



WORKFORCE DEVELOPMENT BOARD OF VENTURA COUNTY

CLEAN/GREEN COMMITTEE MEETING

Friday, January 20, 2017

8:00 a.m. - 9:30 a.m.

VCCF Nonprofit Center (Community Room)
4001 Mission Oaks Blvd., Camarillo, CA

AGENDA

- | | | |
|-----------|---|---|
| 8:00 a.m. | 1.0 Call to Order and Agenda Review | Anthony Mireles |
| 8:02 a.m. | 2.0 Public Comments | Anthony Mireles |
| | <i>Procedure: The public is welcome to comment. All comments not related to items on the agenda may be made at the beginning of the meeting only.</i> | |
| 8:05 a.m. | 3.0 Approval of Minutes: September 16, 2016 | Anthony Mireles |
| | 4.0 Ventura County Regional Strategic Workforce Development Plan | |
| 8:10 a.m. | <ul style="list-style-type: none">• Workgroup Report: Employer Awareness | Dave Fleisch
John Brooks
Patricia Duffy |
| 8:20 a.m. | <ul style="list-style-type: none">• Deputy Sector Navigator Update: | Holly Nolan-Chavez |
| 8:30 a.m. | <ul style="list-style-type: none">• WIOA Sector Planning<ul style="list-style-type: none">– Identifying Priorities– Alignment with 2-Year Plan | Patricia Duffy
Committee Members |
| 9:15 a.m. | <ul style="list-style-type: none">• Career Pathways Update: | Mary Anne Rooney |
| 9:25 a.m. | 5.0 Committee Member Comments | Committee Members |
| 9:30 a.m. | 6.0 Adjournment | Anthony Mireles |
| | <u>Next Meeting</u>
March 17, 2017 (8:00 a.m.–9:30 a.m.)
VCCF Nonprofit Center (Community Room)
4001 Mission Oaks Blvd., Camarillo, CA | |

Individuals who require accommodations for their disabilities (including interpreters and alternate formats) are requested to contact the Workforce Development Board of Ventura County staff at (805) 477-5306 at least five days prior to the meeting. TTY line: 1-800-735-2922.



WDB Clean/Green Committee Meeting
September 16, 2016

MINUTES

Meeting Attendees

Committee Members

Anthony Mireles* (Chair)
John Brooks
Charles Harrington*
Eric Humel
Teresa Johnson
Valeria Makarova
Kimberly Nilsson
Douglas O'Brien
Wayne Pendrey

WDB Staff

Patricia Duffy
Cheryl Moore

Guests

Bill Camarillo (Agromin)
Nan Drake (E.J. Harrison & Sons)
Darrell Gooden (Ventura County Office of Education)
Jim Rose (Oxnard Chamber of Commerce)
Richard Saint (Ventura Unified School District)
David Sampson (Ventura Unified School District)

**WDB Members*

1.0 Call to Order and Agenda Review

Anthony Mireles called the meeting to order at 8:10 a.m. No changes were made to the agenda.

2.0 Public Comments

There were no public comments.

3.0 Approval of Minutes: May 20, 2016; August 5, 2016

Motion to approve: May 20, 2016 Minutes: John Brooks
Second: Charles Harrington
Motion carried

Motion to approve: August 5, 2016 Minutes: John Brooks
Second: Charles Harrington
Motion carried
Abstain: Teresa Johnson

4.0 Committee Spotlight on AB 1826: Commercial Organics Recycling

Bill Camarillo, Chief Executive Officer of Agromin and Nan Drake, Director of Government Affairs and Public Relations for Harrison Industries, presented on Assembly Bill 1826, which went into effect on April 1, 2016. The new law requires businesses and multi-family units 5 units or more that generate 8 or more cubic yards of organic waste each week, such as food waste (including paper waste soiled with food), landscaping waste and non-hazardous wood waste, to sign up for commercial organic recycling. The two Ventura companies Harrison Industries and Agromin have been strategic partners in waste management for years. Harrison Industries collects the organic waste and Agromin turns the waste into compost for agriculture and renewable resources such as biofuels.

Mr. Camarillo and Ms. Drake informed the committee that recycling creates jobs in collection, processing and manufacturing occupations. Indicating that one landfill job equals ten recycling jobs, they noted an estimate that as many as 110,000 jobs will be created related to the recycling initiatives in California. Job opportunities in the recycling industry offer a wide range of options and encourages entrepreneurs to find innovative solutions.

5.0 Ventura County Regional Strategic Workforce Development Plan

- Employer Awareness Workgroup Report

The Employer Awareness Workgroup shared their progress on ways to help businesses understand the value of incorporating sustainability into their business practices. The workgroup was exploring a way to create short videos of local industry success stories on how sustainable practices in business saves money, grows business and creates jobs. Following up on a suggestion from a committee member, the Ventura Adult and Continuing Education (VACE) multi-media program was contacted and the workgroup was asked to submit a short proposal. Two additional committee members volunteered to join the workgroup to assist with the project.

- Year-End Review 2015-2016 – Insights

The committee made final recommendations for the Year-End Review insights and approved the final version.

- WIOA Sector Planning

The Committee reviewed and discussed the joint sector meeting outcomes, including workforce development priorities for the next two years and related credentials. The need for more qualified inspectors and the need to create more awareness of water and wastewater industry jobs were considered. There appears to be employers stating they have well-paying jobs, such as truck drivers, but they are unable to find qualified candidates to fill them. Because the Ventura County region has many small to medium size businesses, collaborative approach would be to identify numerous small businesses with similar, on-going hiring needs and then to develop training programs to meet those needs, thereby building pipelines to benefit these smaller industries.

6.0 Committee Member Comments

Wayne Pendrey announced the Green Building Expo in Los Angeles October 5th-7th.

7.0 Adjournment

Motion to adjourn: Charles Harrington

Second: Teresa Johnson

Motion carried

Anthony Mireles adjourned the meeting at 9:35 a.m.

Next Meeting:

November 18, 2016 (8:00 a.m.- 9:30 a.m.)

VCCF Nonprofit Center (Community Room)

4001 Mission Oaks Blvd., Camarillo, CA.



JOINT MEETING
WDB REGIONAL SECTOR COMMITTEES
August 5, 2016

WDB Business Services Committee
WDB Clean/Green Committee
WDB Healthcare Committee
WDB Manufacturing Committee

MINUTES

Meeting Attendees

Business Services

Jesus Torres* (Chair)
Tracy Perez*
Stephen Yeoh*

Manufacturing

Alex Rivera* (Chair)
Jim Avery
Michael Bastine
Patrick Grimes
Cindy Guenette*
Marybeth Jacobsen
Byron Lindros*
Jason Miller
Tiffany Morse
Bill Pratt*
Mary Anne Rooney
Bruce Stenslie*
Peter Zierhut*

Clean/Green

Anthony Mireles* (Chair)
John Brooks
Rebekah Evans
David Fleisch
Mary Anne Rooney

Healthcare

Greg Barnes* (Chair)
John Cordova
Martel Fraser*
Amy Mantell
Dawn Neuman
Irene Ornelas
Mary Anne Rooney
Richard Trogman*

WDB Members

Vic Anselmo* (Vice Chair)
Charles Harrington*
Victoria Jump*
Capt. Doug King*
Patty Schulz*

WDB Administration

Talia Barrera
Patricia Duffy
Tracy Johnson
Richard McNeal
Cheryl Moore
Patrick Newburn
Ma Odezza Robite
Theresa Salazar Vital

Guests

Sally Harrison (CEO's Office)
Heidi Hayes (theAgency)
Paula Hodge (SCCRC)
Payal Kamdar (VSolvit)
Vivian Pettit (CSD/WIOA)
Mairelise Robinson (Workforce
Education Coalition)
Chris Schuckmann (Hi-Tech Corp.)
Michelle Schuckmann (Hi-Tech Corp.)

**WDB Members*

1.0 Call to Order and Agenda Review

WDB Vice Chair Vic Anselmo called the meeting to order at 8:06 a.m. No changes were made to the agenda.

2.0 Public Comments

No comments.

3.0 Welcome and Introductions

WDB Vice Chair Vic Anselmo welcomed committee members to the first joint meeting of the WDB Regional Sector Committees: Business Services, Clean/Green, Healthcare, and Manufacturing. WDB and sector committee members gave self-introductions.

4.0 WDB Sector Committees

Vic Anselmo commended the impressive amount of work undertaken by the WDB sector committees for more than six years to strengthen workforce development in Ventura County. He thanked the committee members for their exceptional commitment and collaboration.

Greg Barnes, Chair of the Healthcare Committee, Anthony Mireles, Chair of the Clean/Green Committee, Alex Rivera of the Manufacturing Committee, and Jesus Torres of the newly appointed Business Services Committee provided updates and perspectives on the work of their respective committees. A copy of the presentation may be found in each sector committee meeting packet posted on the WDB website: www.workforceventuracounty.org.

5.0 WIOA Regional Sector Requirements

Cheryl Moore provided an overview of the industry sector requirements for WDB regional and local planning under the Workforce Innovation and Opportunity Act (WIOA) and responded to questions. Discussion included a description of the WIOA workforce development system, regional planning units in California, regional strategy for building a competitive workforce pipeline in Ventura County, WIOA One-Stop system alignment, and performance components relating to programs, fiscal, providers, and the alignment of partners in the American Job Center of California (AJCC) delivery system. A copy of the presentation may be found in each sector committee meeting packet posted on the WDB website: www.workforceventuracounty.org.

6.0 Opportunities for Collaboration

WDB committee members worked in sector groups and cross-sector groups, reporting to the large group their responses to four questions. Reference materials available included updated workforce/occupational data by sector, workforce skills charts developed by sector committees, sector committee year-end reviews, and draft two-year sector committee plans. Below is a summary of the wall notes and committee member comments during the follow-up discussion. The input will be considered during sector committee planning and WDB/WIOA regional and local planning processes.

Business Services

1. What are the high-demand jobs in the next 3-5 years?

- Accounting (software, QuickBooks)
- Advanced Office I.T. (cloud, collaborative software)
- Cyber Security
- Gaming/Simulation Developers
- IoT Networking
- IT Manager
- Junior programmers / developers
- Marketing (digital) (social media)
- Mobile developers App-software
- Quality Information Manager (software)
- Technical Literacy
- Technology Office Manager (operational)

2. Which of those jobs are hard to fill? Why?

- Cyber Security
 - IoT Networking
 - Junior Programmers /Developers
 - Mobile Developers App-Software
- *Lack of pipeline*
- *Growing: devices/data analysis/networking, cross functional skills*
- *Evolving: cyber security and technological challenges constantly evolving; therefore solutions and the skills required change as well, which outpaces training/education available*

Clean/Green

1. What are the high-demand jobs in the next 3-5 years?

- Alternative Fuel Mechanics
- Green Chemistry
- High Voltage Electrician
- Hospitality (all areas)
- Hospitality Workers
- Inspection Services for Government Services
- Inspectors
- Landscaping/Xeriscaping Installation
- Marketing
- Marketing/Outreach Coordinator Specialist
- Municipality
- Organic Agriculture
- Solar Installation
- Utility Workers
- Water/Wastewater Workers

2. Which of those jobs are hard to fill? Why?

- Hospitality Workers: *gap between training for green skills and employers desire to pay*
- Inspectors: *certification/training pipeline - not in data base-localized*
- Marketing: *understanding the value to the businesses*
- Utility Workers: *not enough workers and lack of training*

Healthcare

1. What are the high-demand jobs in the next 3-5 years?

- Bilingual
- Care Coordinators
- Caregivers (CHW, I.H.S.S.)
- Case Managers
- CNA (HHA)
- Geriatrician Specialty M.D.'s.
- Health Educators

- Health Faculty
- I.T. Clinical Technology/Biomedical Engineering
- I.T. Technology/Biomedical Engineering
- Mental Health Providers
- Physician Assistants
- Physical Therapy/OT
- R.N.'s (i.e. specialty LVNs, RNP)

2. Which of those jobs are hard to fill? Why?

- Bilingual: *lack of cultural awareness skills*
- Caregivers (CHW, I.H.S.S.): *low wages*
- Geriatrician Specialty M.D.'s.: *need extra training*
- Health Faculty: *wages*
- I.T. Clinical Technology/Biomedical Engineering: *lack of trained available workforce*
- Mental Health Providers: *education level*
- Physical Therapy/Occupational Therapy: *education requirements*
- R.N.'s (i.e. specialty LVNs, RNP): *shortage/training*

Manufacturing

1. What are the high-demand jobs in the next 3-5 years?

- Additive Manufacturing Technician
- Cyber Security
- Design Engineer
- Discrete Hyper Skills
- Engineers – Systems
- Equipment Maintenance
- Experienced Machinists
- Facilities Maintenance
- High Technology Assemblers
- I.T. integrate with manufacturing EQ
- Industry-specific interns
- Inspectors (Dimensional, Visual, Electrical)
- Inventory Control
- Machinists with 10 Years' Experience
- Maintenance Technicians
- Manufacturing Systems Technicians / Engineers
- Manufacturing Technician
- Mechanical Engineer
- Metal Finishers/Coating Experts
- Mid-level Managements Skills
- Plant Operator
- Programmer (CNC/Controls)
- Quality Assurance (ISO/AS 9100 + Physical Inspection)
- Skilled Assembly
- Software Migration
- Technician (Electrical or Mechanical)
- UAV Technicians

2. Which of those jobs are hard to fill? Why?

- Design Engineer: *lack of hands-on experience; educational programs to provide hands-on experience are in nascent phase*
- Experienced Machinists: *lack of awareness, lack of experience, job jumping, lack of training*
- Quality Assurance (ISO/AS 9100 + Physical Inspection): *no training program; lack of experience*
- Programmer (CNC/Controls): *lack of awareness, lack of experience, job jumping, lack of training*
- General Concerns
 - *Critical thinking vs. standardized tests*
 - *Critical thinkers/agility*
 - *Career awareness of teachers*
 - *Trouble shooters*
 - *Self-teachers*
 - *Off-shoring of manufacturing (and its appeal)*
 - *H.S. “shop” classes extinct*
 - *Unrealistic expectations*
 - *Need for basic skills*
 - *No time to grow people into jobs*
 - *Minimal trade training*
 - *Lack of training resources in the area*
 - *Self-regulators*

All Sectors

3. What challenges do the industry sectors have in common?

- Education and Training
 - Basic skills (read, write, math, tech)
 - Career awareness
 - Certification
 - Internships/apprentice/OJT
 - Leadership skills
 - Soft skills (employability skills)
 - College education → no job → entry level → stuck.
 - Lack of employer-based training
 - Lack of experience/training
 - Saturation of degrees
 - Training: cost, right program, investment (continuous)
 - Educational levels (industry skills needed/engage educators)
- Economic Development
 - Need to train the people who live here
 - Lack of local resources
 - Cost of living
 - Employee retention in an employees’ market
 - How do we get people to stay here? (locally and with the same employer)
 - Proximity to L.A. County causes employee(s) to go elsewhere
 - Retention
 - Salary (benefits)
 - Need all jobs to be more green (Manufacturing, Healthcare)

- Technology
 - Cyber security
 - Technology challenges
- Awareness
 - Improve perception of vocational training
 - Negative perception of industry
 - Understanding the “new employee” mindset

4. What action might we take?

- Engage students with industry (site visits, classroom guest speakers from small business to large employers)
- Vocational training day at schools (hands on for students; class field trips)
- Provide opportunities for educators to experience industry demands and environment
- Need school boards on “board”—experience hands-on training to help counter negative perceptions
- Job advancement plan for retention (skill-based/competency-based, not time based)
- Pre-apprenticeship programs: skill-up people in industry trades (e.g., short-term 2000-hour program to touch up on specialty skills and jobs)
- Retention (share info across businesses; review compensation/benefits; flex time; do small business outreach for retention and training of employees)
- Sponsor site tours in different sector environments (emulate Manufacturing Committee/Manufacturing Roundtable participation in Manufacturing Week)
- Figure out how to fill in the gaps in the data currently available

7.0 Summary and Next Steps

Cheryl Moore noted that the information and ideas generated would be considered by the individual sector committees in updating their two-year plans and by the WDB in WIOA regional and local plan development. Issues of interest to more than one committee would be addressed collaboratively. Public access to sector meeting content would be provided through meeting packets that are posted to the WDB website: www.workforceventuracounty.org.

8.0 Committee Member Comments

Bill Pratt commented that we should try to determine what the real Ventura County economy looks like, what is missing, and what is getting in the way of Ventura County being a super tech industry.

9.0 Adjournment

Vic Anselmo adjourned the meeting at 10:02 a.m.

Next Regional Sector Committee Meetings

Business Services Committee

To be scheduled

Clean/Green Committee

September 16, 2016 (8:00 a.m.-9:30 a.m.)
VCCF Nonprofit Center (Community Room)
4001 Mission Oaks Blvd., Camarillo, CA

Healthcare Committee

September 23, 2016 (8:00 a.m.-9:30 a.m.)
VCCF Nonprofit Center (Community Room)
4001 Mission Oaks Blvd., Camarillo, CA

Manufacturing Committee

October 20 (8:00 a.m.-9:30 a.m.)
United Food and Commercial Workers (Suite A)
816 Camarillo Springs Rd., Camarillo, CA



CLEAN/GREEN COMMITTEE 2-YEAR PLAN **Workforce Development Board of Ventura County** **2016-2018**

Goal

The Clean/Green Committee will develop a pipeline of skilled workers in clean/green occupations to address the workforce needs of employers, working in collaboration with business, economic development, education, labor, government, and community-based organizations. Focus areas:

- Recycling/reuse
- Energy efficiency
- Natural and sustainable product manufacturing
- Renewable energy
- Water conservation
- Infrastructure
- Services
- Education, compliance and awareness

Components of Plan

- 1. Engage Leaders**

Engage a core team of Ventura County employers, agencies, education, labor, and other organizations most involved in clean/green workforce development. Develop ways to identify, engage, and communicate effectively with the core team and other clean/green workforce partners

 - Waste Facilities/ Recycling Centers
 - Water/Wastewater
 - Trash Haulers
 - Utilities/Energy
 - Landscapers
 - Architects
 - Contractors
 - Agriculture
 - Automotive
 - California State University, Channel Islands
 - Ventura County Community College District
 - Ventura County Office of Education
 - Adult education
 - Others
- 2. Analyze Data**

Conduct annual research to analyze clean/green workforce needs and changes.
- 3. Take Inventory**

Inventory current training providers in the region.

 - Industry-recognized certification programs
 - Apprenticeships
 - Pre-apprenticeships
 - Internships
 - Externships
 - High school academies
 - Regional Occupational Program
 - Adult education
 - Community colleges
 - Universities
 - Trade associations
 - Community organizations
- 4. Determine**

Determine focus area priorities for clean/green workforce development.



CLEAN/GREEN COMMITTEE 2-YEAR PLAN

Workforce Development Board of Ventura County

2016-2018

Priorities

- Sector workforce readiness
- Career pathways
- Sector certifications
- Stackable credentials
- Pre-apprenticeship programs
- Apprenticeship programs
- Business participation:
 - Curriculum development
 - Job shadowing
 - Internships
 - Externships
 - On-the-job training
 - Career awareness/outreach

5. Identify Gaps

Monitor identified gaps and continue to identify new gaps between education and clean/green workforce development needs.

6. Take Action

Many employers, particularly small businesses, in Ventura County are not aware of the activities of the Workforce Development Board Clean/Green Committee in developing a pipeline of skilled workers for clean/green jobs. As such, we need to:

- **Create awareness** throughout all business communities and the public sector of clean green jobs and certification programs that exist to provide skilled workers.
- **Develop understanding** by employers and managers of the importance clean green practices in their operation (regardless of size) and how hiring skilled clean green workers will improve their organization's performance. Emphasize that virtually every job, in every industry, should incorporate clean green practices.
- **Encourage involvement** by leaders in business and the public sector, in the education of skilled clean green workers through engagement in the classroom, providing internships or job training programs for students or externships for faculty.
- **Complete integration** of clean green practices and workers in all components of the workforce in businesses and the public sector in Ventura County.

7. Monitor Progress

The progress of the Clean/Green Committee is measured by the Workforce Development Board Year-End Review and a review of the Committee's 2-Year Plan.



WDB CLEAN/GREEN COMMITTEE DEFINITIONS

- Workforce readiness
- Career pathways
- Sector certifications
- Stackable credentials
- Pre-apprenticeship programs
- Apprenticeship programs
- Business participation:
 - Curriculum development
 - Job shadowing
 - Internships
 - On-the-job training
 - Career awareness/outreach
 - Externships

Workforce readiness: These are identified skills that are needed for certain industry sectors. Each of the skills categories are defined by the sectors' chief activities.

Career pathway programs: Offer a clear sequence or pathway of education coursework and/or training credentials aligned with employer-validated work readiness standards and competencies. (Department of Labor Career Pathways Toolkit)

Certifications: Industry-recognized certifications that are particular to a given industry. Community colleges, trade schools and apprenticeship programs can prepare students for certifications. Some training programs have the additional authority to test for or approve the certifications on site, depending on the certification requirements.

Stackable credentials: These are credentials earned in different levels of programs within industry sectors. For example, a person might earn a water distribution credential of D1 level with less than a high school diploma. Through work experience and classes water distribution professionals can move up to D2, D3, D4 D5 levels. The California Department of Public Health and American Water Works Association (A.W.W.A) can issue these certifications. Requirements can vary for both agencies.

Pre-apprenticeship and apprenticeship programs: Formalized training programs, usually sponsored or organized by post-secondary agencies, in which skills development is based on number of hours of work experience and On the Job Training combined with a requisite amount of class time. At the end of a certified apprenticeship, a certification is obtained.

Curriculum development - Career Technical Education (C.T.E.): The partnership between industry representatives and educators to collaborate in the development of career technical education curriculum that reflects the needs of industry.

Job shadowing: The opportunity for participants to observe the actions of an industry employee while they are engaged in the common functions of their job. It is usually limited to a few hours in a day and is not a regularly occurring activity.

Internships: A paid/unpaid position within a business whereby a student does work of value to the organization while they are engaged in completing the educational program or training leading to an entry level job in that industry.

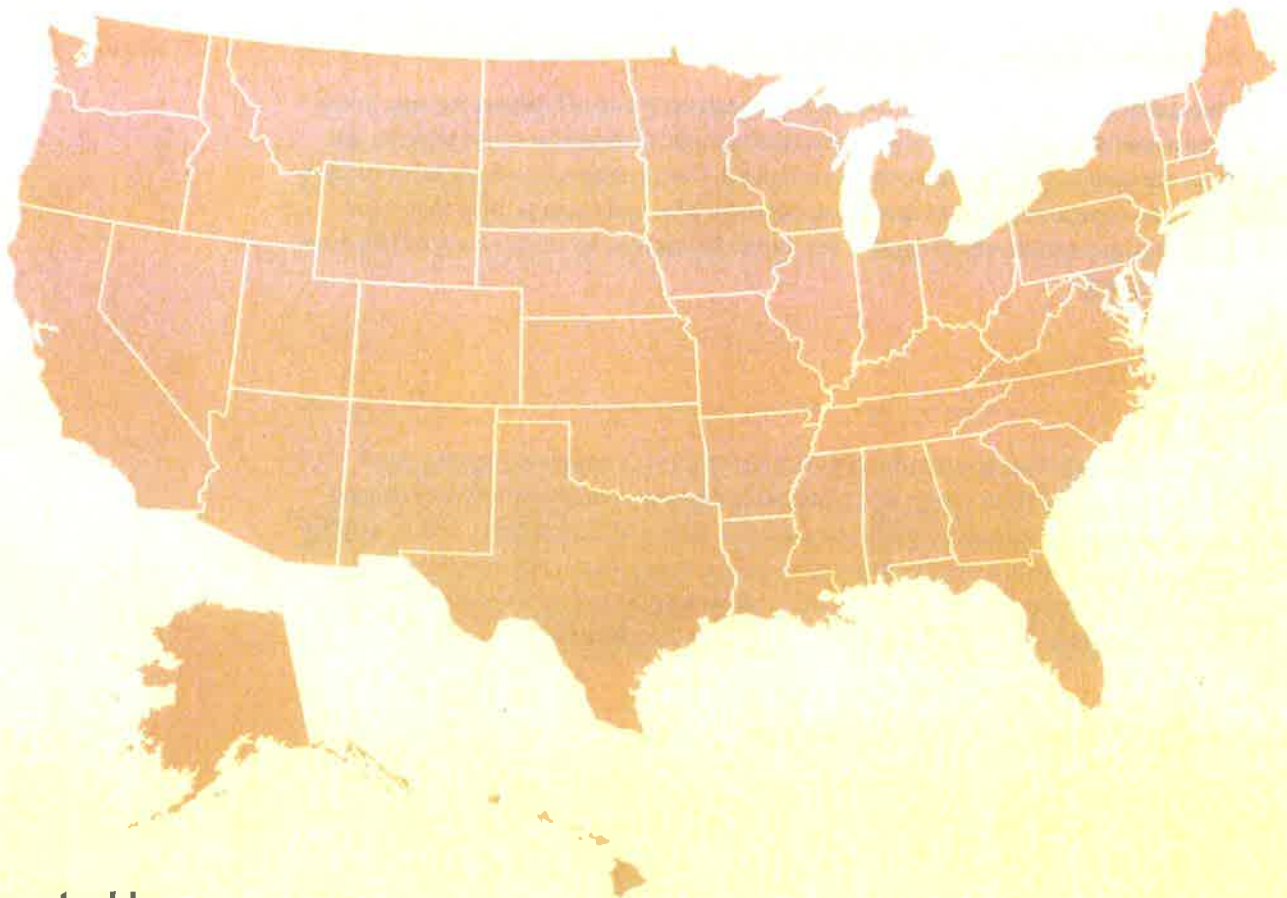
On-the-job training: A position in which the employee learns the essential skills of a job while he is engaged in the job usually under the supervision of a senior employee.

Career awareness/outreach: Any variety of activities that raises the participant's awareness of an industry sector's job opportunities, or allows them to explore the variety of careers related to an industry sector.

Externships: Opportunities (paid or unpaid) for a teacher to work within a business so they can learn what that career is like from the inside out. Theoretically, the experience will help them speak with authority when they inform their students of work in that industry sector.

Energy Efficiency Jobs in America

*A comprehensive analysis of energy efficiency
employment across all 50 states*



Presented by



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FUTURE**
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Environmental Entrepreneurs (E2)
E4TheFuture

December 2016

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About E2

Environmental Entrepreneurs (E2) is a national, nonpartisan group of business leaders, investors, and professionals from every sector of the economy who advocate for smart policies that are good for the economy and good for the environment. Our members have founded or funded more than 2,500 companies, created more than 600,000 jobs, and manage more than \$100 billion in venture and private equity capital. For more information, see www.e2.org or follow us on Twitter at @e2org.

About E4TheFuture

E4TheFuture—formerly Conservation Services Group (CSG)—is a nonprofit organization that promotes residential clean energy and sustainable resource solutions to advance climate protection and economic fairness by influencing federal, state and local policies, and by helping to build a resilient and vibrant energy efficiency and clean energy sector. CSG provided low-cost energy solutions 1984-2015 in over half of U.S. states helping to improve over 3.8 million homes. Visit us at e4thefuture.org and follow us on Twitter @e4thefuture.

About BW Research Partnership

BW Research Partnership is a full-service, economic and workforce research consulting firm with offices in Carlsbad, California, and Wrentham, Massachusetts. It is the nation's leading provider of accurate, comprehensive clean energy research studies, including the National Solar Census, wind industry analyses for the National Renewable Energy Laboratory and the Natural Resources Defense Council, and state-level clean energy reports for Massachusetts, Illinois, Vermont, Iowa, and Florida, among others.

Introduction

Unlike large wind turbines or rooftop solar panels, most energy efficiency improvements are invisible: They might be folded within a super-insulated building, embedded in the controls of a smart monitoring system, or quietly embodied in a high efficiency AC system. Looking at the job sector, however, the impact couldn't be more clear. Energy efficiency is the largest sector within the U.S. clean energy economy, accounting for three in four of its jobs and employing nearly 1.9 million people nationwide.

The efficiency industry helps customers squeeze more productivity and comfort out of the same amount—or less—energy. Its workers install smart lighting, for example, or seal duct leaks in HVAC systems or insulate walls and ceilings. They make climate control systems run better or manufacture state-of-the-art appliances. In short, they figure out how to help homes and businesses run leaner by lowering utility bills. In addition, they provide a public health benefit by reducing air pollution. Efficiency is also considered the most cost-effective strategy in many states to address climate change and achieve carbon reductions and/or other environmental goals.

Introduction (continued)

This analysis finds that most energy efficiency workers are at small companies with 25 or fewer employees. Forty percent of energy efficiency companies focus on installation, while another 26 percent are in trade and distribution. The remaining firms are in professional services, engineering and research, and other categories. The majority say they depend on the energy efficiency market for at least half of their revenue.

Increased energy efficiency has driven remarkable savings for consumers. Residents of states with the weakest energy efficiency policies saw their monthly energy bills go up twice as much as people in the most efficient states, according to the recent report, “Cleaning Up Our Act on Energy and Reaping the Benefits”. Overall, that analysis found average electricity prices in the U.S. today are lower than they were a quarter century ago, even as wind and solar energy expanded their market share to 7 percent of the power supply.

Additionally, the American Council for an Energy-Efficient Economy’s (ACEEE’s) “2016 State Energy Efficiency Scorecard” found that advancements in everything from building energy codes and transportation planning help spur investment in energy efficiency, which in turn gives businesses, governments, and consumers more control over their energy use.¹

California, Florida, Massachusetts and Illinois, which rank at the top of this employment analysis, together account for over half a million clean energy jobs involving energy efficiency. Other states, such as Texas and Pennsylvania, are seeing strong energy efficiency employment even as they host an oil-and-gas fracking boom. But there’s uneven progress among them all in promoting smarter energy use policies—from strong building codes to transportation standards to utility programs that help customers save on their bills—that will feed a thriving industry and support energy efficiency employment.

Based on surveys done for this report, employers from the approximately 165,000 U.S. companies that do energy efficiency work predict that business will keep getting better. They expect employment to grow 13 percent over the coming year, adding 245,000 more jobs, according to projections reported by employers. State programs and new federal initiatives, such as the Tenant Star program which recognizes exceptional tenant spaces and was created as part of the Energy Efficiency Improvement Act of 2015, can bolster this growth.

Other key steps that can help create jobs across the country include:

- Advancing energy efficiency standards set by the U.S. Department of Energy for appliances and equipment.
- Strengthening building codes at the state and local levels to capture all cost-effective energy efficiency opportunities at the time of design and construction.
- Accelerating energy efficiency improvements in devices and buildings that use electricity or natural gas through utility programs, state policies such as energy efficiency resource standards, or by investing in all cost-effective energy efficiency resources.
- States should prioritize the role of energy efficiency in developing and/or strengthening clean energy standards.

Quick Facts

~1.9M

energy efficiency jobs in America

889,000+

workers spend majority of their time on energy efficiency

13%

employment growth rate over current year

¹ <http://aceee.org/press/2016/09/california-golden-again-energy>

Findings

Taking a closer examination of all the energy efficiency jobs in America yields some interesting findings. For instance, the majority of the 1.9 million energy efficiency workers in the U.S. work for small businesses with five employees or less, and about 70 percent work for companies with 10 employees or less.

Energy Efficiency Employment and Establishments

Quick Facts

As the largest sector within the nation's clean energy economy, energy efficiency accounts for about three out of every four American clean energy jobs. In total, these technologies support almost 1.9 million jobs across the country, and 889,050 of these workers spend the majority of their time supporting the energy efficiency portion of their business.² Employers across the roughly 165,000 establishments that conduct energy efficiency work are optimistic about business growth, projecting a collective 13 percent employment growth rate over 2016—or an additional 245,000 jobs.³

165,000

U.S. companies in energy efficiency work

2 out of 3

firms install or sell energy efficiency systems

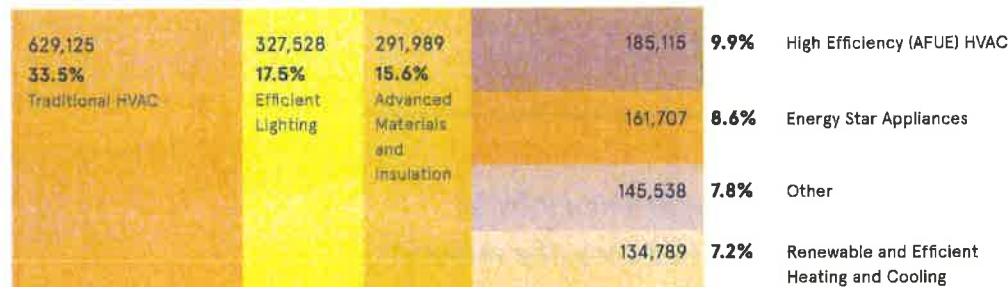


Fig. 1: National Energy Efficiency Employment by Sub Technology, 2015

The majority of energy efficiency firms install or sell energy efficiency systems; about four in 10 establishments are installation firms and an additional quarter of establishments are in trade and distribution. The remainder of business activity is roughly evenly distributed across professional services (11 percent), manufacturing (8 percent), engineering and research (8 percent), and other value chain activities (7 percent).

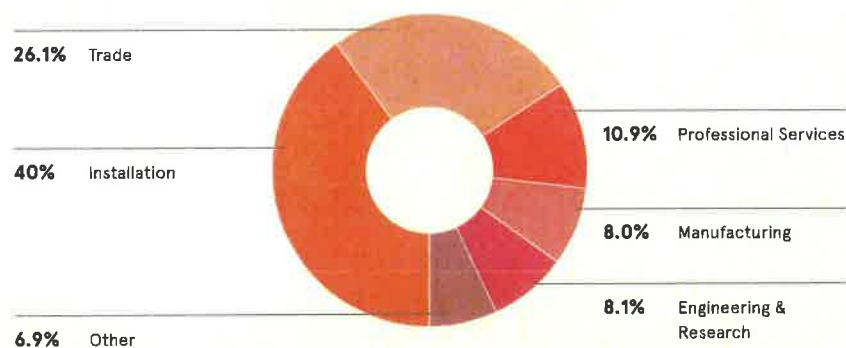


Fig. 2: National Energy Efficiency Establishments by Value Chain, 2015

² As of 2015, there are a total of 1,880,149 energy efficiency workers across the nation. Of these nearly 1.9 million workers, the research group extrapolated that roughly 889,000 jobs surpass the 50 percent threshold; these employees spend half to all of their time working with energy efficiency technologies. The total job references by sub technology are based on this 50 percent threshold total.

³ Job growth is based on employer reported projections and is not a reflection of historical growth, but rather current market trends.

Firm Size, Revenue, and Hiring Difficulty

The majority of energy efficiency establishments are small businesses. Just over half report one to five employees, and an additional third report six to 24 workers. There is a small proportion of medium-sized establishments, and very few firms with more than 100 employees.

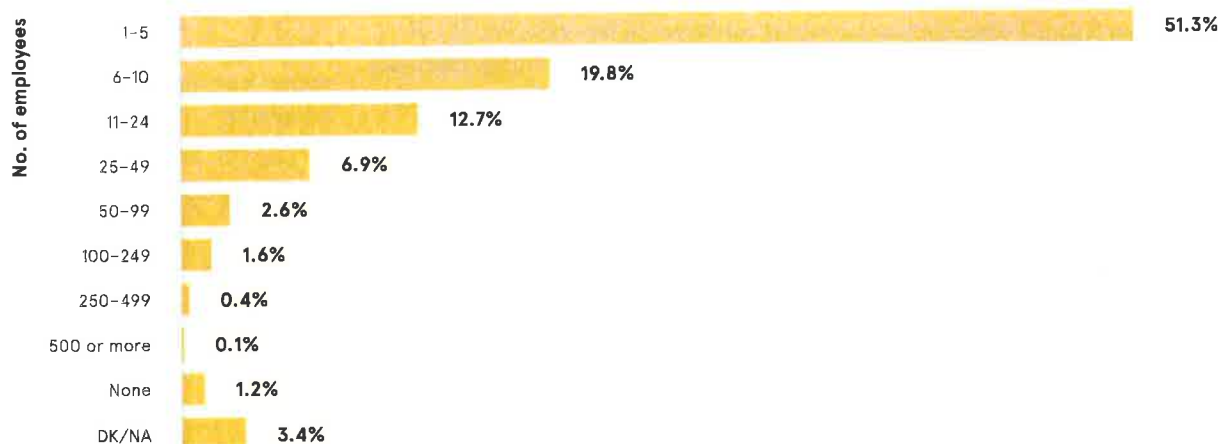


Fig. 3: National Energy Efficiency Firm Size Distribution, 2015

The majority of establishments conducting energy efficiency work attribute at least half their revenue to energy efficiency-related business, and almost one-third report all of their revenue is derived from energy efficiency work, according to our surveys.

Employers report difficulty finding qualified workers to fill their open positions. About three-quarters of employers said hiring was either “very” or “somewhat” difficult in 2015; three in 10 noted that hiring was very difficult.

The most reported reasons for hiring difficulty among energy efficiency employers included insufficient experience, training, or technical skills (35 percent); lack of qualifications, certifications, or education (31 percent); insufficient non-technical skills such as work ethic, dependability, or critical thinking (23 percent); competition or a small applicant pool (16 percent); and difficulty finding industry-specific knowledge and skillsets (16 percent).

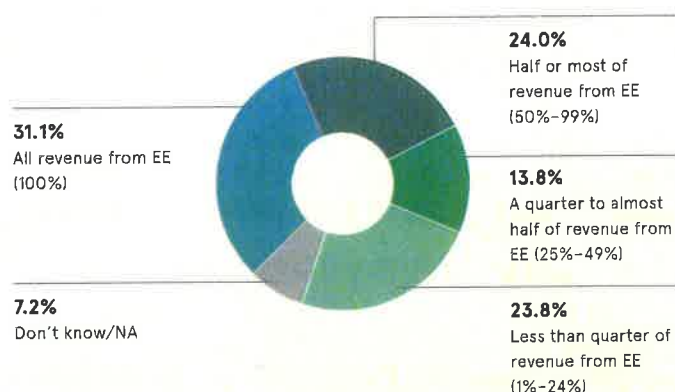


Fig. 4: National Energy Efficiency Revenue, 2015

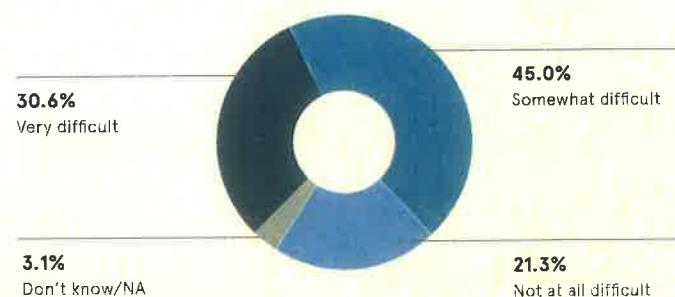


Fig. 5: National Energy Efficiency Hiring Difficulty, 2015

Top 10 States for Energy Efficiency Jobs

Quick Facts

The following states have the highest number of workers who spend some of their work hours on energy efficiency services.

1. California

Long an energy-efficiency leader, California has the largest workforce in the sector by far. Of some 321,000 workers, about half spend their biggest share of time focused on energy efficiency services. Almost three in ten are devoted to supporting traditional heating, ventilating and air conditioning (HVAC) technologies.

The remainder of the sector is spread mostly across efficient lighting, ENERGY STAR® appliances, high-efficiency HVAC, and advanced materials and insulation. Fifty-seven percent of firms are installers or distributors, while manufacturing and professional services each represent 16 percent of the value chain. Most of these are small businesses—almost 70 percent have 10 or fewer employees.

The largest share of energy efficiency jobs—46,620—lies within the Los Angeles-Long Beach-Santa Ana metropolitan area, followed by San Francisco-Oakland-Fremont (25,611) and San Diego-Carlsbad-San Marcos (17,869). (For more information on California's energy efficiency economy, please see Page 14)

2. Florida

There are about 106,000 energy efficiency workers across the state of Florida, though only a third (34 percent, or 36,610 workers) actually spend the majority of their labor hours working with energy efficiency technologies. Of these, almost half report that traditional HVAC technologies are their main focus, followed by advanced material and insulation and high efficiency HVAC, which is to be expected given the prevalence of air conditioning across the state.

Apart from other states in the top 10, Florida has a significant cohort of engineering and research firms: They make up a fifth of the activity, second to installation at 45 percent. These are mostly small businesses—61 percent report one to five permanent employees. However, the state has some representation of large firms, with 2 percent reporting 50 to 499 workers. The highest concentration of jobs is in Orange County (4,211).

The state has work to do on the utility front, according to ACEEE: It allocates little funding for either electricity or natural gas efficiency programs. In fact, the Public Service Commission approved requests from utilities in 2014 to decrease the level of energy efficiency offered to customers in the future.

321,177

workers in energy efficiency jobs
in California

~50%

of EE workers in CA focus on
EE services

106,491

energy efficiency jobs
in Florida

34%

of EE workers in FL focus on
EE services

3. Illinois

Almost half (49 percent) of the state's 89,830 energy efficiency workers spend the majority of their time on related business (44,094 employees). Their activity is primarily concentrated among three sub-technologies: traditional HVAC, advanced materials and insulation, and efficient lighting. Illinois is one of the few states to earn a perfect score in the building codes and compliances category of ACEEE's annual ranking, thanks to the work of many successful programs like Retrofit Chicago and the City Energy Project.

As with most other efficiency economies, the majority of firms are engaged in the installation or trade of energy efficient products. The state also has some activity in the manufacturing and professional service sphere. Most of these firms are small, with 63 percent employing fewer than 11 permanent workers, but there are some large firms in the state—about five percent report 100 to 499 employees.

Illinois passed comprehensive energy legislation, The Future Energy Jobs Bill, on November 30 that will increase utility investment in energy efficiency. The Future Energy Jobs Bill was supported by the Illinois Clean Jobs Coalition, which E2 was a member. The bill also fixes the state's broken renewable portfolio standard, and creates a new program job training program that will open up access to the solar economy for millions of low-income families.

4. Massachusetts

The only New England state in the top 10 also has the highest percentage of efficiency-focused workers. That's not surprising, given that it consistently sits at or near the top of national policy rankings by the American Council for an Energy-Efficient Economy (ACEEE). Of 82,848 people working in the space, 89 percent spend the majority of their time on energy efficiency.

Smart lighting is the largest chunk of activity, representing 46 percent of the workforce, followed by advanced materials and insulation with about quarter of total employment. Installation firms make up 43 percent of the activity, followed by trade with 26 percent. The state has a mix of small, medium and large companies in the sector: Sixty-five percent of firms have ten or fewer employees, 27 percent have 11 to 49 employees, and four percent have more than 50 permanent workers.

The state continues to build on its progress: Its most recently approved energy savings targets for 2016 through 2018 are the most ambitious in the nation thus far, according to ACEEE.

89,830

energy efficiency jobs in Illinois

49%

of EE workers in IL focus on
EE services

82,848

energy efficiency jobs
in Massachusetts

89%

of EE workers in MA focus on
EE services



The focus of the Clean/Green Committee is on jobs and training that will support environmentally sustainable business practices and legal compliance through;

- recycling or reuse of existing materials;
- water conservation;
- energy efficiency in product manufacturing and distribution;
- energy efficiency through construction, installation and maintenance,
- natural and sustainable product manufacturing,
- renewable energy;
- education, compliance and awareness.

OXNARD UNION HIGH SCHOOL DISTRICT ACADEMIES

Adolfo Camarillo



Agriculture Science
Business and Technology

Channel Islands



Business and Finance
Marine Science
Transportation Technology

Hueneme



Youth and Education Services
Engineering and Design

Oxnard



Green Technologies
Law and Public Services
Multimedia Business
Aviation Engineering

Pacifica



Culinary Arts
Health Science
Teaching and Educational Careers
Business (DECA)
Environmental Engineering
Information Technology

Rancho Campana



Medical Sciences
Engineering
Arts & Entertainment

Rio Mesa



Manufacturing, Engineering, Robotics
& Industrial Technology (MERIT)
Hospitality and Business

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teresa.telles@ouhds.k12.ca.us / (805) 487-7582

CONTACT US

The Ventura County Civic Alliance is serving as the business intermediary to recruit and manage employer and community involvement.

For more information or to participate, contact:

Mary Anne Rooney
Project Director
MARooney@CivicAlliance.org
(805) 415-2787



309 South K Street
Oxnard, CA 93030

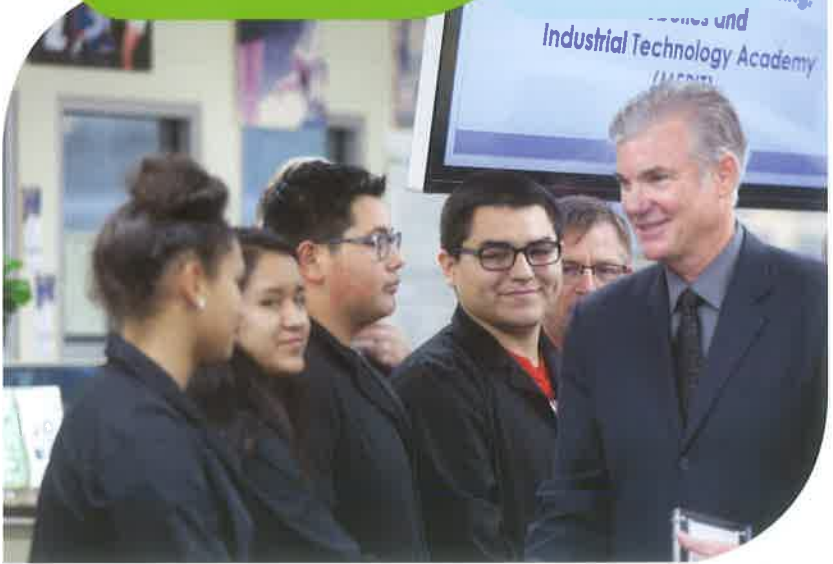
www.ouhds.k12.ca.us
AllianceForLinkedLearning.org



Alliance for Linked Learning

REDESIGNING
THE HIGH
SCHOOL
EXPERIENCE

FOR THE
21ST
CENTURY
LEARNER



State Superintendent Tom Torlakson visits Rio Mesa High School
(Manufacturing, Engineering, Robotics & Industrial Technology Academy)

A collaboration between



OVERVIEW

The Oxnard Union High School District (OUHSD) was awarded a \$6 million grant to implement Linked Learning and to develop partnerships with community and business leaders.

The Linked Learning academy model:

- Is supported by the National Academy Foundation; and
- Provides the District with the most complete resources, tools, curriculum and professional development available for implementation.

The National Academy Foundation (NAF):

- Is a leader in the movement to prepare young people for college and career success;
- Brings 30 years experience;
- Has a proven educational model which includes industry-focused curricula, work-based learning experiences, and business partner expertise; and
- Provides NAF track certification for job opportunities with over a dozen national business partners.



WHAT IS AN ACADEMY?

An Academy is a small cohort of students taking a sequence of rigorous college-ready courses throughout their four years that integrates academic classes with a specific industry sector.

WHY USE THE ACADEMY MODEL?

The Linked Learning model is a comprehensive four-year program of study that:

- Prepares students for College, Career, and Life;
- Connects education to real-world application by integrating challenging academics with a rigorous curriculum;
- Leads to a full range of postsecondary and career opportunities, keeping all options open after high school; and
- Improves overall student achievement.

Academies produce strong outcomes. Research shows that 98% of seniors who participate in the Academy model graduate.



HOW CAN YOU GET INVOLVED?

You can improve our workforce by becoming involved in Work-Based Learning experiences that offer Career Awareness, Exploration and Preparation.

BENEFITS TO INVOLVEMENT

- Create a diverse talent pipeline
- Lower recruitment and training costs
- Increase interest in your industry
- Improve graduation rates
- Meet a corporate social responsibility

OPPORTUNITIES

- Classroom speaker
- Mentoring
- Worksite visit
- Job shadowing
- Interviews
- Paid internships
- Advisory Board membership



OUTCOMES 98% OF SENIORS IN ACADEMIES GRADUATE