



# Military to Maritime

Challenges and Opportunities to Connect  
Veterans, Maritime Employers and Educators



# Military to Maritime

---

## Connecting Veterans to the Civilian Maritime Industry

Each year more than a quarter million servicemembers transition out of the military. These men and women have proven work experience and valuable skills, yet the majority of transitioning Veterans often struggle to seamlessly move into a civilian occupation. At the same time the vast majority of organizations have no Veteran-specific recruiting plan to tap into this enormous field of talent, leaving potential future corporate leaders unengaged.

There are few populations more ideally educated and trained for work in the maritime and transportation industry than Veterans. However Veterans are often unaware of the opportunities for employment in the industry and/or how to best position themselves for a career that maximizes their previous military experience. Likewise, maritime and transportation industry employers are challenged not only by a lack of connection to soon-to-be separating servicemembers to make them aware of career opportunities but also strategies and resources to ensure successful, long-term employment. Employers may also be unprepared for some of the unique challenges their newly-hired Veterans face when entering the civilian workforce, particularly those who separated from the military after recently returning from deployment.

Those challenges can include:

- navigating the Veterans benefit and post-military support system
- utilizing Veteran benefits for post-military education and workforce training
- concern about discrimination in the workplace
- service-related mental or physical health concerns

A majority of SMART Center partner employers across all three primary sectors of the maritime and transportation industry: vessel operations, shipbuilding and repair, and port operations and marine logistics, are eager to hire Veterans. Maritime employers' desire to employ Veterans is part of the larger industry attempt to hire qualified workers into critical positions that are becoming increasingly difficult to fill due to the triple combination of:

- an aging workforce,
- a shortage of educated students entering the industry due to a 40+ year push for all high school students to enter the 4-year college pathway directly from high school instead of choosing skilled trade or middle skill careers, and
- rapid pace of technology change creating a demand for more highly skilled technicians, professional development and certification.

All three factors have contributed to a growing concern and potentially-emerging crisis about how to recruit, train, and retain enough technicians and professionals to maintain a strong overall industry.

Veterans bring unique, directly-related experience to jobs in all three sectors which is driving employers' desire to create a direct "military to maritime" workforce pipeline.

Educators play a critical role in the process of connecting Veterans and maritime employers. That's in part due to the demographics of this generation of Veterans. More than two million service members have been part of U.S. military operations since September 11, 2011 and a significant number of them are now enrolled, or are planning to enroll, in college. Many Veterans enrolling in college courses after the service are not beginning their higher education career but rather picking up where they left off when they were called up to active duty from the National Guard or Reserves.

Just as with industry employers, there is a strong case for educators to create an engagement strategy for Veterans. Overall community colleges are struggling with an ongoing national trend in dropping enrollments. According to a 2017 *Inside Higher Ed* review, while the decline is slowing, community colleges are still seeing sustained enrollment drops. Veterans represent motivated students who have not only financial resources toward their higher education but clear reasons for enrolling including future work goals and family obligations.

**Table 1: Estimated National Enrollment by Sector** (Table IV, Degree-Granting Institutions)

Sector	SPRING 2017		SPRING 2016		SPRING 2015	
	Enrollment	% Change from Prior Year	Enrollment	% Change from Prior Year	Enrollment	% Change from Prior Year
<b>Total Enrollment, All Sectors</b>	18,071,004	-1.5%	18,343,655	-1.3%	18,592,605	-1.9%
<b>Four-Year Public</b>	7,677,659	0.2%	7,660,065	1.0%	7,586,223	0.9%
<b>Four-Year Private Nonprofit</b>	3,703,320	-0.2%	3,710,663	0.7%	3,685,554	-0.2%
<b>Four-Year For-Profit</b>	993,169	-10.1%	1,104,587	-9.3%	1,217,358	-4.9%
<b>Two-Year Public</b>	5,399,145	-2.5%	5,537,822	-3.3%	5,729,111	-4.8%
<b>Unduplicated Student Headcount (All Sectors)</b>	17,740,912	-1.5%	18,003,354	-1.4%	18,267,143	-1.7%

As community colleges actively work to increase enrollments, their four-year counterparts – public and private four-year colleges and universities, as well as the federal and state maritime academies – are focusing on innovative ways to recruit, track, and support Veterans as non-traditional students. Maritime academies in particular are working to ensure that there are enough licensed officer graduates to meet the looming shortage of professional merchant mariners. While there are challenges to translating military experience to maritime academy and merchant mariner credentialing and endorsement requirements, Veterans represent an ideal academy cadet recruitment pool.

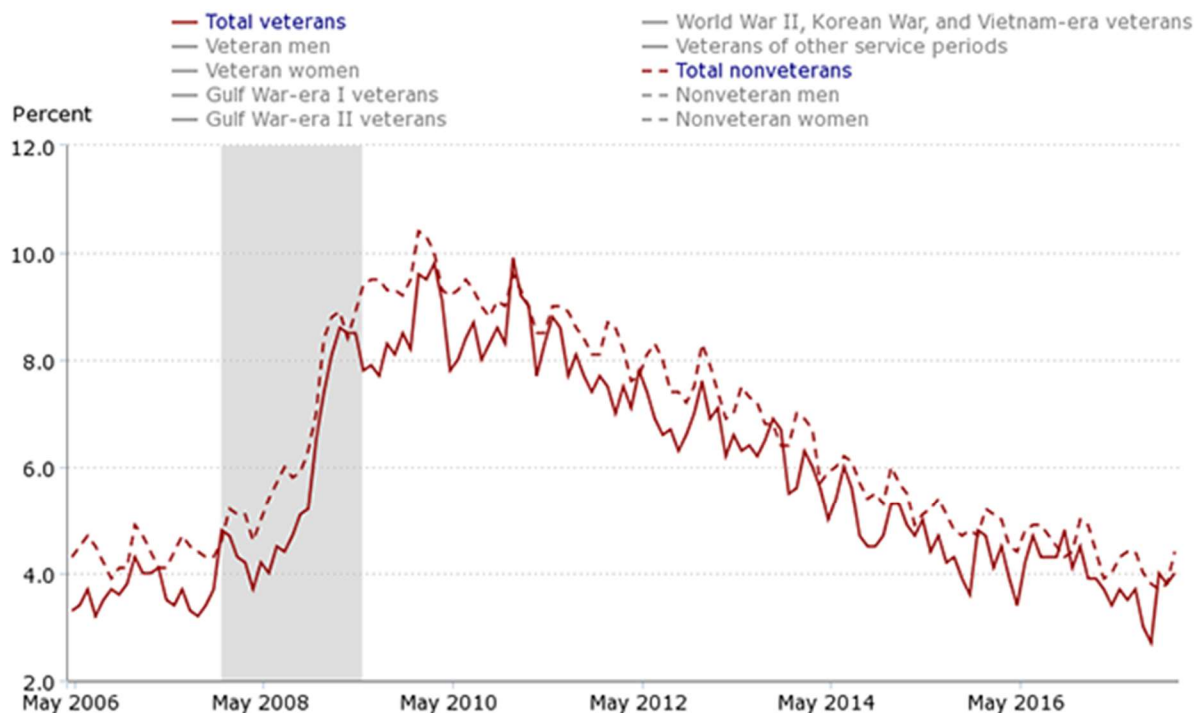
Separately and together, our nation's educators and maritime industry employers are navigating changes in workplace and higher education participation. Veterans represent a vital population for both organizations to engage as part of a larger strategy to address current and forecasted challenges. This paper outlines the case for sustained and improved collaboration by educators and employers to help Veterans leverage and build on their military service in order to gain academic and industry credentials that will lead to family-supporting careers in one of the most vital sectors of our nation's economy.

## What Happens after Servicemembers Leave the Military

Although historically Veterans have experienced higher rates of unemployment than civilians, more recently that has leveled out.

### Unemployment rates for people 18 years and older by veteran status, period of service, and sex, not seasonally adjusted

Click and drag within the chart to zoom in on time periods



Hover over chart to view data.

Note: Shaded area represents recession, as determined by the National Bureau of Economic Research.

Source: U.S. Bureau of Labor Statistics.

According to the U.S. Department of Labor (DOL) Bureau of Labor Statistics (BLS) the current (January 2018) unemployment rate for Veterans is 4.0%, slightly lower than the average civilian unemployment rate. **However**, those low employment rates include Veterans who are “underemployed,” meaning they are working one or more jobs but still not making a living wage and/or not utilizing their previous skills, abilities, education or experience.

Two major contributors to Veteran underemployment are a lack of civilian workforce career awareness and difficulty mapping military occupations to civilian workforce job postings. While maritime and transportation employers are struggling to find qualified, experienced and work-ready candidates to fill vacancies left by retiring employees, the industry does not have a high level of career awareness. For example, through the SMART Center’s annual Summer Maritime and Transportation Institute for educator professional development, even secondary and post-secondary educators who lived and worked within a 50-mile radius of major maritime employers recorded less than a 40% awareness of the industry or its careers prior to the Institute. Likewise, Veterans relying on veteran service organizations or pre-separation career transition

services may not be working with individuals who have a deep knowledge of the industry or its related career pathways that build on their military experience.

According to a joint report by Prudential Financial and the Iraq and Afghanistan Veterans of America (IAVA) entitled “Veterans’ Employment Challenges,” “...one of the greatest challenges Veterans report in finding a job is explaining how their military skills translate to the civilian workforce. Nearly all believe they have the skills needed to land their ideal job, but the majority express concerns about how to translate their skills to a business environment.” If Veterans are (1) unaware of the career opportunities and pathways available in the maritime and transportation industry, and (2) unable to easily translate their military occupation and experience to a civilian occupation, they are unlikely to seamlessly move into an industry that values and needs them to meet current and emerging workforce needs.

## Military to Maritime Pipeline Makes Strategic Sense

The maritime and transportation industry is an ideal post-military industry sector for Veterans seeking civilian employment. In addition to building on the practical skills and competencies soldiers achieved through their military experience, there are practical reasons that the industry should be an attractive choice for Veterans.

## Reasons Veterans Should Choose the Maritime Industry

### 1. Continued Military Support

For many Veterans, feeling like they are still supporting their previous branch even in a civilian position is important for their post-military careers. Few industries provide that opportunity like maritime. In fact employers in every sector of the maritime industry directly and indirectly support our nation’s military. For example:

#### **Shipbuilding and Repair**

Shipyards across the U.S. and particularly in the Hampton Roads region of Virginia and along the Gulf Coast are the lead contractors for building, repairing, maintaining and modernizing our nation’s military vessels. Smaller shipyards located geographically near major shipbuilding and repair company yards are typically brought in as sub-contractors to provide materials and services on military contracts.

#### **Vessel Operations**

The U.S. Navy’s Military Sealift Command (MSC) offers Veterans a unique opportunity to continue supporting the military in a civilian occupation. MSC is the primary provider of ocean transportation to the U.S. Department of Defense (DoD). MSC’s fleet of more than 110 civilian-crewed ships actively support our nation’s armed forces around the globe by:

- replenishing U.S. Navy ships,
- conducting specialized missions,
- prepositioning combat cargo, and
- moving military cargo and supplies in use by deployed U.S. and coalition partners.

Working for MSC enables Veterans to directly utilize their previous military experience, time at sea and U.S. Coast Guard (USCG) credentials and certifications. In fact Veterans currently make up more than 40% of MSC’s workforce.

In addition, merchant marine vessel operating companies frequently provide U.S. military support. For example the trans-oceanic shipping and logistics company Crowley Maritime Corporation provides “transportation, logistics and fuel services” to the U.S. military both at home and abroad. Smaller firms specializing in specific services such as towing, barge transportation, salvage, and third party logistics (3PL) services provide transportation, logistics and training services to all branches of the U.S. Armed Forces.

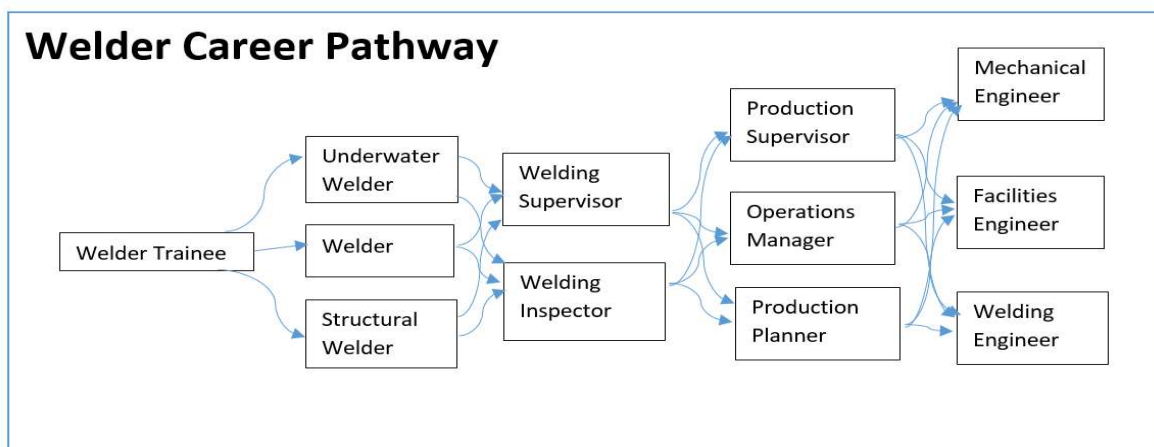
## **Ports**

Currently 17 commercial ports in the U.S. are designated DoD National Strategic Seaports. Veterans working in civilian positions at these DoD-designated ports support the military in several ways including:

- assisting in deployment and staging services including “surge” deployments and capacity to move elevated demand for military cargo in response to national emergencies,
- providing fuel services to military bases through port-based pipelines, and
- facilitating transportation of imported commodities to military base exchanges for military families.

## **2. Opportunity for Advancement**

The impending “silver tsunami” of retiring workers in the maritime industry will affect jobs at every level – from incoming helper to C-suite leader. Recognizing the high cost of recruiting, hiring, onboarding, and training new employees, companies have a vested interest in promoting workers from within. Most technician or managerial-level occupations that Veterans would apply for have pathways for promotion to supervisory and/or professional occupations. For example in the shipbuilding and repair industry a Veteran with sheet metal or fabrication experience could get on-the-job training in welding and then move up to a supervisory position through one of several promotional pathways.



### 3. Family-Supporting Wages

One of the most attractive features of maritime industry work for Veterans is its competitive rate of pay. Maritime industry employers pay family-supporting wages and in many cases opportunities for overtime pay, particularly in environments that require shift work.

Employers also typically provide benefits for full-time workers including health insurance, retirement savings options and paid leave.

## Barriers Facing Veterans in the Civilian Workforce

According to the “Veterans’ Employment Challenges” report, employers should be aware that Veterans may bring some unique concerns to their new civilian jobs. Those concerns include:

### 1. Navigating Benefits

Unlike their civilian colleagues, Veterans have the opportunity to tap into military benefits after they’ve left the service. Some of those can have a direct impact on their benefits selection and even daily work in the civilian workplace. For example, Veterans may need or want assistance in determining how and if to utilize:

- GI Bill education and training benefits
- VA health care services and health insurance
- Service-related disability benefits including disability compensation
- VA Vocational Rehabilitation and Employment (VR&E) services to help with employment accommodations

### 2. Perception in the Workplace

Veterans are often concerned how their military background may be perceived in their new civilian workplace. In fact half of those surveyed were “concerned that their employers might not understand the military culture” that they left, 37% were afraid their co-workers couldn’t relate to them because of their military service and 32% felt that their co-workers are or would be intimidated by Veterans. Compounding those concerns is the finding that only 56% felt that “their skills and training are appreciated by employers.” Fortunately the maritime industry is somewhat unique in that a majority of employers in every industry sector actively support the military directly or indirectly. However that doesn’t mean that Veterans aren’t concerned about co-workers or supervisors who may not be supportive of their military association.

### 3. Service-Related Disabilities

According to the BLS, younger Veterans have experienced a significantly higher rate of service-connected disabilities than any other Veteran age group. In fact about 41 percent – or nearly 1 in 2 Veterans from Gulf War-era conflicts (from September 2001) have a service-connected disability. While this has not significantly impacted their ability to find work after leaving the military as evidenced by their unemployment rate (4.3 percent in August 2017) when compared to non-disabled Veterans (4.5 percent), it can present unique employment challenges that may require accommodations. In fact 42% of the respondents in the “Veterans’ Employment Challenges” report cited accommodation for health needs as a concern when looking for employment.

# Reasons Maritime Employers should Choose Veterans

There is ample evidence that Veterans are valuable assets to any workforce and the maritime industry in particular.

## 1. Direct Work Experience

Few populations have as directly-relevant work experience as Veterans. For skilled trade occupations not only do Veterans have in-demand craft experience but they have experience working on the vessels that civilian-contracted shipbuilding and repair firms need employees to repair, modernize or maintain. Likewise, vessel operating companies can benefit from having Veterans with military sea time serve in either deck or engine positions. Ports, which navigate on incredibly demanding and precise schedules for directing, loading and unloading vessels build on Veterans' background in logistics and understanding the necessity of discipline, communication and timeliness.

## 2. Industry-Validated and In-Demand Credentials

Maritime employers – particularly in the shipbuilding and repair sector and the vessel operations sector – need employees with credentials required for working on board vessels, military bases, and secure areas of maritime facilities and shipyards. Veterans often already have – or can more quickly obtain because they already have the pre-requisite experience/hours - credentials such as the Transportation Worker Identification Credential (TWIC), Merchant Mariner Credential (MMC) and endorsements, USCG certifications and Standards of Training, Certification and Watchkeeping (STCW) endorsements.

## 3. “Soft Skills”

- a. **Work Ethic** - The demanding and often grueling nature of military service produces men and women who understand the value of a hard day's work. That is important in maritime industry jobs where workers are often required to work in highly-variable conditions (i.e. hot/cold/inclement weather, cramped quarters working inside ships) and long hours (i.e. standing watch on board a ship).
- b. **Attention to Detail** - The maritime industry can be a dangerous and exacting environment. Careless workers can not only endanger their lives and the lives of the colleagues but also potentially cause extensive danger to highly expensive materials and equipment. The life and death nature of military service demands that soldiers practice close attention to detail, a work value that they bring to their civilian job in the maritime industry.
- c. **Teamwork** - From day one of their military training, Veterans learned and actively practiced the value of teamwork. That discipline will directly carry over to the

*“Transitioning military members bring with them invaluable skills, experiences and traits, such as precise communication, individual accountability, impeccable execution and natural leadership. Organizational leaders who make a concentrated effort on recruiting Veterans will no doubt benefit from new employees who display poise, ingenuity and the ability to handle stressful situations.”*

*Bill Sebra, Global Operating Executive, Korn Ferry Futurestep*



maritime industry where workers are highly dependent on working as a unified team for nearly every task involved in safely building, maintaining, repairing, driving, or docking a vessel.

## Financial Reasons for Hiring Veterans

In addition to the compelling work-related reasons maritime industry companies should hire Veterans, there are financial benefits that firms can reap for employing Veterans. Those benefits can in turn be utilized by a company to create a strong, sustainable program to meet Veterans' unique workplace needs, ensuring their workers' success and long-term loyalty.

### 1. Lower Turnover

According to "The Business Case for Hiring Veterans" report by CEB Corporate Leadership Council, "Veterans, on average, perform at higher levels and are less likely to turnover generating significant business outcomes." In fact Veterans have a 3% lower turnover rate than non-Veterans and a productivity rate 4% higher than their non-Veteran counterparts. Those seemingly small differences can make a significant, positive financial impact for their employers. According to CEB findings, for "a company of 1,000 employees and average revenue per employee of \$150,000, decreasing turnover by 3% saves \$1.3 million annually and increasing performance by 4% improves revenue by an additional \$6 million."

### 2. Tax Credits

Companies that hire Veterans through December 31, 2019 may be able to take advantage of the following federal Work Opportunity Tax Credits (WOTC):

- **Returning Heroes Tax Credit**
  - Firms can take a federal tax credit of up to \$2,400 (40% of the first \$6,000 wages paid) for hiring Veterans who have received unemployment payments for at least 4 weeks or SNAP (food stamp benefits) prior to employment.
  - For hiring long-term unemployed Veterans (receiving compensation for more than 6 months in the year prior to being hired), firms can take a federal tax credit of up to \$5,600 or 40% of the first \$14,000 in wages paid.
- **Differential Wage Payment Credit**
  - This permanent federal tax credit of up to \$4,000 is available to employers who pay their Reserve and National Guard-connected workers (who have been employed for more than 90 days) while they are on active duty for more than 30 days.
- **Wounded Warrior Tax Credit:**
  - Firms hiring Veterans with service-connected disabilities within one year of leaving the military can earn a tax credit of up to \$4,800 or 40% of the first \$12,000 of wages paid.

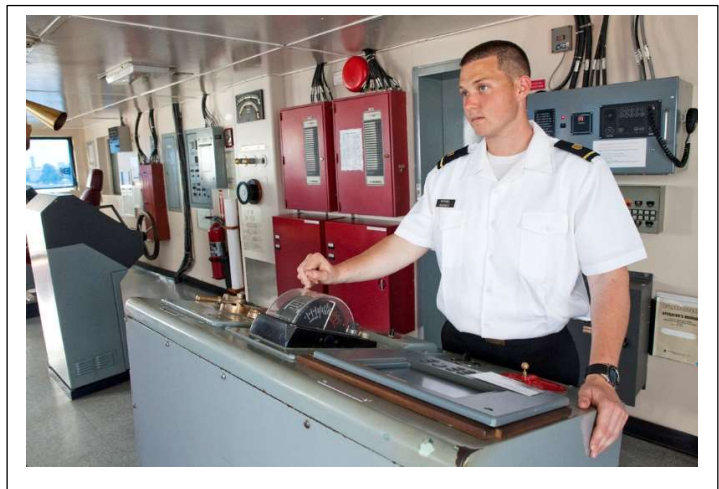
- Firms hiring Veterans with a service-connected disability who have received unemployment compensation for more than 6 months can receive a tax credit of up to \$9,600 or 40% of the first \$24,000 of wages paid.

### 3. Special Employer Incentives (SEI)

Through the VA Vocational Rehabilitation and Employment (VR&E) SEI program, companies which hire a qualified Veteran can receive direct reimbursement up to 50% of his or her salary during the SEI program period, which is typically 6 months long. In addition, companies can receive tools, equipment, uniforms and supplies needed by the Veteran for employment.

## Issues for Maritime Employers to Recognize When Recruiting and Hiring Veterans

While the maritime and transportation industry is an ideal civilian workforce option for separating servicemembers, there are potential challenges employers need to recognize. In fact 15% of the companies with a military hiring program surveyed by the CEB Council said that the most difficult aspect of hiring military Veterans is “transitioning Veterans into the workforce.” Understanding Veterans’ concerns and having a plan in place to address them through human resources (HR) and workforce development efforts will increase companies’ overall Veteran hiring and retention rates.



### 1. Layoffs and Work Insecurity

The reality is that most maritime and transportation industry employers, regardless of size, are vulnerable to economic and military downshifts that can impact the workforce. For example, the federal sequestration of 2013 substantially dampened military spending which resulted in cancellation or postponement of contracts for numerous shipyards across the country which undertake federally-contracted shipbuilding, repair, maintenance and modernization services. In Hampton Roads, Virginia alone – the nation’s maritime industry capital – the cancellation and “de-obligation” of 11 U.S. Navy ship maintenance schedules forced companies like BAE Systems Ship Repair in Norfolk, Virginia to institute significant layoffs, even years after the sequestration was first implemented. Reduced federal spending forced the firm been to lay off 650 employees in 2015 and another 300 in 2017. In 2016 Huntington Ingalls Industries’ Newport News Shipbuilding, the only builder of aircraft carriers in the U.S., was forced to lay off 1,500 workers. The workers, mostly hourly employees, were terminated as a result of a “perfect storm” of three major contracts coming to completion simultaneously due to delayed federal funding.

Federal spending cutbacks can also negatively impact the vessel operations industry sector. The sequestration forced USCG civilian employee and contractor furloughs in addition to reductions and postponement of routine maintenance, repair and replacement of more than 530 vessels and navigation aids – jobs that are routinely performed by USCG-contracted firms. When large shipyards or vessel operators suffer cancelled, delayed or reduced federal contract work it can create a domino effect for their local subcontractors and suppliers. Workers for those “downstream” employers can be at risk for layoff or reduced hours when the military purse strings are tightened. To mitigate that possibility shipyards, vessel operators and even ports – as well as their suppliers and subcontractors - are increasingly looking to diversify their customer portfolio.

The somewhat-unpredictable nature of work in the maritime industry has always been a factor impacting workforce development, however it may be of heightened concern to Veterans. Veterans – particularly those who have done multiple deployments – may value more guaranteed stability from their civilian employer which can be a challenge for firms that rely heavily on federal military contracts.

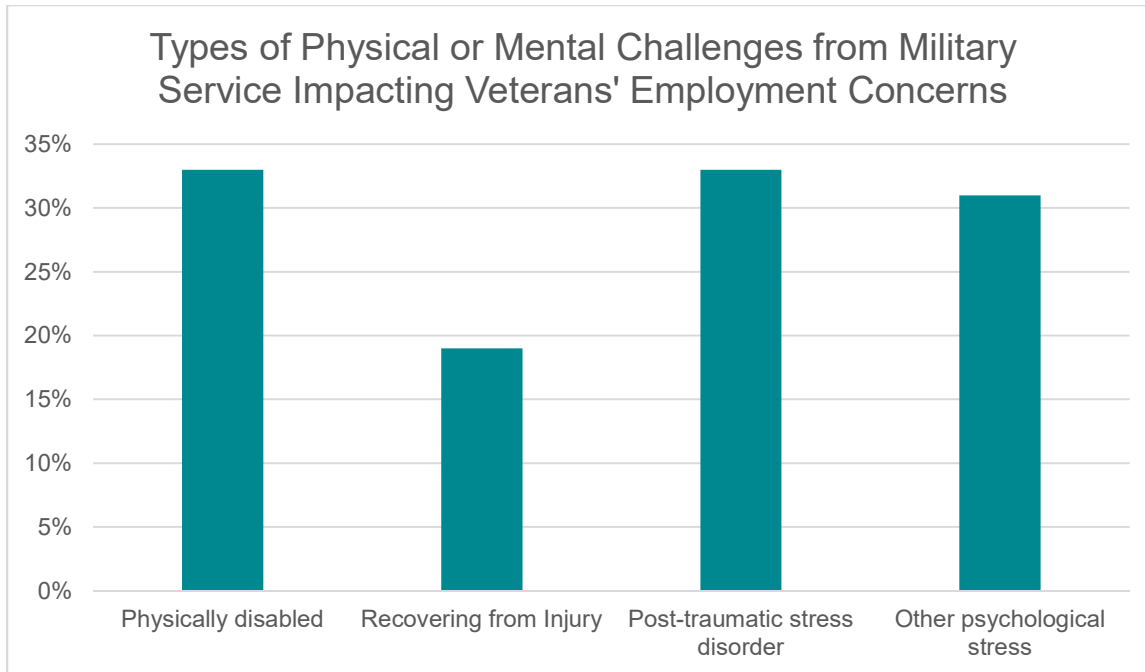
## 2. Unclear Career Pathways

One of the challenges for employers looking to recruit Veterans into long-term positions is formalizing and internally communicating clear career pathways. With an increasing number of job openings created by retiring workers, employers will have to work harder to attract and retain talent. When firms compete for the same limited pool of workers and there is little difference in pay rates for similar occupations, one of the ways companies can distinguish themselves is by offering workers a clear process for job advancement. Promotional pathways are of real interest to Veterans given their military experience where ranks are clearly spelled out.

Formal apprenticeship programs are utilized by maritime industry to train and educate workers in a structured program that provides clear pathways to promotion. Employers can create a structured apprenticeship program aimed at incumbents, new hires or both. Those programs clearly lay out on-the-job tasks and related coursework apprentices take to gain mastery in a specified occupation as well as earn scheduled wage increases. Employers can incorporate leadership skill coursework to ensure apprentices can move into next-level positions. That can include providing direct paths for skilled trade craftsmen to transition into supervisory or managerial occupations.

## 3. Physical and Mental Health Service-Related Disabilities or Concerns

Nearly 1 in 5 – or 20% - of all Veterans with active duty experience post-9/11 who are entering the civilian workforce have physical or mental health service-related disabilities. Sixty-five percent of the veterans responding to the “Veterans’ Employment Challenges” survey noted that they had some kind of physical or mental challenge as a result of their military service which was presenting a barrier or hurdle to overcome when seeking post-service employment:



These workers will understandably want to know that their employer's HR staff is well educated about military benefits and legal protections and ready to provide them with accommodations and protections they are entitled to under the law.

The "Uniformed Services Employment and Reemployment Rights Act" (USERRA) and Title I of the "Americans with Disabilities Act" (ADA) protect Veterans from employment discrimination. Companies can learn more about Veterans' rights and protections under the law from the Equal Employment Commission's website

([https://www.eeoc.gov/eeoc/publications/ada\\_Veterans.cfm](https://www.eeoc.gov/eeoc/publications/ada_Veterans.cfm)). In addition the VA offers employers a Veterans Employment Toolkit with online training, webcasts, presentations, and other tools and resources to help employers successfully hire, train and retain Veterans including those with service-related disabilities. Access the VA Veterans Employment Toolkit here: <https://www.va.gov/vetsinworkplace/resources.asp>

#### 4. Translating Sea Time and Military Training

One of the challenges for Veterans wanting to move from the military into a merchant mariner pathway – operating non-military vessels on inland waterways, nearshore, offshore, and international waterways - is that not all of a Veteran's sea time and/or education can be automatically transferred to meet degree and credentialing requirements. That's because the USCG requires that courses taken toward credentialing be taken only at a USCG-approved training facility; not all military training is provided at USCG approved facilities. In addition merchant mariner regulations require additional coursework, testing and certifications or endorsements to operate and work on vessels than in the military; Veterans often need to complete additional USCG and/or STCW courses to move directly into a deck or engine department position onboard a merchant marine vessel. Navy Veterans have the easiest pathway to directly crosswalk their military service to USCG credentials. However regardless of branch, Veterans will need to have their service records evaluated by the USCG to determine

what credential they may qualify for based on their military sea time, vessel size and type, ratings and duties.

## Direct Job Mapping: From Military Ratings to Maritime Occupations

One of the biggest hurdles facing Veterans to entering the civilian workforce is translating their military work experience to non-military job postings. Likewise, 38% of companies with a military hiring program surveyed by the CEB Council indicated that “translating military experience to civilian careers” is the most difficult aspect of hiring Veterans. However, one of the primary reasons that Veterans are highly valued by maritime industry



employers is that job specialties in each branch of the U.S. military have direct, applicable skills, competencies and credentials that are both relevant and in demand. Understanding which military occupations line up with civilian job openings can reduce the stress in job seeking/recruiting for both Veterans and employers.

Each branch of the military refers to job specialties or Military Occupation Codes (MOCs) differently:

- Army & Marines – Military Occupational Specialty (MOS)
- Air Force – Air Force Specialty Code (AFSC)
- Navy – Navy Enlisted Classification (NEC)
- Coast Guard – Coast Guard Ratings

However numerous, MOCs from all branches can be mapped directly to civilian careers in the maritime industry. The U.S. Department of Labor’s online O\*Net service (<https://www.onetonline.org/crosswalk/>) includes a “Crosswalk Search” where users can enter a Veteran’s MOC and see how it lines up with civilian position.

Following is a sample of some of the most common military ratings that map directly to civilian positions in the maritime industry and the sectors in which those careers can be found.




## Mapping U.S. Navy Ratings to Civilian Maritime Industry Occupations

Navy Rating 	Civilian Maritime Occupation	Industry Sector
Machinist Mate (MM)	Engineer	Vessel Operations
Engineman (EN)	Engineer, Maintenance Technician	Vessel Operations
Quartermaster (QM)	Able Seaman, Deckhand, Oiler, Tankerman	Vessel Operations
Boatswain's Mate (BM)	Deckhand, Mate, Captain, Pilot, Rigger, Painter, Oiler	Vessel Operations
Culinary Specialist (CS)	Able Seaman – Steward	Vessel Operations
Builder (BU)	Carpenter, Painter	Shipbuilding and Repair
Hull Maintenance Technician (HT)	Shipfitter, Pipefitter, Structural Metal Fabricator	Shipbuilding and Repair
Aviation Support Equipmentman (AS)	Industrial Machinery Mechanic, Welder, Inspector,	Shipbuilding and Repair
	Crane Operator	Port Operations
Naval Aircrewman (AW)	Sheetmetal Fabricator	Shipbuilding and Repair
Aviation Structural Mechanic (AM)	Non-Destructive Testing Technician, Machinist, Welder	Shipbuilding and Repair
Utilitiesman (UT)	Pipefitter, Shipfitter, Maintenance Mechanic	Shipbuilding and Repair
Navy Diver (ND)	Underwater Rigger	Shipbuilding and Repair
Electrician's Mate (EM)	Marine Electrician	Shipbuilding and Repair
	Electrician	Port Operations
Machinist's Mate (MM)	Diesel Mechanic, Industrial Maintenance Mechanic, Supervisor	Port Operations
Logistics Specialist (LS)	Logistics Manager, Transportation Planner, Supervisor	Port Operations



## Mapping U.S. Army MOS to Civilian Maritime Industry Occupations

<b>Army Rating</b> 	<b>Civilian Maritime Occupation</b>	<b>Industry Sector</b>
Watercraft Engineer	Engineer, Chief Mechanic, Fitter, Oiler, Wiper	Vessel Operations
Culinary (92 G Culinary E6 & above)	OS Wiper SU, Steward Cook, Chief Steward	Vessel Operations
Culinary (E3-E6)	OS Wiper SU, Assistant Cook, 2 <sup>nd</sup> Cook, Cook Baker, Chief Cook	Vessel Operations
18D Medical	OS Wiper SU, Medical Services Officer	Vessel Operations
25 U Signal Corp	OS Wiper SU, Radio Electronics Technician 2	Vessel Operations
88k Watercraft Operator	OS Wiper SU, Able Bodied Seaman, 3 <sup>rd</sup> Mate	Vessel Operations
88L Watercraft Engineer	OS Wiper SU, Jr. Engineer, QMED, 3 <sup>rd</sup> Mate	Vessel Operations
92 A Logistics, E6 & Above	OS Wiper SU, Yeoman Storekeeper, Jr. Supply Officer	Vessel Operations
Watercraft Operators	Deckhand, Mate	Vessel Operations
Diver	Underwater Rigger	Shipbuilding and Repair
Machinist	Inside Machinist, Outside Machinist	Shipbuilding and Repair
Electrician	Marine Electrician	Shipbuilding and Repair
	Electrician	Port Operations
Cargo Specialist	Cargo/Freight Agent, Warehouse Worker/Supervisor	Port Operations
Transportation Senior Sergeant	Cargo/Freight Agent, Warehouse Supervisor	Port Operations



## Mapping U.S. Coast Guard Ratings to Civilian Maritime Industry Occupations

<b>US Coast Guard Ratings</b>	<b>Civilian Maritime Occupation</b>	<b>Industry Sector</b>
Machinist Mate (MM)	Fitter, Oiler, Wiper	Vessel Operations
Boatswain's Mate (BM)	Deckhand, Mate	Vessel Operations
Culinary Specialist (CS)	Able Seaman – Steward	Vessel Operations
Damage Controlman (DC)	Shipfitter, Welder, Pipefitter	Shipbuilding and Repair
Machinery Technician (MK)	HVAC Technician, Marine Diesel Mechanic	
Gunner's Mate (GM)	Mechanic	Shipbuilding and Repair
Electrician's Mate (EM)	Marine Electrician	Shipbuilding and Repair
	Electrician	Port Operations
Maritime Enforcement Specialist	Port Security Agent	Port Operations





## Mapping U.S. Marine Corps MOS to Civilian Maritime Industry Occupations

<b>Marine Corps Rating (MOS)</b>	<b>Civilian Maritime Occupation</b>	<b>Industry Sector</b>
Rigid Rating Craft/Boat Coxswain (RRC/RHIB)	Water Taxi Operator	Vessel Operations
Basic Utilities Marine (1100)	Engineer	Vessel Operations
Bulk Fuel Specialist (1391)	Oiler, Wiper, Tankerman DL	Vessel Operations



Food Service Specialist (3381)	Steward	Vessel Operations
Basic Logistics Marine (0400), Logistics/Military Chief (0491)	Production Planner	Shipbuilding and Repair
Small Craft Mechanic (1342)	Diesel Mechanic	Shipbuilding and Repair
Engineer Equipment Mechanic (1341)	Shipfitter, Rigger	Shipbuilding and Repair
Water Support Technician (1171)	Pipefitter, Steamfitter	Shipbuilding and Repair
Metal Worker (1316)	Machinist, Welder, Structural Metal Fabricator	Shipbuilding and Repair
Electrician (1141)	Marine Electrician	Shipbuilding and Repair
	Electrician	Port Operations
Maintenance Management Specialist (0411)	Supervisor – Maintenance and Repair Technicians	Port Operations
Landing Support Specialist (0481)	Logistics Coordinator, Load Planner	Port Operations
Engineer Equipment Mechanic (1341)	Diesel Mechanic	Port Operations
Military Police (5811)	Port Security Officer	Port Operations

 <b>U.S. AIR FORCE</b>			<b>Mapping Air Force Specialty Codes (AFSC) to Civilian Maritime Industry Occupations</b>		
<b>Air Force (AFSC)</b> 		<b>Civilian Maritime Occupation</b>		<b>Industry Sector</b>	
Heating, Ventilation, A/C and Refrigeration Engineer (3E1X1)		Engineer		Vessel Operations	
Fuel Specialist (2A614)		Oiler, Wiper, Tankerman DL		Vessel Operations	
Material Manager/Helper (2S000/011)		Production Planner		Shipbuilding and Repair	

Mission Generation Vehicular Equipment Maintenance Helper (2T311A)	Diesel Mechanic,	Shipbuilding and Repair
Tactical Aircraft Maintenance Helper (2A313)	Inspector, Painter, Maintenance Mechanic	Shipbuilding and Repair
Electrical Systems Helper/ Power Production Helper (3E012)	Electrician	Shipbuilding and Repair
Logistics Manager/Helper (2G)	Logistics Coordinator, Load Planner	Port Operations
Traffic Management Helper (2T011)	Freight and Cargo Inspector	Port Operations
Traffic Management Apprentice (2T031)	Shipping Coordinator	Port Operations
Security Forces Helper (3P)	Port Security Officer	Port Operations

## Pre-Separation Career Navigation Resources for Servicemembers

Perhaps the most significant challenge for servicemembers transitioning to the civilian workforce is career awareness. Ideally servicemembers will work with a career transition officer (CTO) before leaving the military to identify new industries, employers and careers pathways. Service members are encouraged to begin that process up to 12 months before leaving the service or 24 months in advancement of retirement. CTOs are tasked with assisting service members in several areas including:

- pre-separation counseling
- preparing post-separation goals and plans
- registering for VA benefits
- crosswalking military skills to in-demand civilian skills
- identifying potential relocation options
- documenting requirements and eligibility for licensure, certification and apprenticeships

A key component of the CTO's work is helping service members compile a personal record of training and experience for their Veteran service record. A Veteran's service record is crucial because it can help demonstrate to an employer how a Veteran's service aligns with a posted job opening. CTOs can also help servicemembers apply for a civilian maritime industry job positing specifically by compiling several key documents including:

- DD-214 Certificate of Release or Discharge from Active Duty (this can be obtained from a transition assistance program officer on base or through the National Archives Veterans' Records Service)
- SF-15 Application for 10-point Veterans' Preference (if a Veteran is claiming Veterans' preference for a federal agency or related position that takes Veteran disability or survivorship status into consideration)
- Transcript of previous non-military education (i.e. high school diploma, post-secondary course work)
- Sea Service Transcript detailing a Veterans' time served as sea (if applicable)

Since many maritime industry careers – particularly vessel operations positions on board towboats, tugs, barges or offshore or oceangoing vessels - require USCG credentials, servicemembers should have their military record evaluated by the National Maritime Center (NMC) - <https://www.dco.uscg.mil/Our-Organization/Assistant-Commandant-for-Prevention-Policy-CG-5P/National-Maritime-Center-NMC/Military-Service/>. The NMC can award Army, Navy and Coast Guard Veterans credit from their military experience toward Basic Safety Training requirements and other USCG credentials. In addition the NMC can translate a member's sea time earned during their service (regardless of their branch) toward sea time requirements for the MMC and vessel operations positions. That's important because meeting sea time requirements enables a Veterans to qualify for advanced merchant mariner ratings which translates to higher pay.

While Veterans are encouraged to work with their CTO and prepare for entry into the civilian workforce, the reality is only two-thirds of all Veterans receive transition support and of those less than half found the formal military transition process to be effective. Employers and educators should be aware of the gap Veterans have experienced between their military job and their attempts to enter the civilian workforce to know how to best align recruiting efforts and in-house services.

## Post-Separation Civilian Employment Assistance for Veterans

Whether a Veteran has worked with their CTO (or equivalent officer for their branch) prior to leaving the military or not, there are a large number of civilian career placement resources that serve soldiers after they've left the military. Employers should be aware of these resources for strategic partnerships to more effectively recruit, hire, onboard and retain Veterans.

### Career One Stop Veteran and Military Transition Center

The U.S. Department of Labor (DOL) Employment and Training Administration maintains an online "Veteran and Military Transition Center" that provides employment, training and financial help for separating service members. The DOL website (<https://www.dol.gov/Veterans/findajob/>) provides Veterans with online assistance in exploring active job openings and career types, building a resume, accessing military transition resources, searching training and apprenticeship openings, and directly translating their military experience to civilian occupations through their [online "Skills Translator" service](#).

In addition, U.S. DOL funds more than 2,500 American Job Centers (AJCs) across the U.S. These centers provide free help to job seekers for a variety of career and employment-related needs. Veterans can utilize AJCs for a wide variety of employment assistance including:

- Skills assessment
- Resume preparation
- Interview skill building
- Job openings
- Information on programs and local sources of financial assistance

Veterans and Veteran-hiring employers can locate their closest AJC at:

<https://www.careeronestop.org/LocalHelp/AmericanJobCenters/american-job-centers.aspx>

## VA for Vets

The federal government hires Veterans for non-military maritime positions at agencies including:

- Department of Homeland Security
- National Geospatial-Intelligence Agency
- U.S. Department of Defense
- U.S. Department of Transportation
- U.S. Department of Veterans Affairs
- U.S. Maritime Administration



The U.S. Department of Veterans Affairs (VA) has an online Veteran Employment Services Office (VESO) to assist military Veterans who are interested in pursuing employment with the VA. The website

<https://www.vaforvets.va.gov/veso/Pages/default.asp> provides VA job opening information, tools and resources.

## Veteran Service Organizations (VSOs)

There are numerous local, state, regional and national organizations aimed at helping Veterans find and hold jobs in the civilian workforce. Veterans can access a wide range of services through these organizations including:

- benefits navigation assistance
- job postings
- employment services – resume preparation, interview skill-building, networking opportunities, etc.
- case management

In addition to contacting the nearest military installations and transition centers about ways to create an employment referral pipeline to soon-to-be separating servicemembers, employers should consider other avenues to connecting with Veterans service organizations such as:

- a. reaching out to their local workforce investment board to learn about existing Veteran-focused outreach and employment efforts
- b. joining local or state-specific organizations or initiatives aimed at connecting Veterans and employers like “Virginia Values Veterans” (<https://www.dvsv3.com/>) or “Texas Veterans Leadership Program” (<http://www.twc.state.tx.us/jobseekers/texas-Veterans-leadership-program>). Employers can learn about local or state-specific Veterans hiring initiatives through their local chamber of commerce and/or state labor departments.
- c. taking advantage of vehicles to connect with job-seeking Veterans through national organizations and online initiatives including the American Maritime Partnership (<https://militarytomaritime.org/>), RecruitMilitary ([www.recruitmilitary.com](http://www.recruitmilitary.com)), and the U.S. Chamber of Commerce Foundation Hiring Our Heroes initiative (<https://www.uschamberfoundation.org/hiring-our-heroes>).

## Post-Military Maritime Education Options

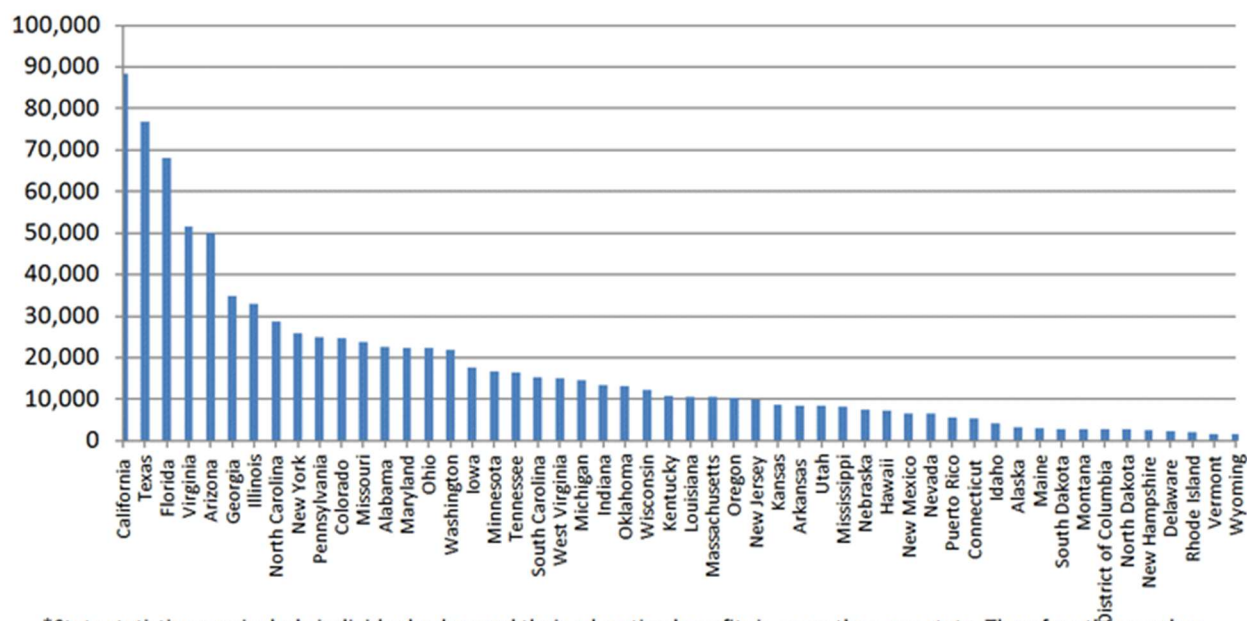
The current generation of Veterans – particularly those who enlisted post-9/11 – are very likely to pursue additional education and training after leaving the military. That’s due in part to their age (the majority are between 24 and 40 years old), their stronger focus on having the degree and credentials needed for a career (compared to their non-Veteran student counterparts), and VA marketing campaigns encouraging Veterans to use their GI Bill educational benefits. There are proven future earnings potential reasons for Veterans to pursue higher education:

	Average Earnings with Bachelor’s Degrees	Average Earnings with Graduate Degrees
Veterans	\$84,255	\$129,082
Non-Veterans	\$67,232	\$ 99,734

*“Student Veterans: A Valuable Asset to Higher Education,” Student Veterans Association and the Institute for Veterans and Military Families, June 2017.*

According to the VA more than 900,000 Veterans utilized GI Bill benefits to attend college between 2000 and 2012. While all Veterans are entitled to utilize benefits for post-service education and training, the majority (80%) of Veterans are utilizing their benefits in just 23 states.

## Education Program Beneficiaries by Geography, FY 2012



\*State statistics may include individuals who used their education benefits in more than one state. Therefore this number could differ from the total number of beneficiaries during the fiscal year as these counts are calculated as the sum total of the state statistics.

Veterans are an ideal student population for every higher education institution. Several findings from the joint “Student Veterans: A Valuable Asset to Higher Education” report issued by the Student Veterans of America (SVA) and the Syracuse University Institute for Veterans and Military Families (IVMF) highlight Veterans’ contributions to college campuses. Most notably the study reports that Veterans coming into college settings are:

- **Ready to work:** 87% of student Veterans noted that they have a strong work ethic and discipline because of their military background
- **Prepared:** 68% of student Veterans indicate their previous military branch prepared them for higher education
- **Motivated:** 86% of student Veterans have a career path or job opportunity in mind that is motivating them to succeed academically

However it’s important to recognize that Veterans are distinctly nontraditional students. According to the National Survey of Student Engagement (NSSE), the typical Veteran arriving on campus after leaving the service “is more likely to be male, older than 24, first generation college-student, enrolled part-time, transfer or distance learner, married with children and works either part-time or full-time.” Some Veterans will be first-time students while a significant number will be re-enrolling students whose academic careers were disrupted by deployment as National Guard or Reservists. Many of them will come – or return – to college with academic credit earned through courses taken during their military service or recommendation from the American Council on Education (ACE) for academic credit.

Community and technical colleges, four-year colleges and universities, and federal or state maritime academies all offer a growing number of industry-validated academic programs to

provide Veterans with the technical and theoretical knowledge needed for technician level and above positions in the maritime industry. However, to ensure student success for this unique population, educational institutions will need to understand and proactively respond to their unique needs.

## Education Benefits for Veterans

Veterans can utilize their VA education benefits to obtain additional post-secondary education or training leading to a maritime and transportation industry career pathway. The two primary sources of VA education benefits for Veterans seeking additional education and training in maritime are:

- **Post-9/11 GI Bill**

Veterans with at least 90 days of active duty service can use the post-9/11 GI Bill for up to 36 months of education benefits. Veterans who left the military prior to January 1, 2013 have 15 years to use the benefits; those who left after that date have no limitation on benefits usage. The post-9/11 GI Bill will pay all resident tuition and fees for a public school or, if a Veteran chooses a private school, the benefits will lower the Veterans' tuition and fee costs. Veterans can also use funds for a monthly housing allowance, annual books and supplies stipend, and a one-time rural benefit payment. Colleges participating in the Yellow Ribbon Program will make additional funding available to Veterans apart from GI Bill benefits. Schools participating in the program can be found on the VA Education and Training website ([https://www.benefits.va.gov/GIBILL/yellow\\_ribbon/yrp\\_list\\_2017.asp](https://www.benefits.va.gov/GIBILL/yellow_ribbon/yrp_list_2017.asp)).

- **Montgomery GI Bill and Select Reserve GI Bill**

Montgomery GI Bill and Select Reserve GI Bill benefits are available to both active duty and reserve military members. Veterans with at least two years of active duty service can use Montgomery GI Bill benefits to pay for up to 36 months of education and training courses and related expenses within 10 years following release from service. Veterans who have served at least six years in the military reserves, completed initial active duty for training, remained in good standing and have a high school diploma or equivalent can use the Montgomery GI Bill benefit to pay for up to 36 months of education and/or training.

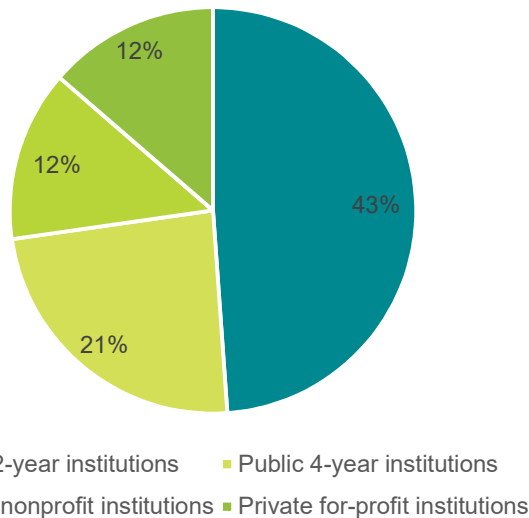
Benefits can be used for degree and certificate programs and in some cases possibly for non-credit workforce training courses. Benefits can be applied to student-related fees for coursework taken at four-year universities or maritime academies, community colleges and approved training providers.

## Academic Pathways and Programs for Veterans

### Community Colleges

According to an Association of American Colleges & Universities survey on "Enhancing Veteran Success in Higher Education," the majority of Veterans starting – or returning to – college after leaving the military will attend a public two-year community or technical college.

## Veteran Enrollment in Higher Education Institutions Post-Military Service



Community colleges across the U.S. located in areas with maritime and transportation industry employers offer – and continue to expand - a wide variety of credit (academic) programs and non-credit/workforce courses that lead directly to in-demand occupations. The SMART Center’s website has an interactive “Training & Job Locator” (<http://www.maritime-technology.org/training-and-job-locator/>) with information on community college-based maritime programs across the U.S.

The following community and technical colleges have credit and non-credit maritime programs developed to equip and credential Veterans for immediate employment in the maritime and transportation industry.

Alexandria Technical and Community College (MN)

Alpena Community College (MI)

Anne Arundel Community College (MD)

Broward College (FL)

Carteret Community College (NC)

Cape Fear Community College

Central Lakes College (MN)

Clatsop Community College (WA)

Community College of Baltimore County (MD)

Delgado Community College (LA)

Fletcher Technical College (LA)

Florida Keys Community College (FL)

Fort Meyers Technical College (FL)

Gulf Coast Community College (FL)

Hennepin Technical College (MN)

Houston Community College (TX)

Iowa Lakes Community College (IA)



Kingsborough Community College (NY)	Pamlico Community College (NC)
Lakes Region Community College (NH)	Pinellas Technical College (FL)
McFatter Technical College (FL)	Rockland Community College (NY)
Minnesota State Community and Technical College (MN)	San Jacinto College (TX)
Mountwest Community and Technical College (WV)	State Fair Community College (MO)
Northshore Technical Community College (LA)	Tidewater Community College (VA)
Orange Coast College (CA)	Western Kentucky Community and Technical College (KY)
	Wisconsin Indianhead Technical College (WI)

Many community colleges have personnel in their admissions office dedicated - or at least trained – to assist Veterans. Community colleges in areas with a large Veteran population may have a separate office and/or dedicated resources for Veterans support. For example Tidewater Community College (TCC), the SMART Center’s host institution, is rated a 2017 “Top School” by Military Advanced Education and Training (MAE&T) and in the top 15 of two-year schools by the *Military Times* in part for its Center for Military and Veterans Education (CMVE). More than 50 CMVE staff serve Veterans on TCC’s four campuses; 93% of whom are Veterans or spouses of active servicemembers. CMVE staff assist Veterans in:

- choosing and accessing the most appropriate educational benefits,
- selecting an academic and career pathway,
- applying for academic credit for prior learning,
- obtaining affordable housing,
- obtaining medical care and mental health services, and
- accessing job placement and career services

In addition, community colleges are increasingly working to award Veterans academic credit for military experience, education and training based on a review of their military transcript. That earned credit can then be applied toward an industry-valued academic certificate or degree and potentially industry-valued credentials as well. Download a copy of the “Crosswalking for Credit” paper on the SMART Center website for a model developed by the SMART Center’s partner San Jacinto College to crosswalk USCG credentials to college credit.

## Maritime Academies

Maritime academies represent a unique, challenging and rewarding academic pathway for Veterans who are interested in getting an undergraduate and/or graduate maritime degree and working in the merchant marine. There is one federal maritime academy and seven state maritime academies across the U.S.:

- U.S. Merchant Marine Academy (<https://www.usmma.edu/>)
- California Maritime (Cal Maritime) Academy (<https://csum.edu/web/mycampus/home>)
- Great Lakes Maritime Academy (<https://www.nmc.edu/maritime/>)

- Maine Maritime Academy (<https://mainemaritime.edu/>)
- Massachusetts Maritime Academy (<https://www.maritime.edu/>)
- Seattle Maritime Academy (<https://maritime.seattlecentral.edu/>)
- State of New York (SUNY) Maritime College (<http://www.sunymaritime.edu/>)
- Texas A&M Maritime Academy (<http://www.tamug.edu/corps/>)

Each academy provides applicants with the option to earn an accredited Bachelor's degree in one of several program options including:

- |  |  |
|--|--|
| • Emergency Management   | • Marine Biology   |
| • Engineering (Energy Systems/Marine/Facilities/Electrical/Mechanical/Technology & Operations/Shipyard Management) | • Marine Deck Technology                                     |
| • Global Studies & Maritime Affairs  | • Marine Environmental Science                               |
| • International Maritime Business/Business Administration/Logistics  | • Marine Operations  |
| • International Transportation and Trade   | • Marine Sciences/Science, Safety & Environmental Protection |
|  | • Marine Transportation                                      |
|  | • Maritime Studies   |
|  | • Naval Architecture   |
|  | • Ocean Studies  |

Upon completion students graduate with both a degree and an unlimited Merchant Marine Officer credential.

Maritime academies place a high value on Veteran enrollment and success. For example SUNY Maritime's Office of Veteran and Military Affairs "ensures the Veteran, Veteran spouse, Veteran dependent, active duty person, service reservist, and National Guard person receives *expedited and expert council during the admission process, financial aid benefit adjudication, registration, matriculation, graduation and job placement...*"

All academies require that applying Veterans submit specific military-related documents in addition to the standard application and test scores. Those military documents include:

- DD-214 (certificate of discharge),
- an official copy of the Veteran's Joint Service Transcript (JST) of military academic credit, and
- a letter of recommendation from a direct supervisor in the military (if active duty) or employer/associate (discharged).

Responding to the emerging mariner workforce crisis, the U.S. Congress tasked the USCG to accelerate and simplify the process for Veterans to receive credit for their military training and sea time toward their MMC. This is part of the larger federal response to the industry's workforce needs including the passage of legislation (the *Howard Coble Coast Guard and Maritime Transportation Act of 2014*) mandating that the U.S. Department of Homeland Security both promote maritime industry career awareness to separating servicemembers and assist servicemembers in documenting their military sea time, helping them more quickly qualify for industry licensing. That's important for maritime academies because the majority of licensed merchant marine vessel operators attend a maritime academy.

## Four-Year Universities and Colleges

More than half of Veterans surveyed by the Institute for Veterans and Military Families indicated that they enlisted specifically for the education benefits that would help them earn a degree after active duty service. While the majority of student Veterans enroll in public community or technical colleges, a substantial number use their GI Bill benefits to earn an undergraduate or graduate degree at a 4-year degree public or private college or university.

There are numerous maritime programs at four-year colleges and universities nationwide that directly align with in-demand careers across all three industry sectors.

4-Year Maritime-Related Programs of Study	Shipbuilding and Repair	Vessel Operations	Port Operations and Marine Logistics
Naval Engineering	X	X	
Naval Architecture	X		
Marine/Ocean Engineering	X		
Supply Chain and Logistics Management			X
Maritime Law		X	X
Marine Operations		X	
Port Operations			X
Mechanical Engineering	X	X	
Electrical Engineering	X		

A comprehensive source for four-year colleges and universities with maritime degree programs can be found at: <https://www.edumaritime.net/usa>. Each year *The Military Times* produces a list of the top-rated colleges and universities for Veterans, weighing a long list of factors along five major categories: university culture, academic outcomes/quality, student support, academic policies, and cost and financial aid. Following are the colleges and universities ranked in the top 15 for *The Military Times*' 2018 survey which have maritime and transportation-related degree programs:

- #2: Rutgers - the State University of New Jersey
- #3: Syracuse University
- #6: Colorado State University
- #9: University of Nebraska at Omaha
- #10: University of Kansas
- #11: Florida State College
- #13: Western Illinois University
- #14: Eastern Kentucky University
- #15: University of Southern Mississippi

The complete list of 2018 top-ranked four-year colleges and universities for Veterans can be found here: <https://bestforvets.militarytimes.com/2017-11-01/colleges/4-year/>.

## Other Maritime Education and Training Options

In addition to traditional two-year community and technical colleges or four-year maritime academies or public and private colleges and universities, there are USCG-approved institutions that enable Veterans to use their GI Bill benefits toward required industry courses and certifications in the vessel operations sector including:

- Maritime Institute of Technology and Graduate Studies (MITAGS) – Pacific Maritime Institute (PMI) (Linthicum Heights, MD, Seattle, WA) are the primary training centers for members of the International Organization of Masters, Mates and Pilots (IOMM&P). Veterans can learn more at: <https://mitags-pmi.org/>.
- STAR Center (Dania, FL) is a division of the American Maritime Officers (AMO) focused on training merchant mariners for both inland and ocean-going occupations. Veterans can learn more at: <https://www.star-center.com/>.
- The Paul Hall Center for Maritime Education and Training (Piney Point, MD) is the primary training center for the Seafarers International Union (SIU) which offers the largest number of USCG-approved courses for merchant mariners in the U.S. Veterans can learn more at: <http://www.seafarers.org/paulhallcenter/phc.asp>.

While these institutions are not degree-conferring institutions, Veterans may be able to receive administrative assistance crosswalking courses to academic credit if they are interested in pursuing an academic certificate or degree from a two-year or four-year college.

## Challenges for Veterans on Campus

Regardless of which educational institution or program a Veteran chooses after leaving the military there are common challenges this unique student population faces. Educators at maritime academies, four-year colleges and universities, and two-year community and technical colleges will have a greater degree of enrolling, retaining and graduating Veterans if they recognize and proactively respond to their needs.

### **1. Accessing VA Benefits and Navigating Financial Responsibilities**

While most institutions of higher education have significant experience with, and resources for, helping students access traditional financial aid Veterans represent a unique student population. This should be a first priority for colleges and academies since 60 percent of Veterans surveyed by the Institute for Veterans and Military Families said that navigating the complex system of VA programs “hampered their attempts to stay in school or graduate.” Veterans need to work with financial aid office staff that has experience not only helping Veterans apply for benefits but also navigating some of the financial aspects of attending college such as missing tuition deadlines when GI Bill benefits are late and addressing how to receive credit or a refund for tuition paid for courses disrupted by midterm deployment.

## 2. Adjusting to New Culture and Environment

Veterans are leaving one of the most structured, disciplined and linear work environments in the world. Entering the academic world can be disorienting. Without navigational assistance Veterans can become easily discouraged and drop out. To ensure greater levels of academic success for their Veterans on campus, colleges should consider creative ways to help Veterans “onboard” and engage including:

- holding Veteran-specific open houses and new student orientations to address their unique questions and concerns
- creating specific points of contact for Veterans in key offices including financial aid, registrar, admissions, housing, career services, etc.
- connecting newly-enrolling Veterans with student Veterans on campus for peer networking and support

## 3. Finding Ongoing On-Campus Support

Having ongoing on-campus Veteran-specific support systems can greatly increase the likelihood of Veterans completing degree programs. For example, San Diego State University has a Veterans’ House where its more than 800 Veteran students can study and receive homework assistance. It is part of the university’s larger Veteran support initiative which includes another on-campus study lounge dedicated solely for Veterans and a Veterans Center to help former soldiers – or current National Guardsmen and Reservists – navigate paperwork, benefits, course enrollment and a myriad of factors which may otherwise derail their goal of earning an undergraduate or graduate degree. The school’s commitment has resulted in nearly three-quarters of student Veterans earning a degree within four years, more than double the national average as recorded by the National Center for Educational Statistics.



## 4. Deployment Assistance

A significant number of Veterans attending college are still National Guard members or Reservists. That means that they can be called up for active duty or deployment at any time. If deployment happens midterm, Veterans need to know how or if they will be able to get credit for coursework completed and/or if they will have the opportunity to make up missed coursework upon returning. National Guard members or Reservists called up during graduate school will need to know if their academic career will be in jeopardy due to graduate program length restrictions.

# Recommendations for Maritime Employers

As workers retire from the maritime industry and accelerating technology development requires increasingly higher-skilled and educated employees coming in to entry-level, technician-level and mid-level positions, it is crucial that maritime employers create a strategy for connecting with and hiring Veterans.

## 1. Hire into HR Positions

Bringing Veterans into key HR positions will help:

- educate company leadership and managers about the value of hiring Veterans
- facilitate training for HR hiring managers on translating military experience to company job openings
- inform Veteran onboarding and support services to ensure civilian workforce transition success
- provide HR staff with critical tools and tips on helping Veterans understand and utilize their military benefits as a complement to their corporate benefits

## 2. Manage Messaging

With low overall unemployment rates it's critical that companies set themselves apart as the "employer of choice" for job-seeking Veterans. That means developing a Veteran-focused recruiting strategy. A 2017 survey by workforce consulting firm Korn Ferry found that two-thirds of companies "do not have clear messaging as to why Veterans should choose their company as a future employer, 63% do not have Veteran hiring outreach programs in place and 69% do not provide training to hiring managers on Veteran-specific hiring practices."

Messaging involves:

- a. Identifying critically needed occupations that align well with military MOCs
- b. Creating consistent marketing material across print, video and digital platforms that demonstrates a firm's understanding of the value of Veterans in the civilian workplace
- c. Curating a list of geographically-strategic Veteran job fairs for a corporate presence
- d. Supporting military-focused organizations or events (i.e. Wounded Warriors runs, local VA hospitals, etc.) as part of its overall corporate social responsibility work

## 3. Collaborate with Veteran Service Organizations (VSOs)

In addition to military base-focused transition services for separating servicemembers there are local, state, regional and national organizations aimed at helping Veterans find and hold jobs in the civilian workforce. Employers should consider:

- a. Contacting the nearest military installation to speak with the on-site CTO about creating an employment referral pipeline.
- b. Reaching out to their local workforce board to learn about opportunities to participate in existing Veteran-focused outreach and employment efforts
- c. Joining local or state-specific organizations or initiatives aimed at connecting Veterans and employers like "Virginia Values Veterans" (<https://www.dvsv3.com/>). Employers can learn about local or state-specific

Veterans hiring initiatives through local chambers of commerce, workforce boards and American job center sites and/or state labor departments.

- d. Taking advantage of vehicles to connect with job-seeking Veterans through national organizations, initiatives and websites including the American Maritime Partnership (<https://militarytomaritime.org/>), RecruitMilitary ([www.recruitmilitary.com](http://www.recruitmilitary.com)), Military.com ([www.military.com](http://www.military.com)), HireVetsFirst.gov ([www.hirevetsfirst.gov](http://www.hirevetsfirst.gov)), Helmets to Hardhats.org ([www.helmetstohardhats.org](http://www.helmetstohardhats.org)), and the U.S. Chamber of Commerce Foundation Hiring Our Heroes initiative (<https://www.uschamberfoundation.org/hiring-our-heroes>).

## Recommendations for Maritime Educators

### 1. Invite Industry In

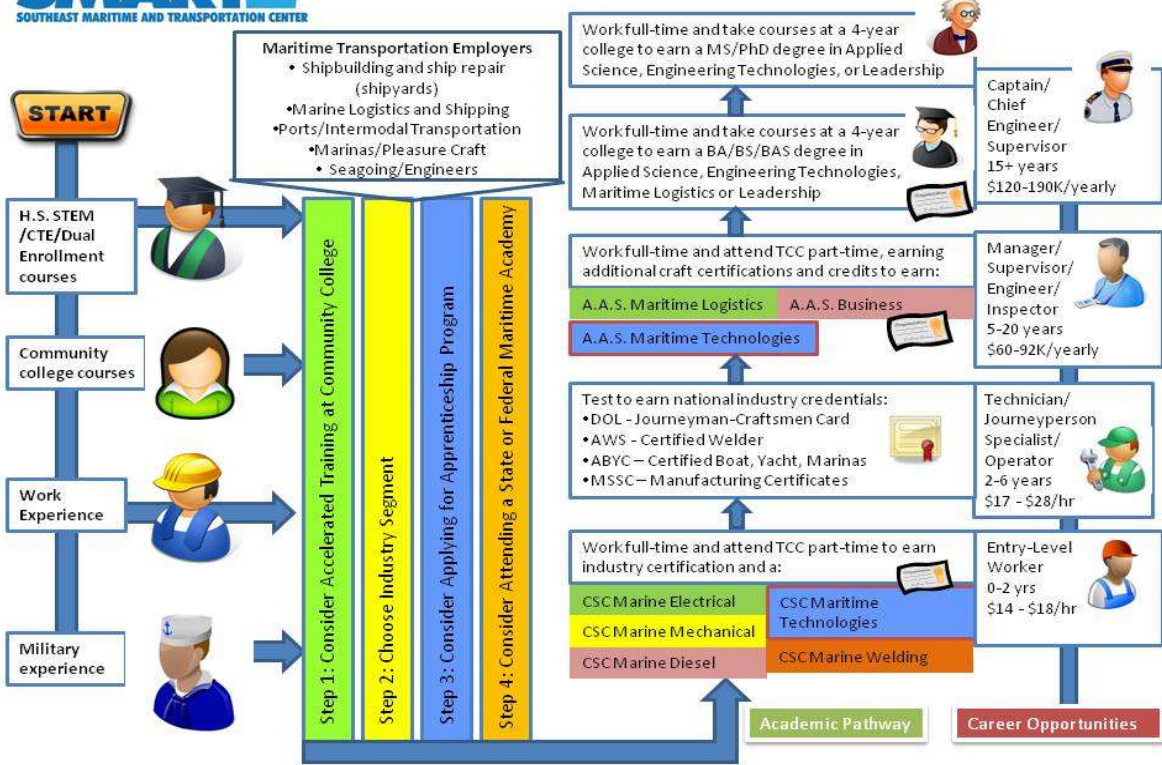
A common theme across SMART Center work from employers is the lack of coordination with education providers to ensure industry-validated skills and competencies are being taught to students, including Veterans. Consider creating a Military to Maritime consortium made up of local industry employers, military CTOs (if there is a local or state-based military installation), and agencies or nonprofits with targeted Veteran employment assistance efforts such as local workforce boards. The SMART Maritime Technologies (MarTech) Consortium is a replicable model that community colleges can use to identify, recruit, and engage local employers. Community colleges can provide a neutral place for often-competing employers to directly inform educators (both community college and area secondary-level educators are invited to serve on the Consortium) about the competencies, skills and credentials they are looking for in new hires. The Consortium structure provides educators with a ready set of employers to inform curriculum development, serve as adjunct instructors, validate career and academic pathways, and hire graduates.

### 2. Create Industry-Validated Stackable Academic Certificate and Degree Pathways and Programs

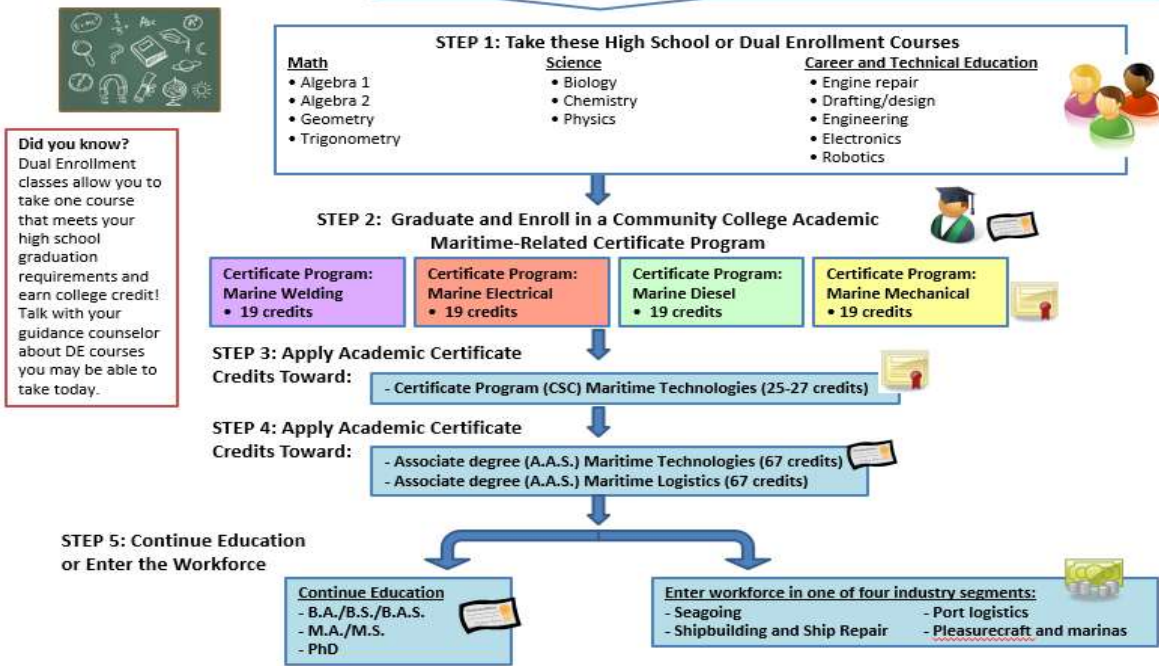
The SMART Maritime Technologies pathway, based on the registered apprenticeship model, provides a replicable model for community colleges and employers nationwide. The pathway:

- enables students, including Veterans, to earn a series of academic credentials (Career Certificates) that “stack” toward an A.A.S. degree
- provides an articulation pathway for students to apply credit from their A.A.S. degree toward a Bachelor’s degree – and even graduate-level degrees – in demand across multiple industry sectors,
- provides a way for workers participating in an employer-based apprenticeship program to earn academic credit for the coursework they’re required to complete as part of the apprenticeship related technical instruction (RTI)
- provides students who complete the program with embedded, nationally-recognized, industry-valued portable credentials, and
- features a dual enrollment aspect to engage high school students on a maritime industry pathway, prepare them for apprenticeship.

**Your Maritime and Transportation Industry Career Pathway**



**Get on the SMART Career Pathway from High School to the Maritime and Transportation Industry!**





### 3. Create Internal Process for Crosswalking Military Experience, Sea Time and Credentials to Academic Credit


“Crosswalking” is a tool used by colleges to award credit for prior learning (CPL). CPL allows students to demonstrate their academic or technical competency mastery and earn academic credit for that knowledge. The American Council for Education (ACE) provides an online “Best Practices for Credit for Prior Learning” Toolkit (<http://www.acenet.edu/news-room/Pages/Best-Practices-Credit-for-Prior-Learning.aspx>).

The SMART Center paper “Crosswalk to Credit” explains the process its partner – San Jacinto College – developed specifically to help Houston-area Veterans, employers and workers. Under the leadership of SMART Center Co-PI Dr. Sarah Kay Janes the school evaluated a set of USCG credentials against competencies taught through existing maritime courses taught at San Jacinto College. The result is that students, including Veterans, can now automatically earn academic credit for holding select USCG credentials. That puts Veterans on a faster track to earn industry-validated certificates and degrees which can be a boost to their employment pathways into maritime, especially those who never attended college or completed an academic certificate or degree program.

In addition college enrollment staff and faculty advisors should be aware of how to assist Veterans in having their sea time and military transcripts evaluated by the National Maritime Center for credit toward the MMC (<https://www.dco.uscg.mil/Our-Organization/Assistant-Commandant-for-Prevention-Policy-CG-5P/National-Maritime-Center-NMC/Military-Service/>).




### 4. Emphasize STEM

Today’s maritime and transportation industry occupations are highly STEM dependent. Walk onto any shipyard, port, or vessel and you’ll see a majority of workers regularly using math, science and increasingly complex forms of technology to complete tasks. With the national educational focus on promoting STEM competencies and careers, maritime educators should consider shifting the focus or marketing maritime courses and programs from solely workforce development and/or transportation to STEM. The SVA’s “National Veteran Education Success Tracker” report found that of the nearly 350,000 student Veterans using GI Bill benefits to enroll in postsecondary education between



**Crosswalking from U.S. Coast Guard  
Credentials to Academic Credit**

One Community College’s Model for Fast-Tracking Academic  
Credential Attainment by Professional Mariners and Veterans



2009 and 2014, 14% chose a STEM major; STEM majors were second only to business for Veterans. In that same period 51,486 student Veterans earned STEM degrees.

#### **5. Increase Interdepartmental Communication**

Veterans can be frustrated by both a lack of consistent knowledge and application of institutional policies as well as faculty and staff with and understanding and appreciation of Veterans' experience and their unique educational needs. In fact the AACCC 2011 survey found that "fewer of half of all schools with military and/or Veteran programs offer opportunities for faculty and administrators to acquire information about the unique needs of military student populations, existing campus resources and promising practices to create a positive campus environment." By intentionally increasing interdepartmental communication – across academic divisions and student service offices – colleges can increase Veterans' likelihood for persistence and academic success. This effort should directly include Veterans; these students can provide unique insight into institutional barriers and feedback to evaluate the relative effectiveness of existing or proposed Veteran-supportive services and resources.

## Conclusion

Perhaps no industry could benefit more from having a strategic hiring and workforce development plan for bringing Veterans into their workforce more than the maritime and transportation industry. Veterans have significant, directly-relevant work experience, credentials, certifications and competencies required for a majority of job openings across all major industry sectors at the technician level and above. Compared to many other industries, Veterans can more easily find maritime and transportation industry jobs that build on and celebrate their military experience, pay a family-supporting wage, and support our nation's military.

Maritime educators can play a pivotal role in preparing Veterans with academic certificates, degrees and embedded industry-valued credentials. Veterans have unique educational benefits through the GI Bill that can pay nearly all higher education costs including non-tuition related costs that can impact a student's ability to complete their program such as housing. Veterans can use their benefits at numerous two-year and four-year colleges offering a growing number of credit and non-credit programs and degree pathways aligned with maritime industry workforce needs. In light of the significant projected deficit of licensed vessel operators required for operating inland, nearshore, offshore and trans-oceanic vessels, federal and state maritime academies that educate the majority of our nation's merchant marine officers are working to more effectively quickly build on Veterans' experience, sea time and education and training.

By collaborating with both on-base military transition assistance programs and Veteran service organizations both industry employers and educators can create more effective career pathway pipelines to the hundreds of thousands of servicemembers who leave the military each year. However educators and employers should recognize and proactively address the unique challenges – and unique concerns – that Veterans bring to their new post-military workplace or campus such as difficulty translating their military experience to the civilian workforce, the need to manage and tap into Veteran benefits, physical or mental health service-related disabilities, and cultural barriers and perceptions of their previous military experience.

## Sources

"Appreciating Military Service Realities: Higher learning institution policies regarding deployment and GI Bill Benefits," The Military Family Research Institute (MFRI) at Purdue University, Summer 2015.

"Best for Vets: Colleges 2017 > 4 Year Colleges." The Military times, <https://bestforvets.militarytimes.com/2017-11-01/colleges/4-year/>.

Collins, Gabe. "The Consequences of Sequestration." *The Diplomat*, The Diplomat, 28 Feb. 2013, [thediplomat.com/2013/02/the-consequences-of-sequestration/](http://thediplomat.com/2013/02/the-consequences-of-sequestration/).

*Educational Digest: Graduation rate from first institution attended for first-time, full-time bachelor's degree-seeking students at 4-year postsecondary institutions, by race/ethnicity, time to completion, sex, control of institution, and acceptance rate: Selected cohort entry years, 1996 through 2008*, National Center for Education Statistics, [https://nces.ed.gov/programs/digest/d15/tables/dt15\\_326.10.asp](https://nces.ed.gov/programs/digest/d15/tables/dt15_326.10.asp)

"Employment Situation of Veterans Summary." *U.S. Bureau of Labor Statistics*, U.S. Bureau of Labor Statistics, 6 Nov. 2017, [www.bls.gov/news.release/vet.nr0.htm](http://www.bls.gov/news.release/vet.nr0.htm).

Ford, D., Northrup, P., & Wiley, L. "Connections, Partnerships, Opportunities and Programs to Enhance Success for Military Students." *New Directions for Student Services*, 2009.

Gross, Natalie. "Despite Decreasing Veteran Unemployment Rate, Underemployment Remains a Problem." *Military Times*, Military Times, 16 Oct. 2017, [www.militarytimes.com/education-transition/2017/03/07/despite-decreasing-veteran-unemployment-rate-underemployment-remains-a-problem/](http://www.militarytimes.com/education-transition/2017/03/07/despite-decreasing-veteran-unemployment-rate-underemployment-remains-a-problem/).

Kiern, Larry. *Sequestration Squeezes the Maritime Community*. Washington Insider, [webcache.googleusercontent.com/search?q=cache%3A0zBs3sMuAzcJ%3Ahttps%3A%2F%2Fwww.winston.com%2Fimages%2Fcontent%2F1%2F4%2F1472.pdf%2B&cd=4&hl=en&ct=clnk&gl=us](http://webcache.googleusercontent.com/search?q=cache%3A0zBs3sMuAzcJ%3Ahttps%3A%2F%2Fwww.winston.com%2Fimages%2Fcontent%2F1%2F4%2F1472.pdf%2B&cd=4&hl=en&ct=clnk&gl=us).

*Layoffs Announced at Norfolk Ship Repair*. WAVY TV, 21 Sept. 2015, [wavy.com/2015/09/21/650-layoffs-announced-at-norfolk-ship-repair/](http://wavy.com/2015/09/21/650-layoffs-announced-at-norfolk-ship-repair/).

Marcus, Jon. "Community Colleges Rarely Graduate the Veterans they Recruit." *The Atlantic*, 21 April 2017.

Maurer, Roy. "8 In 10 Employers Lack Recruitment Programs for Veterans." *SHRM*, 25 May 2015, [www.shrm.org/ResourcesAndTools/hr-topics/talent-acquisition/Pages/Recruitment-Programs-Veterans.aspx](http://www.shrm.org/ResourcesAndTools/hr-topics/talent-acquisition/Pages/Recruitment-Programs-Veterans.aspx).

McCabe, Robert. "More Than 700 Layoffs Set for Wednesday at Newport News Shipbuilding." *Pilotonline.com*, Virginian Pilot, 2 Feb. 2016, [pilotonline.com/business/defense-shipyards/article\\_41104c9f-c9eb-599d-9465-cada86b1ee16.html](http://pilotonline.com/business/defense-shipyards/article_41104c9f-c9eb-599d-9465-cada86b1ee16.html).

"Military Support." *Port of Alaska*, [www.portofalaska.com/business/military-support/](http://www.portofalaska.com/business/military-support/).

"National Port Readiness Network (NPRN) – MARAD." *MARAD*, [www.marad.dot.gov/ports/national-port-readiness-network-nprn/](http://www.marad.dot.gov/ports/national-port-readiness-network-nprn/).

"National Resource Directory." *National Resource Directory | Connecting Our Service Members & Veterans*, [nrd.gov/](http://nrd.gov/).

O'Herrin, Elizabeth. "Enhancing Veteran Success in Higher Education," *peerReview*, Association of American Colleges & Universities, Winter 2011, 13(1).

Osborne, N.J. "Veteran Ally: Practical Strategies for Closing the Military-Civilian Gap on Campus," *Innovative Higher Education*, 39(3), 247-260.

Rumann, C.B., & Hamrick, F.A. "Student Veterans in Transition: Re-Enrolling after War Zone Deployments," *The Journal of Higher Education*, 81(4), 431-458.

"TCC Decorated with Multiple Honors for Being a Top School for Military-Related Students." *Tidewater Community College*, <https://news.tcc.edu/2017-best-for-vets-military-times/>.

"Sequestration to Hit Maritime Economy Hard." *Congressman John Garamendi*, 28 Feb. 2013, [garamendi.house.gov/press-release/sequestration-hit-maritime-economy-hard](http://garamendi.house.gov/press-release/sequestration-hit-maritime-economy-hard).

"State and Community Roles in Supporting College Completion for Veterans." *NCSL Veterans and College*, 30 May 2014, <http://www.ncsl.org/research/education/veterans-and-college.aspx>.

*Understanding Your Employment Rights Under the Americans with Disabilities Act (ADA): A Guide for Veterans*, EEOC, [www.eeoc.gov/eeoc/publications/ada\\_Veterans.cfm](http://www.eeoc.gov/eeoc/publications/ada_Veterans.cfm).

Varner, Jesse. "BAE Systems Announces Round of Layoffs." *WAVY*, WAVY TV, 19 May 2017, [wavy.com/2017/05/19/bae-systems-announces-round-of-layoffs/](http://wavy.com/2017/05/19/bae-systems-announces-round-of-layoffs/).

"Veteran and Military Affairs." *SUNY Maritime College*, [www.sunymaritime.edu/student-life/student-development-and-wellness/Veteran-and-military-affairs](http://www.sunymaritime.edu/student-life/student-development-and-wellness/Veteran-and-military-affairs).

*© 2018 The Southeast Maritime and Transportation (SMART) Center  
Tidewater Community College  
Virginia Beach, VA*

*The Southeast Maritime and Transportation (SMART) Center is one of only 39 National Science Foundation Advanced Technological Education (NSF ATE) centers in the United States. It is the only center focused solely on increasing the number of educated, skilled and credentialed technicians in the maritime and transportation industry. This material is based upon work supported by the National Science Foundation under Grant No. DUE-1003068. Any opinions, findings, conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.*