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Maine School of Science and Mathematics

Maine's nationally ranked STEM Academy

Presentation to
MSSM - All School Meeting

May 19, 2021

Topics

- Business Planning Committee Review & Update
- Campus Options & Cost Analysis
- Conversations in Augusta (December to May)
 - Messaging to decision makers
 - Mills Administration meetings
 - Legislative meetings
- Summary Status Report

Business Planning Process

- Business Plan concept introduced at a BOT workshop in March 2020
- Business Planning Committee Charter approved by BOT in May 2020
- Objective to assess MSSM's viability, value to Maine and a path forward
- 4 Phases
 - Phase 1: Discovery & Concept - research-based program review
 - Phase 2: Authorization - legislative changes and state funding
 - Phase 3: Business Plan - based on new legislative mandate
 - Phase 4: Implementation

Phase 1 has now been completed, we are in Phase 2

Phase 1

Peer School Analysis

Web Research and in-depth Interviews *

- **Arkansas** School for Math, Sciences, and the Arts
- **Illinois** Mathematics and Science Academy
- **Louisiana** School for Math, Science, and the Arts
- **Maine** School of Science and Mathematics
- **Mississippi** School for Mathematics and Science
- **North Carolina** School of Science and Mathematics
- **South Carolina** Governor's School for Science and Mathematics

Web Research Only

- **Alabama** School of Mathematics and Science
- **Gatton** Academy of Mathematics and Science in **Kentucky**
- **Georgia** Academy of the Arts, Mathematics, Engineering and Science (GA)
- **Indiana** Academy for Science, Math and Humanities
- **Kansas** Academy of Mathematics and Science
- **Missouri** Academy of Science, Mathematics and Computing-CLOSED
- **Oklahoma** School of Science and Mathematics
- **Texas** Academy of Mathematics and Science

* MSSM plus the six most successful schools according to Todd Mann, Executive Director, National Consortium of Specialized STEM Schools

Maine Leadership Outreach

Higher Ed:	Bates, Bowdoin, Colby, UMaine System, UMaine, UMPI, USM, Maine Maritime, Thomas College, Unity College, others
Research:	Bigelow Laboratory, Jackson Laboratory, Roux Institute
Industry:	IDEXX, WEX, Maine Health, MMG Insurance
Foundations:	MCF, BSB Foundation, MSSM Foundation, Alford Foundation
State:	DOE (various), Office of Innovation
Other:	MMSA, Educate Maine, MEA, Aroostook Partnership

Brainstormed with leaders of important constituencies

Vision Recommendations

- Increase School size to 240 students
- Provide modern, mission appropriate facilities
- Increase investment in Student Welfare
- Increase funding to support academic & residential excellence
- Fund room & board costs
- Strengthen higher education & research affiliations
- Emphasize support for rural community students
- Support a robust state-wide Outreach Program

* Approved by the Board of Trustees on March 6, 2021, and sent to all Legislators

Campus Options

Limestone
Colby College
Unity College

Two institutions continue to have Partnership interest

Ranking of Campus Options

Primary Criteria	Limestone	Colby	Unity
Student safety & welfare	1	1	3
Enhancement of Learning	3	1	2
Facilities	1*	1*	2
Cost	3	2	1

note: 1 is best

* assumes new construction of mission appropriate facilities

Program costs vary widely between options

Total Annual Costs

	<u>Limestone</u> today	<u>Limestone</u> new campus	<u>Waterville</u> new campus	<u>Unity</u> existing campus
student count:	130	240	240	240
teacher-student ratio:	9.3	12	12	12
Instruction	\$ 1,585,294	\$ 2,300,000	\$ 2,300,000	\$ 2,300,000
General Administration	\$ 243,031	\$ 350,000	\$ 350,000	\$ 350,000
Maintenance & Operations	\$ 456,230	\$ 750,000	\$ 750,000	\$ 400,000
Student Support (SEL)	\$ 194,065	\$ 600,000	\$ 600,000	\$ 600,000
Room & Board	\$ 1,326,786	\$ 2,200,000	\$ 2,200,000	\$ 2,080,000
Recruitment & Admissions	\$ 233,973	\$ 400,000	\$ 400,000	\$ 400,000
All Other	\$ 265,491	\$ 450,000	\$ 450,000	\$ 450,000
Facilities (rent/lease/ debt service)	\$ <u>388,920</u>	\$ <u>6,240,000</u>	\$ <u>3,120,000</u>	\$ <u>1,200,000</u>
Total Residential Cost	\$ 4,693,790	\$ 13,290,000	\$ 10,170,000	\$ 7,780,000
Outreach Program	\$ <u>170,402</u>	\$ <u>420,000</u>	\$ <u>420,000</u>	\$ <u>420,000</u>
Total Program Costs	\$ 4,864,192	\$ 13,710,000	\$ 10,590,000	\$ 8,200,000
Less: Parent funded room & board	\$ 1,235,000	\$ 0	\$ 0	\$ 0
All other (net)	\$ <u>238,845</u>	\$ <u>210,000</u>	\$ <u>210,000</u>	\$ <u>210,000</u>
Total Cost to State of Maine	\$ 3,290,347	\$13,500,000	\$10,380,000	\$7,990,000

Three Options for a 240 student Campus

Per Student Annual Costs

	<u>Limestone</u> today	<u>Limestone</u> new campus	<u>Waterville</u> new campus	<u>Unity</u> existing campus
student count:	130	240	240	240
teacher-student ratio:	9.3	12	12	12
Instruction	\$ 12,195	\$ 9,583	\$ 9,583	\$ 9,583
General Administration	\$ 1,869	\$ 1,458	\$ 1,458	\$ 1,458
Maintenance & Operations	\$ 3,509	\$ 3,125	\$ 3,125	\$ 1,667
Student Support (SEL)	\$ 1,493	\$ 2,500	\$ 2,500	\$ 2,500
Room & Board	\$ 10,206	\$ 9,167	\$ 9,167	\$ 8,667
Recruitment & Admissions	\$ 1,800	\$ 1,667	\$ 1,667	\$ 1,667
All Other	\$ 2,042	\$ 1,875	\$ 1,875	\$ 1,875
Facilities (rent/lease/debt service)	\$ 2,992	\$ 26,000	\$ 13,000	\$ 5,000
Total Residential Cost	\$ 36,106	\$ 55,375	\$ 42,375	\$ 32,417
Outreach Program	\$ 1,311	\$ 1,750	\$ 1,750	\$ 1,750
Total Program Costs	\$ 37,417	\$ 57,125	\$ 44,125	\$ 34,167
Less: Parent funded room & board	\$ 9,500	\$ 0	\$ 0	\$ 0
All other (net)	\$ 2,607	\$ 875	\$ 875	\$ 875
Total Cost to State of Maine	\$ 25,310	\$ 56,250	\$ 43,250	\$ 33,292

Many Economies of Scale at larger school size

Phase 2

Messaging to Decision Makers

- Maine has an important group of world class institutions who rely heavily on a STEM educated workforce
- Alford Foundation, Roux Institute, Davis AI Institute represent significant investments in Maine's Higher Education institutions
- Primary Education needs to participate as a fundamental source of young STEM educated talent to feed this pipeline

Leadership is needed for a long-term plan

Plan first, then Act

- Evaluate the new MSSM Vision
 - School size, annual budget, modifications to the legislation
 - Scope and size of the Outreach Program
- Provide direction on Campus Location Options
 - Evaluate the options for the Campus Location
 - Provide guidance for further Partnership discussions
- Define next steps to moving forward
 - Agree to a process for completing the MSSM Business Plan
 - Convene relevant stakeholders in state-wide planning process

Administration Conversations

- **Commissioners Meeting – December 14**
Com Makin, Com Johnson, Com Pingree, Governor's Leg.Asst. Marrow
- **DOE – several meetings with Commissioner Pender Makin**
some included Deputy Com Chuhta, improved relationship between DOE & MSSM
- **Governor Mills**
Request for summer remedial STEM education program funded with stimulus \$\$
Proposal submitted to DOE

Building relationship with Mills Administration

Legislative Conversations

- Education Committee presentation – April 16
Invited back for a second session, but not yet scheduled
- Appropriations Committee – submitted written testimony on LD21
Asked for chance to present, but not yet scheduled
- Senate President Troy Jackson
Three meetings held but unwilling to schedule hearings
- Several other one-on-one Legislative Meetings
Senator Daughtry, Senator Stewart, Senator Breen, Senator Carney
Representative Millett, Representative Brennan, Representative White

Leadership is needed for a long-term plan

Summary Status Report

- MSSM profile MUCH bigger now than several months ago
- Recognition that MSSM has been neglected for YEARS!
- Some understanding of the growing risks at MSSM
- Frustrated in ability to gain an audience for the VISION
- Objective to organize a **TASK FORCE** on MSSM's future

Questions?