TransPORTs
Transportation, Distribution & Logistics Registered Apprenticeships

VESTA
Viticulture & Enology Science & Technology Alliance

Apprenticeships: Growing Innovative Opportunities for Students

NSF ATE PI CONFERENCE

OCTOBER 24, 2017

Panel Members

Barbara Murray
Executive Director, TransPORTs

Michelle Norgren
PI, VESTA

Guy St. John
Apprenticeship Director, Oceaneering Intl.

Bill Alter
Special Projects Coordinator, VESTA

Common Goals: Technician Education, Employment, Credentials

NSF ATE Program

- Technician education for high-technology fields that drive our nation's economy
- Educator & industry partnerships

DOL Registered Apprenticeship

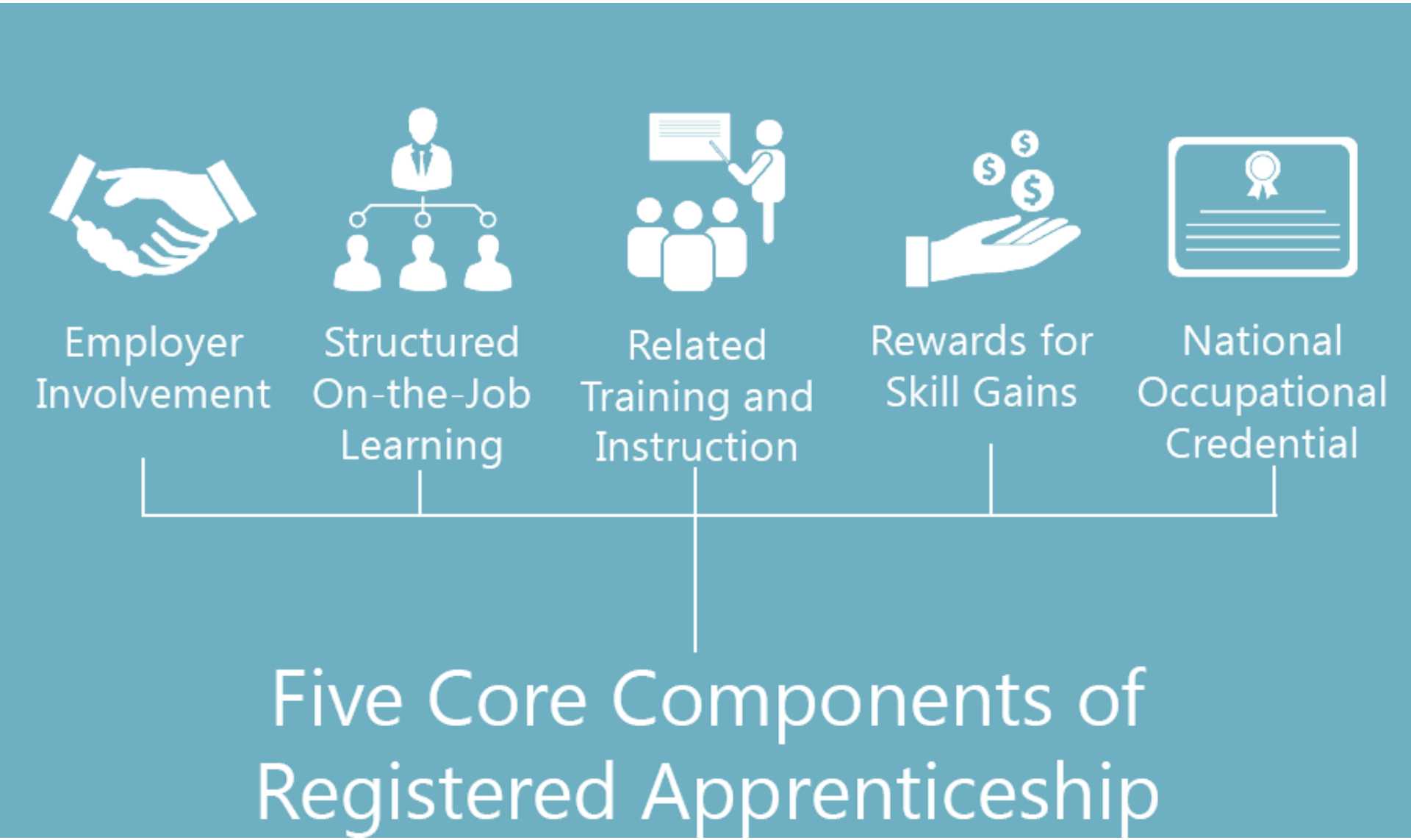
- Employer-driven workforce recruitment and training model that combines on-the-job learning with related classroom instruction
- Proven solution for businesses to recruit, train, and retain highly skilled workers.
- Flexible training strategy that can be customized to meet the needs of every business.

Both ATE and Registered Apprenticeship Programs

- ***Pathways leading to industry credentials and academic certificates/degrees***

Registered Apprenticeships Questions to be Answered

- What are the Benefits of Apprenticeships to the “Student” and the Employer over Traditional Education/Internship Programs
- How Does an NSF Project/Center Implement an Apprenticeship Program
- Is there Funding Available to Support an Apprenticeship Program


Employer Involvement
Structured On-the-Job Learning
Related Training and Instruction
Rewards for Skill Gains
National Occupational Credential
Five Core Components of Registered Apprenticeship

#1: Employer Ownership

- Customized, relevant program to meet **employer's** workforce needs
- Employer determines type of occupations, length of program, what courses and competencies they want apprentices to learn
- Employer employs apprentice, determines qualifications for program and hiring/firing conditions
- Employer provides on-the-job learning (OJL) by pairing apprentice up with experienced worker/mentor

#2: Structured, Paid OJL

- Minimum of 2,000 hours (equivalent to 1 year full time work) of supervised, structured on-the-job learning
- Employer decides what work processes are critical for OJL
- Can be 1-5 year program – Employer chooses!
- Can be stepped, multi-occupation program

#3: Job-Related Instruction

- Classroom, online or hybrid instruction to complement OJL
- 144 hours recommended per year
- Employer decides what courses apprentices take and when apprentices will take them
  - › Parallel -- apprentices take classes while working
  - › Front-loaded – apprentices take classes at beginning of apprenticeship
  - › Segmented – instruction divided into segments between OJL periods

#4: Rewards for Skills Gains

- Written plan that employer chooses to increase apprentices' wages with demonstrated increase in skill over period of time
- Increases worker retention
- Helps attract more qualified, serious applicants looking for long-term careers

#5: National, Portable Credential

- Apprenticeship program completers earn nationally-recognized credential showing job proficiency
- Industry-valued certification of occupational competency
- Increases worker mobility while ensuring competitive pay
- Increases employers' competitive advantage when bidding on federal contracts


The United States Department of Labor

Office of Apprenticeship

Certificate of Registration of Apprenticeship Program

American Aerospace Technical Academy

Registered as part of the National Apprenticeship System in accordance with the basic standards of apprenticeship established by the Secretary of Labor

July 1, 2016

CA002168820

Benefits for Employers

- ✓ Helps in recruitment and development of skilled workforce
- ✓ Improves productivity and bottom line: employers earn $1.47 in increased productivity for earn $1 invested in apprenticeship
- ✓ Reduces turnover costs and increases employee retention
- ✓ Provides opportunities for tax credits and employee tuition benefits (federal and state)
- ✓ Proven to diversify workforce
- ✓ Standardize training across multiple sites

Benefits for Workers

- ✓ Full-time salary and benefits while learning
- ✓ Wages increase as skill increases
- ✓ Average starting salary of $50k while earning credential equivalent to 2 or 4-year college degree
- ✓ Completers earn approximately $60,000 per year & more than $300k more than non-apprentice peers in lifetime earnings
- ✓ 87% of completers remain employed
- ✓ Opportunities to earn college credit and degrees
- ✓ National, portable, industry-valued credential

Apprenticeship: An Employer's Perspective

Oceaneering's Apprenticeship Program

- Created in collaboration with Barbara Murray, in position as former and original PI for NSF ATE SMART Center
- 1st cohort in 2011
- Current occupations:
  - Inside Machinist
  - Outside Machinist
  - Welder
  - Industrial Engineering Technician
  - Non-Destructive Testing Technician

RA-Based Pathway

- RTI Provider: TIDEWATER COMMUNITY COLLEGE
  From here, go anywhere.™

- Apprentices earn academic certificate(s) that “stack” toward A.A.S. Maritime Technologies degree

- Embedded industry-valued credentials

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Collaborating to Create Registered Apprenticeship Programs for Employers in the Grape & Wine Industry

U.S. Grape & Wine Industry (2017)

- 10,236 Winery Facilities
- 677,629 Acres of Vineyards
- National Economic Impact: $219.9 billion (~1.23% of GDP)
- Total Jobs – 1,738,270 Jobs
  - 65,145 in Winery Facilities
  - 44,380 in Vineyards
- 96% of Wineries are Considered Small Businesses

Viticulture and Enology Science and Technology Alliance (VESTA)

Established in 2003 through a grant from the Advanced Technological Education (ATE) Program of the National Science Foundation (NSF)

Became an NSF ATE Regional Center of Excellence in 2007

Became an NSF ATE National Center of Excellence (NCE) in 2010

Received a 2nd NCE Grant in 2015

VESTA Highlights

Partners include 16 Colleges and Universities in 12 states

39 Online Courses

- Viticulture – 8 (6)
- Enology – 13 (9)
- Wine Business Entrepreneurship – 12
- Electives – 6

Over 500 Field Practicum Sites in 41 states and 6 other Countries

Output

- Technical Certificates from VESTA Partners
- AAS Degrees from VESTA Partners
- MS in Plant Science from Missouri State University

As of Spring 2017 – 1740 Students from 47 states and 9 other countries

What Does it Take to Get a Job in the Grape and Wine Industry

REVIEW OF WINE JOBS POSTINGS

OCTOBER 4, 2017

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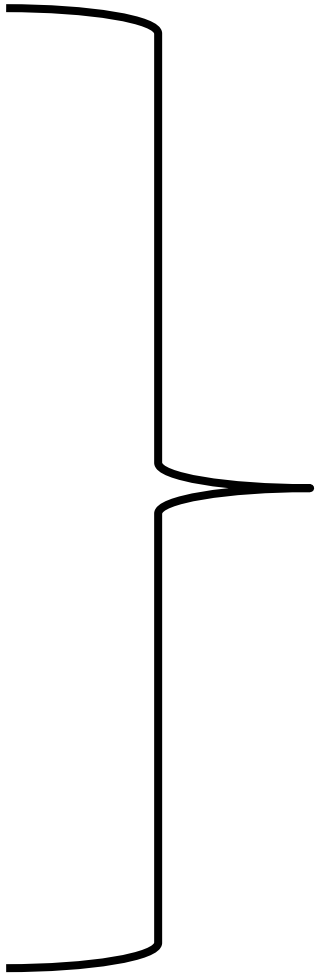
https://www.winebusiness.com/classifieds/winejobs/ 807 Jobs Posted

https://www.winejobsusa.com/ 1598 Jobs Posted

Key Elements in Job Postings

Competencies
Education
Essential Functions
Job Description
Position Summary
Physical Requirements
Primary Duties
Required Skills
Required Experience
Responsibilities
Traits
Working Conditions



Knowledge

Skills

Experience

VESTA Today and Tomorrow

Educational Program

- Online Courses – Knowledge Acquisition
- Field Practicums – Knowledge Application and Skill Development
- Certificates and AAS Degrees are issued by VESTA partners

Field Practicum Benefits

- Students apply knowledge and develop skills as related to course objectives
- Students are exposed to potential career opportunities
- Employers have an opportunity to evaluate potential employees

Field Practicum Limitations

- Course objectives may not always match up with regional field site activities
- Students are not employees and do not receive compensation
- Mentors' roles are an add-on to their other responsibilities

Registered Apprenticeship Opportunities

- Apprentices are employees receiving compensation and other benefits
- Apprentices can participate in the full-cycle of vineyard and winery activities
- Mentoring becomes an integral component of an employee's responsibilities
- Registered Apprenticeship Certificates issued by DOL/ETA upon completion

Why VESTA for Registered Apprentices

- In General Apprentices can Participate in VESTA Courses without Leaving the Vineyard or Winery
- Virtually All Related Technical Instruction can be Accomplished through VESTA Online Courses
- Virtually All Field Practicums and Workshops can be Integrated into the On-the-Job Training
- VESTA offers One-Stop Registration and Fee Payments

Registered Apprenticeship Programs in GWI

- Currently only two Jobs Approved for Registered Apprenticeships: Wine Maker and Cellar Worker
  - Currently less than 10 in U.S.
  - Located in Iowa and Michigan
- VESTA in collaboration with GWI
  - Identified 32 Occupational Competencies based on jobs in the O*NET Database
  - Developing the OJL and RTI for GWI Jobs based on Jobs Approved for Registered Apprenticeships

Building Registered Apprenticeships for the GWI

- VESTA 2017 Summit, South Carolina
- Registered Apprenticeship Workshop was held immediately after annual VESTA National Visiting Committee (NVC) Mtg.
- Participants - 20 representatives from the GWI plus VESTA instructors, Management Team & representatives from the NVC
- Reviewed competency models for industry-validated critical occupations
- Defined the critical workforce needs for the GWI
- Provided input on the OJL (on-the-job learning) work processes and RTI (related technical instruction) to create new apprenticeable occupations

VESTA 2017 Summit – Industry Representatives Building Apprenticeships for the GWI

First Name	Last Name	Company	City/Town	State
Adolofo	Alarcon-Mendez	Trinchero Family Estates	Saint Helena	CA
Lori	Albrecht	Park Avenue Winery	Ashtabula	OH
Karel	Bush	MI Grape and Wine Industry Council	Lansing	MI
Patricia	Chalfant	Ceasar Creek Vineyards	Xenia	OH
Aaron	DeBeers	Vinoptic	Santa Rosa	CA
George	Hoff	Stone Pillar Vineyard and Winery	Olathe	KS
Sherrie	Holzer	Castoro Cellars	Paso Robles	CA
Cristin	Hosmer	Vineyard and Winery Consultant	Traverse City	MI
Hank	Johnson	Chaumette Vineyards and Winery	Ste. Genevieve	MO
Bret	Kappus	Land Run Winery	Mustang	OK
Zoran	Ljepovic	Constellation Brands	Fairfield	CA
Ian	MacNeil	Stanton Chase International	Ossining	NY
Zasha	Melendez	Lake Ridge Winery	Davenport	FL
Neal	Newsom	Newsom Vineyards	Plains	TX
Tom	Petzold	Ten Hands Vineyard	East Lansing	MI
Dylan	Rolfes	Travaasa Austin Resort	Austin	TX
Linda	Seppanen	Garvin Heights Vineyards	Winona	MN
Jeff	Stoeger	Cold Country Vines & Wines	Kewaunee	WI
Kay	Stoeger	Cold Country Vines & Wines	Kewaunee	WI
Tonya	Tenneant-Fields	Maize Valley	Tallmadge	OH

New GWI Apprenticeable Occupations In Development

Winemaker
Assistant Winemaker
Laboratory Manager
Laboratory Technician
Cellar Manager
Cellar Worker
Bottling Line Worker
Equipment Operator

Vineyard Manager
Viticulturist
Vineyard Technician
Vineyard Foreman/Crew Leader
Vineyard Field Worker
Pest Control Supervisor
Equipment Operator

Tasting Room Manager
Tasting Room Worker
Marketing Specialist

DEVELOPING RAPIDS CODES FOR THE OTHER 90+% IN THE GWI

Vineyard Production Technician

- Vineyard Technician
- Vineyard Field Worker
- IPM Applicator
- Equipment Operator
- Other

Winery Production Technician

- Laboratory Technician
- Cellar Worker
- Bottling Worker
- Equipment Operator
- Other

- Production Technician for the GWI
  - Combine Jobs
    - Winery
    - Vineyard

Working with TransPORTs

What TransPORTs Provides

- ✓ Technical Assistance
- ✓ Program Support
- ✓ Incentive Funding & Funding Access
  - ApprenticeshipUSA Expansion Grants
  - State Accelerator Grants
  - American Apprenticeship Grants
  - Tax Credits (i.e. Work Opportunity Tax Credit)
  - Veterans' Education Benefits
  - National Farmworker Jobs Program
  - WIOA (Workforce Innovation & Opportunities Act) Funds

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Next Steps

- ✓ Identify in-demand occupations for your/your employer partners' industry(ies)
- ✓ Collaborate with TransPORTs to:
  - Convene industry/educator planning session
  - Hold focus group to validate apprenticeship program needs
  - Modify existing apprenticeable occupations
  - Develop RTI plan and assist employers in creating cohorts
  - Create new programs under TransPORTs for your employer partners

Who to Contact

Barbara Murray, TransPORTs Executive Director
960 Morgan Trail, Virginia Beach, VA 23464
Phone: 757-401-8259
Email: barbara.murray@transportsapprenticeship.com

Michelle Norgren, VESTA National Center Director
Karls Hall Room 201, Missouri State University
901 S. National Avenue, Springfield, MO 65897
Phone: 417-837-2513 Cell: 417-207-9066
email: michellenorgren@missouristate.edu

Bill Alter, Special Projects Coordinator
Karls Hall Room 201, Missouri State University
901 S. National Avenue, Springfield, MO 65897
Cell: 417-861-3822
email: williamalter@missouristate.edu

Learn More…

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