Introduction

Philip Shapira and Jan Youtie

The Manufacturing Extension Partnership (MEP) is a federal-state program that targets technology and business development services to small and medium-sized manufacturers in the United States. MEP's federal sponsor, the National Institute of Standards and Technology (NIST), collaborates with state and local governments, educational institutions, business assistance and technology centers, private consultants, utilities, and a variety of other public and private organizations to support the services the MEP offers to manufacturers.

By the end of 1996, MEP centers and affiliates were operating in all 50 states. Some 50,000 manufacturing firms have been assisted by the MEP since 1988. With recent expansions in the scale of the program, current MEP service loads are running at over 20,000 firms a year.

With the growth of MEP services and funding, efforts to evaluate the program's outcomes and impacts have also increased. Each center that is part of the MEP system is required to have an evaluation element. NIST has played a key role in standardizing data collection and post-service surveying. Yet, while all programs maintain an information and monitoring base, there is much variation in the way evaluation is done by local programs. Some programs have made substantial investments in evaluation. Others have made smaller investments, in part because of small program size, unfamiliarity with viable evaluation methods, limited internal evaluation capabilities.

At the same time, federal and state sponsors have paid increasing attention to government program performance. In response, NIST has promoted and supported a series of national initiatives to learn about and evaluate MEP services and activities. Federal resources have been allocated to support both quantitative and qualitative MEP evaluations. Several states have also allocated their own resources to support evaluation studies.

Many of these studies seek to explore and demonstrate the impacts of MEP and implications for program justification and implementation. Although these studies employ various methods, they face the same issues and constraints in evaluating MEP.

- Small and medium-sized manufacturers operate under many different technological, industrial, and regional conditions, which places constraints on the types of generalized outcomes that may be expected from programs aimed at providing assistance to them.
- The difficulty of attributing MEP program outputs to changes in small and medium-sized manufacturing performance independent of influences from the broader environment (e.g., changes in the interest rate, trade policy of business cycles), means that evaluation studies must consider what might have happened if the MEP had not been implemented.
- Some of the most significant effects on the economy from the MEP may not be realized by examining firms directly assisted by the MEP, but rather by examining the spillover effects on downstream customers and suppliers.
- Stakeholders, including federal and state sponsors, have different expectations for the program and its outcomes.
- Policy-makers have to balance evaluation results against other influences (e.g., constituent demands or budget cost constraints), which limits the effect that evaluation results can have on policy decisions.

What can be learned from evaluation efforts which have tried to address these and other program justification issues? How successful are these efforts in communicating results to policy-makers? And other important stakeholders? and what are the implications of available studies for policy, MEP program operations, and center service mix? To address these and related questions, a workshop was held in Atlanta, Georgia, in September 1996. The workshop reviewed and discussed findings and results from evaluative studies of industrial modernization and technology deployment. Workshop participants also considered the implications and insights of these studies for policy and program justification and implementation. Participants addressed these themes through paper presentations and discussions over a one-and-one-half day period. This volume now makes the workshop materials and discussions available to a wider audience.[1]

Workshop Participants

Workshop on Manufacturing Modernization: Learning from Evaluation Practices and Results, September 11-12, 1996, Aberdeen Woods, Atlanta, GA.

Barry Bozeman - Director, School of Public Policy, Georgia Institute of Technology, Atlanta, GA

David Burress - Research Economist, Institute for Public Policy and Business Research, University of Kansas, Lawrence, KS

Betsy Bury - Statistician, National Institute of Standards and Technology, Manufacturing Extension Partnership, Gaithersburg, MD

Rick Carlisle - Economic Advisor, Office of the Governor of North Carolina, Raleigh, NC

Ned Ellington - Director, Economic Development Institute, Georgia Institute of Technology, Atlanta, GA

Irwin Feller - Director, Institute for Policy Research and Evaluation, and Professor of Economics, Department of Economics
Pennsylvania State University, University Park, PA

[1] Two other edited collections of papers from 1993 and 1994 workshops on evaluating manufacturing modernization are also available. See the Appendix to this volume.

Denis Gray - Associate Professor, Department of Psychology, North Carolina State University, Raleigh, NC

Ruth Haines - Associate Director, National Programs, National Institute of Standards and Technology, Manufacturing Extension Partnership, Gaithersburg, MD

Ronald Jarmin - Economist, Center for Economic Studies, U.S. Bureau of the Census, Washington, DC

J. Bradford Jensen - Economist, Center for Economic Studies, U.S. Bureau of the Census, Washington, DC

Dan Luria - Director, Performance Benchmarking Service, Industrial Technology Institute, Ann Arbor, MI

Eric Oldsman - President, Nexus Associates, Belmont, MA

Susan Rhoades, Executive Assistant, Delaware Development Office, Dover, DE

J. David Roessner - Professor, School of Public Policy, Georgia Institute of Technology, Atlanta, GA

Jack Russell - President, The Modernization Forum, Dearborn, MI

David Sears - Senior Policy Analyst, National Institute of Standards and Technology, Manufacturing Extension Partnership, Gaithersburg, MD

Philip Shapira - Associate Professor, School of Public Policy, Georgia Institute of Technology, Atlanta, GA

Paul Swamidass - Professor, Thomas Walter Center for Technology Management, Auburn University, AL

Chris Thompson - Director, Wisconsin Manufacturing Extension Partnership, Madison, WI

Jan Youtie, Senior Research Associate, Economic Development Institute, Georgia Institute of Technology, Atlanta, GA