



CLOSE UP

— The President's Report on the State of the Academy —

2019-2020

MAINE MARITIME
ACADEMY

A College of Engineering, Management,
Science, and Transportation

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MAINE MARITIME ACADEMY

A College of Engineering, Management, Science, and Transportation

PRESIDENT'S MESSAGE

Maine Maritime Academy is a strong and solid learning community. We have talented and experienced faculty and staff who are extremely capable of guiding our dedicated students. Over the past few years our alumni have become energized volunteers, championing the MMA mission.

At the same time, the college has gained ground financially. Our overall net position, especially due to growth in gifts, grants, and scholarship funding, has allowed us to keep tuition increases minimal and to meet the financial needs of our students.

However, as we begin the Fall 2020 semester, we are facing the most challenging time in MMA history. In March, we swiftly transitioned to remote instruction as we saw the COVID-19 pandemic advancing in the U.S. We moved classes and numerous events online.

Unable to conduct a training cruise, we planned a "Fast Cruise" (as in held fast to the pier) for our senior engineers to accrue their final hours of operational time so they could obtain their licenses and their academic degrees. Over the summer, we formed four academic and several operations working groups to plan for safely conducting classes on campus in the fall.

There are unknowns and countless challenges brought on by COVID-19. We remain focused on three foundational ideas: **maintaining and sustaining safety practices** that protect the health of our community so that we can continue **accomplishing MMA's educational mission** while **supporting a student experience** that considers the whole person.

Many of our strengths and accomplishments are highlighted in this status report. We are resilient, hardworking, flexible, and adaptable, and we now know from recent experience that we can quickly make changes and work differently in order to carry out our educational mission. I believe that, working together, our community can emerge from this pandemic even stronger than before.



"...we are facing the most challenging time in MMA history."

William J. Brennan, Ph.D.

Chain of Success

The anchor and chain of TS *State of Maine* has held the ship fast in ports across the world. Shipboard training has helped lead thousands of MMA graduates to professional accomplishment.

FUNDAMENTALS

Undergraduate Students	991
Student-to-Faculty Ratio	11:1
Student Retention	80%
Graduation Rate (6 Year)	71%
Graduate Students	14
Total Staff and Faculty	323
Living Alumni	8,961
Spring 2020 Dean's List	23%

Source: IPEDS, Fall 2019; Office of Institutional Advancement, July 2020; Office of the Provost, June 2020.

BACKGROUND

HISTORY

A nautical training institute in Maine was first proposed by educational and civic leaders around the state and resulted in the creation of Maine Maritime Academy by an act of the 90th Maine Legislature on March 21, 1941. The original class of 29 students reported in October of that year. World War II presented a critical need for trained deck and engineering officers, and the academy met that challenge, graduating its first class in 1943 and producing more than 300 officers who served at sea during the war. In the post-war era, the program expanded to a four-year, Bachelor of Science degree program, and in 1972 the college received official accreditation by the New England Association of Schools and Colleges.

The academy now offers two undergraduate degrees in academic courses of study in four maritime-related fields: engineering; international business and logistics; ocean studies; and marine transportation. The Graduate Studies program offers Master of Science degrees in International Logistics Management and Maritime Management.

VISION

The Vision of Maine Maritime Academy is to provide the best marine and related education of any small college.

MISSION

The Mission of Maine Maritime Academy is to provide a quality education focused on marine and related programs. The curriculum will empower students to take on leadership roles, encourage rigorous self-discipline, promote curiosity, and provide graduates with the skills, ethics, and knowledge needed to succeed in the global economy.

INSTITUTIONAL OBJECTIVES

Upon completion of a degree, students should, at the appropriate level:

- Demonstrate competency in written and spoken English
- Apply the scientific method
- Apply fundamental concepts in mathematics
- Be technologically proficient
- Develop a global perspective of the humanities and social sciences
- Gather, analyze, and interpret information
- Demonstrate competency in their major
- Explore and experience career paths in their program of study
- Demonstrate and inspire ethical behavior
- Develop skills to motivate others to achieve a common goal
- Recognize environmental consequences of individual and professional decisions

Taking Sight

From learning how to line up the horizon mirror of a sextant to navigating with computer simulators, students master skills that span technologies.

Measure of Success

In many of MMA's technical courses, such as Power Equipment, students split their time between classroom and lab. Here, the class uses a dial indicator to help align a pump to a motor. MMA graduates are readily employed and recognized for their practical experience.



RECOGNITION

MAINE MARITIME ACADEMY has received recognition for educational quality, value, and outcomes. Here are some of the reasons why:

- hands-on, experiential learning in specialized courses enriches students' experience and prepares them to be job-ready
- MMA's career placement rate is steady at 90% of graduates placed in jobs within their field or graduate school within 90 days of graduation
- careers are in high-earning fields and industries, which allows for more consistent on-time repayment of debts post-college
- highly-trained faculty with industry and professional experience are dedicated to helping students succeed
- many Maine Maritime Academy students are first-generation college students, a factor in rankings such as Washington Monthly (see below)
- a high-achieving alumni network sets an expectation for excellence and supports MMA students with international career connections
- most majors require 40-plus weeks of instruction and training per year (compared to 28 in a traditional liberal arts program), which translates to more knowledge and experience gained for the investment

Georgetown Study on ROI The report, "Ranking ROI Of 4,500 US Colleges And Universities," placed Maine Maritime Academy among the top 10 schools, outscoring Harvard. Georgetown University Center on Education and the Workforce issued the report in 2019 which used federal data to calculate return on investment for thousands of colleges across the country. A related *Washington Post* article, "Is College Worth It? A Georgetown study measures return on investment — with some surprising results" is searchable at [washingtonpost.com](https://www.washingtonpost.com).

U.S. News & World Report In 2020, Maine Maritime Academy ranked #4 in the Regional Colleges - North list and, within that category, ranked the #1 Top Public School; #1 Best College for Veterans; #10 Best Value School; and #72 among 219 undergraduate engineering schools in the U.S.

Money Magazine In 2020, Maine Maritime Academy placed in the Top 100 Best Colleges in America Ranked by Value. The college was also ranked #2 Most Transformative College; #14 in Best Colleges for Engineering Majors; and #17 in Best Small Colleges, Money Magazine's list of schools with fewer than 2,500 students.

Washington Monthly In 2019, Washington Monthly ranked Maine Maritime Academy #20 in Bachelor's College Rankings of four-year institutions based on their contribution to the public good in three broad categories: social mobility, research, and promoting public service. MMA also placed #20 in their Best Bang for the Buck - Northeast colleges list of America's schools that help non-wealthy students attain marketable degrees at affordable prices.

Colleges of Distinction Maine Maritime Academy earned a number of distinctions for 2020-2021 among Business Colleges and Engineering Colleges, based on inclusion of high-impact practices and distinctions important to the overall student experience: Engaged Students, Great Teaching, Vibrant Communities, and Successful Outcomes.

Yellow Ribbon School Maine Maritime Academy participates in the Yellow Ribbon Program in which higher education institutions voluntarily enter into an agreement with the Veterans Administration (VA) to fund tuition and fee expenses for out-of-state students that exceed the tuition and fee amounts payable under the Post-9/11 GI Bill.

Military Friendly School Military Friendly® is the standard that measures an organization's commitment, effort and success in creating sustainable and meaningful benefit for the military community. Maine Maritime Academy was rated by Military Friendly® in 2020 in six categories: Academic Policies & Compliance; Admissions & Orientation; Culture & Commitment; Financial Aid Assistance; Graduation & Career; and Military Student Support & Retention.

ACADEMIC NEWS

MMA Faculty are notably involved in professional development, scholarship and leadership opportunities in their respective disciplines. The following is a partial list of recent accomplishments.

ARTS & SCIENCES

Over the past two years, **Assistant Professor Jeff Boal** has developed an Emergency Department-based program in partnership with Waldo County General Hospital for the MD311 and MEDPIC classes he teaches. This is the first of its kind for North American maritime academies.

Assistant Professor Aaron Kingsbury, PhD, was awarded a grant from the Maine Economic Improvement Fund and the Maine/NASA Space Grant to develop teaching and research at MMA using sUAVs (drones).

ENGINEERING

Assistant Professor of Engineering Brendyn Sarnacki, PhD, led the development of a Combustion Chamber to explore the effect of alternative fuels in eliminating diesel engine soot emissions.

Sarnacki, **Associate Professor of Engineering Don McCann, PhD**, and Visiting **Professor of Engineering Frank Owen, PhD, PE**, developed a new Tank Level Control Trainer for use in two MMA laboratory classes.

MARINE TRANSPORTATION

Associate Professor Ender Asyali, PhD, and **Assistant Professor Richard Allard** conducted a study of maritime students that explored “Paternalistic Leadership in a Distinctive Maritime Work Environment” and presented at the General Assembly of International Association of Maritime Universities in 2018.

Associate Professor Stephen Cole, USCG Capt., and Asyali authored “Role of ECDIS Training on Improving Situational Awareness,” which was also presented at the Assembly.

Associate Professor Richard Miller, USCG Capt., **Assistant Professor Jennifer Norwood, USCG Capt.**, Asyali, and **Assistant Professor Tim Leach, USCG Capt.**, conducted a study of “Attitudes of Deck Students Towards Maritime Autonomous Surface Ships” at the Maritime Education Summit in 2019.

Norwood initiated a collaboration with Sea Machines Robotics of Boston to enhance the training curriculum and expand research involving Smart Ship Technology remote and autonomous vessel control.

Department Chair Dan Parrott, USCG Capt., authored nine articles on seamanship in *Soundings* magazine.

Professor Ralph Pundt, USCG Capt., created a training course for professional mariners on “Basic and Advanced Polar Operations Training.”

Assistant Professor Stephen Tarrant, USCG Capt., created more than 70 instructional videos on topics ranging from Vessel Stability to Precalculus.

OCEAN STUDIES

Assistant Professor Steven Baer, PhD, co-authored a number of peer-reviewed journal articles highlighting research that spans the world’s oceans, from Bering Sea to Indian Ocean, and appearing in *Frontiers in Marine Science* and *Deep-Sea Research*, among others.

Professor Ann Cleveland, PhD, presented “Investigating the Conceptualization and Implementation of Quantitative Reasoning (QR) Skills in Introductory Undergraduate Biology Courses” and a workshop, “The Chips Ahoy Challenge: Teaching Inferential Statistics with Food” to the RISE Symposium on STEM education in June 2019, and a virtual research paper presentation “Investigating the Conceptualization and Implementation of Quantitative Reasoning (QR) Skills in Introductory Undergraduate Biology Courses” at the NARST conference in March 2020.

Online Opportunities

Faculty and IT staff are deeply involved in creating quality online instruction for 2020 and beyond, a key learning tool combined with classroom and lab experiences.

Carey Friedman, PhD, co-authored “A Global 3-D Ocean Model for PCBs” for Global Biogeochem Cycles. She also co-authored a poster on POPS/EC Long Range Transport & Emission Uncertainties at a meeting of the North American Society of Environmental Toxicology and Chemistry.

Department Chair Jessie Muhlin, PhD, is a founding member of the Conserving Rockweed Animal Systems for a Sustainable Harvest, funded by Maine Sea Grant, and conducted several outreach programs regarding the importance of rockweed to intertidal communities.

Professor Muhlin was awarded a Maine Economic Improvement Fund award (2020-2021) for estimating rockweed biomass along the Maine coast that will employ the use of aerial drones and citizen science.

Professor Lauren Sahl, PhD, was selected by the Ocean Observations Initiative to help develop curricular activities, including an introduction to oceanographic instrumentation.

Professor Alan Verde, PhD, authored “Visual Signals of The East Pacific Red Octopus During Conspecific Interactions,” presented for the 2019 AAUS CAUS.

Professor LeAnn Whitney’s research on phytoplankton was presented at the Association for the Sciences of Limnology and Oceanography meeting in 2019 by Research Experience for Undergraduates student, Emily McDermith.

Professor Whitney is also part of a team that received a \$20 million EPSCoR grant from the National Science Foundation to study environmental DNA in coastal ecosystems in Maine.

Professors Sahl, Whitney, Muhlin, **Sarah O’Malley**, and **Kerry Whittaker** were awarded two curriculum innovation grants from UMaine’s eDNA EPSCoR grant.

The Ocean Studies department was awarded a Sofar Trident underwater drone through National Geographic and Open ROV’s S.E.E. Initiative.

NEW MAJOR: COASTAL AND MARINE ENVIRONMENTAL SCIENCE

The Ocean Studies department established a new major, Coastal and Marine Environmental Science (CMES) that complements the current baccalaureate programs. Coastal and Marine Environmental Science is the study of physics, chemistry, geology, and biology of the coastal and marine environment and their interactions with humans. This course of study will enable students to synthesize, analyze and understand the ocean environment and position them to be stewards and leaders in coastal communities. Students will gain foundational knowledge of geological and ecology processes that govern the coastal environment as well as how humans interact with the coastal environment; hone a skill set to measure, analyze, and synthesize ocean data and develop solutions to societal issues (e.g. climate change, sea level rise); and learn to communicate scientific knowledge to a broad audience. Students pursuing the CMES degree may dual major in Small Vessel Operations.

MARINE SCIENCE MAJOR NAME CHANGE TO OCEANOGRAPHY

During the process of developing Ocean Studies’ newest major, Coastal and Marine Environmental Science (CMES), in order to distinguish it from the existing departmental majors of Marine Biology and Marine Science, Ocean Studies renamed the Marine Science major to Oceanography. Oceanography better represents the major and allows for CMES to be differentiated, resulting in better internet search engine optimization and enhanced student enrollment for both majors.

ABET ACCREDITATION

Significant work was done during the 2020 summer months in preparation for an upcoming Accreditation Board for Engineering and Technology (ABET) accreditation visit (virtual) this fall. Hank Stewart and Sadie Alley Ferreira, Program Coordinators for the Marine Engineering Technology (MET) and Power Engineering Technology (PET) programs, respectively, are the authors of two self-study reports on the status of these two engineering programs.



Learning Through Doing

Ocean Studies Laboratory Manager Pam Grindle holds a Boreal Asterias Sea Star collected from the MMA waterfront outside the lab. She's introduced scores of students to aquatic life. The lab experience is fundamental to students, leading to capstone research projects for seniors.

HANDS-ON EDUCATION

AN INTEGRAL PART of a Maine Maritime Academy education is the practical knowledge students gain through field experience, which is a graduation requirement for most majors. Courses are typically taken in the summer, and academic credits count toward degree completion. Many companies train and evaluate students in order to develop them as prospective future employees, and students earn while learning and gaining experience. During the summer of 2019, 336 students completed field experiences appropriate to their major, both ashore and afloat.

CADET SHIPPING & TRAINING VOYAGES

(Unlimited USCG License candidates)

MMA's original field experience program, cadet shipping, occurs during the summer after the sophomore year, when unlimited USCG license students work on vessels appropriate to their license goals as cadets. These students major in: Marine Transportation Operations; Marine Engineering Operations; Marine Engineering Technology; and Marine Systems Engineering. After freshman and junior years, these students accrue additional sea service and hands-on experience during training cruises on the *TS State of Maine*. In 2019, 152 students were assigned to cadet shipping billets and nearly 250 freshmen and juniors gained operational experience on the *State of Maine*.

THE IBL SUMMER CO-OP

All International & Business Logistics students participate in a cooperative work experience with a professional company for a minimum of 12, 40-hour work weeks at the end of their third year. The program is supervised by department faculty, and the job site may be anywhere in the world.

STATIONARY PLANT PROGRAM

Power Engineering Technology and Power Engineering Operations curricula focus on operating and maintaining the large mechanical systems used to produce high pressure steam and generate electrical power in stationary plants. Students in these programs gain hands-on experience in summer field experiences in steam and power plants as well as large industrial facilities.

VESSEL OPERATIONS & TECHNOLOGY (VOT) AND SMALL VESSEL OPERATIONS (SVO)

Students who seek the 200-ton, 500-ton or 1,600-ton Near Coastal mate's (limited) licenses are required to complete field experiences leading to sea service on appropriate vessels. Sea service is acquired through laboratories, simulation, field work experiences and training cruises aboard the schooner *Bowdoin*. In 2019, 86 VOT/SVO students were placed with vessels to accrue operational time toward their licenses.

OCEAN STUDIES SENIOR RESEARCH

All Ocean Studies students (Marine Biology, Oceanography, and Coastal and Marine Environmental Science) complete independent research projects designed, implemented, analyzed, and disseminated by individual students. Projects are supervised by departmental faculty and utilize laboratory and waterfront facilities, including RV *Friendship*.



Fire Training Serves

Nearly half the volunteers of the Castine Fire Rescue Department are MMA midshipmen and students. For years, dedicated students have worked alongside local volunteers to serve the community. Firefighting skills are an integral part of training for all MMA unlimited and limited license majors.

ENROLLMENT

THE ACADEMY HAS UNDERTAKEN a comprehensive strategic enrollment plan in the past two years to expand the market for applicants and increase the yield from application to matriculation. As the population of high school students in Maine has declined, the Academy has expanded outreach to new out-of-state markets and adopted many new strategies to attract and retain quality students. One of those strategies is to offer additional scholarships to our accepted students. To that end, the Opening Doors, Changing Lives scholarship campaign is providing new scholarships, helping to offset our students’ financial needs. The Admissions staff continues to focus on the value and return on investment in an MMA degree when discussing the cost of attendance with prospective students.

FALL 2019 ENROLLMENT BY PROGRAM

International Business & Logistics	128	Power Engineering	122
Marine Engineering	387	Vessel Operations & Technology and Small Vessel Operations	127
Ocean Studies	61	Graduate	14
Marine Transportation Operations	166		

Source: MMA Final Registrar’s Report, Fall 2019

STUDENT INVOLVEMENT

Students are involved in more than 30 active clubs and organizations on campus. In 2019, over 250 students, or about 25%, were members of a club or organization, ranging from sports clubs and affiliates of national professional career organizations to volunteer and community service groups. In addition, on average, 34% of students participated in varsity athletics during the 2019-2020 academic year. The 2020 Student Life Awards (a virtual event for the first time ever) recognized 35 outstanding students and five highly involved student groups in 9 award categories for contributions to service projects, athletics, employment and volunteer programs, and other co-curricular activities. Students volunteered as fire fighters and first responders for Castine and Penobscot Volunteer Fire Rescue Departments; they ran Red Cross Blood Drives, the Boy Scouts Klondike Derby, and a Girl Scouts Sailaway; they taught young athletes in VolleyKids and DribbleKids; they contributed to a Peninsula woodbank, a Castine beach clean-up, and much more. The Sea Scouts, one of MMA’s newest clubs, was very active, as were other clubs and organizations on campus, producing over 100 events in a shortened year due to the transition to remote learning in March because of COVID-19.

SUPPORT SERVICES

Academic support services consist of academic assistance, available to all students, and academic accommodation, available to students with documented disabilities. The Academy’s Center for Student Success, located at the Buoy House, coordinates both. Students can select from a variety of free support services, from open-door faculty office hours and course help sessions, to a Writing Center, a Navigation Lab, a Math/Physics Lab, and individualized peer tutoring.

CLASS OF 2024 SNAPSHOT

- Enrolled:** 252 **Female:** 20% **Male:** 80%
- Students from Maine:** 66%
- Geographic representation:** 29 U.S. states; United Kingdom (England); Kuwait
- Early Action Applicants:** 58%
- Athletics:** 33%
- Top 5 Majors:** Marine Transportation Operations (22%), Marine Engineering Technology (15%), International Business & Logistics (11%), Marine Engineering Operations (8%), Power Engineering Technology (10%).

Source: Preliminary Admissions Census (9/4/20)

Soccer Scores

Soccer is among the most noted MMA athletic programs, and the men’s and women’s teams excelled in 2019. The men’s team made it to the North Atlantic Conference finals and the women’s team won the conference and advanced to the NCAA tournament for the first time.

MARINERS ATHLETICS

INTEGRITY FIRST

THE MAINE MARITIME ATHLETICS MISSION is to prepare our athletes for lifelong success through dedication to one’s team, individual growth, and a passion for sport, education, and profession. We value integrity above all else as the driving value toward leadership, citizenship, and sportsmanship.

PROGRESS THROUGH PERSEVERANCE

2019-20 Season Highlights: 2 Conference Championships; 52 Conference All-Academic Selections; 24 All-Conference Selections; 9 All-Regional Team Selections; 4-Straight Maritime Cups in Volleyball; 4 Players of the Year; 3 Conference Coaches of the Year; 2 Senior Scholar Athletes of the Year; 2 Defensive Players of the Year; 2 All-Academic Team Selections; Coaches Association Scholar All-American; Conference Woman of the Year; Conference Man of the Year; Maine Chapter of NFF Scholar Athlete of the Year; 2 Senior All-Stars; 1 Rookie of the Year

LEADERS AT EVERY OPPORTUNITY

The inCOMMAND Program was launched in 2015 to instill in MMA athletes the qualities, values and skills necessary to be effective leaders in their professional and personal lives. The four sections of inCOMMAND include freshman programming: “Coach-Run, Student-Athlete Approved,” designed to introduce young mariners to leadership and personal awareness; sophomore programming: “I Will Lead,” launches second-year athletes into practicing and learning how to lead; “Captains & Leaders,” designed to provide additional leadership skills and tools, as well as opportunities for reflection and growth; and “One Team, One Voice” programming for our young women to explore the pillars of our culture and who we strive to be, as Mariners and as female athletes at MMA.

ATHLETICS & RECREATION

Men’s: Basketball, Cross Country, Football, Golf, Lacrosse, Sailing, Soccer and Swimming; **Women’s:** Basketball, Cross Country, Lacrosse, Sailing, Soccer, Swimming and Volleyball; **Club Sports:** Men’s & Women’s Rugby and Wrestling

PROGRAM AFFILIATIONS

- NCAA Division III
- New England Women’s & Men’s Athletic Conference (NEWMAC)
- North Atlantic Conference (NAC)
- New England Intercollegiate Swimming & Diving Association (NEISDA)
- Inter-Collegiate Sailing Association (ICSA)
- New England Inter-Collegiate Sailing Association (NEISA)
- National Collegiate Wrestling Association (NCWA)

ABOUT NCAA DIVISION III

Colleges and universities place highest priority on the overall quality of the educational experience and successful completion of students’ academic programs. They seek to establish and maintain an environment in which athletics activities are conducted as an integral part of the student-athlete’s educational experience, and one that values cultural diversity and gender equity among their student-athletes and athletics staff. Financial aid cannot be granted based on a student-athlete’s athletics participation. This means institutions should not consider athletics leadership, ability or performance when formulating a financial aid package.

VARSITY SAILING TEAM

The MMA Varsity Sailing Team, a member of the New England Inter-Collegiate Sailing Association (NEISA), is active in dinghy and offshore racing, competing in events from the familiar waters of Maine to California and Annapolis.



Taking the Measure

While the cost of attendance, room and board, and incidentals related to their majors is challenging for students, the 2016 default rate for loans was 2.1%; the national default rate is 10.1%.

COST & FINANCIAL AID

COST OF ATTENDANCE is established annually. Financial aid includes all federal and state grants, federal loans (Stafford and PLUS), institutional loans, Work Study, private scholarships and all institutional grants/scholarships.

2020-2021 COST OF ATTENDANCE

Unlimited USCG License Majors

IN-STATE \$35,668 | OUT-OF-STATE \$50,048

Includes: tuition, room & board, general fees, unlimited license program fee, cruise/co-op and uniforms.

All Other Majors

IN-STATE \$24,778 | REGIONAL \$30,298 | OUT-OF-STATE \$39,158

Includes: tuition, room & board and general fees.

The above figures reflect only direct costs; figures do not include indirect costs or additional fees that may be assessed by major.

FINANCIAL AID STATISTICS

Eighty percent of students enrolled apply for financial aid. Eighty-three percent of our students who apply receive some financial aid. The average financial aid package is \$6,242. The average aid package does not include private loans or parent PLUS loans.

Default Rates Maine Maritime Academy's default rate for the Fiscal Year 2016 cohort is 2.1%; the national default rate is 10.1%. A cohort default rate is the percentage of MMA's student borrowers who have entered repayment on certain Federal Family Education Loan Programs or Federal Direct Loan Programs during a particular federal fiscal year (FY), October 1 to September 30, and default or meet other specified conditions prior to the end of the second following fiscal year.

Scholarships Merit scholarships are offered to provide an incentive for highly qualified incoming students to choose MMA. Maine Maritime Academy awards merit scholarships based on SAT scores and high school academic performance:

- National Merit Scholarship: 100% tuition
- Presidential Achievement Scholarship: 50% tuition
- Dean's Scholarship: 25% tuition
- Mariner's Scholarship: 15% tuition
- Distinguished Scholar Award: 10% tuition
- Trustee Scholarship for Diversity: \$10,000
- Harold Alfond Scholarship for Engineering: \$10,000

Endowed and pass-through scholarships are open to deserving first-year and returning students who meet the criteria and demonstrate academic and leadership success. MMA's scholarship endowment increased 71% over the past three fiscal years. Due to an overwhelming outpouring of support toward endowed and pass-through scholarships, we are unable to list here all of the new funds that have been established. To see the full list, visit the Opening Doors, Changing Lives scholarship campaign website: openingdoors.mainemaritime.edu.



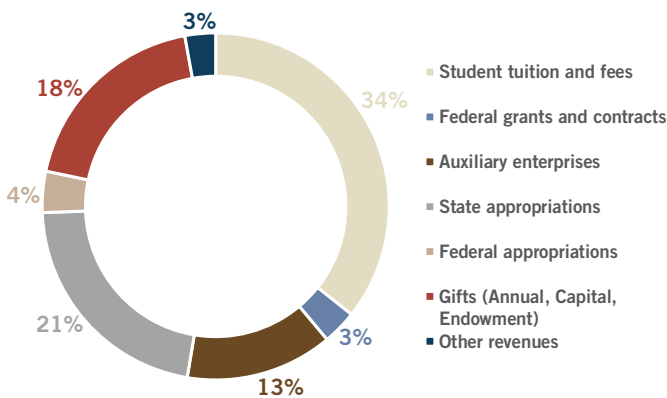
Capital Costs

A reducing flange awaits welding in the process of replacing a steam flow transmitter in the MMA steam lab. The costs of acquiring and maintaining engineering lab equipment are covered in the Academy's operating budget and allocation is determined by a collaborative process among engineering faculty.

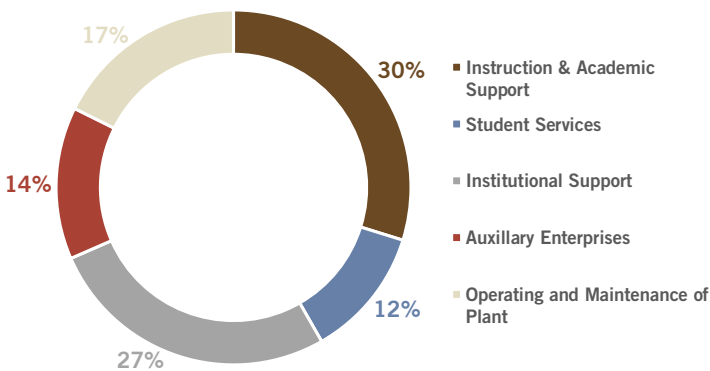
FINANCIALS

The academy has maintained a stable financial position and steady growth of net assets over the past few years with very low, long-term debt. Balanced budgets have been achieved through careful planning. The graphics below illustrate the academy's FY2019 revenues, expenses, and net assets for FY2016 - FY2019. The academy's main revenue sources are tuition, fees, and room and board charges (47%) and state appropriations (21%). While enrollment continues to be strong and most students receive some financial aid, annual costs of attendance and student financial need continue to grow.

Revenues (Operating/Nonoperating/Other) FY2019

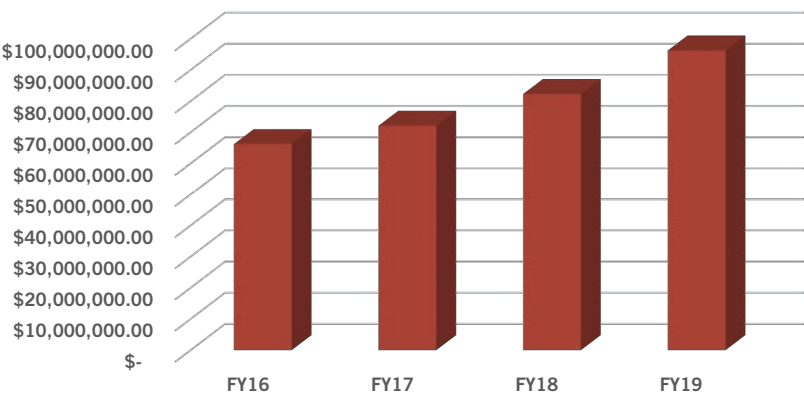


Expenses (Operating & Nonoperating) FY2019



FY19 Actuals-Audited

Net Position FY2016 to FY2019





School Ship Plans

In 2019, Congress appropriated initial funding for a new training ship for MMA. It will be the third new ship built for maritime academies and multi-mission capable for humanitarian relief as well, with medical facilities, helipad and dual cargo system.

BUILT FOR THE FUTURE

PURPOSE-BUILT TRAINING VESSEL

The **Maritime Administration** (MARAD), the U.S. Department of Transportation agency responsible for America's waterborne transportation system, is currently working with Philly Shipyard in Philadelphia, Pennsylvania to begin building the first of five purpose-built training vessels for the State Maritime Academies (SMAs). These purpose-built ships will be National Security Multi-Mission Vessels (NSMV), outfitted as both training platforms and disaster response vessels.

The NSMV is a new class of ship, designed with eight classrooms, a full training bridge, lab spaces and an auditorium. In training ship mode, the vessel can accommodate 600 students and crew. The vessel is also designed to respond to national and international disasters, as the TS *State of Maine* did in response to Hurricane Katrina in 2005. The NSMV includes two separate engine rooms providing significant spaces for engine training. Plans call for the ship to house up to 1,000 workers and crew in times of humanitarian need. It will have roll-on/roll-off capability, container storage, full hospital facilities, and a helicopter landing pad.

The third NSMV is slated to become the new TS *State of Maine*, replacing the current vessel, the former USNS *Tanner*, which has been in operation at Maine Maritime since 1997. The first two NSMV's will replace the oldest training ships at the SUNY Maritime College and the Massachusetts Maritime Academy. Subsequent NSMVs will be based at the Texas A&M Maritime Academy and the California State University Maritime Academy.

NSMV STATISTICS

Maneuvering – Docking without Tugs

- Bow Thruster
- Stern Thruster
- Flap type rudder – improved maneuvering

Teaching & Training

- Classrooms, Workshops, Lab/Training areas for Cadets
- Training Bridge and Navigation Lab
- Large Multi-Purpose Space

Principal Dimensions

- Length 159.85 m (524'-5")
- Beam 27.0 m (88'-7")
- Depth 16.8 m (55'-1.5")
- Design Draft 6.5 m (21'-4")

Range

- 11,000+ miles at 18 knots

Propulsion, Speed & Consumption

- Diesel Electric – 4 main engines divided between 2 engine rooms
- Total Installed Power – 14,280 kW Main Engines (four 4,200 kW)
- Plus one, 900 kW
- Full Speed – 18 knots with 15% sea margin – 4 engines
- Cruising Speed – 12 knots with 2 main engines in one engine room
- Uni-fuel for simplicity and operation in the US ECA – MGO only

Source: MARAD, March, 2020 ([maritime.dot.gov](https://www.maritime.dot.gov))



Worn with Pride

MMA alumni have served the world over as merchant marine and naval officers and mates, but also in a wide range of industries and endeavors. The alumni network remains one of the pillars of MMA’s success.

ALUMNI

Maine Maritime Academy connects people from all over the world. Our community of alumni, students, faculty, and staff, along with friends and family, shares a strong bond with this unique institution. The Alumni Relations office supports the alumni network, fosters connections across classes, shares stories, and keeps the spirit of the MMA experience alive and well long beyond graduation.

Significant alumni association program accomplishments over the past three years are the creation of a Class Agent program, the addition of two alumni groups (Charleston, SC and Jacksonville, FL), and timely communications via social networks.

Mariner magazine is published for alumni in print and online. Topics span from alumni profiles and updates to MMA news and programs. *Shipmate*, a newsletter for alumni, is published six times yearly and reaches over 5,000 via email.

ALUMNI RESIDENCY

Living Alumni	8,962
Maine residents	41%
CT, MA, NH, RI, VT residents	14%
Residents of all other U.S. states	26%
International	1%
Active Alumni Email Addresses	4,200 (47%)
Invalid Mailing Addresses	18%

ALUMNI DEGREES

Associate	442
Bachelors	9,541
Masters	301

ALUMNI MAJORS

“Engine”	50%
“Deck”	26%
Power Engineering	5%
VOT/ SVO	5%
Int’l Business & Logistics	4%
Ocean Studies	3%
BIW/EB	3%
Interdisciplinary (*individuals)	15*
Marina Management	34
MSE Design	37
NA / SCD / SCS	22
YOBM	41

ALUMNI CHAPTERS /GROUPS

MMA Alumni chapters and groups are located throughout North America. There are long-established chapters with regular programming and newly-formed, informal groups. Area events are great for networking and involve speakers, social gatherings, athletic activities, fundraising, and fun.

Casco Bay (Portland, ME)	SE Atlantic (SC)
Kennebec Valley (Waterville, ME)	Jacksonville (FL)
Ned Andrews (Bath, ME)	Tampa (FL)
Penobscot Bay (Rockland, ME)	Southeast (LA)
Sea Dog (Bangor, ME)	Texas
Seacoast (NH)	No. CA (San Francisco)
Bay State (MA)	So. CA (San Diego)
CT/RI	Puget Sound (WA)
Delaware Valley (PA/NJ)	Tidewater (VA)
Washington, DC	Panama Canal

Community Investment

Castine is known for its graceful homes with white picket fences. The college and the community have become intertwined to the benefit of both. MMA salaries, for example, paid to Castine and surrounding area residents total more than \$15 million.

COMMUNITY IMPACT

MMA works hard to be a good neighbor. Faculty, students and graduates are an integral part of the Castine and area communities. They make their homes here and are active in service projects and organizations. And residents use campus facilities such as the Alexander Field House and Delano Auditorium for various local events. Since the founding of MMA in 1941, the years have woven the relationship between school and community into a beneficial collaboration.

TAXES, FEES, AND MUNICIPAL CONTRIBUTIONS

Fees paid by Maine Maritime Academy to the Town of Castine: \$386,606

(total fees paid; year ending June 30, 2019; includes town water and sewer)

Unrestricted Contribution to the Town of Castine: \$42,774

(year ending June 30, 2019; includes Municipal Service Fee)

State Sales Tax Collected: \$18,269

(year ending June 30, 2019; sales tax payable)

State Income Taxes Collected: \$650,001

(year ending June 30, 2019; S.I.T. Collected (0220))

COMMUNITY INVESTMENT

(year ending June 30, 2019; *includes payment to contractors)

Goods & Services Purchased from Castine Vendors: \$174,228*

Goods & Services Purchased from Area Vendors: \$720,456*

Goods & Services Purchased from Maine Vendors: \$6,926,569*

Estimated Annual Amount Spent Locally by Students \$950,000

(calculated at \$500 per semester based on 950 students)

MAINE MARITIME ACADEMY TOTAL PAYROLL

\$22.6 Million

(includes full-time faculty and staff salaries and wages, employer benefit costs, and withheld taxes; year ending June 30, 2019)

\$10.5 Million in salaries paid to area residents

(Blue Hill, Brooklin, Brooksville, Bucksport, Castine, Orland, Penobscot, Sedgwick, and Surry; includes full-time faculty and staff salaries and wages; based on 11/1/19 census and 38% for employer benefit costs and withheld taxes)

\$5.2 Million salaries paid to Castine residents

(includes full-time faculty and staff salaries and wages; based on 11/1/19 census and 38% for employer benefit costs and withheld taxes)

EMPLOYEES LIVING IN CASTINE

Total: 70 | **full-time employees:** 54 | **part-time employees:** 16

(employee headcount based on 11/1/19 census)

ADVANCEMENT

VISION 20|20: A CLEAR SUCCESS

MMA reached an important milestone when we not only met our Vision 20|20 goals, but also surpassed the Alford Challenge, the catalyst for the three-year campaign.

In 2017, the Harold Alford Foundation challenged Maine Maritime Academy to raise a cumulative total of \$2.25 million (\$750,000 each year from July 1, 2017 to June 30, 2020) and increase our alumni participation rate to 20% in fiscal year 2020 in order to receive \$750,000 from the foundation for scholarships. In the third and final year, ending June 30, we would need to raise at least \$750,000 from a minimum of 1,480 alumni donors.

By the end of June, Vision 20|20 contributions for the year mounted to \$940,785 and the alumni giving-rate rose to 24.5%. Final numbers for the year substantially exceeded targets, with a total of 1,797 alumni participating and an additional \$190,785 raised.

Consequently, the Alford Foundation will gift \$750,000 to the college to add to their already named endowed scholarship fund.

A major factor in this significant achievement was not only the work of the MMA advancement team, but also 39 Alumni Advancement Committee volunteers who made calls and worked with other alumni to hit the goals. Alumni participation by class soared to all-time highs, with over 80% giving in the classes of 1956 and 1967 (81.6% and 84.6% respectively). The largest number of contributors in one class was 74 donors in the Class of 2020.

Alumni participation in giving is an increasingly important metric of college success.



1,797 alumni (24.5%) gave to the Vision 20|20 campaign during FY 2020, surpassing the campaign goal of 20%. The average Vision 20 | 20 gift was **\$263**. First-time donors numbered **406** (22%). Total raised in FY 2020 was **\$940,785**; total raised over the three-year challenge: **\$2,794,941**.

Aid Appreciation

More than \$23 million has been raised for scholarships since 2016. Initially, recipient students express their gratitude with thank-you letters and calls, but the appreciation lasts a lifetime.

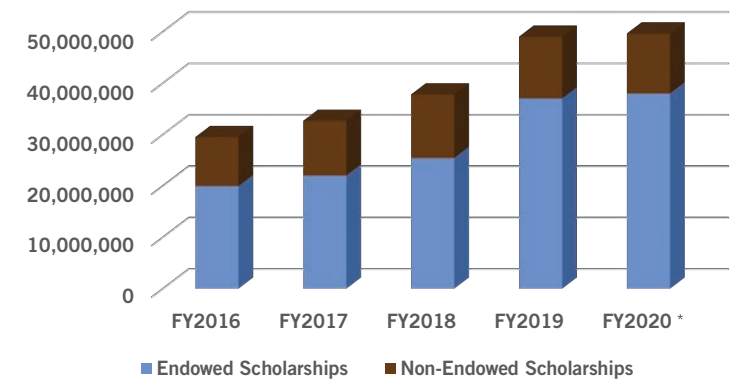
ADVANCEMENT NEWS

As of June 30, 2020, the end of the 2020 fiscal year (FY), a total of 2,451 alumni, parents, friends, corporations, and foundations had made MMA a philanthropic priority and helped the academy to raise \$3,102,987. Of that total, \$1,928,459 was given to endowed scholarships. Gifts to capital projects totaled \$126,134. Total gifts to the academy in FY20 numbered 4,240. Gifts to the annual fund, capital projects, and the endowment help to ensure the Academy's financial sustainability.

In 2018, the Alumni Advancement Committee was formed to recruit class fundraising pursers to increase alumni participation. These volunteers had a goal to boost MMA's fundraising annually while increasing the overall number of alumni, parents, and friends who contribute. Volunteers are playing a key role in the success of both annual and scholarship campaigns.

A Night by the Bay is scheduled for April 17, 2021 in South Portland. An active group of six volunteers is organizing the event, which currently has 34 sponsors.

Endowment Balances



* FY2020 figures based on estimates, not audited

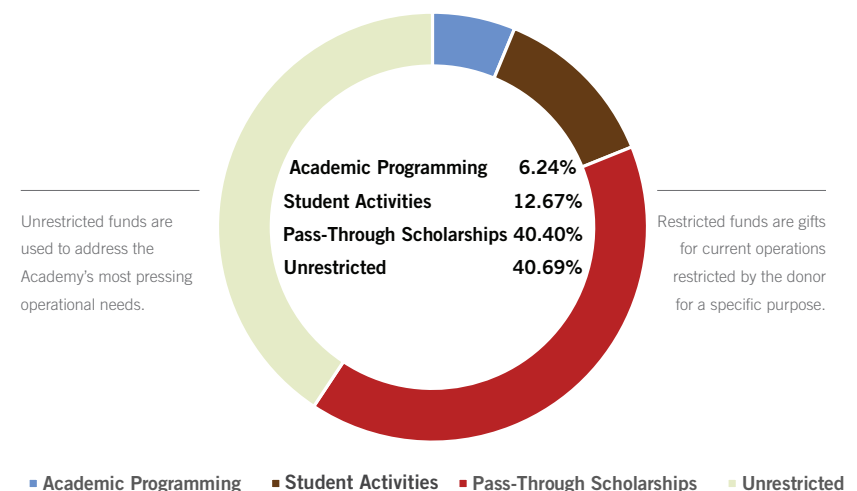
OPENING DOORS, CHANGING LIVES

With the goal of doubling the amount of available financial aid available to students through scholarships, Opening Doors, Changing Lives: The Scholarship Campaign for Maine Maritime Academy launched in 2019. The \$20 million target will further assist the 80% of MMA students who are receiving financial aid.

As of June 30, 2020, the campaign had received \$19,319,345 in cash and pledges. Twenty-five endowed scholarships and 26 pass-through (current use, or annual) scholarships have been created since the campaign's launch.

A successful campaign will afford the academy the financial capacity to compete for deserving students against other colleges that can offer more generous aid.

FY2020 Annual Fund Breakdown



MAINE MARITIME ACADEMY

CASTINE, MAINE 04420
CHANGE SERVICE REQUESTED



Maintaining for the Future

As part of its upkeep, the schooner *Bowdoin* received new deck seaming and refinishing. An endowment plan was approved in 2020 in order to cover ongoing and future repair costs.