

# Recreational Travel and Tourism Data Needs, Resources, and Issues

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Data needs, resources, and issues of the travel and tourism industry, a major industry in the United States that depends heavily on the existence of a safe and efficient transportation system, are covered. The paper provides an overview of the U.S. travel and tourism industry, as well as current data sources and statistics. A variety of information sources are reviewed including federal government agencies (i.e., U.S. Departments of Commerce, Transportation, and Labor) and various offices within these agencies, state government agencies, as well as private sector sources (i.e., US Travel Data Center and Eno Foundation for Transportation). The focus of this paper is on identifying gaps and problems in existing data systems and on recommended improvements. It considers the transportation data needs (specifically related to travel and tourism) of the federal government in formulating policy, as well as the data needs of the travel and tourism industry. The gaps and problems identified revolve around four major categories: research orientation/priorities, research methodologies, data coverage, and data products. A variety of recommendations for improvements are included in this paper. Travel and tourism, the nation's third largest retail industry and its second largest employer, needs to become a priority industry for statistical coverage in future federal agency and other programs. This will require increased funding for travel-related data collection at the federal level as well as through public-private partnerships, and improved communications among researchers, data users, and the various organizations involved. The top priority of the travel and tourism community is the reinstatement of the large-scale National Travel Survey formerly conducted by the Bureau of the Census but terminated after the last survey in 1977. Recommendations involving research methodologies include the use of larger samples, production of ongoing time series data, and standardization of definitions and methodologies. Data coverage recommendations include improvements to the SIC code system and related data collection efforts, more frequent data, greater coverage of other aspects of travel (i.e., rail, bus), production of more marketing-oriented information, as well as greater attention to regional needs and collection of data to support the development of the scenic byways program. Finally, recommendations related to data products include more timely release of data, improved analysis and dissemination of results, greater support for a few specified survey programs, and establishment of a clearing house.

An overview is given of the data resources, issues, and problems related to recreational travel and tourism. The paper actually goes beyond this to consider all travel away from home, and outside the home community, by American residents and foreign visitors.

Over the years, there has been considerable discussion of the appropriate definition of recreational travel. After careful study of alternative definitions, the US Travel Data Center,

the national nonprofit center for travel and tourism research, has adopted the following definition of "domestic traveler":

any resident of the United States regardless of nationality who travels to a place 100 miles or more away from home within the United States or who stays away from home one or more nights in paid accommodations and who returns home within twelve months, except commuting to and from work or attending school.

This definition closely follows that recommended by the World Tourism Organization (WTO) for domestic travel. The Data Center has also adopted the WTO definition of "international traveler":

any person visiting a country other than that in which he (she) has his (her) usual place of resident, for not more than one year, and whose primary purpose of visit is other than following an occupation remunerated from within the country visited, staying at least 24 hours, but not more than one year in the country visited.

Thus, although the purpose of the trip is important to whether or not it is included under these definitions of travel, the mileage threshold results in significant overlap with intercity passenger travel in transportation-related research and statistics. Given the frequent lack of data, travel and tourism professionals often use intercity passenger data as a proxy when analyzing travel and tourism trends and patterns. Although travel and tourism is a subset of intercity passenger travel, it requires special consideration because of its growing importance and unique characteristics.

This paper provides a descriptive overview of the U.S. travel and tourism industry, data sources and statistics that are currently used, gaps in existing data systems, and recommended improvements. It considers the transportation data needs of the federal government in formulating policy specifically related to travel and tourism, as well as the data needs of the travel and tourism industry.

A draft of this paper was presented at the Scenic Byways Conference on November 6, 1989, in Arlington, Va., at which additional input was obtained. Several other TRB meetings during 1989 provided the forum for presentations of other resource papers and initial discussion of issues related to transportation data needs, collection, and usage. Written summaries of these meetings have been reviewed, as well as a variety of other materials, as listed in the appendix to this paper. In addition, discussions with a number of individuals knowledgeable about both transportation data systems and their applicability to the topic of travel and tourism were held in preparation of this paper.

## TRAVEL AND TOURISM IN THE UNITED STATES

### Travel as an Economic Activity

Travel has become an integral part of the American way of life. The ongoing National Travel Survey conducted by the US Travel Data Center indicates that two-thirds of the U.S. population of nearly 250 million people takes at least one trip of a minimum of 100 miles away from home each year, producing approximately 1.2 billion person-trips (one person taking one trip away from home) in the process.

Approximately three-quarters of all U.S. resident travel (as defined above) is taken for pleasure or leisure-related purposes. In 1988, 35 percent of all travel (430 million person-trips) was taken to visit friends and relatives, while 40 percent (490 million person-trips) occurred for other pleasure purposes including sightseeing, outdoor recreation, and entertainment. Another 8 percent of U.S. resident travel was for personal business reasons, leaving 17 percent of all person-trips taken to conduct business or attend a meeting or convention.

The vast majority of travel in this country is by personal motor vehicle. The National Travel Survey indicates that, in 1988, 77 percent of all U.S. resident person-trips were taken by automobile, truck, or recreational vehicle, generating an estimated 625 billion passenger-miles, 42 percent of the nearly 1.5 trillion intercity passenger-miles posted on the nation's highways, railways, and skyways. In addition, air travel generated another 342 billion and intercity rail and bus a total of 29 billion intercity passenger-miles in that year.

The US Travel Data Center estimates that travelers in the United States spent a total of nearly \$323 billion in 1988. This includes \$294 billion by Americans on domestic travel, as well as an estimated \$29 billion (not including international passenger fares) by 14.1 million foreign visitors who traveled within the United States. Fourteen percent of these dollars were spent on automobile transportation and 25 percent on public transportation. Therefore, transportation accounts for 39 percent of all money spent by travelers in the United States.

In terms of employment, travel and tourism in the United States directly generated 5.65 million jobs in 1988, more than 5 percent of total nonagricultural employment and a combined payroll of \$67.8 billion. This ranks travel and tourism as a leading private employer, second only to health services.

It can be argued that the most critical of these four divisions is the carrier sector. Without transportation, suppliers have no customers, intermediaries have nothing to retail, and destination marketing organizations cannot attract visitors.

Moreover, transportation companies comprise important components of the supplier sector as well. These include car rental companies, taxicabs and airport limousine services, ocean cruise liners, local land and water sightseeing companies, and river and lake water passenger transportation carriers. These companies help attract and serve travelers, work with other components of the industry to market their products, and contribute economic benefits to the nation, regions, and states.

Finally, intercity travel by personal motor vehicle produces more passenger-miles than all of the carriers and transportation suppliers combined. Many destinations are virtually inaccessible except by automobile, truck, or recreational vehicle. The industry has a vested interest in the characteristics

of the nation's highway system and the service levels of businesses such as gasoline service stations and auto repair garages.

Because the travel industry is a composite of a large number and varied set of activities in the economy, it does not fit the traditional industry definitions used by federal agencies in collecting data. However, it is possible to identify those businesses that service the traveler using the Standard Industrial Classification (SIC) system. A list of SIC codes that comprise the travel and tourism industry is provided in Table 1.

### Data Needs

Suppliers, intermediaries, and destination marketing organizations, as well as the carriers themselves, continually seek comprehensive, current, and accurate information on the conditions, service levels, performance, and economic characteristics of the carriers. This information is used for a variety of purposes, including measuring usage of transportation systems and adjusting service levels, forecasting future demand and planning for expansion, preparing for contingencies such as congestion and system failures, preparing economic development programs, and developing beneficial public policies. In addition to these industry-type data, these groups also seek data on trip and traveler characteristics, which are used to develop marketing programs and monitor the results, as well as to seek cooperative marketing partners.

Travel spending also generated a combined total of \$39.5 billion in federal, state, and local tax revenue in 1988. The travel and tourism industry (including its transportation component) has played a substantial and dynamic role in the long-term growth of the American economy. Increasingly, government at all levels is recognizing the significance of this industry to economic development strategies and its value as an economic tool for revitalizing rural communities and small businesses. This recognition is generating additional need for specific information, essential to the development of public policy, which will foster travel's continued growth.

The outlook for travel and tourism in the coming decade and beyond is generally positive. Even in the slow growth economy some predict for the 1990s, demand for travel and, thus, transportation is likely to continue to expand. Government estimates suggest that airline travel growth should be approximately 5 percent and intercity automobile traffic about 2 to 4 percent annually in the years ahead. Moreover, increased global interdependence is expected to generate additional business and leisure travel to and from the United States.

### U.S. Travel and Tourism Industry

The US Travel Data Center has adopted the following definition for the travel industry:

an inter-related amalgamation of those businesses and agencies which totally or in part provide the means of transport, goods, services, accommodations, and other facilities for travel out of the home community for any purpose not related to local day-to-day activity.

The travel and tourism industry can be broken down into four primary sectors: (a) suppliers, (b) carriers, (c) intermediaries, and (d) destination marketing organizations.

TABLE 1 SIC CODES USED TO DEFINE THE U.S. TRAVEL INDUSTRY

Travel Category	Type of Business (SIC code*)
<b>Transportation</b>	
1. Air	Transportation by Air (45)
2. Taxicab/Limousine	Local and Suburban Passenger Transportation and Taxicab Companies (411-412)
3. Automotive Operation	Gasoline Service Stations (554)
4. Automotive Ownership	Automotive Dealers (55 except 554 + 555)
5. Auto Rental	Passenger Car and Recreational Vehicle Rental (7514 + 7519)
6. Bus/Motorcoach	Intercity and Rural Bus Transportation and Bus Charter Service, Except Local (413 + 4142)
7. Rail	Amtrak
8. Cruise	**
<b>Lodging</b>	
9. Hotel/Motels	Hotels and Motels (701)
10. Camping	Recreational Vehicle Parks and Campsites (703)
11. Own Second Home	Building Materials, Hardware, Garden Supply, and Mobile Home Dealers (52)
<b>Other</b>	
12. Entertainment/Recreation	Amusement and Recreation Services (79)
13. Meals	Eating and Drinking Places (58)
14. Incidental Purchases	General Merchandise and Miscellaneous Retail Stores (53, 59)
15. ***	Arrangement of Passenger Transportation (472)

- \* Standard Industrial Classification codes, as established by the U.S. Office of Management and Budget, 1987.
- \*\* The impact of this spending in the average state is included in arrangement of passenger transportation (472).
- \*\*\* No separate expenditures are identified with this category, since they are included in others, such as air transportation, cruise transportation, and hotel/motel lodging.

Source: US Travel Data Center

Suppliers provide the hospitality, entertainment, and recreation services that travelers seek. Carriers provide transportation to and from the destination. These include airlines, intercity bus companies, and Amtrak. Intermediaries, usually travel agents and tour operators/wholesalers, package and sell supplier and carrier services to consumers. Destination marketing organizations are usually government or nonprofit agencies that promote their areas to consumers. The U.S. Travel and Tourism Administration (a federal agency), the Maryland Office of Tourism Development (a state agency), and the Washington, D.C. Convention and Visitors Association (a nonprofit association) are representative of these organizations.

It is virtually impossible to distinguish the travel and tourism information needs of the private sector from those of the public agencies. The state and city travel development agencies depend on the services of suppliers, carriers, and intermediaries to stimulate economic development, prevent supply distortions, and generate tax revenue. Such agencies also need data to educate state legislators and departments

of transportation on the economic significance of the travel industry in their geographic area. They also require information to evaluate proposals from the private sector regarding transportation systems. For example, Florida, Ohio, Texas, and Nevada all have funded studies on the potential of high-speed rail.

Consequently, these agencies work closely with private sector travel and tourism interests to obtain, analyze, and learn from research on America's transportation system. In short, better information on intercity passenger transportation is good public policy no matter who the initial data user is.

#### NATIONAL STRATEGIC PLANNING AND POLICY ISSUES

Major strategic and policy issues related to transportation data to be considered in the development of a national transportation policy include

1. What should be the role of the U.S. Department of Transportation (DOT) and other federal agencies in transportation data collection and dissemination?

2. What do federal and state officials need to know to formulate appropriate public policies?

3. What does the travel industry's private sector, as well as states and other destinations, need to know to efficiently service its existing traveler market and attract additional visitors?

DOT focused on issues related to these questions in its report, *Moving America—New Directions, New Opportunities. Volume 1: Building the National Transportation Policy*. This report and others identify the need for transportation data to

- Forecast and assess prospective demand and evaluate alternative responses to plan and operate an efficient and safe transportation system;
- Determine the level of investment needed in infrastructure and identify possible funding sources;
- Provide for the study of new technologies and substitutions between modes, for example, intercity air and rail technology (e.g., maglev); and
- Make informed and fair energy, tax, and regulatory policy decisions with regard to transportation.

More specific to travel and tourism, data are required to

- Increase recognition that transportation serves multiple purposes and markets, and to emphasize the need for comprehensive transportation planning rather than simply commuter-related planning;
- Recognize and understand the difference between business and leisure travelers regarding what they will pay for and what type of services they require;
- Understand the uniqueness of markets and that different transportation solutions will be required;
- Realize and encourage the benefits of travel-related economic development;
- Facilitate the continued growth in international arrivals (which contribute significantly to the balance of trade) and the development of a transportation system that can bring them to the United States efficiently and at a competitive price; and
- Support the scenic byways concept and rural tourism.

Three workshops on urban, statewide, and national data and information needs held during the October 1989 TRB conference, as well as a series of cluster groups, all identified the need for a strong government role in support of transportation research, development, demonstration, and deployment of alternative solutions that would extend into the 21st century. The major objectives of the national transportation policy now being developed are economic growth and enhanced quality of life for U.S. citizens. Travel and tourism will continue to contribute significantly to the achievement of these two objectives. The data resources needs of the travel industry should, therefore, be carefully considered in the development of this policy.

## INFORMATION SOURCES

### Federal Government Sources

The travel and tourism industry relies heavily on federal transportation data collection efforts. Beyond the national transportation policy and planning studies identified elsewhere in this Record in the paper on surface passenger transportation, there are a number of other national transportation-related information resources of particular value to the travel and tourism industry. Recent inventories have identified several federal agencies, as well as other organizations, now providing such data. These data are of two basic types: (a) industry-level data covering measures of company condition, performance, and passenger volume and (b) user characteristics. The most important of these data sources to travel industry officials follows.

#### Industry-Level Data

**U.S. Department of Commerce Bureau of the Census:** *Census of Retail Trade, Establishment, and Firm Size and Census of Service Industries, Establishment, and Firm Size* Conducted every 5 years, these economic census reports provide extensive industry and geographic detail on the number of establishments, business receipts, and employees for all organizations in the United States. Separate reports are also generated for state and metropolitan areas with detail provided by retail and service components, including a number of particular interest to the travel and tourism community. Unfortunately, data are not readily available on all travel industry sectors.

**Bureau of the Census: Monthly and Annual Retail Trade and Service Reports** These reports provide monthly and annual receipt data for a number, but not all, of the SIC codes included in the travel and tourism industry.

**Bureau of Economic Analysis (BEA): Survey of Current Business** This comprehensive monthly summary of national economic statistics includes a number of series of interest to the travel and tourism community. The July issue report contains the international travel and passenger fare series, recently revised to incorporate results from the U.S. Travel and Tourism Administration (USTTA) Survey of International Air Travelers.

**U.S. Department of Transportation FHWA: Highway Statistics** This annual report provides a compilation of statistics on vehicle-miles, passenger-miles, and energy consumption data covering personal passenger car, motorcycle, truck, and water transportation. It is used by state highway agencies and DOTs, local planners in metropolitan planning organizations, as well as the travel industry.

**Research & Special Programs Administration (RSPA): Domestic Air Passenger Origin-Destination (O-D) Statistics** With coverage since 1939, this detailed file contains 10 percent of

all passenger tickets on scheduled U.S. certificated carriers for all trips within the United States. The large data file permits detailed tabulation of point-to-point air travel counts and extensive indication of passenger demand patterns between city pairs. These data are useful for air system planning and detailed domestic carrier market planning.

**RSPA: Airport Activity Statistics of Certificated Route Air Carriers** This annual report contains statistics on the volume of revenue passenger traffic handled by the nation's large certificated route air carriers by each airport. Aircraft departure statistics are also included. Data are compiled from information reported quarterly to DOT by carriers using RSPA Form 41.

**RSPA: Air Carrier Traffic Statistics and Air Carrier Financial Statistics** These reports provide aircraft revenue miles and total operating revenue data for scheduled and nonscheduled airlines.

**RSPA: U.S. International Air Passenger Statistics** Conducted since 1976, this program provides country-to-country flows of air and sea passengers for U.S. citizens and non-citizens as identified on trip manifests (Form I-92) required by the Immigration & Naturalization Service. The manifest identifies date, carrier, ports of origin and destination, and counts of passengers by U.S. citizens and others. These data are useful in bilateral negotiations and other international policy functions.

**RSPA (Transportation Systems Center): National Transportation Statistics Annual Report** This report is a summary of selected national transportation statistics from a variety of government and private sources. Featured are cost, inventory, and performance data describing passenger operations of air carriers, general aviation, automobile, bus, rail, and water transportation. Descriptive data such as operating revenues and expenses and vehicle and passenger miles are included, as well as discussion of transportation-related trends. Data on transportation related to the economy and energy supply and demand are also included. Although these data are available in other reports, this is a comprehensive and convenient source for travel industry officials interested in transportation.

**International/Territorial Air Passenger O-D Statistics** Since 1947, this program has provided a detailed file of 10 percent of all passenger tickets on scheduled U.S. certificated carriers for all trips in which one or more points in the trip occur outside the 50 states. Similar to the domestic O-D system, this large file permits detailed tabulation of point-to-point air travel counts and is used for air system, airport, and aircraft planning, as well as for treaty and policy analysis.

**U.S. Department of Labor Bureau of Labor Statistics (BLS): Employment and Earnings Report** This monthly report

provides employment and earnings data by detailed SIC code, including nearly all industries significant to travel and tourism. State and metropolitan level data are provided at lower levels of SIC detail.

**BLS: ES202 Employment and Payroll Data** Payroll and employment data are reported quarterly and annually for industry sectors at the two-, three-, and four-digit SIC code level, covering most sectors of interest to the travel industry. Data are available nationally and for each state.

**Intercity Rail and Bus Data** No national data bases currently exist covering intercity rail and bus. Information is available from Amtrak and Greyhound, but it may be hard to access.

**Scenic Byways Data** Two new bills focus on information and data needs as they relate to scenic byways. The Tourism Policy and Export Promotion Act of 1989 is designed to revamp federal tourism policy to increase inbound travel and give the industry a higher standing on the U.S. trade agenda. Part of this bill would require the study of the economic impact of scenic byways. In addition, the bill calls for more frequent publication of tourism statistics.

The Scenic Byways Study Act of 1989, to be completed in one year at a cost of \$1 million, has four major parts:

1. An updated inventory of scenic byways,
2. Guidelines for a national scenic byways program,
3. An analysis of the safety and environmental implications of scenic byways designations, and
4. Case studies of the economic impact of scenic byways.

The Government Accounting Office (GAO) is also conducting its own investigation of scenic byways and will collect data on scenic road programs in 14 states. Finally, a major new study is being underwritten by Kansas, Missouri, Iowa, and Nebraska. The economic benefits of scenic byways is one of the areas being studied, along with their selection, designation, protection, and safety. The study is being conducted by Kansas State University in cooperation with the four states' transportation agencies and is discussed in more detail elsewhere in this Record in the paper on scenic byways.

#### *User Characteristics Data*

In addition to industry-level data, there are a few federally funded surveys that provide useful information on the users of transportation regarding the purposes of travel and the characteristics of the trips.

**U.S. Department of Commerce Bureau of the Census: National Travel Survey** First conducted in 1958, this survey obtained information on long-distance travel from sample U.S. households and permitted description of travel by mode of transportation, purpose of trip, and characteristics of the

traveler for broad geographic areas including a number of larger metropolitan areas, states, and regions.

Results from the last survey, conducted in 1977, were used extensively by travel industry firms and state travel marketing and promotion agencies, as well as by state transportation planners. The sample, although large enough at 20,000 households to provide fairly reliable state-level data, was still too small to allow route analysis, service planning, or other activities requiring detailed flow data. Unfortunately, and at a great loss to travel and tourism officials and analysts, the National Travel Survey was cancelled abruptly just before commencement of the 1982 survey.

*USTTA: Survey of International Air Travelers (Inflight Survey)* Started in 1983, this program surveys both outbound foreign visitors regarding their travel activities and expenditures while in the United States and outbound U.S. travelers regarding their anticipated activities and expenditures while abroad. These data support marketing and analysis programs of USTTA and other agencies and are also used for international trade statistics in the national accounts.

Further, the data set is frequently used by state and local travel development agencies, as well as the private sector, for market analysis. Using data from this survey and its Travel Economic Impact Model, the US Travel Data Center has estimated foreign visitor expenditures and economic impact by state and industry sector (including transportation) for 1983 and 1985–86. A similar analysis is now being prepared for 1987.

**U.S. Department of Transportation** The Nationwide Personal Transportation Survey (NPTS), conducted by FHWA, is a national household travel survey covering all trips made by U.S. households for local and long-distance purposes by all modes of transportation. Given the demise of the Census Bureau's National Travel Survey, the NPTS is now the only continuing national survey of personal travel at the federal level.

Conducted in 1969, 1977, and 1983–84, the next survey is scheduled to begin in early 1990 and will include telephone interviews with 20,000 households. The emphasis of this survey, however, is on short-distance trips with only a limited long-distance travel component. Further, because of budget constraints, the long-distance component may be reduced more significantly than originally intended. These data are used by researchers and policy development staffs at the local, state, and federal level, as well as by the private sector, to analyze travel patterns over time.

**U.S. Department of Labor** The BLS Consumer Expenditure Survey is a continuing survey of a national sample of U.S. households designed to collect information on all expenditures. Currently, the survey includes approximately 4,800 interviews per quarter and 10,000 weekly diaries from 5,000 household units. Long-distance nonbusiness travel is covered in the survey, and extensive information on travel and expenditures away from home is collected. The data collected from

this survey, particularly the trip data, have not been adequately tabulated or analyzed. The potential of this survey as a source of travel consumption behavior data, however, is substantial.

Table 2 summarizes the key data elements describing trip and traveler characteristics included in the four surveys previously described.

### State Government Sources

Major sources of data provided by state DOTs are covered in other papers in this Record, such as those on surface passenger transportation and scenic byways.

State travel offices are another state government data source that is of particular value to the travel and tourism industry. The governments in the 50 states and U.S. territories fund agencies responsible for travel promotion and development. Although the responsibilities, structure, and resources of these offices vary and focus primarily on marketing their destinations, most have some ongoing research efforts. With total budgets ranging from \$1.4 million to \$22.5 million and averaging \$6.8 million per state in 1989–90, state travel offices now spend an average of \$129,000 on research, or only about 2 percent of their total budgets.

The 1989–90 edition of the *Survey of State Travel Offices*, conducted by the US Travel Data Center, indicates that most states now have ongoing travel data gathering programs that include transportation-related information. These programs generally involve highway traffic counts, counts and surveys of highway welcome center visitors, monitoring of airline arrivals, and systems to track attendance at state facilities and private attractions.

In addition, a number of states conduct research to determine visitor profiles describing trip and traveler characteristics (including origin and demographics), to measure advertising effectiveness, and to collect economic impact-related data such as traveler expenditures and state and county travel-industry related tax revenues (i.e., lodging), as well as estimates of employment, payroll, and tax revenue generated through travel and tourism to and within the state. The table below lists the types of research most frequently conducted by state travel offices in 1989–90:

<i>Type of Study Conducted</i>	<i>Number of States</i>
Advertising effectiveness/conversion study	34
Economic impact	31
State visitor profile	21
Consumer attitude/awareness/image studies	20

State travel office research is most often conducted by state universities or private sector research firms. In some cases, the research is conducted by other state agencies.

### Other Data Sources

#### *US Travel Data Center*

Probably the best source of national-level travel data (including coverage of transportation-related issues) is the US Travel

TABLE 2 DATA ELEMENTS IN THE DOMAIN OF TRAVEL AWAY FROM HOME

	Federal Surveys			
	CES	NPTS	SIAT	NTS
Measures of volume				
Travel (travel parties)	—	X	X	X
Person-trips	—	X	X	X
Person-nights	—	X	X	X
Person-miles	—	X	—	X
Measures of incidence				
Number of households taking one or more trips				
In a year	—	X	—	X
In a multiyear period	—	—	—	X
Number of residents taking one or more trips				
In a year	—	X	—	X
In a multiyear period	—	—	X	—
Trip characteristics				
Transport mode	—	X	X	X
Purpose				
Primary	—	X	X	X
Secondary	—	X	—	—
Type of lodging	—	X	X	X
Distance				
Straight-line	—	X	—	X
Circuitry	—	X	—	—
Duration				
Total	—	X	X	X
At destination	—	—	X	X
By lodging	—	—	X	X
By state	—	—	X	X
Destination				
Country				
U.S.	—	X	X	X
Foreign	—	X	X	X
State				
Multistate region	—	—	X	X
Metropolitan statistical area	—	—	X	X
City	—	—	X	—
County	—	—	—	—
Travel party				
Size	—	X	X	X
Composition	—	X	X	X
Booked through travel agent	—	—	X	X
Rented automobile/truck/RV	—	X	X	X
Package tour	—	—	X	X
Timing				
Day/month trip began	—	X	—	—
Day/month trip ended	—	X	—	X
Occasion				
Weekend	—	X	—	X
Vacation	—	X	X	X
Activities				
Recreation	—	—	X	X
Places visited	—	—	X	X
Brand purchased	—	—	X	—
Expenditures				
Total	—	—	X	—
By item	—	—	X	—
Traveler characteristics				
Relating to household				
Income	X	X	X	X
Size	X	X	—	X
Family structure	X	X	—	X
Housing tenure	X	X	—	X
Number of wage earners	X	X	—	X
Credit card ownership	X	—	—	X
Residence				
Multistate region	X	—	X	X
State	X	—	X	X
Metropolitan statistical area	—	—	X	X
City	—	—	X	X

TABLE 2 (continued on next page)

TABLE 2 (continued)

	Federal Surveys			
	CES	NPTS	SIAT	NTS
Relating to traveler				
Age	—	X	X	X
Gender	—	X	X	X
Race	—	X	—	—
Occupation/employment status	—	X	X	X
Education	—	X	—	X
Marital status	—	X	—	X
Subjective characteristics				
Of travelers' intentions to travel	—	—	—	X
Toward destinations and services (satisfaction)	—	—	X	—

NOTE: X = data available; CES = Consumer Expenditure Survey, Bureau of Labor Statistics; NPTS = Nationwide Personal Transportation Survey, U.S. Department of Transportation; SIAT = Survey of International Air Travelers, U.S. Travel and Tourism Administration; NTS = National Travel Survey, Bureau of the Census. Much of the trip data listed above are collected by the CES but are unavailable to users.

Data Center. The Data Center was established by public and private industry organizations in 1973 to improve information available on travel and tourism to, from, and within the United States.

Following are some of the Data Center's major programs most useful to the travel and tourism community and of potential use to transportation policy analysts.

**National Travel Survey (NTS)** The US Travel Data Center's NTS was first implemented in 1979 to provide more current data between administrations of the Census Bureau's much larger National Travel Survey. Conducted by telephone to monthly national probability samples of 1,500 U.S. adults, the survey collects data on trip characteristics including mode, purpose, accommodations, distances, and durations for all travel 100 miles or more away from home, as well as traveler demographics. The Data Center's NTS has been used extensively by state travel offices, city convention and visitor bureaus, and the private sector to develop descriptive profile and marketing data through reports, special tabulations, and the addition of proprietary questions.

**Travel Economic Impact Model (TEIM)** The TEIM is a disaggregated model built upon estimates of 18 types of travel expenditures; their impact on 14 types of travel-related businesses (including transportation) at the retail level; and the resulting business receipts, employment, payroll, and tax receipts. Developed by the Data Center in 1975, it provides the only consistent, comprehensive, annual estimate of travel spending and its contribution to local, state, and national economies. Since its development, the TEIM has been used by the Data Center to prepare more than 175 studies for a total of 34 states, covering over 2,600 counties and cities. The model is currently being revised under contract with USTTA to improve the estimates, incorporate international visitor impact, measure the indirect effects of tourism spending, and provide forecasts of travel expenditures for states and regions.

**Travel Price Index** The Travel Price Index (TPI) was developed by the Data Center to measure changes in the cost

of travel away from home for U.S. consumers. It is based on U.S. Department of Labor price data collected for the monthly Consumer Price Index (CPI). The CPI is a measure of the average change in prices paid by urban consumers for a fixed collection of goods and services. It is representative of the buying habits of about 80 percent of the noninstitutional population of the United States. Since it is based on the CPI series incorporating a fixed set of weights, the TPI does not necessarily represent changes in the average fares, rates, and other prices travelers actually pay. Further, only national data are available.

#### Other

One other useful source of transportation-related data used by the travel industry is the Eno Foundation for Transportation's *Transportation in America*. Published since 1980, this statistical analysis of transportation in the United States is a compilation of data from other sources and includes estimates for unavailable data. The report includes data on intercity travel by mode, intercity passengers carried, and intercity transportation mileage.

#### DATA GAPS AND PROBLEMS

Despite the large number of data sources regarding transportation and travel/tourism, a number of gaps and problems have been identified by both the providers and users of this information. These fall under four major categories: (a) research orientation and priorities, (b) research methodologies, (c) data coverage, and (d) data products. Each of these is discussed in greater detail below.

#### Research Orientation/Priorities

##### *Travel and Tourism Not a Priority Issue*

Data systems useful in describing and monitoring travel away from home in the United States are inadequate, especially



considering the significant contribution made by this industry to the U.S. economy. Other industries, such as agriculture, are fortunate to have more comprehensive data, despite their smaller size. The general weakness of data on the service sector of the U.S. economy exacerbates this problem in that statistics on many of the SIC codes considered a part of the travel industry are not collected and published regularly.

Moreover, much of the data useful to the study of travel, especially at the federal level, are collected as either a by-product of an administrative program, for system financing or planning, or for regulatory reasons. Thus, the specific informational needs of the travel industry are not usually considered and are often not met. Many observers and analysts, including participants in the cluster groups, have noted the general lack of data on long trips.

#### *Limitations/Reductions in Data Collection*

While significant transportation data resources do exist within the federal system, there are substantial weaknesses in data covering travel and tourism. In particular, data are lacking that go beyond the descriptive and into the levels of detail needed for more sophisticated analysis and marketing purposes.

Deregulation has changed both the structure of transportation industries and the statistical reporting system used to measure them. In the past, regulatory agencies have provided aggregate statistics for major components of the transportation industry. Under deregulation, many data collection programs have been reduced or discontinued. Deregulation has also made it increasingly important, yet difficult, to maintain establishment level, revenue, and pricing data.

There has also been a deemphasis on data collection at the federal level as a result of policy changes created by budgetary restraints and the goal of reducing the reporting burden. Many programs generating travel and tourism information have been affected.

These changes in federal data collection efforts resulted in a marked decline in U.S. travel statistics at the federal level during the 1980s. The Census Bureau's National Travel Survey has been cancelled indefinitely, the National Recreation Survey was cancelled for 1987, and the NPTS has been cut in design and delayed in planning.

#### *Cancellation of the National Travel Survey*

The greatest loss in the collection of data of direct value to measuring and monitoring travel and tourism was the cancellation of the National Travel Survey conducted by the Census Bureau. As previously described, this survey provided the only source of travel volume and characteristics data comparable across all states and consistent across time; it was of vital importance to the travel and tourism community.

Although the US Travel Data Center's NTS is similar in purpose and designed to replicate as closely as possible the definitions, question areas, and methodology of the Census Bureau survey, it was never intended to replace it. Rather, it was intended to provide more timely information between the conduct of the larger sample benchmark surveys of the Census Bureau.

#### *Lack of Exchange Between Transportation and Tourism Industries/Lack of User Input*

Although improvements have been noted recently, there has been a serious lack of communication between providers and users of data in the transportation and travel communities. This helps explain the weakness in transportation-related data regarding travel and tourism and is an area where attention to the problem could generate substantial positive results at minimal cost.

#### *Lack of Integration Among Various Agencies*

Lack of communication and integration among the myriad agencies now producing transportation data has also been frequently noted. Duplication of effort and unfilled data gaps have been the result.

### **Research Methodologies**

#### *Small Sample Sizes*

Given the time and expense involved, sample surveys are often too small for their intended purpose. Although the sample sizes for surveys dealing with travel, such as the Census Bureau National Travel Survey and the NPTS, appear quite large and able to provide reliable results at the national level, they are often too small to allow for the specific geographic and sector segmentation required for federal and state policy formulation or to be of value to the travel industry.

#### *Quality of Data*

Regulatory agencies' data collection tends to be of high quality. Deregulation has resulted in greater dependence on other data providers such as trade associations and private organizations. The quality of these data varies depending on the level of skill and resources available.

High quality data are essential to adequately describe both transportation and travel. Just last year, it was learned that international travelers are spending substantially more money (an additional \$12.4 billion) in the United States than previously estimated. The travel deficit is now calculated to be \$2.9 billion, versus \$7.6 billion using the previous method. This change, of course, also improves the current account balance. These new estimates were computed by BEA based on the USTTA Survey of International Air Travelers. Previously, estimates were based on a less accurate survey. This situation is a good example of the negative effects of inadequate travel/tourism data.

#### *Lack of Time Series/Lack of Continuity*

Time series data are essential to track transportation and travel trends, as well as to keep data collection systems responsive to current and anticipated issues and informational needs. Travel-related data systems have not fared well in this

regard, as evidenced by the cancellation of the National Travel Survey and rather sporadic conduct of other surveys of key importance. To address emerging data needs, data collection efforts must balance the need for consistency with the need for flexibility in modifying methods, questionnaire content, etc.

#### *Lack of Standardization*

There has been a lack of standardization of terms, statistics, and categories used to measure transportation usage and travel. This is reflected in the lack of coordination of state data collection efforts in both the more traditional DOT-type programs and those dealing specifically with travel.

Since its establishment, the US Travel Data Center has concentrated on the development of standard definitions and research methodologies for use in travel-related research and has encouraged their adoption. Yet, despite the acceptance of this standardization by many private sector and state government travel entities, there continues to be a fairly large number of studies that depart from this standardization, making it difficult to compare travel-related statistics across localities or industry sectors.

#### *Confidentiality Constraints*

Because of confidentiality constraints on the publication of federal statistics, data are often unavailable for specific geographic areas. Although the detailed type of flow analysis

data required for transportation planning are usually available, it is often impossible to obtain demographic data describing travelers by specific origin and destination. This type of information is crucial for state and local tourism officials.

#### *Studies Often Mode-Specific*

Federally sponsored studies are often confined to a single mode of transportation. Intermodal and multimodal alternatives often cannot be investigated through such research. At a time when alternate solutions to transportation infrastructural problems (i.e., high-speed rail) are being seriously investigated, this emphasis on mode-specific research is both inadequate and inappropriate.

#### **Data Coverage**

##### *Unmet Data Needs*

Table 3 presents a matrix indicating the current state of information available on various characteristics of passenger transportation modes most likely to be frequented by travelers away from home. This matrix was developed from the US Travel Data Center's perspective in working with public tourism development agencies and private carriers, suppliers, and intermediaries.

The unmet information needs at state and local levels tend to be greater than at the national level, yet the value of data

TABLE 3 TRAVEL AND TOURISM TRANSPORTATION DATA NEEDS MATRIX

Transport Mode	Company Condition <sup>a</sup>	Performance <sup>b</sup>	Passenger Volume <sup>c</sup>	User Characteristics <sup>d</sup>	Comments
Commercial airlines	+	+	+	0	Form 41 data comprehensive at national level
General aviation	—	0	—	0	Very little known about activity
Intercity rail	+	+	+	+	Amtrak gathers complete data
Ocean cruise lines	—	—	—	—	Trade association gathers some information
Rental cars, trucks, RVs	0	0	—	—	Some information from Census of Business
Rivers/lakes water passenger transportation	—	—	—	—	No consistent information available
Scheduled intercity bus	0	0	0	—	ICC reports on Class I carriers only
Sightseeing services	—	—	—	—	No consistent information available
Taxicabs/airport limousines	—	—	—	—	No information available
Tour operators	0	0	—	—	
Tour/charter bus	—	—	—	—	No reliable information available
Travel agents/tour operators	0	+	0	0	Some Census of Business data, airline reports, industry surveys

NOTE: + = ample information available at least annually; 0 = some information available periodically; — = little or no reliable information available.

<sup>a</sup>Includes revenue, expenses, employment, payroll, taxes paid.

<sup>b</sup>Includes revenue per passenger-mile, cost per passenger-mile, cities served, weekly service, productivity, load factors, capacity.

<sup>c</sup>Includes passenger-miles, origin-destination flows, passengers.

<sup>d</sup>Includes volume, demographics, and other characteristics of personal users and business users.

to rational economic development and industry planning is no less. As international travel to and from the United States continues to grow more rapidly than domestic tourism, understanding of the conditions, characteristics, and performance of the carriers serving these travelers, as well as the characteristics of the travelers themselves, needs to be improved. This matrix of information needs is submitted for serious consideration in the current national transportation policy study.

#### *Weaknesses in the SIC Code System and Related Data Collection and Reporting*

Despite the 1987 revision of the SIC code system, which generally improved coverage of the travel industry, weaknesses still remain. Many of the improvements were based on recommendations made by data users in the travel industry, including the US Travel Data Center. Yet, other improvements are still needed that were recommended but not made in the last revision.

In addition, industry-level data on numbers of establishments, business receipts, payroll, and employment for many components of the travel industry are still lacking. The following industries, for example, are not covered in the censuses of retail trade and service industries:

- Group 412: taxicabs;
- Group 413: intercity highway passenger transportation;
- Industry 4142: passenger transportation charter service, except local;
- Industry 4481: deep sea transportation of passengers, except by ferry;
- Industry 4489: water transportation of passengers, not elsewhere classified (airboats, excursion boats, sightseeing boats, water taxis, and passenger water transportation on rivers and canals);
- Group 451: air transportation (scheduled) and air courier services;
- Group 452: air transportation (nonscheduled);
- Group 458: airports, fields, and terminal services;
- Group 472: arrangement of passenger transportation;
- Industry 4624: travel agencies;
- Industry 4725: tour operators; and
- Industry 4729: arrangement of passenger transportation, not elsewhere classified.

Publication of these data by state, as well as by county and metropolitan statistical area, would be most useful to the travel and tourism community and those who study it.

Further, data collected through the economic censuses and other sources do not cover firms without employees. In an industry such as travel, which is dominated by small businesses, this is a significant data weakness resulting in underreporting of its economic significance.

#### *Frequency of Certain Data*

Annual sales/receipts data are currently not available for a number of SIC codes covering major components of the travel industry. These include water transportation (SIC 44), rail-

road transportation (SIC 40), and nonscheduled air transportation (SIC 452).

#### *Weakness of Rail and Bus Data*

There is a lack of national data collection and reporting of information for the passenger rail and intercity bus industries. Although data are available from Amtrak, and more recently from Greyhound, they are not integrated into the federal data collection systems and are not easily accessible.

#### *Lack of Information on Other Aspects of Travel*

Both the federal government and the travel industry require data beyond counts and flows to facilitate planning and ensure a safe and efficient transportation system in the future. Travel industry firms and destination promotion agencies also require additional information to better market their products and services and satisfy the traveling public. For example, more comprehensive national and geographically specific data are required on traveler characteristics, decision making, consumer attitudes, perceptions, travel expectations, and satisfaction. Research is also lacking on how travel and transportation usage affect other parts of the nation's economy, the environment, and society as a whole, in terms of both benefits and costs.

#### *Lack of Data Regarding Scenic Byways*

The development of scenic byways in the United States has become a top priority, as reflected in the Scenic Byways Study Act of 1989. FHWA Executive Director Richard Morgan testified in support of this act saying, "Scenic byways and recreational travel are important to an overall transportation planning process, and we support their consideration." To date, however, there are little or no data available to either quantify the number of recreational users of scenic byways or estimate their economic impact.

#### **Data Products**

##### *Publication Lags*

Delays in publication of data (often by as much as 2 years) significantly reduce their relevance, both to federal agencies involved in policy formulation and to the various components of the travel industry. This may result in a seeming lack of interest in available data products.

##### *Lack of Analysis and Dissemination*

Many federal agencies lack the financial support to engage in in-depth data analysis and to produce the variety of data products necessary to serve the multiple and often different needs of the various levels of government interested in transportation and the travel community. In addition, inadequate

staff and lack of funding often make it difficult to obtain special tabulations of existing data sets.

#### *No Coordinated Central Source of Data*

There is no coordinated central source of federally produced, transportation-related travel data. Given the large number of federal agencies producing data and the lack of communication among these agencies and among data producers and users, a coordinated central source would be a most welcomed service.

### **RECOMMENDATIONS**

The following recommendations are based on an assessment of the gaps and problems related to transportation travel data. In addition, recommendations made by members of the cluster groups have been incorporated. Many of these recommendations reflect an implicit understanding of the importance of travel (as defined in this paper) to transportation issues and a recognition of the data needs of the travel and tourism industry.

#### **Research Orientation/Priorities**

##### *Travel and Tourism a Priority Issue*

Travel and tourism, the nation's third largest retail industry and its second largest private employer, needs to become a priority industry for statistical coverage in future federal agency programs. Now that travel and tourism is recognized as the largest export business in the United States, it behooves the entire federal establishment to take the industry more seriously. The national transportation policy should acknowledge the importance of the movement of people, not just that of vehicles. In keeping with one of its major objectives—that it be market driven—the policy should promote research not only on technology but on travel characteristics and patterns.

##### *Increased Funding*

In these times of high budget deficits, it may be difficult to obtain additional funding for federal data collection efforts related to travel and tourism. However, when additional funding is sought, the travel industry could again be mobilized to support funding requests for research efforts at the federal level.

Other funding sources should also be considered. For example, federal agencies should encourage public/private partnerships and investigate the possibility of the private sector providing “seed money” for transportation and travel-related research. Higher data user fees might also be considered as a means of financing collection and dissemination efforts.

Methods for making the most efficient use of research funding should also be addressed. For example, federal agencies should investigate whether data collection efforts can be more cost-effectively undertaken by the private sector, as is now

being done with the NPTS. In addition, existing, ongoing research programs in the private sector or academia that could be expanded and modified to meet federal data needs should be identified and considered as possible research vehicles. This would serve not only to stretch limited federal funds but to help ensure the data are applicable to the needs of the transportation and travel community.

##### *National Travel Survey*

The top priority of the travel and tourism community, with regard to federal research programs, is the reinstatement of the Census Bureau's large-scale National Travel Survey. If, as has been suggested, the long-distance component of the NPTS is cut, the National Travel Survey will be more critical than ever.

Reinstatement of the National Travel Survey is supported by a number of key national travel industry groups, including the Travel Industry Association of America, the US Travel Data Center, the Travel and Tourism Government Affairs Council, the National Council of State Travel Directors, the Congressional Travel and Tourism Caucus, and the Travel and Tourism Research Association, as well as several regional, state, and local groups.

##### *Transportation/Tourism Exchange*

Improvements in communication among researchers and data users in transportation and travel should be encouraged. Attendance at major travel research meetings, such as those held by the Travel and Tourism Research Association and the US Travel Data Center, by those responsible for transportation data collection would be appropriate and useful. Similarly, travel researchers and data users should consider attending major transportation-related meetings such as those sponsored by TRB.

##### *Interagency Working Group(s)*

Interagency working groups comprised of those responsible for various transportation data collection efforts should be established and encouraged. This will help ensure that data programs are not artificially constrained by any particular program area, alleviate duplication of effort, fill current data gaps, and support multimodal transportation development efforts. One suggestion would be to have OMB head up an interagency working group that would meet on a regular basis.

##### *User Groups*

DOT and other federal agencies should establish industry advisory boards/user groups for research efforts on all transportation modes (including representatives from the travel industry). The value of current data resources could be considerably enhanced by the involvement of data users who are more knowledgeable about the needs of the transportation and travel industries. A survey of such users, similar to one

conducted by TRB in 1981, might also be useful. Meetings of these user groups with interagency working groups would also be appropriate and beneficial.

### *University Research Efforts*

The federal government should consider providing greater support to universities for transportation-related travel research. In addition to research, universities will produce tomorrow's research professionals. Further, the base of researchers in the field should be expanded to avoid dominance of a few players and to bring in other disciplines that can make significant contributions to this area.

### **Research Methodologies**

#### *Increased Sample Sizes*

The value of the previously discussed surveys to both transportation and travel officials would be considerably enhanced by larger samples. Because this may be costly, alternative methodologies should be considered and tested. It would also be helpful to the research community at large if the results of such experimentation with new methodologies were shared with other transportation and travel researchers.

#### *Time Series Data*

As previously discussed, time series data are critical to tracking transportation and travel trends and are critical to provide program continuity over an extended timeframe. Further, data collection systems must be flexible enough to respond to emerging transportation and travel industry needs. An appropriate balance of consistent data series and flexibility should be sought in all data collection efforts.

#### *Standardization*

Standardization of definitions and research methodologies should be encouraged at all levels of government, as well as within the private sector. The interagency working groups and user groups could help considerably in achieving this objective.

#### *Confidentiality Constraints*

Although the need for confidentiality in the release of data is clearly understood, consideration should be given to ways in which these constraints might be relaxed to provide more complete dissemination of existing data to users.

#### *Multimodal Research*

Federally sponsored studies should include simultaneous investigations of all modes of transportation. Given the increasing interest in alternative transportation systems to help alleviate

traffic congestion, such as high-speed rail, the need for such multimodal studies will no doubt increase rapidly in the near future.

### **Data Coverage**

#### *Improvements to the SIC Code System and Related Data Collection Efforts*

From the travel and tourism industry perspective, there are two general principles that should guide any additional improvements to the SIC code system. These include

1. Establishments primarily providing passenger transportation and related services should be distinguished from those primarily providing commodity transportation and warehousing.
2. Establishments primarily providing intercity passenger transportation and related services should be distinguished from those primarily providing local transportation.

Specifically, those components of the travel industry not currently covered in the previously discussed economic censuses should be included in 1992. Further, data on firms that have no employees should also be collected.

#### *Frequency of Data*

Annual state and monthly national data covering business receipts of intercity bus companies, travel agencies, taxicab and airport limousine services, ocean cruise liners, and rental car companies should be provided.

#### *Rail and Bus Data*

A system to collect national data on passenger rail and intercity bus networks, similar to that collected for highway travel, should be considered.

#### *Greater Coverage of Other Aspects of Travel*

The national transportation policy should promote areas of research other than those that are solely technology oriented or that just produce counts and flows. In keeping with its objective to be market driven, additional data should be collected on traveler demographics and psychographics, as well as on transportation's and travel's relationship to the nation's economy, environment, and quality of life.

#### *Regional Needs*

Greater attention should be given to the collection of data to meet regional and state needs. Regional studies would contribute much to investigation of the usage of intercity corridors, as well as being useful in encouraging private sector investment. State and local travel officials should be involved to provide input about their unique data needs. At the same time, to relate to national planning and policy needs, such research must be tied to national system priorities.

### Scenic Byways

Current or planned research on the use and economic impact of scenic byways will assist those responsible for developing and monitoring the scenic byways system. These recent efforts are likely to increase recognition of the need for better data describing travel and tourism. For example, when introducing the Scenic Byways Study Act in June 1989, Senator Rockefeller testified, "The desire to hit the road has made travel and tourism the fastest growing industry in the country." Other proponents of the act have made similar statements.

Additional research efforts will obviously be needed as this system is implemented. Consideration should be given to utilizing current methodologies, such as the US Travel Data Center's TEIM, in monitoring this effort. Besides being cost effective, such a strategy would help ensure comparability of results across geographic areas and consistency over time.

### Data Products

#### *More Timely Release of Data*

Improving the timeliness of government data should be a top priority. This would help enhance both their relevance to and their use by transportation and travel researchers.

#### *Improved Analysis and Dissemination of Results*

It is unfortunate and wasteful that much of the data collected remain relatively underused because of inadequate analysis, lack of dissemination, and the unwillingness of many agencies to respond to requests for special tabulations. For example, a series of special reports prepared a few years ago based on data from the USTTA Survey of International Air Travelers and covering foreign visitors has not been updated. Further, given today's PC-based office environment, all data resources should be available in an easy-to-use format on diskette.

#### *Greater Support for the Consumer Expenditure Survey*

The Consumer Expenditure Survey offers high potential as a source of data for the travel industry. The program should be maintained as currently designed but should be adequately funded to provide access to the long-distance trip data collected, as well as the more in-depth tabulations and analyses required to enhance its usefulness. Even in these times of budgetary constraints, it makes little sense to spend large amounts of money funding the conduct of research without making adequate financial provisions for full utilization of the results.

#### *Greater Support for the Survey of International Air Travelers*

Greater financial support should be given to the USTTA's program of research. Given the significant increase in international visitation to the United States and its tremendous potential, data on this sector are in great demand. Efforts to

make this information more readily available to those involved in planning efforts and in marketing the travel product to the foreign market have been thwarted by inadequate staff and financial resources.

#### *Establishment of a Clearing House*

The paper on surface passenger transportation in this Record recommends the establishment of a national data center for strategic planning and decision making. Such a center would provide for the standardization of geography, definitions of terms, travel and performance measures, and computer systems. It is further recommended that data needs of the travel industry be considered when establishing such a center.

The center should also provide training in the use of federal data systems as they apply to transportation and, specifically, travel and tourism, perhaps through seminars at tourism-related conferences. In addition, existing inventories of federally produced data products should receive much wider dissemination.

At the July 1989 conference at the National Academy of Sciences, William Johnston of the Hudson Institute stated, "The national transportation policy must understand the need to collect sufficient data to document and quantify the scale and scope of transportation needs. Typically, what gets measured gets fixed."

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