



California State University Maritime Academy Institutional Report

NAVIGATING SUCCESS

Submitted to
WASC Senior College and University Commission





Contact:
Graham Benton
Accreditation Liaison Officer
gbenton@csum.edu

The CSU Maritime Academy Institutional Report 2018

Table of Contents

Component One:		
The Cal Maritime Experience: Past, Present, and Future.....		1
I.	Introduction	
II.	Mission, Vision, Beliefs and Values	
III.	Response to Preview Reviews	
IV.	The Strategic Plan and the Future	
Component Two:		
Adherence to Standards.....		9
I.	Review Under the Standards	
II.	Compliance	
Component Three:		
The Meaning, Quality, and Integrity of Degree.....		13
I.	Introduction	
II.	What is the Meaning of Our Degree?	
III.	How do we Measure Quality?	
IV.	How do we Ensure Integrity?	
V.	The Graduate Program	
VI.	Conclusion	
Component Four:		
Educational Quality and Student Learning.....		23
I.	Introduction	
II.	Data-Collecting Structures	
III.	Evidence of Student Learning: Core Competencies [For Discipline-Specific Student Learning, see Appendix 24]	
IV.	Addressing Gaps through Academic Assessment to Improve Student Success	

**Component Five:
Student Success: Student Learning, Retention, and Graduation Rates.....35**

- I. Student Success and Achievement
- II. Trends, Patterns, Targets and Benchmarks
- III. Other Measures of Student Success
- IV. The Promotion of Student Success
 - A. Advancement of Student Success through Curricular Efforts
 - B. Advancement of Student Success through Engagement
 - C. Advancement of Student Success through Improvement of Student Services
 - D. Advancement of Student Success through Diversity Recruitment, Retention, and Programming
- V. Conclusion

**Component Six:
Quality Assurance and Improvement.....54**

- I. The Definition, Purpose, and Processes of Program Review
- II. Findings
- III. Future Steps

**Component Seven:
Sustainability: Financial Viability and the Changing Higher
Education Environment.....61**

- I. Overview of Financial Health
- II. The Budget Process
- III. Support for Faculty Development and Student Learning
- IV. Capacity and the Physical Master Plan
- V. Environmental Sustainability
- VI. The Changing Landscape of Higher Education

**Component Eight:
Conclusion.....76**

Notes on the text:

As with any reflexive self-study intended for an external audience, this document oscillates between the descriptive and the analytic. For clarity's sake, much of the text in the body – especially in the first three components – is more discursive while data embedded in tables, charts and graphs are mostly presented in the appendices.

- Hyperlinks embedded within the self-study direct to the appendices and to information on our website whenever possible. Appendices are also linked via the Table of Contents.
- For links to “Syllabi Central” on our Learning Management system where all syllabi are stored, you can log on to <https://moodle.csum.edu/login/index> . The login is as follows:
Login: wasc1
Password WascUser1!
Simply click on the Syllabi Central link. All syllabi can be provided at the time of the visit as well.
- Whenever possible, sections of the self-study are identified by the specific Criteria for Review that they address. A paginated index of these CFRs appears after the Table of Contents.
- For your convenience, the required Compliance forms have been completed and placed in the Appendices in MS Word for review.
- Finally, the world of maritime education (like many specialized worlds) is rife with jargon and acronyms. A [glossary](#) is provided to help navigate this language.

Appendices

No.	Title	CFR
01	Review Under The WASC Standards w/ Reflections	1.8
02	Inventory of Educational Effectiveness Indicators	
03	Credit Hour and Program Length	2.1
04	Transfer Credit Review Form	2.14
05	Marketing and Recruitment Form	
06	Student Complaints Review Form	1.7
07	Technology-Assisted Modes of Instruction Policy	
08	WASC Steering Committee Membership	
09	CSU Fact Book	
10	Curriculum Request Form	
11	Corps Structure	
12	Cal Maritime Organizational Charts	3.8
13	2016-2021 Strategic Plan	
14	Leadership Taskforce Charge	
15	Educational Master Planning Guide	
16	MQID Aggregated Rubric	
17	Leadership Development Program Description and Outcomes	
18	Cal Maritime Advisory Council Organization and Charter	4.6
19	Maritime Emergency Response Boat Program	
20	Faculty Accomplishments 2016 – 2018	2.8
21A	ABET Re-Accreditation Letter, Mechanical Engineering	4.5
21B	ABET Re-Accreditation Letter, ET and FET	4.5
21C	IACBE Re-Accreditation Letter	4.5
22A	USCG Exam Reports	2.6
22B	USCG License Exam Pass Rates 2018	2.6
22C	USCG Audit Report AND SOP for Licensed Programs	4.5

No.	Title	CFR
23	IBL External Examination Report	2.6
24	Evidence of Student Learning: Discipline Specific Knowledge	2.4
25A	Faculty Retreat on Student Persistence	3.10
25B	Faculty Retreat on Student Engagement	
26	Persistence Exercise Faculty Retreat	3.10
27	Cal Maritime Retention and Graduation Documents	1.2
28	Graduation Initiative 2025 Report	1.2
29	Alumni Survey 2018	
30	Curriculum Redesign Proposals	3.10
31	NSSE 2017 Presentation	
32	NSSE Academic Department Strategies	
33	Student Success through Engagement	2.11
34	Student Success through Student Services	2.13
35	Unity Council Charter 2013	1.4
36	SEAS Progress Report 2018	
37	Early Alert Presentation 2018	
38	Program Review Guide	4.4
39	Leadership Development Decision Making Documentation	4.6
40	Program Review Flowchart	4.6
41	University Advancement Reports 2017-2018	
42	Campus Renewal Presentation	3.4
43	Campus Physical Master Plan	3.4
44	Glossary	

2013 STANDARDS INDEXED TO CAL MARITIME SELF-STUDY

CFRs are signaled in the text in red following paragraphs in which they are explicitly discussed; of course, all sections of the self-study, in one way or another, should align with one or more of these criteria.

		Component(s)	Page(s)
Standard 1: Defining Institutional Purposes and Ensuring Educational Objectives			
1.1	Formally approved, appropriate statements of purpose that define values and character	1	4
1.2	Clear educational objectives; indicators of student achievement at institution, program and course levels; retention/graduation data and evidence of student learning outcomes made public	3, 5	16, 35
1.3	Academic freedom: policies and practices	3	19
1.4	Diversity: policies, programs, and practices	1, 3	5, 41, 48
1.5	Education as primary purpose; autonomy from external entities	1, 5	4, 51
1.6	Truthful representation to students/public; fair and equitable policies; timely completion	1, 5	12, 36
1.7	Operational integrity; sound business practices; timely and fair responses to complaints; evaluation of institutional performance	7	62
1.8	Honest, open communication with WASC including notification of material matters; implementation of WASC policies	1	9
Standard 2: Achieving Educational Objectives Through Core Functions			
2.1	Programs appropriate in content, standards, degree level; sufficient qualified faculty	3	55
2.2	Clearly defined degrees re: admission requirements and levels of achievement for graduation; processes to ensure meaning, quality and integrity of degrees 2.2 a – Undergraduate degree requirements, including general education and core competencies 2.2 b – Graduate degree requirements clearly stated and appropriate	3, 4	15, 22, 24
2.3	Student learning outcomes (SLOs) and expectations for student learning at all levels; reflected in curricula, programs, policies, advising	3	16
2.4	Faculty's collective responsibility for setting SLOs and standards, assessing student learning, demonstrating achievement of standards	3,4	16, 26, 32
2.5	Students actively involved in learning and challenged; feedback on learning provided	3	34
2.6	Graduates achieve stated levels of attainment; SLOs embedded in faculty standards for assessing student work	3, 4, 6	13, 20, 32, 58
2.7	Program review includes SLOs, retention/graduation data, external evidence and evaluators	6	56
2.8	Scholarship, creative activity, and curricular and instructional innovation for both students and faculty valued and supported	3	20
2.9	Faculty evaluation links scholarship, teaching, student learning, and service	3	19
2.10	Institution identifies and supports needs of students; tracks aggregated and disaggregated student achievement, satisfaction and campus climate; demonstrates students' timely progress	5	36
2.11	Co-curricular programs aligned with academic goals and regularly assessed	3,5	48, 51
2.12	Institution provides useful and complete program information and advising	5	46

		Component(s)	Page(s)
2.13	Appropriate student support services planned, implemented, and evaluated	5,7	48
2.14	Appropriate information to, and treatment of, transfer students (if applicable)	5	42
Standard 3: Developing and Applying Resources and Organizational Structures to Ensure Quality and Sustainability			
3.1	Sufficient, qualified, and diverse faculty and staff to support programs and operations	7	70, 72
3.2	Faculty and staff policies, practices and evaluation well developed and applied	7	71
3.3	Faculty and staff development planned, implemented, and evaluated	7	71
3.4	Financial stability, clean audits, sufficient resources; realistic plans for any deficits; integrated budgeting; enrollment management; diversified revenue sources	7	61
3.5	Facilities, services, information and technology resources sufficient and aligned with objectives	7	68
3.6	Leadership operates with integrity, high performance, responsibility, and accountability	7	68
3.7	Clear, consistent decision-making structures and processes; priority to sustain institutional capacity and educational effectiveness	7	68, 71
3.8	Full-time CEO and full-time CFO; sufficient qualified administrators	1, 7	4, 68
3.9	The university has an independent governing board	1	2
3.10	Effective academic leadership by faculty	5, 7	46, 47, 69
Standard 4: Creating an Organization Committed to Quality Assurance, Institutional Learning, and Improvement			
4.1	Quality-assurance processes in place to collect, analyze, and interpret data; track results over time; use comparative data; and make improvements	6	58
4.2	Sufficient institutional research (IR) capacity; data disseminated and incorporated in planning and decision-making; IR effectiveness assessed	6	58
4.3	Commitment to improvement based on data and evidence; systematic assessment of teaching, learning, campus environment; utilization of results	5, 6	33, 58, 60
4.4	Ongoing inquiry into teaching and learning to improve curricula, pedagogy, and assessment	5, 6	33, 55
4.5	Appropriate stakeholders involved in regular assessment of institutional effectiveness	6	59
4.6	Reflection and planning with multiple constituents; strategic plans align with purposes; address key priorities and future directions; plans are monitored and revised as required	6	56
4.7	Anticipating and responding to a changing higher educational environment	7	76

Component 1

The Cal Maritime Experience: Past, Present, and Future

“As the Pacific maritime community's keeper of the flame, Cal Maritime is the steward of a heritage and culture of respect for the sea. It is also the navigator for its future. Being different is an enormous strength for Cal Maritime. The Academy will continue to be a maritime university. A Cal Maritime degree will provide lifelong opportunities for alumni, instilling strong values, impeccable judgement, courageous leadership, exceptional intellectual capability and unsurpassed knowledge and technical expertise.”

The Cal Maritime Vision

I. Introduction

Located in Vallejo, California on the north-east corner of San Francisco Bay, California State University Maritime Academy (Cal Maritime) is a unique and specialized campus of the 23-campus California State University system. Serving approximately 1100 students in six undergraduate majors and one graduate program, it is one of only seven degree-granting maritime academies in the United States and the only one on the west coast. Cal Maritime's enduring responsibility is to train, educate, and develop graduates for leadership positions in the global maritime profession. Quality, personalized teaching is provided with a student-to-faculty ratio of 18 to 1 and an average class size of 20, as students experience intellectual learning in technology-equipped classrooms and modern simulators and laboratories.

Cal Maritime has the highest employment rate in the CSU system – over 92% within four months of graduation – with starting salaries near the top of national averages. Recently, Cal Maritime has been ranked the #1 public university in California for alumni earnings 10 years after enrollment (U.S. Department of Education) and is the #1 California college for raising students from the bottom 20% in family income to the top 20% (The Equality of Opportunity Project). Moreover, Cal Maritime is one of only 15 four-year colleges to receive a perfect score for “value added to student outcomes (The Brookings Institute); is one of “America's Best Public Colleges” according to *Money Magazine*; and is one of the 50 best value Engineering Schools in the nation (bestvalueschools.com). Among other accolades, the institution is ranked #3 for “Best Bang for the Buck in the West”, #5 Baccalaureate University in the U.S., and #1 in alumni earnings among all universities in the West (*Washington Monthly*); #4 of “the top twenty-five public colleges that are worth the money” (CNBC); #1 public regional college in the west (#3 overall) (*U.S. News and World Report*); and #20 of the top 25 public colleges with the highest earnings (*Forbes*). [Accolades](#).

Many of these accomplishments are the result of a unique educational program that combines intellectual learning with applied technology, leadership development, and global awareness. Cal Maritime uses the four points of the compass to symbolize these four key elements of its mission commitment to students. (The compass rose also informed the thematic organization of Cal Maritime's last self-study for WASC.) *Intellectual Learning* begins with the acquisition of information and culminates in

analysis, synthesis, and evaluation. *Applied Technology* is the use of direct experiential methods, both in classes and through the immersion in professional environments, with the objective of learning the skills, techniques, and attitudes appropriate to a student's chosen profession. *Leadership Development* is informed by the real-world demands of the maritime-related professions into which Cal Maritime's graduates enter, and *Global Awareness* is based upon substantive and applicable knowledge of a wide range of international issues and cultural perspectives.

In 1929, the California State Assembly established the California Nautical School in Tiburon, California with programs in maritime navigation and engineering. In 1939, the school changed its name to the California Maritime Academy – three years after the passing of the Merchant Marine Act which directed the creation and maintenance of an adequate merchant marine to support U.S. international and domestic commerce and to meet the needs for national defense. In 1973, the California Maritime Academy became the first educational institution in the nation to enroll women in its licensed maritime program, and in 1974, a four-year undergraduate program was established which laid the groundwork for accreditation by the Western Association of Schools and Colleges. In the late 1980s, undergraduate majors in Mechanical Engineering and Business Administration were added.

Cal Maritime became a member campus of the California State University System in 1995, and subsequently added a new undergraduate major in Facilities Engineering Technology. The curriculum expanded in 2003 with the introduction of the Bachelor of Arts degree in Global Studies and Maritime Affairs. Cal Maritime's first graduate program – a fully online MS in Transportation and Engineering Management which offers an advanced course of study in business and management fundamentals combined with specialized preparation through the three tracks of Engineering, Transportation, and Humanitarian Disaster Management – was added in 2011. In 2015, the name of the campus was officially changed from the California Maritime Academy to California State University Maritime Academy, with "Cal Maritime" as its designated shortened moniker [[CSU Fact Book](#)] Future plans include a new undergraduate major in Oceanography (currently approved by the CSU Board of Trustees for a 2020 start date) as well as other programs in maritime-related fields that are in varying stages of development. Demand for a Cal Maritime education has increased in the last decade, and four of the six majors are currently impacted, meaning applicants must compete for admission and be well-prepared to enter into a subject of study. [CFR 3.9]

Before proceeding further, it is important to understand that one of the most unique aspects of Cal Maritime is the way students are organized within the Corps of Cadets, which is an essential component to the leadership and professional development program. *Every* undergraduate student is required to participate in the Corps of Cadets to develop the self-discipline, self-esteem, and character that will help them excel in their chosen careers. The Corps of Cadets has three primary organizations charged with leadership and professional development, student advocacy, and student wellness. This group includes the Corps Staff, Associated Students of the California Maritime Academy (ASCMA), and Residence Life. Each organization is comprised of

Cadet Leaders called Corps Officers who are under the advisement of different campus administrators. Although the focus area for each of these groups is different, they work together to represent cadet issues and ensure concerns are addressed with faculty and staff at Cal Maritime. The Corps structure is based on academic majors within the Corps of Cadets and is implemented in the form of Companies, Divisions, Squads, and Sections. Leadership is inculcated within each cadet through a Division squad-based network which creates an opportunity for mentoring of underclass cadets by upper class cadets who are in the same major and have the same training and professional development requirements. Additional leadership development is provided for cadets who apply and are appointed to Corps Staff positions as Corps Officers [[Corps Structure](#)].

The *Training Ship Golden Bear* (TSGB) – a literal and symbolic center of campus – was transferred to the California Maritime Academy from the U.S. Maritime Administration (MARAD) in 1996. The training ship serves as the primary training platform on which cadets apply technological skills introduced in the classroom and leadership skills acquired from their work assignments and responsibilities with the Corps of Cadets. Each summer, cadets in their first and third years depart with licensed faculty officers for two months during the annual Training Cruise. During these periods at sea, intellectual learning, applied technology, and leadership development blend daily as cadets apply what they have learned in the classroom, in the lab, in the Corps, and on the waterfront. Those working toward a license can feel the responsibility of command, demonstrate their effectiveness as leaders, and refine their technical skills and leadership styles.

Since its inception, Cal Maritime's academic departments reported to one Academic Dean; one of the more exciting and complex actions recently undertaken by the institution concerns the re-organization of its academic units into three schools. Initiated in 2015 but discussed and planned since 2009, a more efficient and effective academic administrative structure was developed to support the continued growth of Cal Maritime. The goals of the multi-school model, as developed at a faculty retreat in August 2015, were (in part) to plan for the development of new academic programs; to imbue these new schools with clearer identities, focused visions and greater responsiveness to new fields of study; to improve the quality of leadership with more specialized knowledge; to increase support for faculty scholarship; to provide greater support for diverse people, majors, operations, and educational needs; and to create a more efficient overall operational framework that would be energized by certain decentralizations. This was a monumental effort, with input from the Department Chairs, the Academic Senate, Academic Affairs leadership and other external stakeholders. A specific Six-Step Decision Making Model (often used by the campus to inform major initiatives) was utilized over eighteen months which resulted in the formation of three separate schools: The School of Engineering; The School of Maritime Transportation, Logistics, and Management (MTLM); and the School of Letters and Sciences (L&S). At the writing of this self-study, a nation-wide search for three new Deans has successfully concluded, and the nascent schools are now operational.

II. Mission, Vision, Beliefs and Values.

As noted, Cal Maritime is committed to providing each student with a college education combining intellectual learning, applied technology, leadership development, and global awareness. Furthermore, its purpose is to provide the highest quality licensed officers and shoreside personnel for the merchant marine and national maritime industries, provide continuing education opportunities for those in the transportation and related industries, and be an information and technology resource for the transportation and related industries. This [mission](#), combined with our [vision, beliefs and values](#), are clearly presented and embraced by faculty, staff, students and administration. [CFR 1.1]

Also of significance is Cal Maritime's alignment with the mission of the California State University itself: while there was a period of adjustment in the transition from an independent public institution to becoming the smallest campus of the largest university system in the nation, over time the faculty and staff have come to embrace the fundamental focus and [mission of the CSU](#). [CFRs 1.5, 3.9]

III. Response to Previous Reviews

In 2011, Cal Maritime received its [WASC Commission Letter](#) which reviewed the [Capacity and Preparatory Review](#) (2009), the Educational Effectiveness Report (2010), and the subsequent team visit to campus. In that letter, the Commission endorsed the findings, commendations and recommendations of the team and emphasized the importance of continued attention to: 1) assessment of student learning, program review, and student achievement; 2) unity and diversity; 3) refinement of the leadership development program; and 4) ongoing state funding challenges. These four areas were distilled from twenty-one distinct recommendations from the visiting team. While these conditions were addressed in the Interim Report of 2014, it was understood that future reviewers from WASC would expect growth and development in these particular areas. Cal Maritime has taken these recommendations seriously. The WASC Steering Committee was charged ensuring campus focus on these items, and various committees and subcommittees (both those already in existence and those created specifically to tackle identified issues) were tasked with moving the institution forward. While the four areas of inquiry are summarized briefly below, these concerns – and Cal Maritime's responses to them – are embedded throughout this self-study.

Assessment of Student Learning

Information relating to the improvement of student learning, student achievement and program review are addressed later in this report, specifically in Components 3, 4, and 6. In brief, the Institution-Wide Assessment Council (IWAC) has been empowered to review the assessment efforts of all institution-wide student learning outcomes. All programs are now submitting "Annual Learning Reports," which feed into five-year Program Reviews. Currently, all programs are on track and can be found [here](#). More recently, attention has been given to Student Success, and much institutional effort has

been devoted to defining student success and achievement, developing metrics to measure these outcomes, and collecting data to track improvement.

Diversity

Historically, maritime academies have been challenged in achieving ethnic and gender diversity within their student bodies and faculties. And yet, as a public university in California, Cal Maritime is charged with serving all of the state's (and the region's) people. The institution is working to significantly increase minority representation on campus through active alumni recruiting efforts to identify candidates for enrollment and through programs that support and celebrate diverse populations and demonstrate our commitment to a diverse community. Most recently, a full-time Spanish-speaking recruiter permanently stationed in Southern California has been added to our Admissions and Recruiting Office in recognition of the significant increase in Latinx students from that region. Goals have been set to increase female enrollment of new students by two percentage points per year, with the first milestone set at 30% enrollment.

Hiring practices have been reviewed and modified to improve access to career opportunities and also include a requirement of a diverse pool of finalists. In the past years the HR department has been renamed the Department of Human Resources, Diversity & Inclusion with a parallel charge to support the goals and objectives of diversity and inclusion. Within this division appears the newly-created position of Director of Student Equity [[Diversity at Cal Maritime](#)]. [The Unity Council](#), too, has matured since the last visit. Special attention to recruitment and retention will be addressed in Component 5. **[CFR 1.4]**

Leadership Development

Back in 2012, several major initiatives were implemented to strengthen the Leadership Development Program. A Leadership Development Coordinator was hired, the Corps of Cadets was re-organized and given faculty divisional advisors, more leadership courses were introduced into the curriculum, and more leadership components were embedded into existing courses. Two hours per week when no classes are scheduled have been allocated in support of leadership activities, and the Institution-Wide Learning Outcome on Leadership was reviewed and revised. Most significantly in terms of significant change, in July 2013, President Cropper issued a memorandum calling for the creation of a Cadet Leadership Task Force to “create a comprehensive, co-curricular continuum of leadership development education” [[Appendix 14](#)]. The result of this fifteen-month effort was the formation of the [Edwards Leadership Development Program](#) (ELDP), funded in part by a generous gift of the Tom and Libby Edwards Family. The ELDP is built on a maritime model embracing the history, tradition and importance of the seafaring chain of command, while promoting active participation in modern team management practices. Along with an aggressive and challenging academic curriculum and required international experience, completion of the requirements of the ELDP contribute to providing Cal Maritime graduates with a distinct leadership advantage upon commencing their careers.

Significant change, particularly the philosophical change which creates momentum in institutional progress with respect to how we develop leaders, has not occurred without cost. A high turnover of staff leaders in Student Affairs (attributed to fundamental disagreements in leadership development methodology) since the creation of that relatively new university division in 2013 has resulted in uneven improvements in leadership development efforts. More recent appointments of a new Vice President (to fill a retirement), a new Associate Dean for Student Engagement (in a newly created position) and a new Commandant of Cadets (reporting directly to the President) have been accomplished. Alongside these appointments, Cal Maritime conducted a third-party assessment of the ELDP in August 2018 to determine the effectiveness of the curriculum following graduation of the first cohort in the four-year program. These new leaders and a thorough evaluation of the ELDP are expected to stabilize and further improve the program by minimizing turnover, ensuring open and candid assessment, and providing a stronger clarity of purpose. Further analysis of the leadership development program – including the creation, implementation and assessment of its learning outcomes – is discussed in Component 6.

Challenges of State Funding

When WASC last visited campus for a comprehensive review, the California (and national) economy was in a precarious position: state funding for the CSU had been slashed by nearly 30% from 2007 to 2013, including a one-time cut of \$305 million in 2009-2010. The CSU had taken the drastic measure of implementing furloughs for all its campuses, and the impact was keenly felt at Cal Maritime. Since then, operating margins have been restored to healthy levels but Cal Maritime (as it has then and does so to this day) recognizes that the education it bestows cannot be completely funded on resources derived from the state. In 2017, Cal Maritime began planning its first ever comprehensive fundraising campaign; while still in the initial planning stages to identify campus priorities and strategic fundraising tactics, it is expected that this multi-stage, long term action will have a positive impact on the fiscal health of the institution. Cal Maritime's Enterprise Services unit also makes a more significant impact in campus support since the last WASC visit. A more detailed summary and plan for economic sustainability are presented in Component 7.

IV. The Strategic Plan and the Future

Beginning in 2013, under the leadership of President Thomas Cropper, the campus began an inclusive conversation about where it was and where it wanted to go. In January of that year, senior leadership from Cal Maritime (including all Vice Presidents, Deans, representatives from faculty and Leadership Development) met offsite at "Futures Conference I." In advance of this retreat, a "Systems Map of Emerging Trends in Careers in the Maritime Industry" was produced to facilitate discussions on strategic planning for the future. An exercise in "Visioning Preferred Futures" led to a series of possible directions the university might choose to pursue. Outcomes from this Futures Conference included a clearer vision about the possibilities for Cal Maritime's preferred future and a shared model for planning and decision-making. Shortly after the conclusion of *Futures I*, a design team was assembled to prepare for *Futures*

Conference II, which was held April 4-5, 2013. Participants were interviewed, completed a survey, and were given research assignments. Present at this conference were all Directors and academic department chairs. Participants were first asked to think through the following theme: “Cal Maritime in 2029 – Aspirations, Hopes, Dreams.” (2029 will mark the school’s centennial anniversary.) A later session was devoted to a detailed scan of the external environment in order to forecast what forces in the outside world might impact Cal Maritime in the next five to ten years. The third (and largest) Futures Conference was delivered the next year on three separate occasions over the span of a week. All faculty, staff, and administration were invited and encouraged to attend. The sessions began with a presentation and discussion of information gathered from *Futures II* on the trends, disruptions, and forces in the maritime profession. The second and third parts of the conference were devoted to the six-step decision making process and a case study on collaborative efforts. The end result of these three conferences was the creation of several key documents: The Academic Master Plan Roadmap (later superseded by the campus-wide Strategic Plan) was intended to inform the Educational Master Planning Guide Task Force on issues related to future growth and the creation and development of academic programs and support services to contribute to the identity and reputation of Cal Maritime. The [Educational Master Planning Guide](#) is a prescriptive and descriptive work designed to prepare the institution and lay the foundation for future annual, five-year, and long-term strategic plans.

In these workshops, retreats, and subsequent documents focused on visioning exercises, three guiding principles were established:

Differentiation. As a unique campus of the California State University, Cal Maritime will continue to capitalize on its distinctive nature. Exploiting its special niche, the Academy will deliver new programming that focuses on the maritime nature of its mission and emerging opportunities in the global maritime community of professions.

Relevance. The Academy will sustain its long-standing importance to maritime-related professions that have diversified, broadened and changed. Cal Maritime will continue to graduate a high number of licensed mariners to crew the nation's maritime fleet, while recognizing that graduates are entering a transportation profession that values and rewards career agility. Cal Maritime graduates will lead in ports, warehouses, multinational organizations, and state and federal governments. They will also tackle difficult challenges in shipping and logistics, environmental compliance, and legislative policy development. The high demand for graduates for shoreside professional opportunities in business and logistics, maritime policy and facilities engineering reflects the University's ability to anticipate needs of the maritime community.

Growth. To increase access to maritime professions and sustain affordability, the Academy is moving to accommodate increased enrollment. Cal Maritime currently receives five applications for each seat granted in the freshman class. Meanwhile, there is demand for graduates to fill lucrative positions within maritime industries. A deliberate and calibrated growth plan will provide the opportunity to serve the growing maritime industry, while delivering a world-class education to a greater number of applicants.

Finally, and most significantly, these conferences led to the creation of the [2016-2021 Strategic Plan](#), a unified, over-arching plan comprised of seven separate plans – the Academic Master Plan, the Physical Master Plan, the Strategic Enrollment Plan, the Fundraising and Communications Plan, the Athletics Plan, the Information Technology Plan, and the Student Life Plan. Ultimately, an eighth plan – the Human Capital Management Plan – was added in 2017. Over the course of a year and half, these plans were revised and refined to build out specific outcomes, objectives, measures, and milestones. Subsequently, some re-organization of personnel were made to complement this plan [[Cal Maritime Organizational Charts](#)]. [CFR 3.8]

Not only has the Strategic Plan been embraced by the campus community and its stakeholders, it aligns very closely with the Core Commitments, Standards, and Criteria for Review espoused by WASC. To our delight and satisfaction, the architects of the Strategic Plan (who may have had little knowledge of the WASC 2013 Handbook), found that Cal Maritime's values and aspirations organically correspond to many of the structures enacted by accreditors. While the Plan itself bores deeply into dozens of outcomes and objectives, it is governed by six over-arching goals: Academic Excellence, Student Learning, Organizational Efficiency, The Global Maritime Profession, Partnerships, and Campus Community. Throughout this self-study, much of the evidence of student learning and institutional integrity will draw upon the work that has been done in the service of the Strategic Plan, and in fact, the plan itself may be seen as a structural embodiment and driving force for the quality of the institution that will be articulated in later components.

This self-study represents a collective effort from many different constituencies: besides the aforementioned Steering Committee comprised of members of the President's Cabinet and Campus Leadership Team, input was sought and given by all academic department chairs, the Academic Senate, the Unity Council, the Triad of Student Leadership (including the Corps of Cadets, Associated Students, and Residence Life), Student Affairs personnel, the Office of Institutional Research, the California Maritime Academy Foundation, Sponsored Projects and Extended Learning, and many others.

Component 2 Adherence to Standards

I. Review Under the Standards

Although the WASC Steering Committee met periodically every semester since the 2014 Interim Report to review progress reports and status updates on the commission recommendations, it was when this committee convened over several meetings during the fall of 2016 to complete the “Self-Review Under the Standards” that the re-affirmation of accreditation process accelerated in earnest. The committee was comprised of faculty, students, and administrators, including the President’s Cabinet (Provost Susan Opp, VP of Finance and Administration Franz Lozano, VP of Student Affairs Steven Kreta, VP of Advancement Robert Arp, AVP of Human Resources, Diversity and Inclusion Ingrid Williams, and CIO Daman Grewal); members from the Academic Senate; and invested stakeholders from various offices (Admissions, Financial Aid, Budget Office, academic department Chairs, Institutional Research, Office of Marine Programs, Office of the Commandant, representatives from Associated Students and Residence Life, and many others [[WASC Steering Committee Membership](#)]). The WASC Steering Committee used a three-phase process to conduct the self-review under the standards. The first step required each member to complete the worksheet individually. Results were tabulated and all comments were captured. The Committee then reconvened and discussed each entry as a group. There were several animated discussions about what constituted a campus’ “high priority” vs. “its importance to address,” but ultimately consensus was reached and the completed worksheet from 2016-17 is in [[Appendix 01](#)]. When synthesizing all observations and reflections under each area, Cal Maritime’s strengths, challenges, and issues to address surfaced as described in the following sections. **[CFR 1.8]**

Institutional Issues to address

Looking at Cal Maritime’s educational purpose and objectives, several items came to the forefront as issues to monitor and address. Some of these had to do with building better efficiencies into various systems: it was noted that university-wide and academic senate policies needed continuous improvement and oversight; more could be done with “on-boarding” staff with better training, orientations and professional development opportunities; course-to-course articulations with other colleges could be made more transparent; and the masters’ program (offered through Extended Learning) could be better integrated with other university functions.

Another general area under which several issues were identified was that of assessment and program review. We identified a need to reconcile the regulatory demands of the US Coast Guard (USCG) licensing standards with the Student Learning Outcomes in the USCG licensed programs. The university website needed to be revised to include the most recent, approved learning outcomes for all departments and include all past program reviews. While the Program Review guidelines and processes

are now updated and current, care must be taken to ensure sustainability. Departmental commitment to the assessment of student learning could always be reinforced, and an analysis of the integration of General Education programming in our high-unit majors – especially in light of the CSU Executive Order 1100 – needed to be undertaken. It was likewise noted that co-curricular programming could also benefit from stronger assessment practices.

Other issues raised by conversations generated from the completion of the worksheet included a need to enhance and support faculty research, to continue devoting energy and resources to diversity issues on campus, and to recognize that faculty serve in many roles that might be performed by specialists at other larger institutions. It was also acknowledged that the campus-wide strategic plan addresses many of the issues raised in the worksheet, and the synergies between the strategic plan and the findings from WSCUC Review worksheet could be harnessed for a more powerful, collective focus on change.

Institutional Strengths

In addition to the institutional issues brought forth in the course of completing the worksheet, several institutional strengths were noted as well. Many campus constituents voiced a strong sense of integrity of purpose and procedure: the campus has a strong articulation of mission and vision, the institution's interactions are conducted with transparency and honesty, student complaints are handled quickly and judiciously, and financial records are disclosed as required by CSU, state, and federal policy. The Office of Institutional Research, while relatively new, is making great strides in building a robust collection of data that will help inform short and long-term decisions in critical areas of the university, and the creation of the Strategic Plan was a comprehensive assessment process. Moreover, it was noted that having faculty play stronger roles in academic planning, strategic enrollment, and analyzing retention and graduation rates would strengthen our institution. A series of faculty retreats were held to provide faculty with opportunities to engage with student data and planning.

Institutional Challenges

Despite many accomplishments and progress in several areas, some challenges remain. Many of these revolve around internal communication and inefficiencies in administrative efforts. Despite (or perhaps because of) our small size, intentional dissemination of information through and across departments and divisions could be improved. There is a faction of students and faculty who feel marginalized from some decision-making processes. Faculty workload – always an issue of importance in the CSU – plays an even larger role at a very small campus with the result that many faculty feel they have little opportunity to engage in larger decision-making processes that occur in committee work. Often, too, there is relevant data -- particularly in the realm of the evidence of student learning -- that must be made more publicly available. Also, many departments still rely on outdated and overly-complex paper processes which could be streamlined (such as the US Coast Guard licensing assessment and recording system and the Request for Personnel Action processes). A strong, more integrated IT plan and better technology resources would enhance the overall academic and

operating processes on campus. The Leadership Development Program, while in a continuous cycle of improvement, has been hampered by high turnover in administrative ranks.

Many of Cal Maritime's strengths and challenges in different facets of the university will be acknowledged and explored in different components of this self-study. Whenever possible, where a challenge or weakness has been identified, an action plan is also suggested and/or implemented.

II. Compliance

In order to demonstrate compliance with the four areas required by federal law, it should be recognized that Cal Maritime subscribes to the CSU administrative policies governing these areas, and institutional policies are aligned with system-wide mandates, policies, and orders.

Credit Hour Policy

For its regulations governing credit hours, Cal Maritime subscribes to the system-wide [Coded Memo AA-2011-14](#) which states in part: “for all CSU degree programs and courses bearing academic credit, the “[credit hour](#)” is defined as “the amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally established equivalency that reasonably approximates not less than: 1. one hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work each week for approximately fifteen weeks for one semester or trimester hour of credit, or ten to twelve weeks for one quarter hour of credit, or the equivalent amount of work over a different amount of time; or 2. at least an equivalent amount of work as required in paragraph (1) of this definition for other academic activities as established by the institution, including laboratory work, internships, practica, studio work, and other academic work leading to the award of credit hours.”

In addition, all distance learning courses are governed by the Cal Maritime Academic Senate “[Technology-Assisted Modes of Instruction](#)” policy which requires any course offered in a new modality be approved by the campus Curriculum Committee through submission of a Course Modality Request Form which asks that learning outcomes for the course be tied to the unit load.

Finally, all syllabi for every course for each semester are collected and uploaded to “Syllabus Central” on our LMS. This file is open to all faculty and students. Verification of syllabi requirements (ATI compatibility, credit hours, listing of learning outcomes, etc.) reside with academic department chairs [Syllabus Central](#).

Student Complaints

Processes for handling student complaints vary depending on the type of complaint.

For general complaints, students can access the “[Student Complaints](#)” link from the main webpage or by typing “student complaints” directly into the search box, where they will be advised as follows: “Students are always encouraged to resolve complaints or grievances at the appropriate level of dispute, as outlined in the [Student Handbook](#). Additionally, students may submit written complaints through the linked form which is then directed to the appropriate university official(s) for investigation. Complaints may be submitted anonymously. This form is not intended for Title IX complaints or other conduct-related issues. Students are invited to go to the [Title IX website](#) for the student conduct incident reporting form.”

For academic grading issues, students have recourse to [Academic Affairs Policy 03-020](#) which states: “It is the policy of the California State University Maritime Academy to allow students the opportunity to challenge the appropriateness of a grade assigned for a specific course or assessment. Institutional academic processes involving assessments and/or leading to the awarding of grades cannot be completely error free. Events can transpire which suggest to a student that the grade he or she was assigned for a particular course or assessment was inappropriate.” Students may follow the process prescribed by this policy to request a grade review. Also, per the Collective Bargaining Agreement of the California Faculty Association, every course taught every semester must be evaluated by students, and while the intent of these evaluations is summative in principle, students’ voices can be heard in this forum, which is passed along to the instructor as well as the Department Chair and Dean. [[Student Complaints Review Form](#)].

Marketing and Recruitment

Marketing and Recruitment policies and strategies reside with the Admissions Department (and, to some extent, with University Advancement). On our website, the [Explore Cal Maritime](#) link provides prospective students with information pertaining to areas of study, co-curricular activities, the Corps of Cadets, and residence life. There is a direct link from this page to the [Institutional Research](#) page, which provides information on typical length of time to degree in the form of graduation and retention rates. Also, information on average annual cost, the graduate rate, and salary after graduation are also available on the [College Scorecard](#). Information regarding the overall cost of the degree can be found on the [cost of attendance](#) page. [[Marketing and Recruitment Form](#)]. [CFR 1.6]

Transfer Policy

It is the policy of the California State University Maritime Academy to accept college transfer credit from regionally accredited, postsecondary institutions of higher education. It is the joint responsibility of the public segments of higher education to ensure that students are able to transfer without unreasonable loss of credit or time. The Transfer Credit Policy is [here](#). Additionally, the Office of the Registrar, with the Admissions Office and Department Chairs and Professional Advisors, work with transfer students to articulate credit and plan curriculum maps. [[Transfer Credit Review Form](#)].

Component Three. The Meaning, Quality, and Integrity of The Degree

“While many maritime academies have fostered a more monastic version of maritime education, Cal Maritime has chosen to differentiate itself through identification as an emerging maritime university. This conception of ourselves does not denigrate or supplant the immense value of our historic and traditional academic focus on shipping. Instead, it seeks to add value where value is sought - in transportation, energy, logistics, ocean science and environmental security - where new investments in our graduates will best benefit our society - whether from a viewpoint of economic utility, social mobility, creation of knowledge or sustainment of our democracy.”

- Thomas A. Cropper, President. [Convocation 2018](#).

I. Introduction

In a narrow sense, a degree from Cal Maritime signifies the successful completion of all coursework (General Education, major and elective requirements as specified by Title 5 of the California Code of Regulations) in conjunction with any additional required licensure and/or CSU-prescribed directives. In a larger sense, a degree from Cal Maritime is imbued with a host of tangible and symbolic characteristics that reflect and herald our institution’s unique identity and commitment to quality as defined by internal and external constituents.

At the time of the last WASC visit, Cal Maritime could be said to be in the lingering stages of a period of cultural transformation. Having joined the California State University system just fifteen years prior, there were many strong perspectives from faculty, alumni, students, and administrators on the essential nature and purpose of the institution. One faction felt strongly about remaining true to the university’s illustrious history as a school devoted primarily to the education and training of mariners and the preparation of cadets for a seafaring career. Many others embraced the opportunity to develop programs beyond the standard USCG licensed programs, and welcomed the CSU’s commitment to intellectual breadth. The discussions in this era were ultimately productive, and despite some growing pains (some of which still persist), the institution is stronger for the transformation. Many of the ideas generated from these campus conversations made their way into both the [Educational Master Planning Guide](#) (EMPG) and the [Strategic Plan](#) – documents which drive our understanding of the current meaning, quality and integrity of the degrees offered.

While Cal Maritime has thus weathered changing times and circumstances, at its core there remains a strong sense of identity and focus. As noted in Component 1, the compass rose has traditionally been used as a symbolic vehicle to articulate Cal Maritime’s mission (which in turn drives MQID): In the [Educational Effectiveness Report](#) of 2010, all four of these quadrants were deployed in a thematic frame to shape the four chapters of the self-study. Each term was thus explicitly defined and ascribed a value. Such work still resonates today in formulating the meaning of a Cal Maritime degree, and the campus community voiced strong desires to achieve the following characteristics for our university as we move forward: Cal Maritime will be *the* center of

excellence for “all things maritime with an emphasis on immersive learning; Cal Maritime has roots in the maritime world and will remain focused on maritime and related fields; Cal Maritime strives to be a culturally- and intellectually-stimulating campus environment with a palpably high quality of life” [[The Vision](#)].

As stated in the EMPG, “Our graduates will be recognized for their knowledge, character, and experience, and will be highly sought-after candidates in all maritime and related fields. They will be well-prepared to enter those professions, but more importantly, they will progress to leadership positions wherever their interests take them. Such an institution will produce graduates who, benefitting from a high quality comprehensive education shared by all, are able to achieve excellence in the specializations required by their chosen professions. A maritime university is a special kind of institution; one that continues a long and distinct tradition based on deeply held principles and goals, but one that recognizes its special **maritime** identity as a variation of its identity as a **university**. A university requires an environment of open debate and discourse, dedicated to learning, teaching, and developing the absolute best in its students, faculty, and community. A top-rate “Maritime University” will be, first and foremost, a top-rate university dedicated to the special mission of fulfilling its maritime identity.”

Developed from campus conversations through various committees, email exchanges, and a faculty retreat, the following image illustrates the triangulated alignment of these elements with the understanding that they are not discrete and isolated but rather converge upon each other [Fig. 1]. For example, quality may be determined by how we conform to or exceed expectations by our internal assessments and external industry and employer standards, but the integrity of that quality is corroborated by specific consistent standards of attainment and other external validations; the meaning of a degree may be prescribed principally by the articulation of learning outcomes associated with that degree, but the actual attainment of such outcomes can only be accomplished through the efforts of a highly-qualified faculty. In accordance with suggested practices, this component takes a broad, holistic view of the entire educational experience leading to a degree whereas Component 4 will address with more specificity the higher-order intellectual skills in student learning.

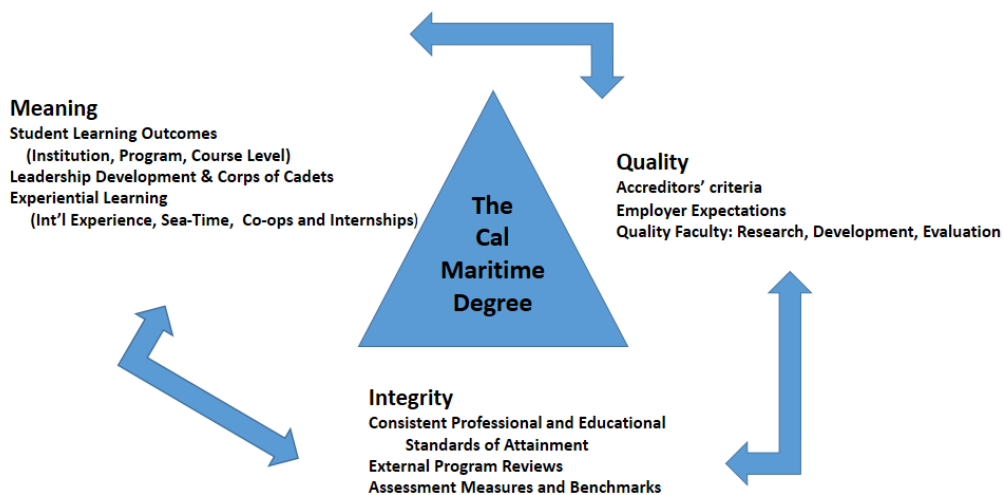


Figure 3.1: Meaning, Quality and Integrity of Degree

In dialogues with faculty, staff, and students on the meaning, quality, and integrity of degrees, the WASC rubric for assessing institutional efforts in this area was distributed and individually scored. Despite the strong sense of identity and focus on campus as indicated above, most identified Cal Maritime as in the “developed” category – especially in regards to the “quality” criterion – but there were other prominent marks in the “emerging” category. In particular, it was felt that “Communication and Transparency” regarding the MQID could be improved; that (in the words of the rubric) “the sharing of assessment results with external audiences is sporadic.” Also, under the Student Experience category, “student participation in discussions about the meaning of degrees may be occasional and informal, rather than systematic” [[MQID Aggregated Rubric](#)]. Given this information, more effort has been devoted to publicizing learning results in more public forums, and further steps for improvement in 2018-19 will focus on how to enable students to be more fully informed and participate in campus conversations about the overall institutional commitment to strengthening its degrees. Below, we provide more specific information about how we have sought to enhance our understanding of and commitment to degrees that have high levels of meaning, quality and integrity. [CFR 2.2]

II. What is the Meaning of Our Degree?

Learning Outcomes, Competencies, and Alignments

When examining the meaning of a degree through the lens of learning outcomes achieved, Cal Maritime has put a great deal of effort into the creation and alignment of outcomes that reside at the course, program, and institutional level. The learning outcome is the fundamental block upon which knowledge is defined and measured: Cal Maritime has several sets of longitudinal and hierarchical outcomes that seek to encompass the breadth and depth of the academic educational experience.

On a comprehensive level, *the Institutional Learning Outcomes* (ILOs) were first developed in 2008 by a special committee that worked in conjunction with the Academic Senate. Formed in 2009, the Institution-Wide Assessment Council (IWAC) was tasked with promulgating and sustaining the assessment of Institutional Learning Outcomes (formerly Institution-Wide Student Learning Outcomes – IWSLOs). Over the years, the Council has evolved and matured through internal and external recommendations. (The roles, responsibilities and assessment evidence of this council are presented in greater detail in Component 4.) The ILOs underwent an iterative process of revision through the years to continuously hone and strengthen both the outcomes themselves and the processes by which they are measured. Like most projects, the Institution-Wide Assessment Council started ambitiously, with twenty-two separate learning outcomes, many of which were very difficult to assess. Over time, these were refined – some were removed and others were combined. There are *General Education Learning Outcomes* (GELOs) that align with the ILOs and include the Core Competencies even though these competencies are also measured outside of the GE program at the mastery level via capstone courses in the disciplines. Discipline-specific knowledge is embedded within the *Program Learning Outcomes* (PLOs). Each degree-granting program has a set of PLOs which align with both the GELOs and the ILOs. And, in the sense that learning is actually assessed in the classroom and laboratory, data from *Course Level Outcomes* (CLOs) funnel up into the others. The responsibility for assessment of the PLOs resides with the program assessment coordinator or the Department Chair's designee, and the chair is ultimately responsible for ensuring proper alignment, submission, and analysis of evidence. [CFRs 1.2, 2.3, 2.4]

The Richness of the Cal Maritime Experience: Leadership Development, the Corps of Cadets, Global Awareness and Job Readiness. Many of the most unique aspects of Cal Maritime – which are indivisible from the meaning of its degrees awarded – are the experiences above and beyond the classroom that set the institution apart from most all other universities in the country.

The Edwards Leadership Development Program (ELDP) provides the framework for the cadet's common experience in Leadership Development. It is a comprehensive co-curricular program integrated with academic programming which will prepare our cadets for leadership opportunities within the Corps of Cadets, and our graduates for fulfilling careers in the global maritime workforce. The theoretical foundation of the ELDP is the “social change model” which informs the first seven [learning outcomes of the program](#) (ELDPLOs). All students participate in the leadership program, and this distinguishes Cal Maritime from other campuses of the Cal State System. The program will be discussed in more specificity in Component 6.

The Corps of Cadets. An essential component to the leadership program at Cal Maritime, Corps of Cadets has a mission to develop in each student traits of professionalism, teamwork, pride and self-discipline to become future leaders in maritime and other industries. Every undergraduate student participates in the Corps,

and through this participation it is expected that he or she will develop the self-discipline, self-esteem, and character to help them excel in their chosen careers. As stated in the [Student Handbook](#), the honor that comes from being a cadet carries with it responsibilities that exceed those expected of many other college students -- a Cal Maritime cadet held to high standards of personal conduct and professionalism.

Sea-Time and the International Experience. One important way that Cal Maritime ensures a global perspective in its graduates is the requirement that all students travel abroad while taking courses and gaining experiences important to each major. The way each student fulfills this requirement is determined by major and occurs either on our training ship or on school-sponsored study tours. Students in the Business Administration and the Global Studies and Maritime Affairs majors participate in faculty-led, Cal Maritime-sponsored three-week study tours to international locations such as Vietnam, France/Morocco, Eastern Europe, Japan, or South Africa which gives them a valuable exposure to business environments and political issues around the globe. [2017 International Experiences.](#) Students may alternatively choose to participate in a study-abroad program arranged by the Director of International Programs. All Cal Maritime cadets in the Marine Transportation program and all three Engineering programs become members of the crew of the 500-foot Training Ship *Golden Bear* on at least one 60 day journey visiting a number of ports around the Pacific Rim and often beyond. Cadets run the ship (including the bridge and engine room) under the supervision of licensed maritime professionals. Cadets also take classes, perform ship maintenance, and gain a first-hand exposure to ship operations.

Required Co-ops and Internships

Again, another way that Cal Maritime is set apart from other schools is the requirement that *every* undergraduate undertake a co-op, internship, or commercial vessel voyage. For those seeking USCG licensure, a commercial vessel voyage satisfies sea-time requirements and exposes cadets to shipboard experiences beyond those operated by the institution. For Business, Global Studies, and Facilities Engineering Technology students, a comprehensive internship program is in place wherein companies from a broad spectrum of industries help cadets attain professional experience. Cadets come back from these summer sessions more mature, more confident, and with the ability to better see the alignment between their remaining courses and the demands in the real world.

III. How Do We Measure Quality?

As with “Meaning,” a Cal Maritime Degree is defined and evaluated by a number of different factors that, collectively, serve to ensure and affirm its “Quality.” This is measured through multiple, often divergent means including outcome assessment appropriate to degree, career readiness, and faculty capacity and capability.

Assessment Benchmarks and Continuous Improvement

One fundamental way to define quality is to first measure how students are meeting and/or exceeding the levels of understanding appropriate to their degree, and this is accomplished through the calibration of learning outcomes. Later Components (4 and 6) will elaborate on *how* these outcomes are assessed, *what* evidence has been collected, and *what was done* with this evidence to improve learning. Speaking specifically to quality assurance, an outcome must be accompanied by specific benchmarks for lower and upper division undergraduate courses, for the graduate program, and the use of authenticated rubrics (such as those from the AAC&U's LEAP). Ultimately, evidence should be used to diagnose weaknesses and raise benchmarks through continuous improvement.

The Cal Maritime Advisory Councils and Industry Feedback

In 2017-18, the previously-named Maritime Industry Advisory Board – comprised of industry leaders in engineering, maritime transportation and maritime business – was reorganized and renamed the Cal Maritime Advisory Council (CMAC), which includes three subcommittees that correspond to each of the new academic schools. The advisory subcommittees will begin to meet independently in fall of 2018 with the new School Deans and associated faculty and will also come together to meet periodically as a full council. The prime objective of the CMAC is to establish active partnerships between industry, government and other educational institutions with Cal Maritime academic programs to address mutual needs. Members of the CMAC provide guidance, technical expertise, and support for the continued advancement of all programs and goals at Cal Maritime. The goal is to maintain a progressive system that provides active and timely feedback and support to Cal Maritime and helps to produce viable graduates for careers in maritime related fields [[CMAC Organizational Structure](#)].

In addition, there is an Extended Learning Advisory Board for courses and programs offered by our Extended Learning division. This feedback loop thus allows Cal Maritime to introduce new programming or educational developments to industry, and the board members can provide information from industry to our educational leaders on desired skills and learning outcomes. One such example of a powerful way that industry feedback worked to improve education programming is the MERB (Maritime Emergency Response Boat) program, primarily developed for emergency first responders. As fire departments were awarded boat assets through grant programs, managers became aware that their firefighters did not have basic seamanship skills to operate boats. Our program did not initially focus on mission-based (i.e., search and rescue, etc.) exercises, but rather on general navigation and seamanship for safe operations on the water. [Appendix 19](#) shows how this partnership has extended beyond the emergency response community to include other agencies with boat assets such as CalTrans, the California Department of Water Resources, and others. This Board also was instrumental in the development of the graduate program and follows its progress with keen interest, offering input and guidance on desired directions and outcomes for graduates of that program

Faculty

Quality instruction can only be achieved through the recruitment, retention, and development of high-quality faculty. Cal Maritime is committed to this practice by fostering a community receptive to both student and faculty research, by deploying resources in the service of scholarly and professional development, and adhering to evaluative policies written by the Faculty Senate and aligned with the Collective Bargaining Agreement. [CFRs 1.3, 2.9]

Faculty development needs fall generally into three categories: 1) the generation of scholarly works; 2) the dissemination of scholarly works; and 3) the professional development necessary to advance the expertise of the faculty member. Cal Maritime supports these endeavors through a variety of funding opportunities, including the Research, Scholarly and Creative Activities Award Program (RSCA), Departmental and Academy-Wide Faculty Development Funds, Professional Faculty Development Funds, and other sources of internal funding, including the President's Mission Achievement Grants, Instructionally-Related Activities Fund, The Class of 1965 Endowment Fund, and the Faculty Maritime Fund Grant, to name a few. All told, approximately \$176,000 is set aside for these activities. Of special note, Cal Maritime also ran a Scholarship of Teaching and Learning (SoTL) grant to encourage non-traditional faculty to produce scholarship. (After eight years, the grant will be sunset: SoTL is still a viable research area but the fund has been folded into the general faculty development fund.) Additionally, three outstanding faculty awards, one each for Teaching, Scholarship, and Service, are bestowed annually based on campus-wide nominations followed by assessment by a panel of faculty and administrators. A complete list activities and materials supported by Faculty Development can be found [here](#).

While internal funding for faculty scholarly work is fairly robust, there are certain constraints that come with a small campus: faculty at Cal Maritime do not have access to on-site graduate students for research partners; there are limited research facilities and higher teaching loads relative to R1 institutions; and a general faculty devotion to teaching with a commitment to small class sizes and personal instruction make scholarly achievements all the more impressive.

Faculty, researchers, and administrative staff are supported by personnel in the newly formed Office of Research and Sponsored Projects ([ORSP](#)) when seeking grant and contract research funding from external sources. Campus extramural awards have come from four primary sources: federal agencies (such as National Science Foundation, MARAD, Department of Energy); state agencies (including CSU research support grants, California departments of waterways and lands,); local agencies (Bay Area Air Quality Management District, South Coast Air Quality Management District, etc.); and industrial partners (Northrup Grumman, Chevron, etc.)

All externally funded projects are further split into two categories (per CSU Chancellor's Office reporting guidelines): those that have research and development themes (basic and applied research) and those that are non-research and development in nature (curriculum development, testing, reporting and evaluation activities). In FY17/18, Cal

Maritime had nine funded projects in research and development totaling \$5.3M, and five funded projects that were non-research and development totaling \$2.2M.

All extramural activity as administered by ORSP ensures that Cal Maritime adheres to Federal OMB Uniform Guidance and State of California policies regarding budgets, accounting, purchasing, solicitations, human subjects activity, animal care, awards, contract negotiation, invoicing, close outs, and transparent project and program performance.

The opportunities presented to faculty and staff have enabled an admirable research record for such a small school. To celebrate and communicate the scholarly papers and publications that have occurred each year in a variety of maritime-related (and other) fields, the Library hosts the [Cal Maritime Scholar Series](#) throughout the year and publishes a booklet of [faculty accomplishments](#) annually.

With the institution's commitment to experiential learning, faculty research and scholarly work is, when possible, linked to student research. Not only do students produce capstone projects and/or senior theses, but through experiential learning opportunities they are able to participate in projects such as [ballast water project](#) and the [Department of Energy Collegiate Wind Competition](#). In recognition of Cal Maritime's scientific achievement, the campus was named as the recipient of the 2018 [Albert A. Michelson award](#) by the United States Navy League, given for "engaging students in endeavors which enables them to demonstrate the ability to think critically and contextualize knowledge in real-world settings." [\[CFR 2.8\]](#)

IV. How Do We Ensure Integrity?

The integrity of the degree is ensured by the validation of the quality we profess to offer. Measures of integrity include external assessments for all programs as well as several "standards of attainment" markers. [\[CFR 2.6\]](#)

External Accreditation and External Review

The BS Business Administration program is accredited by the International Accreditation Council for Business Education (IACBE); the BS Mechanical Engineering program is accredited by ABET (Engineering Accreditation Commission); and the BS Facilities Engineering Technology and the Marine Engineering Technology programs are also accredited by ABET (Engineering Technology Accreditation Commission). The BS Marine Transportation and the BS Marine Engineering Technology licensing programs are also approved by the National Maritime Center of the United States Coast Guard. While the specific processes of program review and the analysis of assessment results are covered in Component 6, it's important to acknowledge that Cal Maritime uses the program review system as a means of assuring educational integrity. For those programs not governed by discipline-specific accrediting bodies, the program review process still requires external review. All program self-studies, internal and external reviews, are located on the [Program Review](#) page. Re-accreditations letters from [IACBE](#), [ABET \(ME\)](#), and [ABET \(ET\)](#) are located in Appendix 21.

Standards of Attainment

Certain elements of the degree are subject to external standards of attainment; the data pulled from these assessments are thus also used as evidence of student learning discussed in Component 4. The links provided below lead to data which will also be referenced and interpreted in greater detail in later sections of this self-study.

USCG License Examination. The US Coast Guard will issue a license as Third Mate or Third Assistant Engineer to license-track graduates of Cal Maritime who complete the baccalaureate program, meet the standards established by the US Coast Guard, and pass a series of standardized, comprehensive license examinations. The successful completion of all license examinations is a requirement of the degree for Marine Transportation, Marine Engineering Technology, and Mechanical Engineering (licensed) students [[USCG Exam Reports](#) and [USCG License Exam Pass Rates 2018](#)].

International Business and Logistics

All students in the Business Administration: International Business and Logistics Program take the Peregrine Academic Services Business Administration Comprehensive Exam which provides direct assessment of accounting, business ethics, business finance, business leadership, economics, and many other aspects of business administration. This external, independent tool not only enables the program to assess its progress annually, but also allows for national comparison cohorts [[IBL External Examination Report](#)].

Written Communication. The Graduation Writing Assessment Requirement (GWAR) is a CSU system-wide mandate that requires all CSU students to demonstrate competence in written communication before they are granted a baccalaureate degree. Students at Cal Maritime may fulfill this requirement by passing a Graduate Writing Exam, which is discussed in Component 4 under the core competencies section.

V. The Graduate Program

Cal Maritime's only graduate program to date is an MS in Transportation and Engineering Management (MSTEM). This fully online, asynchronous program was designed to provide the industry with well-trained leaders ready to guide their firms and industries into the next generation. It was significantly shaped by what our business and industry advisors saw as essential skills for professionals in the transportation management and engineering management fields. The courses mirror the fundamental core coursework of an MBA program and are taught through the unique lens of transportation and engineering management. Areas of specialization - Transportation, Engineering Management, and Humanitarian Disaster Management - allow the student to further concentrate on the significant aspects of his or her area of interest.

A graduate degree from Cal Maritime helps those already working in shipping, engineering, logistics, or humanitarian support to gain experience to further their career

to a managerial level. The program provides a variety of tools but, more appropriately, allows the students to apply these tools, theories, and methods to their own profession. By doing this, the students get to put into practice the things that they are learning in class. Since the program is cohort-based, the students foster peer relationships that they take with them beyond the school. They build a professional network and support group that spans the globe.

The entire program is designed to be “coherent, aligned, and intentional.” Each assignment is aligned with specific course outcomes and these, in turn, are aligned with specific program outcomes. Additionally, many of the courses have gone through an internal quality review on a continuous improvement tack to help ensure that this alignment continues. Finally, because the degree is 100% online, it allows students to complete their work from anywhere in the world. Whether in port in Africa, in a small village in the Philippines, on an ice breaker in Antarctica, or working at a shipyard in Oakland, students can complete their degree without ever having to step foot on campus. The graduate program maintains assessment documents for each class and after each class; faculty identify ways that the class can be improved the next time that it’s taught. Additionally, the graduate program is participating in a quality assurance initiative sponsored by the Chancellor’s office which has developed a rubric identifying best practices in online course design and delivery, intended to evaluate online courses through a peer review process and implement effective tools and methods signifying excellence in online teaching and learning. Half of the program’s 18 courses have been evaluated to date. The latest program review can be found [here](#). [CFR 2.2b]

VI. Conclusion

Through the WASC self-study process, Cal Maritime has sought to more fully understand and celebrate our strengths, while identifying and seeking to address our weaknesses. Thinking specifically in the context of degree meaning, quality and integrity, Cal Maritime recognizes our strengths in terms of rich educational experiences for our students that ensure students are ready for meaningful careers upon graduation. Our data indicating exceptional career placement and advancement, and high standards of attainment on external examinations allow us to celebrate high achievement in these areas. Nevertheless, we are committed to improving communication internally and externally to ensure students, faculty and staff are informed and able to participate more fully in campus conversations about the overall institutional commitment to strengthening our degrees.

Component 4: Educational Quality and Student Learning

“Much of systems thinking relies on the soft skills that employers ask for these days: communication, problem solving, collaboration, adaptability. People trained in systems thinking see the gaps where complications or opportunities can arise, and conceive of how that system connects to others within and outside of their industries. They will have their heads up, looking around, not just buried in a discrete task or duty. Those skills are also some of the hardest for employers to find among recent graduates, surveys suggest.... The Golden Bear is not simply a ship, but an amalgam of technical and human systems. It is the kind of hands-on laboratory that other institutions might consider creating, in their own ways, to prepare students for a complex, interconnected world.”

Scott Carlson, "A New Liberal Art," *The Chronicle of Higher Education*, 2017

I. Introduction

In Component 3, attention was given to alignment between program and institutional learning outcomes as a condition of understanding both the meaning and the integrity of the degree. This component will show how evidence from those outcomes is gathered and what the findings tell us about student learning. While Cal Maritime did not formally participate in the Lumina Degree Qualifications Profile, many of the constitutive elements of their paradigm are features of our educational core. In particular, congruencies align in their organization of specialized knowledge, broad and integrative knowledge, intellectual skills, and civic learning which correspond to or are subsumed within what we have called discipline-specific knowledge, general education and leadership development.

II. Data-Collecting Structures

Cal Maritime’s Institution-Wide Assessment Council (IWAC) has operated on a model of continuous improvement, embracing first the 2011 WASC Team’s recommendation to alter its fundamental assessment calendar, up to and including recommendations made during the summer of 2018. IWAC has sought improvements both in terms of the number of students reaching the educational benchmarks set and the efficacies of the processes it is tasked with maintaining. With the exception of the ALO, the IWAC committee is comprised exclusively of faculty.

In a nutshell, the four-year assessment cycle for an ILO starts in year 1 with a process of “Clarification and Consensus” that calls for the approval of assessment tools (i.e., rubrics), collection of indirect assessment data (surveys and opinions about the ILO), and the setting of initial benchmarks. Year 2 sees the collection of direct student evidence of learning. In Year 3, rubrics are used to score student learning, and IWAC makes recommendations and suggested changes. Year 4 sees the campus implementation of such changes, and IWAC monitors these changes before beginning

the cycle again. Built into this cycle is a commitment to assessing the Core Competencies, as well as some (but not all) of the general education outcomes.

Every summer, IWAC convenes for a full week to work on each of the nine Institutional Learning Outcomes (ILOs) according to what tasks must be completed for each based on their position in the assessment calendar. A significant amount of effort during in this time is devoted to strengthening the assessment process: how can better artifacts be gathered from more departments to make the whole enterprise stronger and more efficient? How can the actual assessment practices be better managed to avoid redundancies of labor? Where are accountabilities delineated between IWAC and individual program assessment efforts? What is the relationship between IWAC and the General Education Committee? And, while this process can be time-consuming and arduous, it truly is an exercise in continuous improvement. At the conclusion of every summer session, reports on each of the institutional learning outcomes that were subject to review in that particular year are made available on the institution’s webpage. Furthermore, an Executive Summary is delivered to the President, the cabinet, the Executive Committee of the Academic Senate and leadership bodies across campus. Every ILO assessment report and annual Executive Summary of IWAC activities are available [here](#). [CFR 2.2a]

Even though the ILOs have evolved over many years, several of those proposed from the very beginning are still present. Not coincidentally, we believe, they are neatly congruous with those core competencies as expressed in the WASC Handbook of 2013 as well as with the CSU’s “Golden Four” – foundational learning outcomes essential for all programs in the university system. It should be noted that Cal Maritime has a singular ILO in “Communication,” but this is broken into two distinct assessment activities to capture both written and oral communication.

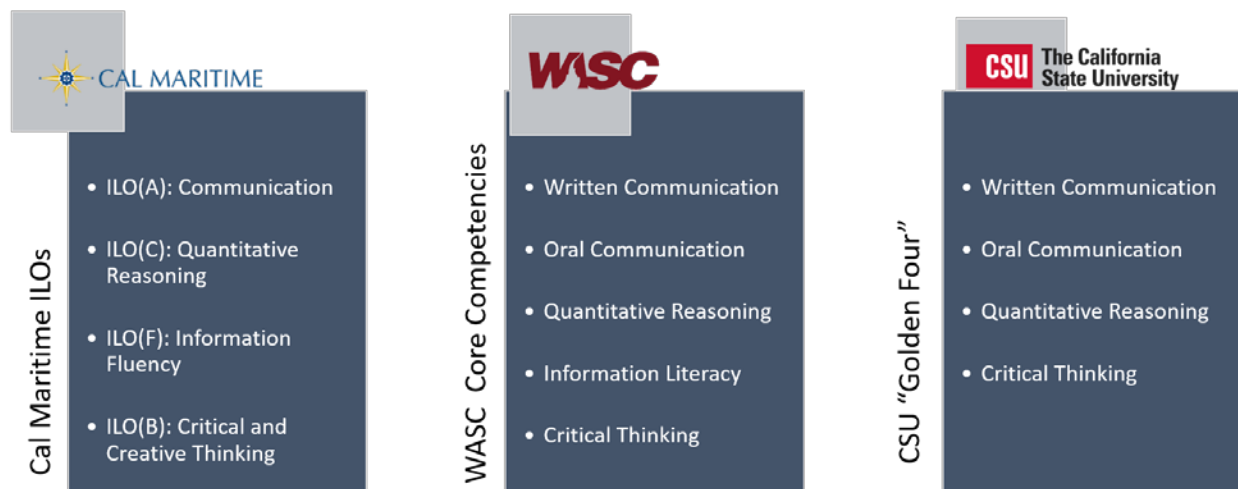


Figure 4.1: Congruence of Learning Outcomes

Core Competencies run through general education, program, and institutional outcomes. The ultimate goal, although not yet fully realized throughout campus, is that expected levels of attainment are aligned with course progressions such that a specific

outcome would be introduced (I) in the first year, reinforced in the middle years (R), and mastered (M) in the senior year. Oftentimes, capstone projects or senior theses can be used to capture several outcomes on the mastery level, while the general education courses help assess learning in the introductory and reinforcing stages. For example, a first year student entering the Global Studies and Maritime Affairs program is introduced to writing in EGL 100: Composition. This course has its own course learning outcomes regarding sentence structure, organization, etc. A student goes on to take writing-intensive courses (either in the major or as an elective) with such courses reinforcing and advancing those skills developed previously. Finally, the student's educational experience culminates in a capstone project which involves the production of a 40+ page senior thesis in which this student would demonstrate mastery of writing at a level commensurate with the baccalaureate degree. Whenever possible, the same artifact is used to assess multiple competencies: the capstone project in the example above could also be used to assess critical thinking and information fluency, but Cal Maritime seeks to improve the capture of data of all the competencies at the exit level using these capstones or senior projects.

Cal Maritime's [General Education Program](#) figures prominently in the schema articulated above. Specifically, Cal Maritime embraces the principles of general education of the California State University as outlined in CSU Executive Order 1100: "CSU General Education Breadth requirements have been designed to complement the major program and electives completed by each baccalaureate candidate, to assure that graduates have made noteworthy progress toward becoming truly educated persons" ([EO 1100](#)). A comprehensive General Education curriculum is in place, which requires 48 units (including 9 upper-division units) across five subject areas: Communication and Critical Thinking, Mathematics and Science, Humanities and the Arts, the Social Sciences, and Lifelong Learning. As a campus of the CSU, Cal Maritime makes every attempt to abide by the strictures of the Executive Orders which govern general education and organize the program into specific areas and unit counts. Our high-unit majors, licensing requirements, different individual accrediting bodies, and the recent revision of Executive Order 1100 into a much more prescriptive model have complicated efforts for a clean alignment and some dispensations were requested of the CSU. The by-laws governing the Cal Maritime General Education Committee (a committee of the Academic Senate) were revised in 2017, and authorities granted to this body were enlarged. The committee, which meets weekly, is now responsible for the approval and assessment plan of all new General Education courses and for the overall health of general education on the campus.

All degree-granting programs also have their own discipline-specific learning outcomes, and these, too, often undergo revision and refinement. Many of these are stipulated by external accreditors. For example, ABET recently revised all of its outcomes (eliminating some and renumbering them all) such that Cal Maritime's engineering departments will need to remap their course outcomes to the new ABET outcomes in advance of the Fall 2019 ABET accreditation self-study.

Actual student learning, of course, takes place in relation to courses and coursework, and all courses are required to have learning outcomes and to show how these outcomes align with General Education, with Program Learning Outcomes, and/or with Institutional Learning Outcomes. Furthermore, all course syllabi are required to list the course learning outcomes. To ensure this occurs, all syllabi every semester are uploaded into [Syllabi Central](#), the central repository for all syllabi on campus. These syllabi serve not only as instructional and informational documents for all faculty, but can be reviewed by Department Chairs and School Deans for required elements.

III. Evidence of Student Learning: Core Competencies

What follows is a summary of actions taken to gather, interpret, and act upon evidence of student learning beginning with the five Core Competencies and moving on to programmatic evidence. For this latter section, space does not permit a more exhaustive presentation; rather, the information provided should serve as examples of the more comprehensive assessment plans, data, findings and recommendations written into [Annual Reports](#) and [Program Reviews](#). [CFR 2.4]

Written Communication

An IWAC-approved rubric was used in 2015 to assess **written** communication in three categories addressing content, organization, and mechanics, with mechanics broken down into three subcategories, for a total of five dimensions. The rubric was applied to student papers in a variety of 100, 200, and 300-level courses. All the papers came from courses in writing, literature, or critical thinking. The dimensions given above were assessed on a 6-point scale: 1-2 (poor), 3-4 (acceptable), and 5-6 (excellent). Of the 99 papers assessed, the average score was 59.2%, well below the 70% benchmark that IWAC had set. Just under 35% of individuals showed competency at benchmark-level or above (rubric score of ≥ 4). The scores were distributed throughout the range, with large groups of scores of 48% (11), 60% (10), 68% (10), but another 11 at 80%. This suggests that performance is widely scattered, although the majority of scores fell below the benchmark. The following observations and recommendations were made by the committee: first, a six-point rubric with a desired score of 4 or greater might skew expected results downward given that a score of three was still “low acceptable.” Second, all the assessment was done on artifacts from writing and literature courses taught within the department of Culture and Communication. While assessment of writing using the capstone projects in many majors is done on the program-level (and writing is evaluated by instructors of record), this information could be better aligned with the work of IWAC. Future assessments would benefit from seeking data reflecting written communication practices in a variety of courses and programs.

Concomitant to the assessments conducted by IWAC, the CSU Graduation Writing Assessment Requirement (GWAR) requires all CSU students to demonstrate competence in written communication before they are granted a baccalaureate degree. At Cal Maritime, all students who have achieved junior standing and have completed

both EGL 100 English Composition and at least 60 units of academic coursework must either take EGL 300 Advanced Writing or successfully complete Cal Maritime's Graduate Writing Examination (GWE). As shown in Figure 4.2 below, pass rates on the GWE since 2014 are only slightly above 50%, with students in most majors having similar pass rates. Students who fail the GWE are required to take and pass the EGL 300 Advanced Writing course described above. This ensures that students who are weak in written communication meet a minimum threshold of competency prior to graduation. [Written Communication Full Report](#)

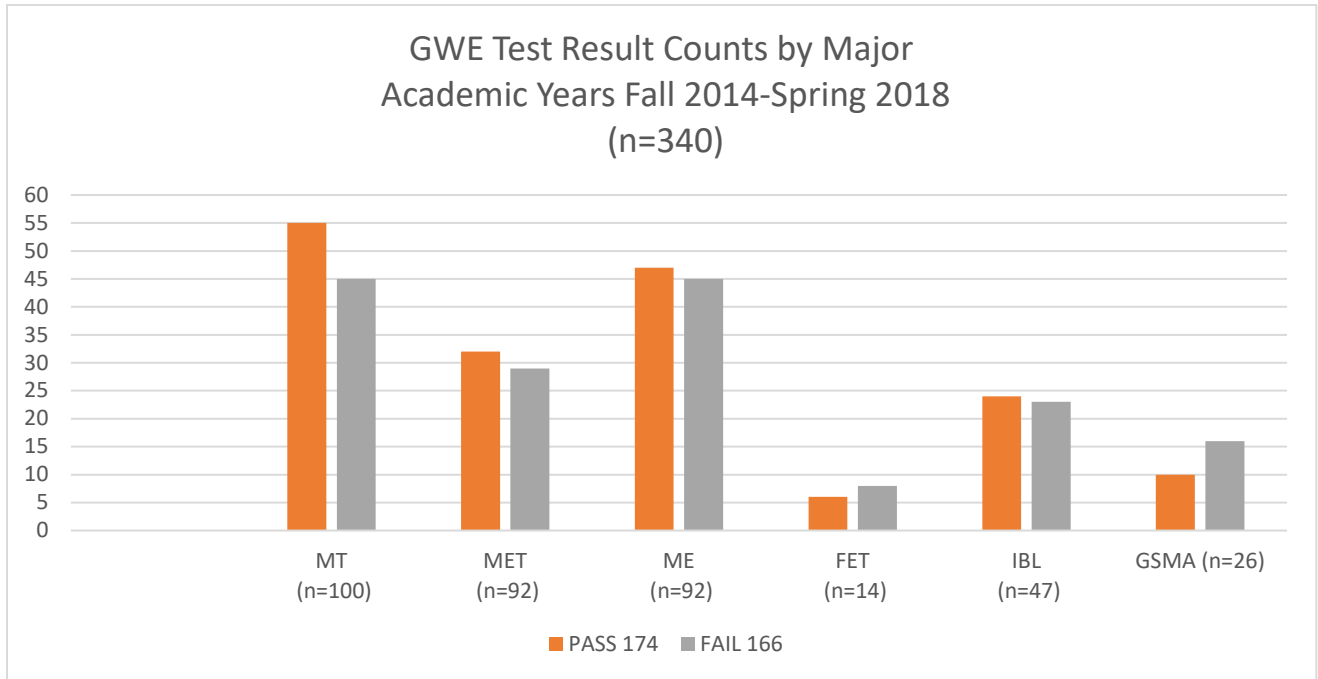


Figure 4.2: Student pass/fail rates on the GWE broken down by major. (IBL = BS Business Administration; GSMA = BA in Global Studies and Maritime Affairs; FET/MET = BS in both Marine Engineering Technology and Facilities Engineering Technology combined; MT = BS in Marine Transportation; ME = BS in Mechanical Engineering;)

Oral Communication

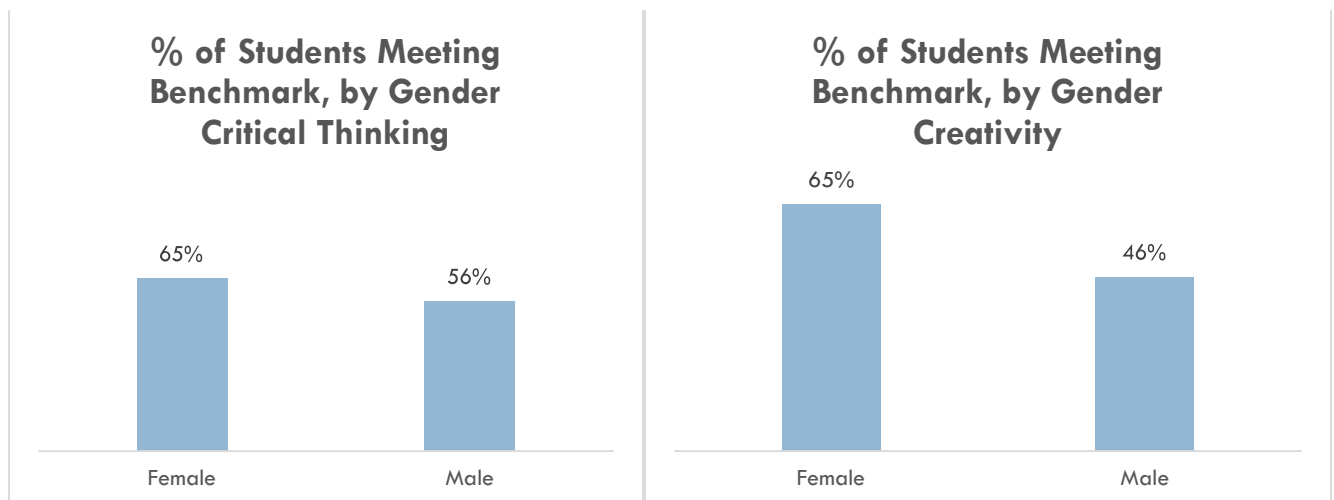
An approved rubric was used in 2016 to assess **oral** communication in five dimensions addressing organization, language, delivery, supporting material, and overall clarity. The rubric was used to assess oral presentations in EGL 110 – Speech Communication. These presentations were scored by the instructor of each individual section, who witnessed these presentations in person. The five dimensions were assessed on a 4-point scale from 1 (expectations not met) to 4 (exceed expectations). Of the 69 presentations assessed, two-thirds passed the benchmark: 34.8% exceeded expectations and 31.9% met expectations. The remaining third of students failed to meet the expectations: 10.1% partially met and 23.2% students failed to meet expectations. The goal was for 70% of students to meet expectations, so this fell slightly short with 66.7% of students doing so. For recommendations (which mirror those of written communication), it was noted that future assessments may benefit from seeking

data reflecting oral communication practices in a variety of courses and programs at different course levels. In particular, IWAC needs to have access to assessments of oral communication for upper-level courses. IWAC would also like to preserve identifier information to disaggregate student learning across demographics as well as to see data regarding each of the five dimensions on the rubric rather than relying on aggregate data.[Oral Communication Full Report](#)

Critical Thinking

For Cal Maritime, ILO (A) combines both critical *and* creative thinking, since we sought to assess students on their ability to present unique views on subject and to frame original questions using multiple perspectives, as well as their ability to synthesize disparate ideas. The Critical and Creative Thinking ILO was assessed in 2015, using a similar rubric to that used in the 2011 cycle of assessment. There were 105 artifacts gathered from nine courses across the disciplines, representing 9% of the student population. A random sample was taken from each course (20% of the students in the course, or 10 samples, whichever was larger) with care taken to ensure both females and males were represented. The two outcomes (critical *and* creative thinking) were assessed with a rubric with two dimensions (corresponding to the outcomes) configured on a five-point scale from 1 (emerging) to 5 (mastery). The benchmark was set for 50% of students to score 4 or above on a 5-point scale.

The critical thinking benchmark of 50% of students receiving scores of 4 or 5 was attained (58% of students achieved these scores). In regard to Creativity, the benchmark was almost attained (49% of students achieved scores of 4 or 5). There were differences in regard to gender because female students met the benchmark in both areas, while male students met the benchmark in critical thinking but not in creative thinking. Engineering Technology students scored the highest in both categories. (See Figure 4.3).



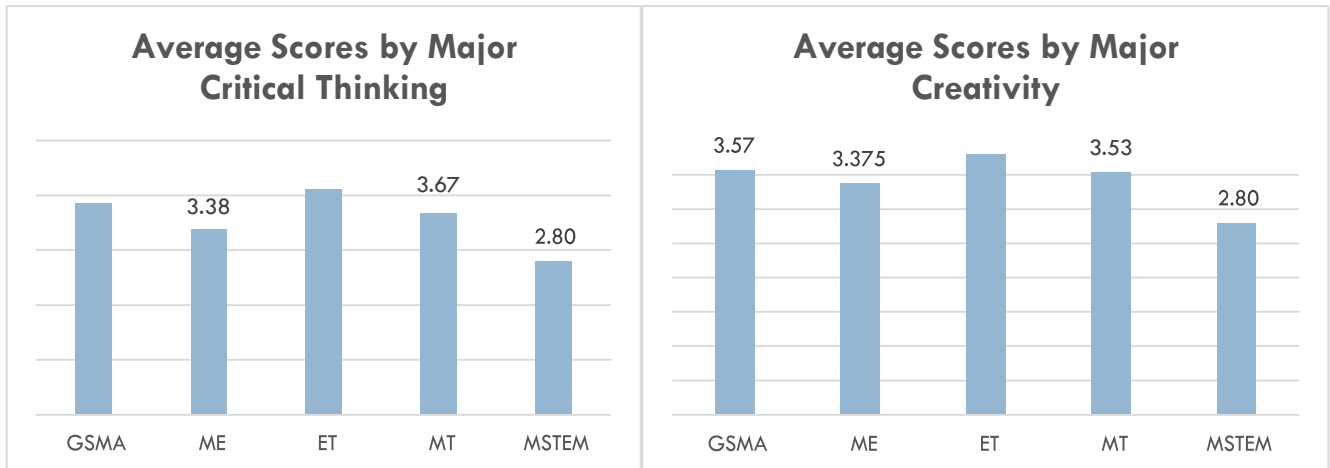


Figure 4.3: Critical and Creative Thinking Assessment by Major and Gender (GSMA= BA in Global Studies and maritime Affairs; ME = BS in Mechanical Engineering; ET = BS in both Marine Engineering and Facilities Engineering Technology combined; MT = BS in Marine Transportation; MSTEM = MS in Transportation and Engineering Management)

A number of recommendations were made in regard to assessment of this ILO. First, the objectives measured two substantially different modes of thinking, and the committee felt these should be divided and assessed separately. Second, it was felt the rubrics should be revised to incorporate additional, more specific dimensions of the subject. Third, capstone projects should be assessed across the board and compared with lower-division work, while lower-division artifacts should be collected near the end of the semester if the course itself is being assessed. It was also noted that while critical thinking is assessed in the individual programs, this assessment information is not easily being pulled into IWAC systems and reports. [Critical Thinking Full Report](#)

Information Fluency

The Information Fluency ILO was assessed in 2017 using an approved rubric that was modified from that used in 2013. The rubric uses a four-point scale from 1 (initial) to 4 (exemplary). The two dimensions assessed in the 2013 cycle were: Dimension 1 - Location and Evaluation of Sources; and Dimension 2 - Citation/Attribution. The new dimension added in this assessment cycle was Dimension 3 - Topic Selection. During the Spring 2017 semester, 219 artifacts were collected from all majors. Two of the artifacts were from classes (ME 494 and GMA 401) that are designated as capstone courses required of all seniors in that major (Mechanical Engineering, and Global Studies and Maritime Affairs, respectively). The remaining artifacts collected were final assignments in a junior or senior level course. These artifacts were collected in an effort to assess student work at a similar level to a capstone project, since not all majors require a capstone. The benchmark was set for 70% of students to score 3 (satisfactory) or 4 (exemplary) for each dimension. Broken down by major, this benchmark was nearly met by some majors for each of the dimensions. For Dimension 1 - Location and Evaluation of Sources, 68% of GMSA student artifacts, 69% of FET/MET student artifacts, and 65% of MT student artifacts met or exceeded a score of 3 (satisfactory) on the rubric. For Dimension 2 - Citation/Attributions, 64% of GMSA

student artifacts and 67% of FET/MET student artifacts met or exceeded a score of 3 (satisfactory) on the rubric. For Dimension 3 - Topic Selection, 74% of IBL student artifacts, 67% of ME student artifacts, and 67% of MT student artifacts met or exceeded a score of 3 (satisfactory) on the rubric. This is an improvement over the last cycle of assessment for Information Fluency (2013), when the benchmark was only met by GSMA students, and in only Dimension 1. The benchmark was farthest from being achieved by IBL student artifacts in both Dimension 1 (36% met or exceed) and Dimension 2 (18% met or exceeded) (See Figure 4.4).

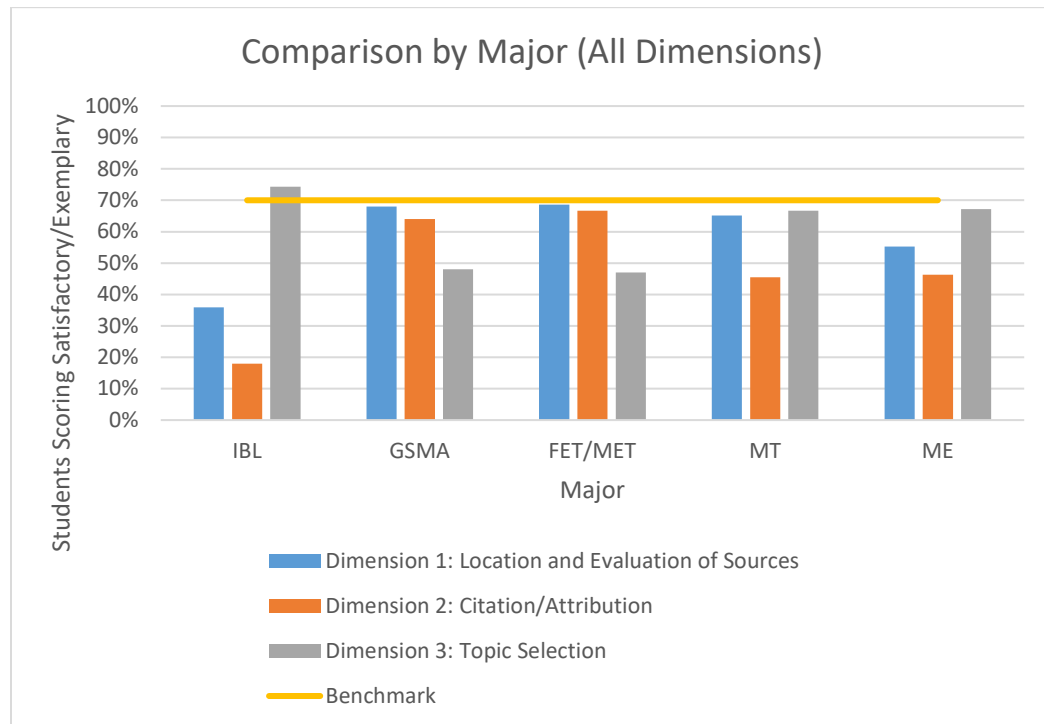


Figure 4.4 Student achievement on Information Fluency metrics disaggregated by major. (IBL = BS Business Administration; GSMA = BA in Global Studies and Maritime Affairs; FET/MET = BS in both Marine Engineering Technology and Facilities Engineering Technology combined; MT = BS in Marine Transportation; ME = BS in Mechanical Engineering;)

The 2013 report recommended a credit-bearing information fluency course for the Business Administration major. While this recommendation has not yet been implemented, a curriculum mapping project in 2014 led to a revised, scaffolded instruction plan for Business Administration students, implemented in 2015. This revised instruction program is ongoing, and the results will be assessed via program assessment, as well as the next IWAC cycle, in 2021. [Information Fluency Full Report](#)

Quantitative Reasoning

In the Academic Year 2017-2018, IWAC conducted an assessment of ILO-C: Quantitative Reasoning. Data was gathered from assessments done by faculty in their courses using a common 6-point rubric which contained a single dimension that was

applied in each course to one or more assignments identified by the instructor as requiring an appropriate level of quantitative literacy. In total, 741 artifacts were gathered from 15 courses. These results are more representative of student learning than the previous evaluation in 2014 based on the higher number of artifacts collected (741 in 2017-18 vs. 392 artifacts in 2014) across all the majors. The benchmark was set for 70% of students to score a 4 or above on a six-point scale. The benchmark was attained with 70% of all students scoring a 4 or above. (Figure 4.5).

When broken down by major, four majors (GSMA, IBL, ME and MT) reached the benchmark; the exceptions were FET and MET, which were both at 63%, missing the benchmark of 70%. When disaggregated by academic class, 67% of freshman, 66% of sophomores, 56% of juniors, and 80% of seniors reached the benchmark.

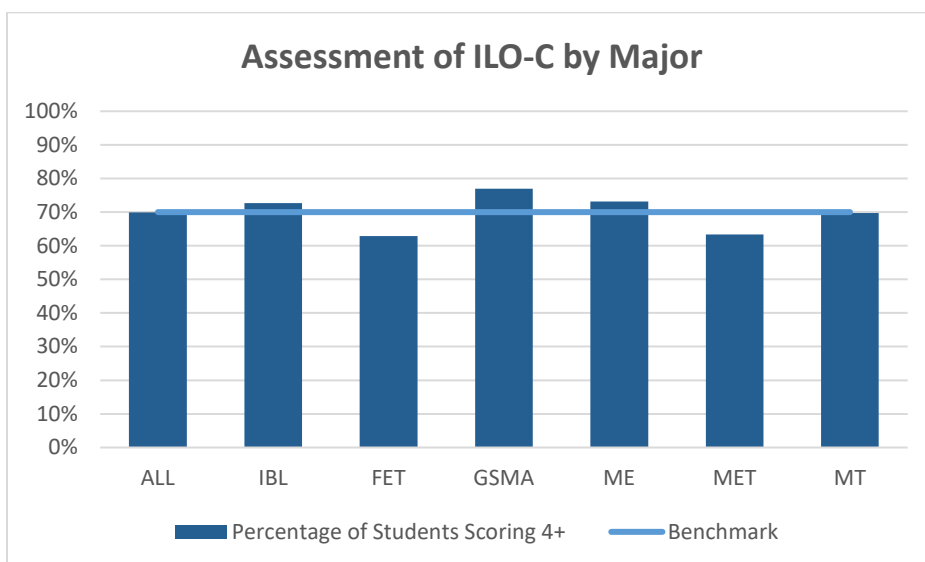


Figure 4.5 Percentage of students reaching the benchmark of 70% scoring 4 or higher on quantitative reasoning, disaggregated by major.

Disturbingly, there was a significant gender gap with only 60% of female students reaching the benchmark compared to 72% of male students. Further, when broken down by ethnicity, students identifying as white and students identifying as two or more ethnicities exceeded the benchmark, while Asian and underrepresented minority (URM; defined in the CSU as African American, Native American, and Latinx) students did not reach the benchmark, with 66% and 63% of these students scoring greater than 4, respectively.

In regard to quantitative reasoning, IWAC recommended that the data collection process and formatting should be standardized for greater efficiency. The committee also recommended that the faculty in the Department of Science and Math investigate indirect measures to further examine the gender and URM gaps relative to the benchmark. Further, IWAC members recommended that the faculty in GSMA should identify an upper-division course to assess quantitative reasoning consistent with social science curricula at peer institutions. They also recommended that Business Administration identify an upper-division course in which to assess quantitative

reasoning consistent with business curricula at peer institutions, and that the ET faculty must investigate the performance gap relative to the benchmark in this subject area. [Quantitative Reasoning Full Report](#)

Discipline-Specific Knowledge. The previous section was meant to provide a summary of the way core competencies are taught and assessed through individual programs and through the Institution-wide Assessment Council. Obviously, every academic department has its own discipline-specific outcomes, with knowledge being assessed through multiple methodologies to capture learning trends and patterns. Some of this information is presented in [Appendix 24](#) to provide a sampling of the varieties of data-collecting processes and exhibit evidence that is captured on the programmatic level. The data presented in this appendix should in no way be seen as an inclusive summary but rather as a snapshot into various assessment practices. More comprehensive departmental evidence of student learning (and what is done with that evidence) can be found in the [program reviews](#) themselves. [CFRs 2.4, 2.6]

IV. **Addressing Gaps through Academic Assessment to Improve Student Success**

Cal Maritime is committed to collecting and analyzing data in the service of improving student success. Multiple reports provide a series of recommendations oriented toward changes at the course, program, and institutional level. Ultimately, the successful implementation of these changes is contingent on the assessing body feeding the recommendations down to the instructors who can make adjustments on the course level. From a wider point of view, certain gaps can be identified, and specific steps taken to eliminate them.

1. While Cal Maritime's efforts to improve student success will be discussed in detail in the next component, it is important to note that student learning is often a direct factor in student persistence and retention rates. Certain courses have been identified as bottlenecks (not just for classroom capacity, scheduling issues, etc., but also for rates of D, F, or W course grades). In part to address these issues, in 2017-18, Provost Opp initiated a Curriculum Redesign Grant program to provide support for faculty efforts to redesign courses and curriculum. In the first round of curriculum redesign, in spring/summer 2017, four faculty participated, and in the second round, in spring/summer 2018, 11 faculty are participating in 9 redesign projects. The results of these redesign projects are due for implementation in 2018-19.
2. The systemization of Annual Learning Results for all programs should enable departments to have access to trends in student learning in order to make adjustments more quickly than just relying on the more comprehensive five-year self-study.

3. Entities involved with assessment at Cal Maritime -- especially IWAC -- have been endeavoring for some time to find a suitable technological platform in which to collect and disseminate data. From 2008 until 2013, assessment was done with a homegrown database which pulled information from simple excel sheets submitted by departments and by IWAC. These were run through Institutional Research to remove potentially-confidential student information but retain elements important to our assessment practices (such as major, gender, ethnicity, etc). Needless to say, this was cumbersome and time consuming. From 2014 to 2017, Cal Maritime purchased a suite of assessment tools from Campus Labs, hoping that this software would provide more efficiencies. Unfortunately, the package proved unwieldy for our purposes. The architecture of the software did not align well with our organizational structure; the multiple and frequent upgrades to the software platform caused confusion; and the software did not properly sync with Peoplesoft and our LMS (Moodle). These issues ultimately proved too much relative to the cost of the system. In 2017, as Cal Maritime explored new LMS candidates to replace Moodle, one important feature sought was a user-friendly, built-in assessment module so faculty would not have to log in and out of several different programs while grading and assessing. We are eager to see this become operational for 2018-19 as we embark on our transition from Moodle to Brightspace as our LMS. [CFR 4.5]
4. After several years wherein much energy in IWAC was spent on developing, adapting, and refining a process that worked well for Cal Maritime, we are now at a point where we trust the process and are beginning to make real and substantive curriculum changes. For example, the MT department is developing a capstone project in addition to its culminating licensing exams for a more meaningful educational experience that aligns closely with the ILOs. Through IWAC's work, gaps in certain programs – i.e., a less than desirable coverage of Information Fluency across the IBL program and a thinness in the Global Awareness ILO for MT -- has been recognized and addressed. [CFR 4.4]
5. Since 2015, Cal Maritime has been awarded and participated in the CSU program QLT: Quality Assurance for Blended and Online Courses. This program was developed to assist faculty, faculty development leaders, and instructional designers to more effectively design and deliver online, blended, and flipped courses. Especially useful for the graduate program, many of our faculty have completed the module in "Teaching Effectively Online" and have received Peer-Review Certification. QLT has been very valuable not only in helping design our policy on Technology-Assisted Instruction but also in making sure the assessment of student learning is clearly embedded in these courses.
6. The assessment efforts of IWAC and academic programs could use more coordination in order to enhance productivity and reduce redundancies. Any changes in the assessment strategies of one or the other need to be better communicated for the efficiency of the whole.

7. Increasingly, faculty professional development funds have been enhanced to enable interested persons to attend system, state, and national conferences and workshops to learn about best practices in assessment.
8. Finally, and most importantly, it is tantamount to continually increase the effectiveness of all data gathering efforts. Cal Maritime is home to many thoughtful, committed faculty and administrators who are dedicated to enhancing student learning and are keen to study evidence about those students they educate and care for. Our challenge is not for a lack of educators willing to dialogue and ask questions about improving the welfare of students; our challenge remains to gather high quality evidence and present it in a way that invites questions, conversation and improvement.

Through its commitment to data-collecting and interpreting structures, Cal Maritime has improved its assessment capabilities. While this component concentrated on *what* students learn -- and *when* and *where* they learn it – Component 5 will explore in more depth *how* student success is defined and measured. [CFR 2.5]



Component Five

Student Success: Student Learning, Retention, and Graduation Rates

“Achieving our graduation goals over the next decade – thereby accruing these societal benefits – will be our measures of shared success in the CSU community. This effort will raise the CSU’s already high standing among peer institutions even higher. But shared success will only come from a shared commitment -- state and university, faculty and staff, students and alumni, trustees and elected leaders. And as we commit to these ambitious goals, we should keep in mind that the bigger principle is – simply and profoundly – success through opportunity with quality.”

Chancellor Timothy White, State of the California State University, January 2015

I. Student Success and Achievement

At Cal Maritime, we define *student success* as fulfillment of the conditions necessary for students to reach their goals. Further, we use the term *student achievement* to mean the accomplishment of those goals. Therefore, achievement occurs from a string of successes, and students achieve academic success through performance in courses, completion of coursework in a timely manner, and finally attainment of employment after graduation (See [Student Success](#)). More narrowly (in the conventional discourse of institutional research) success is defined as the progress a student makes toward the attainment of a degree which is gauged through graduation and retention rates. Retention (aka “persistence” or “continuance”) is seen as a measure of continual progress at regular intervals towards graduation or completion. Progress and ultimate attainment of the educational objective is understood in the context of “success,” big and small. It should be acknowledged that these terms are oftentimes used across the field interchangeably, or given modified definitions (for example, the CSU Chancellor’s Office in some cases describes the combination of graduated students and still-enrolled students at any given point in time as the “persistence rate”). When the definitional aperture of success is opened to include the aforementioned elements, other measures are taken into consideration: job and/or graduate school placement rates, starting salaries, job preparedness, and civic engagement. We use multiple instruments and methods to measure and analyze how well our students perform, both in and out of the classroom, as well as how prepared they are for time beyond Cal Maritime, whether in the workforce, graduate school or military service. In this component, we provide a picture of enrollment trends and changes, graduation rates and gaps, and an analysis of established and planned structures for supporting and enhancing retention and graduation rates. [\[CFR 1.2\]](#)

Graduation and Retention.

Cal Maritime collects data on student retention and graduation and configures it into multiple schema in order to gain a comprehensive and holistic representation of what we refer to as “student flow” through their degree programs. Cal Maritime’s office of institutional research provides public summaries and analyses of sets of data and also provides links to graduation and retention rates dashboards such as the CSU Dashboard from the Chancellor’s Office and the WSCUC Graduation Rate Dashboard.

The data are disaggregated into meaningful population sub-groups for further analyses as described in the links below and later on in this component. [CFR 1.6]

- [Graduation Rate Analyses](#)
- [WSCUC Dashboard Analyses](#)

CSU Graduation Initiative 2025. In his “State of the CSU” address at the January 2016 Board of Trustees meeting, CSU Chancellor Timothy White declared the ambitious goal of *eliminating* achievement gaps for underrepresented, low-income and first generation students. This resulted in the development of “Graduation Initiative 2025” (GI2025) which is the system’s most ambitious challenge yet to increase graduation rates across the board and close opportunity and achievement gaps. Along with resources devoted to this initiative, the CSU set specific targets and benchmarks for campuses, as discussed below. Cal Maritime fully supports the initiative, and we believe this CSU objective aligns well with the focused attention WASC places on student success [[Graduation Initiative 2025 Report](#)].

II. Trends, Patterns, Targets and Benchmarks

Not only does Cal Maritime collect data, it also examines trends and patterns and then sets targets in an effort to improve upon them. Cal Maritime compares favorably in terms of retention and graduation rates (both with other campuses in the CSU and with other similar institutions) but we’ve challenged ourselves – through our strategic plan, through the GI2025, and through individual program mandates – to investigate, to analyze, to plan and to improve. [CFR 2.10]

Enrollment and Demographics

An examination of fall semester Cal Maritime enrollment over the past 6 college years (Figure 5.1) indicates interesting trends. First, enrollment at Cal Maritime, both in terms of headcount as well as FTES, has gradually increased. This careful, calibrated increase was accomplished primarily through increased enrollment in the two non-impacted programs, namely the BA in Global Studies and Maritime Affairs and the BS in Business Administration. From Fall 2012 to Fall 2016, enrollment in Global Studies increased 26% while enrollment in Business Administration increased 42%.



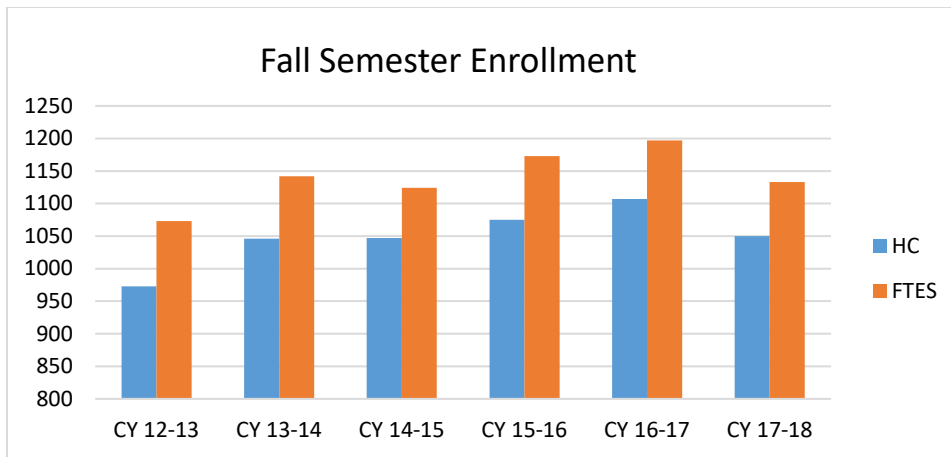


Figure 5.1 Fall semester headcount (HC) and full-time equivalent student (FTES) enrollment by college year.

Further, an interesting enrollment situation – one that is unique in the CSU – is also evident. At Cal Maritime, FTES is consistently higher than student headcount because the average number of units taken per student per semester exceeds 15. This high unit load situation is not by accident, but rather is intentional and occurs because four out of six of our degree programs are considered “high unit”, that is, requiring more than 120 units to complete. The detailed degree roadmaps for our programs clearly show, particularly for the engineering programs and USCG licensed programs, that more than 15 units must be taken on average per semester in order to complete the programs in four years. Thus, unlike many other CSU campuses, Cal Maritime is not engaging in a campaign to encourage students to increase unit loads per semester.

Further, it can be seen that in Fall 2017, headcount and therefore FTES were intentionally reduced to approximately CY 14-15 levels. (Figure 5.1). This intentional reduction was necessary to ensure that sufficient berths were available on the *TSGB* during what would be a single cruise in summer 2018 due to the need for the ship to go into dry-dock. All majors (namely all three engineering degrees plus the Marine Transportation degree) that require students to sail one or more times on the *TSGB* needed to maintain approximately CY 14-15 enrollment levels. While the BA Global Studies and Maritime Affairs and the BS Business Administration programs could have absorbed additional enrollment in fall 2017, enrollments in those programs remained relatively constant from the prior year.

With growth in enrollment through CY16-17, Cal Maritime experienced some shifts in proportions of student subgroups (see [Six-Year Enrollment Summary](#)). For example, students majoring in Business Administration now represent approximately 19% of all undergraduate enrollment, but in Fall 2012 they only constituted about 14% of all undergraduates. Further, the proportion of first-time freshmen is increasing in our new student population; in Fall 2012, 60% of new incoming students were first-time freshmen, but in fall 2017, 76% were first-time freshmen. The remainders were transfer students.

The diversity of our campus students has also increased (see [Six-Year Enrollment Summary](#)). In Fall 2012, 13.3% of our campus students self-identified as female, but in fall 2017, 18.1% self-identified as female. According to the latest IPEDS data available (from Fall 2016), Cal Maritime surpassed the other three reporting state maritime academies in proportion of female students (Figure 5.2). While this still falls short of our target for a 30% female student population, because the proportion of females in our incoming classes has been increasing, this is a trend in the right direction.

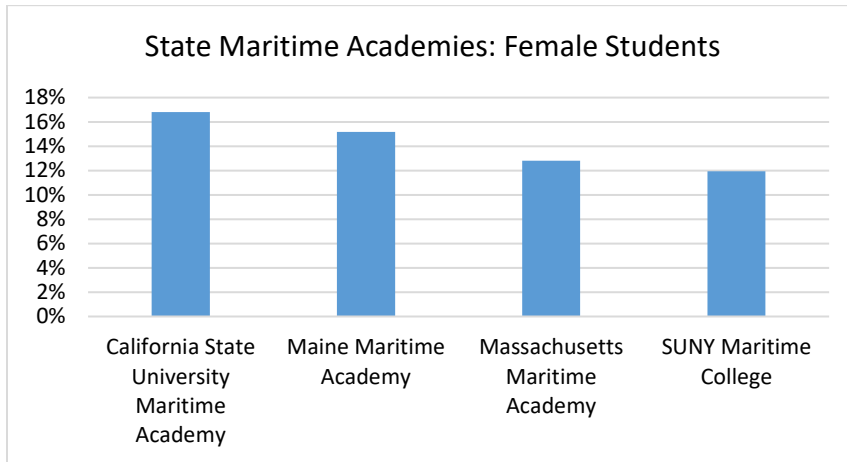


Figure 5.2 Percentage of female students at four (of six) state maritime academies in fall 2016. (Source of data: IPEDS)

Further, the proportion of our students who self-identify as “white” is also decreasing; in Fall 2012, 57.8% of our enrolled students identified as “white”, while in Fall 2017, 48.4% identified as “white”. The race/ethnic groups that have grown the most at Cal Maritime are Hispanic/Latino (from 14.8% of students in fall 2012 to 20.3% in fall 2017, an increase of 48%) and two or more races/ethnicities (from 7.4% of students in fall 2012 to 11.7% in Fall 2017, an increase of 71%). While the overall ethnic diversity of Cal Maritime is low relative to the demographics of the state of California, we ranked highest in ethnic diversity of the state maritime academies for which IPEDS data are available (Figure 3; Fall 2016 data).



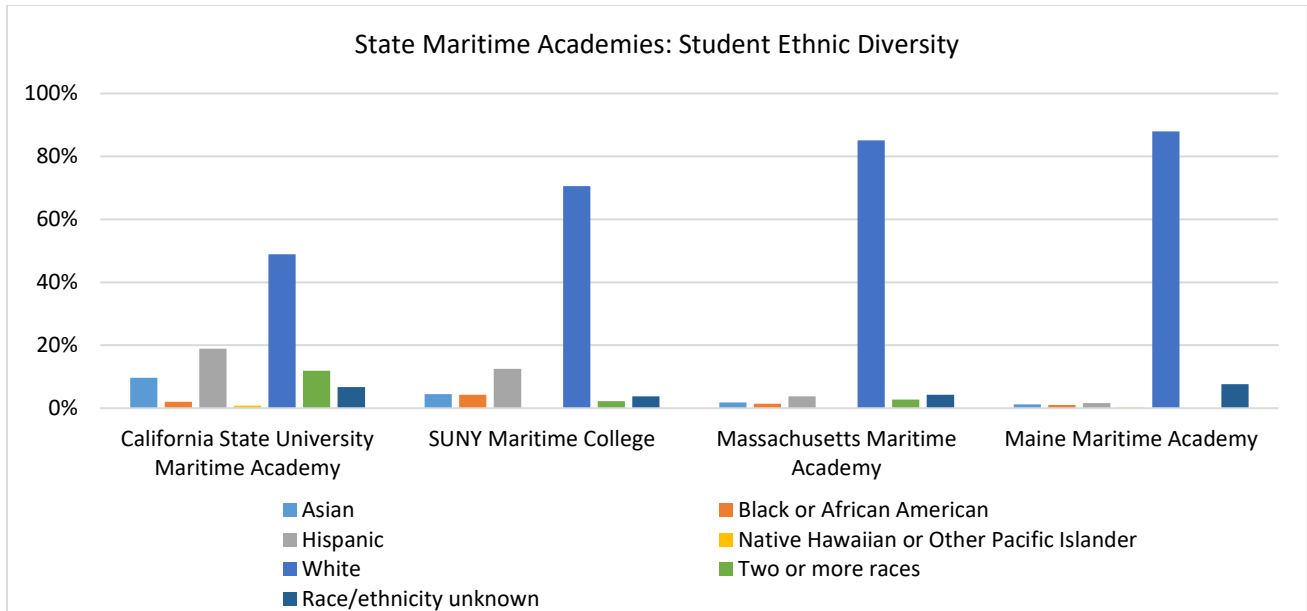


Figure 5.3 Percentage ethnic make-up of four (out of six) state maritime academies in fall 2016. (Source of data: IPEDS)

Retention Rates

A common metric used as a leading indicator of student success is retention of students in their first and second year. While Cal Maritime gathers and monitors retention rate data (Figure 5.4), we also take deeper dives into our student academic progress data to better understand what we refer to as “student flow” through their majors. The annual metrics we examine include numbers of new and continuing students in each major, as well as the number of students who depart the university either through attrition or graduation, and the number of students who continue at the university to the next academic year. (Examples of these data files and detailed descriptions of metrics for each major are in [Appendix 27](#)) Furthermore, a detailed examination of student flow has been the topic of a recent all-faculty retreat. (See **Section IV. A Advancement of Student Success** below.)

In addition to the examination of student academic progress by major, we also disaggregate the data by gender, URM/non-URM, and Pell Grant recipient status to allow us to examine any apparent gaps in retention and success rates. Thus, we do not rely solely on graduation rates which are lagging indicators of student success. By proactively examining student progress and including faculty in those examinations, we are able to identify potential challenges to progress for students, reflect on potential causes of student difficulties, and develop plans to address those challenges.

Graduation – First-time Freshmen

As mentioned previously, by traditional measures, Cal Maritime has first-time freshman graduation rates that are among the highest in the CSU. With a 51.3% graduation rate for the 2013 cohort, Cal Maritime has the highest 4-year graduation rate in the CSU,

and at 64.1% for the 2011 cohort, Cal Maritime ranks seventh of 23 CSU campuses for highest 6-year graduation rate (Figure 5.4). Currently, Cal Maritime's 4-year graduation rate is higher by 2.5 percentage points than an interim GI2025 target rate set by the CSU, indicating that we are making excellent progress toward the 62% 4-year graduation rate goal for the 2021 entering cohort who are expected to graduate in 2025. Similarly, Cal Maritime's 6-year graduation rate is slightly higher than the interim target for the campus set by the CSU, indicating that we are making good progress toward our GI2025 68% graduation goal for the cohort entering in 2019.

While Cal Maritime's graduation rates rank high within the CSU, room for improvement remains. In particular, in keeping with the goals of the GI2025 initiative of the CSU, Cal Maritime is keenly interested in reducing graduation gaps that exist among particular subgroups of students. However, due to the small size of our student population, trends in these subgroups of students are not always entirely clear as indicated below.

Figure 5.4: Freshmen Retention and Graduation: All Students

Under-Represented Minority Graduation Gap

For the GI2025 Initiative, under-represented minority (URM) students are defined as African American, Latinx, and Native American ethnicities. The goal in the CSU is for each campus to eliminate the graduation gap between URM and non-URM freshman students by 2025. Due to the effects of small sample sizes, the URM graduation gap at Cal Maritime varies widely among student cohorts. For example, as seen below (Figure. 5.5), the 4-year URM graduation gap has varied from -13.8 percentage points (meaning URM students graduated at a rate 13.8 percentage points *higher* than non-URM students) for the 2011 cohort, to 16.6 percentage points (meaning URM students graduated at a rate 16.6 percentage points *lower* than non-URM students) for the 2006 cohort. Despite the difficulty in determining causality with such fluctuating data, Cal Maritime is committed to eliminating any graduation gaps by focusing on enhanced

advising, tutoring and counseling services for students and improved course scheduling to ensure all students are able to take classes when needed. [CFR 1.4]

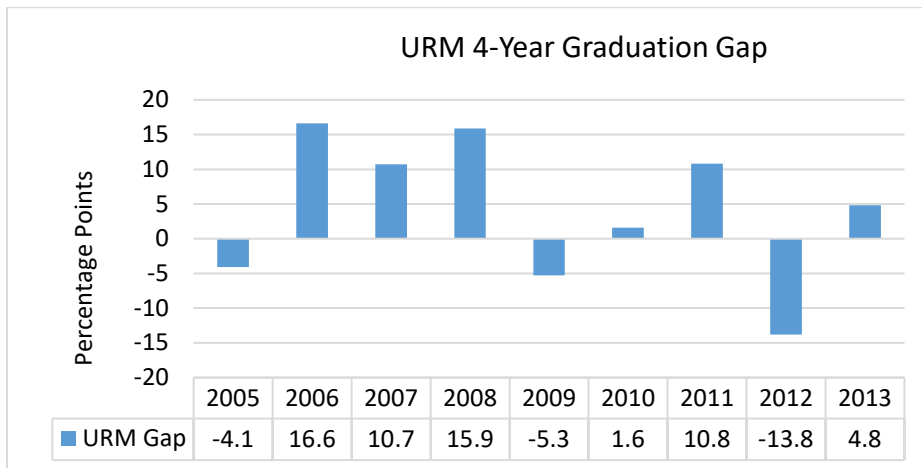


Figure 5.5 URM graduation gap for freshmen students at Cal Maritime by cohort entry year.

Pell Eligible Freshman Graduation Gap

Similar to the URM gap, the CSU has challenged campuses to eliminate the graduation gap between Pell eligible and non-Pell eligible freshman students. Pell eligibility, in this case, is used as an indicator of economic status. At Cal Maritime, similar to the case with the URM graduation gap, the Pell 4-year graduation gap of freshman students fluctuates widely. At its best, for the 2005 entering cohort of students, Pell eligible students graduated at a 13.5 percentage point higher rate than non-Pell eligible students. But, at its worst, Pell eligible students in the 2011 cohort graduated at a rate that was 22.3 percentage points lower than non-Pell eligible students (Fig. 5.6). More concerning is the fact that the graduation gap for the last three cohort years (2011, 2012 and 2013) have all been quite high. To better ensure that all students have the financial assistance and competencies needed for success, we have added a financial literacy component to the Edwards Leadership Development Program. (To read about additional efforts to enhance student success, see **IV. The Promotion of Student Success** below.)

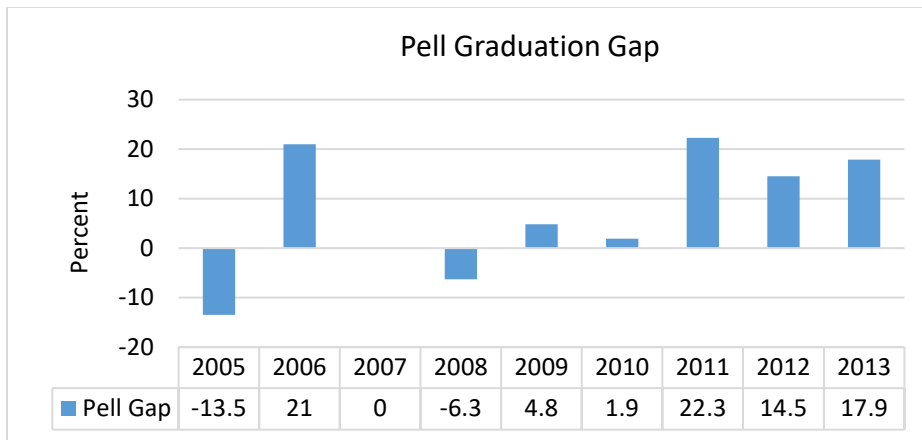


Figure 5.6. Pell eligible freshman student graduation gap by cohort year.

Retention & Graduation – Transfer Students

Due to the specialized nature of many of our undergraduate degree programs, Cal Maritime is not being held to 2-year campus graduation goals for transfer students under GI2025 like the other CSU campuses. In particular, due to the Federal requirements of ship (sea) time for three of our high-unit majors that require USCG licensing, transfer students in these majors are unable to graduate in two years. Because these USCG licensed majors (BS Marine Transportation, BS Marine Engineering Technology, and BS Mechanical Engineering, license-track) comprise nearly 70% of our student body, our data are heavily biased away from 2-year graduation of transfer students. That is, our campus data for transfer students graduating in 2-years is based primarily on only two majors, BA Global Studies and Maritime Affairs and BS Business Administration, that do not require sea time. Currently, these two majors have 2-year transfer student graduation rates of 8% and 38%, respectively, for the 2015 cohort. While recognizing, once again, the inherent variability in graduation rates as a function of small sample sizes (fewer than 25 transfer student cohorts for each of these majors), we are pleased with the Business Administration transfer graduation rate. However, our campus-based goal is to increase the overall 2-year graduation rates for transfer students to 23% with continued growth and success in the BA program. We have embarked on a series of student services improvements to improve graduation rates of all students (see **Section C: Advancement of Student Success through Improvement of Student Services** below). [CFR 2.14]

Graduation Rate Dashboard from WASC

The new graduation rate dashboard from WASC is not based on a set period of time, such as 4-years or 6-years, for graduation, but rather includes a calculation of absolute graduation rate (AGR) that is based on a measure of unit redemption rate (URR). URR measures the proportion of instructional units taken by matriculated students that are eventually counted toward or redeemed for a degree. It is applied to all populations of students including first-time freshmen, transfer, part-time and full-time students. If a student takes course credits and subsequently leaves an institution without finishing a

degree, then those units are not “redeemed”, thus reducing the URR for the campus. While URR and thus AGR are not tied to time taken for degree completion, both are affected by year-to-year fluctuations in enrollment. If enrollment is increasing, as has been the case at Cal Maritime for the past 10 years (up until 2017), then URR and AGR will be artificially decreased because the number of newly admitted students and the number of units being taken will exceed the number of units being redeemed by the conferring of degrees, for at least a couple of years. [Graduation and Retention Rates](#)

An examination of the [Graduation Rate Dashboard](#) for Cal Maritime through CY 2015-16 indicates that URRs are typically very high (between 69 and 87% each year), and that the AGR is also typically very high (between 55 and 79%) with an average AGR of 66% for the years 2008 through 2016. In addition, the AGR tends to be higher than the IPEDS 6-year graduation rates for each college year, despite the fact that these *are all years of increasing enrollment at Cal Maritime*. Thus, because the IPEDS graduation rates are based on cohorts that only comprise slightly more than 50% of Cal Maritime students (an average of 54% of the graduating cohort over those years), Cal Maritime is confident that the AGR is more reflective of the success of our students in terms of graduation rate, although even the AGR is likely lower than actuals due to increasing enrollment at Cal Maritime.

III. Other Measures of Student Success

As noted above, retention and graduation rates are primary, vital measures of student success but Cal Maritime also utilizes other measures to evaluate different dimensions of success (e.g., job placement percentages, earnings after college, etc.), or as indirect measurements of success (e.g., student engagement, alumni satisfaction) that contribute to the above definition of success.

Student Engagement

The measurement of student engagement -- when dually defined as the time and effort students put into their educational experiences as well as how the institution deploys its resources to elicit engaged learning – describes fundamental dimensions of the student experience associated with success. Those students who are engaged in their studies and in campus life tend to stay, and to graduate. Students who are motivated by and engaged in learning tend to perform better, and thus analyses of student engagement can lead to institutional changes which have not only a positive impact on graduation and retention outcomes, but also the quality of education. Cal Maritime opts to administer the National Survey of Student Engagement (NSSE) every three years. It was last administered in spring 2017, with results received during the 2017/18 academic year. Given to freshman and seniors in the spring term, the survey gathers information on four themes: academic challenges, learning with peers, experiences with faculty, and campus environment. The data from spring 2017 was compared against three sets of peers: CSU campuses, other academies (e.g., SUNY Maritime Academy), and a “general peer” group that most resemble Cal Maritime across a number of variables as defined by the Office of Institutional Research. Overall, the NSSE report showed Cal

Maritime has areas of great strength and other specific areas in need of improvement. Certainly, some of the findings were eye-opening.

The results were first presented to a joint meeting of the Provost's Council and the Student Affairs Leadership Team in 2017. They were then brought to the attention of the entire faculty as the subject of the 2017 Fall Faculty Retreat. Broken into groups by academic department, each group was challenged to address putative shortcomings through a series of action items to be implemented the following year. Afterwards, faculty were asked to work within their departments to develop strategies that they could implement in response to Freshmen and Senior student feedback. Our analysis of the report as well as the entire results can be found in [Appendix 31](#) and [Appendix 32](#).

Alumni Engagement

Cal Maritime is interested in cultivating and expanding alumni relations for a number of reasons. Alumni philanthropic efforts will be discussed in Component 7, but Cal Maritime has other motivations for strengthening communication between its current curricular and co-curricular programming and its graduates. If the institution believes that it is adequately preparing cadets to be successful in the wider world – that their degrees have proven meaningful to them over time – then that should be reflected through feedback with alumni. Conversely, if alumni have found gaps in their intellectual or professional preparation, that too is useful information for improving educational effectiveness.

In 2018, Cal Maritime administered a comprehensive alumni attitude survey to get a better sense of the relationship of our alumni to their alma mater. Through the results this study, we have learned that our alumni are overall very pleased with their decision to attend our institution, and hold the strongest connection to our traditions, career preparation efforts, and pride in their degree generally. When compared against other schools in the CSU system and a larger population of universities from around the country, Cal Maritime alumni reported higher levels of satisfaction due to the preparation that Cal Maritime offered them for their professional careers. The annual training cruise, Corps of Cadets leadership positions, and various athletics clubs were cited as being the most impactful part of alumni's Cal Maritime experience, and likely contribute to alumni affinity for our institution. The biggest challenges that we face with our alumni population is engaging alumni who cannot attend events due to geographical distance or interference with other commitments. We are looking toward new and innovative ways to make accessible programming for all alumni, and it has been recommended to us to utilize technology to help us reach this goal. By recording events and posting pictures or videos online, we hope to improve our communication with alumni who cannot attend our events in person in order to maintain their meaningful engagement with Cal Maritime [[Results of Full Survey](#)].

Job Placement and Salaries.

By a number of different measures, the job placement rates and salaries of Cal Maritime graduates are very impressive and an excellent demonstration of why Cal Maritime enjoys numerous [accolades](#). Employment rates (in their field of study) of the graduating

class of 2016 – including all majors – reached 94% by August 1, 2016. The remaining 6% did not respond to the survey, so this percentage may be higher. Average starting salaries in each major were as follows for 2016: Marine Transportation, \$70,000; Marine Engineering Technology, \$70,500; Facilities Engineering Technology, \$73,250; Mechanical Engineering (licensed), 70,600; Mechanical Engineering (non-licensed) \$70,600; Business Administration \$53,000; and Global Studies and Maritime Affairs, \$48,000. According to College Scorecard, 92% of students who attend Cal Maritime earn more than those with just a high school diploma, and the median earnings of former students who received federal aid, ten years after entering the school, was \$79,000 ([College Scorecard](#)).

IV. The Promotion of Student Success

Even with a surfeit of information gathered from a number of different sources on a variety of criteria, it is only by acting on this data and tracking results from various initiatives that progress can be made. Much of the data discussed in the previous sections have been cited in many activities and programs designed to improve student success. Likewise, the [Strategic Plan](#) and our Graduation Initiative 2025 Plan provide powerful direction on how the institution promotes student success. Given these various plans, initiatives and independent efforts from various divisions on campus there can be, at any given time, dozens of different strategies all orientated toward the same objective. These are arranged in this section under five areas: the promotion of student success through 1) curricular effort, 2) engagement, 3) improvement of student services, 4) diversity recruitment, retention, and programming, and 5) career services.

A. Advancement of Student Success through Curricular Efforts

One of the most impactful and straightforward methods for ensuring students successfully complete their majors in a timely manner is to provide a clear roadmap of courses that need to be taken and when they need to be taken to complete a degree program – and then ensure sufficient seats in those courses are offered when students need them. At Cal Maritime, we have very detailed and clear roadmaps of every degree program, and we ensure that classes are offered during the semesters they are indicated on those roadmaps. For students who enter as first time freshmen and who are ready to meet the rigors of college coursework from day one, those roadmaps may be all that students need to be successful in degree completion. The 4-year graduation rates of our students are a testament to the value of clear roadmaps. And, yet, a number of students either do not fit into those roadmaps, either because they are transfer students who bring in extra coursework in some areas but lack coursework in other areas, or because they are unsuccessful in one or more courses and must repeat them, or for a variety of other reasons. Thus, as we fully recognize, detailed degree roadmaps are extremely important, but not sufficient, to ensure students graduate in a timely manner, and so we also have mandatory advising prior to course registration each semester to ensure that students are registering for the correct courses for their degree plan. In order to further improve retention and graduation rates, we have also

undertaken a number of other curricular efforts to improve graduation and retention rates. [CFR 2.12]

Some of Cal Maritime's efforts to improve student success through curricular actions have been developed at a departmental level, and still others have occurred on a broader institutional level. Different types of potential problems have been identified, such as critical bottlenecks in curricular paths that may have a variety of causes, such as: 1) classroom or laboratory capacity issues, 2) multiple course repeats by students because of D, W, and/or F grades, 3) overly-proscriptive prerequisites, or 4) issues of limited shipboard capacity. Solutions have been proposed to mitigate or eliminate the problems when possible as described below.

Curriculum Redesign

As mentioned previously, in 2017, Provost Opp created a curriculum redesign grant program using one-time funds from the CSU, to provide encouragement for faculty members to engage in curricular activities that align with the mission of the CSU's Graduation Initiative (GI2025), with Cal Maritime's Strategic Plan, and with the CSU's new Executive Order 1110 which radically revised admissions assessments for math and English placement. Funds were made available to faculty (as individuals and in teams) to propose and implement curriculum redesigns that would contribute to Cal Maritime's efforts to increase its 6 year graduation rates, its 4 year graduation rates, its transfer student graduation rates, and/or eliminate achievement gaps. In all, thirteen proposals were funded, with projects ranging from a complete overhaul of a specific program curriculum, to designing and implementing pedagogical changes, to improving student success in courses with multiple repeats. The proposals can be found [here](#). The assessment of these redesigns will be measured after their implementation begins in fall 2018. [CFR 3.10]

A Faculty Conversation on Student Persistence

At the [annual retreat](#) of all faculty in the fall of 2016, an exercise was designed to study and analyze 6-year and 4-year graduation rates based on persistence of students from one year to the next. The exercise exceeded expectations as departments, when given the appropriate data, were able to diagnose why some students falter while others succeed. Certain questions were first posed, such as: When do students tend to leave each major, and how does this attrition occur (e.g., Are students academically disqualified? Suspended? Taking a leave of absence? Or dropping for unknown reasons?)? How successful are continuing students in advancing to the next student level each year? What proportion of the population of students is in the super-senior category, meaning they have taken more than 115% of the number of units required to graduate in their major? Three leading statements were then presented to departments: "A large proportion of freshman leave after their 1st year;" "Too many freshman do not advance in class after the first two semesters;" and "Too many seniors/super-seniors leave without graduating." (Departments were also encouraged to identify other trends in the data specific to their programs.) Then, faculty were asked to write out "likely causes of this pattern" and "actions to address this pattern." Certain

trends that were mystifying to the Strategic Enrollment Management Committee gained coherence when presented to the full faculty – for example, the question of why Mechanical Engineering seemed to lose a significant portion of students in the junior year became clearer once it was discovered there was a disconnect between the program and its first two years of instruction which were heavily dominated by general education courses with few courses taught by the ME faculty. The [results](#) were compiled and fed back to departments for curricular consideration. [\[CFR 3.10\]](#)

Shipboard Capacity, and Curricular Efforts.

Cal Maritime has always been challenged by needing to balance two summer *TSGB* training cruise periods of about 65 days each with a manageable semester calendar. In fall 2016, President Cropper convened an Academic Calendar Task Force with the objective of creating a new, sustainable academic calendar year that would meet the CSU requirement for numbers of instructional days and sea time commitments for USCG licensing, but also provide for breaks in the semester such as a spring break and/or Thanksgiving break, neither of which the campus had at that time. An additional challenge was the need to keep the ship on campus during semesters for student housing, classrooms, and laboratories. The Task Force recommended a new academic calendar that allowed for semester breaks but which resulted in the *TSGB* sailing just one 65 day training cruise in summer. This new single-cruise calendar is beginning in summer 2018 by necessity due to the requirement that the *TSGB* undergo shipyard repair (a standard 30-40 day drydock period that occurs every five years). The revised calendar will continue into the future summers with the continuation of a single cruise period. We believe this will have a positive effect on student success insofar as the academic semesters will be somewhat decompressed with built-in days for study and research. However, one consequence of this change to a single cruise was the limited number of berths for students in particular majors who need the training cruise time for USCG licensing. A special committee was needed to ensure that all eligible students who needed sea time and affiliated training were accommodated; the resulting information will be used to explore other curricular modifications to align with the cruise calendar.

B. Advancement of Student Success through Engagement

Cal Maritime recognizes that engaged students are most often successful students. Besides the aforementioned NSSE and subsequent action plan (built primarily around improving study habits, increasing and/or improving faculty feedback for students, and encouraging participation in campus cultural events), purposeful co-curricular programming has been developed and implemented with the aim of establishing a holistic living-learning environment. Cal Maritime recognizes that learning takes place both in and out of the classroom. Inclusive communities are fostered through [Housing and Residential Life](#) to directly support the educational, social, and personal development of each student. Examples of such programming are included in [Appendix 33](#). [\[CFR 2.11\]](#)

C. Promotion of Student Success through Improvement of Student Services

One of the primary objectives of the Cal Maritime Strategic Plan is to improve and streamline articulation, registration and advising services for all students in order to facilitate timely degree completion and enhance student satisfaction with the support they receive. A student should be able to clearly see where he or she is in a program's curriculum, to know what courses need to be taken and when they are offered, and to know how to seek and receive specific kinds of academic assistance. At Cal Maritime, we have made significant investments and improvements to our student services in the last five years, including adding tutoring and other types of coursework assistance, professional advising, and advising tools and technology. We have also increased our focus on and assistance for specific groups of students through expanded disability services, veteran services, and an educational opportunity program (EOP) Summer Bridge program, to name a few. A more extensive description of these student services can be found in [Appendix 34](#). [CFR 2.13]

D. Advancement of Student Success through Diversity Recruitment, Retention, and Programming

Just as Cal Maritime has studied the overall factors that affect retention and graduation rates in order to act on such findings to improve student retention and success, so too have these findings been disaggregated appropriately to tailor improvement efforts for specific student groups. Many of the aforementioned programs and objectives, while open to the larger student body (such as professional advising, tutoring, early alert program and others), have particular impact on specific demographics of the campus community. Cal Maritime also recognizes that there is still a long way to go: we continue our commitment to close our achievement gap and increase the number of female and URM students. At a small school, even modest fluctuations in matriculation and retention numbers can loom large in the data. In this section, we address some of the efforts taken since the last comprehensive WASC review to address recommendations regarding diversity; thus, not only do the following paragraphs report out on efforts to increase the diversity of the student population (including addressing a gender disparity), but also describe the efforts taken to create an inviting campus environment so that all students feel welcome.

In the WASC Commission's letter of 2011, it was written that efforts must be taken by the institution to address "an essential but often elusive goal of an education that is both representative of, and responsive to, the highly diverse world in which CMA graduates live and work." Toward this end, it was recommended that initial reports and plans on diversity "move more fully into the operations and culture of the Academy" for an ultimate goal of being able to document that specified learning about 'unity in diversity' is actually taking place as an aspect of a student's experience." For Cal Maritime's purposes, gender is also seen as a diversity issue, given the institution's longstanding differential between the number of male and female students. Thus, efforts toward "diversity" – in all of its manifestations – can be organized under three broad outcomes: a desire to increase (and retain) a diverse student body; a need to improve curricular

and co-curricular educational programming in regard to tolerance, diversity, and cultural difference; and providing resources for faculty, staff, and students so they can live, work, and learn in an environment that is welcoming and supportive for all.

The Unity Council

Cal Maritime is committed to promoting an environment that supports every member of our community in an atmosphere of mutual respect, fairness, cooperation, professionalism and leadership. Cal Maritime expects that every campus member will practice the principles of community, which are prominently located on the diversity webpage. The [Unity Council](#) had its origins in 2006 when then-President Bill Eisenhardt formed a Diversity Task Force to assess diversity on campus and make recommendations to improve diversity-related outcomes. In 2009, the Committee on Unity and Diversity was formed and initially published recommendations for assessment, curricula, leadership programs, training, publicity, and more, with a name change to the “Unity Council” shortly thereafter. In 2013, the Unity Council revised its [charter](#) to emphasize the fact that the council is not a specific program, but a commitment by the university to:

- advance the educational mission of Cal Maritime by fostering mutual respect, appreciation, understanding, collaboration and effective communication among the members of a diverse university community;
- serve as a medium of communication on diversity issues between and among divisions, departments and other institutional units of the campus;
- disseminate information to members of the university community regarding historic contributions of diverse communities;
- assess the university’s “campus climate” and recommend improvement strategies based upon the evidence; to encourage “best practices” which increase and enhance recruitment and retention of diverse faculty, staff and students;
- participate in campus strategic planning; and
- sponsor programs and activities that publicly celebrate the diverse communities and cultures within the campus.

A quite large Council, the 12-15 members are drawn from all faculty, staff and administration units of the campus. In addition, the AVP of Human Resources, Diversity & Inclusion, and Administration is an important member of this council. **[CFR 1.4]**

Admissions, Marketing, and Recruitment

Efforts to increase the diversity of the student body must strongly involve the Office of Admissions. As articulated in the Strategic Enrollment Plan, we seek to increase annually the proportion of females in the incoming student population. Toward this end, Admissions has strategized to pursue more formalized relationships with organizations focused on young women such as Girl Scouts, AAUW, Soroptimists, Women in Science, and single gender secondary schools. Because diversification of our campus cannot be the sole responsibility of admissions, there is also a cross-divisional effort on campus. For example, the creation of a women’s soccer team – while an integral part of the Athletics Master Plan – was also specifically designed to encourage female applicants through more opportunities to participate in extracurricular activities.

As indicated in the Strategic Enrollment Plan, Cal Maritime is also committed to increasing ethnic and cultural diversity of our student body. Strategies and activities devoted to this outcome include hiring our first Spanish-speaking Southern California recruiter. Increasingly, many of Cal Maritime's students (and students of color) have been drawn from the L.A. basin. With a permanent recruiter position in this strategic location it is expected that Cal Maritime's numbers in this demographic will increase.

Resources and Support to Foster a Diverse, Ethical and Tolerant Environment

Once students are admitted to Cal Maritime, it is important that support structures are in place to engage them and cultivate an environment which enables them to succeed. This has been a cross-campus effort, starting with the 2015 change in title of the human resource office to become the Department of Human Resources, Diversity and Inclusion. Such a change is not merely symbolic; it is meant to underscore the university's commitment to diversity and to a working environment that is inclusive, professional, and welcoming. In all its endeavors, Cal Maritime is governed by CSU [Executive Order 1095](#) (Implementation of Title IX, Related Sex Discrimination, Sexual Harassment and Sexual Violence Legislation); [Executive Order 1096](#) (Policy Prohibiting Discrimination, Harassment, Retaliation, Sexual Misconduct, Dating and Domestic Violence, and Stalking against Employees and Third Parties); and [Executive Order 1097](#) (Policy Prohibiting Discrimination, Harassment and Retaliation, Sexual Misconduct, Dating and Domestic Violence, and Stalking against Students). All resources pertaining to Title IX can be found here [here](#), including the [2017 Title IX Annual Report](#). In Spring 2018 Cal Maritime administered the National College Health Assessment Survey, as it does every two years. Data from the survey will be distributed and discussed across multiple constituents in AY 2018-19.

All cadets, as noted in Component 1, are held to high ethical standards as stipulated in the Code of Conduct, which is clearly articulated in the Student Handbook. The [Cal Maritime Principles of Community](#) (written by the Unity Council) are embedded within this code, which carries with it an assumption of a sense of responsibility for the welfare of the community. Also expected are obligations on the part of each individual to respect the rights of others and to protect the university as a forum for the free expression of ideas.

Through the Associated Students of Cal Maritime, several student groups – including the Pacific Islander Club, the Black Student Union, and Cal Maritime Gay Straight Alliance – enable students to connect and socialize while also raising awareness and increasing dialogue with their peers.

Safe Zone Program

The Safe Zone program responds to the needs of the Cal Maritime community. The goal of this program is to provide a welcoming environment for lesbian, gay, bisexual, and transgender persons by establishing an identifiable network of supportive persons who can provide support, information, and a safe place for LGBTQ persons within our campus community. Those who have committed to being "Safe Zone Allies" indicate that bigotry and discrimination, specifically regarding LGBTQ persons, are not tolerated.

LGBTQ students can immediately recognize to whom they can turn for support. Additionally, Cal Maritime has recently adopted a Preferred Name procedure wherein students can submit a request through the Office of Human Resources, Diversity and Inclusion to have a preferred first name appear on class and grade rosters.

Unconscious Bias Training

Cal Maritime has held three Unconscious Bias workshops for faculty and staff over the last three years. The unconscious bias workshop was developed internally within the CSU system with the faculty union, the California Faculty Association (CFA), playing a leading role in developing the workshops and training workshop facilitators. The first Unconscious Bias Workshop was held during the summer of 2016 and was well-attended, with approximately 30 attendees across the various divisions and departments on campus. While some faculty members were among them, the majority of the attendees were either staff or administrators. The second and third workshops were offered during faculty work days prior to the start of the semester in fall of 2017 and 2018. Several participants noted that these workshops were eye-opening and informative and reported that they had made/or were planning to make changes to their teaching practices as a result of what they learned from the workshop.

Curricular and Co-curricular Educational Programming

Efforts to recruit and retain a diverse student body do not and should not stop with targeted strategies toward specific groups; *all* students (and faculty and staff) benefit from programming which actually embeds learning about diversity in different places as a significant aspect of the Cal Maritime experience. Some examples of such programming are below. [\[CFR 2.11\]](#)

- LSAMP - Besides offering social support and protections, Cal Maritime also encourages diversity on campus through the CSU Louis Stokes Alliance for Minority Participation, or CSU-LSAMP, an NSF-funded program intended to support success in science, technology, engineering, and mathematics (STEM) disciplines for underrepresented students and others facing barriers. Cal Maritime joined CSU-LSAMP in 2013 as the program's 23rd participating campus, making the alliance complete across the CSU system and one of the largest LSAMP programs in the nation. At Cal Maritime, LSAMP students receive assistance with setting up academic plans, but also may borrow textbooks, calculators and laptops, may receive travel support to go to research and other professional conferences, and may receive funding for course materials needed for their STEM courses.
- First-year students are introduced to diversity programming during Orientation, through Residence Life Programming, and in events organized by the Unity Council. Besides these co-curricular efforts, many of the program learning outcomes of the ELDP engage with diversity in varying degrees. The ELDP has program learning outcomes (PLOs) that specifically address diversity. For example, PLO-6 (Controversy with Civility) states that students “will be able to

recognize two fundamental realities of any creative effort: 1) that differences in viewpoint are inevitable and 2) that such differences must be aired openly but with civility.” The seventh outcome (PLO-7), “Citizenship”, specifies that students “be able to recognize that members of communities are not independent, but interdependent, and that individuals and groups have responsibility for the welfare of others.” These outcomes are then aligned with two of Cal Maritime’s Institutional Learning Outcomes: “Ethical Awareness,” in which students shall use ethical reasoning in personal, professional, and social decision-making, and “Global Learning” where students will “demonstrate awareness of cultural differences and the responsibilities associated with global sustainability.” It should be noted that this latter ILO was the subject of lengthy debate in the Institution-Wide Assessment Committee (IWAC) – the language of the outcome was fundamentally altered in order to demonstrate that students are learning not just about “global awareness” but also the responsibilities associated with globality. Assessment results for these two outcomes are [here](#).

- Cal Maritime is proud to host the annual [Women in Maritime Leadership Conference](#), which is a two-day conference focusing on the success of women in maritime, transportation, and related industries. It features programming for aspiring STEM students in high school, current students, recent graduates, and professionals. It offers opportunities for career development, authentic leadership and productive networking for women and those who venture to support them. Conference presentations in 2018 were structured in tracks: *Career Exploration* for young women in high school and community college interested in pursuing careers in maritime, transportation, and related fields; *Career Preparation* for current undergraduate and graduate students enrolled at Cal Maritime and in similar courses of study, as well as new professionals within three to five years of college graduation; and *Career Development* for working professionals currently employed in maritime, transportation, and related fields. This conference annually draws hundreds of prospective students, current students, and professionals from the maritime industry to network.

Of course, the effectiveness of all these programs, strategies, policies and activities must be measured by how well Cal Maritime actually does admit and retain a diverse student body. Certainly, obstacles still remain.

Cal Maritime has traditionally been challenged – as have the other national maritime academies and engineering colleges – in diversifying our student body (see Enrollment and Demographics above). In particular, our engineering and USCG licensed majors are much less reflective of the California demographic than our other majors, but campus-wide, challenges remain. While we are pleased that the latest IPEDS data (from fall 2016) clearly indicate that Cal Maritime is the leader among listed state maritime academies in gender and ethnic diversity, we are committed to continuing our efforts to further diversify. As indicated in our Strategic Enrollment Plan and outlined above, many efforts are underway to improve diversity, with the recognition that many efforts may not show effects for a few years.

V. Conclusion

While Cal Maritime is proud to be the #1 public university in California for alumni earnings 10 years after enrollment ([U.S. Department of Education](#)) and for being the #1 California college for raising students from the bottom 20% in family income to the top 20% ([The Equality of Opportunity Project](#)) we are also committed to *student achievement* in the broadest sense. Thus, we are ever vigilant in our quest to provide greater access to a diverse student body, to provide the highest possible quality of living-learning environment on campus, and to ensure that our students have excellent instructors and support services so that they can reach their goals.



Component Six

Quality Assurance and Improvement

“The success of program review depends upon a willingness to engage in an intensive and comprehensive self-study process, with an honest professional discourse about the criteria to be applied, the relationship of programs to the institution, and the educational needs of students and society at large... Only by a continuous cycle of review can levels of expectation be aligned to provide students with a coherent learning experience geared to the demands of an ever-changing world. Only with a continuous cycle of review can an institution determine whether students are learning, whether learning objectives are being met, and when curricular changes are required.”

[Program Review Guide](#)

I. The Definition, Purpose, and Processes of Program Review

In the years since the last WASC Educational Effectiveness visit (2011) and Interim Report (2014), program review at Cal Maritime has undergone dramatic changes and improvements. A number of issues were identified with the previous program review process, including a review timeline and flow chart that were unnecessarily cumbersome and byzantine for such a small campus with few resources.

Subsequently, self-studies would get delayed and there was little oversight or follow through. Nevertheless, there were some bright points. For example, Cal Maritime’s track record of external accreditation was noted from the 2011 visit as being “excellent.” But, there was very little connecting the production of these self-studies (often with very prescriptive narrative regulations) to our institutional program review policy. Changes were needed for the program review process to become a truly meaningful and impactful process.

A new Program Review Guide was approved in 2016. *Every* program has now undergone program review and expectations for subsequent reviews are clearly noted. Responsibilities for each step of the process are clearly explained in a flow chart. Resources are allocated to departments to facilitate the production of self-studies in the appropriate lead-up year. The following sections will describe the current processes and continued plans for improvement. The next section outlines processes and evidence collected, the subsequent section reflects on what we have learned about program review (from an institutional perspective), and the final section acknowledges future steps still to be taken.

The [Program Review Guide](#) of 2016 was written by a small committee including the ALO and department chairs, and was approved by the Academic Senate Curriculum Committee in November 2016. The purpose for revision included addressing the aforementioned issues, but also to accommodate the revised WASC handbook as well as revised criteria of the Chancellor's Office of the CSU. [CFRs 2.1, 1.5]

As noted in our guide, program review is a formal, cyclical process undertaken by every undergraduate and graduate degree-granting program and by the general education program at Cal Maritime. Generally, a program review is conducted every five years. In the case of a degree program that is reviewed by an outside accrediting agency, the program review will be conducted in conjunction with the review required by that entity. The CSU Board of Trustees established an academic planning and program review policy requiring each campus to establish criteria and procedures for planning and developing new programs as well as to conduct regular reviews of existing programs. At Cal Maritime, program review is organized to assist a department in determining if it is meeting the needs of students and other constituents. A key issue to be examined in program review is how the program fits with the institutional mission and goals. It is important that program review be viewed not as an empty exercise in compliance but rather be conducted in the spirit of improvement and progress. The review helps the department prepare for future challenges in a time of change and determine the best plan for allocation of resources. This review allows the department to develop a strategy for improvement; only by a continuous cycle of review can levels of expectation be aligned to provide students with a coherent learning experience geared to the demands of an every-changing world. A program review also enables the institution to determine whether students are learning, whether learning objectives are being met, and when curricular changes are needed. Additionally, program review allows the department to carry out strategic planning at the department level and beyond. [CFR 4.4]

Figure 6.1. Schedule of program review for all academic degree and general education programs.

Program	Degree	Last Program Review	Next Review Year
Business Administration	BS	<u>2013-14</u>	2019
Facilities Engineering Technology	BS	<u>2013-14</u>	2019
Global Studies and Maritime Affairs	BS	<u>2017-18</u>	2022
General Education	N/A	<u>2015-16</u>	2020
Marine Engineering Technology	BS	<u>2013-14</u>	2019
Marine Transportation	BS	<u>2017-18</u>	2022
Mechanical Engineering	BS	2013-14	2019
Transportation and Engineering Management	MS	<u>2017-18</u>	2022

The program review is conducted through a combination of self-evaluation, followed by peer-evaluation by reviewers external to the program or department, and, usually, also external to the organization. The Office of Institutional Research provides the department with the necessary data to be included in the self-study including, but not limited to, enrollment and retention data, student headcount and demographics, SFR, FTEF, etc. Recommendations emanating from program review should be the result of deliberations between the department, the various reviewing entities, and senior administrators with decision-making power regarding priority setting and resource allocation. [CFR 2.7]

The External Review, External Accreditation

All programs undergo an external review as part of the review process. Those programs externally accredited may submit their specialized report in lieu of the standard program review in order not to duplicate labor. Any information required by Cal Maritime's policy that is not required by the external accreditor is included in the form of an addendum. While this stipulation is now in place, it was approved too late for the past ABET and IACBE self-studies; addendums will take place on the next round that occurs in 2019. Nonetheless, both ABET and IACBE required the assessment of student learning in their respective reports. Since STCW is a special kind of accreditation, the Department of Marine Transportation writes an STCW Report for the US Coast Guard as well as a department self-study which is submitted to the curriculum committee and which also undergoes a separate external review. [CFRs 2.7, 4.6]

Programs that do not have external accrediting agencies -- with assistance from the Dean, the Accreditation Liaison Officer, and the Provost -- select an external reviewer or external review team. Such reviews have been set up in the past year for the BS Marine Transportation, BA Global Studies and Maritime Affairs, and the MS in Transportation and Engineering Management.

Finally, since the graduate program underwent review this past year, the timing is right to begin seeking accreditation for this graduate program. Discussions are underway for an academic year 2018/19 action plan to explore options, evaluate the program against accrediting requirements, and start the process of applying.



The Edwards Leadership Development Program.

The Edwards Leadership Development Program is configured as a unique program synthesizing multiple elements from many different constituencies on campus. As noted in Component 1, leadership development holds a prominent position in Cal Maritime's mission and as such, particular care and attention has been given to continuous development and refinement of this program. "Leadership" is a manifold concept to begin with, having distinctive and disparate elements that draw from managerial, political, military, psychological, and other fields. Complicating matters, the curricular and co-curricular nature of the program demands collaboration from academic affairs, the Corps of Cadets, programming from Student Affairs and others. Since 2011, campus administrators and faculty have scrutinized both the structure and the expected outcomes of this program. The [2014 WASC Interim Report](#) outlined the steps taken by Cal Maritime to refine the program since the last comprehensive WASC review. Such steps included: creation of a Leadership Development Steering Committee which made recommendations for improving leadership development; hiring of a Coordinator of Leadership Development; re-structuring of the Corps of Cadets; refinement of the institution-wide learning outcomes to more prominently include leadership; integration of leadership thought into the shared literary experience; re-integration of a course (Foundations of Leadership) into the curriculum; dedication of two hours per week free of classroom instruction that could be devoted to leadership activities; and ultimately, in 2013, creation of a Cadet Leadership Development Task Force.

This Task Force, working within a fifteen-month time frame utilizing the six-step decision making process [Appendix 39](#), ultimately produced a tiered, four-year comprehensive co-curricular continuum of leadership development education and training. With external donor funding, the Edwards Leadership Development Program welcomed its inaugural class Fall 2014, with this first cohort graduating Spring 2018.

The learning outcomes associated with this program can be found in [Appendix 17](#). The ELDP was purposefully designed such that the first year developed self-discipline and personal resilience, the second year focused on accountability of self and another, the junior year focused on team and group leadership while the senior year was devoted to professional leadership readiness. In Spring 2018, the Multi-Institute Study of Leadership examination was administered to cadets. At the time of writing this self-study, raw data results have been received by the campus, but in-depth analyses of the data have not yet occurred. These analyses are planned for 2018-19.

But as also noted in Component 1, progress has been uneven. Turnover in personnel associated with the ELDP, through retirements and other separations, have slowed the program's growth and development. With the appointment of an Associate Dean of Student Engagement in May 2018, and a new Commandant in August 2018, administrative leadership has begun to stabilize. Additionally, a third-party external review team visited campus in early Fall 2018 to interview dozens of student, faculty, and staff leaders, and to gather information from a myriad of sources in order to offer recommendations for program improvement. It is expected that their report will be complete in advance of the WASC site visit in March 2019.

The Annual Learning Results

Besides the more comprehensive self-study associated with scheduled program reviews, every fall academic programs are required to submit an “Annual Program Report” which includes data from the previous academic year. This is a much briefer document meant to help departments document their assessment plans and learning outcomes, as well as track progress on their program needs and changes. A final section on statistical data is meant to enhance and support program development. Ideally, the Annual Reports should be used to provide the information necessary to make more immediate modifications to a program should they be necessary. The Annual Reports are also instrumental in assessing capacity needs including the requests for new tenure-track faculty hires. [CFR 2.6, 4.1]

II. Findings

Every program is unique, and every program makes unique discoveries about itself through the process of program review. From an institutional perspective, the value of these reviews is concrete, visible, and actionable. Three of the most significant outcomes from the enhancement of the program review process include:

- A deepening comfort level across departments and faculty that data from program review is being used to inform decision making. Now that the process has been codified and key elements are required for submission from all programs, conversations about resource allocations are made on a more level playing ground. For example, in the past when a department sought a new tenure-track hire, that department chair would file a request with the Dean who would consult with the Provost and after determining resources and compiling all requests (which varied widely in the criteria used to rationalize a new hire) a decision would be made. Now, departments use a standard tenure-track faculty request form which must draw on data from their Program Reviews and Annual Reports. The data is congruent across departments, and the department chairs themselves rank the needs of their programs relative to all other departmental requests. The process is much more transparent and data-driven. [CFRs 4.3, 4.2]
- Other administrative, curricular, and capacity issues are now more easily addressed, especially in terms of enrollment management. Due to the small size of some programs, even minor variations in incoming student numbers can have ripple effects for years and across many departments. The Program Review process, with the emphasis on review of multiple years of data, brings clarity and more focus on long term effects thereby encouraging more long term planning. (This will also be discussed in the following Component.)
- The unique relationship of the departments of Sciences and Mathematics and of Culture and Communication to Program Review and General Education has been clarified (these departments contribute to General Education to a great

extent, but do not currently have their own degree programs). General Education will submit a program review every five years as would any other degree-granting program. While the General Education Committee has been tasked with submitting the GE Program Review, the departments of Sciences and Mathematics and Culture and Communication are synched with this cycle and are responsible for submitting that information which pertains specifically to the continued operational improvement of their academic units – that is, a review of the faculty qualifications and achievements, allocation of resources, programmatic demand, etc.

III. Future Steps

Even though Cal Maritime is proud of the improvements to program review efforts since the last WASC review, there are still several ways to move into a more highly developed and functional enterprise. Some of the following recommendations were derived from an analysis of the rubric “Assessing the Integration of Student Learning Assessment into Program Reviews” which was distributed to department chairs and administrators in academic affairs. [CFR 4.5]

First, while the system is far superior to what existed in 2009, the process is still somewhat burdensome. The flowchart ([Appendix 40](#)) reveals many different steps and feedback loops which can slow down the timeline for completion. Care must be taken to ensure the process of program review does not get choked on any particular point.

Second, individual programs should use the reviews for broader purposes. While it has been acknowledged that these self-studies are now valued for making institutional decisions, they could also be more useful for external audiences and fundraising opportunities.

Third, the graduate program, the MS in Transportation and Engineering Management, after their latest program review sees the value of and need to seek external accreditation. A team of faculty and an external consultant has been assembled to put together a case for external accreditation.

Fourth, a recommendation from one of the most recent program review submissions (BA Global Studies and Maritime Affairs) is to our minds a very significant one: “Given the amount of data involved, the multiple sources of the data from across the Cal Maritime campus, the drafting and revising of the program review document, and the expectations of those in charge, it is obvious that the program review process would be greatly enhanced by additional training of the person(s) charged with conducting it. It is also critically important for *all* departmental faculty to be involved in the program review process right from the beginning. This will result in (1) an ongoing review conversation among all faculty in the program, (2) less likelihood of significant errors and/or omissions, and (3) a more timely completion of the review process.” These recommendations will be brought to the Curriculum Committee and the broader Senate for their consideration.

Finally, one significant area for improvement – discovered from the Program Review Rubric – is that of the student experience. While some departments involve students in focus groups and/or conversations about surveys and data, many students are unaware of and uninvolved with program review. Care should be taken to bring students more into the fold – to make them more mindful of the effort and care that goes into planning their program of study, but also to give them an opportunity to share in the development of that program.

Certainly the central objective of program review is to demonstrate educational quality through self-reflexive analysis in the pursuit of improvement. Measures of educational quality not showcased in this component have been articulated in other sections of this self-study. See, for example, standards of attainment in Component 3 for USCG licensing exam pass rates and exit exam data for the IBL program. [CFR 4.3]



Component Seven Sustainability: Financial Viability; Preparing for the Changing Higher Education Environment

I. Overview of Financial Health

It is no surprise that higher education -- in California and the nation -- has endured and continues to endure erosions of public funding. Despite the changes in public funding of the CSU in California, Cal Maritime is in strong financial shape and able to meet all of the challenges it faces. Cal Maritime's funding emanates from three distinct sources.

First, funding for Cal Maritime comes from the state in the form of an appropriation from the California legislature to the CSU. This appropriation totaled \$31.6 million dollars in funding to Cal Maritime in 2017-18. In addition, Cal Maritime receives funds from tuition and student fees which accounted for an additional \$11.3 million in 2017-18. These funds, collectively referred to as general funds, are used principally for salary and wages, and associated benefits, and instruction. Additional support from the CSU system comes in the form of funded mandates and special projects (i.e., the Graduation Initiative 2025, EOP, and sustainability projects), funding for faculty research, scholarship, and creative activities (RSCA), and a myriad of other professional development opportunities through various grants and awards. Cal Maritime, like all CSU campuses, also receives separate financial support from the CSU for capital projects. Cal Maritime also receives approximately \$120,000 annually from the California Lottery Educational Fund via the CSU Chancellor's Office. (Figure 7.1) [CFR 3.4, 3.8]

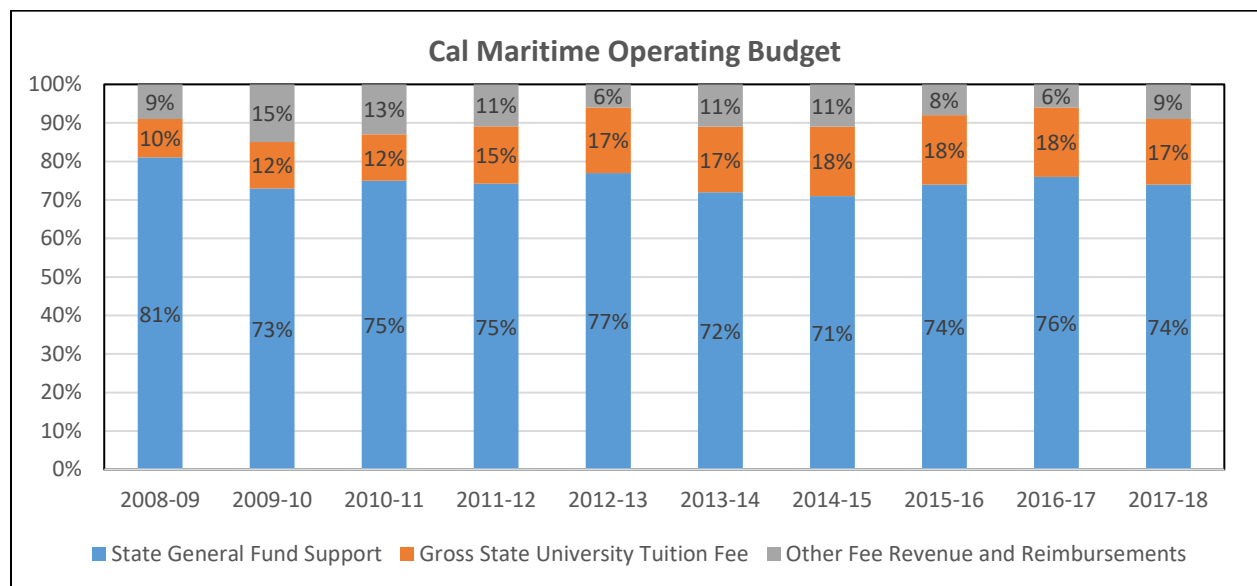


Figure 7.1 Proportion of funds accruing from primary sources of Cal Maritime operating budget funds.

Second, Cal Maritime receives federal funding through the Maritime Administration (MARAD), part of the Department of Transportation, for the operation of its training ship. This allocation amounted to \$300,000 for fuel and \$500,000 for maintenance in 2017.

Third, Cal Maritime receives non-state and non-federal funds from fund-raising activities by the California Maritime Academy Foundation, and from cost-share from campus Enterprise Services and from Extended Learning activities. In addition, through sponsored programs, funds for specific research and other contract projects are brought to campus. These programs, such as ballast water testing contracts and a variety of externally funded research grants from NSF, Department of Energy, and others, provide opportunities for faculty, staff and students to engage in research, and to discover and disseminate new knowledge for the maritime community.

Financial Statement Audits are supplied annually to the Chancellor's Office and are of course part of the institution's annual reports to WASC. [CFR 1.7]

Funding and Enrollment Management

From 2008 to 2009, the California budget crisis reduced Cal Maritime's state appropriation from \$19 million to \$16.5 million, a drop of 14 %. Since then, strides have been made to restore some of the funding, but as with other public institutions, the funding profile has changed dramatically (Figure 7.2).

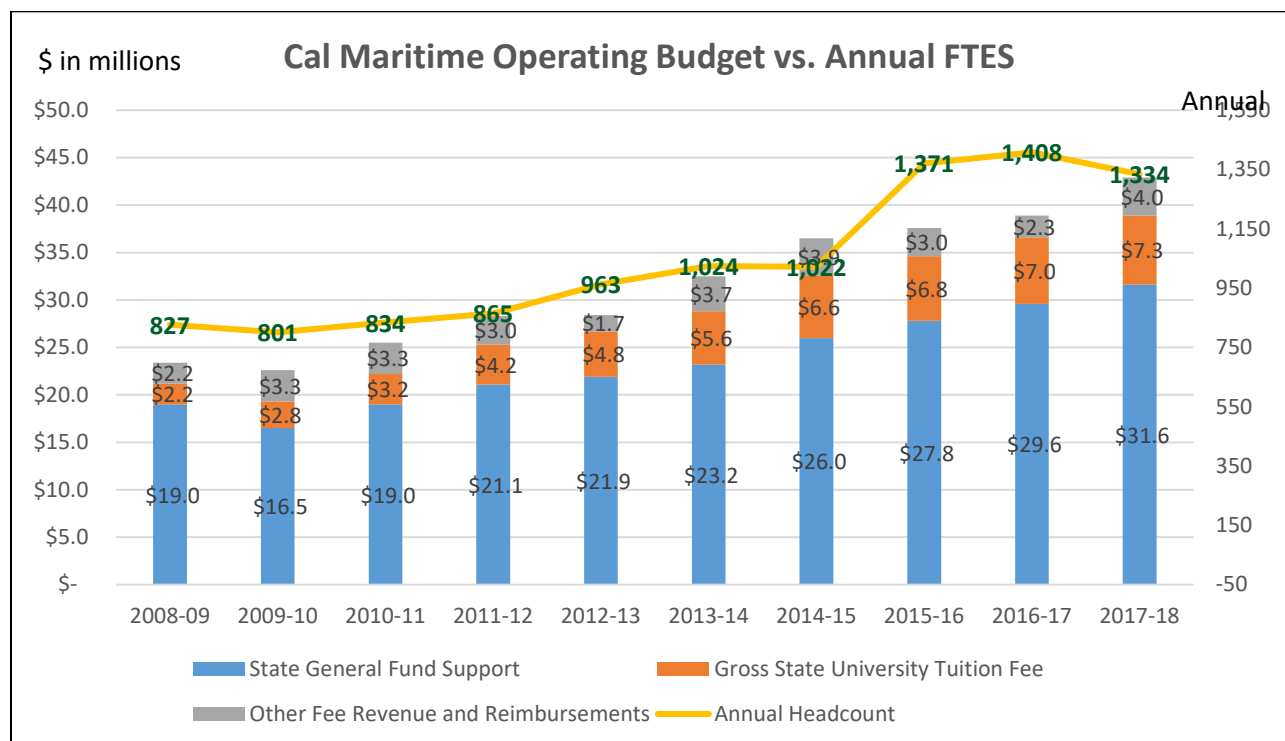


Figure 7.2 Relationship between operating budget and FTES.

Enrollment management plays a crucial role in any effective financial planning for future sustainability. For a while, enrollment targets given to Cal Maritime from the CSU

fluctuated; at such a small campus, even seemingly minor enrollment vacillations can create challenges in faculty and classroom capacity figurations. Complicating the effectiveness of our predictive models is the fact that, due to licensing requirements, three of our six majors are high-unit majors which require students to take far more than 15 units per semester. Because the average unit load of our students exceeds 16 units, our total annual FTES exceeds annualized headcount. This “upside-down” status of FTES vs. headcount further exacerbates the fiscal challenges of being a small campus because students in the CSU pay a flat tuition rate when they take more than 6 units per semester. Thus, no additional revenues accrue to Cal Maritime when our students exceed the traditional number of units for a full-time student, and yet we have to hire faculty to teach the additional courses.

In the Strategic Enrollment Plan of Cal Maritime, careful and calibrated growth are factored in under Objective 3, which calls for enrollment growth to be managed collaboratively across academic departments and operational units. While Cal Maritime has had to limit new growth in 2017 and 2018 to accommodate reduced space on training ship cruises, with a BS in Oceanography degree program scheduled to admit students in fall 2020, coupled with a desire to grow the non-impacted programs (BA in Global Studies and Maritime Affairs; BS in Business Administration - International Business and Logistics), it is anticipated that enrollment will rise in 2020 and beyond. As of now, certain programs (BS Marine Transportation; BS Marine Engineering Technology; BS Facilities Engineering Technology; BS Mechanical Engineering) have enrollment caps (they are ‘impacted’, in CSU terminology) because there are more interested applicants than we have space to accommodate. Cal Maritime wants to ensure that students in these majors have the appropriate courses with the appropriate capacities (some with limits of four or six students in specialized simulation labs), and that the market for these graduates is not saturated.

State and Federal Financial Aid Funding

Cal Maritime and its students receive financial support from a variety of sources. State Aid to students comes in the form of the Cal Grant A and B Program, the Middle Class Scholarship Program, Chaffee Grant Program (for former foster youth), and the California Veterans Program. Federal Aid programs include Pell Grant, FSEOG, Federal Work Study, Direct Loan Program, and the Veterans’ Program. Total dollars in all scholarship and grant programs awarded for 2017-18 was \$5,127,962. Veterans and CSU waivers add an additional \$351,940 to this figure.

Capital and Campus Projects

Since 2012, Cal Maritime has received about \$54 million in capital improvement and deferred maintenance funding from the Chancellor’s Office. These important projects include a new physical education & aquatic center building, a new university police department building, renovation of the student services building, and numerous other important deferred maintenance projects – some have been completed while others continue.

For Cal Maritime, campus construction projects including maintenance and repairs are limited by the annual operating budget and requires difficult decisions and involves the balancing of limited resources with many demands [[Campus Renewal Presentation](#)].

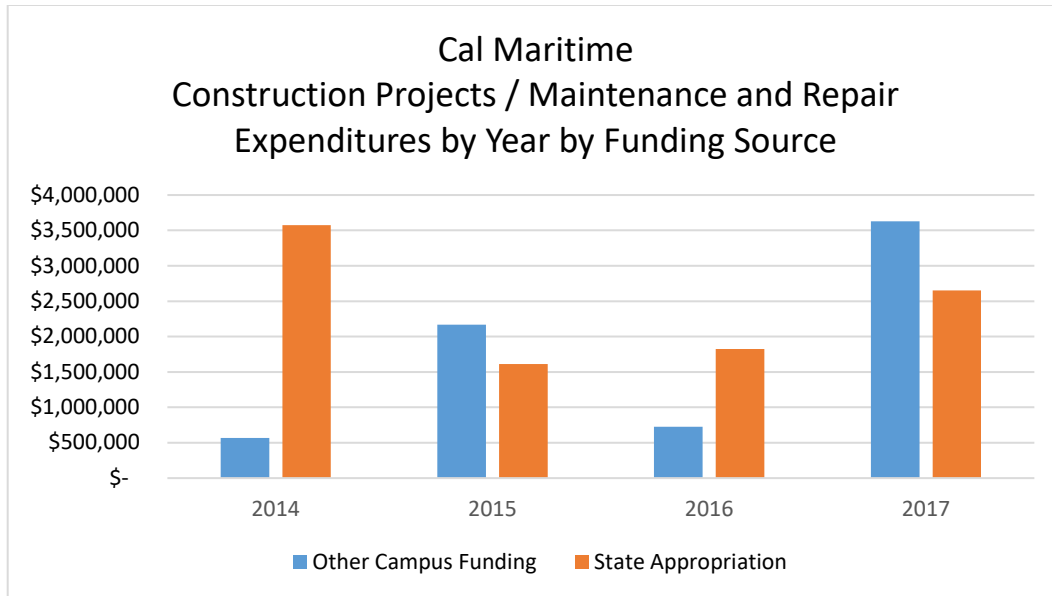


Figure 7.3 Construction Projects/Maintenance and Repair Expenditures.

Auxiliaries

The California State University uses "auxiliary" organizations to manage activities that, for legal and practical reasons, are judged to be best kept separate from the activities of the "campus." Cal Maritime currently has two auxiliaries (defined as separate §501c3 organizations), the California Maritime Academy Foundation (CMAF) and Associated Students of the California Maritime Academy (ASCMA). At this time, Enterprise Services which includes housing, food services, and the bookstore, is not a separate §501c3 organization, although plans are in place to incorporate a new non-profit organization to encompass these entities in the near future.

The California Maritime Academy Foundation (CMAF) is the fundraising arm of California State University Maritime Academy. The mission of the charitable §501c3 Foundation is to encourage and facilitate the contribution of charitable gifts for the benefit of the faculty and cadets of Cal Maritime and for the institution's long range plan.

CMAF net assets as of June 2018 totaled \$14,286,730. This includes \$8,764,383 in endowments, \$3,742,762 in vessel donation assets, and \$1,779,580 in non-endowments. Philanthropic productivity has nearly doubled in the last ten years, from \$1.1 million in 2009-10 to a high of \$3.5 million in 2015-16 with several vessel donations (including one extraordinary vessel). Income took a dip in 2016-17 when a corporate

donor reduced its annual scholarship support and a major gift pledge was completed. The result was total of \$2.1 million raised. In 2017-18, fundraising efforts produced \$3 million including increases to the general university endowment.

Of the many projects managed by CMAF, a key effort is the expansion of the Cal Maritime Yacht Donation program in which vessels donated to campus are either repurposed directly or sold to support professional maritime training, scholarships and endowments, and the intercollegiate sailing team. The Office of Alumni Giving offers many different philanthropic programs (such as The [Rising Tide](#) campaign – which gives faculty and staff an opportunity to show support beyond the classroom or office). The Alumni office has also engaged in two recent outreach assessments to identify potential unknown strengths of our alumni body and to encourage maximum alumni participation. It is worthy to note that Cal Maritime has the highest alumni donor participation rate in the CSU (See Component 5. Alumni Engagement).

Most excitingly, Cal Maritime is in the early stages of developing its very first Comprehensive Campaign. This campaign is aligned with the campus strategic plan and will focus on nearly tripling the current university endowment; raising money for capital projects that fall outside the scope of State funding; and providing an infusion of current use dollars to further current academic and student initiatives. The campaign will conclude with Cal Maritime's 2029 Centennial celebration.

CMAF gives back to Cal Maritime's educational mission in several ways. Through scholarships and student awards based on merit and/or need, it helps to offset the cost of a college education for many students. In 2017-18 nearly \$400,000 was awarded as financial aid. An additional \$300,000 was distributed as in-kind gifts and program support including faculty and student research support garnered by partnering directly with industry to secure both cash and in-kind donations. University Foundation Annual Reports and other documents are located in [Appendix 41](#).

Enterprise Services supports the mission of the University by providing an educational living and learning environment which enhances the academic and co-curricular pursuits of our residents. The department represents the University by providing oversight for acquisitions and leased properties. The department is a diverse organization with professional staff encompassing residential licensing, fiscal services, housekeeping, technology services, event planning and related property and hospitality services.

In FY 2017-18, roughly \$8.2 million was earned through student fee revenues. Another \$650,000 was generated from the retail arm of Enterprise Services which includes the Bistro, Morrow Cove, Keelhauler Café, Dining Center walk-ins, and catering and event services. Approximately 10% of all revenues generated by Enterprise Services were re-invested into existing buildings and building systems, and another 30% was invested in various campus projects including the acquisition and reconditioning of a newly purchased motel to become our newest residence hall nicknamed Maritime North, and

the build-out of the Keelhauler Café. Additionally, \$1.7 million was put towards debt service payments related to the Dining Center and McAllister Hall.

These Enterprise Services functions support:

- *Residential Properties.* Approximately 900 students are licensed in a traditional housing “by bed” program in four student housing communities on the campus. An additional 160 students, are licensed in the Golden Bear, a 500’ research and training vessel. The department also upholds fiduciary responsibility for the Dormitory Revenue Fund (“DRF”), from which state bond debt is repaid.
- *Food Services.* The department also features a 500-seat dining center, two satellite specialty restaurants and the University’s main conference center.
- *Conference Services on the Main Campus.* The department offers meeting, event and catering services on the campus. The summer conference program provides a wide range of overnight accommodations, meals and meeting space to groups from 10 to 700 that are educationally based or meet the mission of the University. Hospitality suites and short term apartments are also available to guests meeting the same criteria.
- *Bookstore.* The department oversees the Campus Keelhauler Shops, a retail, uniform and bookstore on the campus.
- *Campus Leases.* The department manages the rental and use of campus facilities and coordinates logistical services for special events requested by the University community and off-campus organizations. Facilities available for rental include classrooms, auditoriums, and gymnasium facilities.
- *Other Property Management Services.* The department facilitates leases and acquisitions for space outside of the main campus footprint, real property lease and contract negotiation, preparation, and execution (in conjunction with the Contracts and Procurement department). The department also represents the campus as the landlord or tenant when applicable, and consults with other University entities with operations at off campus locations.

Extended Learning

Extended Learning is a self-support department that enhances the educational mission of Cal Maritime by providing training resources for cadets and industry to support their professional growth in the workforce. Extended Learning provides customized courses to fill important training gaps and licensing needs for the maritime industry. Because of Extended Learning’s visibility and presence in the maritime community, Cal Maritime has received significant contributions from private partners, such as Chevron, in the form of the donation of an engine simulator and in the establishment and development of the Maritime Safety and Security Center.

The Maritime Safety and Security Center (MSSC) is a maritime-focused safety and security training center located in Richmond, California, which was developed through a public/private partnership with the Chevron Richmond Refinery. The Center focuses on uniform training using common standards of practice to fortify coordinated responses and provides integrated safety and security planning, preparedness, response and

mitigation training and strategies. The Center also provides a shipboard firefighting simulator for use by Cal Maritime's cadets and industry for marine firefighting courses, search and rescue exercises, confined space training, law enforcement and border patrol courses, canine training, and emergency response programs.

In addition, the Graduate Program resides in Extended Learning. Cal Maritime's MS in Transportation and Engineering Management program provides an easily accessible, online degree program that professionals can complete while working ashore or at sea. Upon completion of the core courses, students may select one of three concentrations in Engineering Management, Transportation, or Humanitarian Disaster Management to finish their degree.

Simulation Facilities

Cal Maritime's Simulation Center provides industry professionals with training and research facilities to run simulation exercises with model vessels in different ports and regions. The simulation facilities include two 360-degree projection systems and numerous smaller simulators that can interlink, an oil spill trajectory simulator, a liquid/gas cargo handling simulator, and a crisis management center to create a strikingly realistic environment for training, research, accident investigation, and crisis management. It houses two large classrooms and two simulation briefing rooms, as well as flexible use conference meeting rooms, simulator instructor stations, and the latest in simulation equipment and software all in one location. Within this environment, mariners are presented with complex situations that would be too costly and too environmentally hazardous to replicate on the seas. Training time can be applied toward the US Coast Guard standards of time at sea for merchant marine licensure and certification.

Office of Research and Sponsored Programs, and the Golden Bear Research Center
Cal Maritime's newly formed Office of Research and Sponsored Programs ([ORSP](#)) has central responsibility for proposal submission and award management for all sponsored projects, including offering technical support, compliance information, negotiating and accepting awards, establishing sponsored accounts within the University's financial systems, and providing support to PIs in managing their awards.

The Golden Bear Research Center (GBRC) is a sponsored programs center that primarily supports testing of ballast water management systems to support International Maritime Organization (IMO) and United States Coast Guard standards. The GBRC's primary focus is to evaluate the mechanical and biological efficacy of these systems in a realistic, onboard environment and, in doing so, increase the environmental awareness and stewardship of our future mariners. Technologies relating to exhaust emissions, solid waste stream, oil pollution, hull fouling and other potential environmental risks to the marine environment draw equal interest and engagement of our students and faculty providing impetus for discussion and learning. Combining the expertise of Cal Maritime's operations team, the biological oceanography research group at California State University's Moss Landing Marine Laboratories, and Pacific EcoRisk

Environmental Consulting, GBRC provides vendors with the testing required for an independent third-party certification needed for IMO and USCG approval of ballast water management systems.

II. The Budget Process

The budgeting process at Cal Maritime has been refined over the past several years to make the process both more inclusive and transparent. Starting in Spring 2015, a series of budget talks involving all departments commenced, with the intention of making the budgeting process more accessible. This was first accomplished through the 2015 “Futures” offsite retreat with the campus leadership team, where the creation of the Strategic Plan included exercises in budget prioritization that included all campus divisions, Department Chairs and faculty representatives from the Academic Senate. Budget prioritization is now undertaken with cross-campus input annually, as described below. [CFR 3.5, 3.10]

The Budget Advisory Committee (BAC), designed to advise the President on budget allocation issues, consists of two faculty appointed by the Academic Senate, one student appointed by ASCMA, one student appointed by the Corps leadership, two staff members and the President’s Cabinet. The BAC meets at least once per semester, but generally in February and March meets every week in preparation for the Budget Town Hall where preliminary budgets for the following year are presented to the campus. Figure 7.4 outlines the annual budget planning and review cycle. This shows the relationship between the California State Annual Budget Cycle and that of the CSU System. Overlaid onto this figure is Cal Maritime’s internal budgeting cycle. The periodic sequencing represented in this chart is meant to drive not only annual strategic plan activities, but longer term strategic planning as well. [CFR 3.6, 3.7]

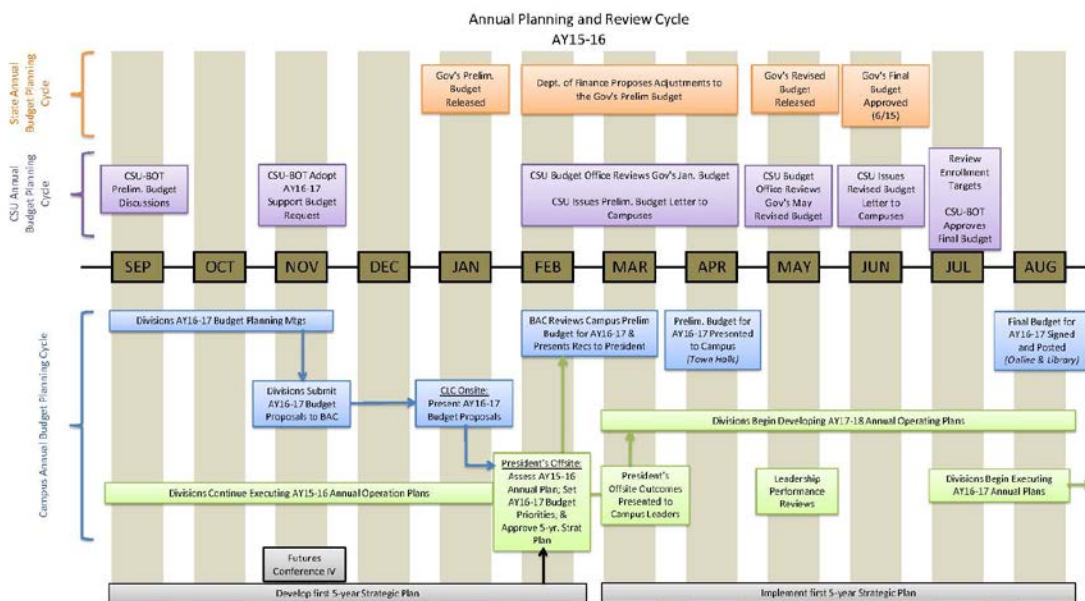


Figure 7.4 Diagram of annual budget planning and review cycle.

The budgets for the campus divisions of Academic Affairs, Student Affairs, Administration and Finance, Advancement, and Marine Programs are created from the up-flow of requests to the VPs from departments. The President's Cabinet then addresses division-level priorities in accordance with strategic planning priorities. The President retains central year-end operating balances to be used for campus-wide, non-recurring, strategic initiatives. Besides the work of the Budget Advisory Committee, Budget Town Halls occur every Spring and are open to the entire Cal Maritime community. In these fora, Vice Presidents present their budget requests (which are tied to the strategic plan) and feedback is invited. The finalized university budget is placed on reserve in the library.

Human Capital and Workforce Diversity. Cal Maritime implemented a Human Capital Management (HCM) Strategic Plan this past year. The scope of this plan includes increased operational efficiency and thus serves the institution in ways congruent with other processes identified in the component; however, its objective is much greater. The HCM Strategic Plan allows Cal Maritime to design the employee experience, recognizing that our cadets, faculty, and staff are our most critical resource and diversifying the workforce will transform the culture of the campus and create a sense of belonging and engagement. The short and long-term goals are contingent upon Cal Maritime's ability to recruit, hire, and retain the right workforce dedicated to the success of our cadets and their future impact on society. HCM has three main objectives:

- Achieve operational excellence through the development and implementation of human resources policies, programs, and technologies;
- Modernize our workforce planning and development system in order to meet the current and future human capital needs of Cal Maritime; and
- Promote a campus culture that embraces and fosters unity through diversity, wellness, and civility.

The President's Cabinet is fully committed to leadership and professional development and in cultivating a culture that embraces best practices to approach, assess, and identify leadership priorities, programs and investments. The global impact of Cal Maritime calls for a more diverse workforce demanding a focus on inclusion and shared commonalities bringing our internal and external constituencies together. We strive for demographic diversity and diversity of thought and will continue to partner with other organizations on campus to gain insight into retention specific to the Cal Maritime experience and tailored to Cal Maritime's environment. It is processes like this which help to align resources with the educational mission of the institution.

III. Support for Faculty Development and Student Learning

As noted in Cal Maritime's mission and the mission of the California State University, the primary objective of the institution is to educate; therefore campus priorities are oriented toward the continuous improvement of academic programs, the maintenance of an effective and safe learning environment, and the hiring and retention of a world-class

faculty (fostered in part by supporting faculty in their professional and scholarly activities). In 2016 (the most recent figures from the Chancellor's Office, Cal Maritime had a total tenure density (based on FTE data) of 65.3% which is the highest in the CSU. The systemwide average for Fall 2016 is 55.5%. At that time, we had a total headcount of 90 faculty, 52 TT and 38 lecturers. [CSU Tenure Track Density](#)
 A breakdown of TT percentages by department is shown in Figure 7.5 [CFR 3.1]

Department	FT #	% of Total Dept
Culture & Communication	6	46
Science & Mathematics	10	67
Global Studies & Maritime Affrs	5	83
Business Administration	4	50
Engineering Technology	10	43
Mechanical Engineering	6	100
Marine Transportation	11	52
Total Tenure Track & FERP	53	-

Figure 7.5 Fall 2017 Tenured/Tenure-Track Faculty By Department

In one example of how the budget process has become more efficient and transparent, in Academic Affairs a new tenure-track faculty request process was implemented by Provost Opp in 2016. Previously, department chairs would individually submit requests for tenure-line hires to the Academic Dean with divergent rationale to justify the requests, with the result that it was not always clear how the decision to fund one department's request over another was made. In the new process, requests for hire are submitted with information from the Office of Institutional Research documenting faculty tenure-track density, department enrollment trends, and expectations for growth. Furthermore, the requests must be accompanied by an assessment of program student learning outcomes to show exactly why and where further resources are needed. The department chairs themselves review all requests, discuss ranking with the Deans, and Dean, department chair, and Associate Provost feedback and rankings are submitted to the Provost to help inform the decision-making process. The number of new tenure-track searches each year is determined based on numbers of separations of faculty as well as growth of enrollment and development of new programs, however replacements of separations are not guaranteed. Additionally, faculty-driven policies governing retention, tenure and promotion (as well as those pertaining to other evaluation processes, curriculum, academic integrity and others) are located on the. [Academic Senate Policy](#) page. [CFRs 3.2, 3.7]

At Cal Maritime, funds are specifically allocated to support the needs of faculty, their departments and student learning in accordance with the mission of the university. The

following are some examples of internal financial support that supports faculty development and student learning:

- Faculty are supported by a robust [Faculty Development](#) program that brings money from a variety of sources (General Fund, CSU continuing and one-time grants and awards) to support professional development, scholarly activity, curricular redesign, and assessment practices. **[CFR 3.3]**
- The Institution-Wide Assessment Council is supported in their work via stipends. Eight to ten faculty members gather for a full week outside of the academic calendar to manage the assessment processes of the Institution Learning Outcomes.
- At the department level, several programs grant release time for assessment coordinators – either on a continuous basis or in the semester leading up to a program review.
- Faculty are supported and encouraged to attend local WASC ARC Educational Programs.
- New faculty are supported by a reduction in teaching load as guaranteed by the contract of the CFA; tenure-track hires are granted 25% release time for their first two years for course preparation and scholarship.
- Additional University Advancement endowments support various faculty research endeavors.

As well as internally provided support, there are external sources of support available to faculty as well. For example, the CSU's *Research, Scholarly and Creative Activities* (RSCA) Grant Program is intended to help faculty remain engaged in their disciplines beyond the classroom and to contribute new knowledge through robust programs of scholarship. The annual funding for the program, which at Cal Maritime is supplemented with funds from the Provost's Office, is intended to provide more internal resources to help faculty pursue a broader array of professional activities and is to be used for research, scholarship and creative activity in support of the instructional mission of Cal Maritime. Proposed projects must be related to the generation of new knowledge and learning. **[CFR 3.1]**

The CSU's *The Affordable Learning Solution* (AL\$) program enables faculty to choose and provide more affordable, quality educational content for their students. By reducing CSU student course material expenses, more students acquire the course materials they need to succeed and benefit from their CSU learning experience. The CSU provides funding for faculty to find more affordable course materials which in turn lowers student costs. [Cal Maritime's AL\\$ Page](#)

The *Graduation Initiative 2025 (GI2025)* of the CSU can also provide funding to enhance the ability of faculty to better support the educational success of our students. In Component 5, for example, it was mentioned that many resources have been devoted to GI2025; at Cal Maritime funds earmarked for this initiative have been provided to faculty in the form of grants to support curriculum redesign, as well as travel to workshops, training, and conferences.

The *Quality Assurance for Blended and Online Courses* is another program funded by the CSU which, when run in parallel with the processes outlined in the recently-approved Academic Senate policy on Technology-Assisted Modes of Instruction, creates a mechanism for ensuring the creation of more online course offerings that conform to the same rigor and standards of face-to-face courses.

IV. Capacity and The Physical Master Plan

An important aspect of sustainability - the ability to support and keep an institution intact and functioning properly – extends from the educational mission to the physical master plan and the capacity to ensure the quality of instruction. Cal Maritime is committed to keeping instructional and living spaces up-to-date, clean, and safe. Such a commitment, over the past decade, has seen the construction of several new buildings and spaces, the renovation of many more, and the creation of an exciting three-phase plan that will dramatically change the waterfront campus.

At the time of the 2014 Interim Report, Cal Maritime had just opened the new Dining Center, which replaced the previous dining hall constructed in the 1950s. The old facility was initially designed to handle 130 students during meals. The new 26,000 square foot Dining Center seats 400 for meals and 272 for banquets. It was designed to host conferences and events on campus, as well as daily meals for cadets. Moreover, the facility's design won the Best Practice Award for Higher Education Energy Efficiency and Sustainability from the California Higher Education Sustainability Conference. Cal Maritime's Physical Education and Aquatics Center, which opened in 2014, addressed a shortage of space for the Academy's physical education and licensing programs, as well as many of the school's athletics programs. Its features include an Olympic size swimming pool with bleachers, a survival training platform with hoist, a main gymnasium with one basketball court, three full-size volleyball courts, and seating for 635, an auxiliary gymnasium with a full-size volleyball court and half-size basketball court, as well as three conference rooms and ten faculty offices.

Additional renovations of spaces on campus in the last four years include a new, dedicated faculty lounge, the refurbishing of bridge simulation facilities including laser projectors (an investment of over \$750K in the last two years), the addition of a new Chevron diesel engineering simulator, new training boats, the renovation of four shipboard classrooms (furniture and technology), the renovation of the welding lab, and numerous renovations of classrooms and other teaching spaces. An Oceanography Laboratory – to accompany the new Oceanography B.S. program – is slated to open in Fall 2018, as is a new Maker Space which is designed for student use as an innovation, design and construction space.

Because the footprint of the main campus is limited, Cal Maritime has worked to acquire additional space that is contiguous with campus. First, Cal Maritime acquired land next to the new physical education and aquatic center building which consisted of a run-down motel which was demolished; a move that was celebrated by the community throughout Vallejo. This space is currently used as overflow parking. In Spring 2018,

Cal Maritime acquired the aforementioned Motel 6 property which was just north of the motel that had been demolished. It was renovated and converted it into a student residence hall, with 250 new beds. Maritime North opened for students in Fall 2018.

In August 2018, the CSU Board of Trustees approved the Cal Maritime Physical Master Plan which lays out the development plans of the campus for the next 15 years. With this plan approved and in place, we are preparing to embark on the next project which is renovation of our oldest structure, Mayo Hall, a former gymnasium and aquatic structure, to become the new home of student services including the offices of Admissions and Recruiting, Financial Aid, Registrar, Career Services, and Associated Students. The full physical master plan is [here](#).

V. Environmental Sustainability

At Cal Maritime we believe sustainability not only refers to the fiscal stewardship necessary to ensure that an institution has and will continue to have the physical and human resources necessary to carry out its educational mission, but increasingly sustainability – in its environmental sense – is also an important dimension both in terms of the physical plant and in the educational mission. Climate change and the challenges of environmental sustainability pose a serious threat to our future -- and, increasingly, to our present. With its comprehensive approach Cal Maritime's sustainability efforts are fully aligned with CSU system's larger goal to integrate sustainability across the academic curriculum and operate our facilities in the most efficient and safer manner.

First and foremost, Cal Maritime is committed to implementing the processes and procedures necessary to maintain compliance with environmental regulations that address pollution in air, water, and other media caused by the campus during campus development and operational activities. The lead department for environmental compliance, resource protection, and pollution prevention is the Department of Safety & Risk Management (SRM). SRM is charged with preventing, minimizing, or eliminating pollution as well as managing unavoidable pollution (spills and emergency operations) in accordance with the applicable regulations applying industry-wide adopted processes and procedures.

Moreover, in summer 2018, Cal Maritime hired a new Director of Energy and Sustainability whose responsibilities include developing and monitoring sustainable activities to create an energy efficient and sustainable campus. This director also understands that sustainability and energy issues are not independent of this institution's educational philosophy, and are in fact part of our core research and teaching mission.

Most recently Cal Maritime has executed several sustainability projects leading to conservation of natural resources, reduction of greenhouse emissions, and efficiencies that reduce operating costs. Such projects include:

- More than 50 street and parking lot lights have been replaced with high efficiency LED lights, and are controlled by a combination of vehicle movement and photo-sensors.
- Occupancy sensors have been installed in offices that switch off when not needed.
- Buildings undergoing remodeling or new construction are designed to include advanced lighting, cooling, heating and PV solar system supporting LEED certification.
- A comprehensive PV solar and wind power generation plan for the campus is being developed as part of micro-grid strategy to make campus independent of grid power.
- Twenty-eight EV chargers are being installed on the campus. Upon completion, these chargers will enable replacing 140,000 gasoline miles and eliminating more than 250 tons of CO2 each year. This project will also be a learning lab for the students, faculty, and staff.
- All facilities in the campus will be connected by a central energy monitoring system leading Cal Maritime in the direction of a connected campus.
- A detailed sustainability audit of the TSGB will be conducted in the next two months identifying opportunities to save energy and water use and reducing waste generation.
- Hands-on student participation opportunities are available in the areas of developing Cal Maritime's carbon footprint, energy and water audit, campus sustainability planning, alternative fuel vehicle program and comprehensive on-site clean energy generation program.
- Collaboration with City of Vallejo and Solano County is in progress to provide internship opportunities for Cal Maritime students in water sustainability.

Additionally, in 2014 President Cropper signed the [Tailloires Declaration](#), an International Declaration of Environmental Sustainability. The Declaration includes a ten-point action plan for incorporating sustainability and environmental literacy in teaching, research, operations, and outreach at colleges and universities. Composed in 1990 at an international conference in Talloires, France, the declaration is the first official statement made by university administrators of a commitment to environmental sustainability in higher education. It has been signed by over 350 university presidents and chancellors in over 40 countries.

These projects are also part of Cal Maritime's operating principle to view the entire campus as a learning laboratory. The Training Ship *Golden Bear*, as noted previously, provides an exceptional platform for oceanic environmental projects, including ballast water testing. Cal Maritime is also a member of CSU Council on Ocean Affairs, Science & Technology (COAST), has created the "Ocean Initiative" – an ocean literacy campaign, and is actively involved in the annual Coastal Cleanup project. In 2017, we were proud to be named the winner of the North American Marine Environment Protection Association (NAMEPA) Marine Education Marine Environment Protection Award, given to individuals and organizations in recognition of efforts on behalf of

preserving the marine environment. NAMEPA is a marine industry-led organization of environmental stewards preserving the marine environment by promoting sustainable marine industry best practices and educating seafarers, students, and the public about the need and strategies for protecting global ocean, lake, and river resources.

Finally, we are proud to report that in May 2018, an interdisciplinary faculty-led student team from Cal Maritime took first prize at the U.S. Department of Energy's Collegiate Wind Competition. A panel of wind industry experts named Cal Maritime the overall winner of the competition with the highest cumulative scores in all categories. The team's turbine will be displayed at DOE headquarters in Washington, D.C., in Fall 2018. As noted by Professor Storz, a member of the team: "Every year that Cal Maritime has participated, we've gotten better at this competition. Progressively through all of these years, our students have looked back on past designs and thought processes," said Storz. "This year is an exemplary example of what shipmates are: we had mechanical engineers, a licensed mechanical engineer, a marine engineering technology student, three global studies and maritime affairs students, and four business students on this team. At every event where engineering, siting, or business had a presentation, challenge, or trial – the entire Cal Maritime team showed up to support the other members."

VI. The Changing Landscape of Higher Education

Of particular concern to Cal Maritime – something which has been addressed in all facets of university planning – is being aware of and responding to the changing ecology of higher education. Beginning with the “Futures” conferences of 2014 and continuing through to the last campus leadership offsite, a concerted recognition of changes taking place in the realm of higher education and in the maritime environment has led to spirited discussions which in turn shape policy and strategic planning. The Strategic Plan, broken into 5-year portions, with goals, outcomes, objectives, strategies and activities for each calendar year, also stretches forward to 2029, the centennial anniversary of the institution. While the long term plan remains necessarily open-ended in order to accommodate and respond to market forces that may not yet be visible, Cal Maritime is preparing for different contingencies. [CFR 4.7]

This changing landscape materializes on two fronts. The first involves what has been termed a “crisis in higher education” which demands that universities prepare for decreased state funding, rising costs of instruction, rising enrollments with under-prepared students, and the need to provide additional resources to these students. Anticipating such changes has informed Cal Maritime’s decisions to increase resources to support students in advising, tutoring, psychological and disability services, health and wellness education, as well as lifelong learning through extended education and a planned expanded Library to become a Learning Commons (see Campus Physical Master Plan).

The second front in the changing landscape concerns the larger maritime environment itself; the diminishment of the U.S. Merchant Maritime fleet, the rapid mechanization of shipping and ports, and the development of autonomous ships are but a few incipient changes that threaten some traditional maritime-related careers and thus traditional maritime academic programs. Cal Maritime is committed to remaining adaptive to an evolving maritime industry, as outlined in our [vision document](#) “Cal Maritime 2029 – Maritime University to the World”. We see growth in the tugboat, towboat and barge industries, as well as offshore energy industries. The career opportunities shore side include vibrant sectors of the U.S. economy, such as commercial sea and river ports, global trade, and intermodal logistics. We recognize that our graduates will enter professions that highly value technical, cultural and leadership competencies, and that the emerging economy will be highly competitive.



Component Eight - Conclusion

“Twenty years from now, you will be more disappointed by the things you didn’t do than those you did. So throw off the bowlines. Sail away from safe harbor. Catch the wind in your sails. Explore. Dream. Discover.”

- *Attributed to Mark Twain*

As noted many times in this self-study, Cal Maritime is a unique institution: it is the only maritime university on the west coast, it’s the smallest campus of the CSU system, and its mission is distinctive. Such uniqueness sets us apart, but should not lead to isolation; differentiation does not beget exceptionalism. The work of creating this self-study -- the act of measuring our institution against a common set of core commitments, standards, and criteria for review -- has helped our campus recognize its strengths and identify its challenges by situating our practices within a broader evaluative framework of quality higher education.

It is expected that this document clearly and honestly sets forth a portrait of where we are today and where we hope to be tomorrow. Above all, the self-study has drawn into sharper relief our commitment to student success. Our strides in improving data collection, access, and analysis helped us to make better informed decisions about curriculum design, resource allocations, and infrastructure enhancements. It has rendered more visible the mechanisms by which we deliver educational programming in the promise of shaping thoughtful, productive and engaged graduates who have the critical thinking faculties, ethical moorings, and discipline-specific knowledge to be engaged citizens of a democratic society.

Toward this end, it is imperative that the recommendations put forth by the WASC Commission (both in the last review and especially those that will be articulated at the end of this reaccreditation cycle) be taken seriously and in the spirit with which they are offered. Diversity will continue to be a priority – not just to draw in and provide access to the most marginalized segments of our society – but to enhance and ameliorate the structures in place that will enable all to thrive and prosper. The development of cadets into future leaders must always be monitored with great care and attention. The need to maximize resources – for faculty development and research, for improving campus stewardship and for cultivating the co-curricular programs that ensure a safe, secure and intellectually-fertile ground for all students – must never be ignored or forgotten.

As maritime industries diversify, broaden and change, Cal Maritime will continue to produce graduates that enter professions that value and reward career agility. The creation of three new academic schools is one step toward the accomplishment of these goals. The construction of new dormitories, state of the art laboratory and learning spaces, and research facilities is another. Making use of the information gathered from the assessment of student learning (and the refinement of these collection practices) will always provide a better understanding of what our students learn and what areas of learning need to be improved.

Finally, a close attention to the ecology of maritime education will be a particularly important factor for the collective movement of the university going forward. In the words of President Cropper at the 2018 Commencement ceremony, “The world is witnessing the return of a multi-polar geopolitical environment, growing competitiveness between economies - including major allies, continuing emaciation of the US merchant fleet - down 1/3 in the last quarter century and down almost 75% in the last half-century. Transitions to renewable energy, increasing interest in the health and wealth of our oceans, vulnerabilities to cyber-attacks, and greater expectations for environmental stewardship, worker safety, and industrial health appear to be accelerating. This, amidst uncertainty in economic alliances (ala Brexit, NAFTA) and defense alliances (NATO), and volatility in international relations and world trade markets. This is the ecosystem we live in now [and] we will need to navigate intelligently through this period. The ecosystem ahead has certain features worthy of our exploration and requiring our attention. We will need to create our own destiny.” [Welcome Message 2018](#)

This institutional report opened with some recognition of Cal Maritime from external sources which were cited as examples of external validation of our educational quality. Just as this self-study was finalized and uploaded, a few more accolades have come our way. On August 27, 2018, *Washington Monthly's* College Guide once again ranked California State University Maritime Academy highly for overall contribution to the public good, bang for the buck, and alumni earnings. In the overall rankings which rated schools on their contribution to the public good, Cal Maritime ranked sixth among all baccalaureate colleges nationally. The rankings are based on three categories: recruiting and graduating low-income students; producing cutting-edge scholarship; and encouraging students to give back to their country. Among baccalaureate colleges in the west, Cal Maritime ranked seventh overall in the publication's "bang for the buck" rankings. These rankings reflect the degree to which schools help non-wealthy students attain marketable degrees at affordable prices. The publication also ranked the school #1 nationally in "[earnings performance](#)" for alumni. *Money* magazine also recently ranked Cal Maritime as one of America's best public colleges. The U.S. Department of Education's College Scorecard ranks Cal Maritime first among public California universities for graduate earnings 10 years after enrollment. Cal Maritime is also one of only 15 four-year colleges in the U.S. to receive a perfect score for "value added" to student outcomes in a study by the Brookings Institute. Of course, we recognize that varying criteria are used for such assessments, and these accolades do not substitute for the rigorous work of maintaining and elevating all aspects of our educational mission – Cal Maritime will seek and sail for deeper waters and distant shores.

