McMaster’s State of Financial Affairs

Financial Sustainability Amidst COVID-19 & Climate Crisis

Financial Forum
December 2020
Financial Sustainability Amidst COVID-19 & Climate Crisis
Deidre (Dee) Henne, Assistant Vice President and CFO

Presentation Focus:
Our ability to remain relevant and sustain financial resiliency beyond 2020

- How COVID-19 changed overnight the way in which we work and engage with students, faculty and staff.
- What technological transformation investments worldwide have been forced at a pace to reflect a new normal, and how these technological transformations have overnight created a new global competitive landscape.
- How we are managing COVID-19 impacts while were we already amid a global climate crisis!
- What can we do to support our University transformation, how can we retain our competitive edge and what is the administrator’s role in this?
- Will these changes advance our agenda toward a more global health conscience environment?
Financial Sustainability
Amidst COVID-19 &
Climate Crisis

How COVID-19 changed overnight the way in which we work and engage with students, faculty and staff
Financial Sustainability
Amidst COVID-19 & Climate Crisis

Worldwide technological transformation pace and the new normal emerging creating a different globally accessible competitive landscape
Polling Question

Where should we look to ensure McMaster is a global leader?

- Across our Ontario G6 Peers
- Across our Canadian U15 Peers
- Across the Times Higher Education world leaders
- Across leading global organizations non-sector specific
Technological Transformation & Globally Accessible Competition
Technologically Globally Accessible
Technologically Intuitive
Financial Sustainability Amidst COVID-19 & Climate Crisis

How we are managing COVID-19 impacts while we were already amid a global climate crisis!
Operating Budget 2020/21

<table>
<thead>
<tr>
<th>Original Budget</th>
<th>Revised Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013/14 Actual</td>
<td>$544.7</td>
</tr>
<tr>
<td>2014/15 Actual</td>
<td>$563.3</td>
</tr>
<tr>
<td>2015/16 Actual</td>
<td>$589.1</td>
</tr>
<tr>
<td>2016/17 Actual</td>
<td>$632.6</td>
</tr>
<tr>
<td>2017/18 Actual</td>
<td>$677.1</td>
</tr>
<tr>
<td>2018/19 Actual</td>
<td>$716.8</td>
</tr>
<tr>
<td>2019/20 Projection</td>
<td>$740.5</td>
</tr>
<tr>
<td>2020/21 Budget</td>
<td>$774.6</td>
</tr>
</tbody>
</table>

| 2013/14 Actual  | $28.9          |
| 2014/15 Actual  | $732.1         |
| 2015/16 Actual  | $703.2         |
| 2016/17 Actual  | $764.9         |
| 2017/18 Actual  | $764.8         |
| 2018/19 Actual  | $720.8         |

- **Surplus (deficit)**: $0.1 to $(53.9)
- **Revenue**: $544.8 to $764.9
- **Expenses**: $544.7 to $774.6
- **YoY Revenue Growth**: 4% to 8%
- **YoY Expenses Growth**: 1% to 11%
Reserves represent 28.5% of Operating Expenses.

Appropriations 2020/21

Original
Budget

Revised
Budget

Dom. Tuition -10%
Dom. Tuition 0%

$167.7
$142.7
$98.5
$72.6
$68.2
$77.4
$157.7
$103.8

$196.6
$196.7

$167.7
$157.7

$196.6
$196.7

2013/14 Actual
2014/15 Actual
2015/16 Actual
2016/17 Actual
2017/18 Actual
2018/19 Actual
2019/20 Projection
2020/21 Budget
Polling Question

Having strong unrestricted Faculty/Department reserves or appropriations balances means, choose ONE of the following:

- The Ministry may reduce future grants or the tuition framework
- It is a temporary position due to student growth and natural delays in hiring
- Savings for strategic capital projects
- Money for future needs or a rainy day
- All of the above
Consolidated Budget 2020/21

### Original Budget

<table>
<thead>
<tr>
<th>Year</th>
<th>Surplus (deficit)</th>
<th>Revenue</th>
<th>Expenses</th>
<th>YoY Revenue Growth</th>
<th>YoY Expenses Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013/14 Actual</td>
<td>$86.6</td>
<td>$972.9</td>
<td>$886.3</td>
<td>2%</td>
<td>3%</td>
</tr>
<tr>
<td>2014/15 Actual</td>
<td>$78.6</td>
<td>$990.8</td>
<td>$912.2</td>
<td>-4%</td>
<td>1%</td>
</tr>
<tr>
<td>2015/16 Actual</td>
<td>$29.1</td>
<td>$954.4</td>
<td>$925.3</td>
<td>13%</td>
<td>4%</td>
</tr>
<tr>
<td>2016/17 Actual</td>
<td>$112.1</td>
<td>$1,076.0</td>
<td>$963.9</td>
<td>2%</td>
<td>3%</td>
</tr>
<tr>
<td>2017/18 Actual</td>
<td>$105.7</td>
<td>$1,102.2</td>
<td>$996.5</td>
<td>8%</td>
<td>4%</td>
</tr>
<tr>
<td>2018/19 Actual</td>
<td>$154.0</td>
<td>$1,190.0</td>
<td>$1,036.0</td>
<td>-10%</td>
<td>4%</td>
</tr>
</tbody>
</table>

### Revised Budget

<table>
<thead>
<tr>
<th>Year</th>
<th>Surplus (deficit)</th>
<th>Revenue</th>
<th>Expenses</th>
<th>YoY Revenue Growth</th>
<th>YoY Expenses Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019/20 Actual</td>
<td>$49.3</td>
<td>$1,074.9</td>
<td>$1,183.1</td>
<td>10%</td>
<td>6%</td>
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<tr>
<td>2020/21 Budget</td>
<td>$1196.0</td>
<td>$1,289.8</td>
<td>$1,196.0</td>
<td>9%</td>
<td>4%</td>
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<tr>
<td>2021/22 Plan</td>
<td>$1,291.5</td>
<td>$1,288.5</td>
<td>$1,239.9</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>2022/23 Plan</td>
<td>$1,343.1</td>
<td>$1,354.9</td>
<td>$1,291.5</td>
<td>5%</td>
<td>4%</td>
</tr>
</tbody>
</table>

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McMaster University

BRIGHTER WORLD | mcmaster.ca
Financial Sustainability
Amidst COVID-19 & Climate Crisis

University transformation, how can we retain our competitive edge?
Our Role
Transformational Leadership Thinking

- Frontier Leadership
- Strategic support
- Optimize service delivery
- End User* Convenience
- Comparators & Competition
- LEAN / Six Sigma

*Students, Faculty, Staff, Parents, Community
Our Role

Machine Intelligence Spectrum

- Singularity
- Generative Adversarial Networks
- Quantum Computing Enabled Analytics
- Deep Learning Enabled Analytics
- Intelligent Advisors
- Interactive Assistants
- Speech & Image Recognition
- Computer Vision
- Evidence Based Diagnostics
- Natural Language Understanding
- Natural Language Generation
- Knowledge Representation & Reasoning

Cognitive Analytics
- Optical Character Recognition
- Machine Learning Enabled Analytics
- Text Analytics
- Rules-based Automation
- Predictive Analytics
- Descriptive Analytics
- Scripted Task Bots

Intelligent Automation

Narrow AI

- Human Touch

RPA

General AI

Single / Simple

Task Complexity

Multivariate / Complex
Polling Question

McMaster is looking at finance module rules-based automation RPA projects completed by peers, what project should be launched first?

- Project creation
- Vendor creation
- Expense approval
- Agency Reporting
- Project closing
- GL Journal Data Entry
- Chartfield Maintenance and SpeedCode Creation
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Will these changes advance our agenda toward a more global health conscience environment?
OKANAGAN CHARTER
AN INTERNATIONAL CHARTER FOR HEALTH PROMOTING UNIVERSITIES & COLLEGES
An outcome of the 2015 International Conference on Health Promoting Universities and Colleges / VIII International Congress
Kelowna, British Columbia, Canada
Appendix slides
McMaster Investment Pool Carbon Strategy Compared to Divestment

From 2018 (Baseline) we have achieved -9% CO2e

McMaster Endowment Goal by 2030

Divest Energy Sector

-29.6%

McMaster Endowment Carbon Emission Reduction Goal:
- Carbon Footprint for Publicly Equities
- Reduce by 45%
- Baseline 2018
RPA benefits in Higher Education

Refocus Expertise
Employees do not waste any capacity for routine tasks and can focus on more value add activities requiring manual handling.

Security
Avoiding human fraud, easily performed compliance checks with operational audit trial.

Reduction of Repetitive Work
Reducing the amount of manual work for precious staff.

Capacity and Scalability
Increased ability to handle growth while maintaining staff levels for both large and small organizations.

24/7 Operations
Non-stop performance – no queues at peak.

Increase Efficiency
Reducing the amount of manual work for precious staff.

Quality
Increases quality by avoiding human errors and allowing staff to focus on exceptions.

Cost Reduction
Cost reduction can be as much as 20–30%+

RPA
RPA is a software solution that employs virtual workers (robots) that mimic rules-based, repeatable processes across disparate systems and can be used to reduce effort in manually intensive processes such as onboarding.

Intelligent Automation
Automates perceptual and judgement-based tasks through technologies such as speech recognition and Natural Language Processing and Intelligent Assistants which can be used to handle general Q&A Queries for students.

Cognitive Analytics
Cognitive Analytics mimics the human brain by drawing inferences from existing data, patterns and self-learning, which can assist with activities such as preparing financial statements.

Artificial Intelligence
Artificial Intelligence is any device that perceives its environment and takes actions that maximize its chance of successfully achieving its goals.