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# Preface

**Philip Shapira  
and  
Jan Youtie**

The Manufacturing Extension Partnership (MEP) is a collaborative program between federal and state governments that provides 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), also involves 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 1997, a network of 75 MEP centers and affiliates were operating in all 50 states. Some 62,000 manufacturing firms have been assisted by the MEP since 1988. About 2,500 public and private organizations are affiliated with the program. Over 2,000 MEP staff are involved in service delivery at the local levels through MEP centers and affiliates. Current MEP service loads approximate 30,000 firms a year.

The MEP is shifting from the rapid growth and system building phase of 1992 to 1997 to a situation of maturity. Now at the forefront are issues of system optimization, center performance, and program efficacy. As a result, efforts to evaluate the program's outcome and impacts are refocusing toward questions such as: How well is the program working? And how can performance and effectiveness be improved?

To address these questions, the MEP has made a substantial commitment to evaluation. The program established an overall evaluation system, which standardizes financial and activity reporting and post-service surveying. In addition, some local centers have

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invested in additional evaluative activities beyond the national system, as a result of specialized internal capabilities, distinctive state and local stakeholder demands, or other factors.

The MEP has also supported special evaluative efforts to learn about and assess MEP services and activities. Federal and local resources have been allocated to support both quantitative and qualitative MEP studies to provide information for continuous improvement of the program and policy development. Some of these studies concentrate on the end customers, small and mid-sized manufacturers and how the program has affected their behavior. Other studies aim toward the delivery of services. In this vein are examinations of the efficient and effective use of center resources, the responsiveness and quality of center service delivery, and the performance of difference modernization approaches.

Operating as both the subjects and end-users of these studies are center and program staff. They seek to make better operating and management decisions. Their attempts to implement recommendations and changes to improve their programs are constrained by limitations imposed by the evaluative system. First the types of results that can be expected from evaluative studies are often characterized by qualifications that make it difficult to link with decision making and staff performance. Most studies have difficulty gathering accurate information from small manufacturers that themselves cannot gauge company impacts. They are affected by the broader business, technological, regional, and policy environments in which the program and its customers operate. And they often cannot adequately account for perhaps larger downstream impacts of

assistance on the “customers of MEP customers” and impacts on regional economies. Second, a substantial amount of the effort of evaluation goes toward measuring and documenting program successes for funding sponsors and policy makers, rather than toward guiding efforts to enhance the program (which may involve exposing program weaknesses as well as successes).

What can be learned from evaluation efforts which have tried to address these and other program improvement issues? What are the implications of these studies for MEP program operations and center service mix? And what message do the results of these studies send to policy makers and other stakeholders? To address these and related questions, a workshop was held at Aberdeen Woods in Atlanta, Georgia, in November 1997. 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 program improvement and policy development. Participants addressed these themes through paper presentations and discussions over a one-and-one-half day period. This volume makes the workshop materials and discussions available to a wider audience.

The papers in these proceedings are structured into six major sections. In this first section, there is a keynote paper by Oldsman and Luria on integrating strategy and evaluation in the Manufacturing Extension Partnership. The authors focus on how evaluation can be made more relevant to MEP stakeholders. This is followed by three contributions that report the results of

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recent evaluation studies of industrial modernization programs. Jarmin combines national Census Bureau data with data on program impacts to assess the productivity effects of program assistance. Shapira and Youtie report on the evaluation of Georgia's manufacturing extension program, while Ellis presents the findings from a comprehensive evaluation of the Massachusetts program.

The third section of the proceedings considers organizational issues in the promotion of industrial modernization. Wilkins discusses the preliminary results from a consortium of MEP centers that have engaged in the joint benchmarking of their operations. In this unique effort, the centers pool operational data to determine similarities and differences in program management. Youtie and Shapira examine service partnerships between MEP centers and other business assistance programs, particularly small business development centers. Kingsley and Klein review the findings from their assessment of case studies of industrial networks.

The next section of the proceedings presents a set of comparative insights offered from a transatlantic perspective by Arnold. Through both the paper and subsequent discussion, workshop participants recognized the great value of comparison and mutual learning between the MEP and its European counterparts.

The next section of the proceedings considers issues related to using evaluation in decision making. In separate papers, Davila and Martin discussed their experiences as program managers in using evaluation systems and results. Finally, Sears and Blakerby, in the section on the feedback of evaluation into policy and program design, review the devel-

opment, current situation, and future aims of the MEP evaluation system. This section also includes Malecki's overall comments as the workshop rapporteur.

After each major section, the comments of workshop discussants and participants are presented in a summary form.

This volume of papers is the fourth in a series. Three other edited collections of papers from 1993, 1994, and 1996 workshops on evaluating industrial modernization are also available. An index to all available papers produced between 1993 and 1997 is contained in the Appendix. These papers are also available through the world wide web at: <<http://www.cherry.gatech/workshop>>.

Atlanta  
March 1998



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## Workshop Participants

Workshop on Manufacturing Modernization: Implications of Evaluation Results for Program Improvement and Policy Development

November 13-14, 1997  
Aberdeen Woods, Atlanta, GA.

Larry Alford, Regional Manager, Economic Development Institute, Georgia Institute of Technology, Atlanta, GA.

Erik Arnold, Director, Technopolis, Ltd., Brighton, Sussex, Britain.

Philip Blackerby, Evaluation Analyst, National Institute of Standards and Technology, Manufacturing Extension Partnership, Gaithersburg, MD.

Chris Coburn, Vice President, Battelle Memorial Institute, Cleveland OH.

Natalie Davila, Market Research and Evaluation Specialist, Chicago Manufacturing Center, Chicago, IL.

Charles Estes - Group Director, Economic Development Institute, Georgia Institute of Technology, Atlanta, GA.

Ruth Haines - Associate Director, Regional 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.

Gordon Kingsley, Assistant Professor, School of Public Policy, Georgia Institute of Technology, Atlanta, GA.

Rick Korchak, President, Technology Development, EnterpriseFlorida, Orlando, FL.

Edward Malecki, Professor, Department of Geography, University of Florida, Gainesville, FL.

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Robert Martin, Director, Western New York Technology Development Center, Amherst, NY.

Eric Oldsman - President, Nexus Associates, Belmont, MA.

Kelly Redivo, Manager, Affiliate Evaluation Services, National Institute of Standards and Technology, Manufacturing Extension Partnership, Gaithersburg, MD.

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

Michael Scriven, Professor, Department of Psychology, Claremont Graduate School.

David Sears - Manager, Evaluation and Assessment Systems, 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.

Chris Thompson - Consultant, Baltimore, MD.

Tab Wilkins, Director, Conn/STEP, New Britain, CN.

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