



**Office Locations:**  
 Garden City, Great Bend, Hays,  
 Manhattan, Overland Park,  
 Pittsburg, Wichita

MID-AMERICA MANUFACTURING TECHNOLOGY CENTER (MAMTC) Serving firms throughout Kansas through seven offices. Contact: Paul Clay, 10561 Barkley St, Suite 602, Overland Park, KS 66212, (913) 649-4333, Fax: (913) 649-4498, Email: pclay@mamtc.com, Website: <http://www.mamtc.com>

**THE  
 MANUFACTURING  
 EXTENSION  
 PARTNERSHIP  
 IN KANSAS**

Manufacturing Extension Partnership (MEP) is a nationwide system of services and support for smaller manufacturers to become more globally competitive. At the heart of the system is a network of affiliated, locally-based manufacturing extension centers. Each center, like MAMTC, is a partnership, typically involving federal, state, and local governments; industry; educational institutions; and other sources of expertise, information and funding support.

**C O M P A N Y C L I P S**

**Deluxe Financial Services Increase Production by 16% with LEAN Manufacturing**

Deluxe Financial Services Inc. (DFS), of Lenexa, Kansas produces documents for financial institutions nationwide. This facility currently employs 300 people. Its parent company, Deluxe Corporation, owns 11 production facilities and two warehouses throughout the U.S. Corporate leaders, impressed with the results of lean manufacturing implementations in the Chicago facility, decided to introduce lean manufacturing concepts to all of the plants. By 2003, Deluxe Corporation hopes to have all of its facilities converted to cellular manufacturing. DFS contacted the Mid-America Manufacturing Technology Center (MAMTC) for lean implementation assistance.

MAMTC conducted a walk-through assessment of each production area with production supervisors and managers to get a basic understanding of production processes and work flows. MAMTC then developed examples and situations to be used in its lean manufacturing training sessions. MAMTC led DFS managers through a value stream mapping (VSM) exercise to uncover any non-value-added steps. DFS, with assistance from MAMTC, identified areas that could be improved and then formulated an action plan to reduce waste and improve its efficiency.

MAMTC presented management with additional training in 5S development, pull systems, and kanban production controls. After completing the training, DFS provided training in lean manufacturing concepts to all its employees and began implementation. Within a year of implementing lean concepts, DFS increased its production by 16 percent and reduced the cycle time by 12 percent. Defects per million were reduced by 163 percent. Within one year, 46,500 fewer hours were needed to produce the same amount of product, a labor savings of \$877,540. Travel through the front-end production process was reduced from 194 feet to 23 feet, eliminating five pieces of equipment. In addition, employee morale is up and employees are more engaged in their positions. The company expects to be 100 percent cellular by 2003.

*Continued*

**STATE STATS**

DATA\* COVERS JANUARY TO DECEMBER 2001

- Number of projects completed with firms  
**783**
- Number of firms served  
**743**
- Number of firms served for the first time  
**448**
- Federal cost share for current operating year  
**\$1,850,100**
- State/other cost share for current operating year  
**\$3,700,200**

*\*Data as reported from center*

DATA\*\* COVERS JANUARY TO DECEMBER 2001

- Increased sales & retained sales  
**\$32,298,000**
- Client capital investment  
**\$59,621,000**
- Total cost savings  
**\$3,229,400**
- Jobs (created & retained)  
**500**

*\*\*Source: Information provided by Center*

**For additional information,  
 contact Dede McMahon 301-975-5020**



### **Philips Lighting Balances Labor Practices to Improve Productivity**

Philips Lighting Co., a leader in the global lighting market, manufactures its products for homes, offices, airports, stadiums, hospitals, and cars. The facility in Salina, Kansas, established in 1967, employs less than 500 people. Philips made improvements to the reliability of the skid unloader on one of the bulb-coating lines so that it required less manual labor during operation. The operator, with substantially less manual work to do, needed to have her job responsibilities reallocated. Philips wanted to take this opportunity to analyze all the positions on the line to distribute labor evenly and efficiently for maximum productivity. For assistance, Philips Lighting contacted the Mid-America Manufacturing Technology Center (MAMTC).

MAMTC conducted a complete job analysis for the personnel on three bulb-coating lines. First MAMTC identified the responsibilities of each job performed by the operators and identified value-added content. Then MAMTC compiled all of the information to create an animated ProModel simulation to help quantify and verify the results.

MAMTC adjusted the simulation, incorporating various proposed changes to job responsibilities, to demonstrate the effects on the employees and the line. The simulation helped determine operator utilization in each position and potential opportunities for improvement on the line. After offering the simulation as a model, MAMTC submitted its proposal for labor redistribution across the three lines. Philips Lighting accepted, and MAMTC provided the company's line operators with concise job description. The operators are currently implementing MAMTC's changes to build a more efficient and productive workforce.