

Transportation and Community and System Preservation Pilot Program



Third-Year Report

TRANSPORTATION AND COMMUNITY AND SYSTEM PRESERVATION PILOT PROGRAM

THIRD-YEAR REPORT

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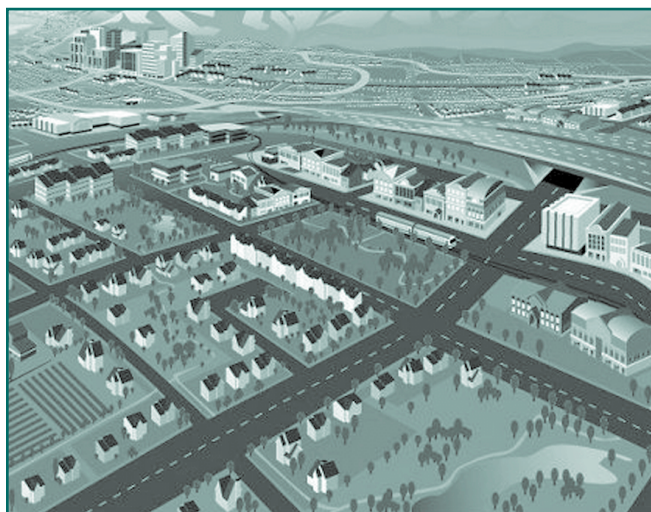
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SUMMARY

The Transportation and Community and System Preservation (TCSP) Pilot Program provides funding over five years to States, local and tribal governments, and metropolitan planning organizations (MPO) to develop innovative strategies that use transportation to build livable communities. Created by Section 1221 of the Transportation Equity Act for the 21st Century (TEA-21), \$120 million of funding is authorized to respond to the concerns of communities from across America that transportation investments should be used to achieve strong, sustainable economic growth while simultaneously protecting the environment and ensuring a high quality of life.

This report reviews the accomplishments of the TCSP program following its first three years of implementation. Between Fiscal Year (FY) 1999 and 2001, a total of 199 grants valued at \$91.1 million have been awarded to government agencies throughout the United States. These grants are supporting a wide range of transportation planning and implementation projects with the following objectives:

- Improve the efficiency of the transportation system;
- Reduce the environmental impacts of transportation;
- Reduce the need for costly future public infrastructure investments;
- Ensure efficient access to jobs, services, and centers of trade; and
- Examine development patterns and identify strategies to encourage private-sector development patterns that achieve these goals.



Salt Lake City, Utah metropolitan area.
Courtesy Envision Utah

TCSP projects are helping communities link transportation and land use strategies.



Design for Main Street in Houston.
Courtesy Ehrenkrantz, Eckstut & Kuhn Architects

TCSP projects are demonstrating transportation design practices that increase travel options and enhance community character.

A review of project status and accomplishments to date, as well as interviews with grantees, Federal program partners, and stakeholder groups, suggests that TCSP projects are indeed accomplishing these objectives. TCSP projects funded in the first three years of the program have helped to bring innovation to transportation practice in the following ways:

- By expanding the range of partners involved in planning, including “non-traditional” partners such as economic development organizations, community groups, and private developers;
- By expanding and introducing new techniques for public involvement and community participation;
- By developing new analytical tools to assess the impacts of transportation and land use alternatives on mobility, economic development, community character, and the environment;
- By demonstrating design practices such as traffic calming, pedestrian linkages, intermodal transit facilities, and bicycle paths that increase travel options and improve the character of local communities; and
- By helping communities as well as the private sector re-examine their land development practices, in order to reduce transportation impacts and better complement public-sector investments.

Furthermore, the TCSP program is disseminating the effective practices developed through individual TCSP projects by sponsoring a web site, workshops, case studies, and project evaluations to share knowledge about accomplishments and lessons learned. The impacts of the TCSP program, as a result, reach well beyond the scope of its individual projects.



Summary



Public charrette in Saginaw, Michigan.
Courtesy Glatting Jackson Kercher Anglin Lopez Rinehart

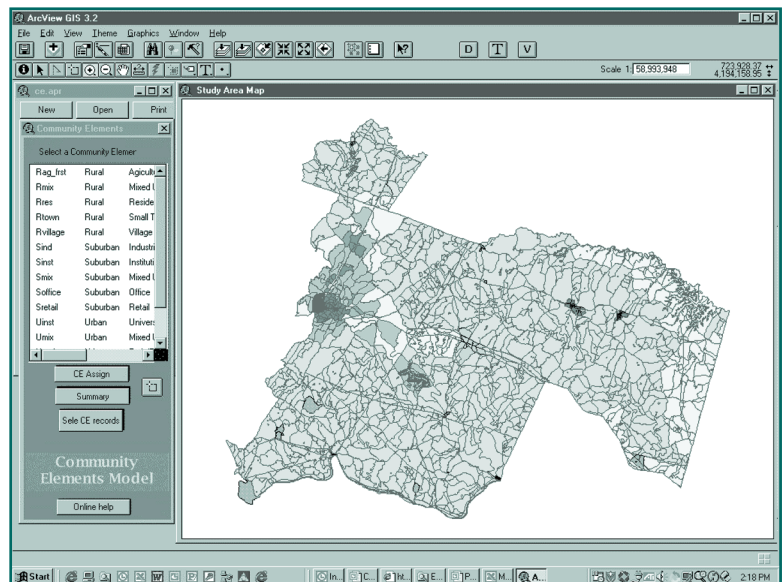
TCSP projects are introducing new public involvement techniques.

While enthusiasm for the objectives and accomplishments of the TCSP program is widespread, the program's mix of projects has changed in significant ways between FY 1999 and 2001. These changes have accompanied a shift in the way grants are awarded from a competitive application process to Congressional earmarking. Over this three-year period, there has been a strong shift away from projects focused on regional transportation planning and on grants awarded to MPOs. The share of projects developing planning tools, methods, and handbooks also has declined. There has been a corresponding increase in location-specific planning and implementation grants to cities and counties, with an emphasis on public-sector transportation and capital investments such as bicycle paths, streetscapes, transit facilities, and roadway improvements. While interviewees did not fault the Congressionally selected projects, they felt that the TCSP program's intended focus on planning innovations, non-traditional partnerships, project evaluation, and knowledge transfer is decreasing, and that the program may be losing many of its unique and most beneficial aspects as a result.

Looking ahead to the last two years of the TCSP Pilot Program in FY 2002 and 2003, and to the re-authorization of TEA-21 in advance of FY 2004, interviewees made a number of suggestions for

maximizing the effectiveness of the program in the future:

- **Award future grants through a competitive process.** Projects have shifted from being awarded almost entirely through a competitive process in FY 1999 to being awarded entirely through Congressional earmarks in FY 2001.
- **Continue to emphasize learning and knowledge transfer.** The innovative work undertaken in the first three years of the TCSP program is now bearing fruit; documenting and disseminating the results of this work will multiply the benefits of TCSP.
- **Maintain a focus on both planning and implementation.** TCSP projects should continue to emphasize planning innovations, while at the same time supporting specific community and system preservation implementation practices. Widespread implementation, however, will require either an increase in TCSP funding or the funding of projects through other sources.
- **Move TCSP into the mainstream of transportation planning practice.** TCSP has been a successful pilot program. The approaches demonstrated by TCSP projects should, in the future, be fully integrated into transportation planning practice.



The CorPlan model in Charlottesville, Virginia.
Courtesy Renaissance Planning Group

TCSP projects are developing new analytical tools.



1. TCSP PROGRAM OVERVIEW

INTRODUCTION

The Transportation and Community and System Preservation (TCSP) Pilot Program provides funding over five years to State, local, and tribal governments to develop innovative strategies that use transportation to build livable communities. Created by Section 1221 of the Transportation Equity Act for the 21st Century (TEA-21), \$120 million of funding is authorized to respond to the concerns of communities from across America that transportation investments should be used to achieve strong, sustainable economic growth while simultaneously protecting the environment and ensuring a high quality of life. Grants provided by TCSP support projects that improve linkages among transportation and community planning and system preservation practices.

In the first three years of the program, 1,114 applications requesting \$739 million in funds were received from States, local governments, tribal governments, and metropolitan planning organizations (MPO) throughout the United States. A total of 199 grants valued at \$91.1 million have been awarded over this three-year period. These projects are listed in Appendix A. TCSP grants are supporting a wide range of transportation planning and implementation projects that:

- Integrate land use and transportation planning;
- Balance economic growth, the environment, and community values;
- Create a long-range vision for a community or region;
- Increase travel options in urban, suburban, and rural areas;
- Reuse existing infrastructure; and
- Establish non-traditional partnerships to meet TCSP goals.

This Third-Year Report reviews the results of the TCSP program after implementation of the program in Fiscal Years (FY) 1999 through 2001. Key questions addressed in this report include:

- What are the characteristics of projects funded in FY 1999 through 2001?
- What have TCSP projects accomplished, both individually and collectively?
- What lessons have been learned from implementing TCSP projects?
- Are learning and knowledge transfer activities successfully transferring TCSP experience to other areas?

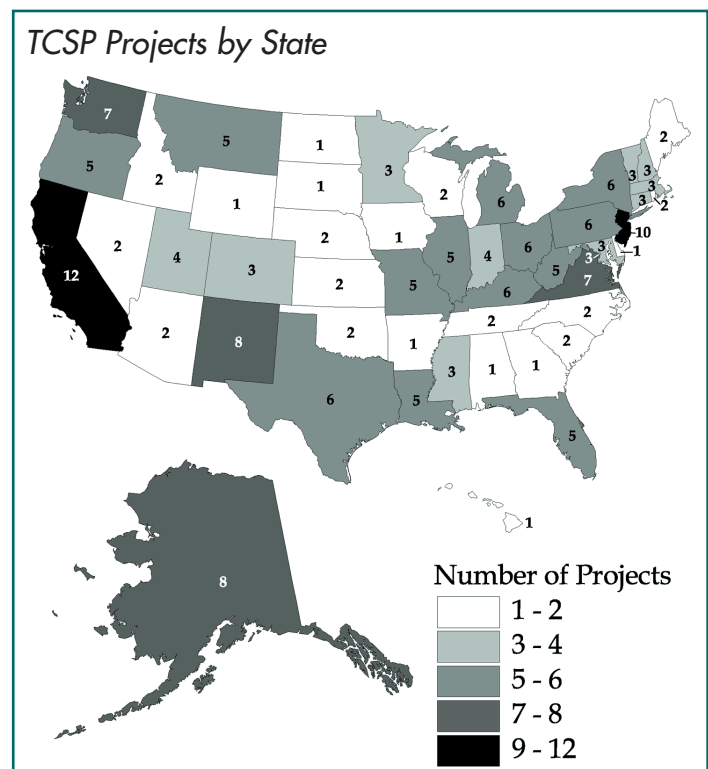
- Is the TCSP program as a whole accomplishing its defined goals and objectives?
- How can the TCSP program continue to effectively address its goals and objectives in the future?

To gather insights into the accomplishments and lessons learned from the TCSP program to date, applications and progress reports submitted by FY 1999 and 2000 TCSP grantees were reviewed. In addition, interviews were conducted with staff from Federal Highway Administration (FHWA) headquarters and Division offices, each of the Federal program partner agencies, TCSP stakeholder groups, and local agencies involved in implementing specific TCSP projects.

TCSP PROGRAM OBJECTIVES

Communities across America increasingly want to achieve strong, sustainable economic growth in ways that preserve community character and ensure a high quality of life. Federal livability programs, including TCSP, aim to help citizens and communities preserve green space, ease traffic congestion, restore a sense of community, promote collaboration among neighboring communities, and enhance economic competitiveness.

The particular focus of TCSP is to strengthen the link between transportation and community preservation.



TCSP recognizes the fundamental role of transportation in shaping communities, the economy, and the environment. Designing transportation systems that enhance mobility, economic opportunity, and community livability, while minimizing environmental impacts and lifecycle costs, is a major challenge for the future. Responding to this challenge, the TCSP program emphasizes strategies that:

- Improve the efficiency of the transportation system;
- Reduce the environmental impacts of transportation;
- Reduce the need for costly future public infrastructure investments;
- Ensure efficient access to jobs, services, and centers of trade; and
- Examine development patterns and identify strategies to encourage private-sector development patterns that achieve these goals.

TCSP projects are intended to meet all of these objectives rather than just one or two. TCSP is not simply an economic development or environmental preservation program. Instead, project sponsors should search for ways to reconcile transportation system performance, infrastructure costs, economic needs, and environmental impacts.

An effective planning process is key to successfully achieving these objectives under the TCSP program. TCSP is designed to support and enhance existing State and metropolitan planning processes, in part by engaging a broad range of partners. These include the general public as well as non-traditional partners, such as the business community, public health agencies, and private developers. TCSP also is designed to add value to planning processes, for example, by introducing greater consideration of the land development and community impacts of various transportation investment alternatives.

Finally, the TCSP program places a strong emphasis on evaluation and learning. The authorizing TEA-21 language explicitly recognizes that the complex set of relationships among transportation, land development, and the factors influencing community livability are not fully understood. Thus, research and individual grant evaluations to determine which transportation and community design practices are most successful are important elements of the TCSP program. The knowledge gained from TCSP should assist communities nationwide in developing and implementing their own transportation and community preservation practices.

HOW DOES THE PROGRAM WORK?

TCSP is a five-year pilot program, extending from 1999 through 2003. The program is managed by FHWA in cooperation with the Federal Transit Administration (FTA), the Federal Railroad Administration (FRA), the Office of the Secretary (OST), the Research and Special Program Administration (RSPA), and the Environmental Protection Agency (EPA). TCSP grants are available to States, local and tribal governments, and MPOs, and may be spent over a period of up to two years.

For each of Fiscal Years 1999, 2000, 2001, and 2002, an announcement was published in the Federal Register requesting applications for the TCSP program, with the first announcement for FY 1999 funds published in September 1998. Applications underwent an interagency review process, in which FHWA, FTA, and EPA field staff reviewed and provided comments on these submissions to a 20-person technical review panel comprised of program experts from FHWA and its partner agencies. This technical panel then evaluated the final proposals.

In FY 1999, \$13.1 million in TCSP funds were awarded to 35 projects through this competitive application process. In FY 2000, a total of \$21.8 million was awarded at the direction of Congress to 39 projects. An additional \$9.3 million in FHWA administrative funds was awarded to fund 45 projects selected through the competitive process described above. In FY 2001, all 80 grants totaling \$46.9 million were directed by Congress; these awards were announced in October 2000. Following the award of an earmark, FHWA requested that each grantee develop and submit a project application—describing the project's goals, objectives, approach, timeframe, and budget—similar to the applications submitted for the competitive award process. TCSP projects also need to meet other Federal aid requirements, including National Environmental Protection Act (NEPA) and U.S. Department of Transportation (DOT) statewide and metropolitan planning requirements.

The deadline for applications for FY 2002 TCSP funds was January 31, 2001, and the announcement of FY 2002 TCSP grant awards is expected after October 2001.

STATUS OF TCSP PROJECTS

As of the end of summer 2001, most of the first-year TCSP projects are well underway, and more than one-third have been completed. Work also has begun on

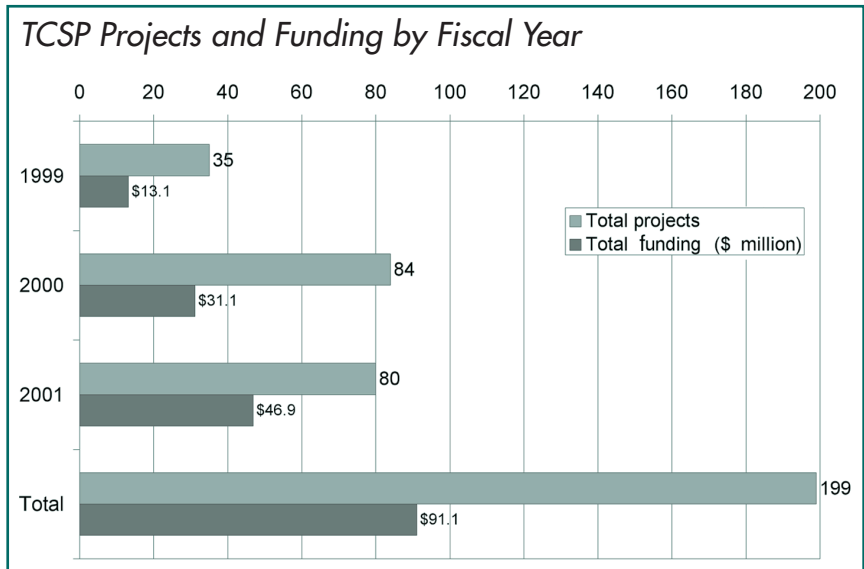


nearly all of the FY 2000 awards. The complexity of many TCSP projects—involving a number of different partner agencies and organizations, and addressing issues not typically addressed in transportation planning—has meant that project implementation is sometimes slower than expected. On the other hand, the successes being demonstrated by many first-year projects are leading to follow-on work to implement recommendations of these projects. The accomplishments of many TCSP projects and the challenges faced by these projects are explored in greater detail in this report.

OTHER PROGRAM ACTIVITIES

The role of FHWA and its Federal partner agencies in the TCSP program has been not only to review applications and administer projects, but also to assist in disseminating information about TCSP program accomplishments. To accomplish this task, FHWA has sponsored two workshops for TCSP grantees and potential applicants: one in Denver, Colorado in May 1999; and one in Washington, D.C. in September 2000. These workshops, with more than 200 attendees at each, provided an opportunity for grantees to share information about their projects and lessons learned.

FHWA also maintains a web site that provides summary information and contacts for each TCSP project, as well as resource materials for grantees such as Federal Register notices, evaluation guidance, and workshop proceedings. In addition, to highlight successful TCSP projects, FHWA has developed a series of



case studies on completed or nearly-completed FY 1999 projects. These case studies have been disseminated in hard copy format, and have been posted on FHWA’s web site.

TCSP funds also are available to support research. One TCSP research project was funded in FY 2000. A consultant was selected to summarize existing modeling methods that measure the impacts of regional transportation on land use and development. The study is documenting current practices for estimating the effects of land use changes on travel patterns, energy use, and emissions. A small number of planning-oriented TCSP projects also contain research components, for example, an FY 2000 project is assessing the impact of the Virginia Railway Express Commuter Rail on land development patterns in Northern Virginia.



2. TCSP PROJECTS

To characterize the range of projects funded in FY 1999 through 2001, TCSP projects are categorized according to the following characteristics:

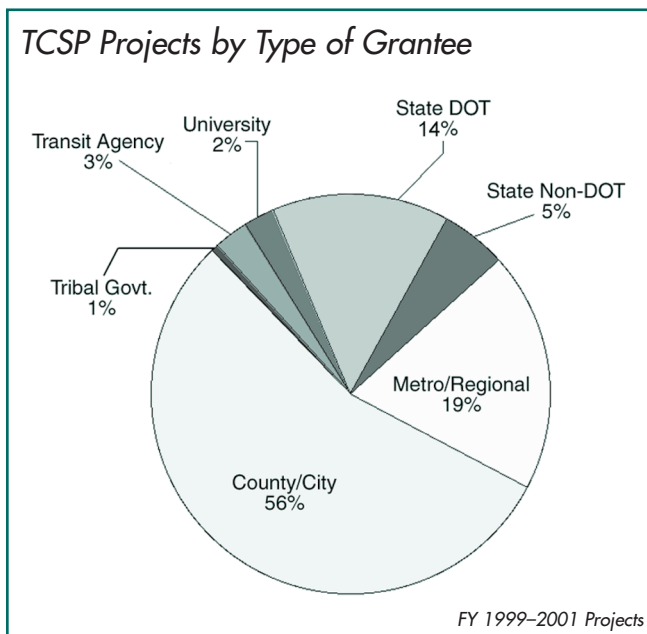
- Type of grantee (city/county, MPO, State DOT, etc.);
- Area type (urban, suburban, rural, or regional);
- Area size;
- Type of project; and
- Type of products anticipated.

The 199 TCSP projects awarded in FY 1999, 2000, and 2001 are listed in Appendix A.

TYPE OF GRANTEE

Counties and cities represent the most common type of grantee (94 projects, or 55 percent of known grantee types) in the first three fiscal years of the program. MPOs represent the second largest type (33, or 19 percent). Twenty-five projects (14 percent) were awarded to State DOTs. A small number of grants were also awarded to other State agencies, tribal governments, and transit agencies. In a few cases, a joint application was submitted by more than one lead agency. Based on a more detailed analysis of the 524 TCSP letters of intent received for FY 1999, the distribution of agencies applying for funds was similar to the distribution of agencies awarded funds.

The mix of grantees has changed significantly as the TCSP program has progressed. For example, the share of grants awarded to cities and counties grew from 40 percent in 1999 to 51 percent in 2001. At the same time,

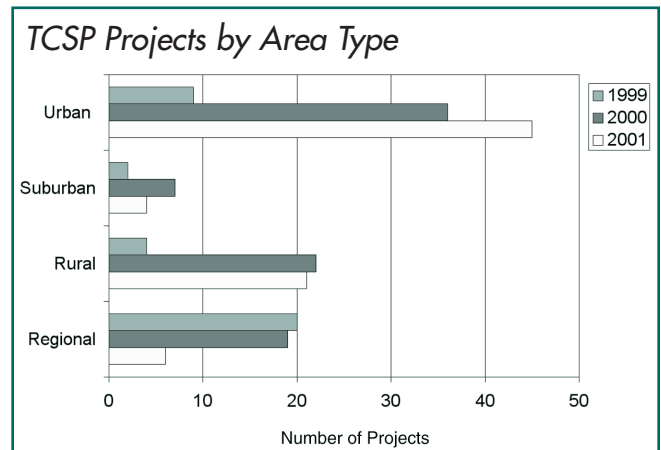


the share of grants awarded to MPOs decreased dramatically, from 48 percent in 1999 to 17 percent in 2000, and only two percent in 2001. Also in 2001, a number of grants (14 percent) were awarded to other governmental organizations such as universities and economic development agencies. In a few cases, non-governmental organizations such as environmental or community groups have taken the lead in initiating a project, partnering with a governmental organization to apply for the grant and carry out the project.

AREA TYPE

Area types include:

- **Urban**—In the central city of a metropolitan area (for example, a revitalization plan for an urban neighborhood);
- **Suburban**—In a suburban setting of a metropolitan area;
- **Rural**—In a small city/town (less than 50,000 population) or rural area; and
- **Regional**—Encompassing more than one area type (for example, a regional visioning project that includes the entire metropolitan area).



Ninety projects (46 percent) awarded funds in years 1999, 2000, and 2001 were located in urban settings, 13 projects (seven percent) in suburban settings, and 47 projects (24 percent) in small town/rural settings. Most of the remainder (45 projects, or 23 percent) were of a regional nature. (A small number of projects were statewide in nature and not associated with a particular region.) This mix has changed significantly, however, over the first three years of the TCSP program. The share of projects in urban settings more than doubled from 26 percent in FY 1999 to 57 percent in FY 2001, and the share of projects



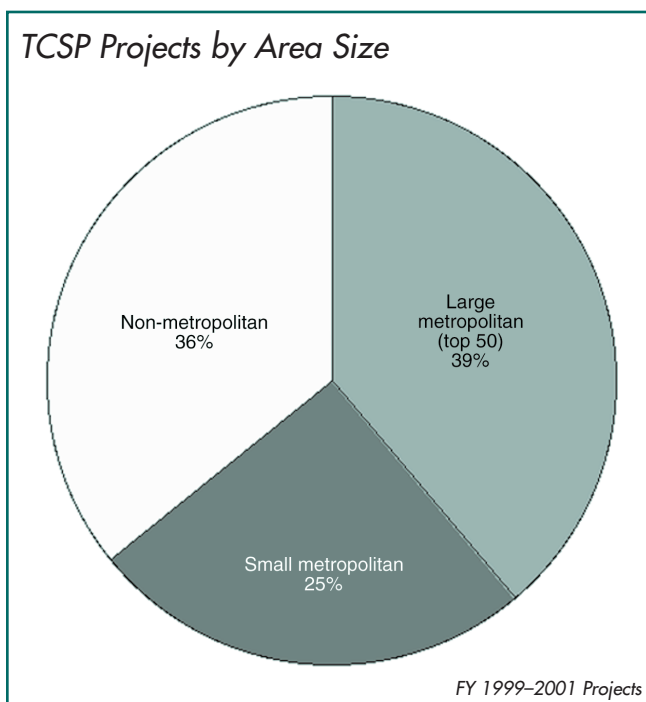
in small town or rural settings also increased from 11 percent to 27 percent. In contrast, the share of projects that are of a regional nature declined from 57 percent of all FY 1999 projects to only seven percent of all FY 2001 projects.

AREA SIZE

Areas receiving grants are classified as:

- **Large metropolitan**—One of the 50 largest metropolitan areas as identified by the U.S. Bureau of the Census, corresponding to a population of roughly one million or greater;
- **Small metropolitan**—Metropolitan areas with more than 50,000 inhabitants but not one of the 50 largest; and
- **Non-metropolitan**—Projects located in non-metropolitan cities or towns of less than 50,000 inhabitants, rural areas, or statewide projects.

Just over three-fifths of grants (125) in FY 1999, 2000, and 2001 were awarded to agencies in metropolitan areas, with the majority of these (76) awarded to agencies in large metropolitan areas. The share of projects located in large metropolitan areas has declined, however, from 46 percent of all projects in FY 1999 to 30 percent of all projects in FY 2001. During this same time period, the share of projects located in non-metropolitan areas grew from 17 percent to 42 percent. The average dollar award per project was similar across area sizes.



TYPE OF PROJECT

TCSP projects are categorized according to a variety of types. Project types and corresponding examples of “typical” TCSP projects include:

- **Regional planning**—Conduct a regional transportation and land use “visioning” exercise, with the objectives of creating alternative transportation and development scenarios, analyzing their impacts, and building public support to implement a “preferred” alternative;
- **Corridor/area planning**—Conduct a study to improve transit, pedestrian, and bicycle infrastructure and connectivity in a corridor or neighborhood;
- **Urban revitalization**—Identify infrastructure improvements, including roadway, transit, bicycle, pedestrian, and/or freight access, to improve the livability of an older urban neighborhood enhance access to that neighborhood, and promote community redevelopment;
- **Transit-oriented development**—Develop model plans, zoning ordinances, and/or capital improvements for transit station areas to promote transit-oriented development;
- **Highways/roads**—Develop a redesign for an arterial roadway incorporating access management, pedestrian improvements, and aesthetic improvements;
- **Bicycle/pedestrian/traffic calming**—Design and implement pedestrian facilities and amenities or a greenway/multi-use path;
- **Freight**—Design freight-related improvements, such as a grade-crossing separation or improved truck access to an industrial area, to increase safety and enhance economic development opportunities;
- **Transit**—Design and implement intermodal transit facilities, often focused on the renovation of an historic train station or bus depot;
- **Tools/models**—Develop and demonstrate a computer model (such as a geographic information system (GIS)-based land use model) to help illustrate and quantify the community and transportation impacts of alternative land development scenarios;
- **Outreach/public involvement**—Develop and implement an innovative public involvement process that utilizes hands-on techniques, such as charrettes or visualization techniques, to help the public understand the community impacts of various land development and transportation alternatives; and

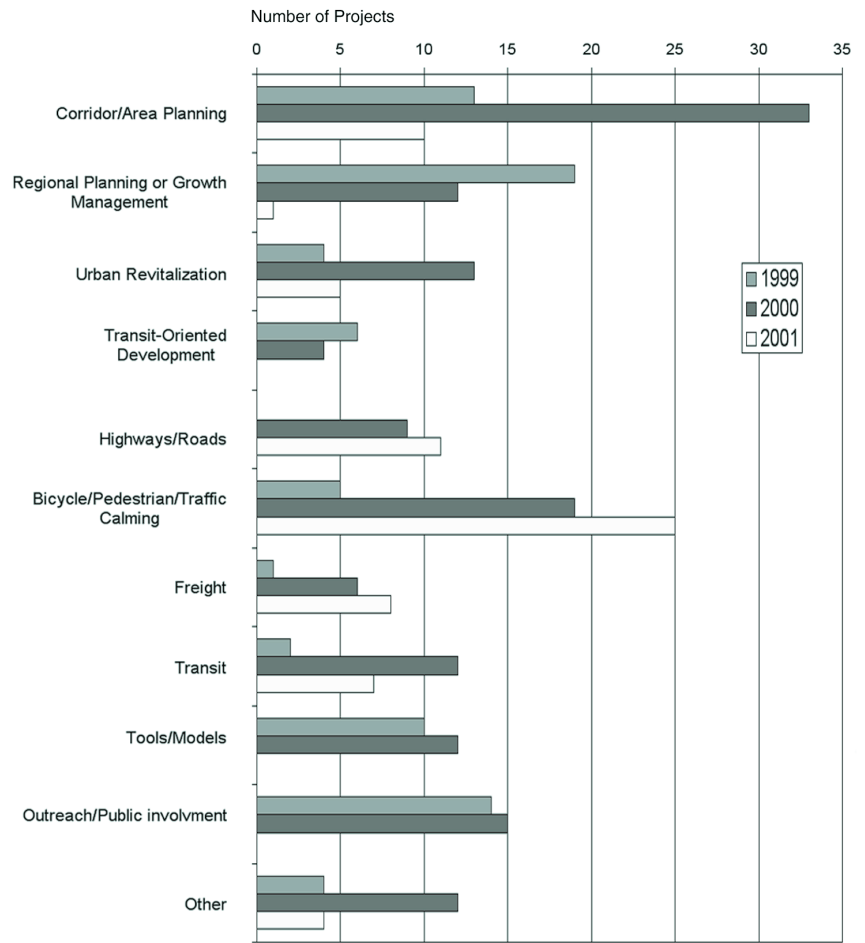


- **Other**—Other types of projects include redevelopment of Brownfields sites, transportation and community design approaches that mitigate environmental impacts, projects to improve access to jobs via transit or other transportation alternatives, and preservation of green space.

Each project was identified as having a “primary” project type and up to two secondary types. For example, a corridor planning project might also have a significant and innovative public involvement component. Overall, the most common primary project types included corridor/area planning (46, or 26 percent of known projects), bicycle/pedestrian facilities or traffic calming (36, or 20 percent), regional planning (20, or 11 percent), and transit (18, or 10 percent). Including secondary as well as primary project types, a significant number of projects (more than 10 percent each) also include components of public involvement and outreach, urban revitalization, highway/road design or construction, and the development of modeling tools.

Comparing project types across years shows a significant decline in projects that include regional planning, transit-oriented development, modeling tool development, and innovative public involvement approaches. While more than half of all FY 1999 projects included one or more of these components, almost none were included in FY 2001 projects. Conversely, there was a strong increase in projects with components of bicycle/pedestrian/ traffic calming (from 14 percent in FY 1999 to 31 percent in FY 2001), highway/road projects (from zero to 14 percent), and freight (from three to 10 percent). (It should be noted that 24 percent of FY 2001 projects could not be characterized with a specific type, because insufficient information was available about the project.) This trend can be characterized in general terms as a shift away from multimodal, area-wide planning efforts and planning methods, and toward the design and implementation of specific projects.

TCSP Projects by Project Type



Note: Some projects may be classified in more than one category

TYPE OF PRODUCT

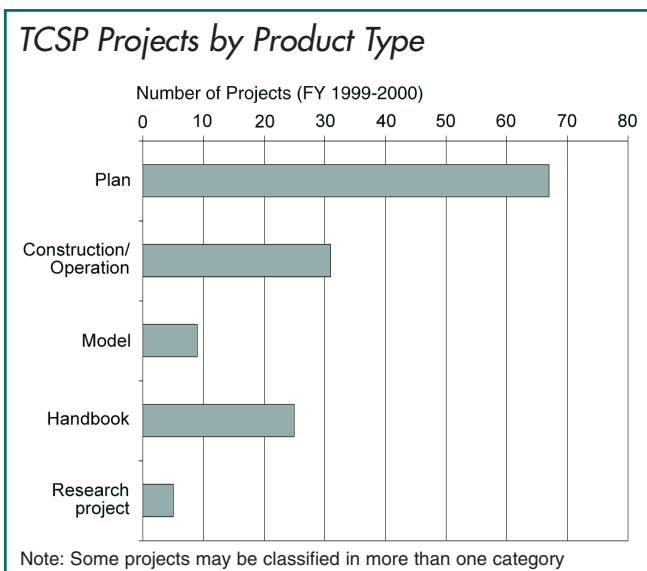
Each project is identified as having up to two types of products, one primary and one secondary. These product types include:

- **Plan or planning study**, e.g., regional transportation/ land use plan, area plan, site plan, conceptual design, transportation facility design, or alternatives evaluation;
- **Construction project**, e.g., pedestrian bridge, bicycle path, street scaping, or interchange improvements;
- **Planning model**, e.g., travel demand model, land use model, or GIS decision support tool;
- **Handbook/guidebook**, e.g., “best practices” guide or strategy toolkit; and

- **Research study**, e.g., study of land use impacts of a transportation project.

Among the FY 1999 and 2000 TCSF projects, the most common primary products were plans or planning studies (60 projects, or 51 percent), with actual construction projects (28, or 24 percent) and handbooks/guidebooks (19, or 16 percent) also common. A smaller number of projects involved a research study or the development of a modeling tool.

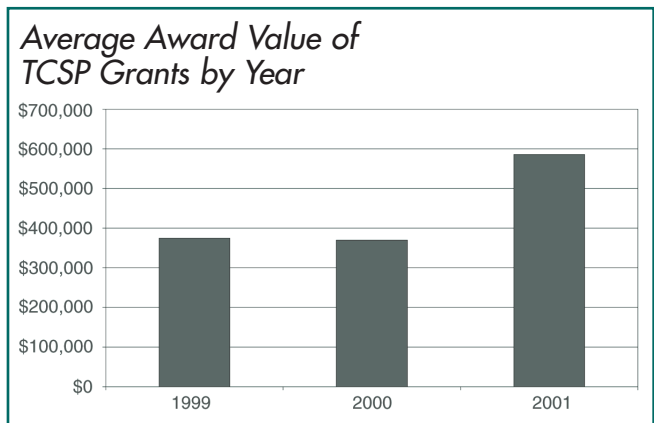
The share of products in these years resulting in plans (as a primary or secondary product) remained stable, but the share of projects including actual construction increased from 11 percent to 32 percent. Five projects with a research emphasis were funded in 2000, while none were funded in 1999. In contrast, the share of projects resulting in handbooks or guidebooks decreased from 40 percent to 13 percent. The share of projects resulting in quantitative models also decreased from 11 percent to six percent.



FUNDING BY PROJECT CHARACTERISTIC

In addition to examining the total number of projects by characteristic, the total funded grant amount also was tabulated by area size, area type, and grantee type to see if there are significant differences in the average size of the award by any of these characteristics.

Across all projects, the average dollar value of the award remained stable between FY 1999 and FY 2000, at \$375,000 and \$370,000 per award, respectively, but increased in FY 2001 to \$586,000 per award. The average dollar value of awards to cities and counties increased



over this three-year time period but remained stable or declined for other agency types.

CONCLUSIONS

TCSF projects have been initiated primarily by MPOs, cities, and counties, but also in some cases by State DOTs and tribal governments. The geographic diversity of projects has been broad, with projects centered in both large and small urban areas as well as rural areas, and located throughout the United States. Some projects have focused on the relationships between transportation and community throughout a region, while others have focused on a specific site, neighborhood, or transportation corridor. Most site-specific projects have been located in urban settings or small towns, rather than suburban areas, reflecting the program’s emphasis on redeveloping and revitalizing older areas with existing infrastructure.

The types of projects funded have ranged from regional land use and transportation visioning exercises to the renovation or construction of an intermodal transit facility. Different projects have attempted to achieve TCSF’s five objectives in different yet related ways—by facilitating alternative modes of transportation, promoting more compact and pedestrian-friendly development, encouraging infill and redevelopment of urban centers, and affecting the design of transportation and development to reduce environmental impacts and better integrate with the community.

The products of these projects most often are a planning study, plan, or proposed design, although many grants have funded the actual construction of a facility. A number of TCSF projects also are producing “best practices” handbooks or planning models for transportation and/or land development, not only for use locally but also for the use of other communities.



TCSP Projects

There is a clear shift over the first three years of the program toward local projects, such as local area plans or facility construction, and away from projects of a regional nature, such as regional visioning and planning. This shift also is reflected in the types of grantees; consistent with a decline in the share of regionally-focused projects to almost zero in FY 2001, the share of grants awarded to MPOs has declined to almost zero while the share awarded to cities and counties has increased. Along with this shift in the geographic scale of projects has come an increased emphasis on project implementation rather than

planning, with the proportion of grants dedicated to construction projects growing significantly. While a sizeable number of earmarked projects are still for planning activities, the nature of these activities has shifted away from regional transportation and land use policy issues and also away from the development of planning tools, methods, and handbooks. In their place has been a shift towards more locality-specific corridor, area, or neighborhood-level planning, with an emphasis on public-sector transportation and capital investment alternatives.



3. ACCOMPLISHMENTS AND LESSONS LEARNED

The TCSP First-Year Accomplishments Report identified six types of benefits resulting from the TCSP program:

- 1) Encouraging innovation in planning and implementation practices;
- 2) Creating partnerships among a broad range of public, private, and non-traditional groups;
- 3) Leveraging opportunities by adding value to larger projects;
- 4) Strengthening the transportation planning process at all levels;
- 5) Building the knowledge base on successful strategies for achieving TCSP goals; and
- 6) Demonstrating results that will help other communities develop successful strategies.

These benefits are affecting transportation planning in a way that works towards TCSP’s objectives: to improve the efficiency of the transportation system; reduce the environmental impacts of transportation; reduce the need for costly future public infrastructure investments; ensure efficient access to jobs, services, and centers of trade; and affect private-sector development patterns to achieve these goals. The innovations and accomplishments of TCSP projects are resulting in effective practices that can be applied in transportation planning nationwide. This Third-Year Report takes a fresh look at the impacts TCSP projects are having in each of these areas, and how they are developing effective practices for transportation planning.

INNOVATION



The TCSP program, first and foremost, is intended to be a demonstration program designed to stimulate new and innovative activities. A review of TCSP projects undertaken to date suggests that the “pilot” aspect of TCSP has indeed encouraged a willingness to experiment and develop new ideas. TCSP projects are demonstrating innovative practices in a variety of ways: by addressing a broader range of issues in transportation planning; focusing attention on the relationships between transportation and development patterns; shifting the mix of projects that are considered and funded; introducing innovations to transportation and community design; and developing new planning tools.

Addressing a broader range of issues. TCSP projects are leading to greater acknowledgment of a broad range of issues to be considered in the planning and design of transportation facilities and services. In particular, many

TCSP projects are working to balance mobility needs with environmental quality and community livability. A regional visioning project in Salt Lake City, Utah has developed indicators not only of transportation conditions, but also of air quality, water supply, infrastructure costs, and agricultural and open space land conversion resulting from future transportation and land use scenarios. Watershed-based projects in suburban Illinois and rural Pennsylvania are developing road design and land development standards that will minimize environmental impacts resulting from road widenings and will preserve environmental resources in the face of increased development.

While environmental impacts have been addressed for many years in transportation planning, especially at the project planning level, TCSP projects are introducing these issues earlier in the planning process and addressing them in a more comprehensive manner. In Riverside County, California, the Community and Environmental Transportation Acceptability Process (CETAP) is an effort to identify and preserve transportation right-of-ways that will not only serve future transportation and development needs, but also minimize impacts on sensitive habitats and preserve valuable open space. In addition to addressing technical issues, CETAP project participants have placed a strong emphasis on process, especially on creating dialogue between neighboring counties. The project’s involvement of a wide range of stakeholders early in the process allows transportation and environmental issues, concerns, and needs to be raised and discussed from the beginning.

“Through the CETAP process, county planning boundaries have begun to dissolve and a better understanding of the interdependency and regional focus of transportation planning has emerged.”

—Cathy Bechtel, Director of Planning and Programming, Riverside County Transportation Commission

Attention to transportation and development relationships. Many TCSP projects are focusing greater attention on the relationships between transportation and development patterns. Development patterns affect transportation demand, while conversely, transportation improvements affect the location of development. Yet there is often a “disconnect” between transportation and land use planning: major transportation improvements are planned at a regional-level, while land use



Accomplishments and Lessons Learned

decisions are made locally. To address this disconnect, planners in a seven-county region surrounding Lexington, Kentucky are developing strategies and conducting outreach to coordinate transportation and land use policies among jurisdictions in the region. A project in Clark County, Washington is working to develop strategies that balance the sometimes conflicting objectives of transportation concurrency requirements—which restrict development based on local transportation capacity—with growth management—the desire to steer growth into existing developed areas and limit urban sprawl.

Shifting the mix of projects. There is a growing sense in communities throughout America that while maintaining highway mobility is important, we can no longer “build” our way out of traffic congestion. At the same time, people believe that greater attention to alternative modes such as transit, walking, and bicycling can help reduce the demand on our highway system and make for more pleasant and livable communities. An innovative project in Denver, Colorado, for example, is enhancing the city’s historic Union Station to include a neighborhood electric vehicle hub, a full-service bicycle station, and local trolley

FOCUS ON TCSP OBJECTIVES:

Improving the Efficiency of the Transportation System

In the Greater Wasatch region of northern Utah, a public-private partnership known as Envision Utah is studying the effects of long-term growth in the region and is developing strategies to address growth-related issues. FY 1999 and 2000 TCSP grants totaling \$630,000 are supporting this effort. Through a series of GIS-based modeling systems, Envision Utah participants analyzed the transportation efficiency, land use, air quality, water use, and infrastructure cost implications of alternative regional transportation and land use scenarios. Four combination transportation/land use scenarios were compared, and the findings from this initial comparison were used to develop a final “Quality Growth Scenario.”

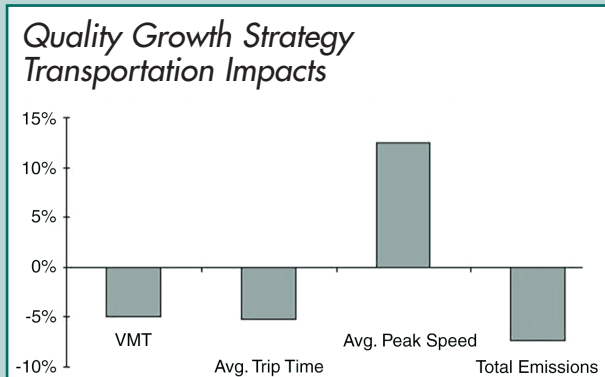


Courtesy Envision Utah

Salt Lake City, Utah

The Envision Utah project investigated how transportation system performance varied depending upon land development and transportation investment patterns. Compared to a “baseline” scenario with trend development patterns and supporting infrastructure, the Quality Growth Scenario included an expanded transit system, a higher proportion of multi-family housing and small-lot homes, and greater clustering of new housing in villages and towns along major roads and rail lines. Measures of transportation system efficiency included vehicle miles of travel (VMT), average peak-hour travel speeds, average trip times, and access to transit.

Transportation modeling for the Quality Growth Scenario showed a reduction of 2.4 million vehicle miles of travel per day or 3.0 percent relative to the baseline. At the same time, average speeds increased by 12.5 percent and commute times declined by 5.2 percent. This improvement in mobility came with a reduction in infrastructure costs compared to the baseline scenario. The Quality Growth Scenario included a reduction in regional road spending of approximately \$3.5 billion and an increase in transit spending of \$1.5 billion, for a net savings of \$2.0 billion for transportation infrastructure. The Quality Growth Scenario also was estimated to achieve further savings of \$2.5 billion from reduced water, sewer, and utility infrastructure costs due to more compact development patterns.



After analyzing the impacts of future scenarios, Envision Utah participants developed an implementation plan known as the Quality Growth Strategy and are working to promote this strategy throughout the region. Implementing the Quality Growth Strategy will help the region to improve the efficiency of its transportation system, and will significantly reduce the costs of transportation and other infrastructure required to support future growth and development.



service. The project will create additional transportation alternatives for a rapidly growing residential community, an established entertainment district, and the region's most concentrated employment center.

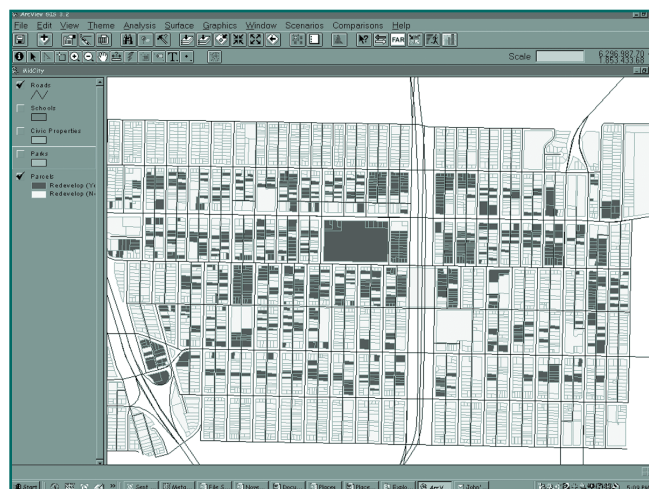
TCSP projects in locations such as Anchorage, Alaska; Tempe, Arizona; Washington, D.C.; Omaha, Nebraska; and Arlington County, Virginia are developing and implementing streetscape, pedestrian, and bikeway improvements to make urban neighborhoods more attractive to walking, bicycling, and transit use. Bus and rail transit hubs are the focus of projects in El Segundo, California; Raton, New Mexico; Providence, Rhode Island; and Morgantown, West Virginia. Often, these projects are intended not only to improve the quality of transit service, but to serve as a catalyst for economic revitalization in the surrounding neighborhood.

Design innovations. A number of State DOTs are beginning to apply “context-sensitive design” principles, which recognize that road standards such as curve radii, design speeds, and lane widths may need to vary to better allow the road to fit the character of the community through which it passes. Projects in Mono County, California; Centreville, Delaware; and Cleveland, Ohio are grappling with high-traffic roads running through community centers, and are investigating design changes that can improve safety and pedestrian friendliness while still maintaining traffic flow. Other projects have addressed the design and integration of transit and pedestrian facilities into a neighborhood. New Jersey Transit (NJT) is working with community partners to make New Jersey towns more “transit friendly,” by building on NJT’s initiatives to make train stations themselves “passenger friendly” as well as on statewide “smart growth” initiatives to reduce sprawl and encourage new development within walking distance of transit stations. TCSP is making an important link between the fields of transportation engineering and city planning by introducing insights gained by urban design professionals (into the design of transportation facilities) such as elements that make a public space attractive, or features that encourage people to walk.

New planning tools. TCSP is helping to introduce a new generation of analytical tools; especially those that link transportation with development and growth, and the use of simplified rather than highly complex and detailed modeling systems. Quantitative models are being developed in Gainesville, Florida and the Willamette Valley region of Oregon to predict the impacts of development patterns on transportation

demand and traffic conditions. GIS-based decision support tools are being applied in San Diego, California; Concord, New Hampshire; Charleston, South Carolina; Salt Lake City, Utah; Charlottesville, Virginia; and Madison, Wisconsin to provide indicators of a range of transportation, community, and environmental impacts of alternative development patterns. These models are increasing our ability to understand the future impacts of transportation and development scenarios. Furthermore, these GIS-based models present information in a graphical way that can be readily understood. As a result, agency planning staff, elected officials, and the public become more informed and are better able to understand the implications of particular decisions for their community.

TCSP projects in Lexington, Kentucky; Lansing, Michigan; and Charlestown, South Carolina are utilizing visual preference surveys to assess peoples’ preferences for alternative growth patterns. “Best practices” approaches to transportation and land development policy are being assembled in Kansas City, Missouri; Hartford, Connecticut; and Salt Lake City, Utah. Perhaps just as important as the development of these tools is how they are being used to enhance planning. TCSP projects have emphasized public involvement approaches that include more extensive and earlier involvement, so that people can use these tools to help understand the impacts of current choices on the future of their community. Furthermore, many of the TCSP projects are producing their findings on the Internet or CD-ROM, so that other communities can benefit from their knowledge.



Courtesy California Energy Commission

Screen shot of the PLACE3S model applied in the Mid-City neighborhood of San Diego, California. Shading indicates the redevelopment potential of individual land parcels.



Accomplishments and Lessons Learned

Modeling techniques have not focused solely on urban issues. Other examples of new analysis methods include a rural traffic shed analysis approach to assess development capacity and transportation needs near Little Rock, Arkansas. This approach allows rural communities to balance development with transportation capacity. In North Dakota, the Standing Rock Sioux Tribe will be able to use a GIS-based tribal roads management system to track the location and condition of roads, related infrastructure, and development served and to select and implement projects. It also will assist with economic development in this economically disadvantaged area, by allowing the tribe to map and describe to potential businesses where there is good road access. Other tribal governments in western States have expressed an interest in implementing similar GIS-based management systems.

PARTNERSHIPS



One particular innovation promoted by the TCSP program is the creation of new public and private partnerships, especially with non-traditional partners. “Non-traditional” partners involved in TCSP projects include non-profit organizations, community groups, environmental organizations, representatives of the development community, and universities. While some of these groups have had previous involvement in transportation planning, they have not always been a regular and integral part of the project selection and design process. TCSP projects have focused on involving non-traditional partners from an earlier stage of the process, and in a more systematic manner.

The benefits of partnerships. TCSP partnerships are helping link transportation and community preservation in many ways. The formation of partnerships can help build consensus by bringing together groups with different viewpoints to discuss common visions and solutions. For communities discussing alternative transportation investment and land development scenarios, outreach to developers, financial institutions, and real estate professionals is critical. Forming partnerships across geographic boundaries is instrumental to discussing regional issues and solutions. Non-traditional partners also can help broaden the range and depth of issues considered in transportation planning. Community development organizations, for example, can identify needs such as access to affordable housing or catalytic investment to spur economic revitalization; while environmental groups can help identify key environmental concerns and mitigation approaches before a project has reached the design stage.

Finally, partnerships can help integrate the needs of business and industry with transportation and community concerns—facilitating goods movement, access to jobs, and economic development.

According to people interviewed for this report, one of the most significant benefits of the competitive grant application process is that it has prompted people to form partnerships with agencies and groups with whom they would not normally interact. Many of these partnerships, awkward at first, have since led to unexpected benefits. Hartford’s TCSP project provides an example of these benefits. Two separate FY 1999 applications—one submitted by the Capitol Region Council of Governments (CRCOG) on regional growth issues, and the other by the City of Hartford on behalf of Parkville neighborhood groups—were combined when the agencies involved realized that both applications were not likely to be accepted. Parkville was selected to serve as one of three “prototype” urban, suburban, and rural communities in CRCOG’s regional project. Parkville neighborhood representatives, the City of Hartford, and CRCOG have since established a collaborative working relationship praised by all participants for the level of responsibility given to the neighborhood in helping plan local transportation improvements.

“Because of the TCSP project, we have a better understanding of transportation issues. . . we as a neighborhood are able to take part in what is happening within the neighborhood.”

—Joe Langlais, Chair, Parkville Community Association, Hartford, CT

The type of collaborative approach exemplified in Hartford can require a considerable amount of time and effort, as well as committed leadership, to maintain. But in Hartford’s situation, it also has led to what neighborhood representatives, the city, and CRCOG all agree to be a deeper understanding of planning issues and better planning outcomes. Some of these outcomes have included the redesign of a Connecticut DOT busway station and a new gas station to better integrate with their urban surroundings, as well as pedestrian and traffic calming to make the neighborhood safer and more walkable. Other TCSP grantees have reached similar conclusions: involving a broader range of interests requires time and effort, but pays off in the long run with greater buy-in and better outcomes.



Involving “non-traditional” players. A wide range of groups throughout the country have expressed interest in TCSP. These groups include smaller agencies of local government and organizations traditionally less involved in transportation planning. The result has been to broaden

the range of interests that are taking part in the transportation planning process. For example, the National Congress for Community Economic Development (NCCED), which represents 3,600 community development organizations throughout the country, has noted

FOCUS ON TCSP OBJECTIVES:

Involving the Private Sector

Motivations for private-sector involvement in transportation and land use planning vary. In some settings, such as older urban neighborhoods of Hartford, Houston, Providence, and San Diego, business owners see public investment in transportation and community infrastructure as a catalyst for private redevelopment. In Laurel, Montana, a town of 6,500 near Billings, the ideas generated by a TCSP project motivated a group of downtown business people to form the Laurel Revitalization League. The League has raised over \$100,000 to renovate a vacant lot in the core of downtown and to start other downtown redevelopment projects.

In other settings, such as the Greater Wasatch region of northern Utah, businesses see growth pressures as affecting the region’s quality of life, thereby threatening the same growth that has increased their prosperity. Their goal is not to shut off growth, but rather to accommodate it in a manner that preserves mobility as well as community and environmental quality. Businesses in New Orleans also fear “sprawl,” but for a different reason: they are concerned that continued out-migration from the city, leading to a further decline of urban neighborhoods, will undermine New Orleans’ attractiveness as a tourist destination, threatening their primary economic base. These concerns have motivated the business community to contribute \$250,000 to the development of “sustainability indicators” for the region—multiplying the initially modest \$50,000 proposed for this effort in New Orleans’ TCSP application.

Even where members of the business community are convinced of the need to change practices, the challenge remains of reaching out to the others who actually make development happen—developers and financiers. Developers and financiers are traditionally reluctant to consider new and untested patterns for commercial or residential development. The responsiveness of the development community to new ideas varies from region to region. TCSP project sponsors in Boise and Kansas City note that most commercial development is undertaken by small-scale developers without an umbrella organization. They have had more success involving residential developers in discussions, primarily through homebuilders’ associations. Project sponsors in Hartford, in contrast, note that commercial developers have been receptive to ideas such as “town center”—style development (instead of suburban plazas), but that residential developers are skeptical that people will buy anything except a “single-family home on a one-acre lot.”

One way of demonstrating that “alternatives” to established practice are marketable and profitable is to sponsor a market study. The Mid America Council of Governments in Kansas City, Missouri included a “cost of development” study in its TCSP project to assess the costs of alternative development proposals for specific sites. In Salt Lake City,



The Metropolitan Place in downtown Renton, Washington, across from the newly expanded Renton Transit Center.

Courtesy King County Planning Department

the Envision Utah project has conducted a market study for future housing demand. The study found that while single-family housing was expected to continue to predominate, the share of demand for multi-family housing would increase beyond projections, increasing the potential feasibility of transit-oriented development (TOD).

Developers appear most receptive to change in high-growth areas with limited land, favorable policies, and existing or committed transit infrastructure. One example is Seattle, where following a 10-year period of regional commitments to transit and local commitments to zoning changes in station areas, the development community has turned from being skeptical of TOD to actually initiating many TOD proposals.



Accomplishments and Lessons Learned

widespread interest in the TCSP program among its members. Outreach by NCCED and the U.S. DOT on the TCSP program has broadened the understanding of the metropolitan transportation planning process among community development organizations, along with their understanding of the potential community benefits of appropriate transportation investment. These organizations, which serve predominantly urban, low income, and often minority communities, view the types of projects funded through TCSP as improving pedestrian and transit mobility in their neighborhoods and providing a catalyst for economic redevelopment—a change from the effects of many past transportation investments on urban neighborhoods.

The involvement of community and economic development organizations also has benefited transportation agencies by providing expertise related to the development of land around transportation facilities. In the Philadelphia region, the Delaware Valley Community Reinvestment Fund—the leading non-profit community development financial institution in the region—has partnered with the Delaware Valley Regional Planning Commission to provide its expertise in developing a Location Efficient Mortgage program. This program recognizes that people who choose to live in a transit- and pedestrian-accessible neighborhood will not need to own a car or will drive less, and applies the savings in these expenses towards home ownership.

Facilitating dialogue. The “disconnect” between regional transportation planning and local community planning can be a particular challenge when there are tens or even hundreds of local jurisdictions with responsibility for land use, along with regional, State, and national transportation and environmental agencies interested in specific aspects of each project. A number of TCSP projects, especially those funded in FY 1999, have led to new and expanded partnerships among MPOs, local jurisdictions, community groups, and the business community to address issues of “smart growth,” livability, and urban sprawl. Examples of such projects span a wide range of areas—including Phoenix, Arizona; Houston, Texas; Boise, Idaho; New Orleans, Louisiana; Lansing, Michigan; Kansas City, Missouri; Raleigh-Durham, North Carolina; Charleston, South Carolina; Salt Lake City, Utah; and Charlottesville, Virginia. Project sponsors in each of these areas hope that an open dialogue will be the first step in developing mutually beneficial policies and practices among the separate agencies and jurisdictions.

MPOs have a strong interest in these issues, because of the transportation implications of regional development patterns. At the same time, they realize that regional growth patterns are affected not just by transportation investments but by land use policies made at the local level. TCSP funds have assisted MPOs in bringing together all of the actors involved in local land use decision-making—including local jurisdictions, developers, and the general public—to discuss the benefits and impacts of alternative forms of growth from a regional perspective.

Early experiences from these projects indicate that the process of establishing partnerships and dialogue at a regional-level can be slow and painful, but nevertheless extremely valuable in the long run. In Raleigh-Durham and Salt Lake City, efforts initiated in the mid-1990s have paid off through changes to local land development practices. The City of Durham, for example, has established a Transit-Oriented Development/Compact Neighborhood Overlay District, and two new traditional neighborhood development projects are now being built consistent with this code. In these neighborhoods, changes to design practices compared to suburban-style development will make walking, bicycling, and transit service more viable while reducing land consumption, the loss of open space, and environmental impacts. Raleigh-Durham’s TCSP project is helping to spread these innovations to other cities in the region. In the Salt Lake City area, local planners are now approaching the Envision Utah project team and asking them to review their comprehensive plans for consistency with “quality growth” principles. Project sponsors in other areas know that similar changes will not occur overnight, but they are firmly convinced that the only way such change ever will happen is through regional dialogue. In many areas of the country, alternatives (such as a State requirement to establish an urban growth boundary) currently are viewed as politically difficult or infeasible to achieve.

“Partnerships and inter-jurisdictional cooperation are the main ingredients of lasting solutions. Establishing and maintaining these partnerships takes hard work, sweat, and political capital. But we are spending that capital on Smart Growth.”

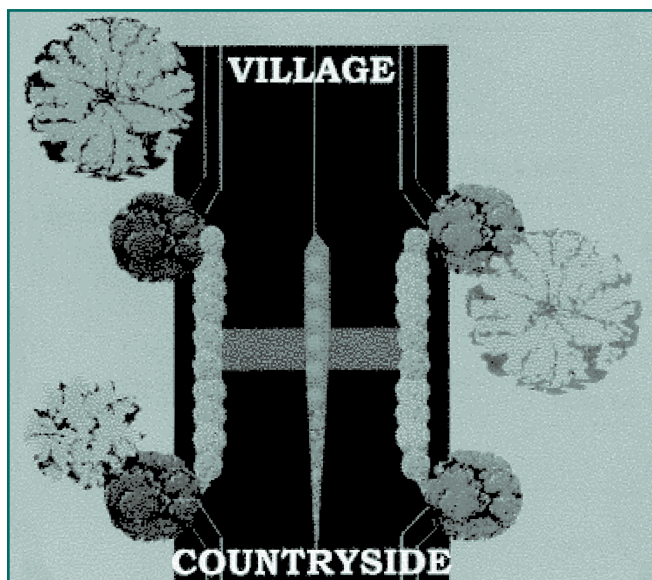
—Brent Coles, Mayor, Boise, Idaho

Leadership from the private sector. TCSP projects also are resulting in successful partnerships between transportation organizations and the business and real estate



development communities. In many areas, private interests have actually played a lead role in initiating and implementing the TCSP projects. The private sector is frequently skeptical of change at first, but in many areas there is an increasing realization of the need to “do” transportation and development differently.

TCSP projects in Houston, Fort Worth, New Orleans, San Diego, and Salt Lake City are examples where involvement from the business community has been strong. In Houston, participants have focused on redeveloping the Main Street Corridor, the historic commercial core of the region. While the City of Houston is the sponsoring agency for the project, a group of local businesses and property owners initiated redevelopment activities in the corridor. The private initiative encouraged the city to form a private-public coalition with the objectives of promoting housing and commercial development; incorporating transit, pedestrian, and roadway improvements; and coordinating the design of development in such a way as to create vibrant public as well as private spaces. TCSP-related objectives for this project include not only to revitalize the area but also to create transit and pedestrian-accessible development in the region’s core, as an alternative to sprawling development on the urban fringe. TCSP funds have supported the development of a master plan for the corridor as well as pilot implementation projects to improve pedestrian linkages among neighborhoods.



Courtesy Wilmington Area Planning Commission

Concept for a State route entryway to Centreville, Delaware. Landscaping and pavement markings delineate the boundary between countryside and village, encouraging traffic to reduce speed.

State DOT involvement. One of the most challenging tasks, especially for cities, counties, and community organizations, has been to fully involve the State DOT in the community-level aspects of a project. A number of TCSP projects involve settings in which the goal of providing traffic mobility appears, at first glance, to conflict with the goal of preserving and enhancing the local community environment. What happens, for example, when a State highway with ever-growing traffic volumes runs through a small town center? Is the road widened, is the town bypassed, or is traffic slowed and pedestrian improvements implemented? The challenge faced by State DOTs and local transportation agencies has been to find the balance between traditional highway design solutions and new creative alternatives. Delaware DOT, for example, agreed to an island gateway with landscaping at the entrance to Centreville, “marking” the border between country and village, and causing traffic to slow down before entering.

When controlling traffic is infeasible, communities have considered land use instead of transportation design alternatives. For example, a conceptual plan for Starr, Idaho, re-orientes the business district perpendicular to and one block off of the State highway—providing good visibility and access to passing traffic, yet preserving the commercial district as a low-speed, walkable area.

LEVERAGING RESOURCES



Consistent with the focus on creating partnerships is the practice of combining funding from a number of different sources. TCSP funding is not sufficient, by itself, to implement new transportation-related community preservation practices nationwide, or in many cases even to completely cover the entire project cost within an individual area. TCSP funding does, however, permit the pilot testing of new transportation approaches as part of larger community development initiatives, and is being used by applicants to leverage other public and private moneys. As a result, many TCSP grants support a particularly innovative portion of a larger project. Project funds most commonly have been contributed by the MPO; city or county; other Federal highway and transit programs such as Congestion Mitigation and Air Quality, Transportation Enhancements, and Livable Communities; and local businesses. In some cases, grants have added value to activities that also are funded through sources such as EPA grants or Department of Housing and Urban Development



a watershed-based modeling system, developed with funding from State agencies and non-profit environmental organizations, that predicts the environmental impacts of land development patterns. This modeling system will allow the impacts of alternative transportation investments on land use and its associated environmental impacts to be tested. The PLACE3S project in San Diego, California has combined funding and in-kind contributions from the California Energy Commission, California Air Resources Board, San Diego Association of Governments, and the City of San Diego to add transportation considerations to a study of economic and environmental impacts of redevelopment policies in a San Diego neighborhood. In Houston, \$3.4 million in TCSP funds have leveraged over \$800,000 in local contributions of cash and in-kind services from the City of Houston, the Houston METRO transit agency, the Texas DOT, and private sources to design and implement pedestrian, transit, and urban design improvements to the Main Street Corridor. HUD and local contributors are funding a related study of economic activity and opportunities in the Near Northside neighborhood in this corridor. Interviewees noted numerous other examples of projects that either would not have been possible or where the transportation component has been strengthened because of the availability of TCSP funds.

“Thanks in large part to TCSP, we are able to have a discussion of transportation and land use issues at the regional-level.”

—Ben Hitchings, Triangle J Council of Governments, Raleigh, NC

A seat at the table. Several interviewees for this report noted TCSP’s critical role in giving the U.S. DOT, and most significantly FHWA, a “seat at the table” of the Smart Growth movement. Rather than simply being perceived as the “highway builder,” TCSP allows the DOT to introduce transportation design and investment policies as a legitimate—and important—component of community preservation activities. While funding for TCSP has been modest relative to many other DOT programs, it is an important acknowledgement of the linkages among transportation, land use patterns, and environmental quality. Interviewers commented that the large amount of overall resources directed by the DOT, as well as the significant physical presence of transportation facilities within local communities, make the DOT’s entry into Smart Growth and community preservation concerns all the more significant.

STRENGTHENING PLANNING



The innovations and broader partnerships introduced by TCSP projects are intended to enhance and strengthen the existing State and metropolitan transportation planning processes. TCSP projects are bringing a more wholistic approach to planning by considering a broader range of community and environmental impacts, not only for individual projects but for the transportation system as a whole. TCSP projects are also further expanding and emphasizing public involvement, and are developing new analysis techniques to inform the planning process.

A more holistic approach. Environmental, community, and economic development issues have been considered in the planning of individual major projects for three decades because of requirements introduced by the National Environmental Protection Act (NEPA). In some cases these issues are considered in depth only after the specific type of project and alignment have been identified. Much less consideration is given to the secondary and cumulative environmental and community impacts of multiple projects over an extended period of time. TCSP projects are introducing the consideration of a broader range of environmental and community issues, not only in the planning of individual major projects, but also in systems-level planning at the metropolitan or State level. This means, in part, reconsidering the overall mix of projects for an area, including the nature of projects, their location, and their design. It also means more fully considering environmental, community, and economic criteria in the setting of general policies, investment strategies, and design approaches, in contrast to evaluating these impacts only after a specific project has been proposed to address a mobility or safety problem. Finally, this means considering the transportation/land use system as a whole, rather than proposing transportation projects regardless of their potential impact on development patterns.

An illustration of this more “holistic” approach is provided by the many regional-scale TCSP projects that are developing alternative “transportation and land use futures,” assessing the various impacts of these futures, and establishing regional policy directions based on the findings. Many residents of the Salt Lake City metropolitan region, for example, want to see light rail transit and commuter rail as a part of future transportation solutions. The Envision Utah project has helped to educate people that concentrating development around



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transit stations is an important strategy in reducing vehicle trips, along with their associated environmental impacts and highway infrastructure requirements. The project is resulting in proposed changes to land use regulations that would allow more transit-supportive development to occur in station areas. In Maryland, the development of an integrated transportation, land use, and environmental modeling system is intended to allow the State to systematically examine the secondary and cumulative environmental impacts of highway projects.

Specific changes also may be required to transportation planning procedures to reflect broader regional objectives. In northern New Jersey, sponsors of a TCSP project focusing on freight-related brownfields redevelopment are working to change the criteria for selecting transportation projects within the State and regional planning processes. Their objective is to establish criteria that adequately reflect the benefits of infrastructure projects that facilitate access to the brownfields sites.

Involving the public. In recent decades, and especially following passage of the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991, transportation planning practice increasingly has emphasized the importance of public involvement at all stages of the process. Yet obtaining input from the public is sometimes a challenge, especially when the subject is as abstract as a regional transportation plan or a local comprehensive plan. The challenge taken on by many TCSP projects has been to develop creative and

meaningful approaches to public involvement.

TCSP projects in locations such as Madison County,

“What has been rewarding is seeing the realization by the people of the community that the way a community looks is not something over which they have no influence... The TCSP process has helped empower the people with a sense that they can influence community development for the positive.”

—Cal Cumin, Planning Director,
City of Laurel, Montana

Indiana; Lexington, Kentucky; Saginaw, Michigan; and Charlottesville, Virginia have experimented with innovative techniques such as design charrettes and visual preference surveys to help engage the public in a more hands-on and interactive way. Citizens in Charlottesville participated in a game to create development scenarios for the region. In this game, people worked with different “community elements” that represent prototypical development patterns such as urban mixed use or suburban retail. These elements were arranged to create themes named after old television shows. In the St. Lucie County, Florida Town of Ft. Pierce—where seven of 10 families do not own a car—teenagers were recruited to make recommendations for pedestrian and bicycle

TCSP IS STRENGTHENING THE PLANNING PROCESS:

The TEA-21 Planning Factors

The TCSP program is strengthening the transportation planning process by supporting the seven planning factors identified under TEA-21. Furthermore, individual TCSP projects are helping introduce greater consideration of these seven factors at all stages of planning. TEA-21 identifies the following factors to be considered in the statewide and metropolitan planning process:

- 1) Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;
- 2) Increase the safety and security of the transportation system for motorized and nonmotorized users;
- 3) Increase the accessibility and mobility options available to people and for freight;
- 4) Protect and enhance the environment, promote energy conservation, and improve quality of life;
- 5) Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
- 6) Promote efficient system management and operation; and
- 7) Emphasize the preservation of the existing transportation system.

The objectives of the TCSP program are consistent with these factors, and grants have been awarded to projects that provide benefits in all of these areas.



improvements and to help engage adults in thinking about the issues facing their community. In neighborhoods of Hartford, Connecticut; Springfield, Massachusetts; and Cleveland, Ohio, a focus on community-identified needs such as traffic calming and pedestrian and streetscape improvements has helped to engage people.

Involving the public from the beginning of a project not only helps to engage people, but also gives people a feeling of responsibility for the project. The objective of the Mapping for a Millennium project in Teton County, Wyoming is to better coordinate the community's land use and transportation planning so that developing land use patterns support transportation goals and vice versa. Local land use plans and transportation corridor plans are being produced via several charrette processes in which citizens participate in designing the plans. Project sponsors note that while Teton County always has invited public involvement in planning, the process for the TCSP project has been more highly participatory than normal. According to the county's planning director, "people are excited; they feel that they are beginning on the ground floor and helping build." In Laurel, Montana, a project to develop a plan for sustainable growth that preserves the character of the community also has helped to increase citizen involvement.

Linking regional transportation planning with community planning. Communities across the country routinely develop comprehensive plans that identify policies and strategies for land use, transportation, infrastructure, housing, and environmental preservation. These plans are integrated across issue areas, but are sometimes developed in geographic isolation from neighboring communities. In contrast, statewide and metropolitan transportation plans focus on one specific issue (transportation), but attempt to link this issue across jurisdictional boundaries.

The challenge taken on by many TCSP grantees has been to link these two levels of planning. Local planning decisions affect regional transportation demand, while conversely, regional transportation facilities affect local community character. TCSP grantees do not want to dictate local land use decisions in order to achieve regional transportation objectives, or to base regional transportation decisions solely on local community concerns. Instead, they hope to increase awareness and consideration of the impacts of regional transportation projects on local communities; and conversely, to better evaluate the impacts of local land use decisions on regional transportation efficiency. Ultimately, their intent

is to achieve greater coordination in the development of local and regional transportation and land use plans as well as broader consistency between the objectives of these plans.

"If there are options available to respond to the social, environmental, and economic concerns associated with current growth trends, what makes them difficult to use? Stated another way, what gets in the way of creating the kind of communities described in comprehensive plans throughout the Treasure Valley?"

—Benchmark 3 task description, Treasure Valley Futures Project, Boise, Idaho

One way in which TCSP projects have linked local and regional planning is to undertake regional visioning projects and dialogue efforts. In the Salt Lake City, Utah metropolitan area, Envision Utah participants are working with local governments to revise comprehensive plans consistent with principles outlined in a "quality growth scenario" that the participants developed for the region. Coordination and consistency may also be pursued through changes to planning process and structures. In St. Tammany Parish near New Orleans, citizens on the comprehensive plan steering committee now are asking the parish to restructure the comprehensive planning process so that transportation and land use planning are done in combination, by establishing a combined land use/transportation committee, compared to the existing separate "stovepipe" committees. Modeling tools also can help: in Charlottesville, Virginia, the ComPlan model is helping citizens understand the implications of 50-year population growth forecasts, the effects of different land use decisions, and the resulting implications for transportation investment.

BUILDING THE KNOWLEDGE BASE



The TCSP program, as a pilot program, places a strong emphasis on evaluation and learning. TCSP projects are intended to provide measurable results and examples of successful practices that can be adopted by other areas. To achieve this objective, each TCSP grant application is required to include an evaluation component that describes the applicant's plans for monitoring, evaluating, and analyzing the grant activity and for making the results of this analysis available for others to use. TCSP program



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sponsors have emphasized evaluation because they believe that the benefits of innovation, expanded partnerships, leveraged resources, and a strengthened planning process will be multiplied if more areas can adopt the approaches taken by TCSP grantees.

FHWA has published guidance, available on the TCSP web site, to assist grantees in designing and implementing a project evaluation. The guidance suggests that a TCSP project evaluation focus on three primary components: 1) the *process* by which a project is implemented; 2) the *products* that result from the project; and 3) the *outcomes* in terms of either projected or actual benefits and costs. The guidance further suggests that, within each of these three components, grantees define goals and objectives for their project; identify a focused list of

performance measures corresponding to these goals and objectives; and identify evaluation methods for each measure. A review of project evaluation plans as well as discussions with grantees suggest that FHWA's guidance has been useful to grantees in helping them to think through and structure an overall approach to evaluating their project.

Evaluating the process and products of a grant. Most evaluations carried out within the scope of funded TCSP projects have focused on the first two evaluation components—process and products. Examples of key questions regarding the process include the number and types of groups or persons involved, the manner in which these groups were involved, and the degree to which stakeholder commitment and buy-in were

FOCUS ON TCSP OBJECTIVES:

Increasing Access to Jobs, Services, and Centers of Trade

Planners in northern New Jersey are leading an innovative regional effort to facilitate the redevelopment of abandoned industrial brownfield sites by freight-related businesses. Their goal is to decrease the amount of truck travel in the region by locating distribution and manufacturing sites close to existing seaport, air, and rail terminals, rather than at more distant greenfields sites. In addition to reducing demands on the transportation system and increasing its efficiency, this strategy will preserve undeveloped land and provide greater access to jobs for urban residents.

Northern New Jersey has the largest port on the North American Atlantic seaboard and one of the fastest growing air cargo hubs in North America. Port, air, and rail traffic are expected to continue to grow substantially in the future, generating intense demand for new distribution support services and light manufacturing activities. Planners are concerned, however, that much of the economic development associated with port traffic will occur on “greenfields” on the outer edges of the northern New Jersey metropolitan area, or even outside of the region. Long-distance trucking of goods to and from the core port district will increase, compounding congestion, worsening air quality, and wearing out aging infrastructure. Residents of urban areas near the port will be left with fewer job opportunities.

The alternative that planners hope to achieve is to utilize existing abandoned land in the core area near the port. While there are many promising sites for development in proximity to transportation terminals and arteries, their redevelopment is complicated by the need to cleanup contaminants and upgrade often outdated and deteriorated transportation infrastructure. If cleanup can be achieved and new port-related economic activity created in this area, however, the benefits to the region will be significant. Truck traffic between the port and outlying areas will be greatly reduced; open space in these outlying areas will be preserved; and residents in the older cities in the port area such as Newark and Elizabeth will have access to a broader range of jobs.



Railyards in Northern New Jersey

Courtesy Michael Williamson

An FY 1999 TCSP grant of \$700,000 to the North Jersey Transportation Planning Authority and the New Jersey Institute of Technology is supporting this brownfields redevelopment effort. Project sponsors currently are surveying businesses regarding their transportation, land, and workforce needs; selecting brownfields sites for further investigation; and identifying potential strategies to promote cleanup as well as transportation projects to facilitate redevelopment. In the future, they hope to estimate the reduction in transportation and environmental impacts that will result from the brownfields redevelopment strategy.



achieved. Product evaluation focuses on what was produced by the planning or implementation process. The evaluation may describe the plan that was developed or the project that was implemented, and how it represents a change from existing conditions.

Approaches to process and product evaluation have differed, with some grantees conducting the evaluation internally and others hiring a consultant or university to conduct an independent evaluation. In Boise, Idaho and Washington, D.C., a consultant has attended all project meetings and activities and conducted interviews with staff of different agencies involved in the project. The result is a critical evaluation of what was effective and what might have been done differently or better. The evaluation reports from each of these projects also have been made available to the public, so that others interested in undertaking similar projects can learn from the grantees' experiences. Internal evaluations also can be effective and—especially when done continuously, rather than waiting toward the end of the project—can help grantees to make mid-course adjustments. In Teton County, Wyoming, grantees are maintaining a chronological notebook that will be used as the basis for an evaluation report. The report will describe each step of the project, how it was originally envisioned, and how it was actually conducted, as well as an explanation of any differences. Grantees in Saginaw, Michigan and Hartford, Connecticut also have taken this internal approach to evaluation. Regular internal evaluation is especially important in projects that involve a range of both traditional and non-traditional partners or the demonstration of new planning approaches or methods. Periodic evaluation allows grantees to address misunderstandings or disagreements that could threaten to sidetrack or even derail a project.

Evaluating project outcomes. The ultimate outcomes of TCSP projects, such as reductions in VMT, increased pedestrian travel, improved access to jobs, or economic revitalization of a neighborhood, may take many years to be fully realized. Furthermore, the effects of the TCSP project may be difficult to separate from the effects of other changes that are occurring at the same time. As a result, most TCSP projects are not attempting to measure actual outcomes. Projects that have attempted to measure outcomes have done so primarily through quantitative modeling to forecast the impacts of the project. A project in Phoenix, Arizona is running a land use and transportation model, based on existing and revised local general plans, to forecast the outcomes of

proposed regional growth strategies. Projects in Salt Lake City, Utah and the Willamette Valley region of Oregon are undertaking similar modeling efforts.

One TCSP project that is measuring actual impacts is focused on the Olneyville neighborhood of Providence, Rhode Island. In fall 2000, students at a local university collected “baseline” data on travel patterns and on residents' and businesses' perceptions of the neighborhood. After transit, pedestrian, and streetscape improvements are implemented, another set of students will collect “after” data on these same measures and compare changes. Sponsors of a bicycle and pedestrian trail in Pinellas County, Florida are conducting surveys, interviews, and traffic counts before and after construction of the trail. The Oregon Department of Energy, which is developing telecommuting centers in rural Oregon, will conduct telephone surveys of peoples' travel characteristics to determine the impact of the centers on travel patterns. A number of other TCSP projects, including those in New Orleans and Teton County, Wyoming, are establishing a set of “regional indicators” and collecting baseline data on these indicators. Long-term tracking of these indicators will help each region measure their overall success at achieving transportation and community and system preservation objectives.

Experience suggests that some quantitative outcomes are easier to evaluate than others. Transportation models have historically been designed to project overall traffic volumes for the purposes of road capacity analysis; they are less effective at predicting the impacts of pedestrian facilities or urban design changes on travel patterns. Variables such as the ridership impacts of improved intermodal transit connections, the number of people using a bicycle path, or the growth in businesses catalyzed by a renovation project depend on a range of variables that are difficult to forecast. Furthermore, it is important to note that not all benefits of TCSP projects can be readily quantified. Factors such as “livability” or “community character,” for example, represent qualitative attributes that are difficult to forecast or measure. Furthermore, the importance that people place on these attributes may change over time. As a result, it is often difficult to objectively or consistently measure the full range of benefits of a particular project.

Commitment to evaluation varies. A review of project evaluation plans and actual experiences suggests that some grantees have made a stronger commitment to evaluation than others. Of the successful FY 1999 and



Accomplishments and Lessons Learned

2000 grantees that included budgets for evaluation activities, these budgets have typically ranged from five to 15 percent of the total grant award. A strong interest in and commitment to performing the evaluation, however, is perhaps even more important than the nominal allocation of resources. Some grantees (such as Providence) have performed insightful evaluations on a very small budget. Sometimes, it can be tempting to spend limited project resources on the project itself, and when budgets are reduced, to view evaluation as a “non-essential” component. Furthermore, grantees who receive earmarks have less incentive to develop a strong evaluation component because their projects were not selected or judged on this application component.

DEMONSTRATING RESULTS



Roughly 23 percent of TCSP projects awarded in FY 1999 and 2000 focused primarily on project implementation (e.g., construction, rehabilitation, maintenance, and operations), while the

remaining 77 percent focused on planning. (Product types for FY 2001 projects are not yet known.) Especially in the case of a planning grant, it may be five to 10 years before widespread implementation of results are achieved and concrete benefits observed and measured. TCSP planning projects, however, are already demonstrating results in a variety of ways: through new ways of doing business; new partnerships formed; greater understanding of transportation and community and system preservation relationships; recommendations for changes to policies and practices; and plans for specific implementation projects.

On-the-ground products. Examples of specific transportation and community implementation projects completed or underway include the renovation and restoration of an historic roundhouse in Wheeling, West Virginia as an intermodal terminal; the construction of a passenger comfort and information center for a water-based transportation system in Oklahoma City, Oklahoma;

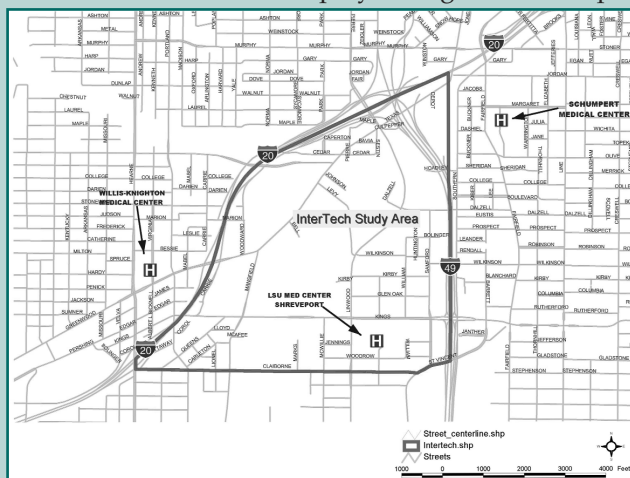
FOCUS ON TCSP OBJECTIVES:

Reducing the Need for Costly Future Investment in Infrastructure

The Northwest Louisiana Council of Governments in Shreveport, Louisiana, is working to establish Shreveport’s core inner-city neighborhoods as a regional technology and residential center. Their focus is on the 2,400-acre “InterTech” area that once thrived as an urban industrial district. This area has atrophied in recent years as businesses have moved out to the perimeter into modern industrial parks, and several sites in this area are designated as brownfields sites in need of remediation. The surrounding neighborhoods have also experienced residential dislocation and disinvestment because of the loss of jobs.

Local planners expect that redevelopment of this area will reduce the need for regional infrastructure investment. The InterTech area is in a central location with existing infrastructure that includes electric, water, sewer, gas, public transportation, and two interstate highways. The potential exists to create 5,000 new jobs in this area as an alternative to continued suburban employment growth and sprawl. In addition, economic development in this area will provide

jobs for inner-city residents in adjacent neighborhoods, where unemployment levels are high and many people are dependent upon public transit.



InterTech study area.

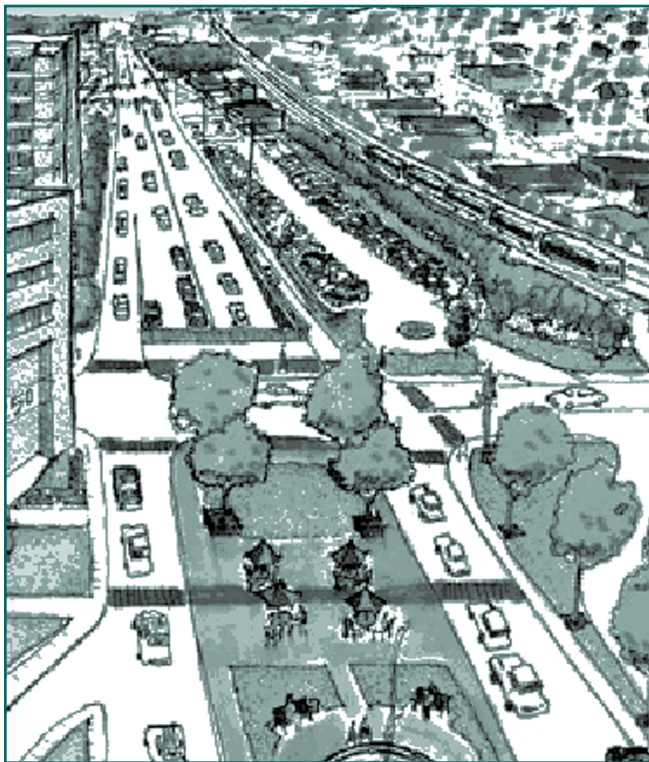
Courtesy Northwest Louisiana Council of Governments

The InterTech community redevelopment project is supported by a FY 2000 TCSP grant of \$225,000. This grant is being used to create an economic and transportation plan for the InterTech area as well as a community preservation and transportation plan for the surrounding neighborhoods. As part of the evaluation of this project, project sponsors plan to create a “comparative infrastructure index.” This index will compare the cost of installing new infrastructure in a comparable greenfield-type development with the cost of augmenting and updating existing infrastructure in InterTech, thus yielding an estimate of the cost savings resulting from the project.



and the construction of a pedestrian/bicycle bridge linking parks and pathways in downtown Fairbanks, Alaska. In the Howard University/LeDroit Park neighborhood of Washington, D.C., streetscape design, traffic calming, and pedestrian improvements are complementing initiatives to rehabilitate and construct housing in this historic and predominantly African-American community. Construction is scheduled to begin early in 2002 on projects to improve pedestrian safety and streetscape aesthetics along North Street in Burlington, Vermont's Old North End Enterprise Community. The revitalization plan for North Street was developed through an interactive and inclusive neighborhood planning process that has resulted in a high-level of satisfaction with the planned components from the community.

Plans for implementation. While some TCSP grants are funding on-the-ground products, the funding available through TCSP is far too small to support a significant number of implementation projects. While implementation projects may illustrate the types of products desired from TCSP efforts, TCSP's more significant influence has been on planning for transportation and community investment. Many TCSP



Courtesy, City of Rockville

Proposal for a pedestrian plaza over Rockville Pike in Rockville, Maryland. The plaza would connect a redeveloping town center with a Metrorail transit station.

projects are resulting in plans for projects that could in the future be funded through other Federal sources such as Surface Transportation Program (STP), National Highway System (NHS), or transit funds, as well as through State and local matching funds. Examples include designs for a pedestrian plaza in Rockville, Maryland; a system of bikeways proposed for Whatcom County, Washington; and the integration of transit service among parishes in rural Louisiana.

Other TCSP projects have focused on earlier stages of planning, for which the products may be a conceptual plan for an area or a set of recommended policies and practices. In Saginaw, Michigan, participants in a charrette examined possible transportation and land use design changes to make a suburban shopping area pedestrian- and transit-accessible. The outcome of the charrette was a set of recommendations and next steps to facilitate a long-term transition of the area's character; these recommendations include revisions to transportation facility design practices and local zoning codes; public investments; and outreach to property owners and developers. While projects such as the Saginaw charrette have resulted in conceptual plans that stir the imagination, further work is often required to develop more concrete plans and implementation steps to achieve the desired vision for an area.

Achieving implementation commitments. One finding from this review of TCSP experiences is that commitments to move forward into implementation have been more difficult to achieve, and have taken longer, than initially anticipated. This is partly because the projects often result in proposed changes to transportation and development practices that differ from the usual way of doing business. Implementing entities, such as State DOTs, county road commissions, planning and zoning boards, and developers, are understandably hesitant to make changes to their "tried and true" approaches. Also, the nature of the partnerships involved in the projects is often complex. Regional scale projects, in particular, require obtaining commitments from multiple jurisdictions as well as State implementing agencies. In the Greater Wasatch Front region of northern Utah, participants are working to obtain buy-in to their vision of a preferred "quality growth scenario" from a total of nearly 100 jurisdictions in the region. Obtaining the necessary agreements to change zoning codes, design practices, infrastructure investment policies, or the mix of funded transportation projects therefore can take years.



HOUSTON, TX

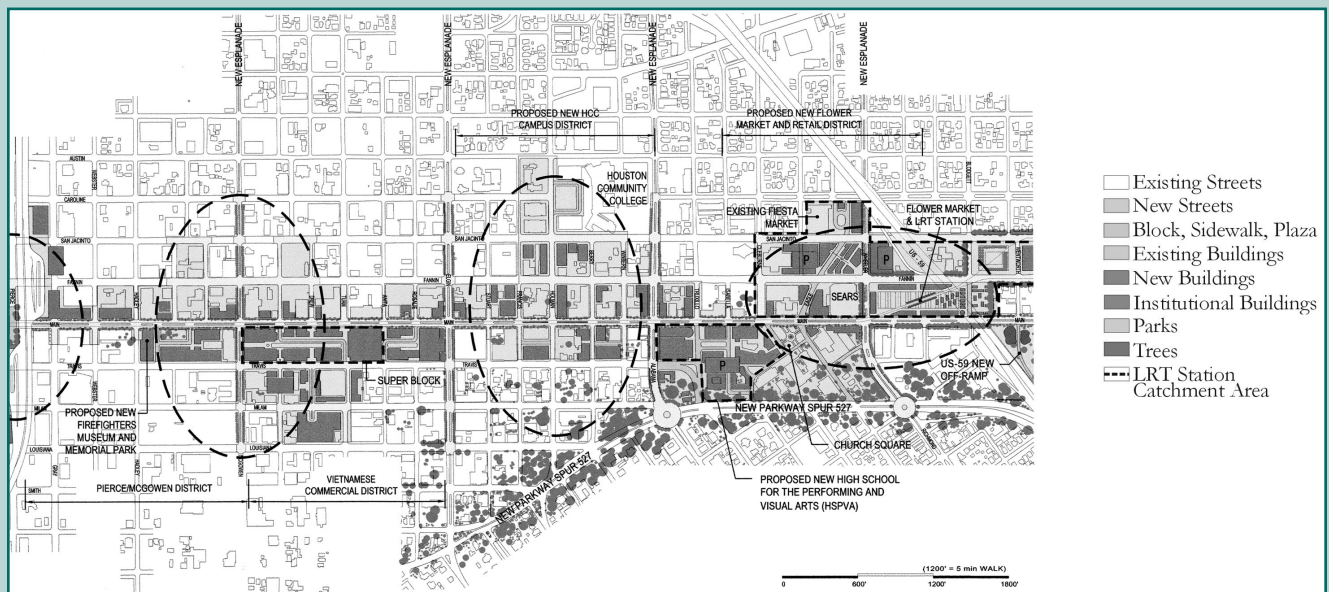
From Planning to Implementation

Houston’s Main Street Corridor Planning and Research Project demonstrates how a TCSP project can progress from corridor planning, to project design, to implementation of improvements. The eight mile-long corridor, once the economic core of the region, declined in the mid-1900s as development spread outward and shifted to other parts of the region. Renewed interest and private investment in the early 1990s, however, stimulated private and public efforts to guide the revitalization and redevelopment of the Main Street Corridor. As an alternative to continued haphazard and fragmented development, local business and civic leaders formed the Main Street Coalition to create a unified vision for development in the corridor; coordinate development with roadway, transit, and pedestrian improvements; and work with land owners and public agencies to achieve this vision.

The first step in this process, supported by FY 1999 and FY 2000 TCSP grants totaling \$935,500, was to create a Master Plan for the corridor. Completed in August 2000, the Master Plan establishes a number of principles for the corridor, such as higher density, a mix of uses, and emphasis on the public environment. It also includes conceptual designs for each part of the corridor showing locations of new development, public spaces, and transportation improvements. To complement the Master Plan, a Strategic Plan was created containing steps to implement the Master Plan.

Following the development of these plans, the Coalition initiated a set of pilot implementation projects. The purpose of these implementation projects is to demonstrate specific physical improvements that can serve as prototypes for additional improvements. One example is the Third Ward Connectivity Project, which will improve pedestrian links between the Third Ward neighborhood and Main Street. This project is supported by \$2.4 million in Federal funds, including an FY 2001 TCSP grant of \$703,075, as well as \$5 to \$10 million in local capital improvement funds.

Implementation of the Master Plan will ultimately require a total of \$200 million over 20 years in public and private resources and will require the cooperation of multiple public agencies as well as private developers. Staged public infrastructure improvements by the City of Houston, the Houston METRO transit agency, and the Texas DOT are central to implementing the plan. These, in turn, will be coordinated with the establishment of guidelines and regulations for specific development districts. The local development community—led by larger institutions and property owners concerned about creating a high-quality urban environment—has played a significant role in planning for the corridor, and will continue to be instrumental in persuading other property owners to adopt and apply Master Plan principles.



Master Plan for Midtown District

Courtesy Ehrenkrantz, Eckstut & Kuhn Architects

Broader influence. Despite the often long timeframe to achieve implementation commitments, TCSP projects appear to be influencing, both directly and indirectly, other transportation projects and development programs. Areas of influence include the design elements considered, the manner in which effectiveness is assessed, the approach to involving various interest groups, and the decisions made. In Saginaw, for example, a TCSP-funded design charrette has had broader educational value for local planners and elected officials. The township’s community development director “is now talking about pedestrian issues and building setbacks,” and a new master plan for the township is expected to reflect many of the principles discussed in the design charrette. In New Orleans, discussions of regional growth issues are being reflected in a comprehensive plan update for St. Tammany Parish, which is experiencing strong growth pressures. This parish is using a computer model to assess the transportation and other community impacts of growth occurring in different locations and with different densities and design characteristics. In Mono County, California, local planners believe that their community-oriented planning approach, which has focused on improvements related to a State highway through the town of Lee Vining, is beginning to affect the way that the district office of the California DOT (Caltrans) does planning. They believe that the TCSP-funded planning work is resulting in greater community input into projects, rather than taking a “one-size-fits-all” design approach.

CONCLUSIONS

An overriding objective of the TCSP program has been to stimulate innovation in transportation planning. In particular, TCSP projects are creating effective practices that link transportation planning with system and community preservation considerations. Projects funded in the first three years of the program have

helped to bring innovation to transportation planning by expanding the range of partners involved in planning; by introducing a greater consideration of the relationship between transportation and development patterns; by expanding public involvement, and community participation; and by developing new modeling tools to assess the impacts of transportation and land use alternatives on mobility, economic development, community character, and the environment.

On the implementation side, TCSP projects have demonstrated practices such as traffic calming, pedestrian link-ages, intermodal transit facilities, and bicycle paths that are helping to increase travel options and improve the character of local communities. Furthermore, TCSP projects are helping communities as well as the private sector re-examine their land development practices, in order to reduce impacts on the transportation system and to complement public-sector transportation investments. Overall, these TCSP projects are helping to reduce the need for future costly infrastructure investment, increase access to jobs and other activities, reduce the environmental impacts of transportation, and improve the overall efficiency of the transportation system.

The impact of TCSP projects is not limited to the scope of the individual projects funded. Many grantees have noted that the findings and lessons learned from their TCSP projects are influencing other transportation and community planning activities in their area. Furthermore, the TCSP program is placing a strong emphasis on learning and knowledge transfer: by sponsoring the development of planning tools and methods; by encouraging project evaluations; and by making results from TCSP projects available to a national audience. These efforts are resulting in the demonstration of effective practices for transportation planning.



EFFECTIVE TCSP PRACTICES

Lessons learned from TCSP projects throughout the country illustrate “effective practices” that can improve transportation planning and preserve and enhance communities. Some common themes include the meaningful involvement of key stakeholders and community participants; the use of emerging analytical and public involvement techniques to inform decision-making; the consideration of a wide range of community, economic, and environmental impacts throughout the transportation process; and the importance of a close relationship between transportation and community planning.

Build Partnerships

- Good projects start – and finish – with strong leadership. Leaders are committed to the concept of the project and follow through with persistence. Leaders network and build relationships with other potential leaders and stakeholders in the community and in agencies with decision-making authority.
- Identify the key actors and stakeholders with an interest in the transportation/community planning project, i.e., the people, agencies, and groups who should be involved in the project to make it successful. These may include (but are not limited to) the MPO or regional planning organization, the State DOT, transit agencies, city and county transportation and planning departments, elected officials, Federal and state environmental agencies, community groups, nonprofit and environmental organizations, developers, and the business community.
- Be open to ideas from “non-traditional” groups with an interest in transportation, such as public health organizations, community development organizations, and schools/schoolchildren. These groups can help identify needs in the community that are not well addressed (such as a lack of opportunities for physical activity for children).
- Build in-depth involvement of key partners and allow these partners to take ownership of a project. People will be more committed to a project and its successful implementation if they are allowed to take responsibility of some aspect of it. For example, community residents can be given a role in identifying and designing pedestrian or traffic calming improvements.

Capture the Public’s Interest

- Meet with the public and interest groups at convenient times and settings, for example, after work at a location within the community. Provide child care, refreshments, and translation if necessary.
- Provide opportunities for “hands-on” work in identifying and solving problems. Techniques such as design charrettes or facilitated discussion groups can provide an interactive and engaging experience not provided by the traditional “public forum.”
- Utilize visual imaging techniques to illustrate alternatives for transportation facilities or development designs. New computer technologies are making it much easier to create visual representations of the physical environment. People respond well to such visual information and are able to make more informed decisions regarding the aesthetic strengths and weaknesses of alternatives.
- Provide people with sound technical information about the implications of alternatives. Information on transportation, economic, environmental, and other impacts can help people weigh and understand tradeoffs among various alternatives. People also can benefit from a basic understanding of what the quantitative models are (and are not) capable of doing, which can increase their understanding of the results.
- Utilize interactive models to allow people to test different solutions themselves. Computer technology is making it possible for citizens to sit in front of a computer and simulate the effects of different alternatives. This technology can provide a valuable learning experience by which people come to better understand the tradeoffs involved in making different choices.

Design Transportation Systems that Enhance the Community

- Apply context-sensitive design principles for roadways/highways. As an alternative to the practice of applying a uniform design template everywhere, a number of State DOTs are experimenting with design approaches that acknowledge the characteristics of the surrounding community and better integrate the roadway with the community.



EFFECTIVE TCSP PRACTICES (CONTINUED)

- Use transportation facilities as a focus for inviting public spaces. Highway projects through dense urban neighborhoods have been enhanced by decks that provide valuable public parkland. Locations with concentrations of foot traffic – such as transit stations and sidewalks along business districts – provide a logical place for public plazas where people can gather, interact, or enjoy the outdoors.
- Consider non-transportation benefits of transportation and related improvements. A transit station can be an appropriate location for affordable housing, while improved truck access may facilitate redevelopment of a declining industrial area.
- Use transportation investments to help revitalize older communities. Many once-thriving neighborhoods have experienced no significant infrastructure improvements in many years. In certain situations, public investment in streetscaping, pedestrian, and traffic improvements can catalyze development by making the neighborhood more attractive, and by giving private investors confidence that their investment will retain its value.

Plan for Multiple Modes and Users

- Provide safe and appealing walk, bicycle, and transit options for the carless, elderly, children, and others who require or prefer alternatives to automobile travel. Sidewalks, pedestrian crossings, bicycle facilities, and convenient and attractive transit stops make these modes more viable, safe, and pleasant.
- Consider the needs of freight movement and its role in economic development. Routes from major highways to industrial areas or intermodal terminals are often congested or substandard for trucks, especially in older urbanized areas. Improving freight access may help stimulate redevelopment of available Brownfields and infill sites.
- Work to improve the integration between different modes of travel. The effort of using alternative travel modes can be minimized by providing convenient park-and-ride facilities, bicycle parking at transit, and seamless transfers between different transit routes and service providers.

Consider Community and System Preservation Issues in Transportation Planning

- Consider the impacts of transportation investments on local and regional land development patterns, and the resulting feedback to transportation demand and performance. Apply land use models that work with transportation models to assess these interrelationships.
- Utilize new GIS-based models that provide indicators of the community, environmental, and economic impacts of alternative site plans, community plans, and transportation investments. Use these models to compare and refine alternatives.
- Analyze the community, environmental, and economic impacts of future transportation and land use alternatives within the long-range planning as well as the project development process. The general impacts of alternative regional “systems” can be assessed prior to conducting detailed, project-specific environmental and community impact analysis.

Design Communities to Minimize Transportation Investment Needs

- Cluster housing and commercial development around transportation facilities, especially transit nodes. Clustering development around transit places a greater number of potential users within easy reach of the transit facility or service, increasing its likelihood of use.
- Design areas, sites, and subdivisions to make alternatives to driving feasible. Community design features ensure that direct walking and bicycling routes are available and attractive, and that development is compact enough to make such trips feasible.
- Work with communities to revise general plans and zoning to encourage development that minimizes transportation needs through mixed-use, clustered, and pedestrian-friendly development.
- Work with the development community to build consensus on design principles that minimize transportation needs.
- Build partnerships to address inter-jurisdictional issues, coordinating both transportation investment and land use policies across jurisdictional boundaries.



EFFECTIVE TCSP PRACTICES (CONTINUED)

Consider Funding, Resource, and Implementation Issues

- Look for non-transportation funding sources – such as Federal, state, or local government agencies or the private sector – to supplement transportation-related projects that have benefits in other areas such as housing, economic development, or environmental clean-up.
- Identify how projects may benefit local businesses, and solicit not only funding but also substantive input from these businesses. Businesses are often willing to help sponsor a project if they have a say in the project and also see a direct benefit.
- Consider operations and maintenance costs as well as capital costs in the evaluation of different transportation and community development alternatives.
- For projects resulting in plans, consider implementation as well: identify the specific steps required, develop a timeline, allocate resources, and work with stakeholders to achieve commitments to implementation.

Evaluate the Effectiveness of Planning and Implementation Activities

- Establish indicators of transportation, community, environmental, and economic performance. Working through the community planning process, select a few critical indicators that are most meaningful to project participants, rather than attempting to measure a “laundry list” of impacts.
- Collect baseline data on these indicators and establish data collection and monitoring systems to routinely update the data. Use monitoring data to identify problems and inform people about continuing needs.
- Evaluate the effectiveness of the planning process through periodic assessments and de-briefings. For example, assess whether all key stakeholders participated in the process and whether they felt their views were adequately considered.
- Measure the actual outcomes of projects, compare these outcomes with projections, and use this information to improve modeling/forecasting systems.

Be Patient and Persistent

- Obtaining meaningful involvement from multiple partners and stakeholders, while paying dividends in the long run, can take longer than expected. If people are at first reluctant to participate or skeptical of the process, don't give up.
- Expect setbacks and difficulties; then work to overcome these difficulties and move forward. Good planning requires strong and committed leadership!



4. TCSP PROGRAM ADMINISTRATION

Administration represents the “nuts and bolts” of the TCSP program and supports the implementation of successful TCSP projects. This section provides a chronology of the TCSP program to date; reviews experiences with grant selection and administration; reviews technical support and knowledge transfer activities; and discusses the benefits resulting from a competitive grant application process. The findings are based on telephone interviews with staff from Federal program partner agencies, TCSP stakeholder groups, and grantees.

TCSP PROGRAM CHRONOLOGY

The timeline for the solicitation and selection of projects has evolved over the first three years of the program. In the first year of the program, the announcement of award of the grants occurred relatively late (midway through the fiscal year) because time was required to establish the program and solicit and evaluate applications following the enactment of TEA-21 in June 1998. The announcement of grant awards has since been moved forward into the first month of the fiscal year for which funds are being awarded.

FY 1999. A total of \$20 million was authorized by TEA-21 for the FY 1999 TCSP Program. FHWA received 524 letters of interest requesting \$392 million in FY 1999 funds. A two-stage review process was used, in which a pool of finalists was selected based on their letters of interest and asked to submit full grant requests. On March 15, 1999, the 47 selected finalists submitted grant requests for review. On May 3, 1999, 35 TCSP grants totaling \$13.1 million were awarded to 27 States plus the District of Columbia. An additional \$534,480 was used in FY 1999 for technical assistance, evaluation, and research. Also in FY 1999, there was one TCSP earmark to the National Aeronautics and Space Administration (NASA) of \$4 million for a remote sensing project. (Actual allocations for TCSP were less than appropriated funding amounts in FY 1999 and other years as a result of adjustments made by Congress to program funding levels.)

FY 2000. A total of \$35 million was made available for the FY 2000 TCSP Program: \$25 million authorized by TEA-21, and an additional \$10 million in FHWA Administrative funds.

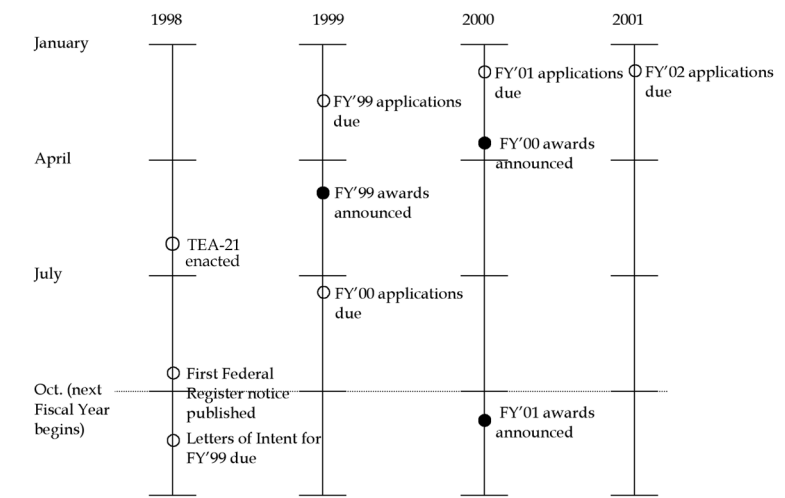
FHWA received 292 FY 2000 applications totaling \$151 million from 48 States and the

District of Columbia. On March 17, 2000, 84 projects totaling \$31.1 million were awarded to 50 States and the District of Columbia. \$21.7 million of the TEA-21 funds were awarded to 39 congressionally-earmarked projects, while \$9.3 million of the FHWA Administrative funds were awarded to 45 competitively awarded TCSP grants. In contrast to the two-stage review process used in FY 1999, a single-stage review process was used to evaluate competitive applications. An additional \$678,000 of the FHWA Administrative funds were used for technical assistance, evaluation, and research.

FY 2001. A total of \$50 million was made available for the FY 2001 TCSP Program: \$25 million authorized by TEA-21 for the TCSP program, and \$25 million of FHWA Administrative funds. FHWA received 298 applications totaling more than \$196 million from 46 States, the District of Columbia, and the Commonwealth of Puerto Rico. On October 27, 2000, 80 FY 2001 TCSP grants totaling \$46.9 million were awarded to 34 States. All of the FY 2001 TCSP funds were earmarked. No FY 2001 TCSP funds were available for technical assistance, evaluation, or research.

FY 2002. TEA-21 authorized \$25 million for the FY 2002 TCSP Program. The deadline for FY 2002 applications was January 31, 2001. FHWA received a total of 227 FY 2002 TCSP applications requesting more than \$167 million. The announcement of the FY 2002 TCSP grant awards is expected after October 2001.

Timeline for TCSP Applications and Awards



SOLICITING AND SELECTING PROJECTS

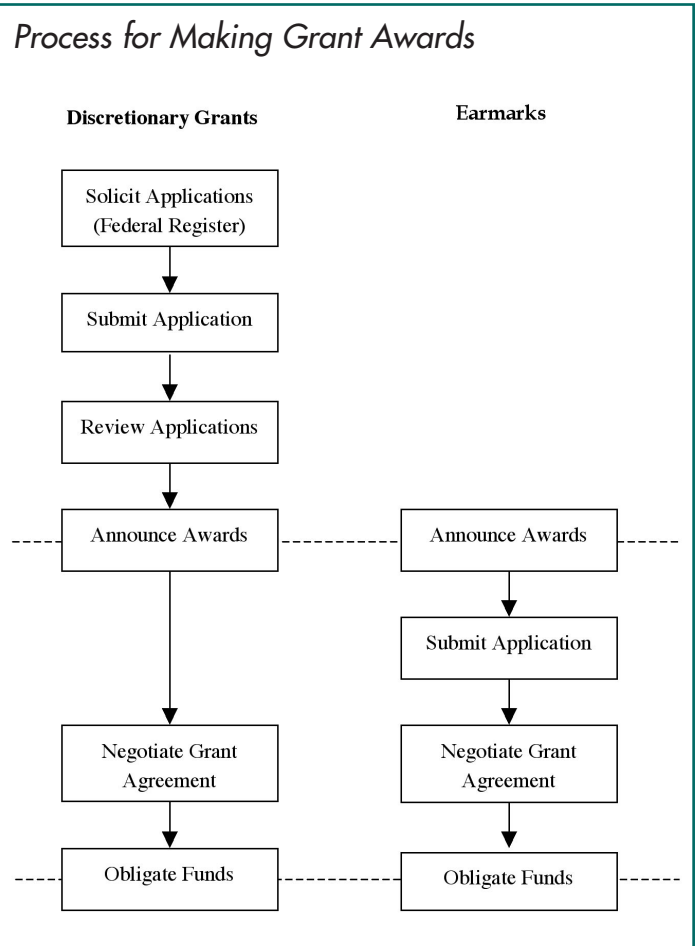
The process for making grant awards differs somewhat for discretionary and earmark grants. In either case, the target date for announcing awards is the beginning of the Federal fiscal year (October). For discretionary grants, the application and review process starts at least six to nine months prior to this date with the publication of a Federal Register notice announcing the application deadline. After applications are developed and submitted, they are reviewed by an inter-agency team and a final selection of projects is made and announced. FHWA then negotiates and finalizes a grant agreement with each grantee. For earmark awards, the announcement of the award at the beginning of the fiscal year is the first step in the process. Each grantee receiving earmarked funds is requested to complete an application similar to those submitted by discretionary applicants describing how the project meets TCSP goals and objectives, and providing a workplan, budget, and evaluation plan. FHWA then negotiates and finalizes the application with the grantee.

The large number of applications received – 524 in FY 1999, nearly 300 each in FY 2000 and FY 2001, and 227 in FY 2002 – indicates a broad interest in and awareness of the TCSP program. Interviewees who have participated in the reviews of grant applications felt that there has been a strong diversity of applications, covering a full range of applicant types, geographic areas, area types, and project types. While some people would have liked to see more applications covering certain project types, including freight, telecommunications, public health, and global climate change, overall they felt that the applications received were generally what was hoped for from the TCSP program. This was particularly true in FY 2000 and 2001, as applicants were able to gain a greater understanding of the program’s objectives by reviewing the first year awards or by attending the TCSP workshop held in May 1999. Furthermore, reviewers noted that the number of strong applications that they would have liked to fund far outpaced the actual funding available in each year.

Reviewers also felt that the process for submitting and reviewing discretionary applications was productive. Input from FHWA Division offices and FTA and EPA Regional offices provided local insights into the nature and quality of the grant application. This input, in conjunction with a final review by a Federal interagency team of FHWA, FTA, OST, Volpe, and EPA staff, led to

a strong set of projects being selected. Some reviewers noted concern over the initially cumbersome nature of the process in FY 1999, which involved reviewing numerous paper applications in a short time period. This problem, however, was largely solved as the submission and review of applications transitioned into electronic format in FY 2000 and 2001, and the length of the application was limited to 15 pages.

The process for awarding earmark grants is less complex in that it does not include an inter-agency review process. As with discretionary grants, the ability to submit applications electronically was viewed as helpful. FHWA staff did note, however, that they sometimes had difficulty identifying earmark grantees or a contact at the earmark agency, because they received only the name of a project from an Appropriations Act. They suggested that better communication regarding the recipients of grants would help expedite the negotiation of a grant agreement and obligation of funds.



ADMINISTERING GRANTS

There are several options for the administration of grants under TCSP. Individual TCSP projects can be administered by either FHWA Division offices (which are established for each State), State DOTs, or in special cases by FTA. TCSP grantees must meet Federal-aid requirements when implementing their grants. FHWA has established financial management systems with State DOTs, and many TCSP grants are channeled through this established process. However, in some cases grantees have worked with their FHWA Division office to develop a different funding mechanism, such as a cooperative agreement or grant through another eligible agency (e.g., a public transit agency).

The direct role of FHWA Division offices in the administration of TCSP grants is one of the non-traditional aspects of the TCSP program. This role was intended to streamline the program and provide flexibility in terms of funding arrangements to grantees. However, it also has proven to be more time intensive for some Division offices than originally anticipated. This is partly because many of the grants are being administered to cities, counties, and other agencies (other than State DOTs or MPOs) that are not as familiar with Federal-aid grant requirements. Some of these requirements include the need to create a budget and time schedule and the need to comply with Federal environmental impact review requirements (for construction projects). In addition, FHWA grants are provided on a cost-reimbursable basis, rather than as a lump sum award. As a result, FHWA Division offices commented that they spent a disproportionate amount of time in administering TCSP grants and also working with grantees to help them learn the process and requirements. This was a minor issue for those Divisions with only a couple of grants, but a more significant issue for Divisions with many grants. The burden is compounded by the fact that Division offices do not routinely administer grants directly to local agencies.

A concern also noted by many interviewees, including a number of grant recipients, is that many TCSP projects have taken longer than expected to get underway. In some cases, delays have ranged up to a year from the announcement of the grant award. No single factor can be pinpointed. Delays sometimes have occurred at local agencies attempting to fulfill grant requirements, hire consultants for the project, address changes in local leadership, or identify local funding to cover costs in advance of reimbursement. Delays also have occurred

in State DOT contracting departments and in FHWA Division offices due to the amount of technical assistance required for the program. Also, prior expectations for turnaround time may sometimes be optimistic and exceed what can realistically be achieved.

Nonetheless, once projects have been fully contracted, grantees have proceeded with enthusiasm. In some cases, grantees noted that they used the delay period productively, to further build relationships with project partners or to begin work on the project with local match funding.

TECHNICAL SUPPORT AND KNOWLEDGE TRANSFER

One of the purposes of TCSP is to share ideas about how to undertake planning that integrates issues of transportation, community, and system preservation. FHWA has worked to facilitate learning and knowledge transfer from the program by: stressing evaluation as a component of each TCSP project; creating a web site that has a description and contact information for each project, as well as other resources for the program; publishing a First Year Accomplishments Report for the program; hosting workshops for grantees and potential applicants to share information and ideas from their projects; and documenting and publicizing workshop proceedings. FHWA is undertaking additional learning and knowledge transfer activities, including the publication of project case studies; production of this Third-Year Report; and creation of a searchable project database on the web site that also includes products from each project as they become available.

Interviewees for this report generally felt that FHWA has done a good job of facilitating the sharing of information. People who attended the two workshops held to date—one in Denver in May 1999, and one in Washington, D.C. in September 2000—commented that they were especially valuable in helping them meet other grantees, share ideas, and learn about other projects. Some interviewees, especially those who had not attended the workshops, commented that they did not have a good idea of what projects are accomplishing, and looked forward to further documentation of the results of individual projects.

A number of interviewees also commented that the TCSP Program web site was especially useful in helping to share information about the overall program as well as specific projects. The web site (<http://www.fhwa.dot.gov/tcsp/>) includes:



- TCSP program documents, including Federal Register notices, the TEA-21 authorizing language, and frequently asked questions;
- TCSP project information, including the title, location, contact information, and funded amount of the project, and in some cases the project abstract and funding application;
- Evaluation resources, including the project evaluation guidance, references, and examples;
- Other program resources, including annual reports, workshop proceedings, and related publications; and
- Links to Federal partner agencies and other sites related to the TCSP Program.

In addition to these features, in 2001 FHWA undertook the development of a more comprehensive and searchable on-line database of projects. The database allows any Internet user to search for specific projects by year, State, project type, and other criteria. The database is also intended to assist with the application review process, by including fields in which grantees can enter the text of applications and field reviewers can enter comments on the applications. In the future, FHWA intends to continue to make products from individual TCSP projects available on the web site as they are received from grantees.

An important FHWA role in addition to knowledge transfer has been to provide technical assistance to grantees. This assistance has included working with grantees, once a grant has been awarded, to more fully develop a project workplan, and to fulfill other requirements for an FHWA grant. Grantees and Federal program partner staff praised the FHWA staff of the TCSP program for their willingness to assist grantees with questions or concerns, as well as their overall commitment to and enthusiasm for the program. In addition, FHWA has provided guidance for grantees on how to structure and implement an evaluation plan. Many of the grantees commented that this guidance was helpful.

BENEFITS OF COMPETITIVE GRANT APPLICATIONS

Competitive grant applications have represented an important element of the TCSP program administration

process. TCSP program partners, grantees, and stakeholder groups interviewed for this report noted that there are benefits extending across all aspects of the program of having competitive grant applications for TCSP funds. Specifically, a competitive process encourages the following:

- **A thorough and comprehensive approach to project development and implementation.** The criteria established for selecting TCSP projects and the challenges of the competitive process, force grantees to carefully think through their project, including setting goals, objectives, and a timeline; working to involve a broad range of partners; and developing an approach to evaluating their success. Participants in the first TCSP workshop held in Denver in May 1999 commented that even unsuccessful applicants benefited from the ideas generated and partnerships formed through the grant application process.
- **Early coordination with State DOTs and MPOs.** In a competitive application process, applicants are encouraged to coordinate with State DOTs and MPOs as the project scope is being developed. These agencies are an integral part of the project planning and implementation process. Early coordination not only allows the State DOTs and MPOs to be aware of the project but to be active participants in achieving the goals and objectives of the project.
- **Development of innovative projects.** The competitive process benefits grantees by providing them with a strong incentive to develop an innovative work program and form non-traditional partnerships. The competitive process also benefits the overall TCSP program, by ensuring that the strongest projects are selected and that the range of selected projects most closely reflects the goals and objectives of the program.



5. LOOKING TO THE FUTURE

In its first three years, the TCSP program has funded nearly 200 projects across the country that are integrating transportation, community, and system preservation concerns. The benefits of the program have gone far beyond what might be expected with the modest amounts of funding available. Communities throughout the country are using TCSP funds to design transportation systems that enhance mobility, economic opportunity, and community livability, while minimizing environmental impacts and life-cycle costs. Individual projects supported by TCSP are leading to broader changes in transportation planning and design practices, as ideas and lessons learned from TCSP projects filter into other situations. Furthermore, TCSP is supporting the broader “smart growth” movement, in which communities are wrestling with the effects of ever-increasing traffic congestion and associated community and environmental impacts.

Among the Federal program partners and stakeholder groups interviewed for this report, there was widespread agreement that the goals and objectives of the TCSP program are worthwhile; that many of the TCSP projects—especially those awarded in FY 1999 and FY 2000—are accomplishing these objectives; and that the program should continue in the future with these goals and objectives intact.

Looking beyond the five-year span of the pilot program authorized by TEA-21, initial consideration is already

being given to reauthorization of the transportation spending bill in 2003. Program partners and stakeholders interviewed had the following additional ideas for continuing to implement the planning innovations begun under TCSP, whether through a distinct TCSP program or through another mechanism:

- Move TCSP away from being a “pilot” program and into the mainstream of transportation planning practice;
- Maintain a focus on both planning and implementation;
- Reconsider either the level of funding or the funding mechanism for TCSP projects;
- Continue to work to involve both State DOTs and MPOs in TCSP projects; and
- Continue to emphasize learning and knowledge transfer.

Overall, this review of TCSP’s accomplishments suggests that the innovative work undertaken in the first three years of the program is already beginning to leverage results. There is widespread hope that the demonstration of transportation, community, and system preservation practices undertaken through TCSP not only will continue, but broaden its reach.



APPENDIX

FISCAL YEAR 1999–2001 TCSP PROJECTS

1999 PROJECTS

<u>State</u>	<u>Project Description</u>	<u>State</u>	<u>Project Description</u>
Alaska	Anchorage: Assess and redesign the public outreach and participation process for metropolitan transportation planning.	New Jersey	Northern New Jersey: Integrate planning, data, and public involvement to establish an action for a modern intermodal freight infrastructure to support brownfield, economic, and community redevelopment.
Arizona	Tempe: Conduct a transportation subarea study and create a transit overlay district model to support sustainable development.	New Jersey	Statewide: Improve access, services, and amenities at passenger rail stations to meet broad community goals.
California	San Francisco: Integrate land use and housing alternatives to support the development of the Mission Street transit corridor.	New York	Troy: Incorporate transportation and land use into the city's redevelopment plan for the waterfront.
	Escalon: Preserve and enhance a rural community with pedestrian and bike access to school, neighborhoods and businesses.	North Carolina	Raleigh: Develop policies and programs to implement a regionwide vision for land use, transportation, and development.
	Mono County: Develop a rural community plan to balance tourism and growth with community stability, safety, and environmental protection.	Ohio	Cleveland: Develop a community-based plan to revitalize a congested commercial boulevard in Woodmere Village while maintaining access to the larger community.
Connecticut	Hartford: Address regional growth issues through outreach and transportation and development practices in three prototype communities: urban, suburban, and rural.		Dayton: Redevelop a brownfields site near downtown as an industrial incubator, to provide economic, environmental, and community benefits.
District of Columbia	Washington, D.C.: Identify and implement priority regional greenway projects and intermodal circulation systems around activity centers.	Oregon	Portland: Conduct land use, environmental, and transportation planning to create and protect urban reserves.
Florida	Gainesville: Develop and apply sketch planning methods to measure the impacts of land use patterns on transportation conditions.		Willamette Valley: Integrate analytical models to evaluate the transportation impacts of possible land use futures in this region.
Idaho	Boise: Evaluate the effects of transportation and land use decisions on rapidly growing semi-rural counties to provide for better decision-making to curb the effects of sprawl.	Pennsylvania	Centre County: Develop planning recommendations and guidelines for communities in the Bald Eagle River watershed to meet growth demands created by the widening of I-99.
Kentucky	Lexington: Develop a handbook, CD-ROM, and workshops for planners, developers, decision-makers and citizens on land use and transportation strategies.		Philadelphia: Develop metropolitan area-wide strategies to promote transportation efficiency including transit-oriented development, location efficient mortgages, and station area plans.
Louisiana	New Orleans: Produce a comprehensive plan that integrates land use, alternative growth scenarios, and transportation to meet long-term community goals.	Rhode Island	Providence: Support construction of transportation initiatives in the Olneyville neighborhood including a transit hub, streetscape improvements, and access to a bicycle path and greenways.
Maryland	Statewide: Develop and apply an integrated transportation, land use, and watershed model to assess the land use and environmental impacts of transportation investments.	South Carolina	Charleston: Identify the costs and impacts of alternative development and transportation and infrastructure scenarios.
Michigan	Saginaw: Redesign a suburban shopping mall to be more pedestrian- and transit-friendly.	Tennessee	Johnson City: Develop specific land use alternatives to incorporate as formal code changes into a revised land use plan.
	Lansing: Develop a shared regional vision of future land use and development patterns in the Lansing area through visual preference surveys, modeling, and public outreach.	Texas	Houston: Develop a strategically integrated transportation and land use plan for the eight-mile Main Street corridor.
Missouri	Kansas City: Provide outreach and analytical tools for private developers and city officials to support sustainable choices.	Utah	Northern Utah: Evaluate alternate growth and land use scenarios for the Wasatch Front area and adopt land use and transportation implementation strategies for a preferred scenario.
Montana	Laurel: Develop a plan for long-term transportation, land use, and community preservation.		



<u>State</u>	<u>Project Description</u>	<u>State</u>	<u>Project Description</u>
Virginia	Charlottesville: Create a 50-year vision and cooperative multi-jurisdictional plan for land use, economic and community development, environmental quality, and transportation.	West Virginia	Martinsburg: Redevelop an historic rail complex as an intermodal facility to support economic development and tourism.
Washington	Seattle: Promote transportation efficiency and transit-oriented development around existing and proposed transit stations in the region.	Wisconsin	Madison: Establish regional standards and processes for transportation and land development projects that can be used by local governments to achieve community goals.

2000 PROJECTS

Alabama	Statewide: Assess the infrastructure needs of the Alabama State Docks system in fulfilling its role as the linchpin of a multimodal transportation corridor in southern Alabama. Florence: Create landscaped pedestrian walkways on the campus of the University of North Alabama.	Colorado	Larimer County: Develop a plan for a balanced, multimodal transportation system for the safe and efficient movement of persons and goods in the Estes Valley. Denver: Establish and promote cost-effective and community-friendly alternative transportation at a downtown intermodal transportation center. Denver: Link the 16th Street mall corridor to neighborhoods located northwest of downtown with a pedestrian and bicycle bridge.
Alaska	Anchorage: Conduct a feasibility study of commuter rail and ferry service between the Borough and Municipality of Anchorage. Fairbanks: Construct a pedestrian/bicycle "Centennial Bridge" across the Chena River in the Fairbanks downtown core.	Connecticut	Beacon Falls: Create transportation, land development, environmental protection, and economic development goals and strategies to revitalize this small town. New Haven: Purchase eight electric trolleys to run continuous looping route cycles between the mall, downtown New Haven, and west New Haven.
Arizona	Phoenix: Develop strategies to direct infrastructure development and protect open space areas that will contribute to sustainable communities.	Delaware	Centreville: Develop a land use and transportation master plan to guide future development and transportation decisions.
Arkansas	Jonesboro: Relocate rail lines and construct a vehicle overpass to improve rail traffic operations and road safety. Pulaski and Saline Counties: Conducting a full traffic shed analysis in two rural counties and test methods for determining traffic shed capacity. Little Rock: Develop bike trails, walkways, sidewalks, sheltered bus stops, street furniture, and information kiosks to improve modal and community connectivity in the River Market and College Station areas.	District of Columbia	Washington, D.C.: Redevelop residential properties and implement streetscape and traffic calming improvements to revitalize an historic neighborhood. Washington, D.C.: Examine multimodal transportation, traffic mitigation, and land use approaches to relieve traffic congestion resulting from the closure of a portion of Pennsylvania Avenue.
California	Berkeley: Create a campus of buildings for nine disability service, policy organizations, and other private or non-profit entities and retail establishments over a mass transit parking lot. San Joaquin Valley: Develop model zoning ordinances and design standards to create efficient land use and livable communities emphasizing pedestrian and transit-oriented design. San Diego: Pilot-test PLACE3S, an urban and regional analytical tool and planning method, and launch the method statewide as a transportation and land use planning program. Riverside County: Identify and design new transportation corridors to provide for the county's future transportation needs, considering land use, biological resources, and related issues. San Francisco: Conduct planning, design, and evaluation for the redevelopment of the Market Street area and Civic Center.	Florida	Tampa: Create and demonstrate strategies for reducing environmental impacts of transportation and utility corridors across natural areas through coordinated siting, design, permitting, and maintenance. Port St. Lucie: Develop alternative transportation and land use scenarios and create plans to address non-motorized travel, traffic congestion, and land use. St. Lucie County: Bring students and planners together to develop a bicycle and pedestrian transportation plan for the community.
		Georgia	Athens to Atlanta: Develop a model planning process that will address sustainable development and livability in rapidly growing communities, resulting in a master plan for communities along proposed commuter rail lines.
		Hawaii	Waikiki: Develop a community-based mobility plan, using highly participatory, hands-on planning tools,



State	Project Description	State	Project Description
	that will guide and leverage transportation investments.		Eastern Massachusetts: Analyze the transportation impacts of alternative development patterns and design in the I-495 corridor; initiate alternative transportation demonstration programs.
Idaho	Kootenai County: Conduct a comprehensive study and develop a master plan to address traffic, pedestrian, and community issues along State Highway 41, including the potential effects of land use actions.	Michigan	Traverse City: Develop a transportation and land use plan for the city that will increase efficiency of the transportation system while protecting the livability of the community.
Illinois	McHenry County: Develop a long-range strategic plan to coordinate multipurpose transportation corridor improvements with current and future land use, protecting the Kishwaukee River watershed. DuPage County: Reconfigure tollway ramps and make intersection improvements in the area of the intersection of Naperville and Warrenville Roads.	Minnesota	Minneapolis: Develop a comprehensive plan for sustainable redevelopment of the Lowry Avenue corridor based upon a multimodal transportation system.
Indiana	Madison County: Develop a comprehensive and coordinated set of policies, tools, and methods for the orderly development of land, preservation and retrofitting of existing transportation facilities, and effective urban and rural design. Muncie: Develop a plan for motorized and non-motorized travel replacing the traditional thoroughfare plan, which merely addresses roadway classification and proposed rights-of-way.	Mississippi	Jackson: Construct airport connectors to improve traffic flow and transit access and enhance economic development.
Iowa	Sioux City: Redevelop transportation infrastructure and create private investment opportunities within the urban, industrial Hoeven Valley.	Missouri	St. Louis: Implement an innovative regional community development process to address transportation, land use, and socioeconomic issues.
Kansas	Marysville: Conduct a planning study that will examine the impacts of a grade separation project and how it will ultimately impact community economic development, safety, land use, and quality of life.	Montana	Kalispell: Construct a bus storage barn with washing and facilities, designed for extreme winter weather conditions, to improve local transit productivity.
Kentucky	Woodford County: Develop local transportation and planning strategies with specific mechanisms, allowing for the careful management of this scenic part of central Kentucky.	Nebraska	Omaha: Construct a centralized pedestrian crossing over the Missouri River to increase community access.
Louisiana	St. Charles, St. James and St. John the Baptist Parishes: Develop an action plan for coordinating existing transit services, determining expansion needs, and modifying local policies and practices to better encourage use of public transportation. Shreveport: Prepare a transportation, community, and system preservation strategic plan to establish Shreveport's core inner-city neighborhoods as a regional technology and residential center.	Nevada	Clark County: Develop and test remote sensing technologies and a GIS-based transportation emissions model to study particulate matter transport in the Las Vegas area.
Maine	Statewide: Develop coordinated investment plans that focus on identifying, prioritizing, and programming public and private investments required for successful service center revitalization.	New Hampshire	Concord: Develop a comprehensive 20-year plan for the city of Concord integrating community and transportation needs; develop a community-centered planning guide.
Maryland	Montgomery and Frederick Counties: Conduct a study that examines development in targeted growth areas along the I-270 corridor and integrates Smart Growth considerations into mainstream transportation and land use planning activities.	New Jersey	Monmouth County: Design and construct a pedestrian tunnel to remove an existing mid-block pedestrian crossing. Montclair: Develop a detailed land use plan to improve access to transit. Northern New Jersey: Integrate planning, data, and public involvement to establish an action for a modern intermodal freight infrastructure to support brownfield, economic, and community redevelopment. South Amboy: Develop a plan to improve access from nearby highways to rail, bus, and ferry transportation facilities.
Massachusetts	Springfield: Develop a toolbox of transportation and land use solutions to redevelop an historic industry-centered inner-city neighborhood.	New Mexico	Santa Fe: Develop a design and implementation plan for the Solana Neighborhood Center to serve as a model for growth without sprawl. Albuquerque: Develop a pedestrian access plan, comprehensive transportation management plan, and street and pedestrian signage and amenities program as part of a downtown revitalization program. Raton: Assist in the acquisition and restoration of Raton Railroad Depot to provide intermodal connections and promote economic development.



State	Project Description	State	Project Description
New York	<p>Hamilton: Enhance community involvement in Smart Growth concepts including coordination of land use and transportation decision-making, institution of arterial access management, and institution of a street network to guide future growth.</p> <p>New Rochelle: Reconfigure and redesign a train station and construct a parking garage to create an intermodal transportation center.</p> <p>White Plains: Construct an overhead passageway for pedestrians that will facilitate connections between a railroad station and bus terminal.</p>	Texas	<p>Houston: Conduct pre-construction engineering work and design for pilot projects within Houston's Main Street Corridor that will enhance public space and pedestrian linkages to adjacent neighborhoods.</p> <p>Fort Worth: Conduct a central city commercial corridor redevelopment study to engage public agencies and property owners to discuss linkages between development and transit.</p> <p>Lufkin: Plan, design, and construct a multimodal transit terminal to alleviate downtown congestion without increasing parking.</p>
North Carolina	Bethania: Study current and projected traffic through this historic village and develop a plan for vehicular, truck, pedestrian, and bicycle traffic.	Utah	<p>Salt Lake City: Develop a Quality Growth Strategy and design strategies for its implementation to address northern Utah's future growth.</p> <p>Northeastern Utah/northwestern Colorado: Study and facilitate the development of a short-line railroad, linking resource rich areas of northwestern Colorado and northeastern Utah to the national rail system.</p>
North Dakota	Fort Yates: Develop a GIS-based road and infrastructure management system to assist the Standing Rock Sioux Tribe with system preservation and economic development.	Vermont	Burlington: Implement transportation and streetscape improvements as part of the North Street urban revitalization project.
Ohio	Cleveland: Implement demonstration projects to reduce the impacts of commuter traffic on inner-city neighborhoods.	Virginia	<p>Northern and north-central Virginia: Conduct a study to identify land use changes that have resulted from introduction and operation of the Virginia Railway Express.</p> <p>Arlington County: Reconstruct two intersections to provide greater pedestrian refuge and realign some crosswalks to reduce the crossing lengths for pedestrians.</p> <p>Richmond: Conduct engineering/design and rehabilitation/renovation of an historic train station into a downtown multimodal transportation center.</p>
Oklahoma	Oklahoma City: Implement a fleet of boats to link downtown with nearby redevelopment areas along the North Canadian River.	Washington	<p>Whatcom County: Develop a trail construction plan consistent with the Mt. Baker Foothills community vision, to provide recreational opportunities and safety improvements to non-motorized travelers and attract visitors.</p> <p>Clark County: Develop information to guide transportation and land use policy development for the county's comprehensive plan update, focusing particularly on methods of meeting transportation concurrency requirements.</p>
Oregon	<p>Klamath, Clackmas, Lake, and Grant Counties: Produce a replicable planning model for assessing the needs of Oregon rural communities that can be served by technology and network services through "telecommunity centers."</p> <p>Statewide: Fund innovative projects meeting TCSP objectives in Oregon communities.</p>	West Virginia	Putnam County: Develop a comprehensive transportation corridor management plan in conjunction with the planned construction of U.S. Highway 35.
Pennsylvania	<p>York: Design and implement a sustainable community plan using transportation and land use solutions.</p> <p>Centre County: Develop planning recommendations and guidelines for communities in the Bald Eagle River watershed to meet growth demands created by the widening of I-99.</p>	Wisconsin	Green Bay: Link existing trail areas and construct new trails to extend the regional parkway trail system.
Rhode Island	Warwick: Develop recommendations for improving transit/pedestrian access and guidelines for transit-oriented development to realize the goals of an existing redevelopment district master plan.	Wyoming	Teton County: Identify areas of future growth and environmental protection; develop a transportation demand management program and amend land development regulations to achieve this vision.
South Carolina	Columbia: Develop and evaluate a pilot planning model that integrates the state's infrastructure planning activities into one plan and process at the regional level.		
South Dakota	Sioux Falls: Redevelop aging industrial properties and implement transportation improvements to link downtown with Falls Park.		
Tennessee	Knoxville: Design a traffic calming/streetscape plan using neighborhood residents and city engineers as the designers; study the effects on pedestrian behavior.		



2001 PROJECTS

State	Project Description	State	Project Description
Alaska	Delong Mountain: Undertake a study for an airport facility to serve passenger and cargo traffic to northwest Alaska.		cial and residential areas on the north side of the community.
	Soldotna: Design and construct improvements to Redoubt Avenue.		Chicago: Develop a community-based physical plan for the pedestrian environment in the Edgewater neighborhood.
	Fairbanks: Plan and design a unified cultural, visitor, transportation, and public lands information center.		Joliet to Chicago: Develop designs for improvements to enhance service in a commuter rail corridor by reducing conflicts with freight rail traffic and highway crossings.
	Talkeetna: Develop pedestrian, traffic safety, and access improvements in an historic community that is a gateway to Denali National Park.	Indiana	Angola and Steuben City: Construct a walking/ bicycling trail and bridge to link existing trails, schools, parks, and other community facilities.
	Palmer: Undertake planning and engineering for landscape, pedestrian, and traffic improvements to transform an unmaintained railroad right-of-way through the city.		West Baden Springs: Restore the historic appearance, structural integrity, and economic viability of two structures in the State Route 56 corridor as part of a larger revitalization initiative.
Alabama	Mobile: Establish a train station and shuttle to link Amtrak service with an intermodal terminal serving bus, taxi, water, and non-motorized transportation.	Kansas	Wichita: Construct two pedestrian bridges linking three major activity centers situated around the confluence of the Arkansas and Little Arkansas Rivers.
Arkansas	Northeast Arkansas: Upgrade U.S. Highway 63 to Interstate standards to improve safety and accessibility between Jonesboro and Memphis.	Kentucky	Pulaski County: Convert an abandoned railbed to a recreational trail through a national forest.
	Van Buren: Conduct design and engineering for an intermodal freight facility; create a business plan and strategic plan to market the facility and local development sites.		Bowling Green: Develop land along the Barren River into a recreational green space that will also serve as the beginning of a pedestrian and bicycle pathway.
California	Coronado: Conduct a comprehensive analysis of alternatives to relieve congestion and improve safety in two state route corridors.		Clay and Leslie Counties: Design and construct an interchange to serve a regional industrial park and promote economic development.
	Sierra Madre: Upgrade a road to provide dependable, all-weather access for residents and visitors of the Chantry Flats area of Angeles National Forest.		Owensboro: Prepare a master plan and develop access, landscape, and economic improvements to a two-mile segment of underutilized waterfront.
	Riverside County: Identify and design new transportation corridors to solve the county's future transportation needs, considering land use, biological resources, and related issues.	Louisiana	Lincoln Parish: Develop an implementation plan for a multi-faceted transportation corridor with emphasis on neighborhood and community preservation.
	El Segundo: Create pedestrian connections to an intermodal transit facility in southern Los Angeles County.		New Orleans: Perform research and planning support on behalf of public and private sector decision-makers in the areas of transportation, land use planning, and community development/ redevelopment.
	Santa Barbara County: Acquire permanent easements to provide for the construction of a bicycle and pedestrian highway/railroad overcrossing to connect two segments of a moderate income, ethnically diverse community.	Massachusetts	New Bedford: Coordinate the land use and transportation decision-making processes of five major public infrastructure investments with environmental permitting processes.
	Roseville: Construct a pedestrian/bicycle bridge connection to an intermodal station providing commuter rail service to Sacramento and the San Francisco Bay area.	Maryland	Rockville: Develop plans for transportation improvements, including highway grade separation and a pedestrian plaza, to support town center redevelopment and access to an adjacent rail station.
Florida	Miami: Develop a master plan to address mobility needs in an African-American, highly transit-dependent community.	Maine	Bangor: Complete transportation improvements including intermodal hub facility planning, railroad crossing signalization, and bicycle/pedestrian trails to support downtown waterfront redevelopment.
Illinois	Quincy: Construct a bridge to improve access to an industrial park and developing industrial, commer-	Michigan	Ferndale: Install fixed traffic control signals and large illuminated street location signs at three downtown intersections to improve traffic and pedestrian safety.



State	Project Description	State	Project Description
	Flint: Conduct an origin-destination study and identify needs and deficiencies for cross-border truck and rail freight traffic.		continuous, uninterrupted bicycle/pedestrian path along the Hudson River.
	Detroit: Conduct design work and environmental assessments for the construction of a freeway overpass park that will increase park and recreation services for residents of a minority and low-income neighborhood.		Borough of Flemington: Realign Park Avenue.
Minnesota	Hennepin County: Implement roadway improvements to enhance safety for pedestrians, improve access to schools and proposed retail development, and protect water quality and wetlands as part of a redevelopment project in North Minneapolis.		Town of South Brunswick: Undertake construction on Route 522.
	Brooklyn Park and Maple Grove: Extend Trunk Highway 610 to relieve congestion, improve safety, and provide economic benefits.		City of Bedminster: Construct a bicycle path.
Missouri	Kansas City: Enhance a downtown park to create an attractive, usable space that serves as a focal point for governmental and civic activities.	New Mexico	Clovis: Reconstruct a one-mile section of street providing access to a community college.
	St. Louis: Create a master plan and implement pilot projects to improve neighborhood viability, enhance business facades, and renew a sense of community in an inner-city business district.		Albuquerque: Prepare a feasibility study and implementation plan for the provision of commuter rail service.
	Springfield: Implement a streetscape project to improve pedestrian access, auto circulation, and aesthetics as part of a larger effort to revitalize the downtown.		Las Cruces: Preserve a railroad depot for use as a railroad station and transportation hub and museum.
Mississippi	Claiborne County: Perform a study to evaluate alternative routes for logging trucks to reach a port facility on the Mississippi River without using an historic downtown street network.		Raton: Assist in the restoration of a depot for intermodal passenger and freight service and to support downtown revitalization.
	Jackson: Address congestion caused by at-grade rail crossing traffic through the use of Intelligent Transportation Systems (ITS); study rail relocations.		Albuquerque: Develop improved pedestrian access and implement parking management in the Uptown employment and retail center.
Montana	Billings: Construct bicycle and pedestrian trails to further implement a comprehensive trails plan; create an urban civic plaza downtown.	Nevada	Henderson: Provide for safe pedestrian and bicycle routes in conjunction with the opening of a college campus downtown.
	Statewide: Place geological information along roadways that explains the landscape through which people are traveling.		The Bronx: Design and build a bicycle/pedestrian facility as part of a link in the waterfront Soundview Greenway.
	Statewide: Develop a prioritization system for railroad grade separation projects and identify the most cost-effective projects for further environmental review.	New York	Greenport: Create pedestrian paths at a marina to link existing and planned water, rail, and bus transportation facilities serving the downtown.
Nebraska	Omaha: Construct a centralized pedestrian crossing over the Missouri River to increase community access.		Ohio
New Hampshire	Bedford: Prepare design strategies for a road corridor to address access management, business viability, and commuter traffic, while creating a pride of place through architectural and aesthetic guidelines.		Toledo: Beautify the newly constructed Buckeye Basin/Greenbelt Parkway and reduce its impacts on the environment.
	Concord: Implement transportation, land use, economic development, and conservation strategies previously identified in a comprehensive vision plan for the region.		Dayton: Improve pedestrian, roadway, and transit access to link two aviation-related historic sites.
New Jersey	Hudson County: Assist in completing a 15-mile		Northeastern Ohio: Develop a multi-use recreational trail along the route of the historic Ohio & Erie Canal.
		Oklahoma	Tulsa: Replace a viaduct over a railroad adjacent to an elementary school.
		Oregon	Portland: Renovate the lobby of an historic courthouse that serves as a transit information and visitor center.
		Pennsylvania	Pittsburgh: Implement pedestrian improvements as part of a downtown riverfront park project to enhance access to adjacent neighborhoods and provide recreational opportunities.
			Johnstown: Implement pedestrian and streetscape improvements as part of a redevelopment project that includes major entertainment facilities and a conference center.
		Texas	Houston: Conduct pre-construction engineering work and design for pilot projects within Houston's Main Street Corridor that will enhance public space and pedestrian linkages to adjacent neighborhoods.
			Fort Worth: Conduct alternatives analysis and



Appendix

State	Project Description	State	Project Description
	environmental assessment for a potential light rail corridor, including consideration of land use strategies.	Washington	Grays Harbor: Develop infrastructure improvements to support the conversion of the former Satsop Nuclear project site into a high-tech business and industrial park.
Utah	Northeastern Utah/northwestern Colorado: Study and facilitate the development of a short-line railroad, linking resource rich areas of northwestern Colorado and northeastern Utah to the national rail system.		Shoreline: Construct improvements along a state highway to support pedestrian and transit circulation.
Virginia	Fairfax County: Study opportunities to expand and connect recreational trails, and to assist with interpretation of historic and cultural resources.		Clallam County: Construct trail linkages to connect two population centers via a non-motorized travel route.
	Virginia Beach: Construct a bicycle and pedestrian trail along an abandoned rail corridor.		Puget Sound region: Create a freight users and service providers group focused on improving on-time delivery in the Washington State supply chain.
	Northwestern Virginia: Purchase and deploy hardware and software to improve safety and facilitate movement of commercial motor carrier vehicles.	West Virginia	Charleston: Expand a boulevard trail enhancement project linking neighborhoods to the central business district.
Vermont	Burlington: Implement transportation and streetscape improvements as part of the North Street urban revitalization project; rehabilitate and enhance a downtown pedestrian mall.		Ellenboro and Harrisville: Excavate a roadside embankment to improve sight distance and safety along a route heavily used by school buses.
	Manchester: Implement pedestrian improvements and parking management downtown as part of an overall travel demand management strategy.		Wheeling: Adapt historic but underutilized buildings into commercial and residential space to promote downtown redevelopment.



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- Hartford, CT: Picture it Better Together
- Washington, D.C.: Develop Circulation Systems and Green Space
- Boise, ID: Treasure Valley Futures
- New Orleans, LA: Transportation/Community Systems Optimization
- Saginaw, MI: Retrofitting Anytown, USA
- Kansas City, MO: Smart Choices
- Laurel, MT: Transportation and Community Sustainability Plan
- Raleigh, NC: Regional Development and Mobility Principles
- Johnson City, TN: The Land Use and Transportation Plan
- Houston, TX: Main Street Corridor Planning and Research Project
- Northern Utah: Envision Utah
- Charlottesville, VA: Jefferson Area Eastern Planning Initiative
- Seattle, WA: Transit Station Communities Project
- Martinsburg, WV: Historic Baltimore & Ohio Roundhouse Renovation Project
- Madison, WI: Design Dane
- San Diego, CA: Pilot Test of PLACE3S Method
- McHenry County, IL: Sustainable Transportation and Land Use Plan
- Raton, NM: Historic Rehabilitation Project
- Fort Yates, ND: Tribal Roads Management System

In addition, representatives of the following Federal agencies and stakeholder groups were interviewed by telephone regarding overall TCSP program accomplishments, lessons learned, and future directions:

- Federal Highway Administration (Headquarters)
- Federal Highway Administration (9 Division offices, interviewed in two groups)
- Federal Railroad Administration
- Federal Transit Administration
- Office of the Secretary of Transportation
- Volpe National Transportation Systems Center
- Environmental Protection Agency
- Association of American Metropolitan Planning Organizations
- Great American Station Foundation
- National Council for Community and Economic Development
- National League of Cities





Further information on the TCSP Pilot Program can be found on the Internet at <http://www.fhwa.dot.gov/tcsp/>, by contacting the FHWA Division office located in each state (listed on the TCSP website), or through FHWA's Office of Human Environment.

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