Agenda

1. Financial health
2. Reporting and key metrics
3. Collaboration opportunities
### Financial health

The project collected and analyzed financial data quarterly; DHE (through the FAAP Committee) can set policy and metrics for continued monitoring.

<table>
<thead>
<tr>
<th>Project timeline</th>
<th>Summary</th>
</tr>
</thead>
</table>
| **June 2020**    | - Developed data collection template and assessed monthly cash flow forecast with institution CFOs  
|                  | - Assessed impact of COVID-19 through base case and two downside sensitivity scenarios |
| **October 2020** | - Updated data based upon first quarter view  
|                  | - Considered additional metrics of financial health with CFOs, DHE, and advisory committee  
|                  | - Update showed more positive forecast than June scenarios |
| **January 2021** | - Updated data based upon first half view  
|                  | - Refined definitions of metrics with CFOs, DHE, and advisory committee  
|                  | - Update showed more positive than October forecast in aggregate, variation exists among institutions |
| **Beyond (FAAP, BHE, DHE)** | - Lay the foundation for monitoring and understanding near-term financial health and performance  
|                  | - Continue to engage with campuses |
Financial health

Community colleges forecast a ~$23m increase in net cash flow as compared to October expectations, primarily due to increased state appropriations.

Aggregate net cash flow* for community colleges,
(as-reported in October 2020 and January 2021; for 12 months ending June 30, 2021)

Does not include impact of second federal stimulus

*Note: Aggregate net cash flow (excl. beginning balances) is illustrative; does not reflect inability to consolidate/pool cash
Source: internal data, management financial projections; U.S. Department of Education HEERF II program information
Financial health
While universities expect a further decline in residence life revenue, the increase in forecast appropriations contributes to a ~$5m increase in net cash flow

Aggregate net cash flow* for state universities†,
(as-reported in October 2020 and January 2021; for 12 months ending June 30, 2021)

- Does not include impact of second federal stimulus

FY21 net cash flow as-reported
Oct-20                                FY21 net cash flow as-reported
State appropriations                  Jan-21                                
Capital spending assumptions          Tuition & fee revenue
Grants, auxiliary, other expenses    Expenses
& debt service
Residence life

- $17.6m                                - $11.5m

- $12.2m

*$Note: Aggregate net cash flow (excl. beginning balances) is illustrative; does not reflect inability to consolidate/pool cash
†Excludes UMass
Source: internal data, management financial projections; U.S. Department of Education HEERF II program information
**Financial health**

Liquidity in terms of average monthly cash outflows can measure ability to meet cash obligations; in aggregate this metric has ranged from 3-5 months.

### Available liquidity

- Includes cash & equivalents, short-term, and long-term investments
- Excl. non-cash fringe benefits, restricted cash and cash held by other entities
- Excl. cash and investments held by component units (e.g. foundation)

### Average monthly cash outflows

- Includes cash operating expenses, debt servicing costs\(^1\), net working capital and purchase of capital assets
- Excl. depreciation, pension & OPEB, and other non-cash items

#### Available liquidity in terms of avg. monthly cash outflows at community colleges*,

FY18 – FY21F

<table>
<thead>
<tr>
<th></th>
<th>FY18</th>
<th>FY19</th>
<th>FY20</th>
<th>FY21F</th>
</tr>
</thead>
<tbody>
<tr>
<td>mo</td>
<td>3.3</td>
<td>3.6</td>
<td>4.1</td>
<td>4.6</td>
</tr>
</tbody>
</table>

#### Available liquidity in terms of avg. monthly cash outflows at state universities*,

FY18 – FY21F

<table>
<thead>
<tr>
<th></th>
<th>FY18</th>
<th>FY19</th>
<th>FY20</th>
<th>FY21F</th>
</tr>
</thead>
<tbody>
<tr>
<td>mo</td>
<td>4.2</td>
<td>4.7</td>
<td>4.9</td>
<td>5.1</td>
</tr>
</tbody>
</table>

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1) Includes residence lease payments (MSBCA), debt service (interest expenses), capital expenditures, bond principal repayments, and lease obligations

*Note: Total is illustrative, does not reflect inability to consolidate/pool funds

Source: internal data and management budgets/forecasts
Financial health
While the metric in aggregate ranges from 3-5 months, there is high variability among institutions in both segments

*excludes UMass

Note: does not include foundation and component unit liquidity in either segment

*Source: internal data and management budgets/forecasts
Financial health
In FY21, cost containment and increased state support have helped to offset enrollment-related revenue pressures though liquidity position varies by campus

Summary and next steps

- The project worked with institutions to collect and update financial health data as scenarios evolved
- Institutions have balanced budgets in FY21, offsetting a decrease in enrollment-related revenue through cost containment measures
- Higher-than-budgeted state appropriations have further offset revenue loss and a second round of federal stimulus will provide an additional ~$122m for MA institutions* over the next calendar year
- MSCBA restructuring reduced the FY21 assessment expense at state universities, mitigating the challenges of having to close or reduce capacity in residence halls
- While in aggregate the system has ~3-5 months of liquidity in terms of average monthly cash outflows, considering as a whole does not account for wide variability in liquidity positions among institutions
- Beyond FY21, as enrollment pressures continue and one-time savings/funding may disappear, regular financial health monitoring can provide necessary data to support autonomous institutions

*Note: excludes UMass
Source: internal data, U.S. Department of Education HEERF II program information
Agenda

1. Financial health
2. Reporting and key metrics
3. Collaboration opportunities
Reporting and key metrics
The BHE and DHE provide leadership and guidance to a decentralized system of autonomous institutions; financial health information can support that charge

The BHE and DHE provide leadership, coordination, guidance, and support for the system and institutions

Proactive, prospective monitoring of fiscal health and a regulatory approach to public higher education are aligned to responsibilities under Chapter 15A

**Department of Higher Education**

Provide confidential support to institutions that may face near-term challenges, customized to individual circumstances

**Board of Higher Education**

Provide leadership, coordination, and guidance across a decentralized system; actively monitor and support institutions to provide a public and transparent view of fiscal stability

Section 5. […] “The board shall coordinate activities among the public institutions of higher education and shall engage in advocacy on their behalf, which advocacy shall include a sustained program to inform the public of the needs, importance, and accomplishments of the public institutions of higher education in the commonwealth”

Section 7A. (a) “[…]The board of higher education […] in consultation with the institutions and the secretary, shall develop the system, including specific performance measures, with which to evaluate the institutions and with which to compare them with peer institutions with similar missions in other states (b) […] higher education accountability objectives shall include, but not be limited to […] ensuring cost-effective use of resources at each institution and across all institutions, and manage campuses as efficiently as possible”

Source: Massachusetts Department of Higher Education, General Court of the Commonwealth of Massachusetts, interviews
Reporting and key metrics
Many public systems have developed financial monitoring policies through a collaborative approach similar to the one the project has taken

Other states and systems have shared a similar approach…

► Collaborative, iterative discussions with boards, departments, and institutions to develop and maintain policy
► Identification of straightforward, standardized metrics that facilitate prospective risk assessment with emphasis on liquidity
► Data to inform advocacy and support at the institution level and through policy

…to selecting key financial health metrics

<table>
<thead>
<tr>
<th>Key metric</th>
<th>University of Massachusetts</th>
<th>PA State System of Higher Education</th>
<th>University of California System</th>
<th>Texas A&amp;M University System</th>
</tr>
</thead>
<tbody>
<tr>
<td>3mo liquidity in terms of monthly expenses</td>
<td>6mo liquidity in terms of monthly expenses</td>
<td>2mo liquidity minimum, 3-6mo recommended</td>
<td>3mo reserves, 4.8mo target</td>
<td></td>
</tr>
</tbody>
</table>

Details

University of Massachusetts:
► Targets at least three months liquidity in terms of operating expense (incl. depreciation)
► Reports liquidity quarterly to unified board

PA State System of Higher Education:
► Defines stability as 6mo liquidity in terms of operating expense
► Monitors enrolment change, operating margin, primary reserve

University of California System:
► Requires at least two months liquidity in terms of avg. operating spend
► Recommends 3-6 months

Texas A&M University System:
► Defines stability as 4mo, targets 4.8mo reserves
► Discusses plans with universities above and below target

Source: university websites, interviews
Reporting and key metrics
A policy could take a more proactive, prospective approach to financial reporting while maintaining institutional autonomy

**Current approach**

<table>
<thead>
<tr>
<th>Retroactive</th>
<th>Reactive</th>
<th>Institutional autonomy</th>
</tr>
</thead>
<tbody>
<tr>
<td>• BHE and DHE receive audits in October of following fiscal year</td>
<td>• Institutions share near-term and forward-looking information with local boards</td>
<td>• Institutions have local autonomy and decision-making authority in a decentralized system</td>
</tr>
<tr>
<td>• BHE approves institution strategic plan and can receive periodic updates</td>
<td>• DHE is notified of potential emerging issues often after institutional boards</td>
<td></td>
</tr>
<tr>
<td>• Institutions are responsible for training and education on financial metrics</td>
<td>• Institutions are responsible for training and education on financial metrics</td>
<td></td>
</tr>
</tbody>
</table>

**Possible future approach**

<table>
<thead>
<tr>
<th>Proactive</th>
<th>Prospective</th>
<th>Institutional autonomy</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Continue to collect audits</td>
<td>• Near-term metrics and trends</td>
<td>• Continue to retain high level of institutional autonomy and decision-making authority</td>
</tr>
<tr>
<td>• Collect budgeted/forecast information for upcoming fiscal year and periodic updates throughout</td>
<td>• Data-driven financial health discussions with DHE</td>
<td></td>
</tr>
<tr>
<td>• Near-term metrics and trends</td>
<td>• Shared set of clear and transparent metrics to enhance public confidence</td>
<td></td>
</tr>
<tr>
<td>• Data-driven financial health discussions with DHE</td>
<td>• Supports guidelines for training of public officials</td>
<td></td>
</tr>
</tbody>
</table>

Source: interviews
Reporting and key metrics

From a long list of financial metrics used in higher education, the project identified key metrics to provide a snapshot of fiscal health.

Methodology to identify key financial health metrics

Metrics used by NECHE, UMass, Moody’s, other IHEs, etc. (41 metrics)

Excluded metrics (23 metrics)
Metrics not applicable to public HED or balance sheet driven

Included metrics (18 metrics)
Metrics that show a nuanced view of performance

Key metrics (4 financial health, 3 operating metrics)
Subset for proactive, prospective monitoring

Goal – identify a subset of metrics that are:

- Relevant to public higher education
- Focused on cash and liquidity
- Comprehensive, non-redundant with other metrics
- Flexible to be updated on an interim basis
- Frequently used and easy to interpret
**Reporting and key metrics**

A liquidity metric can summarize revenue and expense trends and signal potential risk while other key metrics can provide context and detail.

<table>
<thead>
<tr>
<th>Metric(s) and definition</th>
<th>Summary metric</th>
<th>Other key financial health metrics</th>
<th>Operating metrics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Liquidity in terms of average monthly cash outflows</td>
<td>2 Operating margin (%)</td>
<td>5 Change in enrollment (%)</td>
<td></td>
</tr>
<tr>
<td>3 Net cash flow ($)</td>
<td>6 State and student revenue per credit or FTE ($)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Debt service coverage (x)</td>
<td>7 Cash outflows per credit or FTE ($)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rationale</th>
<th>Summary metric</th>
<th>Other key financial health metrics</th>
<th>Operating metrics</th>
</tr>
</thead>
<tbody>
<tr>
<td>▶ Comparable across institutions</td>
<td>▶ Provides additional context to summary metric</td>
<td>▶ Leading indicators based on drivers of financial health</td>
<td></td>
</tr>
<tr>
<td>▶ Measure of ability to meet cash obligations</td>
<td>▶ Shows effects of longer-term decisions via depreciation and debt service</td>
<td>▶ Can be used to monitor impact of changes to operating model</td>
<td></td>
</tr>
<tr>
<td>▶ Can be used to indicate need for additional information</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Key considerations</th>
<th>Summary metric</th>
<th>Other key financial health metrics</th>
<th>Operating metrics</th>
</tr>
</thead>
<tbody>
<tr>
<td>▶ Transparent, clear</td>
<td>▶ Set of supporting metrics should be non-redundant</td>
<td>▶ Should be refined with institutions, academic committee, equity agenda, PMRS, etc.</td>
<td></td>
</tr>
<tr>
<td>▶ Reflects changes both revenue and expenses</td>
<td>▶ Numerous enough to give context, streamlined enough to be actionable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>▶ Cash focused, able to be calculated on forward-looking basis</td>
<td></td>
<td>▶ Can align methodology and definitions where data may be tracked inconsistently</td>
<td></td>
</tr>
</tbody>
</table>
Reporting and key metrics
The FAAP Committee heard and discussed recommendations in January; the Committee and DHE will continue to work with institutions to set a policy by June

FAAP Committee update

- On January 26, 2021, EY-Parthenon presented an in-depth analysis of the key financial health metrics to support near-time fiscal monitoring of the Community Colleges and State Universities, covering rationale, methodology, and fiscal outlook by segment
- The FAAP committee expressed a consensus view and recommendation that the DHE develop policies and procedures for BHE approval that will support the regular, ongoing, proactive, and prospective monitoring of the fiscal health of Massachusetts community colleges and state universities
- The DHE and the FAAP committee will work collaboratively with institutions to develop policy and procedures to implement financial reporting and monitoring
- The targeted date for the establishment of the policy and procedures is June 30, 2021
Agenda

1. Financial health
2. Reporting and key metrics
3. Collaboration opportunities
Collaboration opportunities
As institutions face potential future enrollment & financial pressure, a student-centered approach to collaboration can support sustainability and add value

► Increase college participation, reach underserved student populations
► Reduce cost of obtaining a degree through robust transfer agreements, etc.
► Align resources with student needs
► Identify and capture opportunities to improve efficiency and effectiveness through greater collaboration and scale
► Allocate and use resources to support value-add and mission-critical activities
► Encourage innovative approaches to teaching and advising that create value and improve service for students
► Focus on improving “ROI” for students
► Improve college completion rates and student preparation for success in career & life
► Deepen partnerships with employers & community
► Align programs to workforce and regional needs

Collaboration
► Institutions can work together to increase value for students and stakeholders
► A regional approach can create regional scale while continuing to be responsive at the local level – to student, community, and economic development needs
Collaboration opportunities
In recent years, many in higher education have looked to deepen student-centered collaboration

Collaboration case studies at selected U.S. public higher education institutions

<table>
<thead>
<tr>
<th>Example</th>
<th>Collaboration area</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>IT, Supplies &amp; services, Staff</td>
</tr>
<tr>
<td>2</td>
<td>IT, Supplies &amp; services, Staff</td>
</tr>
<tr>
<td>3</td>
<td>IT, Supplies &amp; services, Staff</td>
</tr>
<tr>
<td>4</td>
<td>IT, Supplies &amp; services, Staff</td>
</tr>
<tr>
<td>5</td>
<td>IT, Supplies &amp; services, Staff</td>
</tr>
<tr>
<td>6</td>
<td>IT, Supplies &amp; services, Staff</td>
</tr>
<tr>
<td>7</td>
<td>IT, Supplies &amp; services, Staff</td>
</tr>
</tbody>
</table>

1. Ten community colleges created a legal entity to jointly adopt a cloud-based ERP
2. 11 universities share procurement via an online portal, lead campuses initiate strategic wins
3. 16 community colleges partnered to create career-focused transfer paths, stackable credentials and tech-assisted personalized
4. Two community colleges and partnered with a university through a 3+1 pathway
5. Two regional groups of three institutions share staff and strategy
6. Seven universities formalized collaboration across under a single accreditation
7. 21 universities developed an online learning platform to fulfill core requirements, credits are accepted at 2- and 4-year institutions statewide

Source: university websites, interviews
Collaboration opportunities
These institutions have worked regionally and statewide to gain advantages of scale and re-invest in students

Regional collaboration

Example – 3+1 transfer pathway
A community college and state university serving ~10k students offer a 3+1 program for guaranteed transfer to the four-year partner. Transfer fees are waived and students have access to additional scholarships.

- Access & equity: additional pathway to a 4-year degree, lower cost-to-degree for students
- Quality & experience: advising and attention to students in program pipeline
- Outcomes & opportunities: since implementation, graduation rates have increased 5% annually
- Sustainability: pathways for students can lead to better retention, shared staff and facilities can create efficiencies to reinvest in students

Statewide collaboration

Example – shared ERP
Ten autonomous institutions plan to jointly purchase an implement a shared enterprise resource planning (ERP) system. Goal is to standardize operating processes, increase data sharing, and use single student records.

- Access & equity: enables course sharing and cross-registration, more-seamless transfer
- Quality & experience: cohesive user interface; access to otherwise cost-prohibitive capabilities
- Outcomes & opportunities: shared student records can help to identify progress toward goals
- Sustainability: cross-institutional collaboration in purchasing, payroll management, and other administrative functions

Source: university websites, IPEDS
Collaboration opportunities
Massachusetts institutions have identified further collaboration opportunity at the regional and state level to be further researched and supported

Summary and next steps

- Institutions have built momentum in many areas of collaboration, identifying over 85 ideas for consideration as part of the project
- The project shared strategies and best practices from other states that have collaborated to improve value for students as well as metrics and analysis/methodology that can be used to prioritize ideas
- Financial analyses have been conducted and shared with the DHE and FAAP Committee identifying the scale and nature of feasible efficiency gains through cumulative collaboration
- Regional groups of institutions have coalesced around two types of collaboration ideas
  - Regional pilot programs to explore shared strategic work, such as a collaborative approach to student advising and workforce development
  - Statewide opportunities that can enable reinvestment in students, such as shared IT and cybersecurity
- Institutions and the DHE (through PACE) will use research, recommendations, and campus ideas to prioritize opportunities; regional collaboration groups met last week to begin discussion
- The DHE can consider a role as convener/facilitator to support regional groups and can additionally identify and deploy funding sources to support pilot projects
- The FAAP committee can support and advocate for institutions pursuing collaboration projects
Questions?