#### IMPACT: INDEPENDENT STUDIES

Systematic evaluation studies have confirmed that MEP is having a positive effect on businesses and the economy. . . and most important. . . MEP services are leading to desired business and economic goals. . .

Phillip Shapira, Ph. D., Georgia Tech University

#### **PA Manufacturers Post Positive Productivity Gains**

A study of Pennsylvania's Industrial Resource Centers (IRC) found that the program boosted the labor productivity of IRC clients by an average of between 3.6 and 5.0 percentage points per year. The study found that these productivity gains raised gross state products by about \$1.9 billion. Finally, the study found that for every state dollar invested in the program, the program generated almost \$22 of additional income to the state economy. In 2004, Deloitte Consulting, LLP was asked to conduct a vigorous independent analysis of IRC performance and impact on the Pennsylvania economy. Deloitte found that previous assessments of IRC impact, most recently in 1999, have been sustained, even in more challenging conditions between 1999 and 2003.

#### **Higher Productivity Growth for MEP Clients**

Researchers at The Center for Economic Studies, U.S. Census Bureau, found that manufacturing extension clients experienced between 3.4 and 16 percent more growth in labor productivity over a five-year period than similar non-client firms. The productivity growth of the 1,559 firms studied translates into \$484 million in additional value-added at client firms.<sup>3</sup>

Based on these results, a second study estimated that this value-added increase translates into \$1.3 billion in additional economic output over 5 years, leading to \$213 million in additional federal revenues and a \$4.47 increase in real disposable income per capita.<sup>4</sup>

...MEP is a valuable resource for small manufacturers . . . This resource gives small manufacturers on-target and immediate fixes that allow them to compete effectively with their larger counterparts.

Gowher Rizvi, Director of the Ash Institute of Democratic Governance and Innovation at the John F. Kennedy School of Government at Harvard University

#### Sources

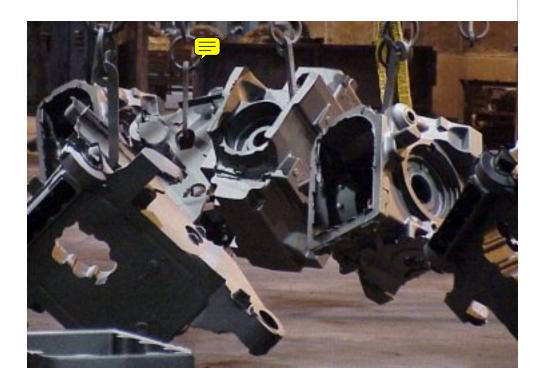
- 1 "The Pennsylvania Industrial Resource Center: Assessing the Record and Charting the Future," by Nexus Associates, Inc. for the Ben Franklin/IRC Partnership Board. October 1999.
- 2."Manufacturing Pennsylvania's Future: Regional Strategies that Build from Current Strengths and Address Competitive Challenges," for the Industrial Resource Centers (IRCs) of Pennsylvania, Department of Community and Economic Development, Commonwealth of Pennsylvania and Team PA Foundation, January 2004.
- 3. Journal of Policy Analysis and Management, "Evaluating the Impact of Manufacturing Extension on Productivity Growth," by Ronald S. Jarmin, Winter 1999.
- 4. "Estimating Economic Impacts of Government Technology Programs: Manufacturing Studies Using the REMI Model," by M.A. Ehlen and S.F. Weber, economists for the National Institute of Standards and Technology, 1997.

**Extension Partnership** is a nationwide system of resources, transforming manufacturers to compete globally, supporting greater supply chain integration, and providing access to technology for improved productivity. At the heart of MEP are manufacturing extension centers locally positioned throughout the U.S. and Puerto Rico to address the critical and often unique needs of

America's manufacturers.

The NIST Manufacturing

# MAKING A DIFFERENCE FOR AMERICA'S MANUFACTURERS





## **MEP** • MANUFACTURING EXTENSION PARTNERSHIP

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY U.S. DEPARTMENT OF COMMERCE The public sector also has a role to play in helping smaller companies improve their innovation processes. One model is the Manufacturing Extension Partnership operated by the National Institute of Standards and Technology (NIST), which enables small and medium-sized firms to tap knowledge of business experts, inluding innovation specialists.

Booz/Allen/Hamilton, December 2006, Smart Spenders: The Global Innovation Tool

## **Small Manufacturers: The Foundation of American Industry**

Manufacturing creates wealth for our nation: wealth in the form of economic growth, increased jobs and robust trade in world markets. Productivity improvements by U.S. manufacturers are leading the nation. Between 2000 and 2006, manufacturing productivity grew much faster than the entire economy: manufacturing productivity rose by 28 percent compared to a 15 percent increase for the non-farm business sector.\*

Approximately 341,000 small manufacturers account for over half the total value of U.S. production and represent nearly 99 percent of all manufacturing establishments.\*\* They employ over 10.2 million people and account for 70 percent of all U.S. manufacturing employment.\*\* Manufacturing jobs are typically high-skilled and high-wage, with employees earning 21 percent more per week than private sector.\*

## The Challenge for Small Manufacturers: Bridging the Productivity Gap

As critical as small manufacturers are to the economy, the productivity gap between large and small firms has widened. Between 1992 and 2002, value-added per employee for large manufacturers grew by 41.6 percent versus 35.3 percent for small manufacturers.\*\* And, as large manufacturers increase their dependence on suppliers for parts and services, the performance and capabilities of small manufacturers become even more critical to the competitiveness of all manufacturers and to the health of the U.S. economy. Yet, according to a National Research Council report, "Many of these small firms, however, are operating far below their potential. Their use of modern manufacturing equipment, methodologies and management practices is inadequate to ensure that American manufacturing will be globally competitive."

Limited budgets, lack of in-house expertise, and lack of access to the newest technologies are but a few of the significant barriers faced by small manufacturers – barriers that they can overcome by working with MEP.

#### **How MEP is Making a Difference**

#### 28,004 Manufacturers served in FY2007

MEP has completed nearly 360,000 customer engagements since the program's inception including technical assistance projects, training programs, networking events and long-term strategic support.

#### MANUFACTURING EXTENSION CENTERS

MEP is a national system of affiliated manufacturing extension centers and field offices located throughout all 50 states and Puerto Rico. Created in 1988, today's system delivers services to firms across the country and in Puerto Rico. Centers are funded by federal, state, local and private resources to serve small manufacturers.

Each center works directly with area manufacturers to provide expertise and services tailored to their most critical needs, which range from lean manufacturing and worker training to business practices and implementation of technology innovations. MEP provides the solutions manufacturers need utilizing the expertise of both center staff and outside consultants. Centers often work with small firms to overcome barriers in locating and obtaining private-sector resources.

#### **PARTNERSHIPS**

MEP provides manufacturers with access to a wealth of tools, techniques and other resources through thousands of public and private affiliations. Initiatives with the U.S. Departments of Labor, Defense, and Energy, EPA, SBA, the State Science and Technology Institute, the National Association of Manufacturers, state and local employment training organizations and hundreds of universities and community colleges are a few examples of how MEP leverages public and private resources to make a comprehensive range of technical services available to small manufacturers.

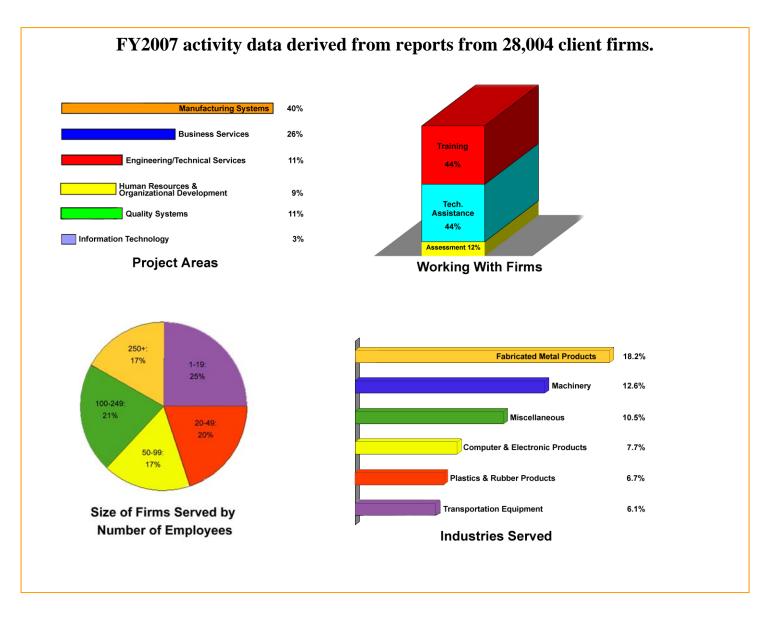
Each year, MEP collaborates with thousands of manufacturers to solve problems, to increase productivity and to achieve higher profits. Through continuous assessment and improvement of our products, services and service-delivery approaches, MEP is committed to meeting the strategic needs of manufacturers in today's globally competitive market.

## For a list of centers and other information about MEP, contact:

#### **Manufacturing Extension Partnership**

100 Bureau Drive, Stop 4800 Building 301, Suite C100 Gaithersburg, MD 20899-4800 (301) 975-5020 or .mfg@nist.gov. Or visit our website at .www.mep.nist.gov.

Phone 800-MEP-4MFG for the center serving your area



#### FY2006\* MEP CLIENT IMPACTS AS A DIRECT RESULT OF MEP ACTIVITIES

Increased/Retained Sales	\$6.76 billion
New Sales \$3.11 billion	
Retained Sales \$3.65 billion	
Cost Savings	\$1. 115 billion
New Client Investment in Modernization	\$1.650 billion
Jobs Created	16,740
Jobs Retained	35.845

<sup>\*</sup> Independent follow-up of clients with projects completed in FY2006. Of the 5,384 clients selected to be surveyed, 4,959 completed the survey in FY2007. Measures are a conservative snapshot of benefits. Recurring or cumulative benefits may be larger.

<sup>\*</sup> Bureau of Labor Statistics

<sup>\*\*</sup>U.S. Census Bureau

<sup>\*\*\*</sup> National Academy of Sciences