

Alliance for Manufacturing Excellence

Economic Development Highlights

- ✓ 438 jobs have been created, saved or retained, mostly in rural areas.
- ✓ \$38 million has been added to the state's economy.
- ✓ The Alliance helped one company increase its overall productivity by 25 percent.
- ✓ The total value of services provided by the Alliance is over \$10 million.
- ✓ The total value of jobs created, saved or retained with the Alliance's help is \$21.9 million.
- ✓ Manufacturing now accounts for more than 16 percent of all Oklahoma employment.
- ✓ Funding for the Alliance comes from NIST, OCAST and local Manufacturing Extension Agent sponsors.
- ✓ The long term plan for funding the MEPs is 1/3 federal and 2/3 state and private sources.
- ✓ The Alliance provides on-site, one-on-one, focused engineering assistance and technology transfer service to small rural manufacturers.
- ✓ Services have included:
 - Facility layout
 - Product design assistance
 - Process flow improvement
 - Environmental and safety regulatory compliance assistance
 - Linkages to other universities and federal laboratories
- ✓ The Alliance is one of 70 manufacturing extension programs in the United States.

Manufacturing the Future

by Fred Causley

If a manufacturing company in Oklahoma City or Tulsa needs engineering assistance, it is available. Experts can be brought in on short notice to help owners solve a production problem, materials can be located and equipment suppliers can be identified.

However, some 2600 rural manufacturers in Oklahoma are keenly aware that engineering assistance is not readily available to them. They often may not know where to look for the assistance they need. When they do find it, it is likely to be cost prohibitive.

The story begins with a pilot program being set up in 1992 operating on USDA funding to provide engineering technology assistance to rural manufacturers.

"The first phase focused on one-on-one technology transfer to small industries," said Billy Barfield, head of the OSU Department of Biosystems and Agricultural Engineering. "The support we offered included electronics, material flow, plant layout, analysis and design components. We learned how to help with that program, but the funding was limited."

In 1996, OSU and the Oklahoma Alliance for Manufacturing Excellence joined forces to provide engineering assistance to rural manufacturers. One of 70 Manufacturing Extension Partnerships (MEP) in the U.S., the Alliance is the manufacturing extension service for Oklahoma.

Barfield, Tim Greene, of the OSU College of Engineering, Architecture and Technology (CEAT), and Randy Goldsmith, Alliance president, developed and submitted a proposal to the National Institute of Standards and Technology.

To the benefit of Oklahoma, NIST accepted the proposal and provided funds, which were matched by the Division of Agricultural Sciences and Natural Resources and CEAT. Additional funding came from the Oklahoma Council for the Advancement of Science and Technology. The result was the funding of a statewide application-engineering program that is one-third

federally funded, with two-thirds of funds coming from state and private sources.

"Agricultural knowledge has been disseminated through Cooperative Extension offices for decades, so it seemed natural to use the same successful model to provide field-based engineering services," Barfield said.

To date, specialists have been placed in the four Cooperative Extension district offices and two at the main campus in Stillwater. Win Adams works in the northeast district and is located in the Muskogee office. Terry Collins is at Enid for the northwest district. Jim Friesen covers the southwest district and is located at Cordell, while Phil Norton serves the southeast district and is located at Ada.

Sam Harp is located in Stillwater, and like Adams, Collins, Friesen and Norton, is a member of the OSU Department of Biosystems and Agricultural Engineering. Harp also is a senior applications engineer. Jim Henderson is a senior applications engineer in Stillwater with CEAT.

The Alliance has four industry sector specialists, sponsored by the Oklahoma Department of Commerce, who provide expertise in the areas of food processing, medical products, international trade and aviation/aerospace. In addition, 15 Alliance manufacturing extension agents across the state, funded by Vo-tech and higher education entities, provide assistance to rural manufacturers in technology, marketing, human resources, finances and business relations.

"Projects that require more than eight hours of assistance from an applications engineer require the client to agree to a pre-project needs assessment and a post-project evaluation by the Alliance before the applications engineer can provide service," Barfield said.

One result of that requirement is a clear idea of the benefit the program is having on the Oklahoma economy.

Program evaluations – done by an independent survey – are nothing short of phenomenal. Since 1994, 438 jobs have been created, saved or retained, with the