

# National Cooperative Highway Research Program

## NCHRP Synthesis 252

### Response of Small Urbanized Area MPOs to ISTEA

#### A Synthesis of Highway Practice

Transportation Research Board  
National Research Council

## TRANSPORTATION RESEARCH BOARD EXECUTIVE COMMITTEE 1998

### *Officers*

#### Chairwoman

SHARON D. BANKS, *General Manager, AC Transit, Oakland, California*

#### Vice Chairman

WAYNE SHACKELFORD, *Commissioner, Georgia Department of Transportation*

#### Executive Director

ROBERT E. SKINNER, JR., *Transportation Research Board, National Research Council, Washington, D.C.*

### *Members*

BRIAN J. L. BERRY, *Lloyd Viel Berkner Regental Professor, Bruton Center for Development Studies, University of Texas at Dallas*

SARAH C. CAMPBELL, *President, TransManagement Inc., Washington, D.C.*

E. DEAN CARLSON, *Secretary, Kansas Department of Transportation*

JOANNE F. CASEY, *President, Intermodal Association of North America, Greenbelt, Maryland*

JOHN W. FISHER, *Director, ATLSS Engineering Research Center, Lehigh University*

GORMAN GILBERT, *Director, Institute for Transportation Research and Education, North Carolina State University*

DELON HAMPTON, *Chairman & CEO, Delon Hampton & Associates, Washington, D.C.*

LESTER A. HOEL, *Hamilton Professor, University of Virginia, Department of Civil Engineering (Past Chair, 1986)*

JAMES L. LAMMIE, *Director, Parsons Brinckerhoff, Inc., New York*

THOMAS F. LARWIN, *San Diego Metropolitan Transit Development Board*

BRADLEY L. MALLORY, *Secretary of Transportation, Commonwealth of Pennsylvania*

JEFFREY J. MCCAIG, *President and CEO, Trimac Corporation, Calgary, Canada*

JOSEPH A. MICKES, *Chief Engineer, Missouri Department of Transportation*

MARSHALL W. MOORE, *Director, North Dakota Department of Transportation*

ANDREA RINKER, *Executive Director, Port of Tacoma, Washington*

JOHN M. SAMUELS, *Vice President-Operations Planning & Budget, Norfolk Southern Corporation, Virginia*

LES STERMAN, *Executive Director of East-West Gateway Coordinating Council, St. Louis, Missouri*

JAMES W. VAN LOBEN SELS, *Director, California Department of Transportation (Past Chair, 1996)*

MARTIN WACHS, *Director, University of California Transportation Center, University of California, Berkeley*

DAVID L. WINSTEAD, *Secretary, Maryland Department of Transportation*

DAVID N. WORMLEY, *Dean of Engineering, Pennsylvania State University, (Past Chair, 1997)*

MIKE ACOTT, *President, National Asphalt Pavement Association, Lanham, Maryland (ex officio)*

JOE N. BALLARD, *Chief of Engineers and Commander, U.S. Army Corps of Engineers, Washington, D.C. (ex officio)*

ANDREW H. CARD, JR., *President & CEO, American Automobile Manufacturers Association, Washington, D.C. (ex officio)*

KELLEY S. COYNER, *Acting Administrator, Research & Special Programs Administration, U.S. Department of Transportation, Washington, D.C. (ex officio)*

MORTIMER L. DOWNEY, *Deputy Secretary, Office of the Secretary, U.S. Department of Transportation, Washington, D.C.*

FRANCIS B. FRANCOIS, *Executive Director, American Association of State Highway and Transportation Officials, Washington, D.C. (ex officio)*

DAVID GARDINER, *Assistant Administrator, Office of Policy, Planning, and Evaluation, U.S. Environmental Protection Agency, Washington, D.C. (ex officio)*

JANE F. GARVEY, *Administrator, Federal Aviation Administration, U.S. Department of Transportation, Washington, D.C. (ex officio)*

JOHN E. GRAYKOWSKI, *Acting Administrator, Maritime Administration, U.S. Department of Transportation, Washington, D.C. (ex officio)*

ROBERT A. KNISELY, *Deputy Director, Bureau of Transportation Statistics, U.S. Department of Transportation, Washington, D.C. (ex officio)*

GORDON J. LINTON, *Administrator, Federal Transit Administration, U.S. Department of Transportation, Washington, D.C. (ex officio)*

RICARDO MARTINEZ, *Administrator, National Highway Traffic Safety Administration, Washington, D.C. (ex officio)*

WALTER B. MCCORMICK, *President and CEO, American Trucking Associations, Inc., Alexandria, Virginia (ex officio)*

WILLIAM W. MILLAR, *President, American Public Transit Association, Washington, D.C. (ex officio)*

JOLENE M. MOLITORIS, *Administrator, Federal Railroad Administration, U.S. Department of Transportation, Washington, D.C. (ex officio)*

KAREN BORLAUG PHILLIPS, *Senior Vice President, Policy, Legislation, and Economics, Association of American Railroads, Washington, D.C.*

GEORGE D. WARRINGTON, *Acting President and CEO, National Railroad Passenger Corporation, Washington, D.C.*

KENNETH R. WYKLE, *Administrator, Federal Highway Administration, U.S. Department of Transportation, Washington, D.C. (ex officio)*

## NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM

*Transportation Research Board Executive Committee Subcommittee for NCHRP*

SHARON D. BANKS, *AC Transit (Chairwoman)*

FRANCIS B. FRANCOIS, *American Association of State Highway and*

*Transportation Officials*

LESTER A. HOEL, *University of Virginia*

ROBERT E. SKINNER, JR., *Transportation Research Board*

RODNEY E. SLATER, *Federal Highway Administration*

JAMES W. VAN LOBEN SELS, *California Department of Transportation*

### *Field of Special Projects*

*Project Committee SP 20-5*

JOHN P. UNDERWOOD, *Texas Department of Transportation (Chair)*

KENNETH C. AFFERTON, *New Jersey Department of Transportation (Retired)*

GERALD L. ELLER, *Federal Highway Administration (Retired)*

JOHN J. HENRY, *Pennsylvania Transportation Institute*

C. IAN MACGILLIVRAY, *Iowa Department of Transportation*

GENE E. OFSTEAD, *Minnesota Department of Transportation*

EARL C. SHIRLEY, *Consulting Engineer*

J. RICHARD YOUNG, JR., *Mississippi Department of Transportation*

RICHARD A. MCCOMB, *Federal Highway Administration (Liaison)*

ROBERT E. SPICHER, *Transportation Research Board (Liaison)*

KENNETH R. WYKLE, *Administrator, Federal Highway Administration*

### *Program Staff*

ROBERT J. REILLY, *Director, Cooperative Research Programs*

CRAWFORD F. JENCKS, *Manager, NCHRP*

DAVID B. BEAL, *Senior Program Officer*

LLOYD R. CROWTHER, *Senior Program Officer*

B. RAY DERR, *Senior Program Officer*

AMIR N. HANNA, *Senior Program Officer*

EDWARD T. HARRIGAN, *Senior Program Officer*

RONALD D. MCCREADY, *Senior Program Officer*

KENNETH S. OPIELA, *Senior Program Officer*

EILEEN P. DELANEY, *Editor*

### *TRB Staff for NCHRP Project 20-5*

STEPHEN R. GODWIN, *Director for Studies and Information Services*

LINDA S. MASON, *Editor*

SALLY D. LIFF, *Senior Program Officer*

STEPHEN F. MAHER, *Senior Program Officer*

National Cooperative Highway Research Program

# Synthesis of Highway Practice 252

## Response of Small Urbanized Area MPOs to ISTEA

**MONTIE G. WADE**

Texas Transportation Institute

*Topic Panel*

ROBERT J. CZERNIAK, *New Mexico State University*  
SHELDON M. EDNER, *Federal Highway Administration*  
STEVEN B. GAYLE, *Binghamton Metro Transportation Study*  
SUE HIGGINS, *Macatawa Area Coordinating Council, Holland, Michigan*  
JANET P. OAKLEY, *National Association of Regional Councils/Association of MPOs*  
MARION R. POOLE, *North Carolina Department of Transportation*  
JERRY B. SCHUTZ, *Washington State Department of Transportation*  
THOMAS B. SCHWETZ, *Lane Council of Governments, Eugene, Oregon*  
JAMES A. SCOTT, *Transportation Research Board*  
BRIAN D. SHORTEN, *Fargo-Moorhead Metropolitan Council of Governments*  
LINDA J. WILSHUSEN, *Santa Cruz County Regional Transportation Commission*

**Transportation Research Board**  
**National Research Council**

Research Sponsored by the American Association of State  
Highway and Transportation Officials in Cooperation with the  
Federal Highway Administration

NATIONAL ACADEMY PRESS  
Washington, D.C. 1998

*Subject Areas*  
Planning and Administration

Systematic, well-designed research provides the most effective approach to the solution of many problems facing highway administrators and engineers. Often, highway problems are of local interest and can best be studied by highway departments individually or in cooperation with their state universities and others. However, the accelerating growth of highway transportation develops increasingly complex problems of wide interest to highway authorities. These problems are best studied through a coordinated program of cooperative research.

In recognition of these needs, the highway administrators of the American Association of State Highway and Transportation Officials initiated in 1962 an objective national highway research program employing modern scientific techniques. This program is supported on a continuing basis by funds from participating member states of the Association and it receives the full cooperation and support of the Federal Highway Administration, United States Department of Transportation.

The Transportation Research Board of the National Research Council was requested by the Association to administer the research program because of the Board's recognized objectivity and understanding of modern research practices. The Board is uniquely suited for this purpose as it maintains an extensive committee structure from which authorities on any highway transportation subject may be drawn; it possesses avenues of communication and cooperation with federal, state, and local governmental agencies, universities, and industry; its relationship to the National Research Council is an insurance of objectivity; it maintains a full-time research correlation staff of specialists in highway transportation matters to bring the findings of research directly to those who are in a position to use them.

The program is developed on the basis of research needs identified by chief administrators of the highway and transportation departments and by committees of AASHTO. Each year, specific areas of research needs to be included in the program are proposed to the National Research Council and the Board by the American Association of State Highway and Transportation Officials. Research projects to fulfill these needs are defined by the Board, and qualified research agencies are selected from those that have submitted proposals. Administration and surveillance of research contracts are the responsibilities of the National Research Council and the Transportation Research Board.

The needs for highway research are many, and the National Cooperative Highway Research Program can make significant contributions to the solution of highway transportation problems of mutual concern to many responsible groups. The program, however, is intended to complement rather than to substitute for or duplicate other highway research programs.

**NOTE:** The Transportation Research Board, the National Research Council, the Federal Highway Administration, the American Association of State Highway and Transportation Officials, and the individual states participating in the National Cooperative Highway Research Program do not endorse products or manufacturers. Trade or manufacturers' names appear herein solely because they are considered essential to the object of this report.

Project 20-5 FY 1995 (Topic 27-10)

ISSN 0547-5570

ISBN 0-309-06108-3

Library of Congress Catalog Card No. 97-62279

© 1998 Transportation Research Board

**Price \$16.00**

## NOTICE

The project that is the subject of this report was a part of the National Cooperative Highway Research Program conducted by the Transportation Research Board with the approval of the Governing Board of the National Research Council. Such approval reflects the Governing Board's judgment that the program concerned is of national importance and appropriate with respect to both the purposes and resources of the National Research Council.

The members of the technical committee selected to monitor this project and to review this report were chosen for recognized scholarly competence and with due consideration for the balance of disciplines appropriate to the project. The opinions and conclusions expressed or implied are those of the research agency that performed the research, and, while they have been accepted as appropriate by the technical committee, they are not necessarily those of the Transportation Research Board, the National Research Council, the American Association of State Highway and Transportation Officials, or the Federal Highway Administration of the U.S. Department of Transportation.

Each report is reviewed and accepted for publication by the technical committee according to procedures established and monitored by the Transportation Research Board Executive Committee and the Governing Board of the National Research Council.

The National Research Council was established by the National Academy of Sciences in 1916 to associate the broad community of science and technology with the Academy's purposes of furthering knowledge and of advising the Federal Government. The Council has become the principal operating agency of both the National Academy of Sciences and the National Academy of Engineering in the conduct of their services to the government, the public, and the scientific and engineering communities. It is administered jointly by both Academies and the Institute of Medicine. The National Academy of Engineering and the Institute of Medicine were established in 1964 and 1970, respectively, under the charter of the National Academy of Sciences.

The Transportation Research Board evolved in 1974 from the Highway Research Board, which was established in 1920. The TRB incorporates all former HRB activities and also performs additional functions under a broader scope involving all modes of transportation and the interactions of transportation with society.

*Published reports of the*

**NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM**

*are available from:*

Transportation Research Board  
National Research Council  
2101 Constitution Avenue, N.W.  
Washington, D.C. 20418

*and can be ordered through the Internet at:*

<http://www.nas.edu/trb/index.html>

Printed in the United States of America

## **PREFACE**

A vast storehouse of information exists on nearly every subject of concern to highway administrators and engineers. Much of this information has resulted from both research and the successful application of solutions to the problems faced by practitioners in their daily work. Because previously there has been no systematic means for compiling such useful information and making it available to the entire community, the American Association of State Highway and Transportation Officials has, through the mechanism of the National Cooperative Highway Research Program, authorized the Transportation Research Board to undertake a continuing project to search out and synthesize useful knowledge from all available sources and to prepare documented reports on current practices in the subject areas of concern.

This synthesis series reports on various practices, making specific recommendations where appropriate but without the detailed directions usually found in handbooks or design manuals. Nonetheless, these documents can serve similar purposes, for each is a compendium of the best knowledge available on those measures found to be the most successful in resolving specific problems. The extent to which these reports are useful will be tempered by the user's knowledge and experience in the particular problem area.

## **FOREWORD**

*By Staff  
Transportation  
Research Board*

This synthesis will be of interest to officials and staff of metropolitan planning organizations (MPOs) representing regional communities of less than 200,000 population. It will also be of interest to state and local highway and transit agencies, administrators, and elected officials. Other officials, such as state legislators and officials in environmental agencies who interact with the MPOs will also have an interest in this synthesis. It presents information on changes that MPOs in smaller urbanized areas have made in response to the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). The adjustments in policy and practice in developing transportation plans and programs for the agency and the new requirements necessitated by ISTEA are described.

Administrators, engineers, and researchers are continually faced with highway problems on which much information exists, either in the form of reports or in terms of undocumented experience and practice. Unfortunately, this information often is scattered and unevaluated and, as a consequence, in seeking solutions, full information on what has been learned about a problem frequently is not assembled. Costly research findings may go unused, valuable experience may be overlooked, and full consideration may not be given to available practices for solving or alleviating the problem. In an effort to correct this situation, a continuing NCHRP project, carried out by the Transportation Research Board as the research agency, has the objective of reporting on common highway problems and synthesizing available information. The synthesis reports from this endeavor constitute an NCHRP publication series in which various forms of relevant information are assembled into single, concise documents pertaining to specific highway problems or sets of closely related problems.

With the advent of ISTEA, many of these small MPOs initiated changes in their role within the region and in the transportation planning process applied to carry out this role. Based on a limited sample of small MPOs, the types of changes in policy, procedure, staffing, intergovernmental relations, resource allocation, and training are discussed in

this report of the Transportation Research Board. The issues associated with the changes are also highlighted. The techniques (models) that have been applied are described.

To develop this synthesis in a comprehensive manner and to ensure inclusion of significant knowledge, the Board analyzed available information assembled from numerous sources, including a large number of state highway and transportation departments. A topic panel of experts in the subject area was established to guide the research in organizing and evaluating the collected data, and to review the final synthesis report.

This synthesis is an immediately useful document that records the practices that were acceptable within the limitations of the knowledge available at the time of its preparation. As the processes of advancement continue, new knowledge can be expected to be added to that now at hand.

## **CONTENTS**

1	SUMMARY
3	CHAPTER ONE INTRODUCTION Background and Context , 3 Purpose and Objectives of the Synthesis, 3 Challenges to the MPO, 3 Methodology, 4 Organization of the Synthesis, 4
6	CHAPTER TWO BACKGROUND AND LITERATURE REVIEW Overview,6 Historical Development, 6 Contemporary Concepts and Thinking on the Issues, 6
8	CHAPTER THREE REVIEW OF SMALL MPO ISSUES AND RESPONSES TO ISTEA Documentation of Practices, 8 Institutional Arrangements, 8 Policy and Procedure, 12 Technical Approaches, 15 General Considerations, 19
21	CHAPTER FOUR CASE STUDIES, INNOVATIVE PRACTICES, AND ABSTRACTED REFERENCES Strategic Plans, Partnering, and Goals Forming, 21 Consensus Building, 22 Comprehensive Planning and Long-Range Plans, 22 Public Transportation, 22 Corridor Related Reports, 23 Surveys and Reviews, 24
26	CHAPTER FIVE CONCLUSIONS
28	REFERENCES
28	BIBLIOGRAPHY

29	GLOSSARY	
30	APPENDIX A	QUESTIONNAIRE/INTERVIEW DOCUMENT
33	APPENDIX B	SURVEY RESPONDENTS
34	APPENDIX C	DOCUMENTS SUBMITTED BY MPOs FOR REVIEW

---

## ACKNOWLEDGMENTS

Montie G. Wade, Texas Transportation Institute, was responsible for collecting the data and preparing the report.

Valuable assistance in the preparation of this synthesis was provided by the Topic Panel, consisting of Robert J. Czerniak, Associate Professor, New Mexico State University Department of Geography; Sheldon M. Edner, Federal Highway Administration, Program Services Team; Steven B. Gayle, Director, Binghamton Metro Transportation Study; Sue Higgins, Executive Director, Macatawa Area Coordinating Council, Holland, Michigan; Janet P. Oakley, Director of Transportation, National Association of Regional Councils/Association of MPOs; Marion R. Poole, Manager, Statewide Planning Branch, North Carolina Department of Transportation; Jerry B. Schutz, Transportation Planning Manager, Washington State Department of Transportation; Thomas B. Schwetz, Program Manager for Transportation and Public Infrastructure, Lane Council of Governments, Eugene, Oregon; James A. Scott Transportation Planner, Transportation

Research Board; Brian D. Shorten, Executive Director, Fargo-Moorhead Metropolitan Council of Governments; and Linda J. Wilshusen, Executive Director, Santa Cruz County Regional Transportation Commission.

This study was managed by Sally D. Liff, Senior Program Officer, who worked with the consultant, the Topic Panel, and the Project 20-5 Committee in the development and review of the report. Assistance in Topic Panel selection and project scope development was provided by Stephen F. Maher, P.E., Senior Program Officer. Linda S. Mason was responsible for editing and production.

Crawford F. Jencks, Manager, National Cooperative Highway Research Program, assisted the NCHRP 20-05 staff and the Topic Panel.

Information on current practice was provided by many highway and transportation agencies. Their cooperation and assistance are appreciated.



# RESPONSE OF SMALL URBANIZED AREA MPOs TO ISTEA

## SUMMARY

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) is generally thought to have brought about significant change in requirements for transportation planning and programming. These changes included flexible funding, shared responsibilities between states and metropolitan planning organizations (MPOs), opening of the process to all transportation modes, public involvement, financial planning, technical assistance, and other opportunities. This synthesis describes how MPOs in small urbanized areas have responded to these new planning requirements.

Staff from 12 selected MPOs from smaller metropolitan areas were surveyed to identify the unique solutions as well as common approaches to implementing ISTEA requirements. While there is no single or generally accepted view of how ISTEA has changed the planning and programming processes in small MPO areas, respondents unanimously agreed that ISTEA's effect on the transportation planning process has been positive. The comments indicated that MPOs now have more confidence that projects included in the plan will someday be constructed. Regional planning across jurisdictional boundaries has promoted dialogue among transportation agencies and more collaborative decision making seems to be occurring. Comprehensive plans and their transportation elements are becoming more consistent with regional visions. The emphases on multimodalism and public participation are considered very positive. There is a perception that the MPO, given flexibility and resources in ISTEA, may be the most effective level of government to deal with regional transportation issues.

Small MPOs appear to be conscientiously trying to meet ISTEA requirements. It is apparent that all MPOs are not alike and that flexibility needs to be maintained in future transportation legislation to continue this adaptability for small MPOs. While some MPOs indicate that flexibility is more perception than actuality, others indicate changes that have been made to accommodate ISTEA. Examples included innovative approaches to congestion management, beginning of truly multimodal planning, and increased emphasis on local involvement in decision making as important changes. The ability to "flex" capital funds from highways to the transit side has received a great deal of attention but limited use in these MPO regions.

Increased funding by ISTEA has significantly improved the ability of small MPOs to address necessary regional transportation concerns. MPOs believe that a common understanding and more trusting working relationships among the partners of the planning process would further improve their effectiveness. Fiscally constrained plans are resulting in more effective planning and project development processes. MPOs believe these processes would be enhanced by increased effort and cooperation from state transportation agencies in providing financial planning information.

Although a continuing federal role in funding and monitoring transportation planning in small MPO areas is considered essential by the MPOs, they also seek simplified planning procedures and relief from regulatory burdens. Significant technical assistance was suggested as a valuable continuing role for federal and state agencies. MPOs perceive the need for a series of ongoing technical assistance programs by federal and state agencies, as

well as universities and consultants, to include the use of "expert exchange" or "circuit rider" programs.

In view of the importance accorded the planning and programming processes, as well as the significant federal, state, and local investments annually required to maintain this effort, more information about how these processes of transportation infrastructure development by small urbanized areas are being implemented could lead to improved policies, procedures, and technical approaches.

## CHAPTER ONE

## INTRODUCTION

## BACKGROUND AND CONTEXT

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), along with the Clean Air Act Amendments of 1990 (CAAA) and various state initiatives have demanded new ways of thinking about planning and programming in terms of institutional arrangements, policy, and technical approaches. Much of this activity is undertaken by Metropolitan Planning Organizations (MPOs). MPOs are designated by the governor of their respective state and serve as the forum for cooperative transportation decision making and for carrying out the transportation planning process for their metropolitan area.

Throughout the United States, there are 339 officially recognized MPOs. Of this total, 202 MPOs (60 percent) serve urbanized areas with populations of 50,000 to 200,000. The other 137 MPOs in the population group of greater than 200,000 constitute the Transportation Management Areas (TMAs). The states and MPOs are jointly responsible for "cooperatively" carrying out both the transportation planning and programming processes required by ISTEA. A wide range of disparate and dissimilar relationships exist between states, MPOs, and lead planning agencies that are designated by the state governors. In most cases reference to the "MPO" in this document means the staff members who were respondents to the synthesis questionnaire and telephone interviews. The questionnaire is provided in Appendix A.

Previous research and conferences have indicated that MPOs view ISTEA as a provider of new opportunities, but also as an implementer of new planning and programming requirements. Concern has been expressed by MPOs about their ability to meet all of the requirements and expectations imposed by ISTEA (1). Little research has been conducted on the effect of ISTEA on non-TMA MPOs. After four years under this new transportation legislation and resulting regulations, it is now an appropriate time to evaluate this effect.

## PURPOSE AND OBJECTIVES OF THE SYNTHESIS

It is the purpose of this synthesis to assess how a selected number of MPOs in small urban areas (of 50,000 to 200,000 population) are responding to new requirements of current planning regulations. This synthesis presents a review of current practices of small urbanized area MPOs and summarizes their response to ISTEA. It also identifies the nature of the problems faced and the innovative approaches used by a sample of these MPOs to address challenges of changing practices in planning and programming. The impact of these changes is discussed.

The synthesis addresses common issues and concerns, such as organizational structure, state involvement, other

partnerships, staffing, and funding. It documents the activities that some small MPOs have developed to meet the goals of ISTEA and of their community (such as priority setting, public involvement and development of plans and programs). The synthesis reviews tools and techniques that these small urbanized area MPOs have developed (such as application of travel demand and land use models, early involvement of environmental resource agencies, public involvement, pooling and sharing of information, and contracting with local governments). Of special interest are the operating and institutional frameworks in which the issues are addressed and how these agencies have used the new requirements to leverage interest and involvement by participants in the planning process. Selected case studies and abstracted pertinent literature are also presented as available and valuable planning and programming practices.

The 12 urbanized areas selected as reasonably representative of the small urbanized areas in the United States are shown in Figure 1.

A number of research efforts have addressed the topic of the effect of ISTEA on metropolitan planning over the past 4 years. A limited-case approach was chosen for this synthesis because of the large number of requests previously sent to MPOs by other researchers, and to obtain a more in-depth understanding of practices of small MPOs.

The results described in this synthesis are based on a literature review, responses to a mail-out survey questionnaire, and personal telephone interviews conducted with the 12 MPOs that direct the planning and programming processes for the cities named in Figure 1. Data were gathered during the early part of 1996. This synthesis, therefore, reflects the perspective of a particular group at a particular point in time and cannot be viewed as necessarily representing a scientific sample. The sample of MPOs and interviewees was too small to allow precise statistical analysis of differences among the types of MPOs and the types of respondents. Thus the results of this survey are more qualitative and suggestive than quantitative and scientifically proven. It is also noted that all opinions expressed herein were by MPO staff and no attempt was made to secure the views of the MPO Policy Board members who are generally considered to be the local decision makers. Use of the words "MPO" in this document thus means the MPO staff. A list of the respondents and contacts is included as Appendix B of this document.

## CHALLENGES TO THE MPOs

A description of the challenges that resulted from changes in the planning and programming processes by ISTEA includes diversity in policy, procedures, and general operating

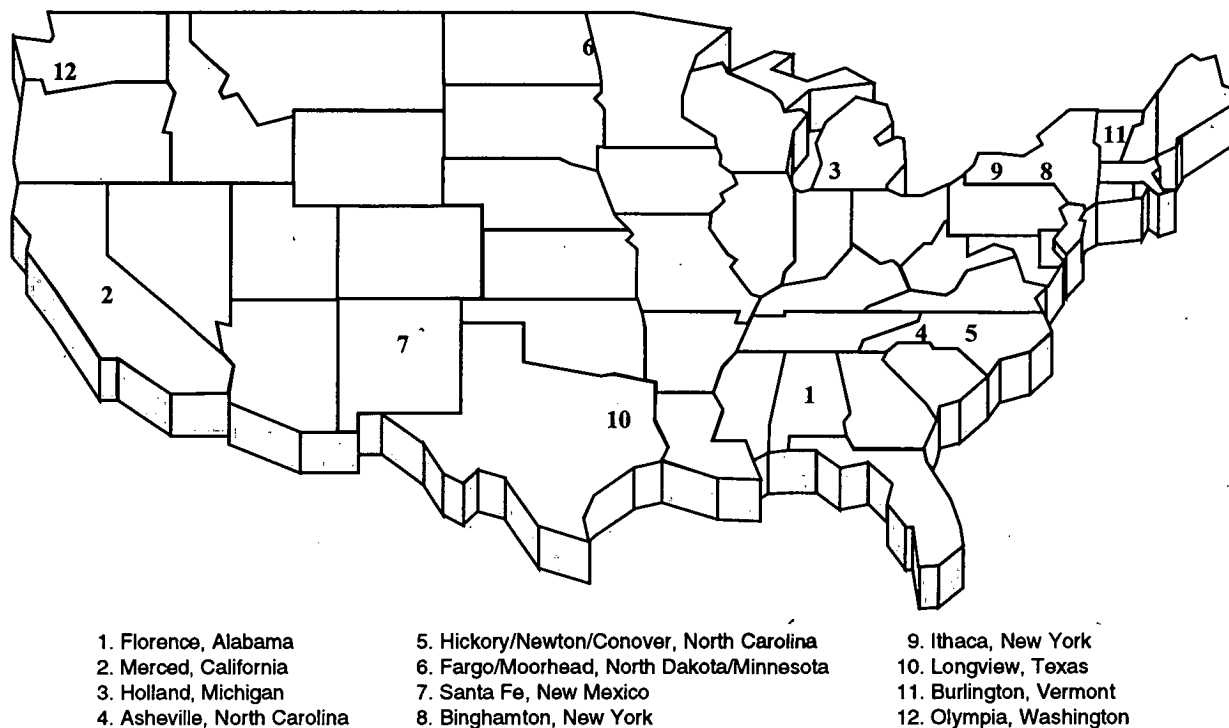


FIGURE 1 Small MPOs studied in synthesis.

characteristics of the small urbanized area MPOs. Differences in size, variable dependence on state transportation agencies, age of the organization, jurisdictional structure, air quality status, congestion, growth rates, and numerous other factors have contributed to this diversity; thus, considerable diversity of opinion was received through the questionnaire and interview process of this synthesis. Respondents stated that they have met the challenges of reorganization when required to produce comprehensive and realistic plans and programs and to assume a strong role in multimodal transportation decision making. There are concerns that new processes have brought increased work load burdens and time delays in project development.

#### METHODOLOGY

The objective of this project was to examine the response of small urbanized MPOs to ISTEA and to document current practices to meet requirements of the planning and programming processes. A combination of information from a mail-out questionnaire and input from personal telephone interviews was used to solicit input from a sample of small MPO staffs.

To evaluate the response of small MPOs to ISTEA and document existing practices, a questionnaire was developed for mailing to selected small urbanized MPOs. The questionnaire requested information about how these MPOs have reacted to ISTEA and requested their input in discovering innovative approaches to meeting the new challenges. In addition, background materials were collected from each of the MPOs. Appendix C is a table indicating documents that were furnished by the MPO for review as background materials.

Follow-up telephone interviews were conducted with MPO respondents to clarify questionnaire results, to collect additional up-to-date information, and to discuss innovative practices. The interviews also provided opportunity to request additional information. The questionnaire and support information furnished by the individual MPOs provided a preliminary understanding sufficient to open the interviewing efficiently and knowledgeably. Interviews started with a brief review of the individual MPO's response to the questionnaire and supporting documentation. The interviewer stressed that the intent was not to evaluate the MPO, but to listen to their experiences resulting from ISTEA. Care was taken in both the questionnaire and the interview to avoid leading responses. Copies of available reports and case studies were requested and are used in this report. A 100-page summary of responses to the questionnaire is available under separate cover from the Publications Office of the Transportation Research Board.

#### ORGANIZATION OF THE SYNTHESIS

Chapter 2 presents a general overview of the background and literature review on "Response of Small Urbanized Area MPOs to ISTEA" and the resulting changes in transportation planning and programming. Relevant applications of this review of technical reports, symposia proceedings, conferences, etc., are included.

Chapter 3 is the heart of the report as it reflects synthesized results of the MPO Questionnaires and interviews. Responses are organized around the broad areas of Documentation of

Practices, Institutional Arrangements, Policy and Procedure, Technical Approaches, and General Considerations.

Chapter 4 documents case studies identified by both the research review and the MPO Questionnaire and interview process. Abstracts of methods, techniques, applications, and innovative practices, which are documented in existing reports and other publications and are available through the MPOs, are presented.

Chapter 5 presents findings and conclusions of this synthesis. Documentation of limitations of successful applications, and comparisons of alternative methods determined by the review are included.

The references, a glossary of terms, and the bibliography follow the above mentioned chapters. Appendix items include the questionnaire/interview document, a list of survey respondents, and the MPO documents reviewed.

## CHAPTER TWO

**BACKGROUND AND LITERATURE REVIEW****OVERVIEW**

This chapter presents a general overview of the background and literature review on the response of small urbanized area MPOs to ISTEA and the resulting changes in transportation planning. Extensive use was made of the Transportation Research Information Services (TRIS) and a number of other valuable information sources to accomplish this effort. Most pertinent publications are listed in the "Contemporary Concepts and Thinking on the Issues" section of this chapter. This chapter also provides a beginning framework for the synthesis with a brief examination of the new expectations created by ISTEA, and summarizes the findings of recent surveys, conferences, and studies that have addressed MPO/ISTEA issues. Relevant applications of this review of technical reports, symposia proceedings, conferences, etc., are presented as examples of good practices for small urbanized area MPO consideration.

**HISTORICAL DEVELOPMENT**

The metropolitan planning process, regulations, and resulting planning organizations were first required in 1962 for all "urbanized areas" (UZAs). UZAs were initially required to have a central city of at least 50,000 population to qualify as a UZA but the U.S. Bureau of Census has since changed the definition to mean contiguous areas of urban development with a population of at least 50,000. Since that time the number of MPOs has grown to a current 339. In the mid 1980s, preference for funding was given to MPOs with populations of 200,000 or more. In December of 1991, the United States Congress passed the Intermodal Surface Transportation Efficiency Act, which most consider to be landmark transportation legislation regarding policy and planning procedures. ISTEA provided dedicated funding for metropolitan areas of greater than 200,000 population, imposed new planning requirements at both the state and metropolitan level, focused attention on asset management and system performance, and increased the type and number of projects that can be funded with federal dollars. The ISTEA legislation provides a focus on the nation's MPOs with its heightened emphasis on planning and programming. The dedication of specific construction funding to metropolitan areas is a new initiative. Implications for policy framework and decision process changes, improved technical processes, and intergovernmental coordination were also inherent in the Act.

**CONTEMPORARY CONCEPTS AND THINKING ON THE ISSUES****Previous Surveys**

A number of surveys conducted in prior research efforts were reviewed. Those considered most pertinent to the effect of ISTEA on small urbanized area MPOs are summarized.

*American Association of State Highway and Transportation Officials (I)*—AASHTO, in cooperation with the National Association of Regional Councils (NARC) and the American Public Transit Association (APTA), conducted a survey that examined the effect of ISTEA on the relationships between state departments of transportation, metropolitan planning organizations and transit agencies. The survey was conducted in 1993, 2 years after passage of the Act. This survey was primarily developed to assess the relationship between MPOs and their state departments of transportation, to get a consensus of what the relationship was at the signing of ISTEA and how it had changed over the 2-year period.

The results of the NARC/APTA survey implied that the goal of ISTEA, the opening up of the decision process, presenting a "level playing field," was being fulfilled but that additional progress is still needed. Survey respondents included 126 MPOs and 50 state transportation agencies. MPOs reported an increase in the number of state transportation agencies, local government agencies, and transit agencies that received membership on the MPO policy committees. Differences between the states and the MPOs on matters of project selection tended to be resolved by either of two processes. In some cases, differences were resolved by negotiations in which the MPO's input was a weighing factor in the state's final decision. In other cases the states were perceived to have final authority and the MPO's input was not considered a weighing factor in the final decision. Almost all of the MPOs indicated that development of the Unified Planning Work Program was a cooperative process with the state. An increasing number of MPOs have received technical support from the state since ISTEA.

*U.S. Advisory Commission On Intergovernmental Relations (ACIR) (2)*—This study reports the results of interviews of 18 MPOs serving 12 metropolitan areas of differing sizes and circumstances. Three of the twelve were small MPOs. The survey addresses the question of MPO capacity (their ability to help implement national transportation policies). Based on its field work, ACIR determined that:

- Metropolitan Planning Organizations are not all alike and they should not be expected to perform alike.

- Most MPOs are not governments and do not exercise clear lines of authority.

- ISTEA has placed new pressures on MPOs to review and change their structure, produce more comprehensive and realistic plans, speed up their planning processes, and take on a stronger political decisionmaking role.

- Many MPOs believe the ISTEA goals will be difficult to achieve and that the expectations are too complex and burdensome.

- MPOs recognize that they need additional assistance with intergovernmental coordination, data and quantitative analysis, planning strategies and methods, the funding process, public involvement, financial constraint, prioritizing of projects and program development.

- MPOs now get the help they need largely from the federal and state governments.

*The Impacts of ISTEA On Metropolitan Planning Practice: A Thesis to Louisiana State University by Terrel L. Shaw II (3)*—This thesis provided information on the state of the practice with respect to implementation of ISTEA. A nationwide mailout survey was conducted and responses were received from 148 MPOs (20 responses of MPO size less than 100,000 population and 56 responses of MPO size 100,000 to 250,000 population). The paper examines the impacts of ISTEA on MPOs and concludes that:

- MPOs are progressing toward adequate consideration of planning factors,

- More modes are now being considered in the planning process as a result of ISTEA,

- The transportation industry is not widely represented on MPO policy and technical committees, and

- The involvement of MPOs in the management systems is mostly in the congestion and public transportation areas.

*Consideration of the 15 Factors in the Metropolitan Planning Process (4)*—This NCHRP synthesis evaluates procedures that MPOs use to consider the 15 factors (now 16) in developing plans and programs under ISTEA. A limited

sample of eight large MPOs (TMAs) was used. In-depth information was obtained from four MPOs and limited information was obtained from another four. Some personal interviews and telephone interviews were used to conduct the research. Conclusions reached as a result of the research efforts include:

- MPOs are doing everything possible to meet ISTEA requirements,

- More effective multimodal planning is occurring,

- More emphasis is being placed on the 16 planning factors,

- Fiscally constrained plans will result in more effective planning, and

- MPOs are receiving extensive input from state, regional, and local agencies.

#### *Other Studies*

The following additional sources contain pertinent information regarding the response of small urbanized area MPOs to ISTEA:

- "The Impact of ISTEA on the Metropolitan Transportation Planning Process: Changing the Way We Do Business—An MPO Perspective" (5) (*This source is abstracted in the Case Studies section of this report.*)

- "Dynamics of Policy Change: Reflections of the 1991 Federal Transportation Legislation" (6)

- "Implementing Intermodal Surface Transportation Efficiency Act of 1991: Issues and Early Field Data" (7)

- "FTA-FHWA Metropolitan Planning Organization Reviews: Planning Practice Under Intermodal Surface Transportation Efficiency Act and Clean Air Act Amendments" (8) (*This source is abstracted in the Case Studies section of this report.*)

- *Special Report 237: Moving Urban America, Proceedings of a Conference*, Charlotte, North Carolina (9)

- *Special Report 240: ISTEA and Intermodal Planning: Concept, Practice, Vision, Proceedings of a Conference*, Beckman Center, Irvine, California (10).

## REVIEW OF SMALL MPO ISSUES AND RESPONSES TO ISTEA

This chapter is based on the results of the questionnaire/interview document (Appendix A) that was sent to staff of selected MPOs and on comments received during personal telephone interviews with their staff. The 12 MPO staff respondents provided unstructured answers to broad questions. Answers were classified and typical comments were synthesized. The sample of MPOs and interviewees was too small for precise statistical analysis of differences among the types of MPOs and the types of respondents. Thus, the results of this survey are more qualitative and suggestive than quantitative and scientifically proven.

The state of the practice in these small urbanized areas is presented in this synthesis. Results of this process enabled discussion of whether ISTEA is a significant change in policy and planning processes or a continuation of the status quo. The extent to which relationships between the MPO and other planning partners can be defined as cooperative, collaborative, or coordinated working relationships is evaluated. Links between the Metropolitan Transportation Plan (as a planning document) and the Transportation Improvement Program (TIP as a programming document) are determined. Tools and techniques used by the MPOs to address changing planning needs are defined. Issues and possible barriers to an effective transportation planning process were identified.

### DOCUMENTATION OF PRACTICES

Each MPO provided copies of the most meaningful documents they prepare and use to guide the transportation planning and programming process in their area. Ten out of 12 of these MPOs furnished copies of their long-range plans (Metropolitan Plan), Unified Planning Work Program (UPWP), and their Transportation Improvement Program (TIP) as most meaningful documents. Other meaningful documents furnished include:

- Unmet Transportation Needs List Guidance (a flow chart and documented procedure for the TIP project selection process)
- Prospectus for Continuing Transportation Planning (methodology, responsibilities, and schedules)
- Bikeways Plan (20-year vision for cycling in the metropolitan area)
- Comprehensive Development Plan (planning for elements other than transportation)
- Extraterritorial Area Road Plan (outside of but adjacent to MPO area)
- Committee Members Operations Guide (policies and procedures for committees operation)
- Corridor Study Reports (evaluation and proposed improvement to selected transportation corridors)

- Systems Plan Coordinated Timeline (regional transportation plan strategy for implementation).

### INSTITUTIONAL ARRANGEMENTS

The Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 is acclaimed by some as one of the most widely heralded pieces of transportation legislation since the 1950s. A major focus of this study was whether ISTEA has really affected the transportation planning process for small urbanized areas. Questions regarding whether ISTEA has resulted in changes in the decision-making process, or in investment strategies were posed. Responses were also solicited regarding whether the Act changed relationships between the MPOs and other planning partners as defined by cooperative, collaborative, or coordinated working associations. Table 1 details institutional arrangements and general information of the 12 MPOs participating in this project.

To derive as many conclusions as possible from the data, an effort was made to determine whether the MPO responses bore any relation to the year or decade in which the MPO was designated, the years of experience of the questionnaire respondent, whether the MPO was at the larger or smaller end of the population range, and how the MPO was structured. The only conclusion that can be reached from this small sample is that each MPO is a creature of its local situation, support, policy, and initiative.

### Changes in Organizational Structure

Have ISTEA requirements motivated changes in MPO organizational structure and the ways they accomplish transportation planning and programming? Most of the 12 MPOs reported that some changes have been made in organizational structure since ISTEA. MPOs reported changes in organizational memberships, executive committee memberships, by-laws, changes in charter, and changes in technical committee structure, membership, or responsibility. The following sections describe how small MPOs have reorganized to meet new planning mandates and changes that have been made in operational and institutional frameworks. Table 2 summarizes MPO changes in organizational structure since ISTEA.

#### *MPOs Reorganized to Meet New Planning Mandates*

To meet their perception of the new planning mandates, some MPOs reported committee structure and membership



TABLE 1  
SUMMARY OF MPO INSTITUTIONAL ARRANGEMENTS AND BASIC INFORMATION

Information Sought	MPO Location											
	1	2	3	4	5	6	7	8	9	10	11	12
Air Quality Attainment?	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Agencies Included in MPO:												
Highway	P/T	T	P/T	P/T	P/T	T	T	P/T	P	P/T	P/T	P/T
Transit	T	T	T	T	T	T	T	T	P	NR	T	P/T
Port	T	NR	S	NR	NR	NR	NR	NR	NR	NR	NR	P/T
State	P/T	T	P/T	P/T	P/T	T	T	P/T	P/T	P/T	P/T	P/T
Planning	P/T	T	T	T	T	T	T	T	T	NR	T	NR
Private	T	C/S	P	T	NR	NR	NR	NR	NR	C	T	P
Local	T	P/T	P	C	NR	P/T	P	P	P/T	P/T	P/T	P
Others	NR	C/S	T	C/S	T	NR	NR	T	P/T	NR	NR	NR
MPO Information:												
Years in Transportation Planning	22	10	3	31	15	28	14	20	4	20	13	28
Respondent's Experience	13	22	6	8	13	22	5	16	10	11	23	21
Population Size (x1000)	77	202	76	100	110	130	70	165	95	90	110	121
MPO Staff Housed by	COG	RPC	MPO	City	COG	COG	City	County	County	City	RPC	RPC

P = Policy Committee/Board, T = Technical Committee, C = Citizens Advisory Committee, S = Special Committee, RPC = Regional Planning Council, NR = Not Represented.

1) Florence, Alabama, 2) Merced, California, 3) Holland, Michigan, 4) Asheville, North Carolina, 5) Hickory/Newton/Conover, North Carolina, 6) Fargo/Moorhead, North Dakota/Minnesota, 7) Santa Fe, New Mexico, 8) Binghamton, New York, 9) Ithaca, New York, 10) Longview, Texas, 11) Burlington, Vermont, 12) Olympia Washington.

TABLE 2  
MPO CHANGES IN ORGANIZATIONAL STRUCTURE SINCE ISTEA

How MPOs Reorganized to Meet New Planning Mandates	Changed Collaborative Relationships	Documentation of Relationships	Issues Unresolved by ISTEA
Organized or restructured citizen advisory groups	Community visioning processes were initiated	Updated Prospectus	Too many planning regulations
Programming dramatically altered by fiscal constraint	More meetings open to citizens, organizations and stakeholders	Formal agreements with other planning entities and agencies	No guidance for simplified planning process for small MPOs
Committee structure and membership revised	ISTEA has made relationships more complicated but implementable	Recent by-laws and contracts for planning projects	Small MPOs need greater influence in project identification in the STIP
Transit representation added to technical committee	State DOTs make actual project selection in some areas	Articles of association, contracts with state DOTs	More flexibility regarding mode choice for funding
Reconstituted citizen advisory committee	More documents available to public	Local dues assessment documents	State imposed guidelines
Formation of freight advisory committee	Joint City/County planning	Unified Planning Work Program	Inadequate funding for planning
Expanded staff	Stronger personal and professional ties	Memoranda of understanding such as between State transportation, air quality, health, and planning agencies	Requiring same level of review for construction of major and minor type projects
Merger with regional planning commissions	Reorganized technical advisory committee to insure regional coordination of planning efforts	Contractual agreements with consultants and public transportation providers	Only MPOs over 200,000 population have project selection powers and STP set-aside
New mission statement	Multi-county regional coalition for transit services		Lack of State sharing project decisionmaking authority
			Disconnect between modes other than highway and transit (rail, air, water)
			Planning process has become more complicated, costly and lengthy

revisions, reorganizations to accommodate citizens advisory groups, and mergers with other planning organizations. These initiatives were in some cases accompanied by new mission statements and expanded staff. Some reported that programming has been dramatically altered by fiscal constraint (Table 2).

#### *Changes In Operational and Institutional Frameworks*

MPOs indicated some changes in operational and institutional frameworks by which the issues of transportation planning are addressed. Added public input opportunities, changes in voting strengths of the policy board, additional partnerships, memoranda of understanding, and consensus building initiatives were mentioned.

**Collaborative Relationships**—MPOs defined how collaborative and well-working relationships have been implemented. Some were of the opinion that ISTEA has made relationships more complicated but implementable. MPOs are making documents available to the public and holding more and better public meetings. Community visioning processes have been initiated and stronger personal and professional ties with planning partners have developed (example: joint city/county regional planning). Multicounty regional coalition for transit services have been organized in some areas (Table 2).

**Documentation of Relationships**—The extent to which relationships between the MPO and other planning partners are documented was discussed. It is noted that memoranda of understanding, for example, between the MPO and the state transportation agency or for air quality between state transportation agencies, state department of health, state pollution control agencies and council of governments, have resulted in some areas. Formal agreements with other planning entities and agencies were also noted. Updated prospectuses, by-laws, articles of association, Unified Planning Work Programs, contracts with state DOTs, local dues assessment documents, contractual agreements with consultants and local transportation providers, and contracts for planning projects document these changes (Table 2).

#### *Issues Unresolved by ISTEA*

MPOs were asked to identify problems unresolved by ISTEA. Inadequate funding to accommodate the more complex

planning process, sharing of project selection authority, lack of guidance for a simplified planning process, state-imposed regulations, use of flexible funding across modes, and a basic disconnect in planning between modes other than highway and transit were mentioned (Table 2).

#### **Comparison of Old and New Practices**

The MPOs were asked to compare how they did business before ISTEA to their current practices. Table 3 summarizes the responses and the following provides a discussion of the MPO comments.

#### *New Roles of the MPO*

Some MPOs identified broader planning responsibilities such as citizen participation, transportation modeling and forecasting, "broker" of collaborative planning, and a stronger role in project advocacy, policy development, and data management systems, as new or expanded roles. The requirement to prepare a 20-year financially constrained plan and to use this plan for programming transportation improvements is perceived by some as a new opportunity for MPOs to improve the project selection and development processes (Table 3).

**Consensus Builder and Coordinator**—MPOs emphasized this as a role of increased importance under ISTEA. Mention was made of the importance of problem solving under limited funding. In some cases, "coordination" and "consultation" provisions are reported to have created a confrontational situation between the MPOs and state transportation agencies. Perception of poor definition of these words has not helped clarify MPO and state transportation agency roles. MPO activities are reported to have increased substantially in both the coordinator and consensus-builder roles.

Under new memoranda of agreement, state transportation agencies are reported to have a more active participant role in the MPO planning processes. As stated by one MPO:

Programming authority seems to have commanded everyone's attention. As a result, there is more technical and political attention to the assumptions that underlie the planning, the basis for forecasting, and key aspects of the modeling. This has helped build an expectation of regional collaboration and strengthened coordination.

TABLE 3  
NEW MPO PRACTICES IN INSTITUTIONAL ARRANGEMENTS

New Roles of the MPO	Transportation Planning Process Changes
<ul style="list-style-type: none"> <li>• Broader planning responsibilities (transit, bicycle, pedestrian)</li> <li>• Citizen participation in the planning process</li> <li>• Stronger MPO role in project advocacy, policy, development, and data management systems</li> <li>• Transportation modeling and forecasting</li> <li>• "Broker" of collaborative planning and capital project efforts</li> <li>• Requirement to prepare a twenty-year financially constrained plan and to use this plan for programming of transportation improvements</li> </ul>	<ul style="list-style-type: none"> <li>• Greater public input</li> <li>• Refined planning and improved data collection efforts</li> <li>• Increased collaboration among transportation agencies</li> <li>• Added financial constraint</li> <li>• Improved project review criteria to include social, economic and environmental aspects</li> <li>• Enlarged staff and provide more training expertise</li> <li>• Developed metropolitan Geographic Information Systems (GIS) systems</li> <li>• Increased multimodal planning activities</li> </ul>

**Project Selection Process**—The MPOs were asked to discuss project selection criteria and the project selection process as they related to state agencies and transit operators before and after ISTEA. Some MPOs reported that transit was not involved in the MPO project selection process prior to ISTEA. These MPOs now rank transit priorities.

While some MPOs report participation in distribution of suballocated funds and development of screening and scoring systems for the technical and policy committees, other MPOs report lack of involvement in “cooperative” project selection processes, particularly those on state-owned facilities. For this reason, some MPOs report that the project selection process remains unchanged by ISTEA. Some concern is expressed in the fact that MPOs are obligated to conduct the public involvement process (which implies some control over project selection), while, in reality, the state transportation agencies determine project selection. FHWA’s interpretation of the regulations is that the process of TIP development is a “cooperative” process between the state and the MPO. Most MPOs reported that the requirement that projects must be in the metropolitan plan to be eligible for inclusion in a TIP and STIP is an accomplishment of ISTEA.

**Air Quality Conformity**—Although “conformity” predates ISTEA, participation of MPOs in air quality conformity compliance did not exist before ISTEA, according to participants in this project. Some MPOs mentioned that the conformity determination process is extremely complex, bureaucratic, and technically suspect. One MPO said that “conformity casts a cloud over MPOs credibility, ISTEA’s efficiency, and clearly has yet to demonstrate improved air quality or project selection decision making.” MPOs in attainment areas in general report minimal involvement in addressing statewide conformity. Some MPOs took the initiative to revise previous MOUs on air quality to include their participation.

**Multimodal Planning**—Several MPOs report that a minimal degree of multimodal planning was done before ISTEA and this is now considered a major component of their planning processes. ISTEA’s encouragement has led to MPO-sponsored transit expansion feasibility studies and increased awareness of other forms of transportation, such as bicycle, pedestrian movement, carpooling, and vanpooling. ISTEA also opened the door to enhancement type activity planning by MPOs.

Freight planning is also mentioned as a new focus as a result of ISTEA. Some MPOs have apparently been effective in communicating the economic importance of the freight industry to their local public officials.

To some extent, the MPOs report that ISTEA provided a renewed emphasis on land use planning and urban design. Some MPOs report an aggressive goal for reducing the drive-alone commuter rate, emphasizing transit demand, and system management policies.

**Long-range Vision**—MPOs were asked to contrast realistic long-range vision and financially constrained plans. Some respondents referred to pre-ISTEA plans as “wish lists.” General consensus is that financially constraining the long-range plans has brought some reality to the planning and programming process. Some MPOs mentioned difficulty in engaging

local elected officials in discussions of long-range vision and its relationship to both transportation investment and community goals. However, long-range plans and TIPs have gained considerable credibility and are judged to be “plausible” to implement because of constrained requirements. Some MPOs report that requirements for financial constraint have resulted in increased local emphasis on programs of maintenance, efficiency improvements, and public transit.

**Public Transportation**—In response to the request for a comparison between old and new practices regarding MPO working relations with public transportation providers, it was generally noted that what had been a nonexistent or good relationship has become better. Some MPOs report no change attributable to ISTEA, indicating previous planning relationships with public transportation providers existed and were productive. However, slightly more communications are acknowledged. The ability to “flex” capital funds from highway to transit has received a great deal of attention, but limited use in these MPO regions. In other cases, transit representatives have been added to MPO policy and technical working groups. Local government transit providers have in some cases consolidated their services with MPOs.

#### *Transportation Planning Process Changes*

Some MPOs identified changes in the way they conduct transportation planning since ISTEA. Increased collaboration among transportation agencies, greater public input, improved project review criteria, added financial constraint, and increased multimodal planning activities were mentioned. The ability to fund enlarged staff and to provide more training and expertise is perceived to have resulted in refined planning and improved data collection efforts (for example, Geographic Information Systems) (Table 3).

**Relationship With Other Planning Agencies**—Although some MPOs indicated no change in the relationship between their MPO and other transportation agencies, others indicated positive levels of cooperation, increased collaboration with the state and federal agencies, broader scope in work efforts, and increased outreach to freight, air, and rail modes. Some MPOs report increased involvement in statewide planning efforts. Relationships between the MPO and private entities are reported to have increased for long-range studies. In some cases, more formal memoranda of understanding have been developed with other planning agencies. In general, MPOs reported considerable improvement in working cooperatively on mutual issues. Examples included development of local National Highway System candidate routes, collaborative processes, intermodal focus with rail and intercity bus interests, and MPOs acting as facilitators or coordinators of transportation and planning issues.

**Decision Making**—In describing decision making for project selection, the small MPOs indicate very little change related to ISTEA. Although some states have given project selection authority to their small MPOs, the majority of these sample MPOs imply that state transportation agencies have

final project selection responsibility. Respondents indicated a desire for project selection responsibilities similar to TMAs.

**Planning and Programming Documents**—Several MPOs expressed no substantial change in relationships between planning and programming documents. The MPOs do indicate additional recognition attributed to them in preparation of financially constrained long-range plans.

**State and Federally Imposed Guidelines**—Although some MPOs indicated no change in their practices due to state- or ISTEA-imposed guidelines, others perceived additional paperwork and time expended, but no improvement in decision making. Some reported expanded thoroughfare plans resulting from imposed guidelines to include bicycle, pedestrian, enhancement, and transit planning. One MPO indicated that the new guidelines have helped focus the MPO's work and have provided a framework to ensure that planning efforts are meaningful.

#### **Leveraging Interest in the Planning Process**

The MPOs reported using the new planning requirements to leverage interest and involvement in the planning process. They indicated that various additional participants now consider themselves a part of the planning process. Interest will continue to increase when there is funding to implement projects. The development of formal public participation plans has resulted in the identification of parties (freight companies, transit providers, and groups traditionally underserved by the transportation system) whose input is being sought when major planning initiatives occur. Participation and preparation of long-range plans and selection of projects from the plan for the TIP has resulted in a broader spectrum of input. Consideration of the 16 factors in planning have brought interest from truck, rail, freight, bicycle, and pedestrian modes to the planning process. Requirements for fiscal constraint have generated greater involvement on the part of local decision makers in the rational allocation of scarce resources to regional transportation problems.

#### **Adequate Authority to Conduct Process**

MPO respondents in general consider ISTEA to have provided adequate authority to allow them to conduct an effective planning and programming process. More satisfaction is expressed with planning authority than with programming authority, as previously discussed in this synthesis. The linkage between planning and programming for small MPOs was considered by some to be very limited since the state transportation agencies actually select most of the projects. Some MPOs requested that ISTEA reauthorization clarify and improve the programming role for smaller MPOs. It was also suggested that ISTEA neglects some relationships between other modes relative to the planning process and that more flexibility and funding to meet transportation needs regardless of mode would be helpful. The concern was that current regulations do not require that various non-surface transportation

planning be integrated into the MPO process. The "disconnect" between FAA-required master planning and the MPO long-range plan and TIP was cited as an example.

#### **POLICY AND PROCEDURE**

The MPOs were asked to comment on how policies and procedures have changed in their organization because of ISTEA and to discuss whether the new planning requirements were instrumental in these changes. They were further asked to describe changes in policy and procedure their MPO has implemented to improve the transportation planning processes.

#### **Use of Flexibility to Accommodate Change**

While some MPOs indicated that flexibility is more perception than actuality, others indicate changes that have been made to accommodate ISTEA. Some MPOs suggested innovative approaches to congestion management, such as travel demand management, traffic systems management, and intelligent transportation system planning efforts. They also mentioned the beginning of truly multimodal planning and increased emphasis on local involvement in decision making as important changes.

#### **Modal Changes**

Respondent MPOs agreed that ISTEA made efforts to stress the importance of multimodalism and intermodalism, in other words, interconnection between modes, consideration of a full range of transportation's modes, and the use of a coordinated transportation process between the modes. The small MPOs were asked to describe their various initiatives in this regard.

#### **Importance to Small MPOs**

Most MPOs surveyed indicated that multimodalism and intermodalism were important initiatives and noted that ISTEA has increased awareness of how important codependent network users and modes are to each other. Some noted that as growth occurs in their small urbanized area, the opportunity to respond to increasing congestion in traditional ways, such as widening of streets and highways, will not work (particularly in historic areas) and is not seen as a solution by many area residents. Some respondents suggested that small MPO areas are some of the few locations where implementing multiple mode planning/projects can have a meaningful impact on quality of life, economic development, and the performance of the transportation system. It was suggested that a "level playing field" does not yet exist between transit and highway projects. Some MPOs indicated that before ISTEA, transit planning and funding were addressed separately from other transportation issues and now the issues are coordinated.

### *Changes Initiated*

MPOs indicated that they have made changes in transportation planning in their area to incorporate multimodalism. One MPO indicated that they had made more changes in the planning process to accommodate modal options and suggested that the interconnectiveness of the nonmotorized system has led to a commitment to develop a nonmotorized transportation plan for the region. Others indicated that they have developed official transit, bicycle/pedestrian trails, and enhancement type plans and networks. Some noted that their increased awareness of funding flexibility has promoted success in securing STP funding flexibility to implement transit vehicle replacement. Re-examination of land use plans and connectivity are being implemented and discussions with freight operators about both highway and rail needs are occurring.

### *Further Implementation Needs*

MPOs expressed in general the need for commitment at the national level to a truly intermodal transportation system that is affordable, that meets the needs of both urbanized and rural areas, and that supports rather than damages the community/environmental fabric. MPOs described perceived needs to further implement the multimodal/intermodal initiative in transportation planning in small MPO areas. A major concern was the lack of adequate funding for project implementation, as well as resources to complete the required data collection, marketing, and mapping tasks to substantially advance this initiative. The MPOs desire better tools for linking transportation and land use and they suggest placing greater emphasis on energy conservation and air quality. It was also suggested that Congestion Management and Air Quality Improvement Program (CMAQ) funds be allocated to attainment areas for multimodal projects to prevent future congestion and air quality problems. The need for access to "loaned expert pools" with specific expertise on multimodalism was expressed.

### **Link Between Metropolitan Plans and TIPs**

A majority of the respondents agreed that the new planning regulations resulted in a clear and substantial link between the Metropolitan Plan (as a planning document) and the Transportation Improvement Program (as a programming document). Opinions vary from "no change due to ISTEA" to "clearer than before and continuing to get clearer." The lack of project selection authority for small MPOs continues to be mentioned.

### **Allocating Limited Resources**

The MPOs were asked to address the need for sound decisions based on good information to avoid mistakes in allocating limited resources. It was the general perception that the term "limited resources" is extremely understated. Limited resources is usually the focal point of input and discussion at

both the technical and policy committee meetings. The MPOs emphasized that inadequate funding for planning and programming is a problem left unresolved by ISTEA. Special mention was made of inadequate funding for transit improvements. The opportunity to recommend needed capacity improvement projects for the region is so constrained that achieving consensus on project priorities and problem-solving approaches is difficult. The 16 planning factors have helped to broaden the view of project priorities during the decision process. Technical inputs, such as models and other databases, and rigorous screening, scoring, and performance-measure techniques are providing better information for technical and political decision making. The required linkage between the metropolitan plan and TIP candidate projects improves the allocation process.

### **Staffing Issues**

#### *Innovative Methods to Staff the Process*

MPOs described innovative methods they have developed to meet the challenges of ISTEA without significantly increasing staff. Approaches such as cross training staff persons to implement programs, use of consultants, and joint contracting with other planning agencies for services were described. Undertaking initiatives with other MPOs, planning bodies, and local units of government staff has resulted in sharing of costs and work loads. Some MPOs have used pass-thru contracts with local agencies to implement portions of the transportation planning processes and this has resulted in improved relationships with local governments. Others have used innovations such as student labor, paid internships, and work-study arrangements. Local university resources and automated technology, such as computers and geographic information systems (GIS), have also been assets.

### *Available Resources*

In discussing available resources in terms of staff, training, networking, equipment, and technical tools, some MPOs indicate that they have sufficient funding levels to meet their planning needs. Some, however, also mentioned that staff in small area MPOs are typically young or inexperienced and require training. They acknowledged that training and technical tools are available but not yet used. Other MPOs indicate inadequate staff availability due to funding or local political issues. Recruiting and retention of competent staff was mentioned as a problem by some MPOs. GIS is emphasized as an extremely valuable tool. ISTEA and the federal/state follow-up initiatives seemed to have increased the expertise of staff through both training opportunities and provision of new technical tools. Informal state associations of MPOs and networking with state transportation agencies and local agencies have been valuable in providing shared knowledge in many technical areas.

### *Experienced Staff*

In describing the availability of experienced staff for small urbanized area MPOs, several respondents indicated difficulty in securing this expertise. Personnel with a basic planning background are generally hired and provision is made for on-the-job training. Retention of experienced staff is again mentioned as a basic problem. High turnover rates are experienced as individuals gain experience and move on to higher paying positions. Consultants often fill the void of insufficient experienced MPO staff.

### *Concerns About Limited Staff*

The issue of small MPOs having a limited staff who must deal with a wide range of planning issues was described as one of the largest challenges for small MPOs. When the scope of planning increased as a result of ISTEA, it became more important to add adequate staff, and for small MPOs, this mandates that their knowledge become more comprehensive. Inadequate funding is again mentioned as a problem.

### *Training Issues*

#### *Travel Budgets*

Funding of travel budgets for conferences and workshops was considered to be generally adequate by most respondents. It was suggested that prudence must be used when exercising selections for appropriate training. MPOs have been pleased with many of the FHWA and state transportation agency sponsored training opportunities they have attended. Some MPOs have attained high-value/low-cost training by encouraging state transportation agencies to bring national experts and courses to the state or local region. Major conferences are also praised as training opportunities. Some MPOs mentioned the fact that small staffs make it difficult to take advantage of training opportunities.

### *Information Exchange And Networking*

*Sources of Information*—In answer to the question of who they call for information, respondents indicated that they prefer to call someone in-state, such as the state transportation agency or other MPOs. The advent of E-mail and the Internet has greatly improved access to resources. Communication is apparently not a problem for small MPOs.

*Support Network*—While some states have implemented statewide MPO associations, and have an adequate number of meetings with those groups, respondents to this survey indicated that there is a lack of and need for a well-developed small MPO support network. This is particularly true for those MPOs who lack resources. Some “best practices” work, geared specifically to small MPOs, was suggested. NARC’s AMPO helpline was mentioned as a welcomed opportunity.

TRB Committee A1DO5-Transportation Needs and Requirements for Medium and Small Communities and the national conferences it supports were also mentioned as resources. It was suggested that publications similar to the “Simplified Planning Aid” series, which was produced by USDOT in the 1980s, would again be useful to small MPOs. A “Circuit Rider” approach to make various expertise available was also suggested.

### *Training Topics of Current Greatest Concern*

The respondents were asked to rank the three training issues they consider of greatest concern today. The need for additional professional technical skills was expressed most often. Next in the top three issues was a need for training in fiscal planning and financial constraint. A broader range of planning skills, including strategic and long-range planning skills, was the third high-priority training need. MPOs also expressed a need for enhanced communication and coordination skills for policy committees, technical committees, and staff. Other training needs included personnel management skills and public involvement techniques. Difficulty in scheduling policy makers to attend training was mentioned as problematic. In describing information and networking problems, the respondents indicated that inadequate equipment (primarily computer) and time availability were obstacles to overcome.

### *Effective Training Approaches Used*

Respondent MPOs described the effective approaches they are using to address training issues and to provide adequate training to technical staff and policy makers. The Technology Sharing Program of the USDOT, as well as the Bureau of Transportation Statistics have helped in this effort. Courses sponsored by the National Highway Institute, the National Transportation Institute, and the Transportation Research Board, and information exchange among peers at all levels were described as helpful. Participation in national organizations, such as the National Association of Regional Councils, Association of Metropolitan Planning Organizations, and the Institute of Transportation Engineers, was mentioned as effective. Some MPOs participate in quarterly meetings in statewide MPO associations to exchange experiences and learn new techniques. Use of the Internet to provide learning experiences was recommended to acquire and maintain expertise and involvement. MPOs have also provided off-site day-long retreats or workshops for committee members and staff as training opportunities. Use of “visioning” type workshops has proven to be both educational and useful.

### *Information Dissemination*

Respondents emphasized the continuing need for information dissemination. They have used the following techniques

to present available information to local practitioners and decision makers:

- Establishment of good working relationship with the media and public sector,
- Distribution of monthly newsletters,
- Mailouts to individuals, businesses, and interest groups,
- Dissemination of publications at monthly meetings,
- Set up “a reference room” open to practitioners, decision makers, and the general public,
- On-line computer access to publications,
- Creation of “planner’s forum” with quarterly meetings,
- Information distribution to public library branches, and
- Cable public access programming.

In discussing additional resources or approaches that are needed, MPOs mentioned possible expansion in Internet technology. This would make MPO information more available and allow input of comments. Provision of additional resources to assist these approaches was suggested.

#### **Policy and Procedure Obstacles**

The MPOs were asked to identify any policy or procedural obstacles imposed by ISTEA that contribute to an ineffective planning process. In general, most MPOs do not believe that ISTEA has imposed policies and procedures that have caused an ineffective planning process. Obstacles mentioned by other respondents include:

- “Unfunded mandate” scenario (added planning requirements without additional funds),
- Lack of uniform enforcement of ISTEA regulations, and
- Insufficient effort and cooperation from state transportation agencies in providing financial planning information.

#### *Issues and Barriers Overcome by MPOs*

To overcome the problems mentioned above, MPOs have testified at regional and national forums, provided comments on rules, communicated legislative policy positions to state transportation agencies, AASHTO, USDOT, and Congress, and written articles for national publications. Some of this effort has been oriented to securing for small MPOs the same project selection authority and STP set aside access that is available to large MPOs under ISTEA.

#### *MPO Recommended Processes*

MPOs were asked to recommend processes outside of their agency that would address institutional issues and barriers. One MPO suggested the need for MPO staffing to be “stand alone” and not obligated to a lead planning agency. In this case, although the MPO Policy Committee is responsible for transportation decision making, the staff are employees of

the lead planning agency and subject to their personnel, procurement, and operational rules. Concern was expressed that this does not always allow the staff to function in a regional context.

#### **TECHNICAL APPROACHES**

##### **Issues, Staff Support, and Data Support**

Tools and techniques used by small MPOs to address changing planning needs, issues, and barriers to an effective transportation planning process were solicited. MPOs were asked which new planning requirements of ISTEA are key issues, require the most staff time, and require the most data to support the transportation planning and programming processes in their areas.

Respondent MPOs identified the following key ISTEA issues in their region: public participation in the planning processes; multimodal planning; 16 factors for planning; financial constraint; LRP/TIP/STIP coordination; conformity with CAAA; management systems; freight movement; life-cycle costs; social, economic, and environmental effects in transportation planning; public transportation; and traffic modeling.

Issues that require the most staff time were perceived to be increased public involvement, fiscal constraint, project selection, prioritization and evaluation, TIP preparation and coordination, long-range plan development and update, management systems, modeling, and bicycle/pedestrian planning. The issue most mentioned as requiring significant staff time was increased public involvement.

Issues that require the most data to support the transportation planning and programming processes were perceived to be fiscal planning/project prioritization, TIP process, management systems, environmental assessment, TCM data, traffic modeling and demographic data, public involvement, transit, multimodal planning, and goods movement.

#### **Significant Change or Status Quo?**

Respondent MPOs disagreed as to whether ISTEA wrought a significant change in operational and technical approaches to the traditional transportation planning process or a continuation of the status quo. They were asked to rank this change on a scale of 1 to 5, with 1 indicating “revolutionary change,” 3 indicating “some change,” and 5 indicating “status quo.” Rankings ranged from 1 to 5, with an average of 3. Reasons for these rankings are described in the following section.

#### *MPO Explanation of Ranking*

The MPOs that ranked ISTEA as maintaining the status quo in the transportation planning processes indicated that the basic planning requirements were covered in the pre-ISTEA process but are now mandated. Others indicated that the same mandated process has been in place for years. Those MPOs

that indicated mandated changes due to ISTEA cited the following changes as reason for their ranking: requirement to prepare a financially constrained regional plan, melding the planning for transit in with the overall regional transportation plan, CAAA conformity, citizen participation, major investment strategies, regional partnerships, multi/intermodalism initiatives, categorical funds for urbanized areas, and an improved collaborative planning process.

#### *MPO Changes to Technical and Operational Processes*

MPOs further cited changes in their technical and operational planning processes as a result of local interpretation of the new planning and programming requirements of ISTEA. These include technical and policy committees that now review each project in greater detail, more formal reporting and documenting practices on decisions reached, increased public involvement, establishment of performance measures in concert with management systems, improved staff expertise, technical tools, and data bases, broader customer base, renewed emphasis on travel modeling, expanded transportation planning to address alternative modes, and improved project prioritization selection and financial constraint techniques.

#### *Previous versus Current Certification Procedures*

The majority of the respondent MPOs concluded that no substantive change has occurred in the certification process for small MPOs because of ISTEA. Some perceive a better working relationship with the FHWA and state transportation agencies under ISTEA related to improved documentation of planning activities. Some indicated that self-certification is now accomplished cooperatively with the state by use of extensive checklists. One MPO stated that they did not recognize a certification process prior to ISTEA and that the new regulations provided a detailed framework by which they can evaluate themselves for self-certification. One MPO suggested that the TMA MPO certification process is "healthy" and, if required of non-TMAs, would deepen the relationship between state transportation agencies, local governments, and MPOs.

#### **State and Federal Requirements**

It was noted that some MPOs are subject to state as well as federal requirements in planning. State requirements sometimes include regional transportation plans, growth management planning, and least-cost planning. The majority of the respondent MPOs indicated that ISTEA requirements integrate reasonably well and are complementary with state and local requirements and that, in general, they are not required to perform redundant planning activities. One MPO noted that ISTEA requirements do not integrate well with their state

transportation planning requirements because congestion management programs do not geographically or institutionally agree. This state (California) apparently requires a regional transportation plan that is not the same as the ISTEA MTP. The state's regional TIP/STIP process goes beyond ISTEA in many areas.

#### **Simplified Planning Procedures**

ISTEA allows for simplified planning procedures for small urbanized area MPOs. Respondents of the survey/personal interview process emphasized the critical need for simplifying the processes. It was suggested that small urbanized areas require less intensive planning procedures than more heavily populated areas for various reasons but that flexibility needs to be maintained in the planning requirements. Limited staff, expertise, and resources were often cited as additional reasons for simplified processes. One MPO noted that if no population growth and an absence of urbanization of the fringe (sprawl) are required to qualify for simplified planning procedures, then very few small MPOs will qualify for this simplified process. Although it is a common perception among these respondents that FHWA has not approved any simplified planning procedures for small MPOs since the inception of ISTEA, it is also true that small MPOs have not, for a number of reasons, requested approval for simplified procedures from USDOT. Some MPOs note that they have reduced proposed Congestion Management System work programs in accordance with recent NHS legislation requirements for non-TMAs.

#### **Research, Development, and Training**

MPOs were asked to describe research, development, and training they have conducted in their urbanized areas. Responses included development of a countywide GIS, pilot studies for ITS, measurement and mapping of transit commuting patterns, traffic generation studies and travel demand models that include a mode-split component, air quality conformity, computer software, site development studies, and regionwide transportation funding profile and revenue forecasts.

Respondent MPOs have conducted local training in computer software, transportation site impact development, GIS procedures, travel demand modeling, air quality conformity, TIP preparation, long-range plan development, and hosted "local assistance" workshops and "planner forums" for government staff.

#### *Inadequate Processes*

The MPOs were asked to identify current assessment techniques and planning processes they consider inadequate for their purposes. Five of the 12 MPOs consider existing techniques and processes to be adequate. Others mentioned the following as impediments: lack of detailed system monitoring, inability to track demographic and land use changes,



lack of in-house modeling capabilities, lack of environmental planning, applications of TDM measures and ITS approaches to congestion reductions, and forecasting for financial and land use purposes.

#### *Additional Needs*

In response to the requests for recommendations about additional research, development, or training that would be useful in the planning and programming area, respondents suggested computer training on GIS applications, updates on travel demand forecasting processes, updated origin-destination surveys, training and effective surveying techniques, financial forecasting and life-cycle costs, examples of techniques and successful programs that maintain clean air attainment status, land use/transportation connection, mode choice research, and least-cost planning methodology.

#### **Tools and Techniques**

MPOs were asked to list some tools and techniques they have adopted. Those identified included:

- Processes for identification of environmental consequences,
- Establishment of techniques for right-of-way preservation,
- Bicycle suitability planning (rating system for street and highway suitability to accommodate bicycles),
- Various applications and packaging relative to financial ability, land use controls and statutory authority,
- Innovative "screening criteria" for short- and long-range project selection,
- Use of GIS-based data sets for planning purposes,
- Mode split travel modeling components, and
- Demand-response transit ridership projection methodology.

#### *Travel Demand and Land Use Models*

As further explanation of innovations as tools and techniques used for travel demand and land use models, some of the small MPOs furnished the following techniques: trip modeling and NETSIM applications, GIS for eight county air districts, peak hour traffic model, use of TRANPLAN software for travel demand modeling and traffic forecasting, QRSII model for small area impact studies, regional land use mapping, FREESIM and NETSIM models, Tmodel use for the long-range plan, corridor and traffic impact studies. Other respondents indicated lack of in-house technical capabilities.

#### *Involvement of Environmental Resource Agencies*

The MPOs were asked to describe tools and techniques they have used to facilitate early involvement of environmental resource agencies. Most MPOs indicated that environmental resource agencies are on their mailing lists and representatives

occasionally attend meetings, especially as discussants of air quality attainment status. One MPO noted that, through a recent pilot project between the MPO, FHWA, and the state transportation agency, the MPO has completed a corridor selection process that places the bulk of environmental resource agency coordination and public involvement at the front end of the project development process. This was considered to be a phased environmental approach and was viewed as a successful venture by all participants. Another MPO initiated a phased environmental approach that will involve several environmental resource agencies at the beginning. One MPO includes the state natural resource agency as a part of the policy and technical committees and another has established a "transportation task force" comprising environmental interests and agencies who will participate with the transportation policy board.

#### *Information Pooling*

The tools and techniques described next have been implemented by the MPOs for information pooling and sharing: use of statewide MPO association network, Internet access, and bulletin board and web page development for local jurisdictions, GIS, video conferencing, annual MPO conferences, quarterly state MPO association meetings, and memberships in the American Planning Association and the Institute of Traffic Engineers.

#### *Contracting*

MPOs indicate that they routinely contract to provide services to local governments and others. Areas of contracting include providing Internet access for MPO member jurisdictions, providing general land use planning and travel modeling services, and providing financial services contracts for transportation related and general operating budgets. Pass-through grant contracts are often awarded to local governments for planning services.

MPOs also contract with other organizations for assistance in performing some elements of the MPO planning work program. Consultants have been hired to assist with GIS needs, corridor studies, and forecasts for regional traffic models.

#### *Others*

One MPO has made innovative use of business and non-profit agencies as a technique to assist the MPO staff in their planning efforts. A research institute at a local college assisted, at no cost to the MPO, in the long-range planning process. Other entities have assisted in preparation of maps and other visuals and contributed to the expertise of MPO as employees.

#### **Issues, Needs, and Innovative Practices**

The MPOs were asked to describe issues, needs, and innovative practices they consider essential to an effective transportation

planning and programming process. Responses were grouped into the categories that follow.

#### *Financial Planning and Fiscal Constraint*

Respondents indicated that the philosophy of fiscal constraint in both the long-range plans and the TIPs is an important concept, if only to make it clear to policy makers and the public that current financial resources are totally inadequate to meet transportation system needs. Some MPOs indicated, however, that data collection requirements to make these determinations are extensive. The need for additional training in financial forecasting and life-cycle costing was mentioned. Case studies of successful financial planning and fiscal constraint are desired to improve existing processes. Lack of cooperation from state transportation agencies in providing financial estimates for programming purposes was a concern. It was suggested that this single piece of information is so critical to implementing ISTEA's rational plan-to-project concept, that without it, the entire process is breaking down.

#### *Public Involvement and Leveraging Interest in the Planning Process*

Almost all of the respondents indicated that ISTEA has contributed to the effectiveness of public involvement in their urbanized area. Direct mailouts to interest groups, more advertising of public meetings, project newsletters, open houses, and technical showcases are a few of the new outreach efforts. MPOs have maintained past efforts such as advisory groups of citizens and interested parties, modal planning committees, and various other communications. Concern was expressed that proactive public involvement requires considerable staff time. Innovative techniques that are effective and affordable in the smaller areas were considered essential.

**Public Dialogue**—Respondents indicated that a proactive approach of taking public meetings to the people instead of trying to get the public to come to them on MPO terms was useful. Techniques implemented by the small MPOs to conduct the "proactive" public involvement process proposed by ISTEA include formation or reconfiguration of advisory groups, community meetings, newsletters, public surveys, annual reports, media news releases, interviews, expanded mailing lists, product oriented task forces, E-mail addresses and other electronic media, local access cable television, meetings and workshops at satellite locations in the region, special inserts in local papers, input opportunities at local farmers markets and service clubs, focus groups, and stakeholder interviews.

**Leveraging of Interest**—In general, the MPOs consider public understanding and support of transportation issues, particularly finance, to be critical and basic to good public policy and decision making. Respondents mentioned proactive processes, such as holding public meetings in local shopping malls, creating a home page on the World Wide Web, televising policy committee meetings on local access stations, and

active involvement in community organizations. One MPO created a resource room that houses master plans from each of the member units of government, aerial photos of alternative alignments of major investment studies, and other planning maps and materials for general public review. Other MPOs described techniques for maintaining close working relationships with media reporters and routine transmittal of agendas and other related materials for their use.

#### *Management Systems*

Comments from the MPOs evidenced a wide range of opinions regarding need or usefulness of the ISTEA-mandated management systems. While some respondents indicated that the management systems were just another block to check in the planning processes, others indicated that state transportation agencies need to continue management system efforts and some MPOs even indicated their intent to continue these support tools for the planning and programming processes. Responses seem to indicate that suggested data collection initiatives and time requirements would not be continued due to flexibility provided by the National Highway System legislation.

#### *Sixteen Factors of Planning*

Respondents agreed that the 16 factors are good guidelines by which to implement the planning and programming processes, as long as the flexibility remains to de-emphasize those not pertinent to their individual area. Most, however, agreed that planning for these factors was in existence before ISTEA.

#### *Major Investment Studies (MIS)*

Some MPOs indicated that major investment studies were called "corridor studies" before ISTEA and that pre-ISTEA planning practices evaluated reasonable modes in the corridors. The MISs were seen by some as additional required documentation of this evaluation of modes. Several of the respondents have not yet been involved in preparation of MIS. Other respondents indicated that this MIS requirement resulted in collection of basic environmental data in the system planning stage instead of waiting until the project development stage. Concern was expressed that interpretation of need for this process and costs resulting from over-evaluation of the alternatives appears evident. Respondents suggested that there is a need for additional staff training to implement the process. Good case studies and examples were requested as technical assistance.

#### *Priority Setting and Project Selection*

Many MPOs indicated that the use of benefit-cost matrix was helpful in ranking projects. These tools have encouraged

policy makers to establish goals and investment priorities. A number of MPOs indicated that their biggest challenge is in coordinating with the state transportation agencies. Although ISTEA describes a cooperative process, the MPOs indicate that ISTEA currently reserves ultimate project selection authority to the state transportation agencies. Perception varies considerably by state regarding the amount of consideration given to the projects nominated by small MPOs.

#### *Development of Plans and Programs*

Issues associated with development of plans and programs were generally grouped into the major areas of Unified Planning Work Programs, Metropolitan Plans, and Transportation Improvement Programs.

*Unified Planning Work Program (UPWP)*—MPOs indicate that the UPWP is an important document that establishes credibility with the numerous local governments and provides accountability for end-of-year documentation. Flexibility and ability to tailor the UPWP to local needs is currently adequate. Respondents dramatically emphasized their desire for no change.

*Long-Range Plans (Metropolitan Plans)*—Several MPOs indicate that they are currently updating their long-range plans. They also indicated that the severe time constraints proposed by ISTEA, which required a December 1994 deadline, did not allow adequate time for plan preparation. The respondents indicated that updated studies will include additional detail regarding financial constraint, planning factors, nonmotorized networks, multimodalism, public participation and environmental compatibility.

*Transportation Improvement Programs (TIPs)*—TIPs are indicated as essential planning and programming documents. Some concern was expressed that ISTEA allows for 2-year TIP documents, while some states continue to require them annually. A 2-year cycle seems to be preferred by the MPOs with the claim that this would free staff to work on other needs and yet accomplish the same goals. Isolated instances of lack of “cooperative” processes by state transportation agencies continue to be mentioned.

#### *Air Quality*

Only two of the 12 MPOs selected for participation in this synthesis indicated non-attainment air quality status. These respondents indicated adequate capability to participate in conformity determinations but described considerable staffing resource burdens imposed by the process. Some MPOs, which are in attainment areas, have used PL funds to collect data for air quality modeling and include air quality evaluation in their models. Some MPOs in current attainment areas, as well as some in maintenance areas, see the need for CMAQ funds to maintain their attainment status. Use of these funds is permitted by current federal legislation in states that have no nonattainment areas.

## **GENERAL CONSIDERATIONS**

### **MPO Suggestions for Overcoming Problems**

MPOs were asked to make suggestions regarding what they need to overcome problems. In answer, they suggested the areas of need described next.

#### *Additional Resources*

Although respondents admitted that wiser use of existing resources is possible in many cases, there was an almost unanimous perception of the need for additional funding for both planning functions and capital investment. Some expressed concern that fair and adequate allocation of existing resources is not being made. More modern equipment and software, better information sharing, more affordable highway design standards with less community impact, and models with improved capabilities to integrate land use and transportation planning were also suggested.

#### *Technical Capabilities*

To overcome technical capability problems, a major concern of the small MPOs was the inability to keep computer hardware and software up to date. Training programs in all technical areas was mentioned as essential. Continued technical assistance by federal and state agencies, as well as universities and consultants, was requested to be expanded by use of “expert exchange” or “circuit rider” programs.

#### *Institutional Roles*

In general, MPO respondents considered themselves to have adequate definition as government bodies in their states. Some requested greater authority to allocate and program federal transportation funds.

### **ISTEA—A Positive or Negative Effect?**

Respondents unanimously agreed that ISTEA has had a positive effect on the transportation planning process. Comments reflected that MPOs now have more confidence that projects included in the plan will someday be constructed. Regional planning across jurisdictional boundaries has promoted dialogue among transportation agencies. Comprehensive plans and their transportation elements are becoming consistent with regional visions. The emphasis on multimodalism and public participation is considered very positive. There is a perception that recognition of the MPO as the lowest level of government that can effectively deal with regional issues is occurring because of ISTEA. More collaborative decision making seems to be occurring.

**Transferable MPO Applications**

The MPOs were asked "What does your MPO do really well that you think would be transferable and helpful to other small MPOs?" Answers included:

- An effective proactive public involvement process,
- Innovative GIS capabilities,

- Planning process now includes land use/environment/housing/quality-of-life integration,

- Right-of-way preservation techniques,
- Collaborative planning processes and decision making,
- Local traffic engineering assistance programs,
- Transportation and land use modeling, and
- Integration of transit planning into the overall regional transportation plan.

## CASE STUDIES, INNOVATIVE PRACTICES, AND ABSTRACTED REFERENCES

Summaries of case studies, including successful and unsuccessful results, were solicited from the selected MPOs. A request was made for innovative policies and procedures that are documented in existing text and available through the MPOs. Methods, techniques, applications, and innovative practices were also identified by the literature review described in chapter 2, some of which are included here as useful documentation of the response of MPOs to ISTEA. The case studies are grouped by the broad categories of strategic plans, partnering, and goals forming, consensus building, comprehensive planning and long-range plans, public transportation, corridor related reports, and surveys and reviews.

### STRATEGIC PLANS, PARTNERING, AND GOALS FORMING

- "The Hickory-Newton-Conover Success Story," R.D. Taylor and J. T. Newnam, Jr., paper presented at the Third National Conference on Transportation Solutions for Small and Medium-Sized Areas, Burlington, Vermont (1991).

*Abstract*—This case study describes a success story in transportation planning that was created by requirements of a federally mandated planning program. The report demonstrates that the MPO formed to carry out the federally sponsored 3-C transportation planning procedures provided the catalyst and structure for a planning process that resulted in considerable transportation improvements being implemented and/or scheduled for construction in the area. The MPO framework provided the environment and forum for transportation issues to be discussed on a regional scale. Concern is expressed that during the same period that federal planning requirements were bringing stability and direction to planning for this area, a trend at the national level seems to be toward reducing planning requirements for non-TMA urbanized areas.

- "Extraterritorial Area Arterial Road Plan and Zoning Ordinance," J. Bulthuis, Santa Fe MPO, Santa Fe, New Mexico (1992).

*Abstract*—An extraterritorial zoning authority created to manage planning and zoning for an area outside the city and partially within the MPO area worked cooperatively with the MPO to develop both an arterial roads plan and a zoning ordinance. This established goals and policies for the development of the Santa Fe extraterritorial area. Specific goals and objectives relating to road planning are stated in elements for Community Facilities, Infrastructure and

Services, Policies on Standards and Performance Criteria, Roads and Streets and Relationships of Land Use and Thoroughfares. The extraterritorial zoning ordinance was adopted in 1992.

- "Staffing Plan—Ithaca/Tompkins County Transportation Council," D. Boyd, Ithaca/Tompkins MPO, New York (1996).

*Abstract*—The first publication was prepared and adopted by the MPO in June of 1993. Its purpose was to provide a schedule for the transition from a part-time staff loaned by the county planning department to a permanent staff of the MPO. Major revisions were implemented in 1996 to more closely align staff positions with the types of work conducted by this central MPO staff. Personnel costs were evaluated and the document provided formal authorization and direction to the host agency (county) to accomplish the necessary changes in the personnel plan. The report contains staff positions, job descriptions, and salary ranges for each position and cost allocations for implementing the continuing planning process. Detailed job descriptions are included for the positions of Transportation Planning Director, Administrative Assistant, Geographic Information System Technician, and Transportation Planning Intern.

- "The Ithaca Model: A Practical Experience in Community-Based Planning," Boyd, D., paper presented in *Transportation Research Record No. 1499*, National Research Council, National Academy Press, Washington, D.C. (1995).

*Abstract*—The Ithaca/Tompkins County Transportation Council (ITCTC) is the MPO for the Ithaca, New York urbanized area, designated as a result of the 1990 Census. The ISTEA and its corresponding regulations dramatically altered the public involvement requirements for the metropolitan transportation planning process. In response to the new requirements, the ITCTC implemented a community-based, strategic, comprehensive planning process to assist in accomplishing its first long-range comprehensive transportation plan under ISTEA. The process used seven citizen volunteer transportation task teams to identify and articulate a community vision for the future of the transportation system. During a 5-month period the ITCTC staff facilitated more than 70 task team meetings. The process implemented by the ITCTC and the obstacles encountered in this community-based process are described and several recommendations for future applications are included. The Ithaca Model is of interest for several reasons.

First, ISTEA requires that MPOs undertake a "proactive public involvement process" as part of the metropolitan planning process. Second, ITCTC is a small MPO with extremely limited resources, thus demonstrating that a proactive public involvement process is within the capabilities of nearly every MPO. Third, there are significant direct and indirect benefits to be gained from a public involvement process of this scale. The experience of the ITCTC is valuable to any other agency considering the use of such a process.

#### CONSENSUS BUILDING

- *The Search Conference*, M. Emery and R. Purser, Jossey-Bass Publishers, Inc., San Francisco, California (1996).

*Abstract*—Sudden growth in the Macatawa region in southwestern Michigan led to a number of problems. Area population grew from 45,000 in 1960 to nearly 80,000 in 1990. Besides an influx of new residents, there was also a remarkable growth in industry in the area. Such combined growth meant that traffic was becoming more congested, the demand for social services was increasing, and juvenile crime was on the rise.

In response, the Macatawa Area Coordinating Council (MACC) sponsored two Search Conferences for the future of the area that involved mayors, police officers, corporate executives, local business owners, chamber of commerce representatives, school teachers, principals, parents, clergy, social service agency directors, transportation engineers, environmentalists, housewives, and students. Sixty-three residents participated in the first year and 128 participated in the second year in an attempt to build consensus for the kind of future they want for the area. The group developed a common vision statement and identified eight strategic areas with action plans for guiding future community development initiatives. At the close of the conference, people made public commitments to endorse the plan and help move it forward. The MACC has also recently published a brochure that explains the Macatawa Area Future Search and outlines the individual groups and their accomplishments.

- "Bicycle/Pedestrian School Zone Analysis," R. Holst, Shoals Area MPO, Muscle Shoals, Alabama (1996).

*Abstract*—The Shoals Area MPO worked with each city council and school board to provide an analysis of the accessibility of school children to each school in the urban area. A defined area for each school was reviewed to determine accessibility for children who walk or ride a bicycle to school. Recommendations were made to respective city and school administrators that they make improvements and implement strategies for journey-to-school safety.

#### COMPREHENSIVE PLANNING AND LONG-RANGE PLANS

- "Transportation Tomorrow Infrastructure Plan," S. Gayle, Binghamton Metropolitan Transportation Study, Binghamton, New York (1994).

*Abstract*—As an important element of the long-range transportation plan for the Binghamton metropolitan area, an infrastructure plan was prepared to document the consideration of the resources required to maintain the transportation infrastructure in a state of good repair. The MPO realized the price of years of deferred maintenance on their highways and bridges and heavy investment has been required to catch up on rehabilitation. The report concentrates only on highways and bridge structures, but transit infrastructure needs are contained in another report.

- "Bicycle Suitability Analysis," R. Holst, Shoals Area MPO, Muscle Shoals, Alabama (1996).

*Abstract*—The Shoals Area MPO has worked with the Quad Cities Bicycle Club to develop a rating system that will provide a suitability analysis for bicycles for all of the roads and streets in the urban area that are classified as collector streets or above. The ratings are based on the ratio of typical mid-week, 24-hour traffic counts to the effective width of the road (adjusted to account for the presence of parking and traffic speed). This ratio can then be interpreted as the "intensity" of traffic on a road, that is, the degree to which motorized traffic competes for the space on the road that the bicyclist uses. Suitability maps are designed to help bicyclists evaluate alternative routes in accordance with their needs and skill at bicycling in traffic.

#### PUBLIC TRANSPORTATION

- "An Inter-Urban Employment Shuttle," S. Higgins, Macatawa Area Coordinating Council, Holland/Zeeland, Michigan (1995).

*Abstract*—The Holland-Zeeland urbanized area is a rapidly growing area with an expanding employment base and need for labor from other areas. The objective in establishing the inter-urban employment shuttle was to encourage commuters to ride in a pre-arranged vanpool to work. The vehicles in the program use alternative fuels and thus help the area attain air quality standards.

The Macatawa Area Coordinating Council (MACC), the MPO for the area, in conjunction with the Community Organization Giving Individual Care (COGIC), and the Muskegon Area Transit System (MATS), have a shuttle planned for implementation in the near future. COGIC, a community-based, nonprofit agency, has been successfully providing transportation for as many as 120 Muskegon-area residents per day for jobs in Ottawa County. The MACC provided funding to help COGIC officials obtain three, 19-passenger, alternative-fuel vehicles. Because of regulations associated with the funding, the vehicles are being purchased through MATS, and leased to COGIC for one dollar. COGIC will be responsible for maintaining and operating the vehicles in accordance with applicable regulations.

MACC staff have also surveyed major employers and analyzed employee concentrations to determine the feasibility of establishing other vanpools. Cost estimates are being developed and employers approached to determine their interest in establishing a vanpool program.

- “Metropolitan Mobility Studies Phase I and II,” B. Shorten, Fargo-Moorhead Metropolitan COG, Fargo, North Dakota (1994).

*Abstract*—The Metropolitan Mobility Study was prepared by the Fargo-Moorhead MPO to provide local officials with a basic understanding of mobility concepts, advance proposals to implement mobility through improved paratransit services, and to analyze the financial impacts of metropolitan mobility in the MPO area. Phase II of the study presents an in-depth analysis of all financial issues, as well as identification and analysis of quantitative issues regarding the implementation of metropolitan mobility. As a result of this study, the two existing separate municipal paratransit systems were consolidated into one metropolitan system. Ridership is growing substantially.

- “Public Transit Vehicle Maintenance Program,” R. Holst, Shoals Area MPO, Muscle Shoals, Alabama (1995).

*Abstract*—The public transit program of the Northwest Alabama Council of Local Governments has implemented a maintenance program in coordination with the Northwest/Shoals Community College Auto Mechanic Facility. NACOLG uses the facility from 8:00 a.m. to 5:00 p.m., Monday through Friday and the transit vehicles and the college use the facility from 5:00 p.m. to 10:00 p.m. as a classroom for students. The coordinated use of the facility has resulted in a cost savings for the transit program and an upgraded facility for the college to use.

- “An Areawide Transit Feasibility Study for a Small Urbanized Area,” S. Bulthuis, Macatawa Area Coordinating Council, Holland/Zeeland, Michigan (1995).

*Abstract*—The Macatawa Area Coordinating Council (MACC), MPO for the Holland-Zeeland urbanized area evaluated the feasibility of expanding transit service in the urban area. Rapid population growth and changing land use patterns have resulted in significant portions of the urbanized area’s population not presently being served. At the current time, only the City of Holland provides general public transit service, which is through a demand response service.

A transit implementation subcommittee formed by the MPO retained a consultant who undertook a systematic study of the feasibility of expanding transit service. The comprehensive study included a significant public input component. Interviews with industrial, commercial, retail, and social service representatives, as well as meetings with the general public, were conducted. Eighty-two percent of those questioned responded that transit was a regional, as opposed to neighborhood or citywide, concern. An important recommendation was

to expand the current Dial-A-Ride system into the City of Zeeland and Holland Township. Both local units of government were shown to have a propensity for transit service based on population size and density, concentration of employment, and the existence of population segments who are very likely to use transit. Work continues on the issue of transit expansion in the area.

## CORRIDOR RELATED REPORTS

- “Project Concept Report: North University Drive Improvement Project,” B. Shorten, Fargo-Moorhead Metropolitan COG, Fargo, North Dakota (1994).

*Abstract*—This project concept report was prepared by the Fargo-Moorhead MPO to provide a review of the issues and impacts related to proposed improvements in a major corridor of the Metropolitan Transportation Plan. Results of the study are recommendations for improvements along the corridor, including preferred alternative design, traffic signal improvements, bikeway alternatives, major storm sewer reconstruction, street lighting, and transit related improvements.

- “Phased Environmental Analysis of the Asheville Urban Area: A Corridor Preservation Project,” M. Poole, et al., North Carolina DOT (1995).

*Abstract*—This case study reflects results of a corridor preservation pilot project called the “Phased Environmental Approach” and performs alternative analysis at the systems planning stage. The primary purpose of the study is to provide early corridor protection of alternatives for the project planning stage. The selection of a preferred corridor results from a comparison of the environmental impacts of alternative improvements and documents the contributions of the environmental resource agencies involved in selection of preferred corridors.

The results of this study reflect selection of preferred alternatives for five problem areas in the MPO area. When Phase II of the environmental analysis is conducted, only the *preferred corridor* will be evaluated for mitigation of environmental consequences.

- “Evolution of a Corridor: From Auto-Oriented Arterial to High-Density Residential Corridor,” H. Robertson, Thurston Regional Planning Council, Olympia, Washington (1995).

*Abstract*—The Thurston Regional Planning Council’s Regional Transportation Plan strives to reduce drive-alone work trips. The vision of the plan is to focus the development of jobs, housing, shopping, and recreational opportunities in city centers and along main travel routes between centers. This colorful brochure shows how an auto-oriented corridor can evolve into a residential street where people will want to be, and live, as well as travel. The case study shows how the major links between

city centers can develop in a way that will support vitality in the city centers and enhance mobility between them. The study shows how to take advantage of opportunities for siting more housing-jobs-services, creating inviting streets and neighborhoods, enhancing transit service opportunities, and overcoming obstacles to corridor development.

## SURVEYS AND REVIEWS

- "Survey of MPO and State Transportation Agencies," American Association of State Highway and Transportation Officials, National Association of Regional Councils, and American Public Transportation Association, Washington, D.C. (1992).

**Abstract**—The AASHTO Standing Committee on Planning (SCOP), Metropolitan Planning Organization (MPO) Task Force, in conjunction with the National Association of Regional Councils (NARC) and the American Public Transit Association (APTA), developed a survey instrument to assess the relationship between MPOs and their state departments of transportation. The purpose of the survey was to determine if there was a consensus on what that relationship was at the signing of ISTEA and then one year after the implementation of ISTEA. The task force conducted a follow-up survey in 1993 to assess the impact that ISTEA has had regarding how transportation planning and investment decisions are made. Responses were received from 126 MPOs and 47 state transportation agencies between July 1993 and September 1993. Results reported in the study are summarized in the Contemporary Concepts and Thinking on the Issues section of chapter 2.

- "The Impact of ISTEA on the Metropolitan Transportation Planning Process: Changing the Way We Do Business—An MPO Perspective," Boyd, D., paper presented at the 73rd Annual Meeting of the Transportation Research Board, Washington, D.C. (1994).

**Abstract**—This case study presents a brief review of the major impacts of the ISTEA legislation on small and medium-sized MPOs (less than 200,000 population). Methodology employed was part case-study and part survey. The author calls upon his personal experience with the Lafayette Areawide Planning Commission (Lafayette, Louisiana), 1990 Urbanized Area (UZA) population of approximately 130,000, and the Ithaca-Tompkins County Transportation Council (Ithaca, New York), 1990 UZA population of approximately 50,000. To assess the experience of these agencies relative to other MPOs, a series of informal telephone interviews was conducted with MPOs in each of the nine FHWA regions. The case study is a generalized composite of these efforts. Results of the research are reported under the topics of funding, staff issues, equipment and technology, public participation, long-range planning activities, and MPO/state transportation agency relations. Conclusions reached by the case study are quoted as follows:

In summary, there are still many small and medium MPOs that are struggling to make a "good faith" effort to meet the requirements of ISTEA. It is quite evident that the ISTEA legislation has dramatically and positively altered the way in which small and medium MPOs do business. While each situation is different, it is apparent that the increases in funding, staff, technical capabilities, public input, not to mention the presence of specific transportation planning requirements (minimum standards) and an improved state transportation agency/MPO relationship, are all leading the way to an enriched metropolitan planning process.

- *NCHRP Synthesis 217: Consideration of the 15 Factors in the Metropolitan Planning Process*, Transportation Research Board, National Research Council, Washington, D.C. (1995).

**Abstract**—This synthesis evaluates procedures that MPOs use to consider the 15 factors in developing plans and programs under ISTEA. A limited sample of eight large MPOs (TMAs) was used. In-depth information was obtained from four and limited information was obtained from four. Some personal interviews and some telephone interviews were used to conduct the research. Results reported in the study are summarized in the Contemporary Concepts and Thinking on the Issues section of chapter 2.

- "FTA-FHWA Metropolitan Planning Organization Reviews: Planning Practice Under Intermodal Surface Transportation Efficiency Act and Clean Air Act Amendments," Lyons, W., published in *Transportation Research Record 1466*, National Research Council, National Academy Press, Washington, D.C., 1994.

**Abstract**—The author uses his experience as a member of a Federal team responsible for conducting planning review of major MPO planning processes to make some overall observations. The manner in which MPOs and their planning partners are responding to the challenges and opportunities of these acts is evaluated on the basis of comprehensive reviews of transportation planning in nine metropolitan areas. Some conclusions reached by this case study include:

—The Clean Air Act Amendments of 1990 (CAAA) and the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) have changed how metropolitan planning organizations (MPOs) conduct transportation planning.

—The acts expect MPOs to provide leadership in defining a regional vision, selecting projects, and improving air quality. To succeed, MPOs must overcome a period of diminished resources, technical capabilities, and institutional roles.

—To realize the promise of ISTEA and CAAA, long-range plans must become strategic, framing and evaluating financially realistic alternatives that can be used to guide elected officials and the public through the hard choices required to balance air quality and transportation concerns.

—Transportation Improvement Programs, which often consolidate decisions made outside the MPO process,



must demonstrate links to the long-range plan and how projects are selected to accomplish regional objectives.

- "Planning Progress: Addressing ISTEA Requirements in Metropolitan Planning Areas," U.S. Advisory Commission on Intergovernmental Relations, Washington, D.C. (1997). (11)

*Abstract*—This is the second document published by the U.S. Advisory Commission on Intergovernmental Relations (ACIR) on the subject of MPOs under ISTEA. Although both reports concentrated their efforts on characterization of the larger MPOs (TMAs), the second effort did make field visits to 11 small MPOs. The purpose of the field work was to get a sense of how the smaller MPO's planning programs differ from the larger ones. They also explored the issue of "abbreviated planning process" for the smaller MPOs. The ACIR reported that the smaller MPOs are sufficiently different in organizational structure and relationships, staffing and budgets, air quality status, and analytical capability as to prevent tabular comparison and evaluation with such a limited sample.

Conclusions reached were that of the small MPOs examined, all were preparing the basic documents required by

ISTEA, and were supportive of ISTEA reforms. The small MPOs were enthusiastic about new requirements for broadening the scope of the planning process, intensifying the involvement of a wider range of participants, and having the possibility of greater flexibility. The MPOs would like to see greater simplicity, funding certainty, and the ability to focus their limited energies and resources where they will do the most good.

Although availability is somewhat limited, the following proceedings are also suggested as documented case studies of good planning practice:

- *Proceedings of the Conference of Transportation Solutions for Small and Medium-Sized Areas*, Sponsored by TRB, USDOT, October 1991, Burlington, Vermont.
- *Proceedings of the Conference on Transportation Planning Methods and Applications*, Sponsored by TRB, May 1993, Daytona Beach, Florida.
- *Proceedings of the Conference on Transportation Solutions for Small and Medium-Sized Areas*, Sponsored by TRB, USDOT, and MnDOT, May 1994, Duluth, Minnesota.
- *Proceedings of the Conference on Transportation Planning Methods and Applications*, Sponsored by TRB, June 1995, Seattle, Washington.

## CONCLUSIONS

The Intermodal Surface Transportation Assistance Act of 1991 (ISTEA) was intended to induce change in requirements for transportation planning and programming. These requirements specifically changed the way some MPOs in small urbanized areas responded to ISTEA. A survey was conducted of 12 selected small MPOs representing various areas of the United States, differing jurisdictional relationships, and differing levels of implementation. This synthesis presents a review of current practices by these small urbanized area MPOs and summarizes their responses. It also identifies the nature of the problems faced and the innovative approaches used by this sample of small MPOs to address challenges of changing practices in planning and programming and the impact of these changes. Documentation of successful applications, limitations, and how practices compare with alternative methods determined by the literature review are included. Findings and conclusions of this synthesis are summarized in this chapter.

A review of the relevant research literature indicates that little documentation exists and that specific research has not been conducted regarding the effects of ISTEA on small urbanized area MPOs. Considerably more information is available in this regard for the larger urbanized area MPOs.

Based on the results of this synthesis, there is no single or generally accepted view by small MPOs regarding how ISTEA has changed the planning and programming processes in their areas. Respondents, however, unanimously agreed that ISTEA has created a positive effect on the transportation planning process.

An important conclusion of this synthesis is that small MPOs are conscientiously trying to meet ISTEA requirements. All MPOs are not alike, just as the state transportation agencies that influence their planning processes are not alike. Maintaining flexibility in future transportation legislation to continue this adaptability for small MPOs is essential.

Fiscally constrained plans are resulting in more effective planning and project development processes. Increased funding by ISTEA has significantly improved the ability of the small MPO to address regional transportation concerns. There is a perception that recognition of the MPO as the lowest level of government that can effectively deal with regional issues is occurring due to ISTEA.

A common understanding and closer and more trusting working relationships among the partners of the planning process is an expressed desire. Although relationships in general are good, there is concern about the need for more extensive coordination and cooperation with state departments of transportation responsible for developing statewide plans and local project selection.

In view of the importance accorded the planning and programming processes, as well as the federal, state, and local

investments annually required to maintain this effort, the MPOs noted that additional research is needed to document these aspects of transportation infrastructure development by small urbanized areas. Improved policies, procedures, and technical approaches would result from such additional research.

MPOs expressed in general the need for commitment at the national level to a truly intermodal transportation system that is affordable, that addresses the needs of both urbanized and rural areas, and that supports rather than damages the community/environmental fabric. A continuing federal role in planning, programming, and monitoring is considered to be essential.

MPO's responses to ISTEA, as determined by the findings of this project, are summarized by topic areas in the section that follows.

### Flexibility

- Flexibility needs to be maintained in future transportation legislation to continue adaptability for small MPOs. While some MPOs indicate that "flexibility" is more "perception" than an actuality, others indicate changes that have been made to accommodate ISTEA.

### Coordination and Cooperation

- A common understanding and closer and more trusting working relationship among the partners of the planning process is desirable.
- MPOs are experiencing a more extensive and meaningful input by state, regional, and local agencies.
- Regional planning across jurisdictional boundaries has promoted dialogue among transportation agencies and more collaborative decision making seems to be occurring.
- MPOs are expanding their coordination efforts to include additional local governments and other modes of transportation within their boundaries.

### Planning and Programming

- A more definitive explanation and understanding among all the partners about what ISTEA requires in a practical working sense seems to be needed.
- Regulatory burdens need to be decreased and simplified planning procedures made available for implementation by the small MPOs.
- Regional planning across jurisdictional boundaries has promoted dialogue among transportation agencies.

- Comprehensive plans and their transportation elements are becoming consistent with regional visions.

- The emphasis on multimodalism and public participation is considered very positive.

- More effective multimodal planning is occurring and more emphasis is being placed on the 16 planning factors.

- There is concern about the need for more extensive coordination and cooperation with state departments of transportation responsible for developing statewide plans and local project selection.

#### **Funding**

- Increased funding by ISTEA has significantly improved the ability of the small MPO to address necessary regional transportation concerns.

- A continuing federal role in funding implementation of strategies is considered to be essential.

#### **Financial Constraint**

- Fiscally constrained plans are resulting in a more effective planning and project development process.

- Increased effort and cooperation from state transportation agencies in providing financial planning information is essential to small MPOs.

- MPOs now have more confidence that projects included in the plan will someday be constructed.

#### **Technical Assistance**

- Significant technical assistance must continue to be a major federal and state role.

- MPOs perceive the need for a series of ongoing technical assistance programs by federal and state agencies, as well as universities and consultants, to include the use of "expert exchange" or "circuit rider" programs.

- Small MPOs indicate that they need to meet regularly to discuss issues, successes, failures, and innovations that have helped to advance the state of the practice as a good source of technology transfer.

- Development of an ISTEA Metropolitan Planning Guide was mentioned as a need for improving the transportation planning process.

#### **Staff and Data**

- A significant number of the MPOs reported new data collection efforts, hiring new employees, and hiring new consultants.

- Other MPOs described innovative methods they have used to meet the challenges of ISTEA without significantly increasing staff. A few of these approaches are cross training of staff, use of consultants, joint contracting with other planning agencies, and sharing of costs and work loads.

#### **Public Transportation**

- In response to the request for a comparison between old and new practices regarding MPO working relations with public transportation providers, it was generally noted that what had been a nonexistent or good relationship has become better.

- The ability to "flex" capital funds from the highway to the transit side has received a great deal of attention, but limited use in these MPO regions.

- Transit representatives have, in many cases, been added to MPO policy and technical working groups.

#### **Public Involvement**

- A variety of public involvement methods are being used to expand meaningful and manageable processes.

- ISTEA has contributed significantly to the effectiveness of public involvement in these selected urbanized areas.

#### **Training**

- Respondents suggested computer training on GIS applications, updates on travel demand forecasting processes, updated origin-destination surveys and effective surveying techniques, financial forecasting and life-cycle costs, techniques and successful programs that maintain clean air attainment status, land use/transportation connection, mode choice research, and least-cost planning methodology.

#### **Research**

- Little documentation exists and specific research has not been conducted regarding the effects of ISTEA on small urbanized area MPOs.

- Considerably more information is available in this regard for the larger urbanized area MPOs.

- In view of the importance accorded the planning and programming processes, as well as the tremendous federal, state, and local investments annually required to maintain this effort, additional research is needed to document these aspects of transportation infrastructure development by small urbanized areas.

- Improved policies, procedures and technical approaches would be inherent in additional research.

## REFERENCES

1. *U.S. Advisory Commission Report A-130: MPO CAPACITY—Improving the Capacity of Metropolitan Planning Organizations to Help Implement National Transportation Policies*, U.S. Advisory Commission on Intergovernmental Relations, Washington, D.C. (May 1995).
2. *Survey of MPO and State Transportation Agencies*, American Association of State Highway and Transportation Officials, National Association of Regional Councils and American Public Transportation Association, Washington, D.C. (1993).
3. Shaw, T. L., *The Impacts of ISTEA On Metropolitan Planning Practice: A Thesis to Louisiana State University*, Baton Rouge, Louisiana (1995).
4. Humphrey, T. F., *NCHRP Synthesis 217: Consideration of the Fifteen Factors in the Metropolitan Planning Process*, Transportation Research Board, National Research Council, Washington, D.C. (1995).
5. Boyd, D., "The Impact of ISTEA on the Metropolitan Transportation Planning Process: Changing the Way We Do Business—An MPO Perspective," presented at the 73rd Annual Meeting of the Transportation Research Board, Washington, D.C. (January 1994). *Note: This is abstracted and summarized in the Case Studies section of this report.*
6. Gifford, J., T. Horan, and L. White, "Dynamics of Policy Change: Reflections of the 1991 Federal Transportation Legislation," in *Transportation Research Record 1466*, Transportation Research Board, National Research Council, Washington, D.C. (1994).
7. Gifford, J., W. Mallett, and S. Talkington, "Implementing Intermodal Surface Transportation Efficiency Act of 1991: Issues and Early Field Data," in *Transportation Research Record 1466*, National Research Council, Washington, D.C. (1994).
8. Lyons, W., "FTA-FHWA Metropolitan Planning Organization Reviews: Planning Practice Under Intermodal Surface Transportation Efficiency Act and Clean Air Act Amendments," in *Transportation Research Record 1466*, National Research Council, Washington, D.C. (1994). *Note: This is abstracted and summarized in the Case Studies section of this report.*
9. *Special Report 237: Moving Urban America, Proceedings of a Conference*, Charlotte, North Carolina, May 6–8, 1992, Transportation Research Board, National Research Council, Washington, D.C. (1993).
10. *Special Report 240: ISTEA and Intermodal Planning: Concept, Practice, Vision, Proceedings of a Conference*, Transportation Research Board, National Research Council, Washington, D.C. (1993).
11. *Planning Process: Addressing ISTEA Requirements in Metropolitan Areas*, U.S. Commission on Intergovernmental Relations, Washington, D.C. (1997).

## BIBLIOGRAPHY

- A Guide to Metropolitan Transportation Planning Under ISTEA, How the Pieces Fit Together*, FHWA and FTA, FHWA-PD-95-031 (1995).
- Anderson, S., "Towards the Future: The Promise of Intermodal and Multimodal Transportation Systems," Federal Transit Administration, Washington, D.C. (1995).
- Capelle, R., "Planning and Managing Intermodal Transportation Systems: A Guide to ISTEA Requirements," Federal Transit Administration, Washington, D.C. (1994).
- Code of Federal Regulations (23 CFR)*: Highways, Office of the Federal Register, National Archives and Records Administration, Washington, D.C. (April 1, 1993).
- Innovations in Public Involvement for Transportation Planning*, FHWA and FTA, FHWA-PD-94-021 (January 1994).
- Intermodal Surface Transportation Assistance Act of 1991, 102nd Congress of the United States, Public Law 102-240 (December 18, 1991).
- McDowell, B., "Reinventing Planning Under ISTEA: MPOs and State DOTs—ISTEA Impacts," Transportation Research Board, National Research Council, Washington, D.C. (1994).
- Menczer, W., "Working Together on Transportation Planning: An Approach to Collaborative Decision Making," Federal Transit Administration, Washington, D.C. (1995).
- Statewide and Metropolitan Planning Rules*, FHWA and FTA, Code of Federal Regulations (October 1993).
- Survey of MPO and State Transportation Agencies*, American Association of State Highway and Transportation Officials, National Association of Regional Councils and American Public Transportation Association, Washington, D.C., 1992.

## GLOSSARY

**Clean Air Act Amendments of 1990 (CAAA)**—Revisions/amendments passed by Congress to the Clean Air Act of 1970 (CAA). Includes procedures that apply to all transportation plans, programs and projects as they relate to air quality.

**Conformity** or transportation conformity refers to the Clean Air Act requirements that transportation plans and programs in nonattainment or maintenance areas meet National Ambient Air Quality Standards. Emissions from transportation plans and programs must not exceed the level of motor vehicle emissions allowed in the states' clean air plan.

**Congestion Mitigation and Air Quality Improvement Program (CMAQ)**—Special provision of ISTEA that directs funds toward projects in Clean Air Act nonattainment areas for ozone and carbon monoxide.

**Consultation** means that one party confers with another identified party and, prior to taking action(s), considers that party's views.

**Cooperation** means that the parties involved in carrying out the planning, programming and management systems processes work together to achieve a common goal or objective.

**Coordination** means the comparison of the transportation plans, programs, and schedules of one agency with related plans, programs and schedules of other agencies or entities with legal standing, and adjustment of plans, programs and schedules to achieve general consistency.

**Federal Environmental Protection Agency (EPA)**—The federal agency primarily responsible for environmental protection including air quality.

**Federal Highway Administration (FHWA)**—The federal agency primarily responsible for highway transportation.

**Federal Transit Administration (FTA)**—The federal agency primarily responsible for public mass transportation.

**Fixed Guideway** means any public transportation facility that uses and occupies a designated right-of-way or rails including (but not limited to) rapid rail, light rail, commuter rail, busways, automated guideway transit, and people movers.

**Management System** means a systematic process, designed to assist decisionmakers in making cost-effective use of limited resources to improve the efficiency of, and protect the investment in, the nation's existing and future transportation infrastructure, that includes: identification of performance measures; data collection and analysis; identification of

needs; evaluation, selection, and implementation of appropriate strategies/actions to address the needs; and evaluation of effectiveness of implemented strategies/actions.

**Maintenance area** means any geographic region of a state that has been designated nonattainment pursuant to the CAA Amendments of 1990 and subsequently redesignated to attainment subject to the requirement to develop a plan that will assure maintenance in accordance with standards.

**Major Metropolitan Transportation Investment** means a high-type highway or transit improvement of substantial cost that is expected to have a significant effect on capacity, traffic flow, level of service, or mode share at the transportation corridor or subarea scale. Examples of such investments could generally include: (1) construction of a new partially controlled access (access allowed only for public roads) principal arterial, (2) extension of an existing partially controlled access (access allowed only for public roads) principal arterial by one or more miles, (3) capacity expansion of a partially controlled access (access provided only for public roads) principal arterial by means of widening or an equivalent increase in capacity through access control or technological improvement, (4) construction or extension of a high-occupancy vehicle (HOV) facility or a fixed guideway transit facility by one or more miles, (5) the addition of lanes or tracks to an existing fixed guideway transit facility for a distance of one or more miles, or (6) a substantial increase in transit service on a fixed guideway facility. Projects that generally are not considered to be major transportation investments include: (1) highway projects on facilities where access is not limited to public roads only, (2) small scale improvements/extensions (normally less than one mile) with the primary goal of relieving localized safety or operational difficulties, (3) resurfacing, replacement, or rehabilitation of existing facilities and equipment, and (4) changes in transit routing and scheduling.

**Metropolitan Planning Area (MPA) or Metropolitan Area Boundary (MAB)** means the geographic area in which the metropolitan transportation planning process required by 23 U.S.C. 134 and section 8 of the Federal Transit Act must be carried out.

**Metropolitan Planning Organization (MPO)** means the forum for cooperative transportation decisionmaking for the metropolitan planning area. It is also the organization in urbanized areas over 50,000 population that is responsible for carrying out the transportation planning process for the metropolitan area.

**Metropolitan Transportation Plan** means the official intermodal transportation plan that is developed and adopted

through the metropolitan transportation planning process for the metropolitan planning area.

**Minimum Allocation Funds**—the funds that the Secretary of Transportation allocates among the states under 23 USC (157)(a). These funds are distributed in an amount sufficient to ensure that a state's percentage of the total apportionment's in each such fiscal year and allocation for the prior year for certain programs shall not be less than 90 percent of the percentage of estimated tax payments attributable to highway users in the state paid into the Highway Trust Fund.

**National Ambient Air Quality Standards (NAAQS)** are those standards established pursuant to Section 109 of the CAAA.

**National Environmental Policy Act of 1969 (NEPA)**—the major documentation of environmental policy as amended in 42 USC(4321).

**National Highway System (NHS)**—the system of major highway networks established by 23 USC (101), including Interstate routes, many urban and rural principal arterials, the defense strategic highway network, and strategic highway connectors.

**Nonattainment Area** means any geographic region of the United States that the Environmental Protection Agency (EPA) has designated as a nonattainment area for a transportation related pollutant(s) for which a National Ambient Air Quality Standard (NAAQS) exists.

**State Implementation Plan (SIP)** means the portion (or portions) of an applicable implementation plan approved or promulgated, or the most recent revision thereof, under sections 110, 301(d) and 175A of the Clean Air Act (42 U.S.C. 7409, 7601, and 7505a).

**Statewide Transportation Improvement Program (STIP)** means a staged, multi-year, statewide, intermodal program of transportation projects which is consistent with the statewide transportation plan and planning processes and metropolitan plans, TIPs and processes.

**Statewide Transportation Plan** means the official statewide, intermodal transportation plan that is developed through the statewide transportation planning process.

**Surface Transportation Program (STP)**—the block grant type program established by 23 USC to supplement the National Highway System. The STP may be used by states and localities for any roads, including NHS, that are not functionally classified as local or rural minor collectors. These roads are now collectively referred to as federal-aid roads and replace the previously designated federal-aid primary, secondary and urban systems.

**Transportation Control Measures (TCM)**—A measure used for the purpose of reducing emissions or concentrations of air pollutants from transportation sources by reducing vehicle use or changing traffic flow or congestion conditions. Vehicle technology-based, fuel-based, and maintenance-based measures that control emissions from vehicles under fixed traffic conditions are not considered TCMs.

**Transportation Improvement Program (TIP)** means a staged, multi-year, intermodal program of transportation projects covering a metropolitan planning area which is consistent with the metropolitan transportation plan.

**Transportation Management Area (TMA)** means an urbanized area of over 200,000 population, as determined by the latest decennial census. The TMA designation applies to the entire metropolitan planning area served by an MPO(s) within which the TMA is located.

# APPENDIX A

## Questionnaire/Interview Document

### RESPONSE OF SMALL URBANIZED AREA MPOs TO ISTEA

NCHRP Project 20-5  
Synthesis Topic 27-10

Name of MPO: .....  
Name of Respondent: .....  
Title of Respondent: .....  
Phone and Fax Numbers: .....

Date ..... Status of Air Quality Attainment .....

Agencies Included in the MPO (please indicate position they occupy such as policy board, technical committee, etc.):

Highway .....  
Transit .....  
Port .....  
Turnpike .....  
State .....  
Planning .....  
Private .....  
Local .....  
Others .....

For purposes of cross referencing responses to this survey, please indicate the number of years that your MPO has been in the business of transportation planning, the number of years of planning experience that you as the questionnaire respondent have in the planning field, the population size of your MPO area, and what entity houses the MPO:

MPO Years in Transportation Planning .....  
Respondent's Years of Experience .....  
Population Size of MPO .....  
MPO Housed by: .....

#### DOCUMENTATION OF PRACTICES:

Please provide copies of up to three of the most meaningful in-house documents which you use to provide guidance to the transportation planning and programming process in your area. Prior review will expedite the telephone interview process. Please identify the three documents on the following page as numbered:

#### INSTITUTIONAL ARRANGEMENTS:

The Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 is acclaimed by some as one of the most widely heralded pieces of transportation legislation since the 1950's. Has it really affected the

(3). Relationships between planning and programming documents?

(4). State or Federally imposed guidelines?

(5). Others?

3. How has your agency used new planning requirements to leverage interest and involvement by participants in the planning process?

4. Does ISTEA provide adequate authority to allow your MPO to conduct an effective planning and programming process? If not, what is lacking?

#### POLICY AND PROCEDURE

Have policy and procedures changed for the small MPOs? Were the new planning requirements of ISTEA instrumental in these changes? What changes in policy and procedure have small MPOs implemented to improve the transportation planning processes?

5. How has the perception that ISTEA allows greater flexibility to state, local and regional planning entities allowed your small MPO opportunities for change?

6. ISTEA made efforts to stress the importance of multimodalism and intermodalism, in other words, interconnection between modes, use of multiple modes and the use of a coordinated transportation process between the modes.

a. Is this initiative important to transportation planning for small MPOs? Please explain.

b. How has this changed transportation planning in your area?

c. What is needed to further implement the multimodal/intermodal initiative in transportation planning in small MPO areas (if desirable at local level)?

7. Have the new planning regulations resulted in a clear and substantial link between the Metropolitan Plans (as planning documents) and the Transportation Improvement Program (as a programming document).

8. How has your organization addressed the need for sound decisions based on good information to avoid mistakes in allocating limited resources?

9. Please discuss the following staffing issues:

a. Innovative methods which your MPOs has developed to meet the challenges of ISTEA without significantly increasing staff?

b. Available resources in terms of staff, training, networking, and technical tools?

c. Availability of experienced staff for small urbanized area MPOs?

Staff Time:.....

Data Requirements:.....

14. Do you see ISTEA as a revolutionary change in operational and technical approaches to the traditional transportation planning process or a continuation of the status quo? On a scale of one to five, with one being "revolutionary", three being "some change" and five being "status quo", what number would you assign to this change?

a. Please explain your ranking.

b. How have the new planning requirements changed technical and operational planning processes in your MPO?

c. Please compare previous and current certification of the 3 C planning process.

15. Some MPOs are subject to state as well as federal requirements in planning. These state requirements may include regional transportation plans, growth management planning, and least cost planning. Do ISTEA requirements integrate well with local requirement or is the MPO in your area being required to do redundant planning?

16. ISTEA allows for simplified planning procedures for small urbanized areas MPOs.

a. What is your perception of the need for these simplified planning procedures?

b. How has your MPO addressed this opportunity for simplifying the planning process?

17. Research, development and training:

a. What research, development or training have you conducted in your MPO area?

b. What current assessment techniques or planning processes do you consider inadequate for your purposes?

c. What additional research, development or training do you feel would be useful in the planning and programming area?

18. Please list some tools and techniques which your MPO has developed:

a. Application of travel demand and land use models?

b. Early involvement of environmental resource agencies?

c. Information pooling and sharing?

d. Contracting with local governments or others?

e. Others?

19. Please describe issues, needs and innovative practices which your MPO considers essential to an

f. Others?

21. Have changes wrought by ISTEA created a positive or negative effect on the transportation planning process? Please explain your answer.

22. What does your MPO do really well that you think would be transferrable and helpful to other small MPOs?

### CASE STUDIES

Summaries of case studies, including successful and unsuccessful results, are earnestly solicited from you as a small MPO. Please give consideration to furnishing innovative policies, procedures, techniques, applications or practices which are documented in existing text and available through your MPO.



## APPENDIX B

### Survey Respondents

Asheville, North Carolina  
City of Asheville  
Box 7148  
Asheville, N.C. 28802  
Phone 704-259-5830  
Fax 704-259-5606

Binghamton, New York  
P.O. Box 1766 Government Plaza  
44 Hawley Broome County Office Bldg.  
Binghamton, N.Y. 13902-1766  
Phone 607-778-2443  
Fax 607-778-6051

Burlington, Vermont  
Crittenden County Regional Planning Commission  
P. O. Box 108  
Essex Junction, Vt. 05453  
Phone 802-658-3004  
Fax 802-879-3610

Fargo-Moorhead, North Dakota  
Fargo-Moorhead Metropolitan COG  
1 Second Street, North  
Case Plaza, Suite 232  
Fargo, N.D. 58102  
Phone 701-232-3242  
Fax 701-232-5043

Florence, Alabama  
Shoals Area MPO  
P.O. Box 2603  
Muscle Shoals, Ala. 35662  
Phone 205-389-0515  
Fax 205-389-0599

Hickory-Newton-Conover, North Carolina  
Western Piedmont COG  
30 First Avenue, NW  
Hickory, N.C. 28601  
Phone 704-322-9191  
Fax 704-322-5991

Holland, Michigan  
Macatawa Area Coordinating Council  
400-136th Avenue, Suite 416  
Holland, Mich. 49424  
Phone 616-395-2688  
Fax 616-395-9411

Ithaca, New York  
Ithaca-Tompkins County Transportation Council  
121 E. Court Street  
Ithaca, N.Y. 14850  
Phone 607-274-5560  
Fax 607-274-5578

Longview, Texas  
City of Longview  
P.O. Box 1952  
Longview, Tex. 75606  
Phone 903-237-1008  
Fax 903-237-1009

Merced, California  
Merced County Association of Governments  
1770 M. Street  
Merced, Calif. 95340  
Phone 209-723-3153  
Fax 209-723-0322

Olympia, Washington  
Thurston Regional Planning Commission  
2404 Heritage Court SW #B  
Olympia, Wash. 98502  
Phone 360-786-5480  
Fax 360-754-4413

Santa Fe, New Mexico  
Metropolitan Planning Office City of Santa Fe  
200 Lincoln Avenue  
P.O. Box 909  
Santa Fe, N.M. 87504  
Phone 505-984-6625  
Fax 505-986-6910

## APPENDIX C

### Documents Submitted by MPO for Review

MPO NAME	DOCUMENTS REVIEWED
Asheville, North Carolina Asheville Urban Area MPO	Prospectus for Continuing Transportation Planning NCDOT Procedure for Processing Local TIPs Environmental Analysis of Asheville Urbanized Area MPO Unmet Needs List Guidance Memo of Understanding for 3-C Planning Process Bylaws—Urban Area Transportation Advisory Group Transportation System Goals and Objectives
Binghamton, New York Binghamton Metropolitan Transportation Study	Committee Members Guide to BMTS Unified Operations Plan—November 1995 Policy on Project Programming Transportation Tomorrow—Infrastructure Plan 6/94 Transportation Tomorrow—Summary Report 10/94
Burlington, Vermont Crittenden County MPO	Crittenden County Long Range Transportation Plan Unified Planning Work Program Transportation Improvement Program
Fargo, North Dakota Fargo/Moorhead Metropolitan COG	Long-Range Metropolitan Highway Plan 1996–1998 TIP Project Concept Report—North University Drive Metropolitan Bikeway Plan Metropolitan Mobility Study Phase I Metropolitan Mobility Study Phase II Financial Plan 1994 F-M Policy Defining the Public Involvement Process
Florence, Alabama Shoals Area MPO	Unified Planning Work Program Transportation Improvement Program
Hickory/Newton/Conover, North Carolina	The Hickory/Newton/Conover Success Story Unified Planning Work Program Transportation Improvement Program H N C Thoroughfare Plan
Holland, Michigan Macatawa Area Coordinating Council	Unified Planning Work Program Transportation Improvement Program Long Range Transportation Plan A New Method for Achieving Community Excellence Transit Feasibility and Current Provider Efficiency Evaluation
Ithaca, New York Ithaca–Tompkins County Transportation Council	NYSDOT Goal Oriented Programming Criteria Transportation Improvement Program 1994–99 Long Range Transportation Plan 2015 Unified Planning Work Program—1996–97 ITCTC—TIP Screening Process Unified Operations Plan—1995 Public Involvement Procedures Staffing Plan—1996 The Ithaca Model: A Practical Experience in Community Planning

**MPO NAME**

Longview, Texas  
Longview MPO

Merced, California  
Merced County Association of Governments

Olympia, Washington  
Thurston Regional Planning Council

Santa Fe, New Mexico  
Santa Fe MPO

**DOCUMENTS REVIEWED**

Metropolitan Plan  
Transportation Improvement Program  
Unified Work Program

Regional Transportation Plan  
Unified Planning Work Program

Transportation Future: Making Connections—2010  
Unified Planning Work Program (2) 1996 & 1997  
Thurston RC Annual Report—1995  
Schedule for Plan Update  
Evolution of a Corridor  
Thurston Regional Transportation Plan—1994

Extraterritorial Zoning Authority Ordinance  
Long Range Plan 1995–2015  
Santa Fe General Plan

**THE TRANSPORTATION RESEARCH BOARD** is a unit of the National Research Council, a private, nonprofit institution that provides independent advice on scientific and technical issues under a congressional charter. The Research Council is the principal operating arm of the National Academy of Sciences and the National Academy of Engineering.

The mission of the Transportation Research Board is to promote innovation and progress in transportation by stimulating and conducting research, facilitating the dissemination of information, and encouraging the implementation of research findings. The Board's varied activities annually draw on approximately 4,000 engineers, scientists, and other transportation researchers and practitioners from the public and private sectors and academia, all of whom contribute their expertise in the public interest. The program is supported by state transportation departments, federal agencies including the component administrations of the U.S. Department of Transportation, and other organizations and individuals interested in the development of transportation.

The National Academy of Sciences is a nonprofit, self-perpetuating society of distinguished scholars engaged in scientific and engineering research, dedicated to the furtherance of science and technology and to their use for the general welfare. Upon the authority of the charter granted to it by the Congress in 1863, the Academy has a mandate that requires it to advise the federal government on scientific and technical matters. Dr. Bruce Alberts is president of the National Academy of Sciences.

The National Academy of Engineering was established in 1964, under the charter of the National Academy of Sciences, as a parallel organization of outstanding engineers. It is autonomous in its administration and in the selection of its members; sharing with the National Academy of Sciences the responsibility for advising the federal government. The National Academy of Engineering also sponsors engineering programs aimed at meeting national needs, encouraging education and research, and recognizes the superior achievements of engineers. Dr. William A. Wulf is president of the National Academy of Engineering.

The Institute of Medicine was established in 1970 by the National Academy of Sciences to secure the services of eminent members of appropriate professions in the examination of policy matters pertaining to the health of the public. The Institute acts under the responsibility given to the National Academy of Sciences, by its congressional charter to be an adviser to the federal government and, upon its own initiative, to identify issues of medical care, research, and education. Dr. Kenneth I. Shine is president of the Institute of Medicine.

The National Research Council was organized by the National Academy of Sciences in 1916 to associate the broad community of science and technology with the Academy's purposes of furthering knowledge and advising the federal government. Functioning in accordance with general policies determined by the Academy, the Council has become the principal operating agency of both the National Academy of Sciences and the National Academy of Engineering in providing services to the government, the public, and the scientific and engineering communities. The Council is administered jointly by both Academies and the Institute of Medicine. Dr. Bruce Alberts and Dr. William A. Wulf are chairman and vice chairman, respectively, of the National Research Council.

**Transportation Research Board  
National Research Council  
2101 Constitution Avenue, N.W.  
Washington, D.C. 20418**

---

**ADDRESS CORRECTION REQUESTED**

**NON-PROFIT ORG.  
U.S. POSTAGE  
PAID  
WASHINGTON, D.C.  
PERMIT NO. 8970**