
Manufacturing Extension Partnership (MEP)

www.mep.nist.gov



NIST MEP

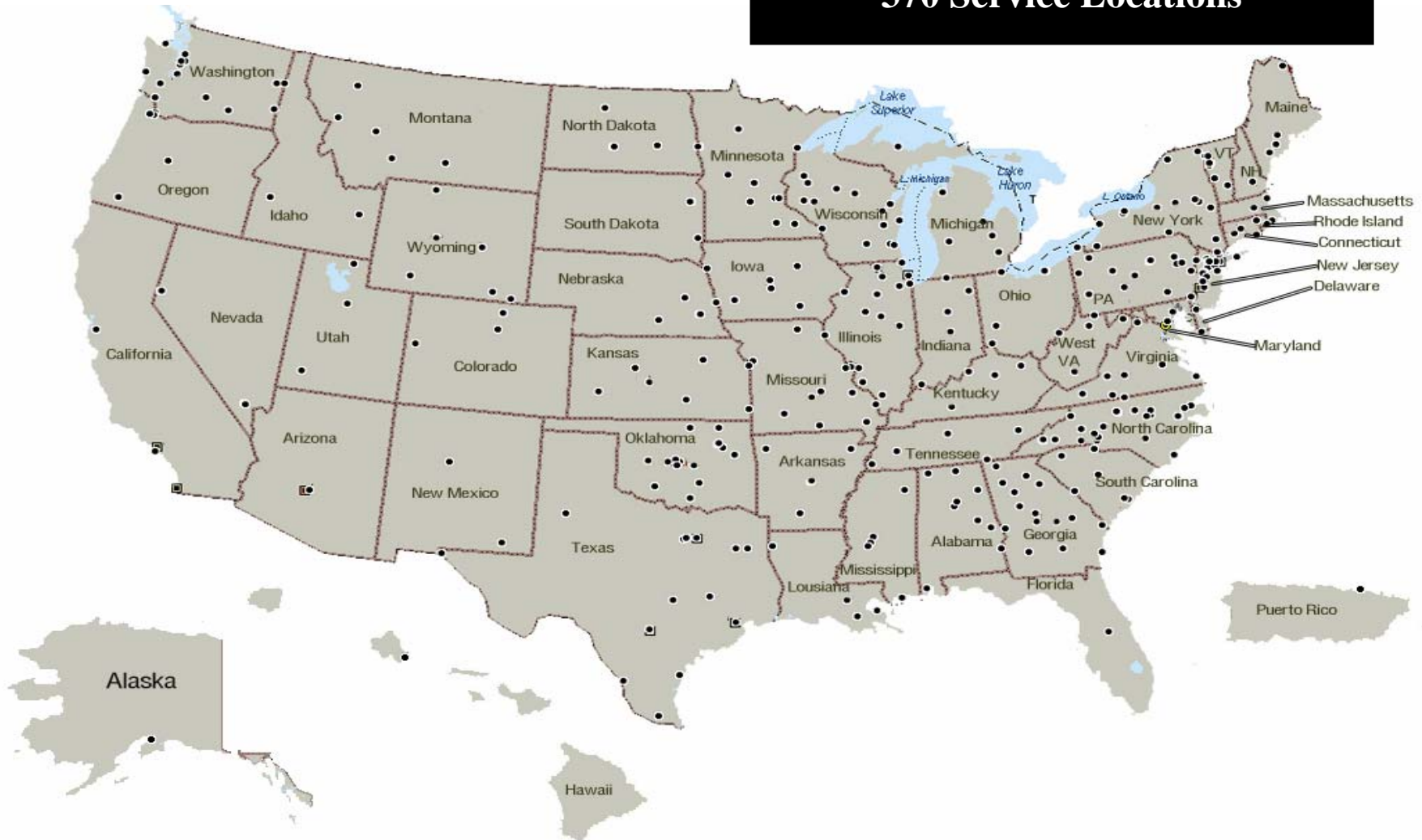
MEP is a nationwide network of not-for-profit centers in over 360 locations, whose purpose is to provide manufacturers with the tools they need to succeed.

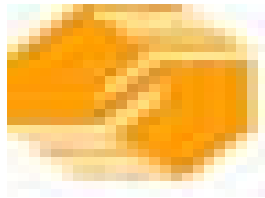
The **centers**, serving all 50 States and Puerto Rico, are linked together through the [Department of Commerce's National Institute of Standards and Technology \(NIST\)](#).

Centers are funded via cooperative agreements by federal, state, local and private resources to serve manufacturers.

MEP Office Locations (2005)

1400 Field Staff
59 MEP Centers
370 Service Locations





MEP Mission Statement

“To strengthen the global competitiveness of US-based manufacturing by providing information, decision support, and implementation assistance to smaller manufacturing firms in adopting new, more advanced manufacturing technologies, techniques, and business best practices.”

MEP History

2005

In the FY2005 Omnibus Appropriations bill, MEP received \$109 million and was renamed the **Hollings MEP** program, in recognition of the strong support Senator Hollings gave this program during his tenure in the Senate.

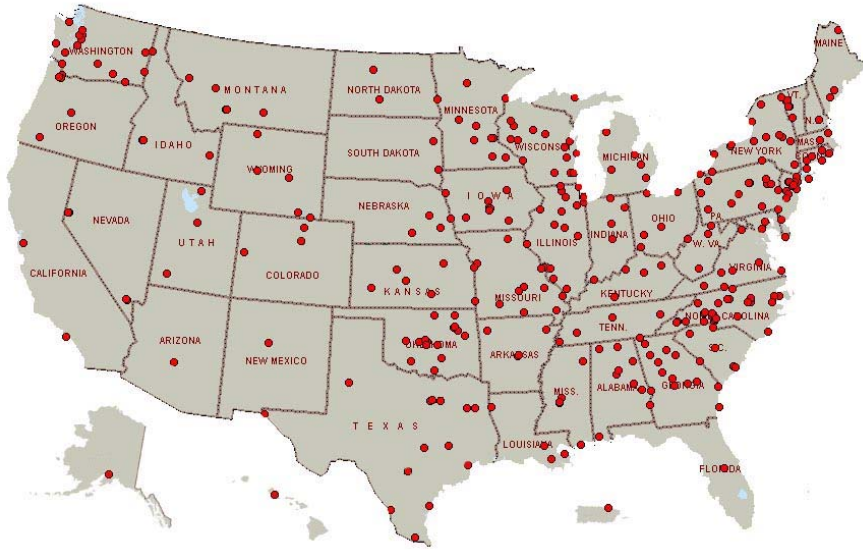
1996

In 1996, MEP became a nationwide network of Centers working with small- and medium-sized manufacturers in all 50 states and Puerto Rico.

1989

The Manufacturing Extension Partnership started in 1989 with centers in three states – South Carolina, Ohio, and New York.

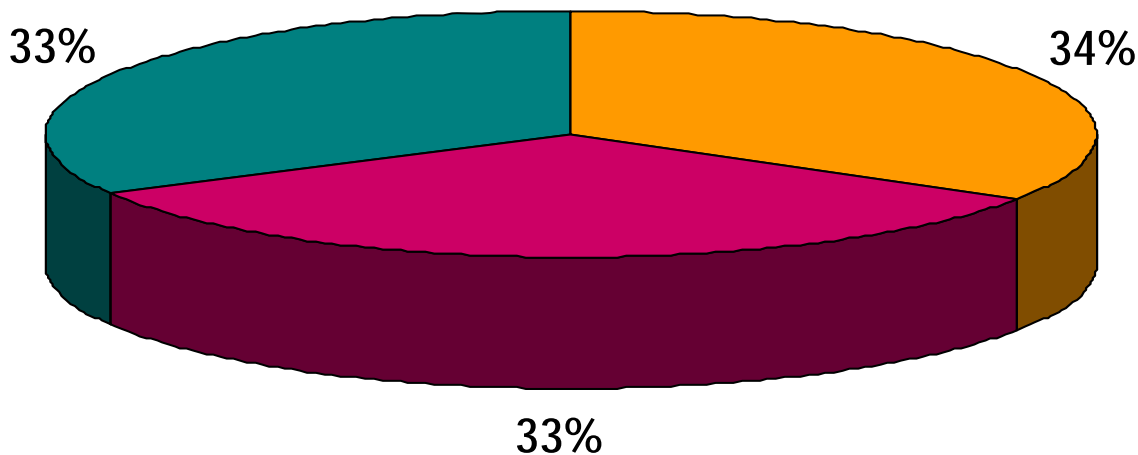
MANUFACTURING EXTENSION PARTNERSHIP



- ✓ **370 locations, all 50 States & Puerto Rico**
- ✓ **Leverage local, state & national partnerships**
- ✓ **Federal, State, Industry and Client Funded**

MEP - State and Client Contributions (for Fiscal Year 2004)

Total = \$271M approximately



■ Fees for Services ■ State Match ■ Federal Investment

* Fiscal Year 2003 numbers were 33% Fees for Services, 34% State Match, and 33% Federal

- **MEP Centers Focus on Small and Mid-sized Enterprises (SMEs)**

- **MEP Centers - Areas of Common Strength**
 - Design & Engineering Services
 - Lean Manufacturing
 - Quality Systems
 - Growth Services – new or expanded market opportunities
 - Environmental Services

* Based on FY2005 MEP Center reported performance data.

MEP CENTERS

- MEP Centers focus on results (*Impacts are reported and tracked*)
- MEP has a broad nation-wide distribution system of highly skilled technical staff that can “hit the ground running”
- MEP provides transformational services that work with companies from opportunity awareness through implementation
- MEP and its partners have developed over time; deep, trusted relationships with their client base
- MEP has a track record of successful joint product development efforts that produced positive impacts

Working with the MEP

- The MEP has National Presence and an extensive network of resources
- The MEP maintains strategic partnerships at the local, state and national Levels
- MEP enjoys stable funding
- The MEP keeps the largest, most detailed Industry and Customer Knowledge Base on small manufacturers in the U.S.

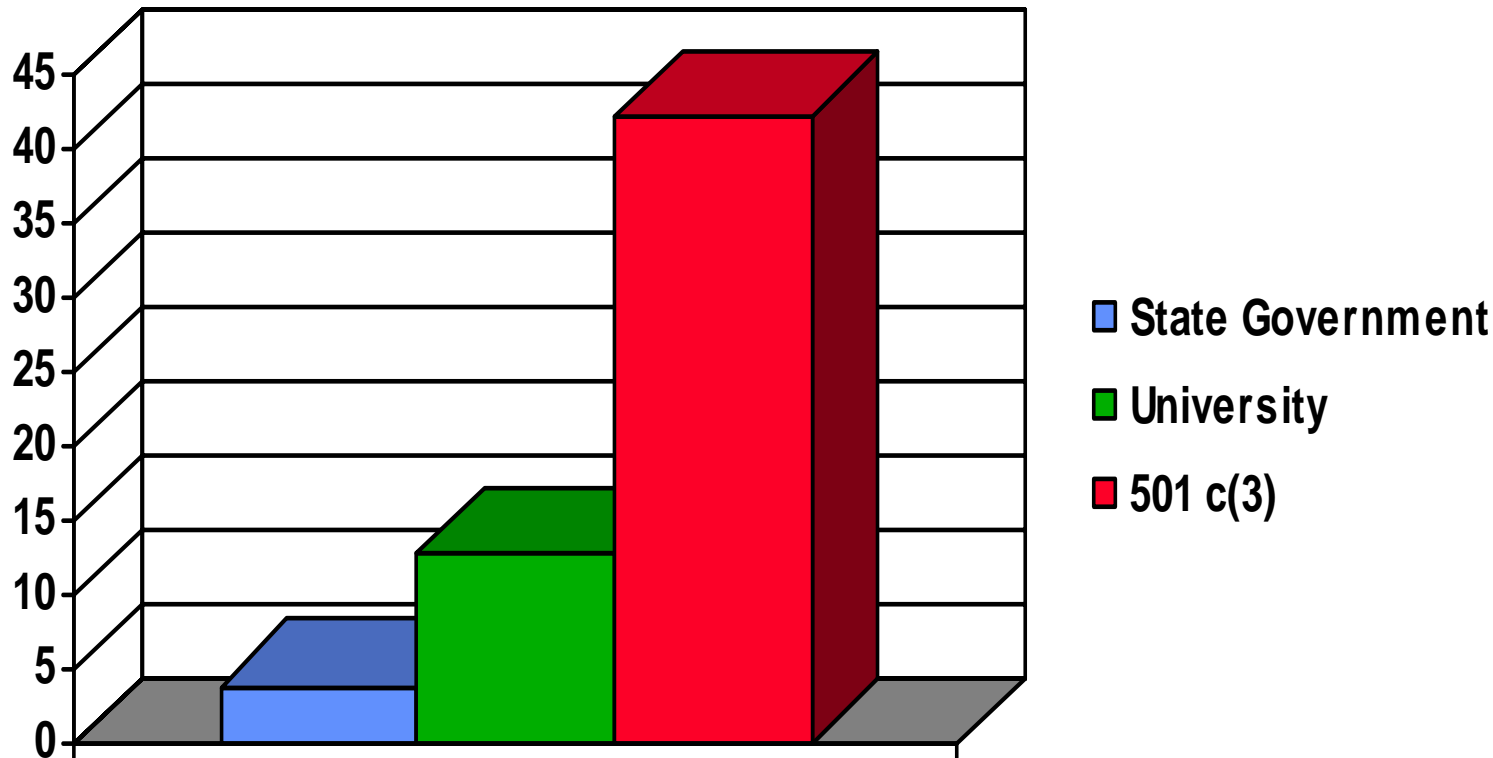
MEP Center Structure

- Utilizes existing local resources to provide manufacturing extension services

- Staff are employees of the Center and its partners -- not the Federal Government

- Structure varies
 - Single location
 - Principal organization and partner organizations
 - Central office with regional offices
 - Headquarters operation with multiple field offices

MEP Centers by Organizational Type (as of January 2005)



Maryland MEP Resources

- University of Maryland
- System-Researchers/Labs
- Bio-Process Scale-up Facility
- Regional Manufacturing Organizations
- State & County Resources
- Tech Councils
- Community Colleges
- Trade Organizations
- Consultants
- Vendors
- BMP
- SBDC



MEP Products & Services

Operational and Production Improvement

- Lean enterprise assessments, training and implementation assistance
- Other point solutions for specific processes and materials

Environmental

- Pollution prevention
- ISO 14000 assessments

Engineering and R&D

- Product improvement
- Failure analysis
- RFID implementation assistance
- MIPS funds (Maryland MEP)

Business Management

- Strategic and business planning
- Enterprise assessments
- ERP selection

Innovation



MEP Products & Services

- **Lean:** A Lean Enterprise produces more with existing resources by eliminating non-value added activities. Lean establishes a systematic approach to eliminating these wastes and creating flow throughout the whole company.
- **Strategic Management:** Planning and executing business strategies through people, processes and technology - is a powerful competitive weapon that too few executives use to their advantage.
- **Quality:** Quality Systems encompasses everything from product design to distribution of finished products.

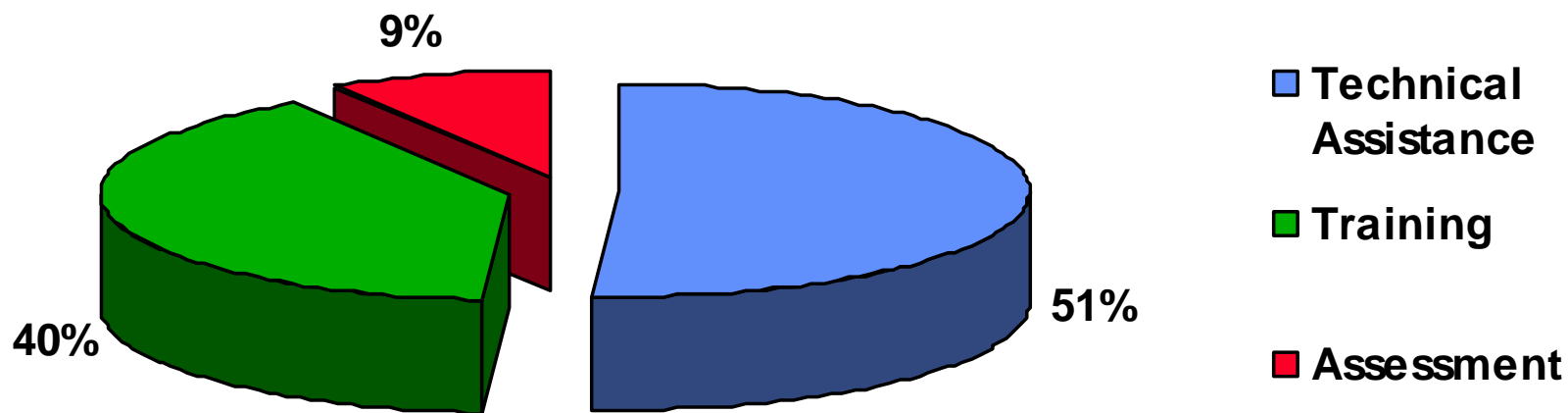
MEP Products & Services

- **Growth Planning:** The business activity which allows a company to know what its customers want.
- **Environmental:** For over a decade, MEP consultants have helped companies avoid wasting materials and energy.
- **Human Resources/Organizational Development:** MEP recognizes the impact that people, culture, and skills have on the competitive abilities of small and medium-sized manufacturers.
- **Tools:** MEP has produced tools for learning about eBusiness and for assessing the security of a company's IT infrastructure.

MEP Types of Services

- **Supplier Development:** MEP works with OEMs and their suppliers to providing training and to improve the effectiveness of all links in the supply chain.
- **Environment & Energy:** For over a decade, MEP consultants have helped companies avoid wasting materials and energy. The Green Supplier Network (GSN) with the Environmental Protection Agency is just one example where the federal government is partnering to leverage resources resulting in more competitive suppliers.
- **Human Resources & Organizational Development:** MEP recognizes the impact that people, culture, and skills have on the competitive abilities of small and medium-sized manufacturers. MEP is partnering with the U.S Department of Labor to address the needs of advanced manufacturing sectors.
- **Tools:** MEP has produced tools for learning about eBusiness and for assessing the security of a company's IT infrastructure.

Basic Types of Services Provided by MEP (as of January 2005)



Case Study

Maryland MEP- Bio-Manufacturer – Projects (6)

Plant layout /lean training & implementation & product development

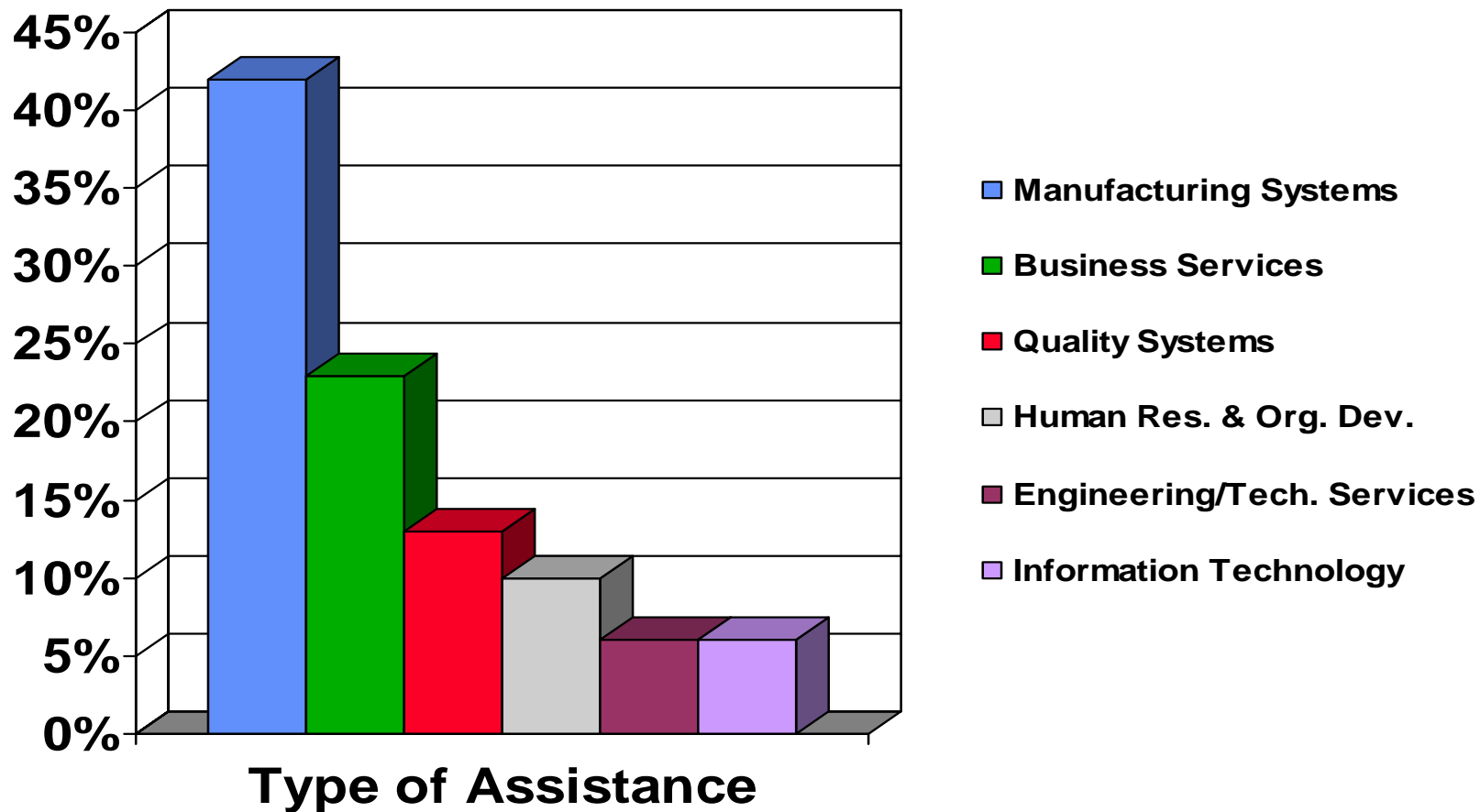
- Transitioned company from a laboratory environment to a manufacturing environment
- Expanded production capacity 4X
- Developed / implemented efficient plant layout & cellar flow
- Assisted in new product development & manufacturing
- Overall Project impacts as of Nov. 2006:
 - Increased / Retained Sales: 19.5 M
 - Cost savings: \$500 K
 - Additional jobs: 26

Possible areas in which the MEP can help small Pharmaceutical Businesses

- Scaling-Up / Expanding / Plant Layout
- Improving Productivity
- Lean Manufacturing Implementation / Cellular flow
- Network Connections
- RFID Implementation that can provide for:
 - Gains in efficiency
 - Asset tracking systems
 - Electronic Pedigrees
 - Improved drug safety
 - Reducing Counterfeiting & Liabilities
 - Complying with new & existing regulations
 - Condition and Security Monitoring
 - Drug Authenticated shipment through the supply chain

Service Characteristics by Type of Assistance

(as of January 2005)



Impact to Manufacturers Working with MEP

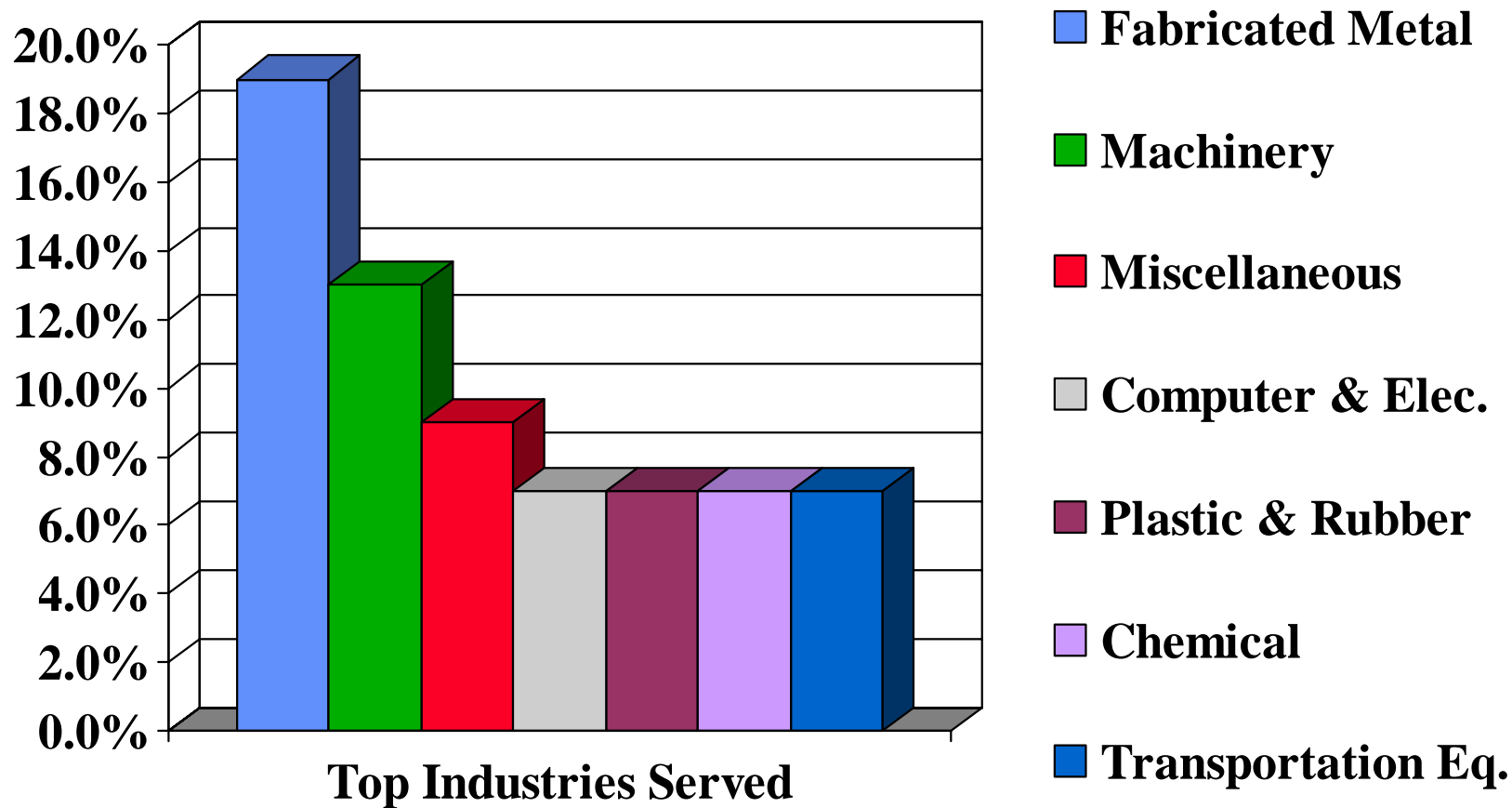
FY2005* CLIENT IMPACTS AS A DIRECT RESULT OF MEP ACTIVITIES

- Increased / Retained Sales
- New Sales \$2.842 billion
- Retained Sales \$3.408 billion
- \$6.25 billion
- Cost Savings \$1.304 billion
- New Client Investment in Modernization \$2.248 billion
- Jobs Created 17,453
- Jobs Retained 35,766

**Independent follow-up of clients with projects completed in FY2005. Of the 5,261 clients selected to be surveyed, 4,726 completed the survey in FY2006. Measures are a conservative snapshot of benefits. Recurring or cumulative benefits may be larger.*

Top Industries Served

(as of January 2005)



Improving the Manufacturing Base

■ MEP's Approach



- Bottom Up

- **Work One-on-One with Manufacturers**
- **Developing Strategy**
- **Positioning, Integrating, and Diversifying**
- **Improve Efficiency, Effectiveness, Productivity, and reducing Costs**

- Top Down

- **Understanding the Needs of the Industry and the OEMs**
 - **Market space (Domestic & Global Drivers)**
 - **Innovation**
 - **Integration Requirements (Regulations, Interoperability, etc...)**
 - **Share Best Practices ... to those who will Listen**
 - **Technology Roadmaps (OEMs, Trades, Labs, Clients etc...)**
 - **Awareness of new technology, i.e., RFID**

Why Manufacturing is Essential

- **Grows** the economy. Every \$1.00 in manufactured goods generates an additional \$1.43 worth of additional economic activity - more than any other economic sector.
- **Invents** the future. Manufacturers are responsible for almost two-thirds of all private sector R&D, which ultimately benefits other manufacturing and non-manufacturing activities.
- **Competes** internationally. The United States is the world's largest exporter; 62 percent of all U.S. exports are manufactured goods, double the level of 10 years ago.
- **Generates** productivity increases. Over the past two decades manufacturing productivity gains have been double that of other economic sectors.
- **Provides** more rewarding employment. Manufacturing compensation averages more than \$63,000, the highest in the private sector, and manufacturers are leaders in employee training.
- **Contributes** to the tax base. Manufacturing has been an important contributor to economic growth and tax receipts at all levels of government, contributing one-third of all corporate taxes collected by state and local governments.

Source: National Association of Manufacturers

Contact your MEP Center

- Call the toll-free number 1-800-MEP 4 MFG (1-800-637-4634), and your call will be automatically routed to the MEP center that serves your region. www.mep.nist.gov
- Program Questions: <mailto:mfg@nist.gov>
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