred to as *Supplemental Benefits for Retirees of McMaster University*.

PURPOSE AND SCOPE

2. The purpose of this Policy is to define a Retiree and eligibility for *Supplemental Benefits for Retirees of McMaster University*.

3. This Policy applies to employees who participated in one of the University's retirement income plans (Defined Benefit Pension Plans [Plan 2000; Original Plan; Hourly Plan] or Group RRSP) while an active employee and immediately prior to the date of retirement and to Clinical Faculty who are ineligible to participate in a Defined Benefit Pension Plan (Plan 2000; Original Plan) but who meet minimum service and age requirements.

DEFINITIONS

4. For the purpose of interpreting this document:

words in the singular may include the plural, and words in the plural may include the singular;

Continuous Service means an employee's uninterrupted period of employment with the University since their last date of hire by the University.

Immediate Pension means either:

(i) A reduced or unreduced pension; or

(ii) The commuted value of the individual's pension taken after reaching the Special Retirement Age or age 65.

Retiree means:

(i) a member of one of the University's Defined Benefit Pension Plans set out below who retires with an Immediate Pension in accordance with the retirement date criteria defined in the applicable pension plan:

- *Contributory Pension Plan for Salaried Employees of McMaster University Including McMaster Divinity College 2000* ("Plan 2000")
- *Contributory Pension Plan for Salaried Employees of McMaster University Including McMaster Divinity College* ("Original Plan"); or
- *Contributory Pension Plan for Hourly-Rated Employees of McMaster University Including McMaster Divinity College* ("Hourly Plan").

(ii) A member of the *McMaster University Group Registered Retirement Savings Plan* ("Group RRSP") who, effective as of the date of leaving active employment from the University, has:

- a minimum of 10 years of Continuous Service at McMaster University during which they were enrolled in the Group RRSP and
- has attained the age of 60.

(iii) A member of Clinical Faculty who was not eligible to participate in Plan 2000 or the Original Plan, and effective as of the date of leaving active employment from McMaster University, has:

- a minimum of 10 years of Continuous Service in a full-time Clinical Faculty appointment; and
- has attained the age of 60.

SUPPLEMENTAL BENEFITS FOR RETIREES OF MCMASTER UNIVERSITY

5. These benefits are identified on the Supplemental Retiree Benefits website. Costs associated with any of these items are the responsibility of the retiree.

6. For clarity, this definition of *Supplemental Benefits for Retirees of McMaster University* specifically excludes all health, dental, out-of-province emergency travel assistance, life insurance and related benefits, the eligibility of which are determined by collective agreements and/or University policy.

ELIGIBILITY CRITERIA FOR SUPPLEMENTAL BENEFITS FOR RETIREES OF MCMASTER UNIVERSITY

7. Employees who, upon leaving the University, meet the conditions in the above definition of Retiree will be eligible for *Supplemental Benefits for Retirees of McMaster University*.

8. Eligibility for *Supplemental Benefits for Retirees of McMaster University* ends on the death of the Retiree unless there are express provisions for continued coverage for an eligible spouse and/or dependents in the individual policies that govern the application of any of the *Supplemental Benefits for Retirees of McMaster University*.

MCMASTER UNIVERSITY RETIREES' ASSOCIATION (MURA)

9. Retirees who provide their consent to Human Resources Services, will have their contact information forwarded to MURA (McMaster University Retirees' Association).

POLICY APPLICATION AND MAINTENANCE

10. As per the *McMaster University Policy Framework*, the executive responsible for this Policy will typically review this Policy every five years. Smaller and more frequent reviews may occur to ensure that this Policy is current and compliant with relevant standards and legislation.

11. The University is committed to maintaining the *Supplemental Benefits for Retirees of McMaster University* and ensuring that the program operates in compliance with all applicable laws and regulations and that related administration and practices promote internal equity.

The elements of Supplemental Benefits for Retirees of McMaster University are determined at the sole discretion of the University and are subject to regular review, update, change and possible discontinuation.

12. The University reserves the right to amend this Policy, and the provisions referenced herein, from time to time.

13. 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 the provisions of this Policy contradict any such collective or contractual agreement, the collective or contractual agreement governs, to the extent of the contradiction.

APPENDIX A: RELATED POLICIES AND DOCUMENTS

This Policy is to be read in conjunction with the following policies, statements, and collective agreements. Any question about the application of this Policy or related policies shall be determined by the Assistant Vice-President and CHRO and in consultation 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):

- Pension Plans Texts:
    - Contributory Pension Plan for Salaried Employees of McMaster University Including McMaster Divinity College 2000 ("Plan 2000")
    - Contributory Pension Plan for Salaried Employees of McMaster University Including McMaster Divinity College ("Original Plan")
    - Contributory Pension Plan for Hourly-Rated Employees of McMaster University Including McMaster Divinity College; ("Hourly Plan")
- Group RRSP Governance Documents
- Tuition Assistance - Retirees Policy
- Tuition Bursary Program for Dependents and Spouses Policy
- Other policies or Collective Agreements which reference 'retiree' or 'retirement'