Competency Models In Action:

SMART Center Develops Maritime and Transportation Industry Career Pathway

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- Collaborating with business and educational institutions to identify key competencies
- Using a registered apprenticeship model to develop a career pathway
- Increasing public awareness of maritime and transportation occupations

Introduction

The Southeast Maritime and Transportation (SMART) Center, one of the original industry champions in the development and subsequent updating of the U.S. Department of Labor, Employment and Training Administration's Transportation, Distribution and Logistics Competency Model, continues to be a proactive presence in this industry sector. The Center, housed at Tidewater Community College's (TCC) Virginia Beach campus, is a National Science Foundation (NSF) Advanced Technological Education (ATE) Center in the maritime transportation industry. Out of over 40 NSF ATE Centers across the country, it is the only one solely focused on the maritime and transportation industry sector.[1]

The SMART Center's goals are threefold: 1) to model and foster productive partnerships between industry employers and educators; 2) to develop effective career pathways; and 3) to increase career awareness.

Workforce Need

"Overall, the maritime and transportation industry has seen a steady decline in the number of educated, credentialed technicians coming into the workforce for the past 20 years," says Barbara Murray, Executive Director and Principal Investigator, SMART Center. "With the graying of the current workforce – the majority of who are at or within 5 years of retirement – there is a clear, critical lack of technician-level workers to meet industry workforce needs, which is critical to both our national security and global economic competitive position."

For example, according to the Bureau of Labor Statistics, the outlook for water transportation occupations is positive. It is anticipated that for all workers in water transportation occupations, employment will increase by 13% between 2012 and 2022, faster than the 10.8% average increase for all occupations. The median pay for these occupations was $48,908 per year in 2012.[2] "The outlook for skilled workers who perform ship maintenance and modernization, vessel operators and port operations and logistics workers is highly positive," says Ms. Murray.

[1] www.maritime-technology.org
[2] Bureau of Labor Statistics, Occupational Outlook Handbook, 2014-2015 Edition

Partnerships

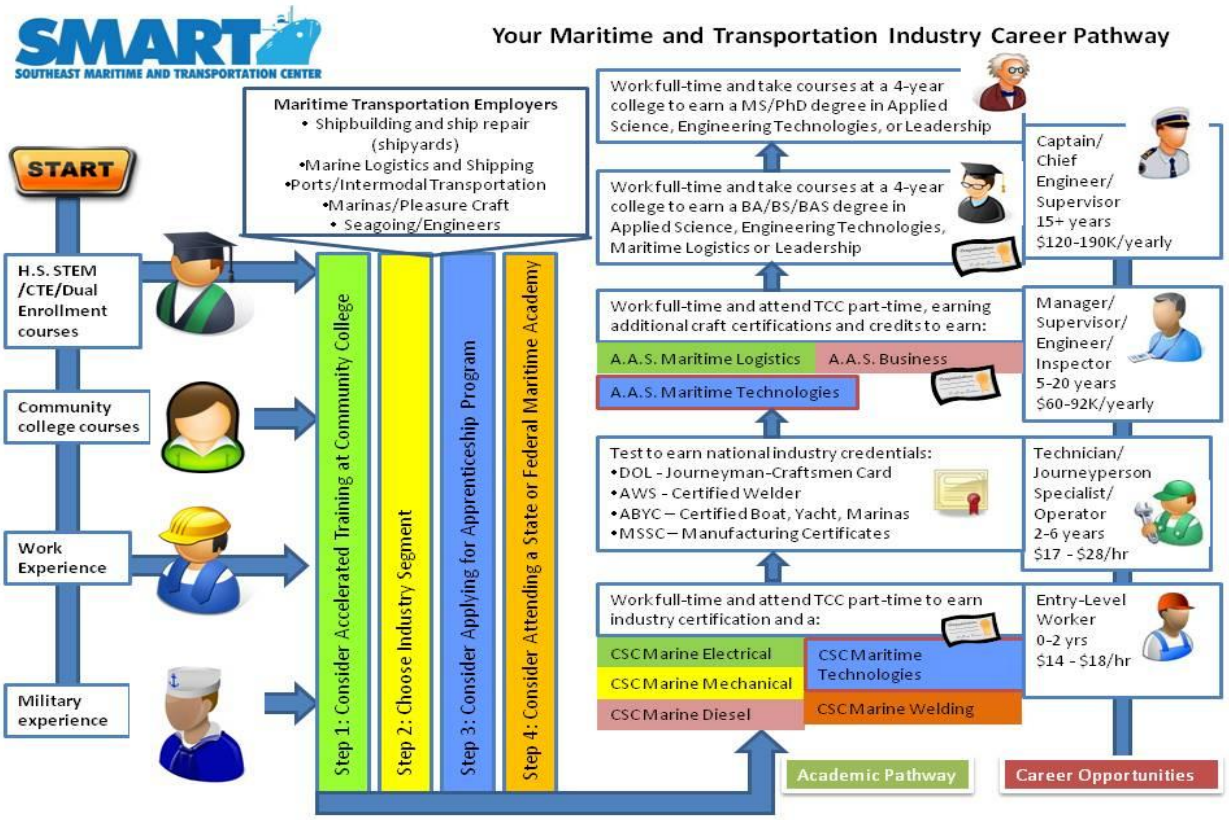
The SMART Center's industry partners represent over 200,000 employees and include Huntington Ingalls Industries, BAE Systems Ship Repair, Oceaneering International, AMSEC, LLC, the Port of Virginia, the Port of Houston, Baltimore Port Alliance and many others. In addition to TCC, SMART's 34 educational partners include Anne Arundel Community College, San Jacinto College, Virginia Tech and Gulf Coast and Pacific Northwest community colleges including Skagit Valley Community College, Olympic Community College, Everett Community College, Delgado Community College, Fletcher Community College and Mississippi Gulf State College, as well as regional specialized secondary schools in Texas, Maryland, and Virginia.

"It's all about building relationships," says Ms. Murray. "By bringing educational institutions and industry to the same table, we have enabled them to collaborate rather than compete for the same funding sources and the same people. We identified the core, transferable competencies across multiple occupations, namely in the four maritime industry sectors 1) ship maintenance and modernization; 2) port operations and marine logistics; 3) vessel operations and pleasure craft; and 4) emerging maritime-dependent technologies including offshore energy and operations."

Maritime Technologies Career Pathway

"The result of our work is the new SMART Maritime Technologies pathway, which is based on the registered apprenticeship model, and features stackable and industry-valued credentials," says Ms. Murray. "The pathway provides a way for registered apprentices to earn college credit for their required instructional classroom work, putting them on an academic as well as career pathway. One of the most exciting and scalable aspects of the SMART Center's work is raising awareness among educators and industry partners of the value of this pathway which has proven to increase enrollments and completions among key targeted populations including women, veterans, first-generation college students and under-served minorities."[3]

[3] Ibid



Career Awareness

The SMART Center's "Make the SMART Choice" career awareness video series features currently employed technicians in major industry sectors. The videos have been disseminated to more than 2,500 educators and have been viewed nearly 2,000 times on the SMART website and YouTube Channel; overall, the series has been viewed over 7,000 times.[4]

Next Steps

"We plan to continue promoting our apprenticeship-based career pathway nationwide," says Ms. Murray. "We're already working with colleges in Seattle and we're planning to reach out to other colleges in California and Louisiana. We've established a replicable solid base that will help educational institutions and industry leaders succeed in preparing the next generation of maritime and transportation industry workers."

Related Links

The SMART Center
www.maritime-technology.org

[4] SMART 2014-2015 Annual Report