

Maritime Transportation Planning Grant

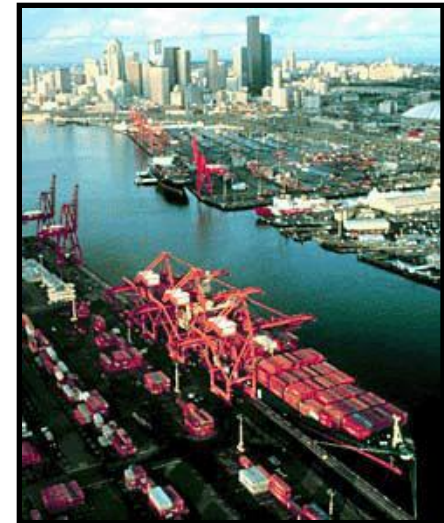


Working Together to Ensure Qualified and Competent Employees in the Maritime Industry Today and in the Future

What is the Maritime Transportation Planning Grant?

To organize a non-partisan collaboration between:

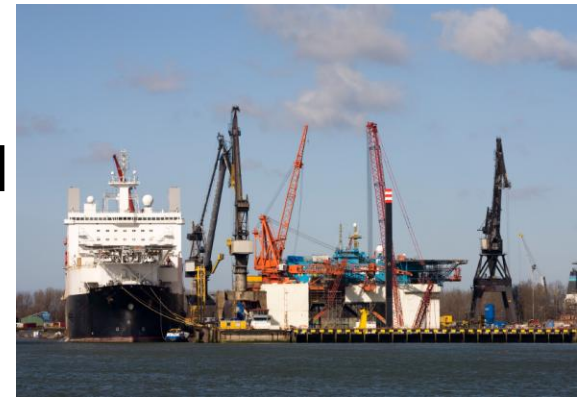
- Business
- Education
- Labor
- Government
- Workforce Development Council
- Economic Development Council



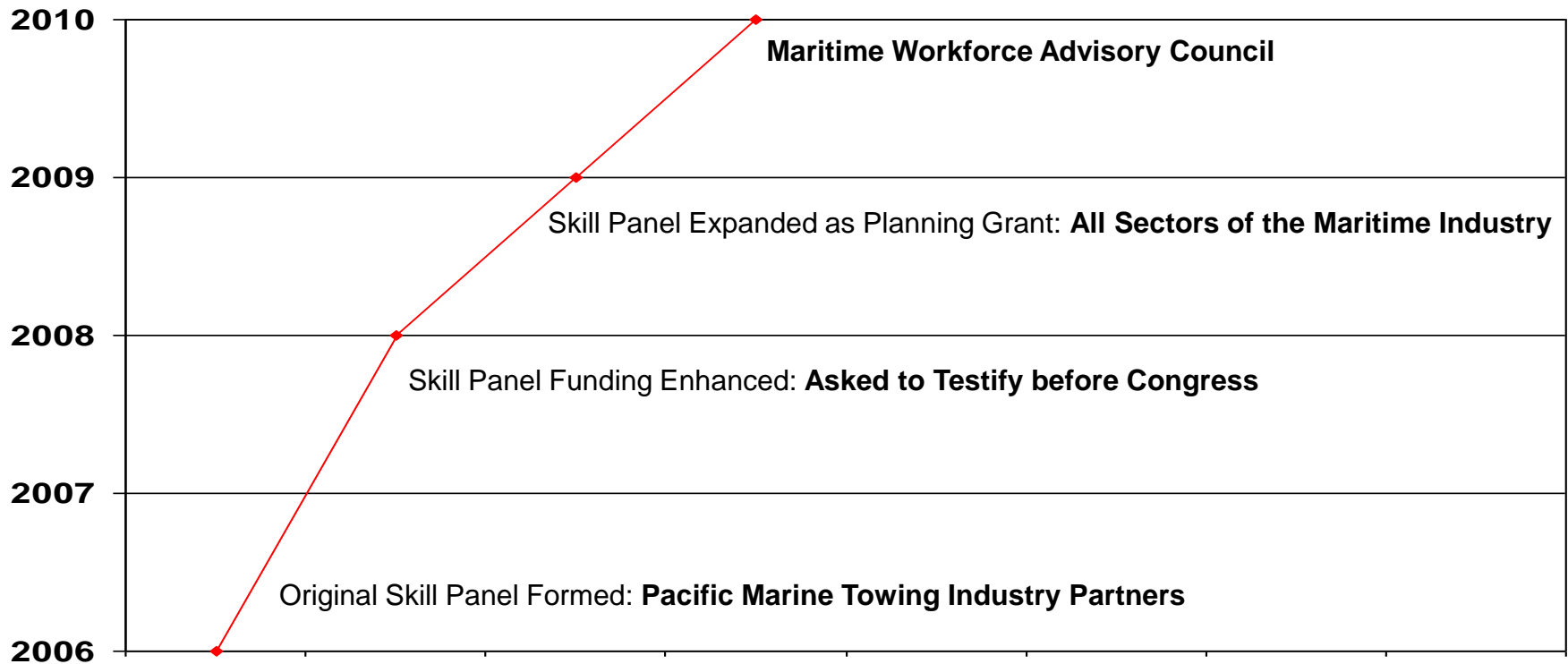
Background

Puget Sound maritime companies, provide a critical link to our local and national economy by:

- Employing thousands with high skill/high wage jobs
- Transporting commodities safely and securely
- Sustaining our economy in an environmentally responsible way



Skill Panel History



Lessons Learned

- Top Management Buy-In
- Expand Scope to Include All Sectors
- System Approach for Sustainability
- Model that Works
 - Non-partisan approach
 - Collaborative effort

Member Agencies

Business

Crowley Maritime Corporation
Foss
Harley Marine Services
K-Sea Transportation
Todd Shipyards
Manufacturing Industrial Council
Transportation Institute
North Pacific Fishing Vessel Owners'
Association
Washington State Ferries

Education

Youth Maritime Training Association
Puget Sound Educational Svc. District
Crawford Nautical School
Fremont Maritime Services
Pacific Maritime Institute
Seattle Central Community College
Compass Courses
Center of Excellence for International
Trade, Transportation, and Logistics
NW Marine Center of Excellence for
Manufacturing and Technology
Puget Sound Industrial Excellence Ctr.

Labor

Sailor's Union of the Pacific
Puget Sound Metal Trades Council
Inland Boatmen's Union of the Pacific
Marine Engineers Beneficial Assoc.
Washington State Labor Council

Government

US DOL Office of Apprenticeship, WA
State
US DOT/MARAD

Support

QSE Solutions

Workforce Development Council of Seattle-King County

enterpriseSeattle

Maritime Transportation Cluster



Cruise Ships



Ferry System



Tug/Towboats



Passenger Vessels



Recreational Boats



Tankships



Fishing Fleet



Cargo Ships



Military Bases



Shipyards



Manufacturing



Research

Purpose

Lay the groundwork for a regional approach to efficient recruitment, training, and advancement of skilled mariners in a variety of occupations across the cluster.

High Growth Industry

“Employment in water transportation occupations is projected to grow faster than the average for all occupations. Employment will also increase in and around major port cities due to rapidly increasing international trade.”

U.S. Bureau of Labor Statistics

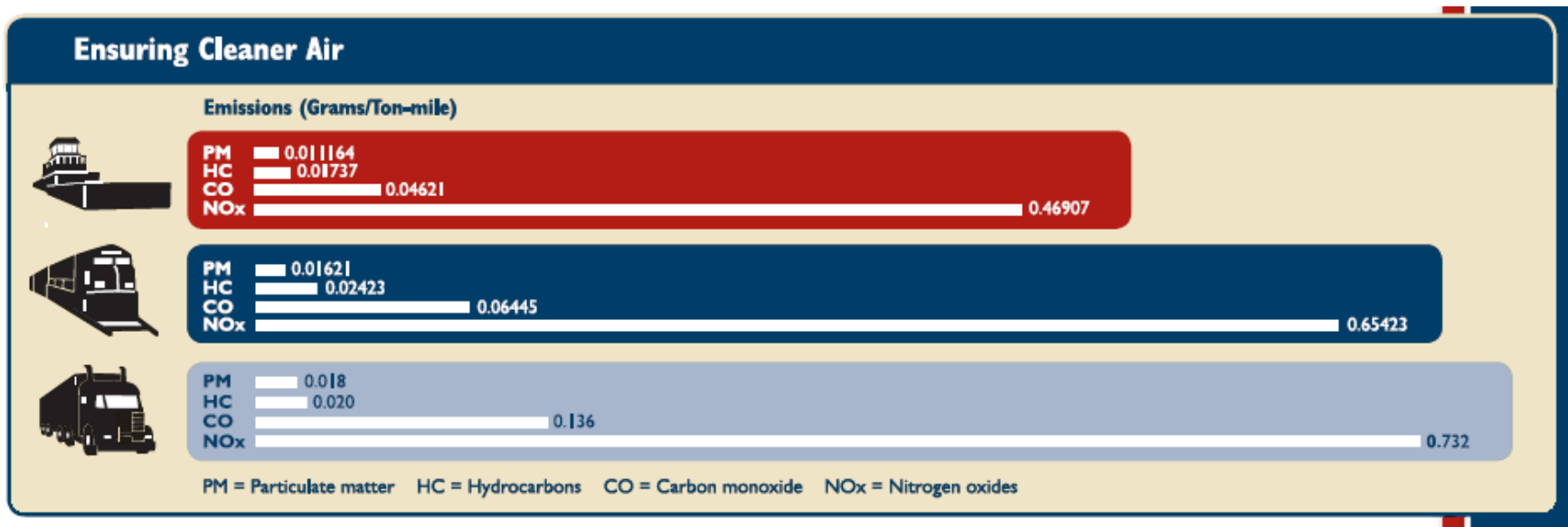
Key Statistics

- The ports of Everett, Seattle, and Tacoma together manage 100% of the region's import and export of goods.
- The Washington State Ferry system is the largest in the country.
- More than 250,000 jobs relate to Puget Sound port activities .
- 60,237 King County workers supported by the Maritime Industry; \$10.3 billion in total business.

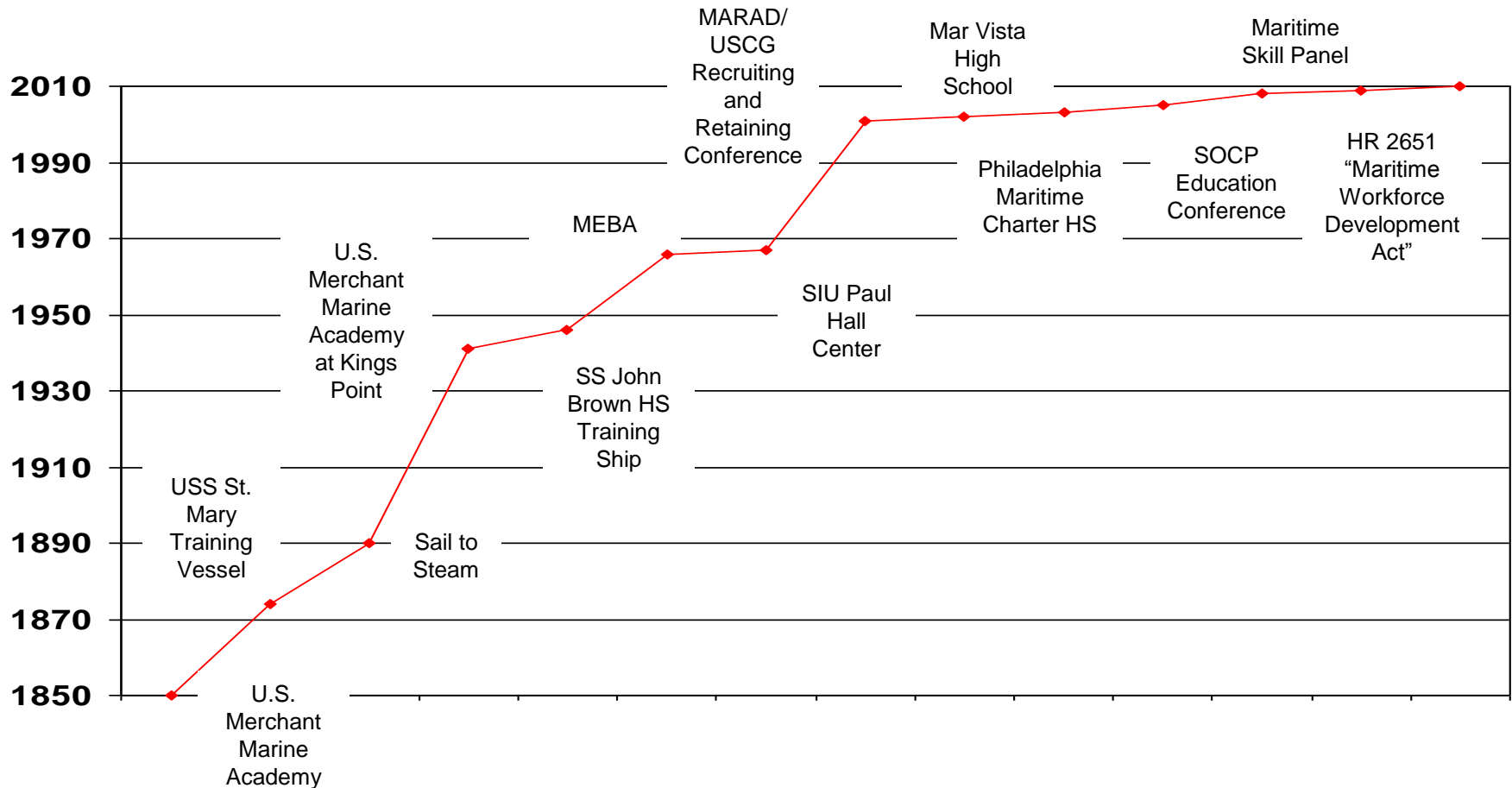
Green Workforce

The Green Gateway for Trade - A groundbreaking study conducted by Herbert Engineering, a California-based ship design, engineering and transportation consulting firm, demonstrates that Puget Sound ports provide the lowest emission route to ship cargo from Asia to US Midwest.

Port of Seattle



Maritime Workforce Development



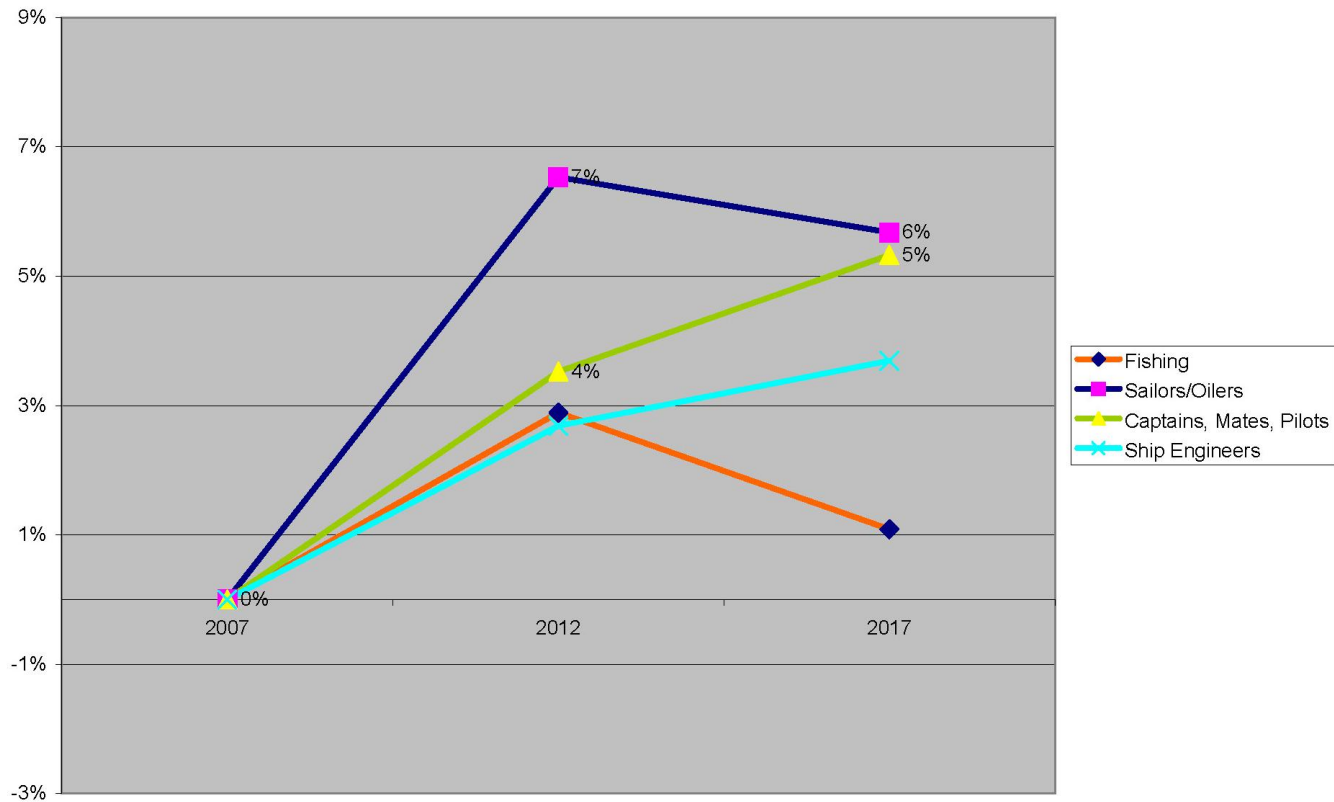
Universal Challenges

- **Ageing Workforce** – average age globally is early 50's
- **Alternative Careers** – lack of need 1970's & 1980's
- **Compensation** – smaller gap between ship and shore
- **Documentation & Renewal Requirements** – as a result of incidents
- **Maritime Heritage** – lack of awareness
- **Recent Economic Downturn** – turning qualified students away

Regional Challenges

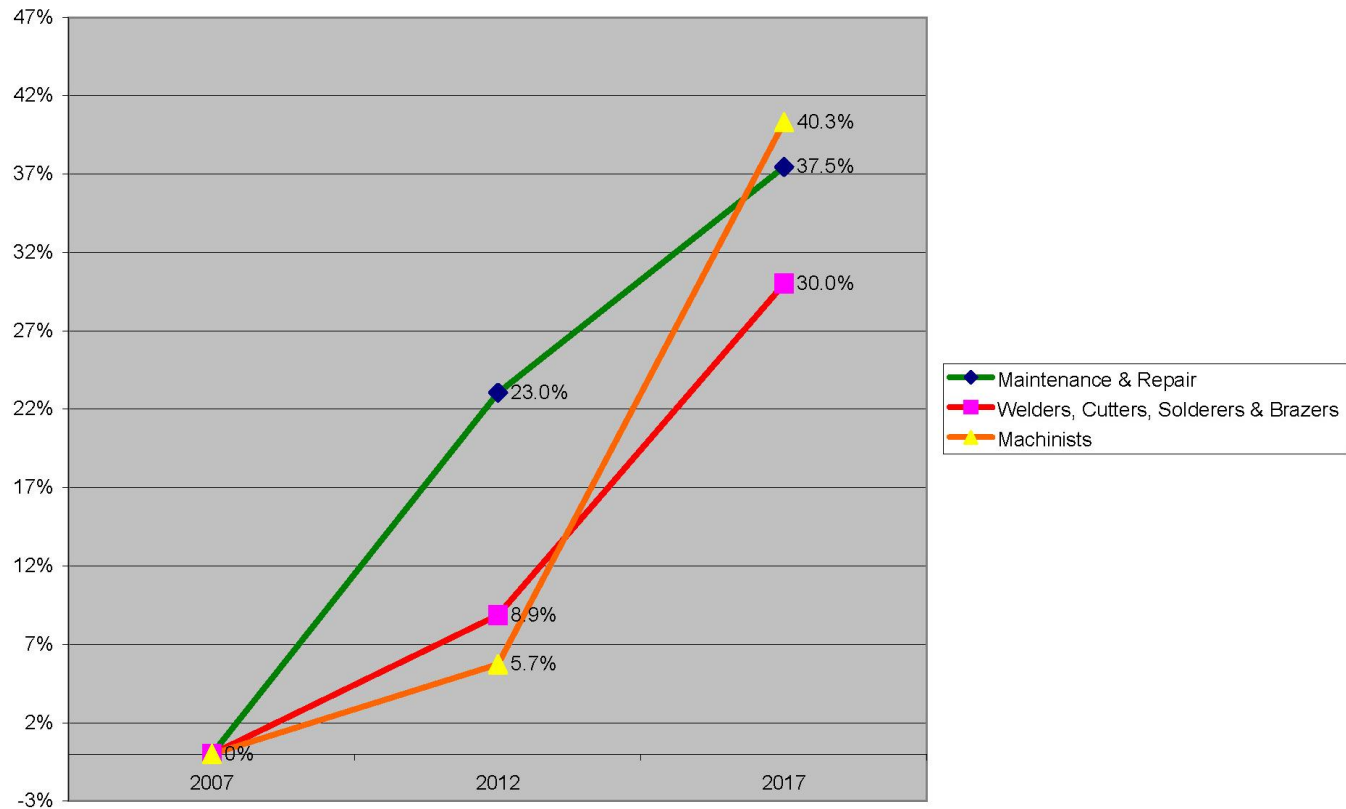
- Lack of maritime industry-wide workforce leadership
- Disconnects within the maritime workforce
- Lack of coordination among regional public and private training institutions, making it difficult for students to quickly and easily obtain required industry skills
- Individuals interested in joining the industry do not have a clear and coordinated career path to follow laterally and vertically within the industry
- Currently no educational career path for Assistant Engineer
- Lack of comprehensive and consistent maritime industry 9-12 curriculums
- Lack of inventory for regional programs

Average Annual Openings Per Industry



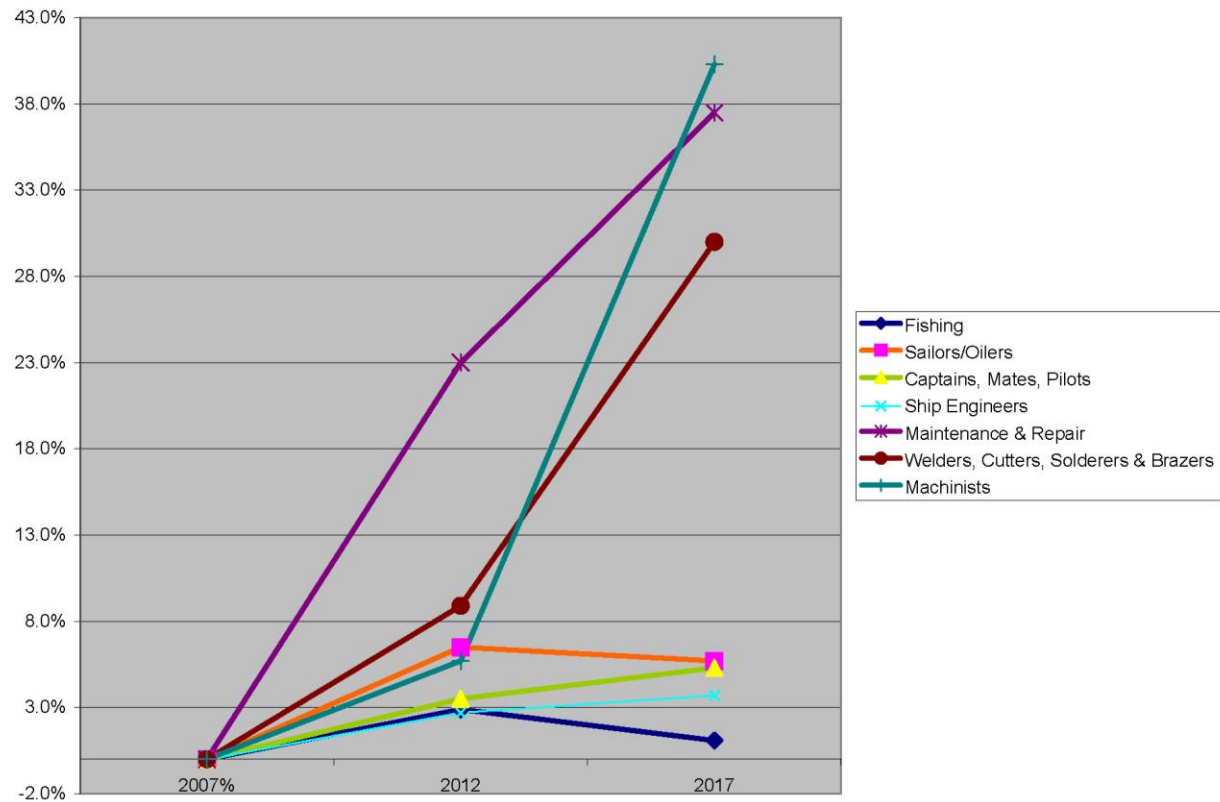
Source: QSE Solutions and Sommers extractions from ESD occupational projections

Shoreside Average Annual Growth



Source: QSE Solutions and Sommers extractions from ESD occupational projections

Combination Shoreside and Sea



Source: QSE Solutions and Sommers extractions from ESD occupational projections

Objectives

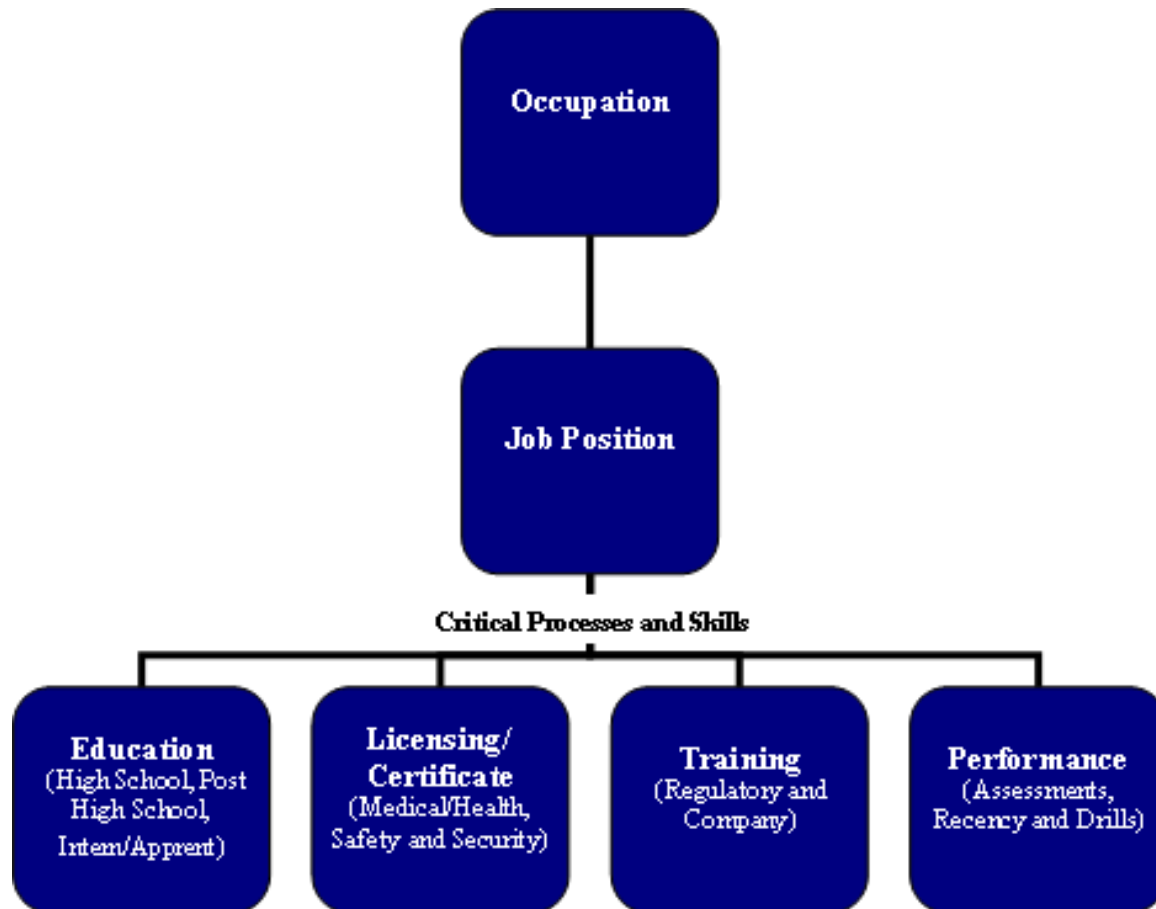
- Form an industry-led panel to identify current maritime workforce system challenges and possible solutions
- Map maritime transportation career pathways
- Identify maritime cluster curricula that can be used in K-12 settings to encourage more youth to pursue maritime careers
- Enhance collaboration and efficiencies among regional maritime training programs and institutions

Focus

Marine Engineers (Ship to Shore Connection)



Maritime Competency Chart

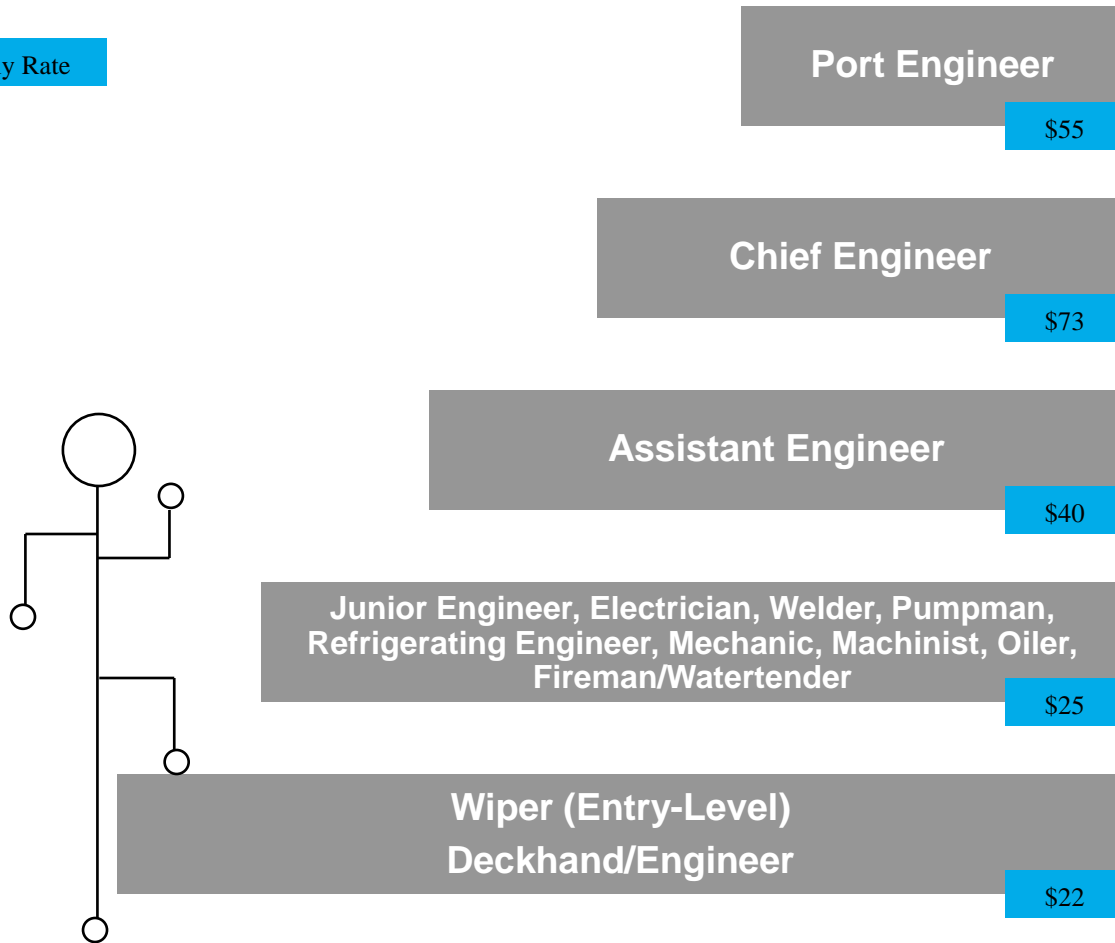


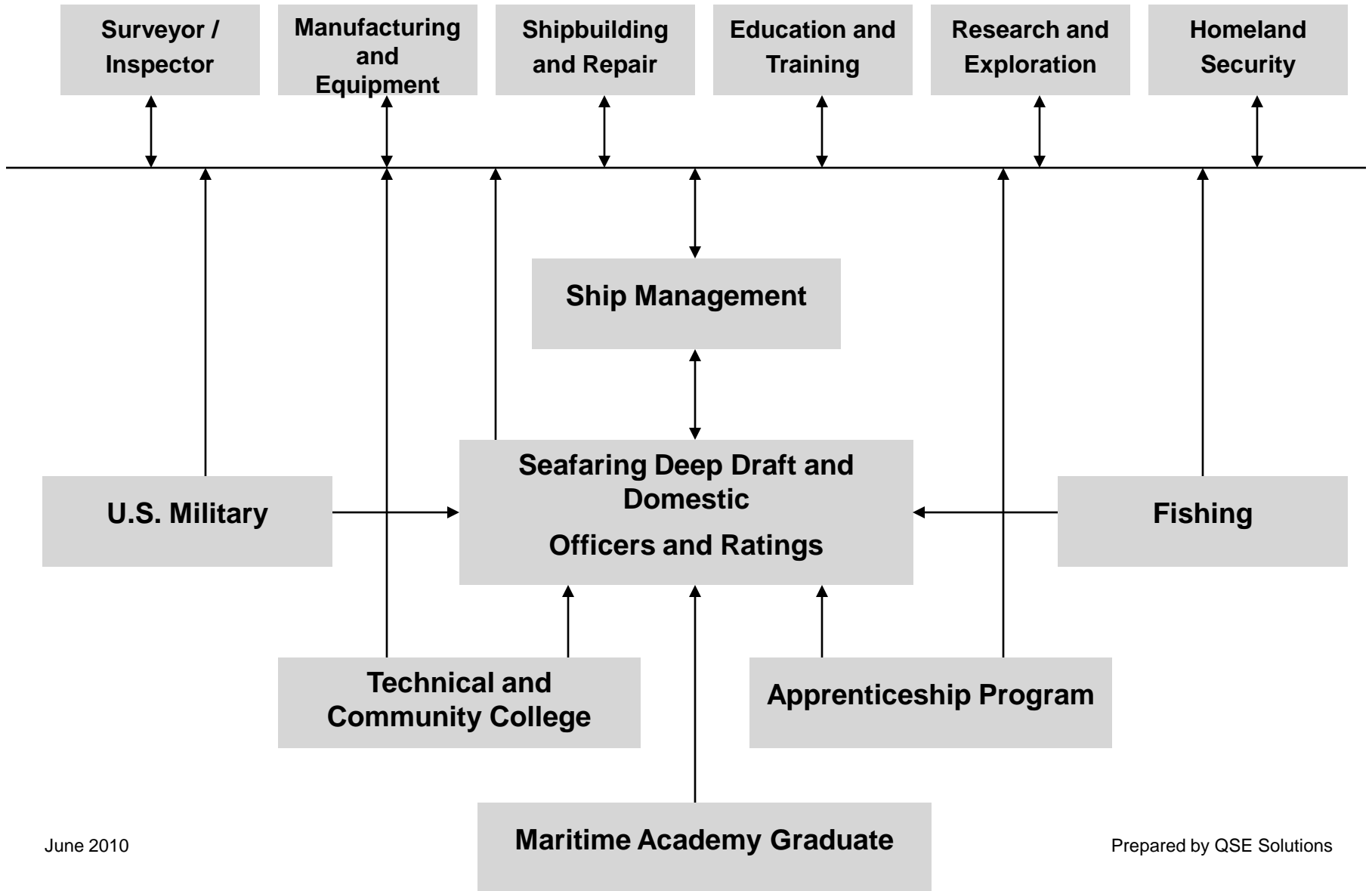
Minimum Criteria for Jobs Onboard a Vessel

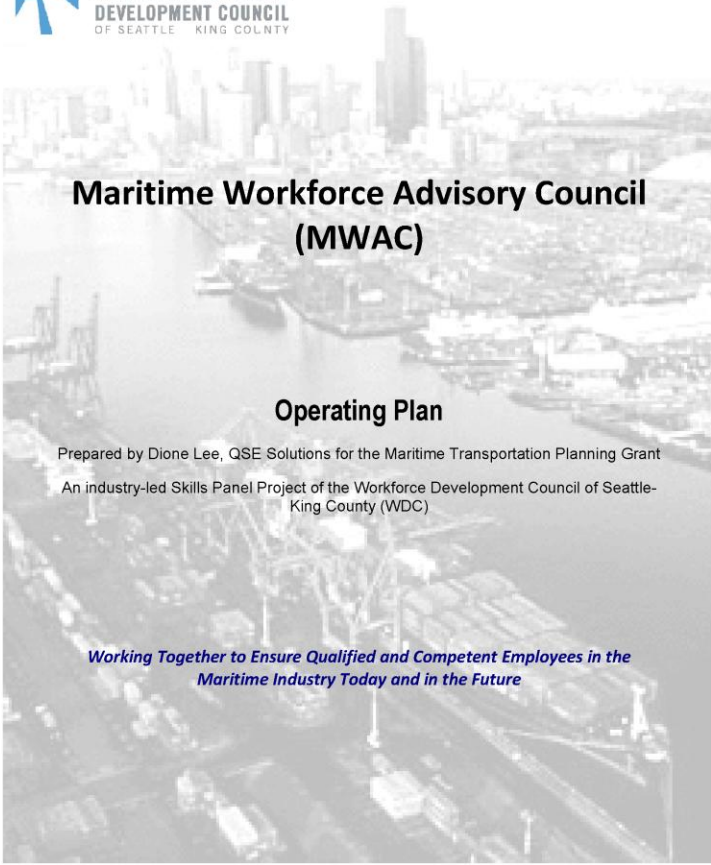
- Pass applicable Vision Test, Hearing Test, General Medical Exam, and/or Physical Ability Demonstration
- Pass Criminal Record Review (if applicable)
- Pass Chemical Test for Dangerous Drugs
- Fingerprints
- Photograph
- United States Citizenship or Nationality with proof of Legal Resident Status
- Pass National Driver Register (NDR) Review

Ship to Shore Marine Career Ladder

\$ AVG Hourly Rate







**Maritime Workforce Advisory Council
(MWAC)**

Operating Plan

Prepared by Dione Lee, QSE Solutions for the Maritime Transportation Planning Grant

An industry-led Skills Panel Project of the Workforce Development Council of Seattle-
King County (WDC)

*Working Together to Ensure Qualified and Competent Employees in the
Maritime Industry Today and in the Future*

FINAL DRAFT 05/05/10

Future Programs

- Marketing materials to introduce new candidates to maritime careers
- Increase outreach efforts to K-12 partners, focusing on disadvantaged youth and youth in foster care
- Increase positive public perception about maritime careers
- Develop comprehensive MOUs between providers of maritime training in the Puget Sound Region
- Develop and/or Enhance Marine Engineer Training Programs with “short workforce ready” pathways
- Develop and/or Enhance maritime curriculums for K-12 (initially focus on marine engineer positions).
- Develop and/or enhance current training programs (initially focus on marine engineer positions) to enhance professionalism — universal points to address (for example, show up clean and on time, possess a valid driver’s license, etc.)
- Develop transfer pathways for incumbent workers, dislocated workers (fishing workforce), and veterans
- Develop website
- Develop action plan to work with public school system
- Develop Monthly Newsletter.
- Develop Maritime Education/Training Resource Guidebook

Possible Engineering Program Structure

Courtesy of




	Trained Deckhand/ Engineer	Ratings Forming Part of an Eng. Watch (RFPEW)	QMED -General -Deck Engine Mechanic -Engineman	Designated Duty Engineer (1000 HP)	Designated Duty Engineer (4000 HP)	Designated Duty Engineer (Unlimited) Assistant Engineer Fishing(Unlimited) Assistant Engineer (Limited)	3rd Assistant Engineer Unlimited
PMI Introduction Phase 1	Sea Phase 1	PMI QMED	Sea Phase 2	PMI Phase 3	PMI Phase 4	PMI Phase 5	PMI Phase 6
45-days	90-days	90-days	90-days	90-days	90-days	90-days	45-days

2 . 5 - Y E A R S

(30 Months per A-II/I of the STCW Code)

MTVA Training Tug (Floating Skill Panel)



Core Team Members
 Master of Towing Vessels Association
 Jensen Maritime Consultants
 Caterpillar
 QSE Solutions
 Pacific Maritime Institute

Training Tug: Bringing Hands-On Training Back Aboard
 Deck To Engine Room To Wheelhouse

Background	The MTVA / Jensen Training Tug is inspired by the first of its kind BRAtt (Burchett-Robert Allan training tug) – a low cost, "drivable" scale model tug to use as a training vessel developed by Robert Allan and Ron Burchett.
Basic Training Program Concept	Formal hands-on workplace instruction year round that is performance based in Deck, Engine Room and Wheelhouse competence.
Mission	To develop professional and skilled mariners by using traditional onboard training, while creating an opportunity for senior mariners to pass on the skills they've acquired and develop new skills.
Competency Management System Approach	Quality assurance and safety standards are achieved by adopting a management system approach to include: planning, policy and procedures, acceptance criteria, oversight, recordkeeping, feedback opportunities and continual improvement of the program.
Qualified Mentor/Assessors	Each Mentor/Assessor is a seasoned licensed mariner with Mentor Training and Certification as US Coast Guard Designated TOAR Examiner.
Learning Ratio	Mentor/Assessor and Trainee onboard - 1:1 ratio.
Performance Standards	Trainee Operator performs duties as required for desired US Coast Guard endorsement. Training criteria adopted from Coast Guard Standards.
Evaluation	Trainee must successfully demonstrate to the assessor that they are competent in the practical application of each knowledge area before earning MTVA certification or before moving to the next level.
Dynamic Environment	By providing a hands-on learning experience, the opportunity to practice and master skills in real time is unmatched in the industry.
Vessel Upkeep	Under the guidance of Qualified Mentors/Assessors, Trainees are responsible for the upkeep, maintenance and operation of the tug. They perform in a working environment and master the skills required of a mariner.

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Thank you

Questions?