

## **PROGRESS REPORT AND PLAN OF ACTION**

### **Budget and Finance Committee**

#### **The Faculty Senate**

**February 23, 2021**

#### **A: Progress Report**

1. After several meetings with Zabi, Jeff, James, and Bridgett of the OIR, the LMCIS Dashboard for material, measurable, relevant, and SRI-driven educational and financial KPIs for all departments and colleges is already prepared and the link is posted on the Faculty Senate website and available below. Included in this LMCIS dashboard are actual KPIs for the past four years and benchmarks.
2. In the previous Faculty Senate Meeting on January 26, 2021, it was approved that Faculty Senators will be directed to the “LMCIS Dashboard” and asked to caucus with the faculty in their units on perceived strengths, weaknesses, and inefficiencies using the material, measurable and SRI-driven KPIs. We need to emphasize that faculty should focus on the reality of best uses of existing funds and resources as opposed to simple, continuing increases in funds and resources. LMCIS Dashboard contains OIR identified material KPIs, a link to departmental and college administrative budgets (current and past budgets), financial and educational KPIs prepared by the WGBFC, the initial LMCIS prepared by the WGBFC and other related materials.

#### **B: Plan of Actions**

1. Today, we have invited Bridgett to educate us how to use the LMCIS dashboard.
2. Senators are requested to have a meeting with their respected department and discuss KPIs including strengths and weaknesses and ways for maiming educational and financial sustainability of departments, colleges, and the university. We request that senators report back to the Budget and Finance Committee by March 15, 2021.

3. The WGBFC will compile inputs from Senators and prepare a comprehensive plan of actions to implement phase I of the LMCIS review process.
4. The preliminary results of the Phase I review will be presented to the Faculty Senate on the March 23, 2021 Meeting of the Faculty Senate.
5. The WGBFC will meet with Deans individually to review KPIs and faculty responses. Deans will be able to review and provide feedback.
6. Based on KPIs, faculty responses, and dean responses, the WGBFC will prepare draft Phase I final reports.
7. The WGBFC will present the review report first to the BFC and then to the Faculty Senate for review and comments (electronically) in early April and the final report for approval at the April 27, 2021 meeting of the Faculty Senate.
8. The approved LMCIS review report with recommendations will be submitted to the Provost for further consideration and action in April 2021.

Below is the link to the LMCIS Dashboard:

<https://app.powerbi.com/groups/eaueb2ce-aad6-49b3-96b5-507d83a06dfd/reports/c4bd45ff-1c08-485b-b10e-acddf0e0f090?ctid=ae145aea-cdb2-446a-b05a-7858dde5ddba>

Additional attached documents are initial sustainability report, financial KPIs, and non-financial KPIs.

**Financial Key Performance Indicators (KPIs)**

<b>KPI *</b>	<b>2019</b>	<b>2020</b>	<b>Projection 2021</b>	<b>Notes/Justifications</b>
<b>Revenues</b>				
Basic Tuition				
Credit hours				
Revenue per student (undergraduate, graduate, doctoral)				
Amount of credit hours per instructor				
Amount of credit hours per TTR faculty				
Degrees				
External grants and contracts				
% of TTR with significant external funding				
Average external \$\$ generated per TTR faculty				
Clinics (if applicable)				
Others (e.g., clinical and lab)				
<b>Expenses</b>				
Cost per student (undergraduate, graduate, and doctoral)				
Degrees per tenure-track faculty				
Avg # of credit hours per instructor				
Avg # of credit hours per TTR faculty				
Instruction Expenses Per FTE				
Number of full-time staff per full-time faculty member				
Number of administrative faculty (associate deans) per full-time faculty member				
Number of directors per students (undergraduate, graduate, and doctoral)				
Admin/Staff expenditures				
Others (please specify)				

\* For items that are not applicable to your program please write N/A in the “Notes” field

**Identified problems/challenges**

---



---



---

**Identified strengths/opportunities**

---



---



---

**Evaluation and suggestions**

---



---



---

### Nonfinancial Key Performance Indicators (KPIs)

KPI *	2019	2020	Projection 2021	Notes/Justifications
<b>Students</b>				
Current No. of full-time students				
Current No. of part-time students				
Average No. of courses taken/semester				
ACT, SAT, GPA (average, median, range)				
Student Success, DFW rates in general education courses				
<b>Faculty</b>				
Median No. of courses per faculty				
No. of students per faculty				
Median (range) of published manuscripts				
Median (range) of conference presentations				
Median (range) of submitted/received grants				
Median (range) scholarly research and creative activities				
Number of supported GAs				
Number of faculty support staff				
<b>Program</b>				
No. of credit hours required to earn degree				
No. of on-ground courses offered				
On-ground class size (median, average, range)				
No. of online courses offered				
Online class size (median, average, range)				
Avg class size (Lower, upper, Grad, doctoral)				
Percentage of courses taught by FT faculty				
No. of admitted students				
Admission rate (No. admitted/No. applied)				
Enrollment rate (No. enrolled/No. admitted)				
Graduation rate (No. graduated/No. enrolled) **				
<b>Additional criteria</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	
External accreditation and certification*				
Student job placement				
Student participation in research (number)				
Student publications (if yes, average)				
Shared faculty governance				
Roles and Rewards document				
Diversity, faculty, staff, students*				
Retirement incentives for faculty and staff*				
Others (e.g., certifications, bar passage)				

\* For items that are not applicable to your program please write N/A in the "Notes" field

\*\* For full-time students

**Identified problems/challenges**

---

---

---

**Identified strengths/opportunities**

---

---

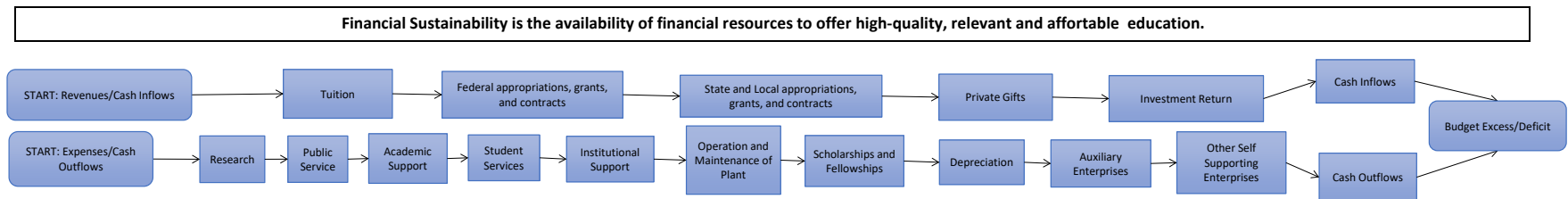
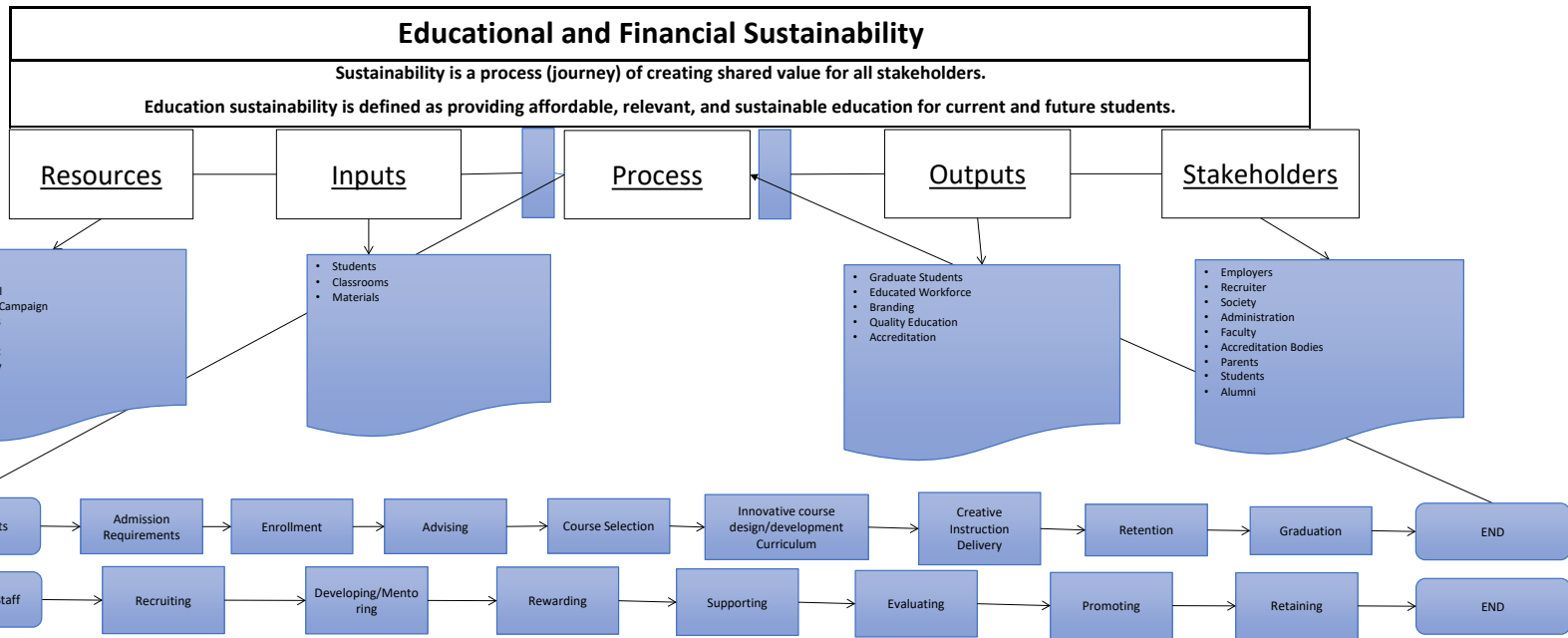
---

**Program evaluation and suggestions**

---

---

---



## **EDUCATIONAL AND FINANCIAL SUSTAINABILITY IN THE AFTERMATH OF THE COVID-19 PANDEMIC: IMPLICATION OF LEAN MANAGEMENT AND CONTINUOUS IMPROVEMENT STRATEGIES AT THE UNIVERSITY OF MEMPHIS**

### **I. Introduction**

The public including parents, students and taxpayers, regulators, business organizations, and the academic community are taking a closer look at higher education institutions to find ways to hold them more accountable for achieving their mission of providing higher education with affordable and relevant curriculum while preparing students for leadership roles in a modern, the technology-driven and globally competitive marketplace. A 2012 study of 1,700 public and private higher education institution suggests that about one-third of colleges and universities have been on an unsustainable financial path and another 28 percent are at the risk of becoming unsustainable<sup>1</sup>. Tuition at public universities and colleges has significantly increased in the past decade (about 9% in 2012) as state governments have slashed university funding. Recent higher education is being perceived as costing too much and achieving too little. In recent years and prior to the 2020 COVID-19 pandemic, financial positions of many colleges and universities were strong because of higher enrollment and generous endowments but conditions have changed for many of these institutions.<sup>2</sup>

Colleges and Universities in the United States are anticipating a significant revenue loss resulting from the pandemic. For example, the University of Michigan anticipates a loss of up to \$1 billion whereas Harvard University is expecting a \$750 million revenue shortfall in 2020.<sup>3</sup> The revenue shortfall for the University of Memphis for 2020 is estimated at \$50 million. Recently, the University of Memphis has been ranked among the world's top universities and is only one the three honored in such a high ranking in the State of Tennessee (in addition to

Vanderbilt and The University of Tennessee) according to the 2021 Times Higher Education World University Rankings.<sup>4</sup> The University of Memphis is in the process of obtaining a Carnegie level 1 research institution. Its education sustainability of offering affordable and high-quality education as well as relevant and impactful research and service is essential in this process. Figure 1 presents a model of education sustainability.

The 2020 COVID-19 pandemic has significantly altered business as usual for colleges and universities from primarily in-class learning to mostly virtual learning requiring more efficient and effective ways to meet the imposed financial challenges and restructuring of operations to ensure continuity and sustainability. The long-term sustainability of colleges and universities is vital to the economic growth and prosperity of our nation in preparing the next generation of human capital. The short-term financial effects of the pandemic on The University of Memphis include cash flow deficiencies resulting from losing dining revenues, parking fees, refunding of tuition and fees, room and boarding fees, and long-term uncertainty relevant to the continuation of delivering affordability and sustainability of education. The university has addressed the short-term budget effects of the pandemic by appointing a university wide Budget Reduction Taskforce on July 7, 2020. The Budget Taskforce has made several recommendations/strategies to address the immediate shortfall of \$17M, known as Phase I.

The long-term effects of the pandemic and sustainability of education at the University of Memphis are addressed by the Working Group of the Standing Advisory Budget and Finance Committee of the Faculty Senate (WGBFS), which was established on September 1, 2020. The WGBFS is charged with examining the sustainability and affordability of education at the University of Memphis in the aftermath of the COVID-19 pandemic by reviewing the educational activities of Academic Affairs Units. The review of all Academic Affairs Units will



be conducted by using lean management and continuous improvement strategies presented in Figures 1-3, based on the financial and non-financial metrics outlined in Appendix B and strengths, weaknesses, opportunities, threats, safeguards/sustainability (SWOTS) analysis described in Appendix A, data gathering of Appendix C , and report preparation of Appendix D.

## **II. Institutional Background**

The social distancing response to the COVID-19 pandemic mandates that universities and colleges worldwide to transform their programs and courses to virtual and online classes for the foreseeable future. The COVID-19 pandemic has also caused many financial challenges for universities and colleges because of significant and continuing reductions in student enrollment and public sources of funding including government financial supports. The CARES Act provides some financial assistance by allocating \$32 billion to support all levels of education and \$7 billion for student aid. The University of Memphis (UoM) has considered guidelines provided at local, state, and federal levels to ensure a safe environment for students, staff, and faculty, maintain the education quality, and secure sustainability and financial health of the university.

Sustainable education starts in the classroom where we train future generations of workforces and leaders to better understand community and market demands for higher education. The main objective of the UoM is to provide educational services to the community in creating, disseminating, and implementing knowledge. The main goal is to transform the University from Carnegie level 2 to level 1 in terms of research, academic and non-academic programs, serve the diverse students, and tailor our education programs toward the needs of students, neighborhood, or district betterment involvement.

At the University of Memphis, the administrators and the entire management team are facing significant challenges brought on by the COVID-19 pandemic. Among these challenges are protecting students and employees in terms of safety and health, changing the work environment to enable remote working, performing human capital risk assessment, dealing with supply chain disruption, and modifying the financial budget to provide adequate cash and liquidity. These challenges provide opportunities for universities to maintain continuity, sustainability and efficient transformation of their education, business, financial, and operational functions. The University of Memphis has responded to the challenges brought on by the COVID-19 pandemic by appointing a Budget Reduction Taskforce on July 7, 2020. The Budget Taskforce has made several recommendations/strategies for the following two phases:

1. Phase I - Recommendations/strategies to address the immediate known shortfall of \$17M.
2. Phase II - Recommendations/strategies to address any additional budget shortfalls because of a decrease in enrollments and/or additional financial impacts given the ongoing difficulties related to the COVID-19 pandemic.

The effective implementation of these two phases require a comprehensive and coordinated approach by the central administration and all colleges, schools, and departments in consultation with the faculty senate in assessing and managing their activities. The lean management and continuous improvement strategies (LMCIS) provide a blueprint for and effective and guided execution of this complex task. The following sections provide insight into the basic features of the LMCIS and how they are applicable to institutions of higher learning as they make necessary adjustments in response to the unusually difficult circumstances brought on by the COVID-19 pandemic.

### III. Lean Management

The concept of lean management is very relevant in the post-COVID-19 era and applicable to the charge of the WGBFS in addressing education sustainability at the University of Memphis. There are three guiding principles of the lean management as related to the charge of the WGBFS: (1) promoting the main objective of delivering high quality, sustainable and affordable education by focusing on effective teaching, productive research, and impactful service; (2) implementing continuous improvement of identifying strengths and concerns and finding ways to consciously improving the education process; and (3) eliminate waste and duplication by optimizing the use of resources and restructuring, reengineering, and integrating activities. The lean management concept makes explicit link between cost management (cost centers) and performance management (revenue centers) as they are affected by managerial strategy in response to the COVID-19 challenges. The lean management is a process of examining efficiency, effectiveness, and program results to offer high-quality and affordable and sustainable educational programs. Two managerial concepts of cost management relevant to the cost centers and performance management relevant to revenue centers are interdependent and should be integrated in achieving lean management and operational objectives and effectiveness. Cost management addresses the budget cuts of phase I in the context of lean management, whereas performance management focuses on continuous improvement in achieving sustainable high-quality education and generating revenues.

## IV. Continuous Improvement

Continuous improvement strategies involve classifying university activities into four categories: value-adding, non-value adding, essential, and nonessential. This approach has traditionally been used by business organizations.<sup>5</sup> The focus on continuous improvement has become more crucial in the aftermath of the COVID-19 pandemic. The university and its finance function and the CFO in consultation with the Faculty Senate are by necessity in a position to work with administration and colleges, schools, and departments in assessing what activities to restructure and what activities to prioritize. In the post-COVID-19 environment with advanced technological innovation, continuous improvement becomes crucial in gaining a competitive advantage and maintaining sustainability. Continuous improvement can enable the university to responsibly respond to challenges brought on by the COVID-19 pandemic and effectively implement recommendations of the Budget Taskforce. University activities and activities of each Academic Affairs unit in particular can be classified into four categories as depicted in Figure 2:

### A. Highest Value-Adding and Essential

These activities add value to the university's main purpose and mission of offering high-quality, affordable, and sustainable education and are essential in maintaining the continuity and sustainability of the university. These activities such as teaching, and research are adding value and any disruption can have detrimental effects on sustainability. Examples of these activities are productive undergraduate, graduate, and PhD programs with effective teaching, productive research, and meaningful services. All academic programs that are cost-effective and efficient are considered value-adding and essential.

### **B. High Value-Adding but Less-Essential**

These are activities that are considered as value-adding but not necessary revenue generating and may be reduced without losing the value-added feature through re-engineering and restructuring. Colleges, schools, and departments should consider optimizing these activities in the post-COVID-19 pandemic and in the light of the current budget cuts. Example of these activities are excessive administrative and staff activities and related compensation.

### **C. Low Value-Adding but Essential**

These are activities that do not add value but are essential. Example of these activities are administrative and staff activities including physical plant. However, activities such as middle-level managerial positions (e.g., associate deans, directors, unnecessary staff) should be minimized, especially in the post-COVID-19 era.

### **D. Lowest Value-Adding and Less-Essential**

These are activities typically excluding academic programs that neither add value nor are considered essential and thus must be restructured, consolidated, or eliminated in the post-COVID-19 era to ensure continuity and sustainability. Example of these activities are unnecessary administrative, staff, and instructor positions. At the present time the WGBFS is unaware of any University of Memphis academic programs that should be judged to be, “Non-Value-Adding and Non-Essential”.

## **V. Plan of Action**

Colleges and universities have developed a multi-phase plan for reopening their on campus activities with varying timeframes for implementing each phase all with the final phase aiming at allowing students, staff, and faculty return to campus eventually. Some classes can continue to be online and conducted virtually with remote learning. The business recovery,

sustainability, and transformation are essential components of strategic planning for coping with growing challenges caused by the COVID-19 pandemic. The central administration in collaboration with colleges and faculty senate should consider all possibilities and scenarios under which the university can survive, recover, and continue sustainable performance in offering high-quality education.

On September 1, 2020, Provost Nenon requested the Faculty Senate Budget and Finance Committee (BFC) to conduct Lean Management and Continuous Improvement reviews of the Academic Affairs units. The BFC has formed the WGBFS consisting of:

Alena Allen (BFC Member, Law School)

Tom Banning (Past President of Senate, Engineering)

Greg Barnes (KPMG Office Managing Partner, Alumni)

Coriana Lynne Close (BFC Member, Art)

Mihalis Golias (Civil Engineering)

Henry A. Kurtz (Chemistry Department)

Ken Lambert (Past President of Faculty Senate, School of Accounting)

Mohamed Laradji (Department of Physics)

Holly Lau (BFC Member, Theatre & Dance)

Fawaz Mzayek (BFC Member, Epidemiology)

James Orr (ex-Officio, Assistant Vice Provost)

Vickie Peters (School of Urban Affairs and Public Policy)

Darryl Poole (Bentley University Trustee Emeritus, Advisory: MIT/Sloan School)

Zabihollah (Zabi) Rezaee (Chair, School of Accountancy)

Genae D. Strong (School of Nursing)

Scott Sundvall (Arts & Sciences, English)

Máté Wierdl (BFC Member, Math Sciences)

The WGBFS is charged with:

- Conducting financial and educational sustainability reviews of various academic units at the University of Memphis.
- Reviewing and evaluating efficiency of administrative faculty and staff support in each unit.
- Reviewing and evaluating academic programs and identifying low producing programs that may be unsustainable and need restructuring, downsizing, or consolidation.

The WGBFS will work under an accelerated timeline. We will start the review process in November 2020, to meet with all administrators of the Academic Affairs units in Fall 2020, prepare its preliminary review report in January and February 2021, discuss its review reports and related recommendations with each unit administrators in March 2021, present the final review reports to the BFC for approval, present review report to the Faculty Senate for the final Approval, and finally forward review reports to the Provost for consideration in April 2021.

The WGBFC will meet with the central administration, colleges, schools, departments, and other units to discuss the relevance of LMCIS in ensuring continuity and sustainability of the university's education programs. We plan to view the University and each of the Academic Affairs unit as a community of faculty, students, administrators, and staff who are gathered to support learning by creating knowledge, disseminating knowledge, and implementing knowledge. This would be done through:

1. Shared governance
2. Collegiality (Respect for others).

3. Diversity, equity, and inclusion.
4. Integrity and honesty and competency in our academic, personal, and professional affairs.
5. Shared value creation.
6. A sustainable culture of accountability and transparency.

We will work with each Academic Affairs unit in preparing the assessment of strengths, weaknesses, opportunities, threats, safeguards/sustainability (SWOTS) analysis as detailed in Appendix A. For all involved Please do not hesitate to reach out to the WGBFS for assistance, consultation, and recommendation.

The WGBFS plan of action is to:

- a) Meet with the administrators and faculty representatives of the academic units this Fall 2020 to provide them with LMCIS framework and guidelines.
- b) Oversee the faculty-driven and self-assessed review processes conducted by leadership in all academic units.
- c) Obtain and discuss review reports from all academic units and address recommendations relevant to financial and educational sustainability in March 2021.
- d) Present the final review reports to the Senate Budget and Finance Advisory Committee for approval.
- e) Present review reports to the Faculty Senate for final approval.
- f) Forward review reports along with related recommendations to the Provost for consideration in April 2021.

To effectively conduct reviews of all academic units, the WGBFC is divided into two teams. The first team is led by Ken Lamber and Greg Barnes and Alena Allen in reviewing financial sustainability of academic units during and in the aftermath of the COVID-19 Pandemic. The second team is led by Holly Lau, Henry Kurtz, Darryl Poole and will review educational and program sustainability of all academic units in the post-pandemic era.



**The first team consists of:**

Alena Allen (Team Leader, BFC Member, Law School)

Greg Barnes (Team Leader, KPMG Office Managing Partner, Alumni)

Mihalis Golias (Civil Engineering)

Ken Lambert (Team Leader, Past President of Senate, School of Accounting)

Fawaz Mzayek (BFC Member, Epidemiology)

Mohamed Laradji (Department of Physics)

James Orr (ex-Officio, Assistant Vice Provost)

Vickie Peters (School of Urban Affairs and Public Policy)

Darryl Poole (Bentley University Trustee Emeritus, Advisory: MIT/Sloan School)

Zabihollah (Zabi) Rezaee (School of Accountancy)

Scott Sundvall (Arts & Sciences, English)

Máté Wierdl (BFC Member, Math Sciences)

**The second team consists of**

Tom Banning (Past President of Senate, Engineering)

Coriana Lynne Close (BFC Member, Art)

Greg Barnes (KPMG Office Managing Partner, Alumni)

Ken Lambert (Past President of Senate, School of Accounting)

Henry A. Kurtz (Team Leader, Chemistry Department)

Holly Lau (Team Leader, BFC Member, Theatre & Dance)

James Orr (ex-Officio, Assistant Vice Provost)

Darryl Poole (Team Leader, Bentley University Trustee Emeritus, Advisory: MIT/Sloan School)

Zabihollah (Zabi) Rezaee (School of Accountancy)

Genae D. Strong (School of Nursing)

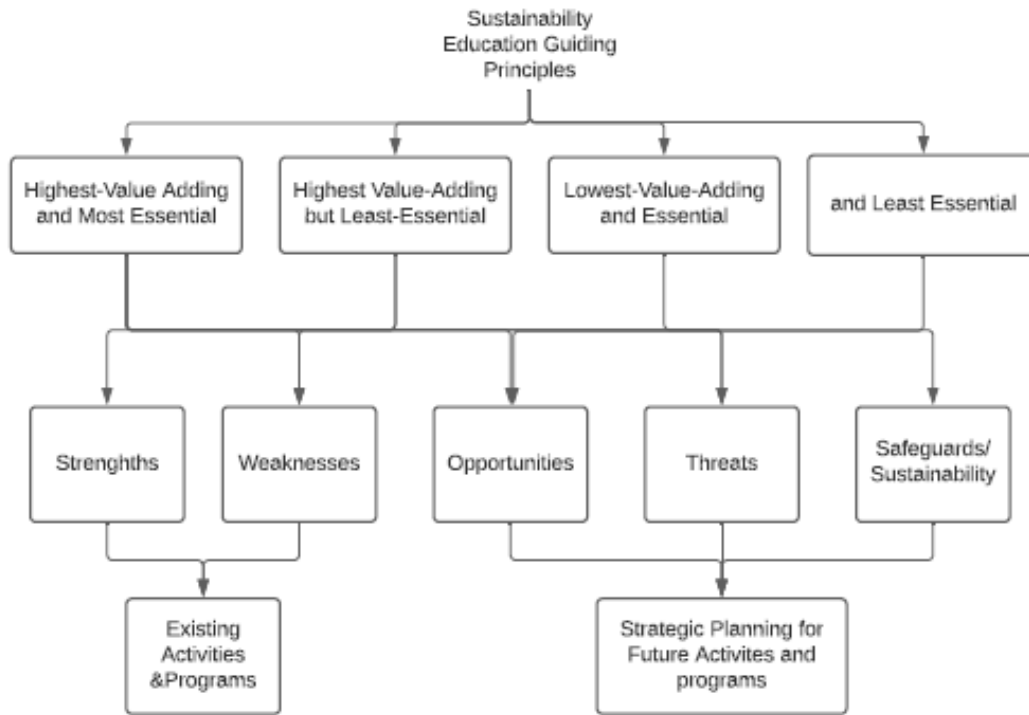
**Figure I**  
**Educational Sustainability Model**



**Figure 2**  
**Continuous Improvement Model in the Aftermath of the COVID-19 Pandemic**

	<b>Highest Value-Adding Activities</b>	<b>Lowest Value-Adding Activities</b>
<b>Most Essential Activities</b>	Strategic Focus  <b>A</b>  Enhance	Managerial Focus  <b>C</b>  Re-Prioritize
<b>Least Essential Activities</b>	Technical Focus  <b>B</b>  Prioritize	Cost saving Focus  <b>D</b>  Minimize and Justify

Figure 3



## Appendix A

### Strengths, Weaknesses, Opportunities, Threats, Safeguards/Sustainability (SWOTS) Analysis

#### A. Objective and Goals

The main objective is to provide educational services to the University Community in creating, disseminating, and implementing knowledge. The attainable goals are to:

1. Transform the University from Carnegie level 2 to level 1 in terms of research, academic, and non-academic programs.
2. Serve the diverse students and tailor our education programs toward the needs of students and the local communities.
3. Engage local communities and promote participatory research based on valid community needs assessments.
4. Continuously support and expand high-quality research and enhance knowledge dissemination and sharing on the local, state, national, global levels.
5. Create an ethical, healthy, safe, educational, and fun campus environment.
6. Promote high quality and quantity academic and non-academic programs.
7. Promote transparency and accountability: At the University, transparency is providing insight into how money is generated and how it is spent, and decisions are made in improving the quality of educational services, innovation, growth, efficiency, and effectiveness.
8. Support student success and wellbeing.
9. Create College-town feeling on and around our campus by investing in the neighborhood betterment projects.
10. Strategic planning process.
11. Guiding values and commitments.

#### B. Opportunities

Opportunities provided by LMCIS in achieving high quality, affordable, and cost-effective academic programs and thus, sustainable education are:

1. Classifying activities to the four categories of value-adding, non-value-adding, essential, and non-essential.
2. Implementing the lean management concept.
3. Promoting accountability at the university level and within all colleges and academic programs.

4. Achieving sustainable, affordable, and cost-effective college education.
5. Encouraging colleges and academic units and programs to plan to provide education in a sustainable manner in light of potential budget cuts and due to the COVID-19 pandemic.
6. Encouraging shared-governance and faculty participation in curriculum design and development.
7. Enabling linking strategic planning to the mission through the strategic resource investment initiative (SRI) model.
8. Identifying strengths and concerns of each academic program, college, and university overall.
9. Promoting risk assessment and management.
10. Creating a system of checks and balances.
11. Discovering ineffectiveness and inefficiencies.
12. Identifying sustainable and productive colleges and academic programs as well as unsustainable and challenging colleges and academic programs.
13. Creating incentives for faculty to improve their research productivity, teaching effectiveness, and service commitments.
14. Creating value for all university constituencies (administrators, faculty, students, staff, alumni, government, and the community).

### **C. Challenges and Threats**

Challenges and threats relevant to the implementation of LMCIS are as follows:

1. It should be linked to the university/college strategic planning.
2. It should be based on flexible planning and budgeting rather than static planning.
3. It should be based on the concept of lean management by identifying multiple revenue drivers and cost drivers and their strengths and weaknesses.
4. It should encourage collaborations and interdisciplinary programs among colleges/academic programs rather than creating competition among colleges and programs.
5. It should not allow colleges to use it as a way of highlighting deficits to reduce their burden of franchise fee demanded by central administration.
6. It should be linked to both quantitative and qualitative factors and drivers based on balance scorecards of achieving both quality and quantity of programs.
7. It should recognize that the LMCIS are not perfect and mistakes may occur in forecasting and judgments may require modifications.
8. It should emphasize the importance of the LMCIS as a planning device.
9. It should encourage wide participation in LMCIS development and preparation at all levels by faculty and administrators.
10. It should demonstrate the LMCIS have the complete support of administrators and faculty, especially the central administration.

11. It should harmonize curriculum and course offerings within and across colleges and schools to eliminate redundancies, take advantage of scale and reduce costs.
12. It should identify both poor and good performance, reward good performance, and minimize bad performance.

#### **D. Strengths/weaknesses**

1. Enhancing quality and quantity of enrolled students.
2. Provide security, health, and safety for students, staff, and faculty.
3. Ensure cybersecurity.
4. Deliver and monitor the integrity of online courses.
5. Use smart classroom with High-Tec equipment.
6. Promote shared governance in all colleges.
7. Prioritization of expenditures.
8. Create a right balance between short term and long-term needs.
9. Focus on longer-term demographics.
10. Address the competitive marketplace in higher education.
11. Invest in capital programs and their impact on current program delivery.
12. Transparency and accountability: lack of hidden agendas and conditions, availability of full, accurate, and complete information. Transparency is not as simple as disclosing and sharing the last budget or sharing minutes of the last meeting about key performance indicators and how accurately they are being disclosed.
13. Focus on Strategic Resource Investment (SRI) initiative to develop a better more responsive, transparent, and flexible way to provide information useful in making resource allocation decision.
14. Address challenges an increasingly complex population which includes 'traditional' students, non-traditional students, students re-entering the workplace, students transitioning from Military service, urban-based students, rural-based students, unprepared student populations, on-line and technology-oriented students, and senior/continuing education students

## Appendix B

### Financial and Non-Financial Key Performance Indicators

Challenges imposed by the COVID-19 pandemic demand colleges and universities to present reliable, relevant, transparent, and useful financial and nonfinancial information on their key performance indicators (KPIs) pertaining to their educational sustainability. Key performance indicators (KPIs) are often quantifiable measurements that reflect the critical success factors of colleges and universities and help them define and measure progress toward achieving goals.

#### 1. Financial/Quantitative Key Performance Indicators

- Admin/Staff expenditures
- Operating results
- Total expenses
- Net tuition
- Return on Endowment
- Endowment Pool
- Endowment Scholarship
- Endowment Assets Per full-time equipment students (FTE)
- Core Operating Margin (surplus)
- Tuition as A Percentage of Core Revenues
- Percent Freshman Getting Institutional Grants.
- TT, NTT, and PT faculty headcounts
- Instruction Expenses Per FTE
- Research Expenditures
- Investment in human capital, financial and other resources
- Direct instruction costs per credit hour
- Direct instruction costs per full-time equivalent student (at each degree level)
- Student support services costs per full-time equivalent student
- Research costs (direct and indirect) per high-quality (A+ and A) publication
- External sponsored research funding in total
- External sponsored research funding per full-time equivalent faculty
- Number and amount of Grant proposals.
- Number and amount of Grant awards
- Administration costs per full-time equivalent student
- Administration costs per full-time equivalent faculty
- Tuition(net) per FTE
- Non tuition revenue
- Unrestricted EXP-Instructional, Research, and Academic support
- Graduate assistant support, master and PhD.
- Average credit hours taught by TT vs NTT
- Avg class size (upper, Lower, Grad, PhD)
- Percentage of courses taught by FT faculty
-



## 2. Non-Financial/Qualitative Key Performance Indicators

- Student admission
- Student retention
- Student success/graduation
- Students' evaluation of the program
- Majors and degrees-Bachelors, Masters, and Doctoral
- Credit hours instructed
- Research productivity
- Diversity, equity, and inclusion (students, staff, and faculty)
- Adjustment to challenges imposed by the COVID-19 Pandemic
- Community engagement
- Honors program
- Promoting a culture of competency, integrity, and accountability
- Advancing reputation, trust, and good image
- Visibility and reputation (state, national and international rankings, awards)
- Culture of integrity, competency, collegiality, and congeniality
- Cultural and Social Capital
- Community engagement opportunities
- Doctorates Conferred
- Postdoctoral fellows and other non-faculty researchers
- Community Engaged Scholarship and Action
- Integrated student learning (student advising and mentoring).
- Create shared value by developing an ecosystem approach to community partnerships
- Development of faculty-driven curriculum
- Shared governance document
- Roles and rewards documents
- Strategic resource initiative (SRI)
- Invest in faculty, staff, and other personnel
- Obtain and mobilize alumni
- Seek, secure, steward donors and funders
- Strive a system of transparency and self-governance and accountability
- Degrees awarded
- Graduation rates (4, 5, and 6-year)
- Job placement and advancement rates
- Retention rates
- Admission rates
- Yield rates
- Student academic preparation (e.g., high school/transfer GPA)
- Student diversity

- Meaningful university rankings (e.g., US News, Wall Street Journal, Financial Times)
- External accreditation and certification
- Student job placement, undergraduate, graduate, PhD)

## APPENDIX C

### EDUCATIONAL AND FINANCIAL SUSTAINABILITY QUESTIONNAIRE

*This questionnaire is designed to determine educational and financial sustainability of Academic Affairs Units at the University of Memphis in the aftermath of the COVID-19 Pandemic. The pandemic has affected all facets of life from social to business, education, and governance and embarked on the new normal for the economy, business, and the future education. As the world has changed in response to the pandemic, higher education programs mirror this change in two ways. Significant challenges now exist for both the educational and financial sustainability of colleges and universities in the aftermath of the COVID-19 pandemic.*

*Education sustainability is defined as providing affordable, relevant, and sustainable education for current and future students. Financial sustainability is the availability of financial resources to offer such education. This questionnaire supplements the lean management and continuous improvement strategies (LMCIS) document and is intended to be used as a framework and guiding principle in the self-assessment review of all academic units (colleges/schools and departments).*

**1. Do you expect future demand for and interest in the following in the aftermath of the COVID-19 to?**

	Decrease	Remain the Same	Increase	Unsure
<b>Educational Sustainability</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Financial Sustainability</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**2. What percentage of college courses are offered in person (face-to-face) in the pre- and-post COVID-19 Pandemic?**

<b><u>% PRE- PANDEMIC</u></b>	0-25%	26-50%	51-75%	76-100%
<b>COURSES</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b><u>% POST- PANDEMIC</u></b>	0-25%	26-50%	51-75%	76-100%
<b>COURSES</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**3. What percentage of college courses are offered virtual (online) in the pre -and-post COVID-19 Pandemic?**

<u>% PRE- PANDEMIC</u>	0-25%	26-50%	51-75%	76-100%
<b>COURSES</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>% POST- PANDEMIC</u>	0-25%	26-50%	51-75%	76-100%
<b>COURSES</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**4. Please indicate the extent that the ongoing COVID-19 pandemic has had on the following university functions by circling the appropriate responses where, 1=strongly disagree and 5=strongly agree. If you have no opinion, please indicate by choosing 0 under N/A.**

<i>University Functions</i>	<b>Strongly Disagree</b>		<b>Neutral</b>		<b>Strongly Agree</b>	<b>N/A</b>
<b>Administration</b>	1	2	3	4	5	0
<b>Staffing</b>	1	2	3	4	5	0
<b>Teaching</b>	1	2	3	4	5	0
<b>Research</b>	1	2	3	4	5	0
<b>Outreach</b>	1	2	3	4	5	0
<b>Fundraising</b>	1	2	3	4	5	0
<b>Service</b>	1	2	3	4	5	0

<b>Certification and Accreditation</b>	1	2	3	4	5	0
<b>Others (please specify)</b>	1	2	3	4	5	0

5. Please indicate the importance of the following finance functions in the post-COVID-19 era by circling the appropriate number where, 1=least important and 5=most important. If you have no opinion, please indicate by choosing 0 under N/A.

	Least Important		Neutral		Most Important	N/A
<b>Financial and operational resilience to crises</b>	1	2	3	4	5	0
<b>Financial and operational response to crises (budget modifications)</b>	1	2	3	4	5	0
<b>Curriculum Changes</b>	1	2	3	4	5	0
<b>Program modifications</b>	1	2	3	4	5	0
<b>Cost Controls and management</b>	1	2	3	4	5	0
<b>Revenue Management</b>	1	2	3	4	5	0
<b>Lean Management</b>	1	2	3	4	5	0
<b>Continuous Improvement</b>	1	2	3	4	5	0
<b>Technologies and Virtual activities</b>	1	2	3	4	5	0
<b>Planning for the Future</b>	1	2	3	4	5	0
<b>Networking</b>	1	2	3	4	5	0
<b>Human Capital</b>	1	2	3	4	5	0
<b>Compensation</b>	1	2	3	4	5	0

6. Please indicate to what extent the following statements are relevant and important to your job as the dean in the aftermath of the COVID-19 pandemic where, 1=not at all and 5=all the time. If you have no opinion, please indicate by choosing N/A

	Not at all	Small extent	Some extent	Great extent	All the time	N/A
<b>Continuity and Disaster Planning and Risk Management</b>	1	2	3	4	5	0

<b>Budgetary Decisions</b>	1	2	3	4	5	0
<b>Faculty and Staff Reassignments and Communications</b>	1	2	3	4	5	0
<b>Remote and Flexible Work Policies/teaching</b>	1	2	3	4	5	0
<b>Safety, Health, and Wellbeing of students, faculty, and staff</b>	1	2	3	4	5	0
<b>Human Capital</b>	1	2	3	4	5	0
<b>Hiring</b>	1	2	3	4	5	0
<b>Fund Raising</b>	1	2	3	4	5	0
<b>Research Grants</b>	1	2	3	4	5	0
<b>Certification and Accreditation</b>	1	2	3	4	5	0
<b>Others (please specify)</b>	1	2	3	4	5	0

7. Please indicate to what extent the following statements are relevant and important to your duties and activities in your college during and in the aftermath of the COVID-19 Pandemic, where 1=not at all and 5=all the time. If you have no opinion, please indicate by choosing N/A

	Not at all	Small extent	Some extent	Great extent	All the time	N/A
<b>Managing</b>	1	2	3	4	5	0
<b>Teaching</b>	1	2	3	4	5	0
<b>Research</b>	1	2	3	4	5	0
<b>Outreach</b>	1	2	3	4	5	0

<b>Staffing Services</b>	1	2	3	4	5	0
<b>Consulting</b>	1	2	3	4	5	0
<b>University Services</b>	1	2	3	4	5	0

8. Please indicate the importance of the following considerations in reopening your college in effectively protecting students, faculty, staff, and administration by circling the appropriate number where 1=least important and 5=most important. If you have no opinion, please indicate by choosing 0 under N/A.

	Least Important		Neutral		Most Important	N/A
<b>Faculty and students engage in virtual-only learning options, activities, and events</b>	1	2	3	4	5	0
<b>Small in-person classes, activities, and events</b>	1	2	3	4	5	0
<b>Hybrid virtual and in-person class structures or staggered/rotated scheduling to accommodate smaller class sizes</b>	1	2	3	4	5	0
<b>Full-sized in-person classes, activities, and events</b>	1	2	3	4	5	0
<b>Residence halls opening</b>	1	2	3	4	5	0
<b>Self-isolation and stay at home policy for students, faculty, and staff who have been sick, tested positive, or exposed to COVID-19</b>	1	2	3	4	5	0
<b>Reinforce hygiene and respiratory etiquette policy</b>	1	2	3	4	5	0
<b>Reinforce use of cloth face covering policy</b>	1	2	3	4	5	0

<b>Support healthy hygiene behaviors and supplies</b>	1	2	3	4	5	0
<b>Provide signs and messages for safety and health</b>	1	2	3	4	5	0
<b>Maintain safe and healthy campus</b>	1	2	3	4	5	0
<b>Provide options and protections for students, faculty, and staff at higher risk for severe illness from COVID-19</b>	1	2	3	4	5	0
<b>Establish options for limiting non-essential travel</b>	1	2	3	4	5	0
<b>Establish designated COVID-19 point of contact</b>	1	2	3	4	5	0
<b>Establish leave, excused absence policies</b>	1	2	3	4	5	0

**9. Demographic Questions**

**a. Name of your college (optional)**

---

**b. Number of enrolled students in fall 2020**

---

**c. Number of full-time faculty**

---

**d. Number of departments/disciplines**

---

**e. Number of staff**

---

**f. Others (please specify)**

---



---



---



## 10. Open-Ended Questions

*We are seeking your reactions to the current and future university budget cuts and your actionable and reasonable suggestions for achieving educational and financial sustainability.*

### A. Financial Sustainability Questions

1. Financial issues and challenges
2. Administrative expenditure revisions/cuts
3. Staff expenditure revisions/cuts
4. Faculty expenditure revisions/cuts (e.g., travel, equipment, supplies)
5. Total expenses revisions/cuts relevant to all programs
6. Tuition revisions/increases/decreases
7. Endowment revisions/ increases/decreases
8. Research grant revisions/increases/decreases
9. External/Internal Funds revisions/increase/decreases
10. Total revenue revisions/increases/decreases
11. Student support services revisions/ cuts/increases
12. Research expenditures revisions/cuts/increases
13. Undergraduate/graduate/PhD support revisions
14. Budget and emergency funds
15. The length of time that the pandemic will affect your units' operations
16. Necessary adjustment to your budget in response to the budget cuts caused by the pandemic
17. Others (please specify)

### B. Educational/Programs Sustainability

1. Shared governance revisions
2. Strategic resource initiative revisions
3. Roles and rewards revisions
4. Administrative restructuring, revisions, and success
5. Student revisions and success (e.g., national recognition, degrees awarded, graduate rate, job placement, retention, and admission)
6. Research revisions and success (e.g., internal/external grants, research expenditures)
7. Faculty-driven curriculum revisions
8. Modifications to the administrative structure of academic programs
9. Modifications and recommendations for university level structural changes
10. Diversity/Inclusion revisions
11. Staff restructuring revisions
12. Faculty restructuring and revisions
13. Organizational restructuring and revisions
14. Program restructuring and revisions (undergraduate, graduate, PhD, and postdoc)
15. Program certification/accreditation restructuring and revisions
16. Environmental, social, and governance restructuring and revisions

- 17. Improvements for optimal/efficient/effective organizational structure**
- 18. Ways to improve efficiency and efficacy of the organization structure  
(e.g., merging, consolidation, elimination and expansion)**
- 19. Others (please specify)**

**Comments: Please feel free to comment on the COVID-19 pandemic and its impacts on educational and financial sustainability of your college. Thank you for your cooperation and assistance.**

**Appendix D**  
**XYZ COLLEGE/DEPARTMENT/PROGRAM**  
**Review Report**

**Submitted to**  
**Budget and Finance Committee**  
**The Faculty Senate**  
**Provost Office**  
**The University of Memphis**

**March 2021**

This report consists of a summary of the modifications made, the experiences gained, lessons learned in response to the COVID-19 pandemic. Recommendations relevant to educational and financial sustainability of colleges, departments, and programs are for ongoing and future continuous improvement in the post-pandemic era at the University of Memphis. This report details specific challenges, opportunities, strengths, weaknesses, findings, conclusions, recommendations, and comments.

### **General Charge of WGBFC:**

- Conduct financial and educational sustainability reviews of various academic units at the University of Memphis.

### **Specific Charges of WGBFC:**

- Reviewing and evaluating efficiency of administrative faculty and staff support in each unit.
- Reviewing and evaluating academic programs and identifying low producing programs that may be unsustainable and need restructuring, downsizing, or consolidation.

### **Procedures**

Procedures and step-by step processes should be established in effectively discharging the above charges including:

- Focus on educational and financial sustainability of your college, department, and program in the post-COVID-19 pandemic era (see Figure 1).
- Classify your activities in the college, department, and program to value-adding, essential, non-value-adding and non-essential (see Figure 2).
- Review the assessment rubrics (key performance indicators, see Appendix B) for each academic unit to assure a thorough knowledge of the goals (outcomes) and objectives (actions) established for units.
- Review data analysis for each objective to determine the extent to which reasonable expectations and attainable goals were met. State and justify the reason (s) for your findings (see Figure 3). If not met, what is needed to increase the likelihood that the objective will be met in the post-pandemic era including modifying and revising objectives and means to achieve objectives
- Substantiate your findings using SWOTS (see Appendix A and Figure 3) analyses for each objective to reflect findings that support your review comments.
- Include specific review recommendations and/or comments for each objective /goal for the rubric (see Appendix B).

- Prepare the self-assessed and faculty driven review report after all assessment data for the college, department and degree program have been reviewed. Be specific and relate conclusions and recommendations to specific findings and objectives.
- Discuss the entire review process with appropriate faculty in the college to assure engagement, participation and impacts from faculty as well as input and that your recommendations represent faculty in the college.

**Findings****Conclusions****Recommendations****Comments**

## Endnotes

<sup>1</sup> Blumenstyk, G. 2012. One-Third of Colleges Are on Financially ‘Unsustainable ‘Path, Bain Study Finds. The Chronicle of Higher Education (July 23). Available at [http://chronicle.com/article/One-Third-of-Colleges-Are-on/133095/?cid=at&utm\\_source=at&utm\\_medium=en#top](http://chronicle.com/article/One-Third-of-Colleges-Are-on/133095/?cid=at&utm_source=at&utm_medium=en#top)

<sup>2</sup> Deloitte. 2020. COVID-19 impact on higher education. Available at <https://www2.deloitte.com/us/en/pages/public-sector/articles/covid-19-impact-on-higher-education.html>

<sup>3</sup> World Economic Forum (WEF). 2020. An economist explains how COVID-19 will impact universities. July 16, 2020. Available at <https://www.weforum.org/agenda/2020/07/will-universities-learn-from-lockdowns/>.

<sup>4</sup> Times Higher Education. 2020. The World University Ranking. Available at <https://www.timeshighereducation.com/world-university-rankings>

<sup>5</sup> Rezaee, Z, Agrawal, S and H. Pak. 2006. Continuous improvement: An activity-based model. *Management Accounting Quarterly* (Spring), 14–22.