



Designing Dual and Concurrent Enrollment Pathways with Stackable, Relevant Credentials

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What is The SMART Center?



The SMART Center serves as a regional ATE center and is an economic model for developing a sustainable, globally prepared maritime and transportation workforce for the 21st century through partnership with vital industry and educational entities



Barbara Murray

The SMART Center

Executive Director and Principal Investigator



SMART

SOUTHEAST MARITIME AND TRANSPORTATION CENTER



Dr. Sallie Kay Janes
Co-PI The SMART Center
San Jacinto College
Vice President
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Development



Ross Leach
Apprentice Program Manager
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Guy St John
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The SMART Center Goals



Dual Enrollment



1. Career pathways and program development

2. Career awareness and promotion

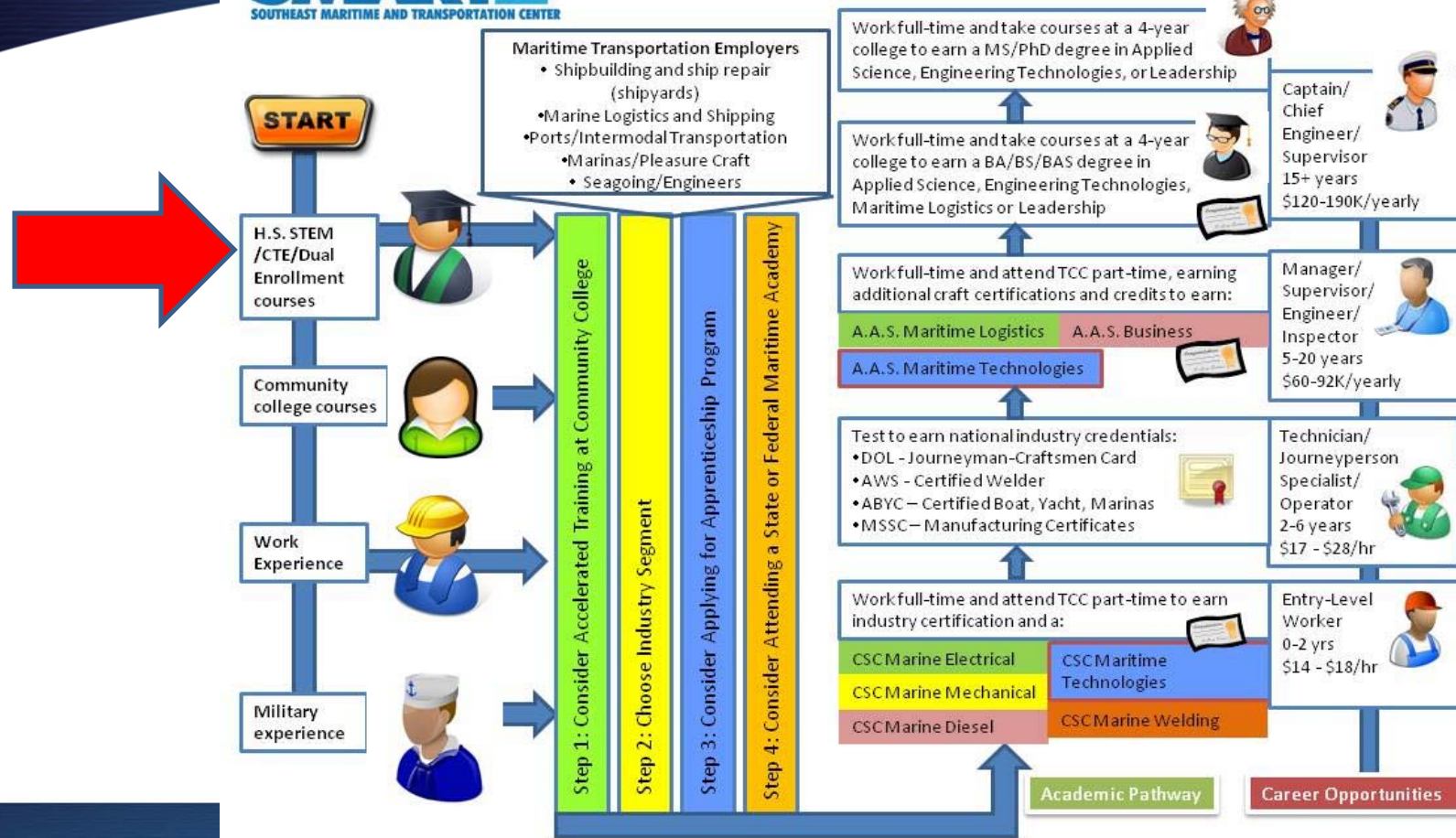
3. Model for education & industry partnerships



Variety of Pathway Entry Points



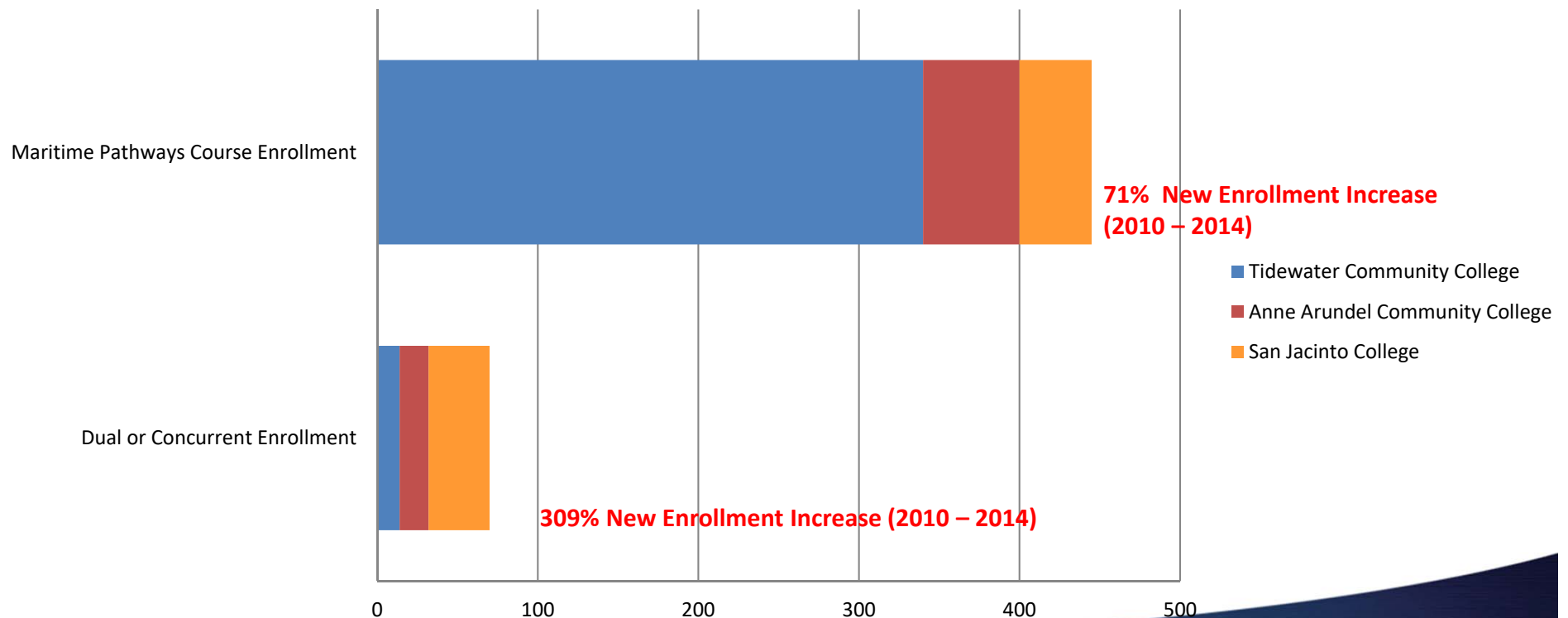
Your Maritime and Transportation Industry Career Pathway



Proven Pathway Growth



Academic Program Growth



What is Dual Enrollment?



72% of students taking DE courses at a college campus enroll in post secondary education*

63% of students taking DE courses at a high school campus enroll in post secondary education*

Only 61% of students NOT taking DE enroll in post secondary education*

*Community College Research Center
"What We Know about Dual Enrollment"
February 2012



Concurrent Enrollment In Vessel Operations



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- Seagoing/Vessel operations focus



Partnerships for Concurrent Enrollment



- Port of Houston Partners in Maritime Education
- Seagoing/Vessel operations focus
- Credits toward SJC Associate Degree in Maritime Transportation while in high school



An Employer's Perspective



Guy St John

Apprentice Program Manager

Oceaneering



- Marine Services Division
- Ship maintenance, modernization for variety of U.S. government military vessels



What is Registered Apprenticeship?

- It's the beginning of a Career
The Program is 4 years in length (8000 hrs OJT) + 144 hrs Apprentice Related Instruction per year
- It's on-the-job training and education
Apprentices start working from day one with incremental wage increases as they become more proficient
- It's a Nationally Recognized Credential
At the end of the apprenticeship, all apprentices receive a Nationally Recognized Journeyman's Credential in your trade
- It's the chance to earn "stackable credentials" along with a Journeyman's Card
- A certificate from Tidewater Community College:
Maritime Technologies Mechanical or Structural or Welding
An Associate's Degree

2+2+2 Pathway



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



Did you know?
Dual Enrollment classes allow you to take one course that meets your high school graduation requirements and earn college credit! Talk with your guidance counselor about DE courses you may be able to take today.

STEP 1: Take these High School or Dual Enrollment Courses

Math

- Algebra 1
- Algebra 2
- Geometry
- Trigonometry

Science

- Biology
- Chemistry
- Physics

Career and Technical Education

- Engine repair
- Drafting/design
- Engineering
- Electronics
- Robotics



STEP 2: Graduate and Enroll in a Community College Academic Maritime-Related Certificate Program



Certificate Program:
Marine Welding
• 19 credits

Certificate Program:
Marine Electrical
• 19 credits

Certificate Program:
Marine Diesel
• 19 credits

Certificate Program:
Marine Mechanical
• 19 credits



STEP 3: Apply Academic Certificate

Credits Toward:

- Certificate Program (CSC) Maritime Technologies (25-27 credits)



STEP 4: Apply Academic Certificate

Credits Toward:

- Associate degree (A.A.S.) Maritime Technologies (67 credits)
- Associate degree (A.A.S.) Maritime Logistics (67 credits)



STEP 5: Continue Education or Enter the Workforce

Continue Education

- B.A./B.S./B.A.S.
- M.A./M.S.
- PhD



Enter workforce in one of four industry segments:

- Seagoing
- Shipbuilding and Ship Repair
- Ports and Logistics
- Pleasure craft boating



Why Create a DE Pathway?



- Prepares college-bound students in all areas that support further study and meaningful industry-recognized standards.

- Provides OPTIONS, making the connection between school and work ***through industry partnerships.***

- Provides students “value added” courses with work place readiness skills that prepare students for a competitive workforce.



An Employer's Perspective



Ross Leach

Apprentice Program Manager

AMSEC, LLC



- Division of Huntington Ingalls Industries
- Ship maintenance, modernization for variety of U.S. government agencies - generates \$200M annually



Building a DE Program



Welding (2009)

Dual Enrollment - 5 credits
Partnership
Apprenticeships



Marine Electric (2012)

Dual Enrollment – 6 credits
Partnership - SMART Institute
Apprenticeships



TIDEWATER COMMUNITY COLLEGE
From here, go anywhere.™

AutoCAD (2013)

Dual Enrollment – 4 credits
Partnership - SMART Institute
Apprenticeships



Potential Earnings Comparison between College Career Path and Apprenticeship



Enter College from High School

Year	Earnings	Cumulative
1	-20,000	-20,000
2	-20,000	-40,000
3	-20,000	-60,000
4	-20,000	-80,000
5	60,000	-20,000
6	62,000	42,000
7	64,000	106,000
8	68,000	174,000
9	71,000	245,000
10	76,000	321,000

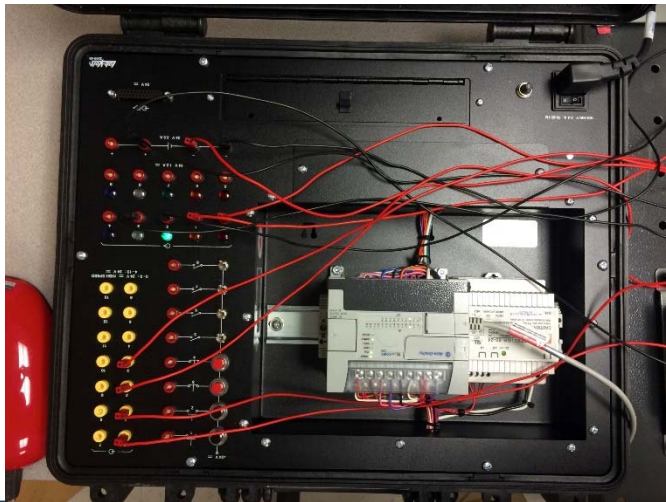
Enter workforce from High School

Earnings	Cumulative	Delta
29,500	29,500	49,500
30,400	59,900	99,900
32,500	92,400	152,400
34,800	127,200	207,200
37,300	164,500	184,500
40,000	204,500	162,500
43,000	247,500	141,500
51,000	298,500	124,500
55,000	353,500	108,500
57,750	411,250	90,250

Benefits of Stackable Credentials & Dual Enrollment Head Start



- ❖ Moving SMART Career Pathway Model to the West Coast expanding Apprentice Programs
- ❖ Working with US DOL to Register Apprentice Program Nationwide



- ❖ AMSEC Program provides pathways from Certificates thru Journeyman's Credential to Associates and Bachelors Degree
- ❖ Working with Tidewater Community College to develop Mechatronics Program for the Maritime Industry

Discussion & Questions

Contact Us



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