

MSSM Funding Proposal

March 4, 2023

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Executive Summary

The Maine School of Science and Mathematics (MSSM) has received flat-funded appropriations since FY2017, and is recommended by the Department of Education to remain at this funding level through FY2025. The accumulated effects of this funding model are unsustainable, and have resulted in diminished real wages for employees, the elimination of essential positions and core program aspects, and a threatened ability for the school to serve Maine's students into the future. Since FY2017, wages at the school have increased at less than half of the Consumer Price Index rate, reducing the school's ability to attract and retain staff. Several key positions have been eliminated or reduced over the past six years to balance the school's budget. The school has undertaken a variety of measures to reduce cost and seek revenue from outside sources while maintaining a program of excellence. In 2019, MSSM was ranked by U.S. News & World Reports as the 2nd best public school in the country. MSSM typically serves 100-130 students from Maine, as well as occasional tuition-paying out-of-state and international students.

A timely and sustained increase in state appropriations to the school is needed to continue to provide the high-quality educational and residential program envisioned in the school's mission, vision, and founding statute. While the school has been flat-funded (FY2017-23), inflation has driven the Consumer Price Index over 23% and the Maine Secondary Tuition rate has similarly increased 24%. During this same period, the DOE's General Purpose Aid budget, from which MSSM's appropriations are made, has grown 35%. No other school in the state of Maine has been asked to operate under such fiscal constraints.

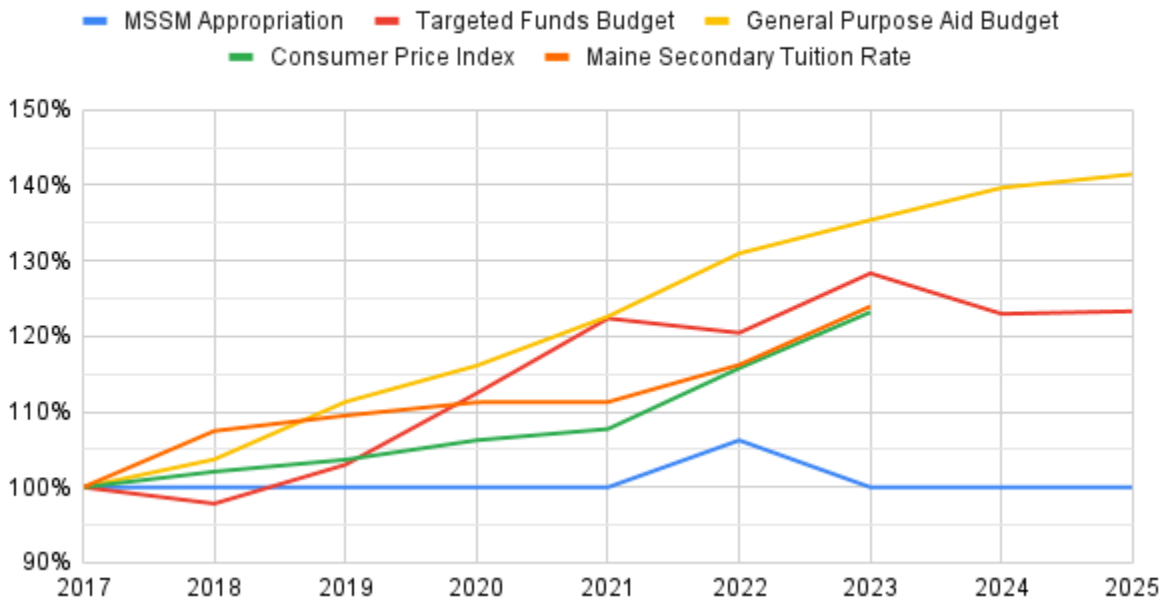
We urgently ask for an immediate increase of **\$910,824.93** (25.1%) in state appropriations to bring the school's operations budget in line with the inflation-adjusted FY2017 funding level. The primary use of these funds (\$485k) is to bring wages to a level that tracks with inflation, as well as to reinstate key positions cut over the last six years (\$250k), fund inflation-prone non-payroll line items (\$150k), and restore funding for professional development and training of staff (\$25k).

In addition, we ask that the State consider subsidizing the room & board fees currently paid by MSSM families. Among the [National Consortium of Secondary STEM Schools](#), only one school (TAMS, part of the Texas public university system) charges families more for room & board. Far more typical among residential public magnet schools is a room & board fee of \$1,000-\$3,000, with the balance subsidized by the state. While the State currently funds need-based financial aid, the "sticker price" (\$9,800) of room & board is a deterrent to some students who would be served well by MSSM. In particular, families with limited financial resources are likely to perceive this price as a barrier, regardless of the existence of financial aid. A change of this nature promotes equity and would make MSSM accessible to a broader range of Maine students. Fully eliminating room & board fees would require additional appropriations of **\$990,903.33** per year; reducing fees to a maximum of \$3,000 would require approximately **\$740,903.33**. These funds would displace fees paid by MSSM families, and would not result in increased revenue to the school. Any change in which the State subsidizes room and board would require minor amendments to Title 20-A, Chapter 312.

Appropriations History

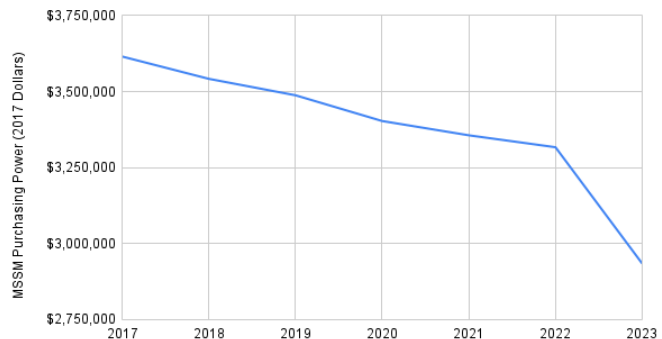
MSSM’s school operations budget is drawn from the Department of Education’s “Targeted Education Funds” section of its [General Purpose Aid \(GPA\) budget](#). From FY2017-FY2023, MSSM’s budget has remained flat, while the GPA budget has increased 35% (from \$1.002B to \$1.357B), with the Targeted Education Funds seeing an increase of 28.3% (from \$67.8M to \$87M) over this same time period. The DOE’s recommendation for FY2024 and FY2025 is for MSSM to remain flat funded at the same allocation it has received since FY2017¹. During this timeframe, both the Consumer Price Index and the Maine Secondary Tuition Rate have seen a net increase of over 23%.

MSSM Appropriations vs. Select DOE Funds (2017 Baseline)



The school’s ability to hire and retain employees and provide critical services has been reduced by the accumulated effect of flat funding. Adjusted for inflation, MSSM’s purchasing power has decreased consistently year-over-year, with record current inflation likely to further diminish the reach of our appropriations at current levels.

MSSM Purchasing Power vs. Time (2017 Dollars)



¹ FY2022 includes a one-time \$225k supplemental appropriation

Accumulated Effects of Flat Funding

Virtually every department of the school has seen cuts over the past six years. The school has re-organized multiple times to make do with limited human resources, including the elimination or reduction of many positions. Notably, the school has eliminated its Dean of Faculty², Dean of Students, International Student Coordinator, a business office position, an admissions position, and multiple adjunct instructor contracts during this time period. Other roles, including Registrar, Special Education Coordinator, and various Residential Life staff have seen FTE reductions or combinations of roles to meet minimal acceptable staffing. There is no doubt that this has impacted the ability of MSSM to effectively meet its mission to students and families. MSSM employees are to be commended for their creativity and flexibility in filling in these gaps in our organizational structure and working beyond a typical workload and outside of traditional job responsibilities. This goodwill and dedication to the education and well-being of Maine students is to be praised, but not relied upon as a lasting solution. Sustainability in funding, predictability in roles, and a guarantee of fair compensation are all key to attracting and retaining talented and dedicated staff.

A typical staff member has seen an annual 1.5% “cost of living” increase; in our current high-inflation environment this equates to a reduction in salary and even in low-inflation years this translates to a minimal increase. The accumulated effect of this model is typically an increase in nominal compensation of about 11% over seven years, leaving the real value of wages trailing inflation by a factor of two. To track with CPI, we would expect wages to increase over 23% during this time period (2017-23). Exacerbating this effect, employees experienced a year of flat wages³, and some faculty members saw annual increases of less than 1.5% in other years due to the structure of our salary scale. A pay increase of *any* amount is unsustainable in a flat-funding model: either employees must accept diminished real compensation or positions must be eliminated. In MSSM’s case, we have done both.

MSSM’s non-payroll operational expenses are also affected by inflation, most notably in energy, transportation, food, supplies, and facilities costs. MSSM leases academic facilities from Limestone Community School, and saw a lease increase of \$85k last year. The draft lease proposal from LCS for FY2024 includes a one-year increase of nearly \$100k, followed by 5% annual increases in each of the next four years. While the details of this agreement are still to be negotiated, it’s clear that *some* level of annual increase is reasonable, as the costs of heating the building, providing utilities, hiring custodial staff, and other services are subject to the same inflationary forces as MSSM’s direct expenses. The 2021 passage of [SP 591](#) reaffirms MSSM’s statute in requiring the school to be located in Limestone, which reduces the school’s ability to relocate or seek alternative facilities in an attempt to cut costs. Flat-funding from the state while fixed costs continue to increase is simply not a sustainable model of operation, and will result in painful and damaging cuts in future years.

² MSSM was able to create a position for an Academic Dean in the 2022-23 school year using funds rolled over from the FY2022 one-time supplemental funding; this role took over some duties previously held by the Dean of Faculty, as well as some held by the Dean of Students. To sustain this position, MSSM needs additional funding in FY2023 and beyond.

³ A pay cut was announced in FY2021, with an adjustment eventually being made to return wages to the previous year’s levels (that is, without any increase).

Cost-Cutting Efforts, Outside Support, and Increased Needs

Beyond eliminating positions and containing wage growth, MSSM has undertaken a number of efforts to contain costs at the school. In the current school year, MSSM has restructured our food service program to maximize federal and state reimbursement for qualifying meals. The school has entered into a partnership with the Town of Limestone to own and operate a small solar energy project to provide electricity to the dormitory. Both of these projects most directly affect the Cost of Residential Life budget, funded by room & board fees paid by MSSM families.⁴ Professional development, travel, and support of athletics and activities have been deprioritized to preserve staff positions, and some elective offerings have been reduced.

The MSSM Foundation has generously provided support to the school since its inception, with significant contributions (\$75k+) to the school's operations this and previous years. The Foundation's recent growth in capacity to support the school is a testament to MSSM's lasting value to alumni, MSSM families, community members, and Maine's business and philanthropic communities. MSSM's statute makes clear that the private fundraising efforts of the Foundation toward scholarships, educational enhancement, etc. must not reduce the State's obligations to fund the operations of the school.⁵ Yet, MSSM has become reliant on the MSSM Foundation for a variety of essential school functions. Virtually all professional development is funded by the MSSM Foundation, as is our current website redesign (\$50k), with significant contributions made by the Foundation toward facilities improvement, student and staff travel, staff appreciation efforts, and student activities.

Until COVID-19, MSSM enjoyed a robust international student program, bringing valuable diversity to the campus and supplementing the school's operations budget with tuition fees of \$38,000 per student. This program brought upwards of \$400k in income to the school in some years. It is unlikely that the school will see this level of international participation in future years, as evidenced by the nationwide decrease of over 70% in international student visa enrollments in 2020⁶ and the school's inability, per Federal Law, to issue multi-year visas as a public high school. Like the MSSM Foundation's fundraising efforts, in many years international student tuition masked the gradual effects of flat-funding at the state level.

Like all schools, MSSM has seen a significant increase in needs for student support during the past three years. In particular, mental health support has emerged as an urgent priority, a need made more acute by the student demographics the school serves, our residential nature, the demands of a rigorous academic program, and our remote location. MSSM has increased mental health support through additional staffing with Aroostook Mental Health Center to provide a .75 FTE social worker and walk-in counseling staff, as well as through new curricular offerings,

⁴ The State of Maine currently funds up to \$325k of financial aid towards room & board fees (currently set at \$9800 per student per year). These funds are the only state-appropriated revenue in the Cost of Residential Life budget.

⁵ Title 20-A §8202, parts 4 & 5

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<https://www.apmreports.org/episode/2021/08/03/fading-beacon-why-america-is-losing-international-students>

student activities, and wellness programs. These efforts have been carved out of a static budget, and future needs remain.

Overview of Proposed Appropriation Increases (School Operations)

\$485,374.97	Increase wages 10% for current employees: MSSM employee wages have increased 1.5% or less annually, netting a nominal ~11% total increase over a seven-year period vs. a 23.2% increase in cost of living over this same timeframe. With employee hiring and retention a challenge for all schools (particularly rural ones), to stay competitive in attracting and retaining talented educators, MSSM must be able to provide compensation that, at a minimum, tracks with inflation.
\$250,000.00	Reinstate critical positions lost to cuts during flat-funding era: The past six years have seen the sequential elimination of a number of student support, instruction, admissions, and operations positions. These funds allow us to bring back a Dean of Students (\$85k), Associate Director of Admissions (\$65k), Operations/accounting/business support (\$65k), two adjunct instructors (\$15k), as well as extend our mental health support to include a full-time school counselor vs. the current part-time contract (\$20k).
\$150,449.96	Non-payroll cost increases and unmet operational needs: these include costs for transportation, increased lease payments, costs of goods, books and supplies for academic departments, etc. Breakdown for this line includes an \$85k increase in our annual lease with Limestone Community School (expected to increase further) increased non-payroll expenses in academics (\$15k), non-academic operations (\$30k) and operation of school (\$30k) line items.
\$25,000.00	Professional development & training: our PD budget was one of the earliest casualties of flat-funding, and the school is now reliant almost exclusively on the MSSM Foundation to support professional learning for our 50+ employees and contractors, which it can do in only a limited capacity. Our statute states that private funds raised for the educational enhancement fund [i.e. the MSSM Foundation] must not reduce or eliminate the State's funding obligations for the operation of the school ⁷ but the Foundation is, in essence, our only source of PD funding.
\$910,824.93	Proposed Total Increase
\$3,615,347	Current Annual Appropriation (FY2017- FY2025)
\$4,526,172	Proposed Total Annual Appropriation
25.19%	Proposed Increase As % Of Current Appropriation

⁷ Title 20-A §8202, Parts 4 & 5

Future Effects of Flat Funding

MSSM finds itself between the “rock” of exponential growth (inflation), and the “hard place” of fixed resources. Unlike local or regional School Administrative Units, MSSM cannot raise funds by modifying mill levies. The school is similarly excluded from a number of financial opportunities afforded to other public schools, including many grants, COVID relief, and from the School Revolving Renovation Fund. MSSM relies entirely on the Department of Education, the Governor’s budget, and the State Legislature for our operational funding, as SAUs, charter schools, and higher education enjoy predictable and increasing annual allocations. These institutions also benefit from being part of large collectives with influential voice; as the state’s sole magnet school we are perhaps easily overlooked as a single budget line within the Department of Education’s “purple sheet” of targeted funds. The recent rise (2018) and demise (2022) of the Maine School of Marine Science, Technology, Transportation and Engineering magnet school should be cautionary as to the effects of an uncertain and unsustainable fiscal model for state-operated schools. Even an established institution like MSSM, in its third decade, is vulnerable, with the potential for neglect to undermine its core ability to deliver on its mission.

Without immediate attention to both the accumulated historical effect of this funding model, and a mechanism for predictable increase, the school faces a bleak future: employees working for less money each year (with further burnout and turnover); cuts to academic, residential life, and other programs; limited ability for outreach across the state; outdated facilities; decreased enrollment; and diminished educational outcomes. These outcomes are incompatible with the mission and vision of the school, as articulated by this Board, the legislature, and Maine statute. As SP 591 put it last year: “The school offers the best of educational opportunities for students from across the United States and around the world and provides enormous economic and cultural advantages to the people of Aroostook County.” Seven years of flat-funding, with two more proposed, critically threaten this vision. An institution of such value deserves stewardship and investment in line with this potential.

Overview of Proposed Change in Room & Board Structure

Research has shown that low-income, high-achieving students are deterred from applying to colleges with high “sticker prices,” *regardless of the availability of financial aid*. A 2016 study by Sallie Mae found that a majority of such students ruled out some colleges on this basis alone, and [a 2020 study by the National Bureau of Economic Research](#) found a measurable decrease in applications to flagship public institutions following even moderate sticker price increases, regardless of financial aid availability and eligibility. It follows that similar decision-making would be at place for students and families considering attending MSSM. While MSSM has historically been able to meet 100% of demonstrated financial need via the state-appropriated financial aid appropriations, it is reasonable to assume that some qualified and interested low-income students would find the \$9,800 room and board fee a similar deterrent. These students are among the most compelling and likely to have a life-changing experience at MSSM.

With an equity-based goal of accessibility to all qualified and interested Maine students, MSSM should seek to update our approach to room and board funding. The North Carolina School of Science and Mathematics, upon which MSSM was modeled, covers all costs of attendance,

including room and board, technology, and ancillary fees. The majority of residential public magnet schools charge a minimal room & board fee, with the bulk of this funding provided by the state, giving more equitable access while preserving some “skin in the game” (investment in the opportunity by students and family) and capturing some revenue from families willing and able to pay. Other than MSSM, the only public magnet schools charging families the full cost of residential life are early college models within state university systems (TX and KS).

Scenario 1: Elimination of Room & Board Fees

\$1,315,903.33	Cost of Residential Life
(\$325,000)	Less Current Financial Aid Appropriations
\$990,903.33	Additional Appropriation Required

Scenario 2: Reduce Room & Board Fees to \$3,000

\$1,315,903.33	Cost of Residential Life
\$50,000	New Financial Aid Appropriations
(\$300,000)	Room & Board Fees (100 students)
(\$325,000)	Less Current Financial Aid Appropriations
\$740,903.33	Additional Appropriation Required

Data Tables

Appropriations Data

	2017	2018	2019	2020	2021	2022	2023	2024	2025
MSSM Appropriation	\$3,615,347	\$3,615,347	\$3,615,347	\$3,615,347	\$3,615,347	\$3,840,347	\$3,615,347	\$3,615,347	\$3,615,347
Targeted Funds Budget	\$67,833,464	\$66,360,736	\$69,861,931	\$76,282,045	\$83,007,508	\$81,708,493	\$87,060,871	\$83,416,466	\$83,650,162
General Purpose Aid	\$1,002,461,515	\$1,039,500,189	\$1,115,886,866	\$1,163,958,445	\$1,229,285,262	\$1,313,010,297	\$1,357,338,491	\$1,400,174,513	\$1,418,238,931
2017 MSSM Budget (CPI adjusted to current year)	\$3,615,347	\$3,690,203.04	\$3,747,446.76	\$3,840,629.72	\$3,894,389.69	\$4,185,685.08	\$4,453,993.64		
Maine Secondary Tuition Rate	\$10,131.00	\$10,886.51	\$11,093.46	\$11,271.62	\$11,275.09	\$11,773.92	\$12,558.90		

Appropriations Data as Proportion of 2017 levels

	2017	2018	2019	2020	2021	2022	2023	2024	2025
MSSM Appropriation	100.00%	100.00%	100.00%	100.00%	100.00%	106.22%	100.00%	100.00%	100.00%
Targeted Funds Budget	100.00%	97.83%	102.99%	112.45%	122.37%	120.45%	128.35%	122.97%	123.32%
General Purpose Aid	100.00%	103.69%	111.31%	116.11%	122.63%	130.98%	135.40%	139.67%	141.48%
Consumer Price Index	100.00%	102.07%	103.65%	106.23%	107.72%	115.78%	123.20%		
Maine Secondary Tuition Rate	100.00%	107.46%	109.50%	111.26%	111.29%	116.22%	123.97%		

MSSM Purchasing Power

	2017	2018	2019	2020	2021	2022	2023	2024	2025
MSSM Purchasing Power (2017 Dollars)	\$3,615,347	\$3,542,009.42	\$3,487,903.84	\$3,403,278.86	\$3,356,298.41	\$3,317,064.41	\$2,934,609.92		

NCSSS Room & Board Comparison

School	Room & Board	Other Fees	Notes
South Carolina Governor's School for Science and Math	\$3,200		
North Carolina School of Science and Math	\$0		
Mississippi School for Mathematics and Science	\$2,000		Waived for free lunch students
Alabama School of Cyber Technology & Engineering	\$2,700		
Texas Academy of Mathematics & Science	\$10,490	\$2,600	Tuition-charging early college program within university system
Louisiana School of Math, Science and the Arts	\$1,200	\$250	Activity Fee
South Carolina Governor's School for the Arts and Humanities	\$3,800	\$200	Additional deposit
Arkansas School for Mathematics, Sciences, and the Arts	\$850		
Illinois Mathematics & Science Academy	\$650-\$6,500		Income tiered system
Kansas Academy of Mathematics and Science	\$8,481		Early college program within university system
Maine School of Science and Mathematics	\$9,800		

Additional References

Consumer Price Index Data:

https://www.bls.gov/data/inflation_calculator.htm

Maine Department of Education Appropriations Data:

https://www.maine.gov/doe/sites/maine.gov.doe/files/inline-files/FY24%20purple%20sheet%20RFL_Posting.pdf

Historical Maine Department of Education Appropriations Data:

https://www.maine.gov/doe/sites/maine.gov.doe/files/inline-files/FY23PurpleSheet_Enacted_20Apr2022_0.xlsx

Maine Secondary Tuition Rates Data: <https://www.maine.gov/doe/funding/reports/expenditures>

MSSM Statute:

<http://www.mainelegislature.org/legis/statutes/20-a/title20-ach312sec0.html>