Steel Fabricators Council Meeting
Tuesday, June 21, 2016
Barnhart Crane & Rigging

Meeting Participants

Attendees

Companies o Barnhart Crane – David Dingeldein o GMW, Inc. – Tim Smith o Keeler Iron Works – Clay Keeler o Lewis Mechanical – Al Green o Memphis Wire & Iron – Jim Stafford

- o Plant Maintenance Service Corp. – David Galtelli
- o Plant Maintenance Service Corp. – Stan Rodgers o Providential Fabricators – Rich Riegel o Quality Iron – Jeremy Clark
- o Rees-Memphis – Andy Cowan
- o Southern Systems Inc. – Billy Potts

Staff

Greater Memphis Alliance for a Competitive Workforce o Pauline Vernon o Latanyua Robinson

Greater Memphis Chamber o Anita Brackin

Program Overview

Workforce Resources

Arkansas State University Mid-South o Emilee Sides o Ed Cook

Moore Tech o Karen Treas o John Schmidt

Southwest Tennessee Community College o Mike Stephens o Taylor Tagg

Tennessee College of Applied Technology o Bond Stewart

Workforce Development Board of Eastern Arkansas o Angela Robinson

Workforce Investment Network o Melanie Winfield o Henry Lewis

Guests

The Manufacturing Institute, NAM o Katherine McClelland

Schools reported on their plans for programmatic expansion and current enrollments:

TCAT

- Plans to incorporate additional focus on layout and fitting as these are skills that fabricators are looking for. This includes sheet metal breaking, sheering, and rolling, and additionally working to get another side of metal siding so that they can teach that with the welding program.
- TCAT has 23 students total enrolled at the time, and a co-op program for students. Students are in class from 8-2:30, and alternate days when they are participating in the co-op program

Moore Tech

- The welding program recently moved in to a 10,000 square feet space. They are still expanding the welding program and adding 10 more booths. They also added a second year optional school

that includes pipe welding, layup, mostly on stick and tig welding, as well as a second year program on CNC plasma and CNC robotic.

- Moore Tech is close to capacity for students in the full-time day program, where they offer 3 classes in the morning and afternoon but are not at capacity in the part-time and evening students. They also offer dual enrollment for secondary level students.
    - They have about 90-100 students a year in welding program, however not all welding students are majoring in welding, and most students have a major and minor. 50% are looking to actually move through and get jobs in welding, and that percentage is increasing
- Students are in the classroom for 45 minutes, then in the shop for the rest of the 3 hour class

ASU Mid-South

- The campus has a new addition on the fabrication side, iron worker, miller 8 pack welding equipment, etc. ASU offers students options per class, not per program and they can leave to get a job after their classes are complete, however they do try to get students to stay for a 2 year degree. The program attempts to get students out of the welding booth to gain real world experience, including with experience heights, in confined spaces, in a ditch, etc. to duplicate what is happening in the field
- Students can take 6 classes to get a Certificate of Proficiency, which includes blueprint reading and just stick welding, or enroll in the longer fabrication or advanced fabrication programs
    - Advanced Fabrication is fairly new and they haven't had a student go through it yet
- ASU classes are 2-2.5 hours long. They enroll about 30 students over the summer, and 100 students during the academic year, with about 50% of the students from high school (starting in 10th grade). High Schoolers are there 5 days a week for 1.5 hours. Students can expect an AWS certification by the end of the program and currently have a 98% pass rate.

Southwest

- ☐ Southwest has 2 new programs coming on board. The first is Industrial Motion Control Technology, which can be finished in a year; the second is a Technical Certification in Advanced Machining. The program has new mills, lathes, and surface grinders, covers basic measurements, hand tools, and manual machining. They also offer CNC certification. Southwest offers short-term, non-credit programs to train metal finishers, working specifically with medical devices. Their welding lab that has been on campus for some time and they have plans to bring back basic welding.

Fitters Pathway Feedback

- All fitters must have core foundational academic skills before being able to move into a trainable environment. This includes:
    - Applied Math: calculations using feed and inches, fractions, and metrics conversions. Fitters will likely not need to draw in metrics, but must be able to convert drawings from metrics and reverse.
    - Basic Trigonometry: solving for angles, calculate circumference, etc.

- Advanced Blueprint Reading o Measurement, tolerance, and related tools o Use of tape measures, compasses, protractors, etc.
- Problem solving and troubleshooting

- Employers agreed it would be beneficial for schools to tour the different fabrication shops to see the different environments fitters will be working in o *If employers are interested in opening their shops for tours, they should contact Pauline, Anita, and Andy o These tours could eventually include students, but may be helpful to have a group of instructors tour the facilities first
- Graduates of a fitters program will move on to become a trainee or apprentice o Employers agreed that they would need at least a year of training before becoming a journeyman
  - Fitters will receive on the job training by evaluating welders, then pairing up with other fitters
- Employers stated that welders are separate from fitters, with the fitter pathway being more in line with students who are interested in art and creating objects, with a strong level of attention to detail. Company representatives indicated that they would like schools to lead these types of students into fitter pathways before the students are hired by the companies o They suggested that companies should create videos of the different type of tasks and environments fitters are exposed to so that students have an idea of the positions. These videos can show things like how to make steel move, apply pressure, line up correctly, where and how to tack, how they use mathematics and how to measure.
- Fitters should come in with basic industry skills, including:
  - Machine operation, particularly press brakes
  - Basic welding
  - Nomenclature used in the steel fabrication sector, including beam, channel, pipe, tube, etc.
- Fitters looking to gain advanced skills could begin to gain occupational skills, however these are not necessary for basic entry level fitters. Employers suggested that there could be two different training levels for fitters, with advanced training including how to:
  - assemble structural steel using a blueprint o tack steel pieces in place
  - manipulate steel plates using sheet dogs, wedges, and other tools o apply pressure, heat, etc. to manipulate steel
  - create a jig to hold an assembly of parts together for production of identical pieces
- Employers were not ready to agree to an exact amount of time or content of training, but would like to have a follow up committee meeting to review suggested curriculum and lengths of training based on current offerings from the GMACW member schools before the next full council meeting o All participants agreed that the curriculum should build off of the foundations of the welding pathways

Memphis Works Update

- Memphis Works has two primary targets: Workforce Investment Network and high school students o They are also working with employers in the cities to make sure that partner companies can be marketed to places like Jobs for TN and engagement centers
- Memphis Works can do profile pages for companies where employees can talk about work environment, culture, and experiences
- Employers would like to be able to show the things that they're looking for, help to weed out people to show that they're not qualified for the position – would like to do it for the specific jobs instead of just general promotion. Like opposite of a video resume, video job posting
- On the education side, the website will also help promote the schools in the GMACW Network, and will have suggestions for other careers students may like, including programs they can go into to get training on that too

Recommendations Moving Forward

- Compile a list of the tools that employers are expecting to have students enter with, then work with the schools to have those tool kits included in the book store and as course requirements for the students, making them eligible for federal financial aid o WIN could play a role in assisting in the cost of the tools that people need to enter the workplace, and could possibly provide financial assistance during the summer months
- Will do the school tours again in the fall so that people who weren't able to go on the first tours can do it again so that the companies can see what the schools have to offer
- Incorporate Financial Literacy courses into the Memphis Works site. Employers can then require this as part of their hiring process