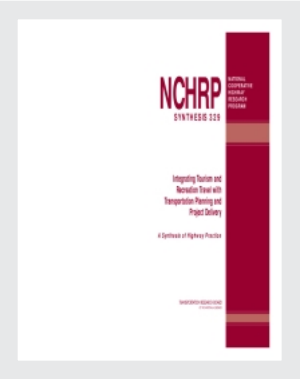

Integrating Tourism and Recreation Travel with Transportation Planning and Project Delivery

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SYNTHESIS 329

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A Synthesis of Highway Practice

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SUBJECT AREAS

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in Cooperation with the Federal Highway Administration

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NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM

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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.

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FOREWORD

By Staff
Transportation
Research Board

Highway administrators, engineers, and researchers often face problems for which information already exists, either in documented form or as undocumented experience and practice. This information may be fragmented, scattered, and unevaluated. As a consequence, full knowledge of what has been learned about a problem may not be brought to bear on its solution. Costly research findings may go unused, valuable experience may be overlooked, and due consideration may not be given to recommended practices for solving or alleviating the problem.

Information exists on nearly every subject of concern to highway administrators and engineers. Much of it derives from research or from the work of practitioners faced with problems in their day-to-day work. To provide a systematic means for assembling and evaluating such useful information and to make it available to the entire highway community, the American Association of State Highway and Transportation Officials—through the mechanism of the National Cooperative Highway Research Program—authorized the Transportation Research Board to undertake a continuing study. This study, NCHRP Project 20-5, "Synthesis of Information Related to Highway Problems," searches out and synthesizes useful knowledge from all available sources and prepares concise, documented reports on specific topics. Reports from this endeavor constitute an NCHRP report series, *Synthesis of Highway Practice*.

The synthesis series reports on current knowledge and practice, in a compact format, without the detailed directions usually found in handbooks or design manuals. Each report in the series provides a compendium of the best knowledge available on those measures found to be the most successful in resolving specific problems.

PREFACE

This synthesis report will be of interest to local, regional, state, and federal officials, as well as to other transportation professionals that work with them in dealing with tourism and recreation travel. This report provides an overview of current practice at transportation agencies, metropolitan planning organizations, state tourism and parks departments, federal land management agencies, and regional planning agencies. Overall, findings reveal that many state departments of transportation (DOTs) are now actively involved in tourism-related planning issues—either proactively or in building solutions to infrastructure, access, or environmental issues that impinge on the success of tourism in the region.

This synthesis report of the Transportation Research Board combines information culled from survey responses from multiple sources with a literature review drawn primarily from TRB publications, conference proceedings, academic publications, and state DOT reports. Case study information showing New Jersey and Wisconsin support for tourism offers additional insight.

A panel of experts in the subject area guided the work of organizing and evaluating the collected data and reviewed the final synthesis report. A consultant was engaged to collect and synthesize the information and to write this report. Both the consultant and the members of the oversight panel are acknowledged on the title page. 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 progress in research and practice continues, new knowledge will be added to that now at hand.

CONTENTS

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Lisa Petraglia and Glen Weisbrod, Economic Development Research Group, Boston, Massachusetts, were responsible for collection of the data and preparation of the report.

Valuable assistance in the preparation of this synthesis was provided by the Topic Panel, consisting of Robert Draper, Federal Highway Administration, HEPN-50, U.S. Department of Transportation; James H. Evans, National Park Service, U.S. Department of the Interior; Kimberly Fisher, Senior Program Officer, Transportation Research Board; Robert Gorman, Federal Highway Administration, HEPS-10, U.S. Department of Transportation; Carolyn Hyland-Ismart, District Director, Planning and Public Transportation, Florida Department of Transportation; Susan Perry, Consultant, Washington, D.C.; Katherine F. Turnbull, Associate Director, Texas Transportation Institute; and Dick Turner, Chief, Multimodal Planning Bureau, Montana Department of Transportation.

This study was managed by Donna Vlasak, 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 project scope development was provided by Stephen F. Maher, P.E., and Jon Williams, Managers, Synthesis Studies. Don Tippman was responsible for editing and production. Cheryl Keith assisted in meeting logistics and distribution of the questionnaire and draft reports.

Crawford F. Jencks, Manager, National Cooperative Highway Research Program, assisted the NCHRP 20-5 Committee and the Synthesis staff.

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

INTEGRATING TOURISM AND RECREATION TRAVEL WITH TRANSPORTATION PLANNING AND PROJECT DELIVERY

SUMMARY

Tourism and recreational activities pose many similar travel considerations, which typically differ from commuter travel and commercial transport issues. The relationship between tourism and transportation is derived primarily from the concept of tourism as a generator of travel demand and transportation as the key to accessing major tourist attractions. Transportation can be a critical element of the operation of visitor attractions and of supporting activities, such as gateway communities to national parks. Effective transportation planning can also produce appropriate solutions for balancing the traffic needs of different traveler groups during peak tourism seasons or special events. These relationships provide a common base of interest for transportation and tourism agencies and are thus the motivation for interagency coordination. The key to addressing these common interests (and their ultimate implementation) is the development of effective processes for coordination between various transportation agencies, tourism agencies, other planning organizations, and private-sector interests. For simplicity, this report will refer to a wide range of tourism and recreation activities as "tourism."

This synthesis study was originally conceived by the TRB Task Force on Transportation Needs for National Parks and Public Lands. It is based on the recognition that there is a need to gauge how well and how often tourism and recreation travel needs and objectives are included in transportation planning and decision making. To accomplish this, the synthesis study included a review of the literature of research reports and agency studies, as well as a survey of current practice that was distributed to state departments of transportation (DOTs) and other agencies with an interest in the topic, including selected state tourism offices, parks and recreation offices, metropolitan planning organizations, and federal land agencies.

This report adds to the literature on the evolving integration of tourism travel issues into transportation decision making and planning. It describes current practice and presents select case studies pertaining to a wide set of agency activities spanning multi-agency coordination, planning processes, agency resources, project development, and the types of transportation solutions implemented. Projects implemented reflect various modes of travel and various transportation facilities that serve tourism sites (including roads, parking, scenic rest areas, and rail services) and various types of user information support (including welcome centers, information displays or kiosks, signage, heritage markers, specialized road maps, advertising, publications, and brochures).

The case studies and survey results presented in this report show that many state DOTs are now actively involved in tourism-related travel planning issues, either proactively or in building solutions to infrastructure, access, or environmental issues that impinge upon the success of tourism in the region. These planning activities fall into the following three main categories:

1. Working relationships for interagency cooperation and public–private, nonprofit-sector partnerships;
2. Tourism-related travel demand analysis and evaluation; and
3. Project solutions to address special needs of tourism-related travel.

Multi-agency working relationships, spanning tourism and transportation agencies, are now common. Many state DOTs have been proactive and innovative in establishing joint working relationships with state tourism agencies, as well as coordinating with federal, regional, and local public agencies and private organizations. These coordination processes vary widely and can span policy, planning, design, funding, implementation, and operations of facilities. The facilities themselves can also span both transportation facilities (roads, bus services, and rail services) and visitor information facilities (welcome centers, variable message signs, maps, and information kiosks).

All responding state and regional agencies reported that they have some working relationship with other agencies regarding tourism and transportation issues. Fully two-thirds of them reported that there is some aspect of a formal structure to their collaboration.

Beyond the interagency cooperation process, a growing number of state DOTs also have their own staff involved in internal transportation planning for the tourism and recreation markets. These various activities occur within DOT planning offices or within special offices for scenic byways or rail development.

There is a continuing evolution of data and travel demand analysis germane to planning decisions that will help achieve precise tourism objectives. Nearly one-half of the state DOTs and slightly more than one-half of the other agencies reported that they now make use of tourism travel forecasts. Although many of these forecasts are derived by applying growth rates implicit in the employment projections for the hotel and lodgings industry to a recent estimate of tourism visits, some transportation organizations are putting resources into developing their own tourism forecast models.

Visitor surveying activities undertaken by, or with key input from, the DOT are redefining the types of information necessary to support the next generation of travel demand models and the types of questions the analysis must be capable of examining and answering. The most widely requested forms of data are tourism origin–destination patterns, followed by tourism visitor traffic counts and tourism industry employment data. Data reflecting seasonal adjustments and finer geographic breakdowns are expected to improve the validity and use of the resulting tourism projections. Understanding the travel patterns and trip characteristics of tourists can serve both the marketing emphasis of tourism organizations and the research needs of transportation agencies.

Projects related to tourism travel reflect a variety of needs and motivations. As revealed in this study, projects were defined to address the following:

- Alleviating traffic congestion and air quality concerns near visitor attractions,
- Creating better access and mobility to meet the special needs of different traveler segments,
- Investing in tourism as a means of economic development,
- Improving traveler information resources,
- Preserving valued historic, cultural, and environmental assets,
- Linking existing but currently separate tourism attractions, and
- Competing travel demand needs of area residents and visitors.

The various projects emerging as a result of integrating tourism travel needs into the activities of state-level and regional transportation agencies spanned the following categories:

- Attractions—Scenic byways (automobile), eco-tourism trails–heritage trails (including bicycle and pedestrian facilities), and rehabilitation of historic transportation facilities into visitor attractions.
- Access—Land and water shuttle services, non-auto-based multi-modal tour package development, and transportation management plans.
- Traveler information—Signage, variable-messaging systems, 511 traveler information services, visitor information and welcome centers, intelligent transportation systems, visitor publications, and information kiosks.
- Facility operation and related improvements—Streetscape, transportation facilities, and research data and analysis model improvements.

Finally, some transportation agencies have now started to conduct objective evaluations to assess the extent to which tourism-related transportation projects, programs, or interagency coordination processes have been effective in achieving their desired goals. Each of these various types of studies and solutions, and the coordination activities that make them possible, may be viewed as models for other state DOTs and tourism and recreation agencies.

CHAPTER ONE

INTRODUCTION

This chapter describes the motivation for this study, followed by a brief chronology of federal legislation that has prompted state and regional transportation agencies to integrate tourism-related travel issues into transportation decision making and project delivery. The data collection and methodology used in this study are also summarized.

STUDY MOTIVATION

Transportation facilities can span all modes of travel—highways, aviation, waterways, public transit, and railroads. Any and all of these modes may be relevant for tourism or recreational travel. Recreational facilities can include parks, stadiums, sporting facilities, and beaches. Tourism sites are attractions for outsiders as well as local residents and may include recreational facilities as well as cultural attractions (such as historical, musical, or educational facilities). Any type of recreational or tourism facility can have special transportation needs.

The TRB Task Force on Transportation Needs for National Parks and Public Lands (A5T55) articulated the need to gauge how well and how often tourism and recreational travel needs and objectives are included in the transportation planning and project delivery activities of state departments of transportation (DOTs) and metropolitan planning organizations (MPOs). This assessment was to consider the wide breadth of issues that arise at the intersection of tourism travel and the transportation system currently available to carry visitors into, out of, and around a region for nonwork-related trips. This study was designed to explore the following issues:

- Technical analysis tools for forecasting tourism, visitor, and recreation travel demand;
- Assessment of the effects of this demand on transport system performance and the economy;
- Institutional relationships and partnerships;
- Stakeholder involvement techniques;
- Integration of state, MPO, and federal plans, processes, programming, and decision making;
- Advantages, limitations, and effectiveness of alternative strategies, including best practices and strategies previously identified in *NCHRP Report 419: Tourism Travel and Transportation System Development*;
- Innovative financing; and
- Best practice case studies.

These issues span multiple types of public agencies and thus often require some form of partnership across boundaries—that is, across state, regional, and local boundaries; across tourism and transportation planning boundaries; and across the public-sector/private-sector boundaries—to successfully address tourism travel needs in relevant transportation projects.

The specific needs associated with developing and serving tourism travel fall into three main classes.

- Information needs—Visitors to tourism and recreation sites often need guidance on how to access those facilities and sometimes also suggestions regarding routing, scheduling choice of destinations, and modal options. These needs can be served through welcome centers, information displays or kiosks, web-based resources, 511 traveler systems, specialized road maps, and signage.
- Facility investment needs—Travel to tourism and recreation sites is often concentrated in certain seasons or on weekends or days of special scheduled events. Sometimes there are also special needs for parking or scenic pullovers. All of these conditions represent unique demands on transportation facilities. There may be needs for special types of improvements to address congestion, air quality preservation, safety, and design of roads and other facilities, as well as the provision of alternative modes of access into and within these facilities.
- Promotion needs or opportunities—Because there are potential economic benefits of tourism development, tourism and recreation agencies sometimes seek to promote visitation to natural and man-made attractions (particularly when there are underutilized resources available to serve this demand). Transportation agencies do not typically promote increased travel demand, although there are some notable exceptions such as scenic byways and scenic railroads (attractions in their own rights) and bypass or alternative routes (that relieve congestion on primary routes to attractions). Signage, advertising, and brochures may all be used as tools to help address these needs.

All of the above-cited projects and investments may be addressed through individual projects at specific sites or through broader statewide or regional programs. The factors influencing how multiple agencies/entities have been

working together to define and deliver transportation resources that support tourism travel is discussed next.

BACKGROUND ON EVOLVING MANDATES GUIDING THE PLANNING OF STATE DEPARTMENTS OF TRANSPORTATION AND METROPOLITAN PLANNING OFFICES

Public agencies can be involved in the development of facilities and support services for tourism and recreation-related travel in a variety of ways, including defining policy, planning and design, funding, implementation of new facilities, and/or operation of facilities and programs.

It is important to note that some of these forms of involvement occur as part of the normal roles of transportation, tourism, and recreation agencies acting alone. The act of coordination among agencies typically requires some additional effort to establish interagency working relationships. However, examples do exist of state DOTs and MPOs that have long-established track records of "thinking integrally" during the transportation planning process regardless of whether or not they have formal mandates to do so.

Starting in the late 1950s, numerous federal laws (various highway acts and environmental laws) and more recent federal transportation programs [e.g., the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), Transportation Equity Act for the 21st Century (TEA-21), and Transportation Community and System Preservation (TCSP) Pilot Program] describe the mandates for state DOTs and MPOs to integrate their planning processes. In addition to these federal requirements some states may also be fulfilling directives from the governor's office to support tourism as a means of economic growth.

The Federal-Aid Highway Act of 1962, successor to the 1950 and 1956 acts, established a formal paradigm for the planning process in metropolitan areas, labeled the "3C" (continuous, coordinated, and cooperative) process. MPOs were formally established by the mid-1960s to carry out the federally financed, local transportation planning efforts within this structure. Emphasis was placed on public participation in the process, an idea required as a result of the first Federal-Aid Highway Act. Various environmental acts [including Section 4(f) of the U.S.DOT Act of 1966; air and water quality; species, habitat, historic, and cultural preservation; environmental justice; and National Environmental Policy Act (NEPA) regulations] were introduced from the 1960s through the 1980s to further expand requirements on the transportation development process at both regional and state levels. In 1997, the U.S.DOT and the U.S. Department of the Interior signed a Memorandum of Understanding (MOU) in which the two federal departments agreed to collaborate in addressing transportation needs in and around national parks and other federal lands.

Opportunities for transportation agencies to assist in tourism and recreational development have been explicitly defined in the U.S. federal transportation policy that has evolved since 1991. ISTEA, legislated in 1991, provided explicit funding for a national scenic byways program, including interpretive facilities, overlooks, and tourist information about byways. It also provided funding for recreational trail projects and other recreation-related transportation enhancement projects. The legislation specified 15 aspects that MPOs were required to fulfill during their planning activities, and 23 factors (some identical to those pertaining to the MPO) for state DOTs. Specifically, MPO planning activities should consider access to national parks, recreation areas, monuments, and historic sites, as well as how their transportation decisions affect the regional economy. State DOTs are to plan for adding bicycle facilities and pedestrian facilities to a project, where appropriate, and invest in strategies to adjoin state and local roads that support rural economic growth and tourism development, and multipurpose land management practices, including recreational development. ISTEA funds were provided to accommodate the institutional investment required to bring the entire planning processes to fruition.

In 1995, with subsequent changes to ISTEA, an additional state DOT factor was added under the National Highway System Program (Section 101) mandating "promotion of tourism and recreational travel." This expansion of the funding scope was reinforced by other ISTEA requirements mandating that local governments be involved in developing regional transportation plans and that transportation planning processes be strengthened by local participation. In this way, local interests in tourism and economic development could provide direct input to transportation plans.

TEA-21 was signed into law in 1998. It continued programs that were originally developed under ISTEA and added new funding initiatives and project funding criteria related to improving safety, enhancing communities and the natural environment, and advancing economic growth and competitiveness. These additional criteria further expanded the extent to which projects could be justified and funded to serve tourism and recreation-related travel. TEA-21 specifically expanded program funding by including an allowance for funding transportation museum projects, a Ferry Boat and Ferry Terminal Facilities Program, a National Historic Covered Bridge Program, and deployment of intelligent transportation systems (ITS) and advanced transit for national parks.

The net effect of this program evolution is that it has served to encourage state transportation departments (and MPOs) to think more broadly about the range of ways in

which transportation investments interact with other activities, including specifically the development of tourism and recreational activity. Although new authorizing federal legislation is soon expected to replace TEA-21, these fundamental themes for defining the range of transportation projects and purposes are expected to continue. The same can be said for the support of the integration of planning among various federal, state, and local agencies.

METHODOLOGY

This synthesis is based on three types of information: (1) a literature review drawn predominantly from TRB publications, conference proceedings, academic publications, and state DOT reports; (2) a survey of agency practice distributed to state DOTs, MPOs, state tourism and parks departments, federal land management agencies, and regional planning agencies (RPAs); and (3) case studies as identified by the literature, the survey, or additional research.

The survey was designed to profile the range of activities being undertaken by state transportation agencies and also to provide insight into the extent of their involvement with RPAs, as well as state tourism and recreational agencies. It was sent to all state DOTs and also to corresponding state tourism and parks and recreation offices. In addition, metropolitan and regional planning agencies were invited to participate through announcements by the National Association of Regional Councils, the Association of Metropolitan Transportation Organizations, and the National Association of Development Officials. Overall, 27 responses were received from state transportation departments and 14 from other agencies. A further discussion of the survey outcome and findings is provided in chapter three. The survey instrument is shown in Appendix A, and Appendix B provides a roster of the survey respondents and summarizes their responses. The qualitative nature of responses to several open-ended questions are not condensed into this summary, but instead are reflected in the presentations in chapter three.

The specific topics covered by the survey were

- Types of agencies involved in tourism, recreation, and transportation planning;
- Agency priorities and concerns;
- Forms of multi-agency coordination;
- Funding and implementation priorities;
- Data analysis and evaluation; and
- Identification of successful planning or project delivery activities.

REPORT ORGANIZATION

The remainder of this report is organized into three chapters. Chapter two presents a review of the literature and recent research on the subject of transportation and tourism travel planning. Chapter three reviews the state of existing practice regarding the inclusion of tourism travel in transportation planning as revealed by the results of a survey of agencies and by relevant case studies addresses multi-agency collaboration, analytical resources, and project solutions. Chapter four provides conclusions and recommendations drawn from this study.

CHAPTER TWO

LITERATURE REVIEW

This chapter provides an overview of technical research regarding the application and effectiveness of various types of transportation projects to support tourism and recreational activities. A few examples of research addressing the tourism travel needs of specific user groups are included. This chapter also reviews available policy research on multi-agency collaboration processes in transportation planning and decision making. The reports cited here focus primarily on roads, except for transit systems within national parks.

TRANSPORTATION TO SUPPORT PARKS AND OTHER TOURIST ATTRACTIONS

In the context of tourism planning, investment in new and expanded transportation facilities can serve to either support the operation and development of attractions (such as national parks) or function as attractions in their own right (such as scenic byways). For both types of situations, technical studies can serve to identify needs, analyze proposed alternatives, and evaluate the impacts of built projects.

More focus has recently been given to the transportation needs in national parks as a result of the levels of visitor demand exceeding the transportation infrastructure within many of the parks. The National Parks Service (NPS) mandates that park plans and planning activities address transportation aspects related to and affecting the park. As a result, various studies have assessed the cost-effectiveness and practicality of alternative transportation solutions, including roads, parking, bus service, trams, and other forms of transit facilities. Representative studies relating to national parks include the following:

- "Transportation Needs of National Parks and Public Lands" (Eck and Wilson 2001) is a memorandum produced by TRB's Task Force on Transportation Needs for National Parks and Public Lands (A5T55). It summarizes the concerns posed by the increasing number of peak-period visits by automobile travelers to national parks and other public lands. The memo discusses the need for federal land management agencies to balance open access to these sites with environmental stewardship of these resources. It notes that the use of alternative transportation systems for national parks was first studied in 1994 and a report was submitted to the U.S. Congress. Three years later the U.S. Department of Interior and the U.S.DOT established an MOU to implement efficient transportation systems for national park access (a copy of the MOU can be found on the NPS website under the link for "Alternative Transportation"). This document also highlights the difficulties that remain in bringing tourism interests into the transportation planning process and stresses the need for a forum where these different stakeholder perspectives can be brought to bear in joint solutions for tourism-serving interests.
- "Visitor Transportation at U.S. National Parks" (Turnbull 2001) is an article from TRB's *TR News* summarizing some current alternative transportation initiatives now underway at Acadia, Zion, and Grand Canyon National Parks.
- The NPS's *Transportation Planning Guidebook* (2000) acknowledges that transportation planning is an "integral, defining feature of the national park experience and a means by which the park mission of protecting resources for the enjoyment of future generations can be realized." This comprehensive guide is a resource for park managers and staff, as well as community partners to understand the types of TEA-21 funds that can be put to use, how to go about an interagency planning process, and who to involve in the transportation planning and design for the national park setting. Project implementation is also addressed by providing examples of how project partners can help raise funds from state and local matching sources to cover capital costs and future operating costs. The guidebook provides several successful case studies on the topics of successful partnerships, transportation analysis within the context of park needs, and innovative solutions to transportation challenges arising from traffic in and around national parks.
- The *Federal Lands Alternative Transportation Systems* (*ATS*) *Study* (Ecker et al. 2001), conducted by Cambridge Systematics on behalf of the FHWA, FTA, NPS, the Bureau of Land Management (BLM), and the U.S. Fish and Wildlife Service, reported that many issues are addressed by the application of ATS, including transportation, resource preservation, economic and community development, tribal matters, and recreational needs. The study includes an assessment of ATS needs on federal lands to mitigate current and anticipated transportation challenges, and explores opportunities for securing implementation funding. The study contains an appendix addressing guidelines for a conceptual transit planning process.

- Proceedings from the 1999 conference on "National Parks: Transportation Alternatives and Advanced Technology for the 21st Century" (1999) reflect not only the broad sponsorship of this conference but of those in attendance as well, including private-sector vendors showcasing prototypes of relevant technologies. The Proceedings contain presentations as well as workshop summaries focused on regional transportation planning and coordination, traffic and demand management alternatives, transit alternatives (from shuttles to light rail), traveler and visitor information needs, and alternative fuels.
- "Tourist Transport Management," an on-line digest of the Victoria Transport Policy Institute (2002), highlights case studies of transportation solutions to tourist automobile congestion. Included are Seattle's "Car Smart" Communities (car-free getaway tour packages) and Acadia National Park's Island Explorer shuttle service with advanced information systems. Also described is the city of Sedona, Arizona's proposed transit solution to mitigate automobile congestion to and from Red Rocks State Park. This project has involved Sedona, two counties, the Coconino National Forest, the Northern Arizona Council of Governments, the Arizona DOT, and the Community Transportation Association of America. Finally, it discusses Miami's proposed South Beach shuttle system, designed to serve the national historic district as well as other destinations in South Beach, Florida. This project includes pedestrian and bikeway improvements and the development of promotional and marketing materials on new mobility options for Miami Beach.
- Access to Acadia National Park was examined in *Bangor to Trenton Transportation Alternatives Study, Phase I* (2001), a Maine DOT study that had the stated objective "to create an integrated, multi-modal passenger transportation system in Maine that supports and promotes tourism." The Phase I study explored alternatives for car-based travel between Bangor and Trenton, a heavily traveled 50-mile corridor carrying predominantly tourist and recreational travelers between I-95 and Mt. Desert Island, home of Acadia National Park. This study was one piece of the "Explore Maine" initiative implemented by the Maine DOT. The goal of "Explore Maine" is to create a network of travel options that do not require a car. Three destination packages (Acadia, Freeport, and the Western Mountains) have been designed in a setting of public–private passenger transportation solutions involving intercity bus, chartered motor coach, rail, and international ferries.

TRANSPORTATION FACILITIES AS SCENIC ATTRACTIONS

In addition to serving traveler movements, transportation facilities can function as attractions in their own right. The primary example of this is the scenic byway, which is typically a rural road that serves as a scenic attraction as well as a travel route. Much of the scenic byways literature has focused on documenting potential demand for proposed facilities and then measuring the impacts of completed facilities. Representative studies relating to scenic byways include the following:

- *Valuing Changes in Scenic Byways—VT Pilot Study* (Tyrrell and Devitt 2000), a study for the Vermont Agency of Transportation, specifies an econometric modeling approach to measure the effect of different design elements of various road features along scenic byways on travelers willingness-to-pay. The report was designed to help guide future efforts of road designers and engineers in context-sensitive design that would be desirable for road users. This study measured the willingness-to-pay of various traveler segments, including leisure visits from both in- and out-of-state travelers, as well as the personal travel of area residents.
- *Holmes County Scenic Byways: The Value of Viewshed—Economics and Related Aspects of Signage* (Strouse 1999) is a study from Ohio State University. It assesses the impact that signage management and "viewshed" preservation have on tourists' willingness-to-pay.
- *Scenic Byway Development on the Oregon Coast—Economic Benefits and User Preferences* (1990) is an Oregon DOT corridor study. It was the basis for the eventual development of a master plan along Oregon's Coastal Highway, US-101. The report examined possible changes in direct visitor (nonresident) expenditures for the year 2000 under four different scenic highway scenarios involving differing degrees of corridor development along the coast.
- *Scenic Byways Data Needs, Resources, and Issues* (Smith 1990) is a primer on data for evaluating scenic byways. This report defines the specific data that needs to be collected for different decision-making considerations, which depends on whether the objective is to support scenic byways designation of a given route, to design enhancements to the route, or to evaluate a scenic byways route nomination based on either the attributes of the road or potential economic impact of attracting visitors. The author stresses the need for transportation and tourism interests to work together to collect needed data to better support current and future scenic byway research.
- *Economic Analysis of Scenic Byways in Iowa, Kansas, Missouri, and Nebraska* (Olson and Babcock 1991) is a Midwest Transportation Center study illustrating how a travel demand and supply analysis model can be calibrated specifically to the scenic byway user travel segment. In this econometric model, the incremental increase in visitor trips owing

to scenic route designation is estimated by considering traffic trends, cyclical economic factors, known seasonal factors, and a component for traffic movement changes not explained by the other three factors. The latter aspect is thought to capture the response to design elements of the route and promotional success.

- *Scenic Byways as a Rural Economic Development Strategy—The Development of a GIS Model of Tourism and Recreation in Montana* (Thompson et al. 1995) applied traffic analysis models to forecast trip and visitor spending impacts for a future year under alternative scenarios regarding the various assumptions concerning traffic, marketing, visitor expenditures, and tourism capture rates associated with the new designation of US-89 as a scenic byway.
- *Identifying, Evaluating, and Preserving Minnesota's Historic Roadside Facilities* (Walton and Anderson 2003) examined the eligibility of 102 properties throughout the state for the National Register of Historic Places. The study, on behalf of the Minnesota DOT, found that 51 of these roadside facilities, including scenic overlooks, hiking trails, picnic areas and historic markers, and one district are eligible for the register based on two sets of evaluations. The Minnesota DOT is preparing planning documents to address preservation (in light of other potential development pressures or planning activities), rehabilitation, and maintenance for these sites and to tap eligible funding sources.

All of these literature examples focus on scenic roads because they simultaneously represent transportation access routes as well as visitor attractions. There are also cases of scenic railroads, bikeways, and hiking trails around the country; however, they have primarily been planned and implemented as recreational or tourist attractions, rather than jointly as transportation facilities.

INFORMATION SYSTEMS AND OTHER TRAVELER SUPPORT SERVICES

Information centers, welcome centers, and information displays are all ways in which visitors can be informed and guided to use appropriate travel routes and transportation facilities. Many articles have summarized the characteristics of such information projects. Several representative examples of this type of article are provided here.

- *Regional Transportation Connector Newsletter* (2000, 2001) is the National Association of Development Organizations on-line newsletter. It showcases state and regional projects with multi-agency collaboration and with tourism relevance, including "511 Virginia," the Northern Shenandoah Valley Regional Commission's ITS project. First implemented in the spring of 2000, with the help of the Virginia DOT (VDOT) and the Virginia Tech Transportation Institute, it features a traveler information service that provides tourist site information along the I-81 corridor that can be accessed by telephone. The research also showcased the unique role of New Mexico's rural Council of Governments to spearhead transportation solutions to better service remote areas for residents and visitors. Finally, it has showcased how the South Central Council of Governments (and affiliated regional planning organization) has proposed creating a scenic byway loop to strengthen the base for economic development opportunities and provide experience in building regional partnerships.
- *WTI Newsletter* (2003) from the Western Transportation Institute presents recent developments for traveler information systems and other visitor information resources. Included is the "511" implementation for Montana and the deployment of information kiosks for the Greater Yellowstone area. These are discussed in chapter three under case studies pertaining to "Visitor Information Products and Services."
- *511 Case Studies: Kentucky* (Schuman and Walden 2000) traces the early planning stages and coordination efforts to transfer two of the more essential transportation caller services offered by the Kentucky Transportation Cabinet to a 511 traveler information service. The Advanced Regional Traffic Interactive Management and Information System coupled with the Traffic Advisory Telephone Service, and the *Kentucky Road Report* were the first of 10 transportation traveler services to be converted over to the 511 system. The ultimate vision is that Kentucky would establish four metropolitan/regional 511 systems and all four would connect into a statewide system for the *Kentucky Road Report*.
- "Travel Shenandoah: Lessons Learned in a Public/Private ATIS Partnership" (Cross 2000) examines how VDOT, Virginia Tourism Corporation, Virginia Tech, and the Shenandoah Telecommunications Company implemented a rural pilot advanced travel information services (ATIS) program seeking to minimize traffic problems associated with the widening of I-81 through the Shenandoah Valley and, second, improve dissemination of travel information to residents, tourist and business travelers, and motor freight carriers. Information would be available on demand through landlines, cellular phones, websites, cable television, radio, variable messaging signs, and subscription-based technologies (such as pagers.) Six classes of information were chosen for the ATIS—travel alerts; traffic and travel conditions; travel services; tourism, attractions, events; emergency services; and route guidance. The decision to distribute specific types of travel information through the me-

dia was a deliberate part of the business model construct designed for multiple revenue streams to be generated, thereby guaranteeing sufficient funding for the ongoing maintenance of the ATIS system. Seven key lessons were highlighted from the implementation of this rural ITS project:

- Flexibility of partnering relationships;
- Investment in data collection and maintenance;
- Value of rapid prototyping and staged development;
- Working with stakeholders;
- System design should consider multiple markets, delivery modes, and revenue streams;
- Design systems suited for their particular geography; and
- Plan a system based on realistic financial objectives.

RESEARCH ADDRESSING SPECIFIC TRAVELER GROUPS

Understanding the demographics of the current pool (and potential) of visitors to a region is crucial to many tourism-oriented functions (e.g., marketing and developing visitor information resources), as well as to managing existing and planning for transportation facilities that link visitors to attractions throughout the region. There are many traveler segments that may be of particular relevance to the composition of a region's visits (e.g., international visitors, empty-nesters, and the elderly) and an understanding of any special needs or the group's travel behavior and preferences can assist in more successful tourism outcomes and transportation solutions that offer greater safety and accessibility. Two studies are included here that address the travel needs and preferences of the elderly and the physically challenged. Two additional modeling studies are also briefly mentioned here; however, the highlights of their findings are presented as case studies in chapter three, under "Data Analysis and Evaluation."

- "Accessible Tourism: Transportation to and Accessibility of Historic Buildings and Other Recreational Areas in the City of Galveston, Texas" (Sen and Mayfield 2003) examines the unique characteristics of this barrier island destination with many historic buildings [not yet Americans with Disabilities Act (ADA) compliant] and the challenges to provide access to and into these sites. Travel to the island is predominantly by automobile and few transit options exist that can serve the disabled. A projection of tourist visits segmented by different groups will help to define the need for public transit capable of serving those with physical mobility limitations.
- "Departure Time Choices for Recreational Activities by Elderly Nonworkers" (Okola 2003) examines flexible travel behavior of the elderly through a discrete choice modeling analysis. Using national data from the Nationwide Personal Transportation Survey (1995), and focusing on suburban and rural travel, the modeling confirmed that the elderly do exhibit different travel preferences from the nonaged population for nonwork trips (e.g., the elderly prefer early morning travel). Such findings may be useful to those areas seeking transport alternatives for their elderly visitors who would otherwise arrive by car.
- Also relevant to this category of literature are "Transportation Modeling for the 2002 Winter Olympic Games" (Kaczorowski 2003) and "Optimization of a Feeder Bus Service to Sandy Hook" (Cardone and Myers 2003). Both are presented in chapter three as case studies, under "Data Analysis and Evaluation," of analyses contributing to advancing the knowledge base required to better plan transportation resources for special events or recreation destinations.

INTERAGENCY COLLABORATION IN TRANSPORTATION PLANNING PROCESSES

One of the challenging aspects of tourism and transportation planning is the potential complexity involved in bringing a variety of federal, state, regional, and local parks, and recreation and tourism agencies into a collaborative transportation planning process. A variety of studies have taken on the general topic of interagency collaboration. Key studies include the following:

- *NCHRP Report 419: Tourism Travel and Transportation System Development* (Frechtling et al. 1998) identified the current state of practice in coordinating and integrating statewide transportation system development with tourism program goals. It provided an overview of the wide variation in the degree of dialogue occurring between state DOTs and state tourism and recreation agencies within the statewide transportation planning process. It also reviewed the limited track record of tourism-related transportation projects that have been undertaken and completed through a collaborative process.

  NCHRP Report 419 created a framework for evaluating different types of institutional arrangements that may exist in a given state. This framework also represents a means for understanding how the nature of working relationships can facilitate or hinder joint projects between state transportation and tourism agencies. Additionally, the report identified three major areas where tourism objectives can best be integrated into transportation system development: policy coordination, the transportation planning process, and project development. The researchers presented principles to guide these three activities and promote stronger interagency coordination of

tourism travel issues in statewide transportation planning. The use of these guidelines was reexamined 4 years later and the results are shown in chapter three.

- *NCHRP Synthesis of Highway Practice 286: Multi-modal Aspects of Statewide Transportation Planning* (Peyrebrune 2000) explores state-level multi-modal planning practices with respect to alternatives identified, resultant modal mixes, and degree of integration into three aspects of the planning process—state planning, corridor studies, and the financing/budgeting/programming process. A key finding from this study is that involvement of customers and stakeholders of the transportation system is necessary to identify the range of mobility needs (e.g., goods or passenger movement, resident or visitor trip) that any multi-modal planning process should begin with. It also shows why the multi-modal planning process can prosper under directives concerning sustainable land-use or economic development goals.

Although this research does not specifically focus on tourism and transportation planning it is highly relevant to that topic. A crucial part of the dialogue to integrate tourism travel concerns into state and regional transportation planning processes and decision making involves multi-modal solutions. Not only is this consistent with the intent of federal legislation and guidelines, but a growing number of tourism regions are constrained in their capacity to handle more visitors arriving by car owing to land scarcity or concerns over environmental degradation and quality of life. (The previously reviewed studies of transit at national parks illustrate such situations.) Therefore, planning that considers transit, ferries, rail, air, bicycle, and pedestrian facilities (in addition to roads) can be quite relevant for the process of integrating transportation and tourism and recreation planning.

- *NCHRP Synthesis of Highway Practice 297: Building Effective Relationships Between Central Cities and Regional, State, and Federal Agencies* (Schaller 2001) provides examples of multi-agency transportation projects to show how organizations with different mandates, jurisdictions, constituents, and authority have cooperated and collaborated. Although its' focus is on central city transportation systems in the largest metropolitan areas, the issues of multi-agency coordination can apply anywhere. The study recommends guidelines for improving intergovernmental coordination in the face of various political and jurisdictional barriers.

Two of the nine case studies in *NCHRP Synthesis of Highway Practice 297* pertain specifically to tourism. One is the Walk Philadelphia/Direction Philadelphia signage project that involved the FHWA, state DOT, and local organizations (nonprofits, city business associations, and Philadelphia's Commerce and Streets departments). The other case study is the Woodward Avenue Heritage Route, a combined corridor revitalization, historic preservation, and road improvement project in Detroit. This latter project was undertaken to spur economic development and tourism while also preserving historic and cultural assets. Coordination by the state DOT, 2 counties, 11 cities, the MPO, 2 nonprofits, and 1 business association made this project possible.

- "Working Together on Transportation Planning—An Approach to Collaborative Decision-Making" (NACE 1995) was developed by the National Association of Regional Councils as an exploration of innovative methods of enhancing public- and private-sector participation in the MPO transportation planning process. This study is process-oriented and focuses on the development of long-range plans or transportation improvement plans. It describes strategies for the MPO to engage the public and concludes, after a review of case studies, that MPOs that have had the greatest success in effective public participation programs got there by first developing a public participation plan tied into the long-range planning and decision-making process.
- *Implementation Strategies for the NH Route 16 Corridor Between Ossipee and Conway, NH* (2002) highlights a robust process undertaken by the Lakes Regional Planning Commission of how public and multi-jurisdictional participation affected the New Hampshire DOT's State Transportation Improvement Plan. Detail is presented as a case study in chapter three, under "Multi-Agency Coordination."
- *NCHRP Synthesis of Highway Practice 267: Transportation Development Process* (Mickelson 1998) charts the evolution of the transportation development process from the initial "3C" paradigm (continuous, coordinated, and cooperative) in the early 1960s to the subsequent federal requirements (e.g., environmental, and cultural, historic, and biological preservation), emphasizing ISTEA legislation that went into effect in the early 1990s. This study examines how different states and regions are currently adjusting to the requirements of ISTEA as they plan new highway facilities (or improvements) and transit projects.
- *NCHRP Synthesis of Highway Practice 217: Consideration of the 15 Factors in the Metropolitan Planning Process* (Humphrey 1995) examines the successes and challenges of a sample of MPOs in fulfilling the 15 required planning factors 3 years after these ISTEA requirements went into effect. The study's findings were drawn from interviews with 16 MPOs around the nation, from larger and smaller jurisdictions, and with diverse air quality ratings

among those classified as transportation management areas. Early consensus was that although MPOs must deal with numerous requirements, ISTEA's emphasis on improved planning (with dedicated resources available to do so) is a positive goal, along with fiscally constrained plan development (implying efficiency) and a commitment to existing highway and transit infrastructure through preservation programs. The opportunity for a greater role in state- and federal-level decision-making processes was a benefit also reported by the MPOs. The stated needs arising during this early stage of ISTEA implementation included technical assistance from state DOT and federal staff to assist MPOs in meeting the ISTEA objectives fully and effectively and resources to update technical models and data no longer adequate for the type of analysis now required in a more comprehendsive planning environment. Case studies documenting progress on each of the 15 factors are included for Albany, New York; Boston, Massachusetts; Charlotte, North Carolina; and Pittsburgh, Pennsylvania. The study also examined a case study of how the Wisconsin DOT is meeting the 23 factors required of state DOTs in the ISTEA legislation.

Altogether, the literature cited in this report should be viewed as a cross section of issues being faced by local, state, and federal agencies and local stakeholder groups. They reflect the range of transportation applications in which transportation investments can represent either a form of access support for separate tourism attractions or as simultaneous access routes and scenic attractions on their own.

CHAPTER THREE

CURRENT STATE OF PRACTICE: SURVEY RESULTS AND CASE STUDIES

This chapter describes results of a survey of state and regional agencies and additional case studies illustrating the current state of practice for integrating tourism and recreation travel with transportation planning and project delivery. It is organized around four major elements of the current state of practice: (1) forms of agency involvement, (2) approaches to multi-agency coordination, (3) types of needs analysis for tourism- and recreation-related transportation, and (4) innovative types of projects designed to address those needs.

FORMS OF AGENCY INVOLVEMENT

Types of Agencies

A variety of federal, state, and local government agencies, as well as private organizations, can become involved in issues regarding tourism and recreation travel. Most commonly, state and regional transportation planning agencies take the lead in identifying travel issues and needs for all travel segments, including tourism- and recreation-related travel, working in consultation with other public- and private-sector organizations that focus on tourism and recreational development. The various types of organizations, along with the typical nature of their involvement in this topic area, are summarized here.

- State DOTs typically have the authority for planning, funding, and implementing transportation projects, regardless of whether they also involve tourism or recreation. This can include the state DOT divisions or offices responsible for public transportation, highways, water ports, airports, and passenger rail facilities. They can include the staff groups responsible for infrastructure project planning, capital financing, project construction, and facilities operations. They can also include state DOT functions responsible for traveler information brochures, signage, rest areas, and assistance services. Because tourism and recreation travel is a market segment of all travel, essentially all state DOTs are involved at some level in planning for this market segment.
- State tourism offices typically have authority for planning, funding, and implementing tourism advertising, tourism information materials and assistance services, and operational coordination of tourism events and promotions. Because the primary objective of these agencies is to attract visitors from outside the state, many states have placed tourism promotion office operations within the state commerce or economic development departments. These agencies are most often involved in planning for tourism and recreation travel insofar as there are needs or concerns to ensure reasonable capacity, cost, and level of service to successfully promote the state as a place to visit.
- State parks and recreation offices typically have authority for planning, funding, and implementing the acquisition, maintenance, and operation of state-owned parks, forests, other natural resources, and recreational properties. The agency names differ from state to state (e.g., Department of Natural Resources or Department of Fish and Wildlife); however, these basic functions exist in all states. These agencies are most often involved in planning for tourism and recreation travel that is associated with access to, parking cost at, and information services for, visitors to specific state-owned properties.
- MPOs are organizations responsible for planning, programming, and coordinating federal highway and transit investments within major urban areas. They are formally designated under U.S. federal highway and transit statutes to coordinate planning of transportation improvement plans. As such, they play a role in the planning and coordination of local road and transit funding projects, which may also serve local tourism and recreation travel needs. However, planning and implementation of larger tourism and travel projects that are of statewide significance (extending beyond the jurisdiction of the MPO) may remain the ultimate responsibility of the state DOT. Some MPOs also function as RPAs. Additional authority and responsibility may be granted to an MPO through state legislation.
- RPAs are typically land-use planning and economic development agencies serving county or multicounty rural and urban regions. These agencies may become involved in promoting the development of tourism activities and recreation projects because tourism growth can be an element of a broader economic development strategy and may also have land-use implications. Furthermore, those RPAs that are also MPOs can be involved in prioritizing and approving highway and transit services that can affect tourism and recreation travel.
- Local agencies involved in tourism and recreation planning are drawn from the public, private, and

nonprofit sectors. Participation at this level includes local government agencies, civic or trade associations, private industry groups, and foundations. Private groups often involved in tourism development include local chambers of commerce and local convention and visitor bureaus. These groups are most often involved in promoting local tourism and planning local recreation projects, although they are seldom the sources of funding or implementation.

- Federal agencies involved in the planning and funding of tourism and recreation transportation projects include the U.S.DOT (for federal funding of highway, transit, aviation, and water transportation projects), the U.S. Department of the Interior (for national parks, fish and wildlife preserves, and federal land management), and the U.S. Department of Agriculture (for national forests). These groups coordinate to address transportation issues concerning access to and within federal lands.

A major issue for this study is the interaction of transportation agencies with other (tourism- and recreation-related) public agencies. Accordingly, this synthesis study included a survey that covered state transportation departments and also encouraged responses from representatives of state tourism/parks departments and regional agencies. (The survey distribution methodology is described in chapter one.) A total of 41 responses were received, as shown in Table 1. The responses came from 32 states, representing a cross section of the United States (11 western states, 5 central states, 9 southeastern states, and 7 northeastern states). As with all agency surveys, there is a possibility of "self-selection" among responders—that those agencies responding may be those most interested in the topic. To the extent that this has occurred, the responses can be seen as providing insight into some of the more active agencies and relevant model processes for addressing tourism and recreation travel.

TABLE 1
SURVEY RESPONSES

Category of Responder	Surveys Completed
State Transportation Department	27
State Tourism or Parks Department	7
Metropolitan or Regional Agency*	7
Total	41

*Includes metropolitan and regional planning and development organizations responding to paper or e-mail newsletter announcements by the National Association of Regional Councils, Association of Metropolitan Planning Organizations, and National Association of Development Officials. In addition, a regional office of the Federal Land Highway Program also participated.

Survey Results: Agency Priorities for Transportation and Tourism Planning

Tourism is an issue of interest for many types of agencies—not only tourism and parks departments, but also for state DOTs and RPAs. Key issues of interest to the surveyed agencies (i.e., those reported by at least 15% of the respondents) are as follows:

- Among the state transportation departments, the key area of focus for planning is transportation; secondary concerns are, in order of importance, economic development, and land use and tourism (tied).
- Among the state tourism and parks departments, the key area of focus for planning is tourism and recreation; secondary concerns are, in order of importance, economic development, and land use and transportation (tied).
- Among the RPAs, the key area of focus for planning is also transportation. The secondary concerns are, in order of importance, land use, and tourism and economic development (tied).

Not surprisingly, the survey confirmed that tourism is recognized as a secondary interest among many transportation agencies, whereas transportation is recognized as a secondary interest among many tourism agencies. However, that does not change another finding—that both types of agencies see a similar set of joint interests. As shown in Figure 1, the issues that were cited as joint interests by a majority of the responding transportation and tourism/recreation agencies are traveler information services, welcome centers, access routes, scenic byways, tourism signage, congestion, transportation infrastructure quality, road safety, tourism facilities/attraction development, road design, and regional promotion.

These findings confirm the wide range of common interests spanning transportation and tourism planning and also indicate that differences in institutional mandates are also a factor. The most notable differences are that state DOTs are more likely to see road design and safety as issues high on their list of joint interests, and less likely to put tourism promotion high on that list. It is also notable that access and tourism facilities appear to be the two areas of high interest with the smallest differential in interest among the two types of agencies—indicating a potential for converging interests.

Agencies were also asked to cite which of these issues are now being actively considered. Figure 2 shows that, in practice, the responding state DOTs are most likely to be considering issues of road design, access, and signage. In contrast, other agencies (i.e., tourism, parks, and regional planning organizations) are more likely to be considering issues such as tourism promotion, scenic byways, and welcome centers.

These findings generally confirm that there is common recognition of a broad range of joint issues spanning tourism and transportation planning, although the extent and

frequency of these concerns differs depending on the primary focus of the agency. That different types of agencies have different perspectives and priorities reinforces the importance of interagency coordination.

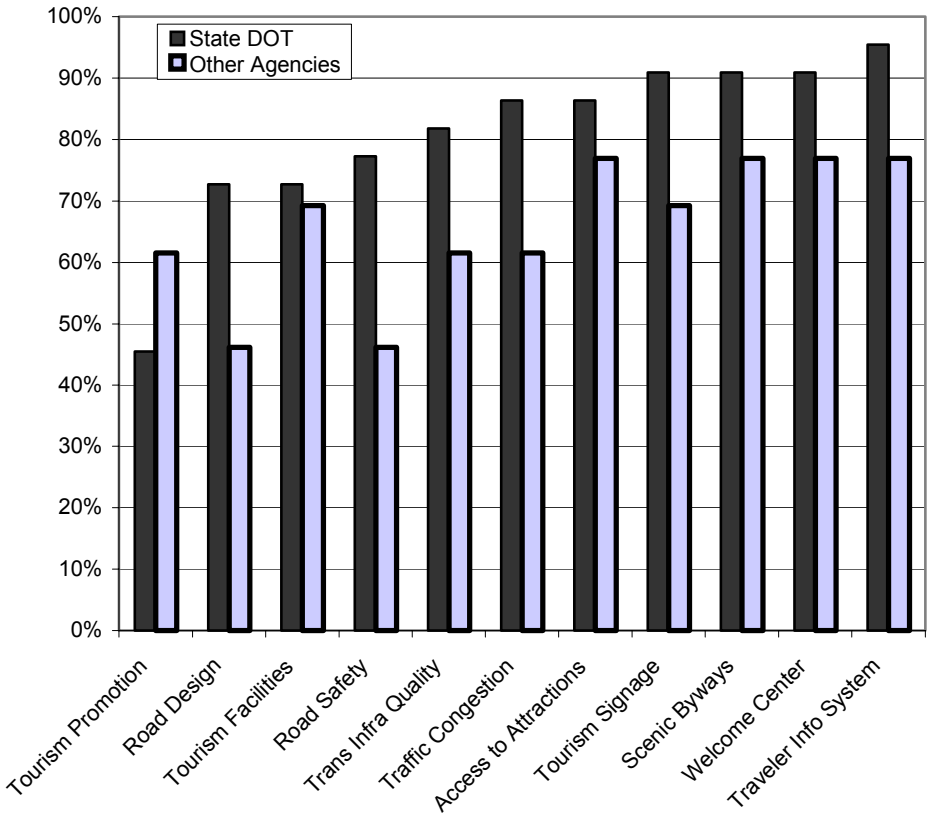

FIGURE 1 Issues of joint interest for transportation and tourism planning.

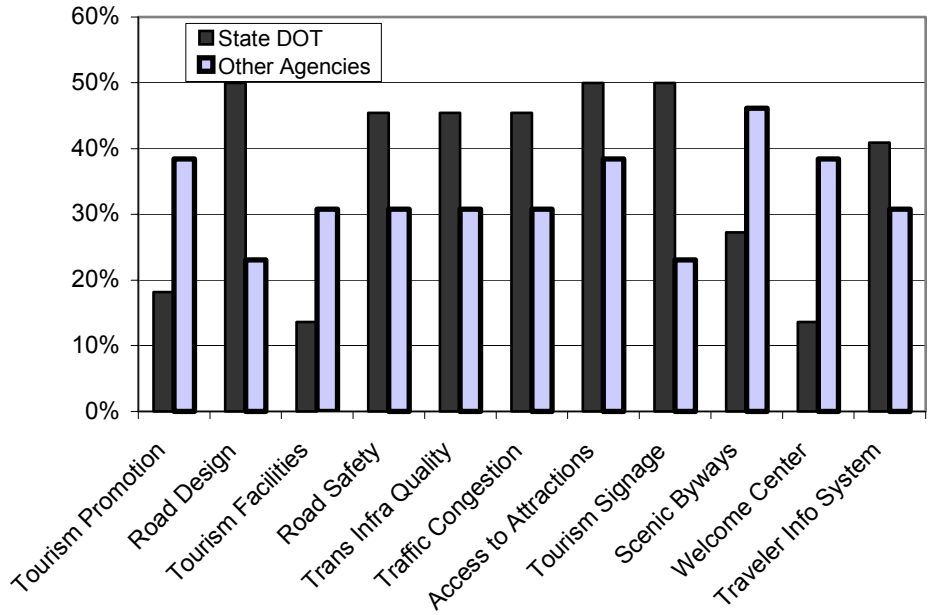

FIGURE 2 Frequency of issues being considered.

Case Studies: State Transportation Directives Supporting Tourism

The survey responses (as previously shown in Figures 1 and 2) demonstrated that state transportation departments have interest in a wide range of issues and activities relevant to tourism planning and development. The case studies of the Wisconsin DOT (WisDOT) and New Jersey DOT (NJDOT) represent examples of state transportation planning directives that explicitly and directly involve the state DOT in tourism support.

Case Study of State DOT Support for Tourism: Wisconsin's State Highway Plan

In the process of developing its long-range plan for the state's highway system, WisDOT sought to guide the recommendations for future investment based on the understanding of how Wisconsin's economic growth is affected by the current highway system; what transportation resources will be needed to accommodate future, projected growth; and how economic growth affects the transportation system. The resulting long-range plan for the state's highways defines system-level goals, priorities, performance measures, and investment strategies.

The highway plan is shaped by an explicit goal to "provide [a] system supportive of economic needs of various state sectors, including tourism and Wisconsin's communities . . ." It includes objectives to increase out-of-state visitors; provide transportation improvements that enhance development opportunities for communities; reduce travel time; and increase reliability, security, and convenience of all travelers on the state's highways.

To accomplish a plan based on this vision, WisDOT formed eight subcommittees on specific topics (e.g., congestion, safety, bridges, pavement, and economic development). Each committee developed low–medium–high performance standards for the infrastructure linked to their topic area. Although some committees adhered to strict engineering–design concepts in evaluating performance, the economic development committee applied a broader set of criteria; that is, how various Wisconsin economic activities, such as tourism, affect highway performance. A survey of visitors traveling to Wisconsin by car indicated that the lack of congestion on the state's highways was a key positive factor.

One outcome of this process is the DOT's high-priority commitment to highway maintenance and rehabilitation to promote the state's tourism industry. Five specific tourism recommendations have been defined for WisDOT planning practices (*Economic Development and the State Trunk Highway System* 1998):

1. Provide attractive and adequate bridge infrastructure design and aesthetics; that is, lighting and design, and shoulder and sidewalk design for bikes, pedestrians, and snowmobiles.
2. Improve market-related linkages between tourists and destinations.
3. Establish working relationship with industries, businesses, chambers of commerce, municipalities, and local development organizations to better understand transportation-related economic development issues and address these issues through the planning process.
4. Provide planning coordination and technical assistance to municipalities, business associations, and local and regional planning organizations for the development and implementation of land-use plans for economic development projects.
5. Identify and forecast economic activity on or near the highway transportation corridor for district offices, municipalities, planners, and economic development organizations.

Case Study of State DOT Support for Tourism: New Jersey's Long-Range Plan Update

The NJDOT's "Transportation Choices: 2025 Long-Range Plan Update" (2001) articulated an explicit goal of New Jersey's transportation planning activities: "to promote economic development vis a vis stimulating tourism."

The plan provides for NJDOT to rate the state's transportation system performance with predefined metrics to gauge how specific goals and desired outcomes are being fulfilled. A goal to promote economic development uses the metric of the number of dollars and projects that support tourism. The plan update also articulates another NJDOT goal, consistent with the Governor's Vision and the State Development–Redevelopment Plan—to continue to implement a program of demonstration grants for eco-tourism.

A travel–tourism issue group exists within the DOT to provide specific focus on the New Jersey shore and south Jersey. Recent projects identified included the following:

- Summer recreational transit system with park-n-ride lots and jitneys (see case study under '"Data Analysis and Evaluation" for Gateway National Recreation Area);
- Shuttle connection between Atlantic City, rail station, and airport;
- Improved signage—aesthetics and content;
- More welcome centers offering alternative routings and real-time information;
- More promotion of existing interstate bus service; and
- Bike lanes for intracity trips.

Critical areas identified for recreation travel statewide included:

- Data collection and modeling techniques to be adapted;
- Corridor plans, typically developed using journey-to-work data, to be revised;
- DOT should proactively tie transportation improvement program (TIP) to opportunities to bring new tourism and recreation attractions to areas that have few other viable economic options; and
- More efficient management of existing transportation resources in areas such as Cape May and Atlantic City, where there is little room to build extra capacity.

The scenic byway program is an emerging initiative for the NJDOT. The program is structured with an interdepartmental steering committee to ensure that the state's development and conservation objectives, as well as transportation requirements, are integrated with scenic byway development.

FORMS OF MULTI-AGENCY COORDINATION

Classification of Coordination Relationships

Active multi-agency working relationships, spanning tourism and transportation agencies, are becoming common. All state and regional agencies responding to the survey reported that they have some working relationship with other agencies regarding tourism and transportation issues. Fully two-thirds reported that there is some type of formal structure to their collaboration.

The nature of these formal collaborations varies, but can be classified into three stages in the development and maturation of interagency working relationships.

- Category 1—initial relationships that represent ad hoc or project-specific coordination;
- Category 2—developing relationships that represent formal interagency working structures, although the coordination may actually be infrequent or low level; and
- Category 3—maturation of relationships in which there are formal, ongoing, and/or continuous processes for interagency coordination.

Survey results indicated that most cases still fall into the first category, although the second and third categories illustrate the path toward development of deeper and stronger coordination processes. Overall, 64% of the respondents reported coordination on a project-specific or ad hoc basis for specific situations (Category 1). The remaining respondents reported that they have been formally involved in broader interagency coordination of goals and programs, although they were evenly split between those that have meetings or other coordination activities on an infrequent basis (Category 2) and those that have an ongoing and/or continuous process for coordinating transportation planning and tourism planning (Category 3). These findings hold for both transportation and tourism and recreation agencies at state and regional levels.

The surveyed agencies reported a wide range of interagency cooperation arrangements among various combinations of stakeholders, including state agencies (transportation departments, tourism organizations, and parks departments), federal agencies (U.S.DOT, NPS, and BLM), regional organizations (MPO or RPA), and local private-sector organizations (chambers of commerce, etc.). The leadership role was reported to be most frequently in the hands of the state transportation department or the state tourism or parks department. The DOTs were most likely to have the funding and hence have veto power over decision making. RPAs, chambers of commerce, and private-sector organizations were most likely to play supporting, advisory roles.

Although all of the state transportation agencies reported some involvement in tourism and recreation travel planning, their roles vary from state to state. For example, state DOTs reported playing an advisory role in tourism planning in Kentucky, Oregon, and Vermont, whereas states such as Colorado take a more formal lead role in tourism travel planning. In the District of Columbia and West Virginia the DOT also assumes the lead in identifying transportation resource needs associated with future expectations for tourism–travel growth. There is more evenly shared leadership in tourism–travel planning among state transportation and tourism agencies in Maine and Vermont, whereas WisDOT shares the function of tourism–travel planning with the state tourism agency and also MPOs. The Pennsylvania DOT (PennDOT) also teams with MPOs and chambers of commerce to address these issues, whereas the Kentucky DOT shares this function with seven MPOs in urban areas and area development districts in nonurban areas. A private-sector group takes the lead in monitoring future tourism–travel potential in Georgia. In Florida, the DOT (FDOT) partners with other state agencies to support economic development, including tourism, in rural areas through the Rural Economic Development Initiative. FDOT has contributed by installing logo and guide signs pertaining to historic and eco-heritage sites. Areas where FDOT assumes the lead in defining relevant policy pertain to outdoor advertising, signage for the state highway system, and the Logo Sign Program. FDOT is involved with each phase of a tourism–travel-related project, from funding to planning and design to implementation and construction. The ongoing operation

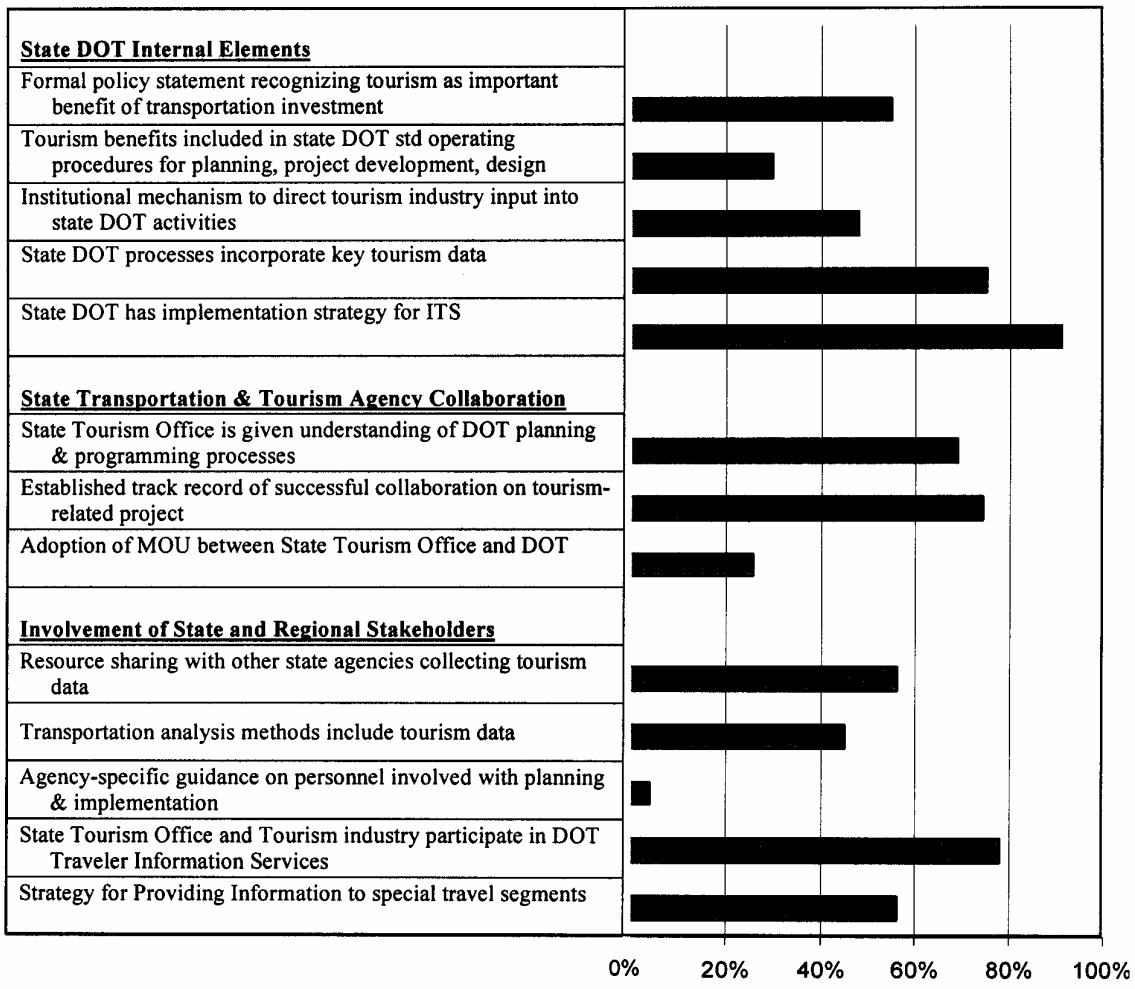

FIGURE 3 State DOT implementation of multi-agency collaboration elements (percentage of respondents reporting that each element is now in-place or underway).

of a complete tourism–travel facility/service is often shared with "VisitFlorida," the official tourism marketing corporation of Florida.

Elements of Successful Collaboration

An earlier study, *NCHRP Report 419: Tourism Travel and Transportation System Development* (Frechtling et al. 1998), identified 13 elements deemed crucial to the success of multi-agency coordination on the tourism–travel–transportation planning front (see Figure 3). Some of these elements pertain to state DOTs, some speak to other state agencies, and others apply to the broader set of relevant stakeholders in the collaboration process. The survey revisited these recommended elements 4 years later to gauge the extent to which DOTs and other stakeholder organizations have put these recommendations into effect. It shows that some of these elements have been put into place (or are being implemented) by a majority of the responding state DOTs. They are (ranked in order of frequency): (1) the ability to factor in and use tourism data, (2) application of ITS strategies, (3) collaboration with the tourism industry in traveler information systems, (4) working understandings between the DOT and the state tourism office, and (5) a track record of some successful project collaborations.

States such as Montana, West Virginia, and Wisconsin stand out as models that have almost all of these elements already in place. A much broader set of state DOTs have already implemented at least some of these elements, including

- Formal policy statements recognizing tourism as an important benefit of transportation investment, in New Jersey, Pennsylvania, and Wisconsin.
- Tourism benefits included in state DOT standard operating procedures for planning, project development, design, and maintenance, in Pennsylvania and West Virginia.

- Institutional mechanisms to direct tourism industry input into state DOT activities, in the District of Columbia, Florida, Montana, New Jersey, Pennsylvania, West Virginia, and Wisconsin.
- State DOT processes to incorporate key tourism data in Montana, New Jersey, Pennsylvania, West Virginia, and Wisconsin.
- State DOT implementation strategies for applying ITS for visitor information in Florida, New Jersey, Pennsylvania, West Virginia, and Wisconsin. Other states currently working on strategies for ITS implementation include Maine, Mississippi, North Dakota, Tennessee, and Virginia.

The ability to draw on an established record of successful collaboration in developing tourism-serving transportation projects is another element in the joint planning process that many states attested to in their survey responses. This included the transportation departments in Arkansas, California, Colorado, District of Columbia, Florida, Maine, Montana, New Jersey, Oregon, Pennsylvania, Tennessee, Vermont, and West Virginia. Additional collaborations were reported by the tourism offices and commerce departments of states including Alaska, Illinois, and Montana.

The range of ways in which multiple agencies can coordinate to address transportation and tourism or recreation needs is described here in four detailed case studies, illustrating both broad ongoing processes and specific targeted efforts. These are followed by brief descriptions of 13 other relevant examples on multi-agency coordination. Each of these examples reinforces the study finding that a critical element of successful interagency coordination is to establish a formal process to develop, guide, and maintain that coordination.

Case Study of Multi-Agency Coordination: Montana Tourism Recreation Initiative (MTRI)

The MTRI was formed in December 2000 by the Montana governor's office. It represents a multi-agency cooperative agreement bound by an MOU between 12 state and 6 federal agencies. The participating agencies were Commerce; Transportation; Fish, Wildlife, and Parks; Governor's Office; Natural Resources and Conservation; Historical Society; Lewis and Clark Bicentennial Commission; Montana State University Extension; Tourism Advisory Council; University of Montana—Institute for Tourism and Recreation Research; Montana Heritage Preservation and Development Commission; and the Montana Arts Council (joined spring 2002). The participating federal agencies were BLM, Bureau of Reclamation, NPS, U.S. Fish and Wildlife Service, U.S. Department of Agriculture Forest Service, and the U.S. Army Corps of Engineers.

The means to achieving its mandate as stated in the MOU is "by sharing information and combining time, funding, and other resources, MTRI provides a vehicle for coordinated government sector projects." The MOU sets out a structure to guide the activities undertaken by the MTRI. The Montana Department of Commerce's Travel Promotion Division administers the initiative. Management of project-specific tasks will be arranged through assistance agreements or, if need be, separate contracts when the transfer of funds, services, or property is involved between agencies. Participation is predominantly staff from state and federal organizations. Local government and private-sector interests will be invited on a project-by-project basis or if an interest is expressed and a commitment demonstrated. The four areas of focus are (1) resource protection and enhancement, (2) public information, (3) communications, and (4) planning.

The communications element is a commitment to interagency training and education programs associated with cultural and natural resources management, public relations, tourism promotion, and other topics, and is open to employees from each member agency. It states that MTRI will work on the development of an interagency network system to share reports, memos, data, and other information vital to the collaboration. In addition to the formal interaction, participating parties report that some of the best successes for tourism in transportation planning implementation have been the result of more frequent informal communications between agency staffs.

Case Study of Multi-Agency Cooperation: Washington, D.C., Greenways

The National Capital Region Transportation Planning Board (TPB) is the federally designated MPO for the Washington, D.C., region and is staffed by the Metropolitan Washington Council of Governments. It undertook a planning process to address two important but overlooked aspects of the TPB's 1998 visioning policy. The result of this successful planning process is documented in the TPB's report "Priorities 2000," which describes the final selection of greenways and circulation system projects that were later endorsed by the TPB board. Although these projects primarily focus on improving the livability of communities (improving commuter access and quality of life for area residents), the process involved to address which greenways and circulation projects would be viable for the TPB to implement over the next few years was so successful that the organization is now using it as a model on other planning issues.

The planning process was funded through a matching grant from the FHWA for Transportation and Community and System Preservation Pilot Programs and local funds.

Part of the funding was set aside for an evaluation of how the planning process performed. The process followed four steps: (1) adopt a project-focused approach and draw on existing project ideas, (2) involve elected officials, (3) allow stakeholders to steer the project selection process, and (4) develop a well-designed final product.

The involvement of elected officials was considered to be significant because it imparts an importance to, and increases participation in, committee meetings. A clear set of objectives, a process that was easy to understand and manage, and a reasonable commitment for participation (four 2-h lunch-time meetings) made committee participation successful.

Stakeholder committees were formed for the greenways and circulation system planning. Each of these committees was chaired by a TPB board member and included 20 stakeholders from the region, comprised of elected officials and other agency representatives from planning, transportation, public works, advocacy groups, citizens' groups, and the business association. Although MPOs have often been involved with advocating regional policy, the TPB's process has been seen as a success in regional implementation ("An Evaluation of . . ." 2001).

Case Study of Project-Oriented Multi-Agency Cooperation: SAFECO Field Transportation Management Plan

SAFECO Field opened in 1999 as the new home for the Seattle Mariners baseball franchise. Seating capacity was set for 45,000, which was deemed to be the optimal size by current ballpark design standards and would serve to cap demand throughout the season. Replacing the Kingdome, which experienced wide swings in attendance at its 65,000 seat facility, SAFECO Field has sold out for its first 3 years and has had more traffic impacts than originally anticipated. Although the Washington State Department of Conservation and Land Use granted the Master Use Permit allowing for development of the facility, the Seattle DOT stipulated that the developer and franchise must produce an annual transportation management plan (TMP) to achieve a desired outcome pertaining to the number of vehicles per 1,000 attendees (not to exceed 3,000 vehicles per 10,000 attendees). Traffic in excess of this target would require the franchise to subsidize bus service to and from the ballpark. The TMP must also address transportation issues around scheduled special events at SAFECO Field.

A Parking and Access Review Committee was formed at the start of operations, comprised of stadium officials, city police, the Seattle DOT, and citizen's councils, to review and authorize, at monthly meetings, the proposed TMP, monitor its progress, and handle issues regarding special events. Because the Seattle DOT is aware that catastrophic congestion can result if a day game ends during the peak evening commute, the DOT also regulates the number of day games the Mariners can play at home (6 games) and the starting times of those games.

Transportation management strategies in the current plan include

- Information resources and attendee education (parking guide, call center, web page, neighborhood communications, port communications, and other publicity),
- Pedestrian improvements (pedestrian connections and railroad crossing),
- High-occupancy vehicle incentives,
- Transit service (with MetroTransit and Sounder Transit),
- Bicycle facilities,
- Parking management (on- and off-site and passenger loading zones),
- Traffic flow improvements (traffic control, signals, and signage),
- Event management, and
- Evaluation techniques (attendee survey).

Analysis supporting the plan's management strategies includes game ingress and egress trip distribution, and pedestrian flows.

The current TMP is the Mariner's fifth such plan (valid for March 2003 to March 2004). It is updated by the Mariner's director of transportation. All prior plans have been successful in meeting goals set for vehicles/thousand attendees. The current plan must factor in temporary disruptions in stadium access related to Washington State DOT construction. It also is poised to address how other modal developments (ferry holding project, potential cutbacks in public transit) and private development in the adjacent neighborhoods add to congestion and affect access to the ballpark. The plan states that "the long-term goal of the transportation planning process is to change public behaviors in anticipation of the changes that are already in process or in planning to lessen the traffic impacts associated with stadium attendees."

Case Study of Multi-Agency Cooperation: New Hampshire's Route 16 Corridor

The Route 16 corridor is a congested mountain route serving a concentration of ski and summer resorts, outlet shopping, and related centers of restaurant and retail activity. In response to a corridor protection plan developed by the New Hampshire DOT in 1999, a multijurisdictional effort was created to address local concerns pertaining to some of the projects in the STIP. These concerns focused on land-use, safety, and capacity issues for three towns. These towns, Albany, Madison, and Tamworth, along with the Lake Region Planning Council, the North Country Coun-

cil, and New Hampshire DOT representatives worked on a public participation process to establish consensus and provide meaningful recommendations to how the Route 16 projects should proceed. This regional undertaking was funded and supported by the New Hampshire DOT, U.S.DOT, FHWA, and the two local planning councils.

Other Examples of Ongoing and Continuous Interagency Coordination

- The North Dakota DOT has an integrated and continuous process working together with the U.S.DOT, state tourism office, state game and fish department, and the state historical society.
- PennDOT has an integrated and continuous process working together with the U.S.DOT, U.S. Park Service, state tourism office, state department of parks, and various regional agencies serving tourism interests (such as the Route 6 Association).
- Alaska's Office of Tourism shares a lead role with the state DOT in defining relevant policy, project implementation, and facility operations concerning tourism travel issues. The Alaska DOT leads in areas concerning funding and planning and design.
- The Oregon DOT developed a Scenic Byways Program with a broad base of partnering down to the city and county level through the Association of Oregon Counties and the League of Oregon Cities. This is in addition to working with the U.S.DOT, BLM, state tourism office, and state convention and visitors bureau.
- The District of Columbia DOT has a key tourism stakeholder group that meets monthly or more frequently as projects and issues arise. This group involves the National Capital Planning Commission, Downtown Business Improvement District, District of Columbia Office of Planning, Heritage Council of D.C., Washington Convention and Tourism Corporation, and District of Columbia Chamber of Commerce. A larger stakeholders group including corporate members is also informed of progress and needs defined within the tourism stakeholder group at critical points in project planning.
- The South Jersey Transportation Planning Organization has an integrated and continuous process working together with the state DOT, U.S.DOT, New Jersey Chamber of Commerce, and private-sector groups.
- The Federal Lands Highway Program's (FLHP) western office has a formal, policy-mandated process to guide its interactions with other tourism–recreation and transportation entities including state departments of parks, state tourism offices, U.S.DOT, NPS, BLM, U.S. Forest Service, and regional agencies. The FLHP TIP must be integrated into the TIPs of MPOs and state DOTs within the FLHP's regional office jurisdiction.

Other Examples of Project-Driven Interagency Coordination

- The Clapstop Shuttle System, serving Glacier National Park, was developed by joint efforts of the FLHP's western office, Glacier National Park, and the Sun Road Steering Committee.
- In late 2000, the Texas Parks and Wildlife Department and the Texas DOT developed an MOU with the state department of economic development, state commission on the arts, and state historical commission. The agreement is to cooperate and coordinate in the marketing and promotion of Texas as a premier travel destination and to provide services to travelers. The MOU specifically assigns the operation and funding of visitor information centers and the prime responsibility for the fulfillment of consumer travel literature requests to the Texas DOT.
- The New Hampshire Travel and Tourism Department has a defined process for bringing together relevant groups on a project-specific basis. This includes the U.S.DOT, state DOT, regional agencies including the chamber of commerce, planning commissions, local tourism offices, BLM, state parks department, Rails and Trails, Granite State Ambassadors (a nonprofit visitor information training group), New Hampshire Forests and Lands, New Hampshire Department of Agriculture, New Hampshire Cultural Resources, and New Hampshire Cultural Byways.
- The Coastal Georgia Regional Development Center in establishing the Tri-State Rural Corridor created an innovative planning process to be undertaken by agencies and interests in Florida, Georgia, and South Carolina. It required the cooperation and coordination of goals and efforts involving private-sector groups, chambers of commerce, state DOTs, state tourism offices, and RPAs.
- The New Hampshire Division of Travel and Tourism, Maine DOT, and Vermont Agency for Transportation also worked together on the "TRIO," a tri-state ITS program.
- Other examples of multi-agency coordination are provided by detailed case studies of Acadia National Park in Maine and Red Rocks State Park in Arizona, which are presented in the discussion of project solutions at the end of this chapter.

Funding Priorities

Approximately two-thirds (64%) of the agencies responding to the survey reported that tourism and recreation are currently of major importance for the state economy. That

motivation supports the case for funding tourism transportation, and often there are clear guidelines for the evaluation of spending on tourism-serving projects. Among the surveyed state transportation departments, nearly one-half (48%) reported that they evaluated proposed projects on a case-by-case basis, whereas 43% reported that they had "informal" guidelines, and 9% (including Alaska and Wisconsin) reported that they had formally mandated guidelines. Many other state DOTs have funds set aside for scenic byways, welcome centers, and traveler information centers (see preceding case study of WisDOT).

Surveyed organizations were also asked to provide examples of tourism–travel-related projects (completed or in progress) and the types of funding involved. The results, obtained for 61 projects, show a great range of project types and funding combinations. The most commonly reported projects in this sample are welcome centers, visitor information centers, highways, and scenic byways. Except for visitor information and welcome centers, more than two-thirds of the projects were funded entirely or partially with federal TEA-21 money. These included most of the highway, scenic byway, recreation trails, transit, signage, and infrastructure projects. The projects that relied heavily on state and local funding (rather than federal funding) were visitor information and welcome centers.

Many individual projects involve the combinations of funds from a variety of sources, including federal, state, local, and the private-sector. The following are examples of funding packages for specific projects that combined a variety of these sources.

- Alaska Office of Tourism—Two trails projects, the Copper River Trail and the Southeast Alaska Trail System, used funding sources, including TEA-21 and other federal sources, and state, local, private-sector, and grant funding.
- California DOT—The state legislature requires that 25% of DOT funding go toward the interregional and statewide movement of people and goods, including recreational travel.
- Adirondack/Glens Falls Transportation Council—Lake George Traffic Management Strategies relied on funding from TEA-21 and local government sources.
- Coastal Georgia Regional Development Center—Tri-State Rural Corridor US-17/SR A1A relied on Economic Development Administration (EDA) funding for planning and implementation.
- Virginia I-81 511 ITS implementation—VDOT partnered with Virginia Tech's state-funded Transportation Institute, Shenandoah Telecomm, and the state police.
- District of Columbia DOT—Combined TEA-21 and local government funds for a variety of projects including heritage trail development, transit support, signage, and streetscape improvement.
- Funding for other projects that also involved multiple funding sources, such as Acadia National Park's Island Explorer regional transit system, are discussed later in this chapter.

DATA ANALYSIS AND EVALUATION

The use of tourism-related travel data is one reflection of the way in which transportation planners can incorporate tourism issues into their forecasting, planning, prioritization, and design processes. State DOTs and other agencies were asked about the nature of their tourism travel data, how they use it, what limitations exist in the data, and what kind of additional data would be most useful to obtain. Overall, 42% of the state DOTS and 54% of the other agencies reported that they regularly make use of tourism travel forecasts. Among the state DOTs that do make use of tourism forecasts, the dominant use is for transportation planning. Among other agencies, the dominant use is for tourism marketing.

State DOTs were asked about the specific types of current tourism data that they use in their agency's planning activities and their assessment of the quality of currently available data. The survey results, shown in Table 2, confirm the broad use of tourism data, but also the need for more complete data. The most widely requested forms of additional data are tourism origin–destination patterns, followed by tourism visitor traffic counts and tourism industry employment data. Several state DOTs also cited needs for seasonal adjustments and finer geographic breakdowns in tourism projections.

Three case studies illustrate the application of tourism data in transportation needs forecasting and analysis. Additional applications of tourism data analysis for program planning and evaluation are then also briefly described for four additional states.

Case Study of Data Analysis: Utah DOT Transportation Modeling for the 2002 Winter Olympic Games

To prepare the Park City, Utah, area for the influx of visitors to the Winter Olympic Games, the Utah DOT and the Salt Lake City Olympic Committee commissioned an analysis of the existing transportation system. Of interest was determining the extent of potential congestion to all users of a single critical corridor running between Salt Lake City and Park City—the segment of I-80 eastbound between I-215 and US-40. This corridor has several physical road characteristics that combined with the current mix of commercial vehicles and the anticipated 30,000 to

TABLE 2
AVAILABILITY AND QUALITY OF TOURISM DATA USED BY TRANSPORTATION AGENCY

Type of Data	State DOTs reporting that available tourism data are:			
	Complete (%)	Partial (%)	Unavailable (%)	Total (%)
Tourists entering/leaving the state	25	45	30	100
O–D patterns	5	65	30	100
Visits to recreation sites	11	67	22	100
Tourism—sales by region	21	37	42	100
Tourism—fees (tolls, entrance fees)	11	44	44	100
Tourism—related employment	16	58	26	100

Notes: O–D = origin–destination.
(*Source*: Responses to survey of state transportation departments.)

50,000 Olympics spectators traveling the route, made design of travel demand management strategies imperative.

The analysis used the CORSIM travel forecasting simulation model and required that model inputs be developed specifying Olympics-related peak-period traffic volumes. Assumptions were also shaped to address arrival time distribution, roadway system distribution, background traffic reduction (10% in commuter travel), vehicle occupancy, and transit ridership. Results of the traffic modeling served to (1) identify areas of potential congestion, which were publicized to key agencies and the traveling public; (2) propose and test alternative solutions to alleviate identified potential bottlenecks; and (3) estimate travel time, which could be published for visitors to the Olympic venues. All results went through a sensitivity testing of these assumptions. Most critical were the role of the spike in visitor arrivals and roadway distribution.

The travel forecasting model addressed three planning levels: (1) the Olympic global level, (2) the corridor level, and (3) the interchange/intersection level. Analysis at each of these levels was for the purposes of addressing different issues. From the Olympic global level, the Salt Lake City Olympic Committee published a transportation guidebook for all Olympic-related travelers, as well as the local traveling public, listing travel time trip tables for different trip segments. Public meetings and local television news reports assisted in illustrating the congestion consequences of unmanaged traffic during the Games. The corridor-level analysis tested ways to reduce congestion and improve travel time through a critical 20-mile stretch of the corridor. The decision was to campaign for a reduction in truck volumes in the peak direction during peak travel periods to and from Olympic venues. Because the modeling also showed the implications of losing a single lane out of three as the result of accidents or disabled vehicles, it was decided that the number of tow trucks patrolling the route should be increased. The analysis at the interchange/intersection level pointed toward numerous infrastructure and traffic control improvements.

Actual traffic counts, venue arrival times, transit ridership, and vehicle occupancy were recorded during the Games and compared with the forecasts and assumptions made as inputs to the CORSIM modeling and the ensuing results. Roadway distribution was close to what was assumed. Transit ridership was 10% as opposed to 5%, the sought after 70% reduction in truck volume was 55%, vehicle occupancy was slightly lower than expected, and the background traffic reduction was six times more pronounced than initially hoped for. The transportation modeling helped inform and define strategies to manage travel demand, and the result was a well-functioning transportation system during the Olympic Games.

Case Study of Data Analysis: Monmouth County (New Jersey) Modeling of Feeder Bus Service for Gateway National Recreation Area

Sandy Hook Park, also known as the Gateway National Recreation Area (a national park), needed a solution to handle automobile traffic congestion that closes the parking lots long before the recreational area's capacity is full. Visitors are turned away because there are few options for parking elsewhere. In addition, the one major route into the park (State Highway 36) is heavily congested.

The goal of the modeling research was to maximize ridership on a public transit route between the Red Bank transfer rail station on the North Jersey Coast Line (operated by the NJ Transit Corporation) and Sandy Hook at minimum cost to users and transit providers, given certain constraints (e.g., route limitations, train schedules, bus availability, service capacity, and budget).

The model result as applied to Sandy Hook Park showed that feeder bus service would eliminate 200 daily vehicle trips into the park (600 visitors), resulting in less congestion and reduced tail pipe emissions. The model also identified optimal operational parameters for the type of transit service to be provided. This work indicated that bus service to the recreation area is both feasible and cost-effective.

It is also worth noting that other congestion-mitigation solutions underway for Sandy Hook include a multi-use trail for bicycles and pedestrians, made possible with federal funds, and a new ferry dock for use by all regional ferry operators.

Case Study of Data Analysis: Central Florida's Regional Study of Tourism and Commuter Trips

This study was undertaken by the FDOT District 5 office (covering the Orlando region) to develop the data and models needed to provide more accurate forecasts of non-resident travel to central Florida. The goal was to produce more policy-sensitive forecasts to inform ongoing transportation planning efforts. The existing Florida Standard Urban Transportation Model Structure would be augmented to include the more detailed dynamics of trip generation and allocation by visitors to a region. Model validation and calibration was accomplished by testing data collected through a survey of visitors to the Orlando area on the Orlando Urban Area Transportation Structure.

The model was refined to distinguish three tourist trip purposes: Disney tourist (Disney to and from hotel or motel), Disney resident (Disney to and from homes in the Orlando area), and Disney external/internal (Disney to and from external stations.) The study was successfully completed, with both the Orlando Urban Area Transportation Structure and FDOT District 5 district-wide model incorporating the results into the transportation planning. Additional attraction-oriented trip generation was also considered for Universal Studios and Orlando International Airport.

Other Examples of Data Analysis: Program Planning and Evaluation

- FDOT conducted a satisfaction survey of visitors to rate the state's transportation system. With the assistance of "VisitFlorida" (formerly the Division of Tourism contained within the Department of Commerce), FDOT obtained 402 telephone interviews with U.S. adults who visited Florida in 2000. The survey was augmented with the responses of international visitors arriving at a Florida airport, using the U.S. Department of Commerce's survey of international visitors. Among the airport attributes evaluated, access to the airport and ground transportation were ranked relative to other U.S. airports. The majority of the survey focused on the performance of and the experience of traveling on the state's highway systems. Topics where opinions were solicited included signage, road quality, connectivity, travel times, access, levels of congestion, roadside facilities, safety, and pedestrian and bicycling facilities.
- PennDOT's Division of Communication and Customer Relations has staged visitor information center focus groups at three locations around the state. This is designed to gather feedback from a diversity of users, as well as to collect feedback from traveler support organizations (such as the American Automobile Association) and the travel lodging industries. Since 1995, PennDOT has also conducted an annual survey of customer satisfaction with regard to visitor information centers, signage, snow removal, and litter and debris removal. The state DOT also reviews the results of a biannual regional workshop organized by the state Department of Community and Economic Development. These workshops collect the objectives and concerns of tourism agencies and tourism industry stakeholders throughout the state.
- Montana's tourism agency, Travel Montana, relies on an annual forecast of tourist travel developed by the Institute for Tourism and Recreation Research at the University of Montana in Missoula for the purposes of marketing and tourism–recreation planning. Forecast data are resurveyed roughly every 5 years. Other states also rely on university research centers for tourism data.
- The New Hampshire Division of Travel and Tourism conducts a formal evaluation of their collaborative planning process. This evaluation takes place on an annual basis as the DOT's Tourism Advisory Committee prepares for the DOT's Annual Report.

PROJECT SOLUTIONS

All of the previously cited agency directives, multi-agency cooperative arrangements, and data analysis processes are directed at addressing existing and anticipated future tourism and recreation travel needs. The outcomes ultimately lead to the development of capital projects and support programs to serve tourism and recreation travelers. Survey results, previously shown in Figure 1, showed the areas of interest to state DOTs and other agencies. These results, together with findings from the literature review, additional survey questions, and case studies lead us to classify the various project solutions into the following four categories:

- Travel routes and facilities that are also visitor attractions—Scenic byways (automobile), eco-tourism, heritage trails (including bicycle and pedestrian facilities), and rehabilitation of historic transportation facilities into visitor attractions;
- Access facilities and services—Land and water shuttle services, 511 traveler information services, non-auto-based multi-modal tour package development, and TMP;
- Traveler information—Signage, variable messaging systems, visitor information and welcome centers, ITS, visitor publications, websites, and information kiosks; and
- Operational and aesthetic improvements—Streetscape improvements, transportation facilities improvements, research data, and analysis model improvements.

Separate sets of profiles focus on various forms of shuttle and transit services to serve visitors to tourism and recreation areas; tourism and recreation trails, tour routes, and scenic byways; and Internet, hard-copy publications, and telephone-based tourism and traveler information services. These profiles are followed by examples of other types of projects contained elsewhere in surveys and case studies in this document.

Profiles of Tourism Transportation Projects: Transit Solutions

- Acadia's Island Explorer shuttle service (implemented in 1998) was made possible through a partnership of Acadia National Park management with the Maine DOT (through the Regional Transportation Advisory Committee), the League of Towns, the Friends of Acadia, a local business group, and transportation providers to define and design a regional transit solution to increasing automobile congestion related to park visitors moving to and from the mainland. Multiple sources of funding including NPS, FHWA, FTA, Maine DOT, and local sources have supported this project from its inception. New sponsors are always being sought for ongoing operational expenses and the expansion of service as needed. The propane-powered shuttles provide service along seven routes to town and park destinations on Mt. Desert Island, the nearby coastal communities, and other islands.
- Glacier Park's refurbished red shuttle buses were the recent effort of a major automobile manufacturer. Thirty-two vehicles from among the depression-era fleet were overhauled and refit for propane-driven engines and are now available for shuttling visitors through the park. This was accomplished through a partnership of the National Park Foundation, Glacier National Park, and this automobile company.

  It is notable that this automobile company is also providing sponsorship of pilot projects in other national parks including Yosemite, Point Reyes, Joshua Tree, Great Smokey Mountains, and ferry shuttle service at the Gateway National Recreation Area in New Jersey. Other existing shuttle programs include Bryce Canyon, Zion National Park, Yosemite, and Golden Gate Park.
- The Sedona Shuttle Feasibility and Funding Strategy was developed in a final plan recommended to the city of Sedona in early 2003. The feasibility study grew out of an initial effort by the city, Yavapai and Coconino counties, the Coconino National Forest, the Northern Arizona Council of Governments, the Community Transportation Association of America, and the Arizona DOT to develop transit solutions for mitigating automobile congestion related to the influx of visitors to the Red Rocks area in Oak Creek Canyon. A transit solution was envisioned that would serve both area residents and visitors. A key recommendation from the study is that the combination of appropriate investment with policies and restrictions (pertaining to parking restrictions, incentives to use transit, and disincentives for bringing cars into the specific areas) would be a strong determinant of transit ridership and therefore the success of the shuttle system.

  A funding matrix was constructed, drawing together possible funding mechanisms, outlining total funds available, lead time to secure funding, eligibility requirements, and the potential yield towards the project's initial costs (capital and operational). Sources proposed included local mechanisms (taxes, impact fees, private donations, shuttle fare revenue, and lottery allotment), Arizona DOT local transportation assistance funds, FTA Rural Transit Assistance, and TEA-21 funding (Public Lands Highway Program, Forest Highways Program, Transportation and Community and System Preservation Pilot Program, and Jobs Access Reverse Commute Program). The initial proposed fare of $1 per trip, which includes the recommended discount incentives, would cover 19% of the initial operating costs. The anticipated vehicle reduction as a result of attaining ridership goals attached to the maximum service plan would be 740 vehicles per day, which at a minimum would decrease the growth in congestion and perhaps reduce traffic volume into the area while protecting air quality and quality of life for the area's residents and visitors.
- Downtown D.C. circulator bus proposal, a new shuttle service, is being proposed to connect the downtown, the National Mall, the U.S. Capitol, and Union Station. The need for this service is based on a desire to reduce tour bus congestion and parking problems, make the downtown more accessible, and provide for convenient mobility around the city. Existing public transit options are sufficient for moving people into and out of the city (MetroRail and MetroBus). It is believed that better access to the downtown would also help to support new, growing retail districts and recapture millions of dollars in visitor spending that currently gets spent outside of the area owing to access constraints and limited visitor-oriented retail and services. The ridership estimate is approximately 9,000 visitors per day attending the many and varied attractions along the National Mall and the downtown.

  The plan currently has two proposed routes and service is modeled on other successful downtown circulator programs in use elsewhere in the country. The goal was to introduce a pilot program in 2003 (when

major downtown visitor-oriented projects were to be finished) and expand the service in 2005. Partners for this project include the Downtown D.C. Business Improvement District, the District Division of Transportation, Architect of the Capitol, General Services Administration, Metropolitan Washington Council of Governments, National Capital Planning Commission, Union Station Redevelopment Corporation, and Washington Metropolitan Area Transit Authority. These partners are bound by an MOU. The estimated cost of the project is $11.9 million for capital acquisition and $6 million for annual operations. Funding procurement is underway and the project has been endorsed by the mayor's office [listed as a priority project in Action Agenda for New Millennium (2000) and the D.C. Six-Year Strategic Transportation Investment Plan (1997)], the D.C. City Council, and by the National Capital Planning Commissions.

- Anna Maria Island, with assistance from the FDOT Office of Modal Development, has implemented shuttle trolley service. Funding for this project came from state (transit corridor program), local, and private sources. The planning process was collaborative, involving state and local transportation and economic development agency representation. Coordination for the project's development has been with the MPO. The marketing for the new service has been the role of tourism groups, area merchants, and hotels. Tourism concerns were key in the project approval. Fort Myers Beach has long-established shuttle service, and South Beach in Miami is working to implement shuttle service.
- FDOT District 5 has been planning the Central Florida Light Rail System for the past 5 years. This system would carry visitors to several major attractions located along the I-4 corridor. The MPO, transit agency (LYNX), local government, and stakeholder groups drawn from area businesses, theme parks, tourist agencies, and the public have been involved in FDOT's planning for this system. FDOT's investment to date of $20 million has been directed to rail planning and environmental issues and is also being used to study the feasibility of an I-4 Corridor Circulator System and rail transit between the Orlando International Airport and the Convention Center.

Profiles of Tourism Transportation Projects: Trails and Tours

- Texas Birding and Wildlife Trails—The Texas Birding and Wildlife Trail Program got underway with the development of the Great Coastal Birding Trail that runs the along the Texas coast from Louisiana to Mexico and connects more than 300 different birding locations. The project began in 1993, with the first site opened in 1994 and the last site completed in 1999. The Texas DOT was instrumental in obtaining Transportation Enhancement funds under ISTEA for this first project, and provided the 20% in matching funds. The success of the birding trail has prompted the Texas Wildlife and Parks Department and local partners to develop the Great Texas Wildlife Trail using Transportation Enhancement funds available under TEA-21 (awarded in early 2001), with the remaining 20% coming from the Texas Wildlife and Parks Department and local communities. Several more trails are underway—Piney Woods and the Prairie Wildlife Trails received TEA-21 funding in early 2002, and two subsequent trail proposals (Heart of Texas and the High Plains Trails) have been approved by the Texas DOT.
- D.C. Heritage Tours and Trails—A citywide system of D.C. Heritage Trails is under development through the combined efforts of the D.C. Heritage Tourism Council; D.C. Business Improvement District; the District Division of Transportation; U.S.DOT, neighborhood partners; Historical Society of Washington, D.C.; and D.C. Department of Housing and Community Development. Two walking tours have already been launched—the Civil War to Civil Rights Trail (comprised of three loops with easy Metrorail access) and the City within a City Trail, located in the U Street/Shaw neighborhood. Each trail is marked by distinctive 6-ft-tall interpretative markers developed through research by historians focused on the specific neighborhoods. Free pocket-sized guidebooks are available at select neighborhood merchant locations.

  The Heritage Coalition has been the catalyst and manager of the trail program implementation. The process starts with grassroots interest in defining a signature tour theme of the neighborhood. Funding for the trails program comes from the Transportation Enhancement program under TEA-21 and matching funds from the District Division of Transportation. Funds cover streetscape improvements, development of interpretative markers, and visitor information related to the trails.
- Crowley's Ridge Scenic Byway—The northeast corner of Arkansas can now boast of the 198-mile Crowley's Ridge Parkway. The impetus for this road's dedication as a State (1997) and then National Scenic Byway (1998) was the realization that rural economic development could be ignited with tourism development, effective promotion, and roadway facilities investment.

  This stretch of Crowley's Ridge in Arkansas links five state parks, one national forest, Arkansas State University (ASU), numerous recreational assets, and the new Hemingway–Pfeiffer Museum and Educa-

tional Center. The museum also serves as the visitor information center at the northern end of the scenic byway and was envisioned by ASU Community Development professor Dr. Ruth Hawkins, who also is responsible for the grassroots efforts to apply for state and national designation. The museum adds a cultural attraction that was needed to "anchor" the northern end of the scenic byway in the town of Piggott. The museum has attracted grant dollars from the Institute of Museum and Library Services to assist it in working toward national accreditation. The grant will be used to perform a collections management assessment and help with strategic planning.

Federal funding for the Scenic Byways Program has supported the promotion of and improvements along Crowley's Ridge. ASU is a generator of visitor trips to the region and the hope is that the packaging (including spurring retail and services development) and promotion of the Crowley's Ridge Scenic Byway will capture the economic benefit of visitor spending.

- Southern Passages: The Atlantic Heritage Coast—The US-17/SR A1A corridor stretches along the Atlantic Coast from South Carolina to New Smyrna Beach, Florida. This tri-state route received its "heritage corridor" designation through the heritage tourism development initiative offered through the EDA. The combined efforts of private-sector interests, public agencies, and nonprofit and corridor advocacy entities across South Carolina, Georgia, and Florida, have turned this corridor into a cohesive recreational and educational traveling route, as well as an alternative to traveling on I-95. FDOT District 2 and 5 offices contributed matching funds to the $200,000 EDA grant.

Profiles of Tourism Transportation Projects: Visitor Information Products and Services

- Publications—*Texas Highways* and *Arizona Highways Magazine* are two award-winning monthly magazines published by the Texas and Arizona DOTs, respectively, highlighting interesting trips across their states, special events, and visitor resource information. The Texas DOT handles event-related submissions for inclusion in the *Texas State Travel Guide*.
- Web-based resources—Many state DOTs have developed extensive pages on their agency websites to assist visitors with pre-trip planning. Three examples are provided, although many more exist. The Texas DOT provides the *Texas Wildflower Reports*—an up-to-date map showing where along the state's major routes specific wildflowers are in bloom. The map can be searched by the type of bloom. The Maine DOT website presents the Explore Maine tour options (five in all) for visitors not using an automobile. With education of the public in mind, the Oregon DOT, with the help of the Western Transportation Institute (WTI), has begun to document on its website how ITS projects throughout the state are performing and what benefit these investments have provided.
- Traveler information resources—The WTI has been involved with a number of projects to help deliver traveler information in different formats. Earlier this year, the WTI helped the Montana DOT to become one of the few early implementer states with the adoption of a 511 system. As part of the Greater Yellowstone Rural ITS project, started in 1997, the WTI has recently helped establish information kiosks at six strategic visitor locations within Montana. Some of these locations involve the participation of private business establishments. Partnership for this pilot project also included the University of Montana, and Montana Departments of Labor, Commerce, and Transportation.

FDOT District 5 implemented a 511 information number during 2002 for Central Florida's I-4 Corridor, which can be used by visitors and commuters. Planning efforts, including stakeholder workshops, began in the spring of 2000. Recently, Florida received a $10 million FHWA grant for a pilot program to expand the District 5 ITS statewide. The District 5 DOT office will manage the grant and will draw from the district's successful experience with multiple agencies and organizations in the planning and implementation of the 511 system, as well as the variable message systems along both I-4 and I-95 in Daytona.

Examples of Other Types of Projects Cited in Surveys and Case Studies

- 511 traveler information systems—Florida, Maine, Montana, New Hampshire, Vermont, and Virginia.
- Bicycle and hiking trails—Mississippi "Rails-to-Trails"; Georgia DOT bicycle and pedestrian trails; Federal Highway Land Management—Western Region ADA Trail Implementation; and Alaska Copper River Trail.
- Streetscape improvements for scenic and heritage areas—Georgia DOT cityscape improvements.
- Rehabilitation of old transportation facilities—Mississippi rail depot conversion, Pennsylvania—Railroad museum development, and Delaware Canal Lock Restoration.
- Transportation management plans—SAFECO Field, Washington State (see case study); Salt Lake City Winter Olympic Games (see case study); Lake

George, New York, traffic management strategies; and Washington, D.C. Greenways circulation system (see case study).
- Non-auto tour packages—Seattle's "Car Smart" program, Maine's "Explore Maine" program, Oregon's rail and bus service extensions, New Jersey rail service to Atlantic City.
- Water shuttles—Alaska's "Fast Ferry" services and Gateway National Recreation Area, New York.
- Wayfinding signage—SAFECO Field, Washington State (see case study); D.C. heritage tours (see case study); Georgia Logo program: Nebraska Scenic Byway signage; and Oregon Wayfinding site.
- Variable message system—Florida and South Jersey Transportation Planning Organization.
- Intelligent transportation systems—Florida, Maine, New Hampshire, Tennessee, and Vermont (Rutland area).
- Transportation facility improvements—Federal Highway Lands Management Agency; Maryland, Minnesota DOT, South Jersey Transportation Planning Organization.
- Improved modeling of visitor access and mobility—Central Florida tourism modeling (see case study); Gateway National Recreation Area, New York (see case study); and Salt Lake City Winter Olympic Games (see case study).
- Bus shuttles—Acadia and Glacier National Parks (see case study); also, Denali, Golden Gate, Great Smokey Mountain, Yosemite, and Zion national parks.

CHAPTER FOUR

CONCLUSIONS

The findings from this synthesis indicate that a successful and growing track record exists for integrating aspects of tourism–recreation travel into statewide and regional transportation planning and project delivery. Major inroads have been established by nontransportation entities in articulating tourism-related travel needs and projects that would benefit their regions and in their successful application for transportation funding. Many of these tourism-related projects have been supported through the matching of state, local, and private-sector funds with monies provided through the federal Transportation Enhancement program.

Adding to this growing record is the finding that many state departments of transportation (DOTs) are thinking more broadly and proactively about how their planning activities should be cognizant of and responsive to key cultural, historical, and recreational assets, as well as environments that are threatened (physically and economically) by unmitigated congestion related to visits by automobile. This larger view is helping to contribute to smart transportation designs and solutions that improve the visitor's experience, bolster the economy, benefit resident travel in the region, and preserve the environment that visitors find attractive.

Examples of successful collaboration among stakeholders, drawn from area businesses, citizen's groups, and the public sector, ranging from local on up to federal agencies, add to this track record. Some of the issues that have brought these different groups together are congestion mitigation, state transportation improvement plan implementation, and specific project undertakings.

Tourism agencies, with emphasis on various visitor segments in their marketing efforts, are identifying that some key differences and needs exist depending on whether you are an elderly visitor, recreation visitor or nature visitor, museum seeker, or heritage tourist, to name a few. This visitor segmentation is influencing how some DOTs are now trying to analyze and project future travel demand, which can better address where and how planned transportation resources get committed.

A number of transportation agencies expressed the need for specific improvements in the availability and detail of tourism travel data. The most widely requested forms of data are tourism origin–destination patterns, followed by tourism visitor traffic counts and tourism industry employment data. Data that reflect the seasonal characteristics of tourism travel and meaningful geographic regions will help to further the accuracy of modeling results for state DOT planning efforts.

Finally, a few agencies have now started to conduct objective evaluations to assess the extent to which tourism-related projects, programs, or interagency coordination processes have been effective in achieving their desired tourism goals. These studies may be viewed as models for other state DOTs and tourism and recreation agencies to follow.

It appears that for states and regions either endowed with long-established tourism–recreation assets or aware of the role that tourism plays in their economic vitality, the tourism–transportation dialogue and track record are farther along—the multi-agency process works well, a continued dedication of DOT funding to improve data collection and transportation modeling activities occurs, and the state DOT goes well beyond the expected roles of highway signage and publishing visitor friendly road maps. They are responsible for a host of visitor information resources including websites, 511 traveler information programs, visitor publications such as *Arizona Highways Magazine* and *Texas Highways* (both award-winning DOT efforts), and involvement with visitor information centers.

Future studies on the integration of tourism–recreation travel into transportation planning and project delivery activities need to explore several additional topics that would be useful for any stakeholder involved with tourism planning and the role of transportation.

- An inventory of projects undertaken, reflecting how different funding sources were assembled and any innovative leveraging of funds.
- The types of unique partnerships that have been instrumental to project funding and implementation or defining solutions (this synthesis only briefly touches on this topic).
- The means to invigorate processes in states and regions that have yet to capitalize on dormant tourism–recreation assets as a means to increase economic development, starting at the local level.
- Prioritizing transportation funding to include advancing the level of data collection (e.g., performance monitoring and visitor-related accident incidence) and modeling capabilities in those states and regions that have a clear need but have yet to advance in these areas.

- How state DOTs exert a role in the development of tourism–recreation signage that goes beyond traditional DOT activities.
- An understanding of how tourism travel demand affects the performance of a region's transportation system and economy.
- How transit service influences the development pattern within local economies.
- Establishing performance measures for park transportation systems and park visitor experiences.
- The role of advanced transportation systems in national parks and the impact on visitor experiences.

The topic of tourism–travel integration into transportation planning and project delivery is broad and there are many small accomplishments behind a single successful project—institutional success, process success, and success in the project's definition, design, planning, funding, and ultimate delivery. The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and its subsequent legislation continues to create new challenges and opportunities for state DOTs and metropolitan planning organizations to advance and implement transportation systems.

Over time, a region's tourism export is a multi-faceted and mutable product. It is affected by factors within its broad industry, as well as by factors and resources in the public domain, issues regarding access flow from the dispersion of attractions, the extent of trip-chaining, the markets from which visitors are drawn, the specific needs of different categories of visitors, and the adequacy of avail- able modes for connecting visitors to destinations. Issues regarding congestion to or around attractions affect the success of the tourism economy as well as resident commuter or personal trips. The opportunity to develop and promote a specific resource within a region that has cultural, historic, scenic, or recreational significance has the potential to add to the region's economic development, although it may compete with other prospective land-use pressures or other regional economic development priorities.

Tourism-related transportation planning and project delivery may appear different over time within a region as trends shape the economic emphasis of the area, the growth in traffic and change in its distribution and composition, and the types of projects championed—from design and funding to implementation and operation. Across regions lessons can be learned from and adapted to meet the local context and process of partners investing in their tourism economy by addressing needed transportation-related improvements.

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APPENDIX A

Survey Questionnaire

NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM

Project 20-5, Topic 33-11

QUESTIONNAIRE

INCLUDING TOURISM AND RECREATION TRAVEL IN METROPOLITAN AND STATEWIDE TRANSPORTATION PLANNING & DECISION-MAKING

The logistics and trends for tourism and recreation travel in the United States present a challenge for the transportation system. The success to meeting this challenge will depend on how well transportation agencies, tourism/recreation agencies, and tourism/recreation providers work together to define and implement a process where tourism and recreation travel concerns can be supported through discussion, project design, funding, and implementation. This integration already exists in many states in different forms with varying degrees of success and has influenced several functions within a DOT:

- Policy making that explicitly supports interagency collaboration,
- Transportation planning that reinforces the tourism–transportation link,
- Data needs and analysis methods modified to identify tourism activity/impacts, and
- Project implementation inclusive of relevant tourism stakeholders.

This questionnaire seeks to shed light on those issues by documenting the state of practice among transportation, tourism, and recreation agencies and tourism and recreation providers. This survey will revisit some of the recommendations and guidelines defined in an earlier NCHRP study, *Tourism Travel and Transportation System Development*, to update how the practices have changed and learn more about the transportation issues arising from tourism/recreation travel and the roles of interested stakeholders.

The questionnaire should be filled out by persons who are familiar with your agency's/organization's transportation or tourism planning activities or transportation concerns. *Your answers to this are relevant and important regardless of whether or not your agency/organization actively participates in a transportation planning or decision-making process that can influence tourism–recreation travel outcomes.*

Please return the completed questionnaire and any supporting documents by June 15, 2002 to:

Lisa Petraglia
Economic Development Research Group
2 Oliver Street, 9th Floor
Boston, MA 02109

If you wish, you may fax your response to her at 1.617.338.1174.

If you have any questions, you may contact her by telephone (1.617.338.6775, x 14) or by e-mail (lpetraglia@edrgroup.com)

BACKGROUND INFORMATION

Agency/Organization Responding: _____

Address: _____

Name of Respondent: _____

Title: _____ Phone Number: _____

Date: _____ E-mail: _____

PART I—CURRENT ORGANIZATIONAL FOCUS

This section asks about your organization's roles and

1. Which of the following areas is a major part of your organization's mandate? [check all that apply]

   ☐ Transportation
   ☐ Land use
   ☐ Tourism
   ☐ Economic development
   ☐ Housing
   ☐ Other _____

2. Does your organization work with other entities—at the federal, state, regional, or local level—to discuss or plan for current issues arising from tourism travel and the existing transportation system?

   [ ] Yes [ ] No

   2a. Is there a formal structure to this working relationship? [ ] Yes [ ] No

3. If "Yes" to (2), identify those other entities from among the following:

   [ ] U.S. DOT [ ] U.S. Park Service [ ] State tourism office
   [ ] State DOT [ ] Regional agency (specify _____)
   [ ] Bureau of Land Management [ ] State department of parks
   [ ] Other _____

4. What role does your organization take in collaborating among transportation and tourism–recreation interests in the following areas?

Area	Lead	Supporting	None
Funding			
Defining relevant policy			
Transportation planning and design			
Project implementation			
Operation			

5. If "Yes," tell us about these shared issues. [answer all that apply]

Issue	Of Joint Interest (Y or N)	Frequency of Consideration (O – often, S – sometimes, N – never)	% of Your Budget Spent in this Area
Congestion			
Road safety			
Road design			
Access			
Scenic byways			
Highway tourism signage			
Infrastructure quality			
Promote area			
Developing tourism-related facilities/attractions			
Welcome centers			
Traveler information services			

PART II—CURRENT TOURISM SIGNIFICANCE AND DEDICATED TRANSPORTATION RESOURCES

This section gauges the perception of how tourism fits in the state and regional economy and assesses the level of tourism activity and the transportation resources available.

6. Rank the importance of tourism–recreation travel to the economy (5 = major component, 2 = minor, 1 = zero).

Area	1	2	3	4	5
State					
Region					

7. Is there a need for more investment in transportation resources to support the *current* mix and level of tourism–recreation travel? [ ] Yes [ ] No

8. If "Yes," describe _____

_____

_____

_____

9. Are there transportation resources that will be needed to support your *future* goals for tourism–recreation travel? [ ] Yes [ ] No

10. If "Yes," describe _____

_____

_____

_____

PART III—CURRENT PRIORITIES

This section asks about current priorities for funding and implementation in your organization.

11. List examples of tourism-serving projects from current planning and decision-making efforts.

Project (provide brief description)	Funding Source [use code(s) at bottom of table]
Codes: A = TEA-21, B = Other federal, C = State, D = Local, E = Private, F = other (specify).	

12. For state DOT or MPO respondents only, rank areas of prioritization for relevant modes.

Transportation Aspect	Highway	Transit	Air
Infrastructure maintenance			
Connectivity			
Congestion reduction			
Regional access			
Tie into economic development opportunities			
Serving business centers (check)			
Serving tourism/recreation centers (check)			
Other (specify) _____			
Parking			
Other (specify) _____			

13. What guidelines exist for DOT funding on tourism-oriented activities/projects?
    a. Informal
    b. Mandated (by governor's office or legislature)
    c. Defined on a case-by-case basis

14. For tourism/recreation entities (agencies, organizations, or private sector), do you have any formal guidelines on use of your budget for transportation-related projects (including traveler information resources)?
    [ ] Yes [ ] No

15. For tourism/recreation entities, what share of a recent year's operating budget went towards transportation or traveler information projects? _____%

PART IV—CURRENT INTERAGENCY ARRANGEMENTS

This section asks about your agency's ability to be a part of a multi-agency planning process for relevant issues/projects, recent outcomes, and procedural developments.

16. What type of voting power does your organization have in affecting decisions concerning transportation resources that directly effect tourism–recreation travel?

[ ] Veto power [ ] Voting among equals [ ] Advisory role [ ] Other (explain _____)

17. Who is actively examining needs to identify future growth and associated needs for enhanced tourism-related transportation facilities and services?

Entity	Major role	Supporting role	Not involved
State DOT			
State tourism office			
MPO			
Chamber of commerce			
Private sector			
Other			

18. What type(s) of support does *your* organization provide to respond to the needs of the tourism–recreation travel segment and goals for tourism? What do *other* agencies do to provide support? [check all that apply]

Support Type→	Funding	Plan and Design	Implementation/Construction	On-going Operation
Your organization				
Other agency 1				
Other agency 2				
Other agency 3				
Other agency 4				

19. Provide examples of *joint-innovative* approaches towards transportation–tourism/recreation travel issues.

Project Category (see codes at bottom of table)	What was innovative? (see list of categories at bottom of table)
WC = welcome center, SB = scenic byway, RA = rest area, TC = traffic control, TS = tourism signage, O = other (specify please)	F = funding, P = planning, D = design, I = implementation, O = operations

20. Which of the following "best" describes the *institutional relationship* with respect to linking tourism aspects into transportation planning?

[ ] Little or infrequent coordination of goals or programs
[ ] Project-driven or ad hoc process
[ ] On-going process-driven arrangement (e.g., memorandum of understanding)
[ ] Overall formal process driven by policy mandate
[ ] Fully integrated, continuous, and coordinated planning.

21. Does your agency conduct a formal assessment of how well interagency arrangements are working to incorporate tourism–recreation travel into the transportation planning process?
[ ] Yes [ ] No

22. Which of the following elements of tourism/recreation travel–transportation coordination are in place at your agency? (please indicate the status of each aspect with a "√")

Aspect	In place	Non-existent	Underway
State DOT respondents only			
A formal policy statement citing tourism as an important benefit associated with transportation investment			
Incorporation of tourism benefits into state DOT standard operating procedures for planning, project development, design, and maintenance			
An institutional mechanism to direct tourism industry input into the state DOT activities			
DOT processes incorporate some key tourism data			
State DOT strategy for eventual implementation of ITS technologies			
State DOT and STO respondents only			
State tourism office is given an understanding of state DOT planning and programming processes			
Established track record of a successful, collaborative tourism project success between transportation, tourism agencies, and tourism industry			
Adoption of a formal memorandum of understanding between DOT and state tourism office			
All respondents			
Resource sharing with other state agencies collecting tourism data			
Analysis methods include benefits to tourism			
Agency-specific written guidance for personnel involved with planning and implementation			
Participation of STO and tourism industry in development of DOT's traveler information services			
Long-term strategy for providing information to special traveler user groups (e.g., elderly, foreign visitors)			

PART V—CURRENT DATA REQUIREMENTS AND ANALYTICAL METHODS

This section examines the reliance on and adequacy of transportation and tourism–recreation travel data for informing each agency's planning functions and processes. Current analysis capabilities and needs are also examined.

Please respond to these remaining questions regardless of your agency's/organization's involvement with a formal analysis of the interaction between transportation facilities and tourism–recreation travel outcomes.

23. Does your organization make use of a forecast of future tourism–recreation travel levels?
[ ] Yes [ ] No

24. If "Yes," is it developed

[ ] In-house [ ] By another organization (by whom: please provide contact information):

Organization: _____

Contact name: _____

Phone no.: _____

25. Please describe, as best as possible, the method or set of tools used to develop this forecast:

_____

_____

26. If "Yes" to (23), how is this information put to use? [check all that apply]

[ ] transportation planning [ ] marketing programs
[ ] tourism–recreation planning [ ] economic development planning

27. If "No" to (23), briefly indicate why:

[ ] do not need [ ] do not have budget [ ] do not have staff resources/skills
[ ] Other _____

28. Describe any limitations of data you currently use:

[ ] Geography not specific enough [ ] Not seasonally sensitive [ ] Not up to date
[ ] Not available [ ] Other (specify) _____

For Tourism/Recreation respondents only

29. As a tourism/recreation agency or provider, is there any transportation data important to your planning needs regarding sufficient transportation resources to meet tourism–recreation travel demand? (please list)

_____

_____

30. Are these data available when you need them? [ ] No [ ] Yes, from whom _____

31. Are these data current? [ ] Yes [ ] Mostly [ ] No

For State DOT and MPO respondents only

32. What types of tourism/recreation travel data are used for transportation agency activities?

Type of Data	Available			How Current (year)	How Used
	Complete	Partial	None		
Tourist entering/leaving state or region					
Origin–destination patterns					
Visits to recreation sites					
Tourism expenditures or business sales in state or regions					
Tourism-related receipts (tolls, permits fees, entrance fees, etc.)					
Tourism-related employment					

33. What data do you most need? _____

34. Are you aware of major problems/deficiencies in the current analysis methods concerning tourism–recreation travel outcomes and transportation system performance? (e.g., data deficiencies, inconsistencies, lack of standards, inadequate methods, etc.) Please be specific.

_____

_____

_____

35. Has your agency been involved in any research studies related to tourism-recreation travel and its critical reliance on the transportation system? If so, please identify them below and send a copy if you can.

_____

_____

_____

PART VI—ADDITIONAL ITEMS

36. It would be very helpful if you could send in copies of documents or reports (or relevant excerpts from them) showing what your agency has done in the area of coordination of tourism–recreation travel and transportation planning. (check below what you are, or will be, sending in)

	Included with this survey	To be sent in later
a. *Planning studies* demonstrating projects addressing tourism/recreation travel issues ----------→	a. ☐	a. ☐
b. *Research studies* pertaining to transportation & tourism ----------→	b. ☐	b. ☐
c. *Agency guidelines* regarding tourism integration in transportation planning ----------→	c. ☐	c. ☐
d. Other items (specify below): ----------→ _____	d. ☐	d. ☐

37. If there are studies or documents done by others that you consider to be useful guides or best practice examples of tourism–recreation travel integration into transportation planning, please identify them.

_____

_____

_____

38. Other comments:

_____

_____

_____

Please return the completed questionnaire and any supporting documents by June 15, 2002 & Thank You for Your Cooperation.

Return to: Lisa Petraglia
Economic Development Research Group
2 Oliver Street, 9th Floor
Boston, MA 02109

Fax: 1.617.338.1174
Tel: 1.617.338.6775
E-mail lpetraglia@edrgroup.com

APPENDIX B

Survey Respondents and Responses

Survey Participation by State and Agency Type

States Responding	Total Responses	Type of Agency		
		State Transportation Department	State Tourism or Parks Department	Metro or Regional Level Agency
Alabama	1	—	—	1
Alaska	2	1	1	—
California	1	1	—	—
Colorado	1	1	—	—
Florida	2	1	—	1
Georgia	2	1	—	1
Idaho	1	—	1	—
Illinois	1	—	1	—
Kentucky	1	1	—	—
Maine	2	2	—	—
Maryland	1	1	—	—
Mississippi	1	1	—	—
Minnesota	1	—	1	—
Montana	2	1	1	—
Nebraska	1	1	—	—
New Hampshire	1	—	1	—
New Jersey	2	1	—	1
New York	1	—	—	1
North Dakota	1	1	—	—
Ohio	1	1	—	—
Oregon	2	2	—	—
Pennsylvania	3	3	—	—
Tennessee	1	1	—	—
Texas	2	—	1	1
Vermont	1	1	—	—
Virginia	1	1	—	—
Washington DC	1	1	—	—
West Virginia	1	1	—	—
Wisconsin	1	1	—	—
Wyoming	1	1	—	—
Western U.S.*	1	—	—	1
Total	41	27	7	7

*Represents the Federal Lands Highway Program—Western Office.

SUMMARY OF SURVEY RESPONSES (41 TOTAL RESPONDENTS)

Agency/Organization Responding: *27 State DOTs, 7 State Tourism–Parks Offices* (*TOs*), *6 Regional Agencies* (*MPOs and RPAs*), *1 Regional Office of Federal Land Agency.*

Address: _____

Name of Respondent: _____

Title: _____ Phone Number: _____

Date: _____ E-mail: _____

Questions with asterisks were either too open ended or too complex to summarize. The responses to these questions are discussed in chapter three.

PART I—CURRENT ORGANIZATIONAL FOCUS

This section asks about your organization's roles and

1. Which of the following areas are a major part of your organization's mandate? [check all that apply]

   ☐ Transportation **[27 State DOTs, 2 State TOs, 6 Regional Orgs., 1 Federal]**
   ☐ Land use **[6 State DOTs, 2 State TOs, 2 Regional Orgs.]**
   ☐ Tourism **[6 State DOTs, 2 State TOs, 1 Regional Org.]**
   ☐ Economic development **[10 State DOTs, 3 State TOs, 1 Regional Org.]**
   ☐ Housing **[1 State DOT, 2 State TOs, 1 Regional Org.]**

2. Does your organization work with other entities—at the federal, state, regional, or local level—to discuss or plan for current issues arising from tourism travel and the existing transportation system?

   [**39**] Yes [**1**] No

   2a. Is there a formal structure to this working relationship? [**25**] Yes [**14**] No

3. If "Yes" to (2), identify those other entities from among the following:

   [**19**] U.S. DOT [**13**] U.S. Park Service [**23**] State Tourism Office
   [**10**] State DOT [**13**] Regional Agency (specify_____)
   [**11**] Bureau of Land Management
   [**15**] Other—State Parks and Recreation Department

4a. **State DOTs:** What role does your organization take in collaborating among transportation and tourism interests in the following areas (***multiple roles permissible within an area***)?

Area	Lead	Supporting	None
Funding	15	10	2
Defining relevant policy	8	16	1
Transportation planning and design	22	4	2
Project implementation	16	10	1
Operation	9	14	3

4b. **State Tourism Parks:** What role does your organization take in collaborating among transportation and tourism interests in the following areas (***multiple roles permissible within an area***)?

Area	Lead	Supporting	None
Funding	—	5	1
Defining relevant policy	1	6	—
Transportation planning and design	—	3	3
Project implementation	1	2	2
Operation	1	2	3

4c. **Regional Organizations:** What role does your organization take in collaborating among transportation and tourism interests in the following areas (***multiple roles permissible within an area***)?

Area	Lead	Supporting	None
Funding	2	3	1
Defining relevant policy	2	2	2
Transportation planning and design	4	2	—
Project implementation	—	3	3
Operation	—	2	4

4d. **Federal Land Agencies:** What role does your organization take in collaborating among transportation and tourism interests in the following areas (***multiple roles permissible within an area***)?

Area	Lead	Supporting	None
Funding	1	—	—
Defining relevant policy	1	—	—
Transportation planning and design	—	—	—
Project implementation	1	—	—
Operation	1	—	1

5a. **State DOTs**: If "Yes," tell us about these shared issues (***multiple roles permissible within an area*)**.

Issue	Of Joint Interest (Y or N)	Frequency of Consideration (O – often, S – sometimes, N – never)
Congestion	22-Y, 1-N	12:9:1
Road safety	20-Y, 3-N	12:7:3
Road design	19-Y, 4-N	13:5:4
Access	20-Y, 1-N	11:9:1
Scenic byways	21-Y, 2-N	6:15:2
Hwy tourism signage	21-Y, 1-N	12:9:1
Infrastructure quality	20-Y, 2-N	12:8:2
Promotion	12-Y, 10-N	5:6:5
Developing tourism-related facilities/attractions	17-Y, 6-N	3:12:4
Welcome centers	21-Y, 2-N	3:13:2
Traveler information services	23-Y, 1-N	10:10:1

5b. **State Tourism–Parks:** If "Yes," tell us about these shared issues (***multiple roles permissible within an area***).

Issue	Of Joint Interest (Y or N)	Frequency of Consideration (O – often, S – sometimes, N – never)
Congestion	2-Y, 4-N	0:2:0
Road safety	1-Y, 4-N	1:0:0
Road design	2-Y, 4-N	0:2:0
Access	3-Y, 3-N	1:2:0
Scenic byways	5-Y, 2-N	4:2:0
Hwy tourism signage	5-Y, 2-N	3:3:0
Infrastructure quality	2-Y, 4-N	2:1:0
Promotion	5-Y, 1-N	5:1:0
Developing tourism-related facilities/attractions	6-Y, 1-N	4:2:0
Welcome centers	5-Y, 2-N	5:0:0
Traveler information services	5-Y, 2-N	4:1:0

5c. **Regional Organizations:** If "Yes," tell us about these shared issues (***multiple roles permissible within an area***).

Issue	Of Joint Interest (Y or N)	Frequency of Consideration (O – often, S – sometimes, N–never)
Congestion	5-Y	3:1:0
Road safety	4-Y, 1-N	2:1:0
Road design	3-Y, 2-N	2:1:0
Access	5-Y	3:1:0
Scenic byways	4-Y, 1-N	1:2:0
Hwy tourism signage	3-Y, 2-N	0:2:0
Infrastructure quality	4-Y, 1-N	1:0:1
Promotion	2-Y, 3-N	0:1:0
Developing tourism-related facilities/attractions	2-Y, 3-N	0:0:1
Welcome centers	4-Y, 1-N	0:1:2
Traveler information services	4-Y, 1-N	0:2:1

5d. **Federal Land Agency:** If "Yes," tell us about these shared issues (***multiple roles permissible within an area***).

Issue	Of Joint Interest (Y or N)	Frequency of Consideration (O – often, S – sometimes, N – never)
Congestion	1-Y	1:0:0
Road safety	1-Y	1:0:0
Road design	1-Y	1:0:0
Access	1-Y	1:0:0
Scenic byways	1-Y	1:0:0
Hwy tourism signage	1-Y	0:1:0
Infrastructure quality	1-Y	1:0:0
Promotion	1-Y	0:1:0
Developing tourism-related facilities/attractions	1-Y	0:1:0
Welcome centers	1-Y	0:1:0
Traveler information services	1-Y	0:1:0

PART II—CURRENT TOURISM SIGNIFICANCE AND DEDICATED TRANSPORTATION RESOURCES

This section gauges the perception of how tourism fits in the state and regional economy and assesses the level of tourism activity and the transportation resources available.

6. Rank the importance of tourism to the economy (5 = major component, 2 = minor, 1 = negligible).

Area	1	2	3	4	5
State	1	4	—	8	26
Region	1	2	2	7	24

7. Is there a need for more investment in transportation resources to support the *current* mix and level of tourism travel?

   [**30**] Yes [**9**] No

8. If "Yes," describe—**Content embedded in Chapter 3 of report.**

9. Are there transportation resources that will be needed to support your *future* goals for tourism travel?

   [**32**] Yes [**7**] No

10. If "Yes," describe—**Content embedded in Chapter 3 of report.**

PART III—CURRENT PRIORITIES

This section asks about current priorities for funding and implementation in your organization.

11a. **ISTEA/TEA Funding Only:** List examples of tourism-serving projects from current planning and decision-making efforts.

Project (provide brief description)	Funding Source [use code(s) at bottom of table]
Highway-3	
Scenic byway-2	
Visitor information (signage)-1	
Tourism/recreation attractions (trails)-2	
Regional transit-2	
Codes: A = TEA-21, B = Other federal, C = State, D = Local, E = Private, F = other (specify)	

11b. **ISTEA/TEA and Other Funding:** List examples of tourism-serving projects from current planning and decision-making efforts.

Project (provide brief description)	Funding Source [use code(s) at bottom of table]
Highway-7	
Scenic byway-5	
Visitor information-4	
Tourism/recreation attractions (trails)-3	
Regional transit-1	
Welcome centers-6	
Signage-3	
Improve services and infrastructure-4	
Codes: A = TEA-21, B = Other federal, C = State, D = Local, E = Private, F = other (specify)	

11c. **Non-Federal Funding:** List examples of tourism-serving projects from current planning and decision-making efforts

Project (provide brief description)	Funding Source [use code(s) at bottom of table]
Highway-1	
Scenic byway-1	
Visitor information (incl. interpretative signage, historical markers)-4	
Tourism/recreation attractions (trails)-1	
Welcome centers-4	
Codes: A = TEA-21, B = Other federal, C = State, D = Local, E = Private, F = other (specify)	

*12. For **State DOT** or **MPO** respondents only, rank areas of prioritization.

Transportation Aspect	Highway	Transit	Air
Infrastructure maintenance			
Connectivity			
Congestion reduction			
Regional access			
Tie into economic development opportunities			
Serving business centers (check)			
Serving tourism/recreation centers (check)			
Other (specify)			
Parking			
Other (specify)			

13. What guidelines exist for DOT *funding* on tourism-oriented activities/projects:

a. Informal **[9]**
b. Mandated (by governor's office or legislature) **[3]**
c. Defined on a case-by-case basis **[13]**

14. For **Tourism** entities (agencies, organizations or private sector), do you have any formal guideline on use of your budget for transportation-related projects (including traveler information resources)?

[6] Yes **[1]** No

*15. For **Tourism** entities, what share of a recent year's operating budget went towards transportation or traveler information projects? _____%

PART IV—CURRENT INTERAGENCY ARRANGEMENTS

This section asks about your agency's ability to be a part of a multi-agency planning process for relevant issues/projects, recent outcomes, and procedural developments.

*16. What type of voting power does your organization have in affecting decisions concerning transportation resources that directly effect tourism travel?

[9 DOTs] Veto power **[8 DOTs, 1 State TO, 1 Federal]** Voting among equals
[3 DOTs, 6 State TOs, 3 Reg'l Orgs.] Advisory role **[6 DOTs, 2 Reg'l Orgs.]** Other

17. Who is actively examining needs to identify future growth and associated needs for enhanced tourism-related transportation facilities and services?

Entity	Major role	Supporting role	Not involved
State DOT	11	3	1
State tourism office	17	8	3
MPO	10	14	4
Chamber of commerce	12	18	2
Private sector	9	17	1
Other **(content embedded in Chapter 3 of report)**			

*18. What type(s) of support does your organization provide to respond to the needs of the tourism–travel segment and goals for tourism and, if not, what other agencies do? [check all that apply]

Support Type→	Funding	Plan and Design	Implementation/Construction	On-going Operation
Your organization				
Other agency 1				
Other agency 2				
Other agency 3				
Other agency 4				

*19. Provide example of *joint-innovative* approaches towards transportation-tourism issues.

Project Category (see codes at bottom of table)	What was innovative? (see list of categories at bottom of table)
WC = welcome center, SB = scenic byway, RA = rest area, TC = traffic control, TS = tourism signage, O = other (specify please)	F = funding, P = planning, D = design, I = implementation, O = operations

20. Which of the following "best" describes the *institutional relationship* with respect to linking tourism aspects into transportation planning (***multiple roles permissible within an area***)?

Little or infrequent coordination of goals or programs **[5 DOTs, 2 State TOs, 2 Reg'l Orgs.]**
Project driven or ad hoc process **[16 DOTs, 5 State TOs, 3 Reg'l Orgs.]**
On-going process-driven arrangement (e.g., memorandum of understanding) **[5 DOTs]**
Overall formal process driven by policy mandate **[1 DOT, 1 Federal]**
Fully integrated, continuous, and coordinated planning **[3 DOTs, 1 Reg'l Org.]**

21. Does your agency conduct a formal assessment of how well interagency arrangements are working to incorporate tourism–travel into the transportation planning process?

[3] Yes **[38]** No

22. Which of the following elements of tourism–transportation coordination are in place at your agency? (please indicate the status of each aspect with a "√")

Aspect	In place	Non-existent	Underway
State DOT respondents only			
A formal policy statement citing tourism as important benefit associated with transportation investment	10	10	2
Incorporation of tourism benefits into state DOT standard operating procedures for planning, project development, design, and maintenance	3	15	3
An institutional mechanism to direct tourism industry input into the state DOT activities	11	11	1
DOT processes incorporate some key tourism data	16	5	1
State DOT strategy for eventual implementation of ITS technologies	16	2	5
State DOT and STO respondents only			
State tourism office is given an understanding of state DOT planning and programming processes	14	9	6
Established track record of a successful, collaborative tourism project success between transportation, tourism agencies, and tourism industry	16	6	7
Adoption of a formal memorandum of understanding between DOT and state tourism office	7	22	1
All respondents (state DOTs)			
Resource sharing with other state agencies collecting tourism data	11	9	4
Analysis methods include benefits to tourism	7	13	4
Agency-specific written guidance for personnel involved with planning and implementation	1	23	
Participation of STO and tourism industry in development of DOTs traveler information services	16	5	3
Long-term strategy for providing information to special traveler user groups (e.g., elderly, foreign visitors)	7	10	8

All respondents (state tourism parks)	In place	Non-existent	Underway
Resource sharing with other state agencies collecting tourism data	4	2	1
Analysis methods include benefits to tourism	3	3	1
Agency-specific written guidance for personnel involved with planning and implementation		5	2
Participation of STO and tourism industry in development of DOTs traveler information services	2		4
Long-term strategy for providing information to special traveler user groups (e.g., elderly, foreign visitors)		4	3

All respondents (regional organizations)	In place	Non-existent	Underway
Resource sharing with other state agencies collecting tourism data	1	4	
Analysis methods include benefits to tourism	1	3	1
Agency-specific written guidance for personnel involved with planning and implementation	1	4	
Participation of STO and tourism industry in development of DOTs traveler information services		3	
Long-term strategy for providing information to special traveler user groups (e.g., elderly, foreign visitors)	1	3	1

All respondents (federal)	In place	Non-existent	Underway
Resource sharing with other state agencies collecting tourism data	1		
Analysis methods include benefits to tourism	1		
Agency-specific written guidance for personnel involved with planning and implementation	1		
Participation of STO and tourism industry in development of DOTs traveler information services	1		
Long-term strategy for providing information to special traveler user groups (e.g., elderly, foreign visitors)	1		

PART V—CURRENT DATA REQUIREMENTS AND ANALYTICAL METHODS

This section examines the reliance on and adequacy of transportation and tourism data for informing each agency's planning functions and processes. Examination of current analysis capabilities and needs is also of interest.

Please respond to these remaining questions regardless of your agency's involvement with a formal analysis of the interaction between transportation system dynamics and tourism outcomes.

23. Does your organization make use of a forecast of future tourism–recreation travel levels?

Yes **[10 DOTs, 4 State TOs, 2 Reg'l Orgs., 1 Federal]** No **[15 DOTs, 2 State TOs, 4 Reg'l Orgs.]**

24. If "Yes," is it developed [ ] In-house [ ] by another organization (by whom: *please provide contact information*):

Organization: _____

Contact name: _____

Phone no.: _____

25. Please describe, as best as possible, the method or set of tools used to develop this forecast:

_____

_____

_____

_____

_____

_____

26. If "Yes," how is this information put to use (***multiple roles permissible within an area***)?

Transportation planning **[10 DOTs, 1 State TO, 1 Reg'l Org.]**
Marketing programs **[3 DOTs, 5 State TOs, 1 Reg'l Org.]**
Tourism planning **[2 DOTs, 2 State TOs, 1 Reg'l Org.]**
Economic development planning **[3 DOTs, 2 State TOs, 1 Reg'l Org.]**

27. Describe any limitations of the data you currently use (***multiple roles permissible within an area***).

Geography not specific enough **[4 DOTs, 3 State TOs, 2 Reg'l Orgs.]**
Not seasonally sensitive **[4 DOTs, 3 Reg'l Orgs.]**
Not up to date **[2 DOTs, 2 State TOs, 1 Reg'l Org.]**
Not available **[2 DOTs, 3 Reg'l Orgs.]**
Other (specify) **Content embedded in Chapter 3 of report.**

28. If "No" to (23), briefly indicate why:

[3] do not need **[4]** do not have budget **[6]** do not have staff resources/skills **[7]** Other

For Tourism respondents only

29. As a tourism entity, is there any transportation data important to your planning needs regarding sufficient transportation resources to meet tourism travel demand? (please list)

Content embedded in Chapter 3 of report.

30. Are these data available when you need them?

[2] No **[2]** Yes, from whom

Content embedded in Chapter 3 of report.

31. Are these data current?

[1] Yes **[1]** Mostly **[1]** No

For State DOT and MPO respondents only

32. What types of tourism data are used for transportation agency activities?

Type of Data	Available			How Current (year)	How Used
	Complete	Partial	None		
Tourist entering/leaving state or region	1	11	7	NA	NA
Tourist origin–destination patterns	3	15	6	NA	NA
Visits to recreation sites	2	13	4	NA	NA
Tourism expenditures or business sales in state or regions	5	8	8	NA	NA
Tourism-related receipts (tolls, permits fees, entrance fees, etc.)	2	9	10	NA	NA
Tourism-related employment	4	13	5	NA	NA

33. What data do you most need? **Content embedded in Chapter 3 of report.**

34. Are you aware of major problems/deficiencies in the current analysis methods regarding the tourism–travel link with transportation system performance? (e.g., data deficiencies, inconsistencies, lack of standards, inadequate methods, etc.) Please be specific.

Content embedded in Chapter 3 of report.

35. Has your agency been involved in any research studies related to tourism–travel and its critical reliance on the transportation system? If so, please identify them below and send a copy if you can.

Yes **[3]** No **[16]**

PART VI—ADDITIONAL ITEMS

36. It would be very helpful if you could send in copies of documents or reports (or relevant excerpts from them) showing what your agency has done in the area of tourism travel–transportation planning coordination. (check below what you are, or will be, sending in)

	Included with this survey	To be sent in later
a. *Planning studies* demonstrating projects addressing tourism travel issues --------→	a. ☐	a. ☐
b. *Research studies* pertaining to transportation and tourism ----------→	b. ☐	b. ☐
c. *Agency guidelines* regarding tourism integration in transportation planning ---- →	c. ☐	c. ☐
d. Other items (specify below): ----------→	d. ☐	d. ☐

Abbreviations used without definition in TRB Publications:

AASHO	American Association of State Highway Officials
AASHTO	American Association of State Highway and Transportation Officials
APTA	American Public Transportation Association
ASCE	American Society of Civil Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
CTAA	Community Transportation Association of America
CTBSSP	Commercial Truck and Bus Safety Synthesis Program
FAA	Federal Aviation Administration
FHWA	Federal Highway Administration
FMCSA	Federal Motor Carrier Safety Administration
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
IEEE	Institute of Electrical and Electronics Engineers
ITE	Institute of Transportation Engineers
NCHRP	National Cooperative Highway Research Program
NCTRP	National Cooperative Transit Research and Development Program
NHTSA	National Highway Traffic Safety Administration
NTSB	National Transportation Safety Board
SAE	Society of Automotive Engineers
TCRP	Transit Cooperative Research Program
TRB	Transportation Research Board
U.S.DOT	United States Department of Transportation