Rural Policy Forum

Powerful Partnerships to grow the Economy

AzAMI
Arizona Advanced Manufacturing Institute

Call us at 480-688-9801 or visit us online at mesacc.edu/workforce
Changes in the Workforce

- Approximately 1/3 of the Workforce is Over 55.
  - Most plan to work past retirement age.
  - When the economy stabilizes sufficiently, they will exit *en masse*.
- In 2014, 45% of the APS Workforce is Eligible for Retirement.
- By 2020, if present trends continue, there will be an excess of 6 million low skill/low education workers and a shortage of 1.5 million college educated workers.
- ~40% of the Unemployed have been without work for 12 months or longer.
Growing Industry Skill Gaps

• **Management, Scientific, Engineering & Technical Positions**
  – 64% of companies Surveyed by McKinsey report that they cannot find qualified applicants for management, scientific, engineering and technical positions.

• **Computer Science, Engineering & Technical Positions**
  – 76% of Arizona technology companies report that it is either very difficult or somewhat difficult to find qualified applicants for computer science, engineering and technical positions.

• **Manufacturing**
  – National Manufacturing Institute Survey – 67% of employers report a moderate to severe shortage of available qualified workers, 56% expect this shortage to become more severe.
Can Community Colleges Adapt to Changes in the Workforce

Manufacturing in the 60’s
- Construction of freeways & homes created Industry growth
- Electronics
- Plastic Molding
- Heavy Equipment
- Structural Fabrication
- Motorola, MD Helicopter,

Advanced Manufacturing Today
- Aerospace
- Tool Manufacturing
- Automated Processes
- Advanced Machining Manufacturing
- Fabrication Methods

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MCC’s Response to Change

- **2012** Boeing Challenge – Design curriculum that meets the highest technical needs of the aerospace industry and will serve many employers in the supply chain, and teach the employability skills needed by the entire workforce.

- **2013** Site Visit to Washington State – MCC and Boeing Team observed best practices of the Air Washington TAACCCT grant and validated our strategies.

- **October 1, 2013** recipient of the TAACCCT grant with the DOL and the State of Arizona with 2.5 million for building capacity of the AzAMI.

- **July 1, 2014** recipient of the STEM grant from the State of Arizona legislature for $400 thousand for building Additive Manufacturing (3D printing).

“We should remember that good fortune often happens when opportunity meets with preparation.”

*Thomas Edison*

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AzAMI
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Vision
Mesa Community College is the premier manufacturing learning experience serving as the regional Center of Excellence for advanced Manufacturing.

Mission
Provide relevant life long learning opportunities in the manufacturing business sector

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Holistic Approach

• Industry
  – Comprehensive approach for meeting all of the employers manufacturing needs
  – 4 Pillars - Manufacturing, Electronics, Drafting, and Welding

• Participants
  – Career navigation and advising services using competency based stackable credentials to get them from enrollment to employment

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Alignment of Academic Programs

• Curriculum Development meeting industry standards
• Purchase needed Laboratory Equipment and enhance lab environment
• Become an Industry Certification Site with certified faculty – NCRC, and NIMS I and NIMS II, J Standard
• Certification Boot Camps – Short term review and certification testing

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Flexible Educational Model

• Open Entry, Open Exit
• Open Labs
• Portable Labs
• On-site Instruction
• Online Tooling U

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Competency Based–Stackable Credentials

Certificates of Completion
- Electro/Mechanical Drafting CCL
- Mechanical Drafting CCL
- Welding CCL
- Manufacturing Welding CCL (NCRC, AWS, ASME)
- Micro Circuit Mask Design CCL (NCRC, NIMS)
- AWS - D1.1, D17.1, D10.12
- Pipe Welding API 1004, ASME 9-1X
- CAD/CAM/CNC I CCL
- CAD/CAM/CNC II CCL
- CAD/CAM/CNC III CCL
- Manufacturing Management CCL (NCRC, NIMS)
- Safety 10/30
- MM+S Level 1
- Machining I CCL
- Machining II CCL
- Machining III CCL
- Machining IV CCL
- Electronics Technology CCL (NCRC, MSSC)
- Standard 001
- IPCA 620

Associates Degrees
- Micro Circuit Mask Design AAS
- Electro/Mechanical Drafting AAS
- Manufacturing Technology AAS
- Manufacturing Welding AAS (NCRC, AWS, ASME)
- Manufacturing and Product Development AAS
- Welding AAS
- Electronics Engineering Technology AAS
- Electronics Technology AAS

Foundation Certification
- Manufacturing Skills Standard Council (CPT) - Certified Production Technician
- NATIONAL CAREER READINESS CERTIFICATE
- NCRC  Workforce Readiness

Certification Boot Camps
- Electrical Wiring, Sheet metal, Composites, Precision Assembly

Manufacturing Technician Fundamentals
- MET - 100AA / 100AB
Community Partnerships

Services and Outreach to Build the workforce Pipeline:

• The unemployed TAA workers
• Underemployed - Skills gap prevents job improvements
• Veterans returning need transferable skills
• Incumbent workers already employed but need up skilled for the company to remain competitive
• Community Based Organizations

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Resource Partnerships

Leveraging funding opportunities

- IMPC with ASU grant submission and Chicanos Por La Casa (NSF and H1B grants)
- High Tech Workforce Initiative (NSF) grant
- RIO Salado –Round 1 TAACCCT NISGTC grant
- Estrella Mountain Community College –Round 2 TAACCCT “Get into Energy” grant
- Round 1 TAACCCT “Air Washington” grant
- Sinclair Community College (NSF) grant Guitar building workshops
- Additive Manufacturing Lab – Stem Dollars with the State

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Education Partnerships

• College, building Certification Boot Camps and sharing the Aerospace Technology Degree
• Dual enrollment with K-12 – Mesa Public Schools, Chandler, Gilbert and Paradise Valley
• EVIT and West-MECE Joint Technical Education District with program articulation creating pathways in manufacturing
• Sister college colleges sharing and building new programs: EMCC, Maricopa Skills Centers, CGCC
Industry Partnerships

• Participate in Employment “Reverse” Job Fairs
• Provide Internships and “Earn to Learn” opportunities
• Offer Job Shadowing and Company Tours to students
• Engage in the Employer Focus Groups to evaluate curriculum, current technology and build advocacy
• Employers in the classroom and onsite recruiting
• Statewide Sector Partnerships like AMP
Best Practice

Employers, we need you!
Join us at the East Valley Employer Outreach Meeting
Thursday, January 9, 2013 10-11:30am

STAND & DELIVER
A GREAT OPPORTUNITY FOR JOB SEEKERS TO DELIVER THEIR 30-SECOND ELEVATOR SPEECH DURING THE MEETING.
Are you ready to give them the opportunity? Are you ready to hire? JOB CLUB participants will EARN this opportunity by following through with employability tasks and demonstrating job ready skills.

The East Valley Employer Outreach Meeting is designed with YOU in mind.
- Share your current workforce needs
- Convey future employment trends
- Let us help connect YOU to the right resources.

January Meeting Location:
Community Room
Escobedo at Verde Vista Apts.
435 N. Hibbert Bldg #8
Mesa, AZ 85201

RSVP to Pat Esparza at pesparza@mesacc.edu or 480.461.6266
Sponsored by: Mesa Community College, Manicspa Workforce Connections, Department of Economic Security Job Service Office-Mesa, Chandler-Gilbert Community College, Department of Economic Security, & MAXMUS.

1. Build connections with WIFM opportunities that can help each other and provide a sustainable foundation for sharing information
2. Bring employers into the college classroom to speak and observe the learning
3. Find ways to promote your partners with joint marketing strategies, success stories, and celebrations...Build champions vs representatives
4. Think about the long game and not the short game...Transformational vs Transactional
It Takes A Village to Build Success

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