

Transportation Project Prioritization and Performance-based Planning Efforts in Rural and Small Metropolitan Regions

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Summary:

In 2011, national-level research was conducted by the National Association of Development Organizations (NADO) Research Foundation on regional planning and development organizations' efforts in rural and small metropolitan transportation planning. The research effort focuses particularly on regional-level transportation planning conducted by rural planning organizations (RPOs), which are often organized similarly to metropolitan planning organizations (MPOs) but function mostly under contract to state DOTs to assist with tasks related to statewide and regional planning. This paper reviews the results of that research and describes common organizational and leadership structures, work elements completed through planning contracts, funding and staffing levels, and decisionmaking processes.

About the NADO Research Foundation

Founded in 1988, the NADO Research Foundation is the nonprofit research affiliate of the National Association of Development Organizations (NADO). The NADO Research Foundation identifies, studies, and promotes regional solutions and approaches to improving local prosperity and services through the nationwide network of regional development organizations. The Research Foundation shares best practices, offers professional development training, analyzes the impact of federal policies and programs on regional development organizations, and examines the latest developments and trends in small metropolitan and rural America. Most importantly, the Research Foundation is helping bridge the communications gap among practitioners, researchers, and policymakers.

This report was authored by NADO Associate Director Carrie Kissel and Graduate Fellow Claire Gron. We thank all the individuals who provided information and those who consented to be interviewed.

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Introduction

In early 2011, the National Association of Development Organizations (NADO) Research Foundation conducted a scan of regional planning and development organizations to determine common regional planning activities conducted in non-metropolitan and small metropolitan areas, as well as how rural regions make decisions about recommendations for investments made through the statewide transportation planning process. This research effort expands upon previous work on transportation planning in small communities and improves knowledge of the state of the practice. With resources for both planning and projects constrained, transportation agencies and policymakers are seeking ways to ensure that investments are appropriate and will provide substantial benefit to their communities and the transportation network.

In approximately 30 states, rural transportation planning organizations (RPOs, also often called RTPOs) assist state DOTs and local officials with regional transportation planning in non-metropol-

itan areas. In most cases, the organizations that are typically responsible for rural transportation planning are regional development organizations (RDOs). Most were established by state statute or executive order in addition to bearing several federal program designations that determine the core work programs for the agencies. In some states, rural transportation planning is considered to be one work program among several housed at a parent organization, and in others it is set up as its own organization with separate bylaws and leadership from the regional entity that houses and staffs the rural planning program.¹ In this report, organizations with responsibility for conducting regional transportation planning activities outside metropolitan areas, voluntarily and/or under contract to a state department of transportation (DOT), will be referred to as RPOs.

RPOs are voluntary organizations that typically function under contract to state DOTs to assist with tasks related to statewide planning, including pub-

Regional Development Organizations

The generic term Regional Development Organization (RDO) is used to describe a multi-jurisdictional, public-based regional planning and development organization. These public-sector entities are governed by a regional policy board with majority control by local elected officials. As mandated by various federal programs, RDO boards may also include business, nonprofit, education, and community leaders.

These entities are often known locally as councils of governments, area development districts, economic development districts, planning and development districts, planning and development commissions, regional development commissions, regional planning commissions and regional councils.

The legal basis for most RDOs originates through state statute or gubernatorial executive order, or MOU of local governments. RDOs may have many different federal program designations, such as Economic Development District for U.S. Economic Development Administration, Local Development District for a Federal-State Regional Commission, Metropolitan Planning Organization (MPO) and/or Rural Transportation Planning Organization (RPO) for multimodal transportation planning.

Many RDOs also play a key role in emergency management and homeland security, Geographic Information System (GIS) data analysis and information management, business development finance, technology and telecommunications, and workforce development.

lic involvement, gathering input of local officials in the consultation process in statewide planning, and providing technical assistance to local governments, as outlined below. They are often organized similarly to metropolitan planning organizations (MPOs), with membership comprising primarily local governments within the region and governed by a policy board or committee that receives recommendations of a technical committee.

Methodology

The NADO Research Foundation conducted a national scan, seeking information from state DOTs and regional development organizations, such as rural planning organizations, regional planning commissions, councils of governments, economic development districts, and small MPOs housed in multi-purpose regional organizations. The information gathered through the scan related to regional transportation planning organizational structure, leadership, staffing, major functions, and decisionmaking processes. In addition, the NADO Research Foundation analyzed a variety of planning documents to determine the elements of decisionmaking, conducted interviews of individuals from a few select regions and states, and also convened a working group to discuss issues related to project selection processes and performance-based planning.

Characteristics of the Responding Organizations

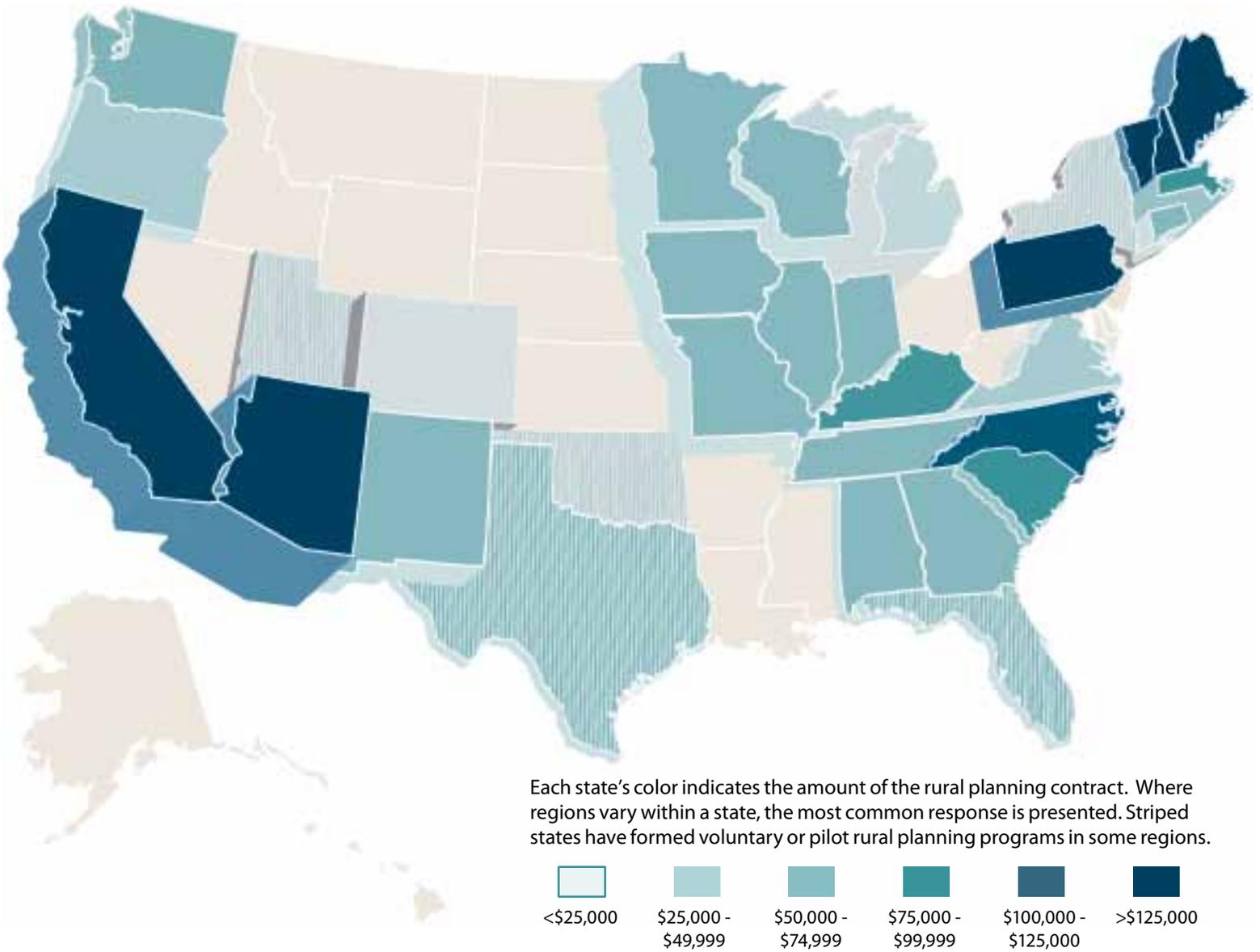
The NADO Research Foundation received responses from 184 organizations that conduct either small metropolitan or rural regional-level transportation planning. This included 180 responses from rural and small metropolitan RDOs located in 30 states, as well as responses from an additional four RDOs that staff small MPOs (and not RPOs). As a result of the characteristics of the respondents, this analysis focuses mainly on rural planning.

Forty-eight of the 180 responding organizations (27 percent) administer a metropolitan planning organization (MPO) in addition to a rural transportation planning program. The majority of these regions contain urbanized populations under 200,000, so they are not considered to be transportation management areas (TMAs, which have additional responsibilities reflecting their larger population base). In addition, approximately one-third of the respondents reported that there was an MPO within their service area that their organization does not staff.

Of the respondents that have an RPO in-house, the vast majority (92 percent) operate under a contract or agreement with their state department of transportation (DOT). Figure 1 identifies when regional level rural transportation planning commenced in each state. Sixteen RPOs (12 percent) established agreements before 1980, 7 RPOs (5 percent) established agreements in the 1980s, 54 (39 percent) established agreements in the 1990s, and 61 (44 percent) established agreements since 2000. A few respondents (7 percent) established RPOs without assistance from their state DOT; these respondents were mainly located in Texas and New York.

Rural transportation planning programs examined in this scan serve as few as one county, although the vast majority serves up to 10 counties. The population of the area served by rural transportation planning programs in the scan ranges broadly, from under 50,000 to over 200,000. One-third of RPOs reported serving fewer than 100,000 persons, one-third reported serving between 100,000 and 200,000 persons, and one-third

FIGURE 1 States with regional rural transportation planning programs



Each state's height in the map above and cross section below indicates the decade in which the RPO program was established.

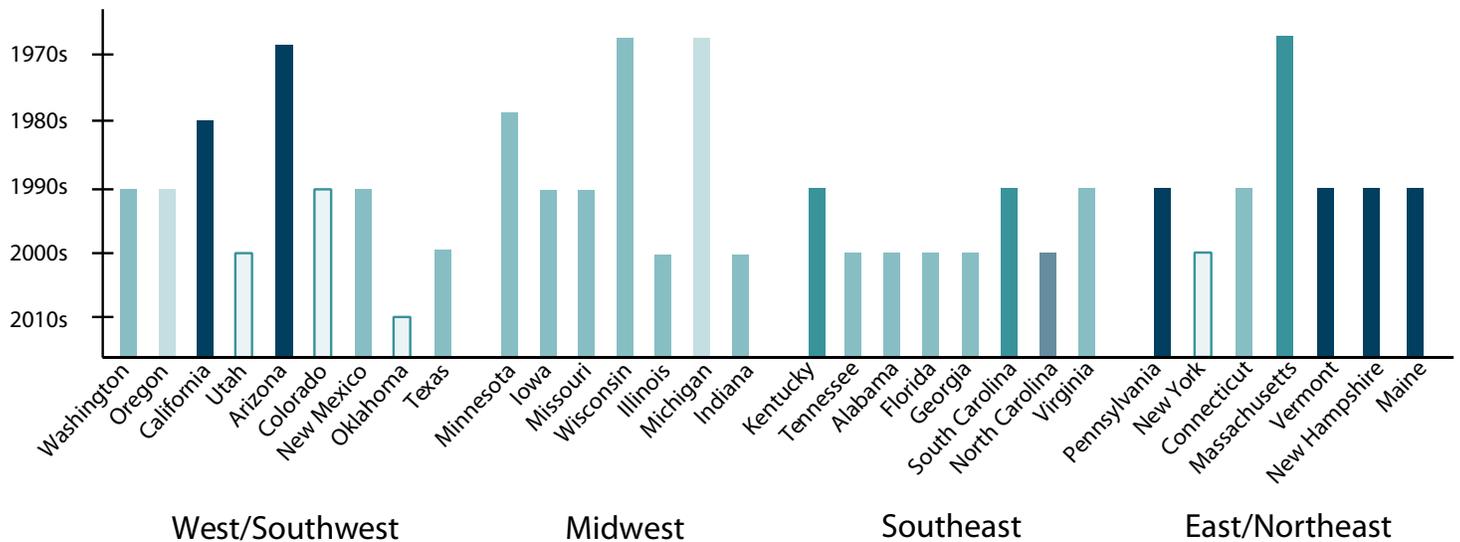
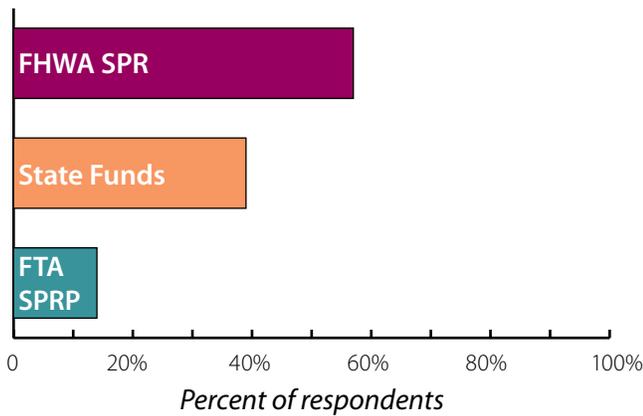


FIGURE 2 Source of rural planning funds



Other program funds reported by a handful of respondents include local funds, federal STP, FTA Section 5311 and 5317 grant funds. Respondents could select more than one source of funds.

FIGURE 3 Match rates for RPO funds

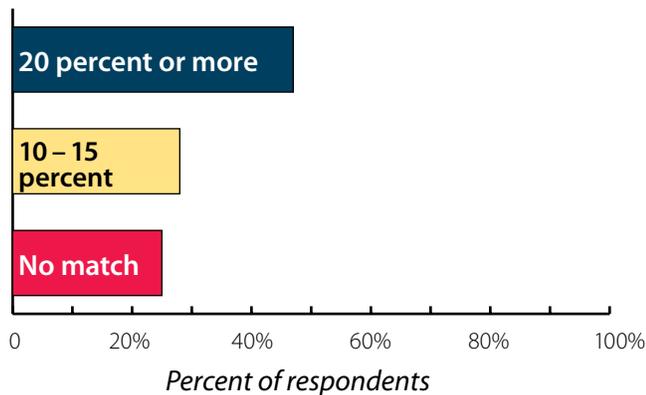
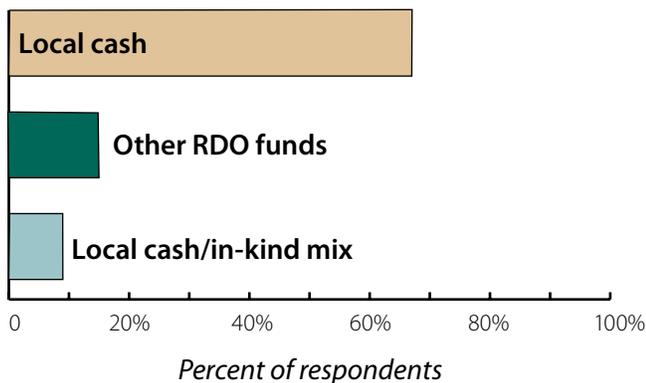


FIGURE 4 Matching fund sources



reported serving 200,000 or more persons. Because rural planning organizations typically serve a multi-county region, it is not uncommon to serve a population over 50,000 (the current minimum population threshold for designation as an MPO). These regions do not contain an urban hub of 50,000 or greater, even if their total population is greater than that threshold.

As shown in Figure 1, the annual contract amount provided to RPOs by their state DOTs to carry out rural transportation planning services ranges from under \$25,000 to over \$125,000 per year. The greatest percentage of RPOs received between \$50,000 and \$74,999 from their state DOT (38 percent), followed by \$125,000 or more (16 percent) and \$75,000 to \$99,999 (15 percent). Over 82 percent of RPOs receive at least \$50,000 from their state DOTs for rural transportation planning services.

State DOTs provide funds for rural transportation planning services from a number of different sources, shown in Figure 2. The majority of RPOs (57 percent) identified the Federal Highway Administration (FHWA) Statewide Planning and Research (SPR) program as a source of funds, followed by state transportation funds (39 percent) and the Federal Transit Administration (FTA) State Planning and Research Program (SPRP) (14 percent). Other sources of funds for rural transportation planning services include local funds, federal surface transportation program (STP) funds, FTA Section 5311 (non-urbanized area) formula grants, and FTA 5317 New Freedom grant funds. Many regions use a combination of funding sources.

Match rates and sources are considered in Figures 3 and 4. Nearly half (47 percent) of responding RPOs reported that their state DOT grants required a match of 20 percent or more. About a quarter (28 percent) reported that their grants required a 10 or 15 percent match. Another quarter (25 percent) of RPOs reported that no match was required for their state DOT grants for rural transportation planning. RPOs match state DOT grants with funds from a number of different sources. Local cash funds account for two-thirds (67 percent) of matching funds. RPOs also use other council of governments (COG) or regional planning commission (RPC) funds (15 percent) and a mix of local cash funds and in-kind support (9 percent) to meet state DOT match requirements.

Staffing levels are generally small at most RPOs, as seen in Figure 5. The number of individuals that are identified as involved in transportation planning activities ranges from .5 to 7 people, although these individuals are not necessarily all dedicated to transportation planning full-time. One individual staff person (.5 or 1 full-time equivalent positions) working on rural transportation was the most common response (32 percent), while another 30 percent of respondents have two staff members, and 20 percent have three. The most common staff position is that of planner (53 percent of responding organizations), followed by GIS professional (46 percent), planning director (42 percent), senior planner (38 percent), as well as regional development specialist and mobility manager (both 9 percent). It is common for the individuals who work on rural transportation planning to have responsibilities in additional program areas and to draw their salaries from multiple grants or contracts (Figure 6). These responsibilities include technical assistance to local governments (73 percent), grant writing (65 percent), GIS (61 percent), land use planning (52 percent), economic development planning (48 percent), administration (36 percent), hazard mitigation planning (33 percent), environmental planning (27 percent), and MPO planning (27 percent).

FIGURE 6 Rural transportation planners' other program responsibilities

Rural transportation planning staff often spend time working on other related programs conducted by the regional planning and development organization.

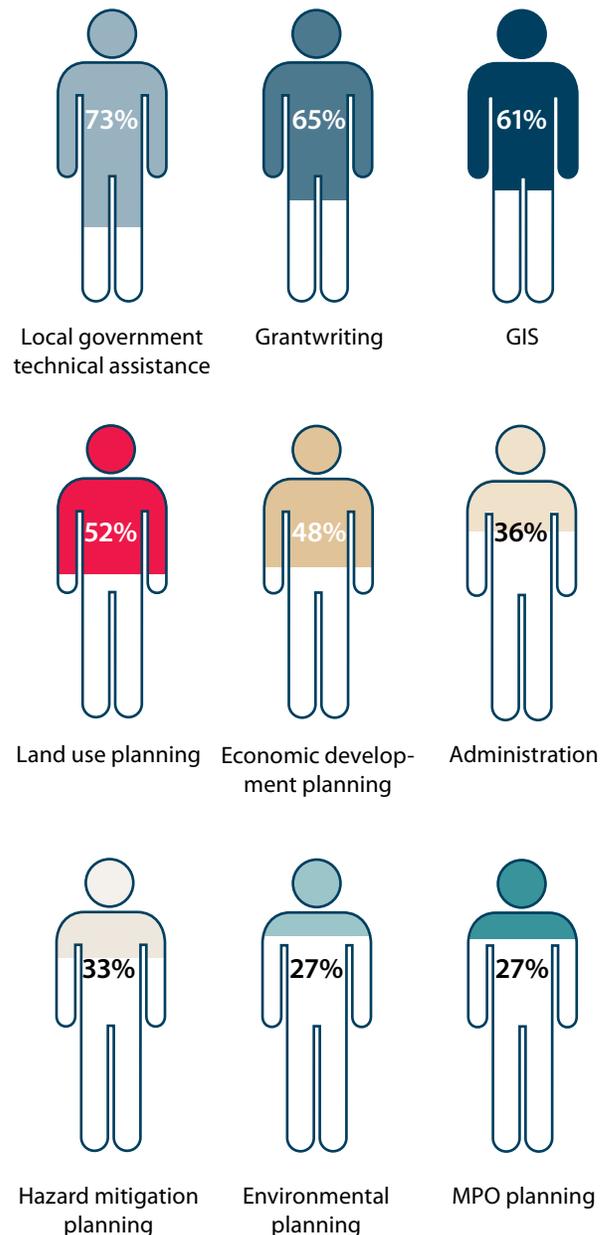


FIGURE 5 Staffing levels for rural transportation planning programs

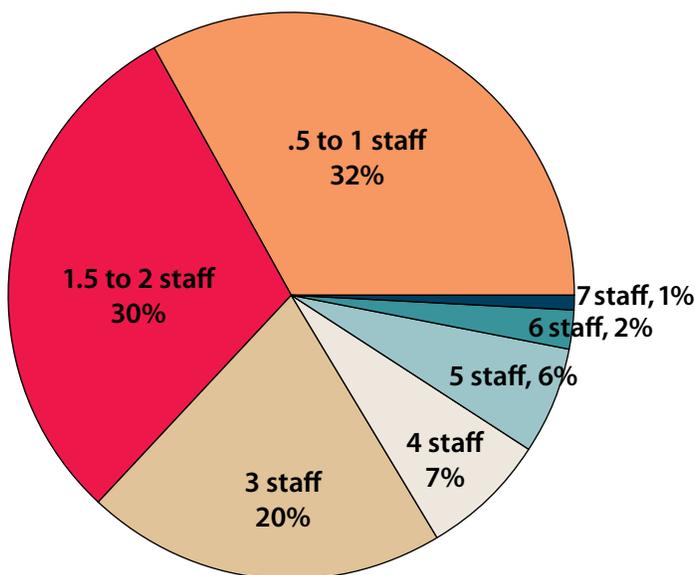


FIGURE 7 Policy committee membership

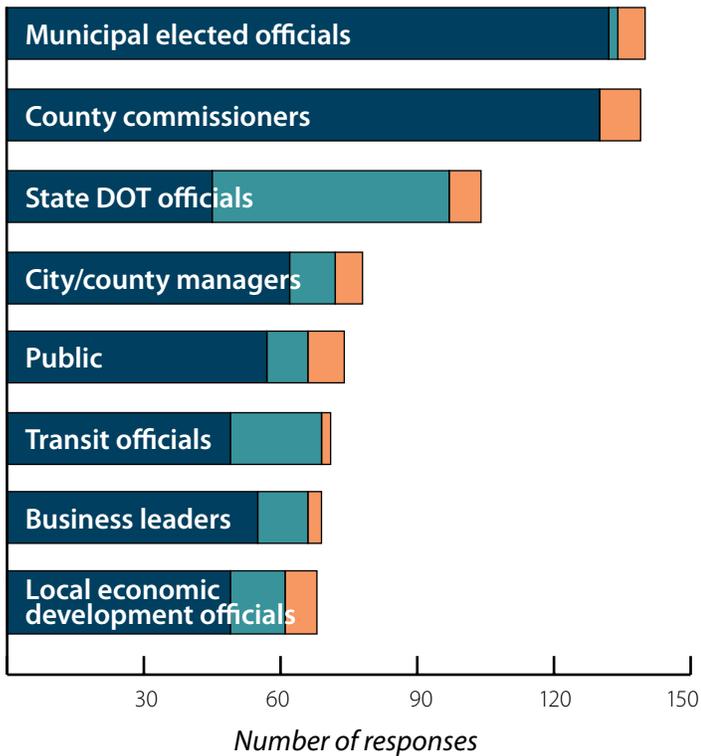
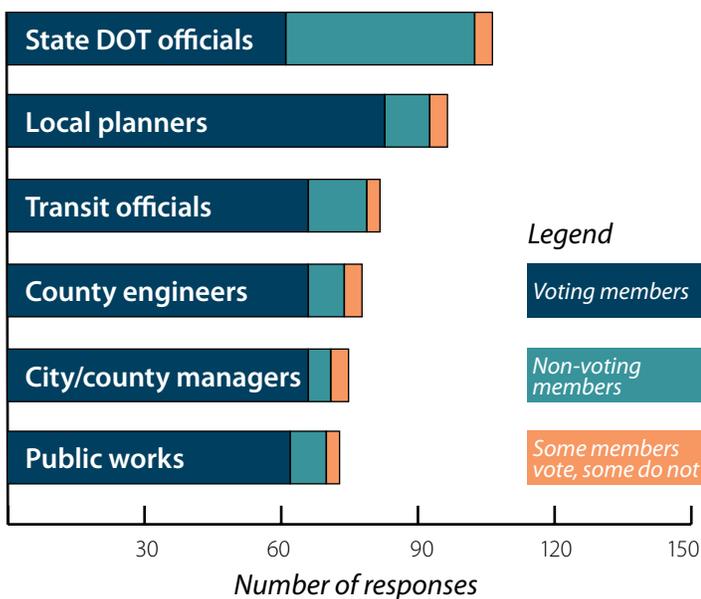


FIGURE 8 Technical committee membership



Other responses for policy and technical committee membership include representatives of modal interests, such as aviation, bike/ped, ports, rail, and trucking, as well as educational institutions, human service agencies, the tourism sector, and environmental and civic groups.

Rural Transportation Leadership

Some organizations have committees that address rural transportation planning. The most common are technical committees (55 percent) and policy committees (53 percent). Other common committees include public transportation or human services transportation (transit) committees (30 percent), and bicycle/pedestrian or trails committees (21 percent). About half of respondents (51 percent) reported that the regional development organization's governing board also serves as the policy entity or governing board for the rural transportation program.

The size of policy committees varies greatly across organizations. Among respondents, the smallest policy committees have five members, and the largest has 82 total voting and non-voting members. Twenty-one percent of policy committees have 1 - 10 members, 30 percent have 11 - 20 members, 21 percent have between 21 - 30 members, and 26 percent have 31 or more members.

Individuals representing a wide range of interests sit on rural transportation policy committees. The most common representatives on rural transportation policy committees, and their status as voting or non-voting members, are shown in Figure 7.

The size of technical committees also varies greatly, from five members to 93 total voting and non-voting members. Nearly 20 percent of organizations have 1 - 10 members, 43 percent have 11 - 20, 19 percent have 21 - 30 members, and almost 15 percent have 31 or more members.

As with policy committees, individuals representing a wide range of interests sit on technical committees. The most common representatives on rural transportation technical committees, and their status as voting or non-voting members, are found in Figure 8.

The nature of RPO committees and the variety of representatives who serve on them is often influenced by the presence of facilities such as ports or rail lines in the region, as well as priority issues identified in their regional vision or other plans, which could include distribution or tourism as economic strategies with an impact on transportation.

Rural Transportation Planning Tools and Techniques

Regional transportation decisionmaking can be aided by technology and information tools that enhance the planning process. Only 13 percent of respondents have access to a rural, regional travel demand model, while 73 percent do not, and another 13 percent do not know if a rural model is available. Statewide models (which would cover rural territory) were known to exist by 49 percent of respondents, while 13 percent of respondents indicated their state did not have a statewide model, and 38 percent did not know.

Access to data can assist in the regional decision-making process. State departments of transportation commonly collect information such as traffic counts and condition of facilities such as pavement and bridges. For 95 percent of respondents, such data is made available to RPOs and MPOs working at the regional level. In addition to receiving data, it is not uncommon for regional organizations to assist with data collection; as depicted in Figure 9, many respondents indicated that their work program includes collecting data such as traffic counts or asset condition under contract to the state DOT

and GPS locations of facilities and features or GIS mapping support to the state.

Regional visioning is a common first step in the planning process, particularly for long-range plans. In this part of the planning process, a potential future for a community or region is identified as embodying characteristics that are shared and valued. It often precedes the identification of goals, objectives, and strategies that guide decisions more specifically. Scenario planning is a process to develop a series of potential future land use, economy, and infrastructure circumstances, which helps stakeholders to envision the type of community or region they would like to see. As two planning techniques that are used to guide strategic planning and decisions about public investments, regional visioning and/or scenario planning has been employed by 85 percent of respondents for their transportation work program or other planning programs conducted by the RDO, such as the Comprehensive Economic Development Strategy (CEDS, required by the Economic Development Administration).

Performance-based transportation planning

is emerging as a trend in statewide, regional and local planning as professional staff, stakeholders, and public officials all seek ways to make transparent decisions about using limited funds to meet needs.

These emerging practices are aided by the availability of planning tools such as a model to help compare projects to a baseline forecast for the region, techniques to determine a shared vision to guide investments, and appropriate data to evaluate projects.

- Only **13 percent** of RPOs have access to a rural, regional **travel demand model**
- However, **95 percent** receive some **data about transportation facilities** from their state DOT
- **85 percent** have used **regional visioning** or **scenario planning** in a **planning process**



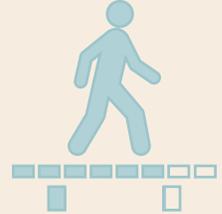
Public involvement
87%



Technical assistance to local governments
85%



Facilitate rural local official participation in statewide planning
78%



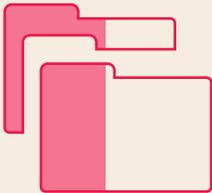
Transportation Enhancement applications
77%



Land use planning
46%



GPS data points and GIS mapping support
46%



Data collection
48%



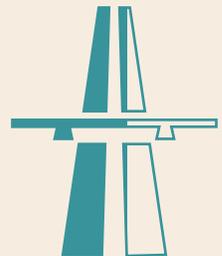
Public transportation planning
52%



Human services transportation planning
55%



Bicycle/pedestrian safety
55%



Rural long-range plan
57%

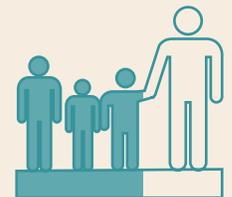
FIGURE 9 Regional transportation planning activities

RPOs conduct a variety of planning activities as part of their rural transportation work programs. Most of the regional planning activities consider multiple modes, with the most common modes being highways and bridges, bicycle and pedestrian transportation, and public and human services transportation.

However, some regions do consider ports, rail, aviation, and intermodal passenger and freight in their planning efforts as well, depending on the nature of their planning contract with the state DOT and the facilities that exist in the region. The most common activities in which RPOs engage are shown in Figure 9. These activities frequently occur in support of the state DOT's processes to develop the statewide transportation improvement program (STIP) or long-range transportation plan.



Regional TIP or priorities for STIP
71%



Safe Routes to School
61%

Regional Long-range Transportation Plans

The long-range transportation plan (LRTP) is a key document in guiding investment decisions and programming that occurs in regional or statewide transportation improvement programs (TIPs or STIPs). A requirement for states and MPOs, it is becoming more common for rural regions to develop a long-range plan under contract to the state DOT. These plans commonly contain a vision that looks 20 years into the future to guide shorter-term investment decisionmaking, and are often coordinated with the visioning and goal setting that occurs in other regional plans such as the CEDS.

A total of 102 organizations, or 57 percent of responding RPOs, complete a regional LRTP. The largest number of respondents (44 percent) completed their most recent regional transportation plan between 2009 and the present. Another 37 percent reported that their most recent regional transportation plan was completed between 2006 and 2008, and 13 percent completed their plan between 2000 and 2005. Approximately six percent of respondents completed their regional transportation plans before 2000.

The vast majority of organizations (93 percent) reported that their LRTPs are updated on a scheduled time frame. Almost half (46 percent) of regional transportation plans are updated every five years. Nearly one-quarter (23 percent) of plans are updated every two to five years, 17 percent are updated annually, and 8 percent are updated less frequently than every five years. A small number (7 percent) of plans are not updated on a schedule; instead, they are updated as needed or when funds are available. Figures 10 and 11 examine LRTP use.

LRTPs often are long documents that contain descriptions and maps of the region's transportation assets, as well as data describing the region and its economy, population and other features. Because LRTPs are intended to provide a strategy to guide transportation investments, the scan identified eight elements of regional long-range transportation plans that may influence how projects are selected: policy statement, broad goal statement, objectives, quantitative targets, qualitative targets, list of projects, financial plan and reporting mechanism. Respondents indicated whether each ele-

ment was developed primarily by the state DOT, jointly by the DOT and region, by the rural or small metro leadership (policy board or technical committee), or RPO staff.

- **Policy Statement:** 85 percent of respondents reported that their regional long-range plan includes a policy statement. In the majority of instances (51 percent), this element is developed by the regional transportation policy board or technical committee. It is not uncommon for this element to be jointly developed by the state DOT and the region (26 percent).

- **Goal statement:** 85 percent of respondents include broad goal statements in their regional LRTP. This element is most frequently developed by the regional transportation policy board or technical committee (43 percent) or jointly developed by the state DOT and the region (38 percent).

- **Objectives:** 85 percent of respondents reported that their regional long-range plan includes objectives. This element is most frequently developed by the regional transportation policy board or technical committee (47 percent) or jointly developed by the state DOT and the region (30 percent).

- **Quantitative targets:** 68 percent of respondents reported that their regional long-range plan includes quantitative targets. This element is most frequently developed jointly by the state DOT and the region (35 percent), the regional transportation policy board or technical committee (26 percent) or the regional planning staff (25 percent).

- **Qualitative targets:** 74 percent of respondents reported that their regional long-range plan includes qualitative targets. This element is most frequently developed by the regional transportation policy board or technical committee (46 percent), or jointly by the state DOT and region (27 percent).

- **List of projects:** 87 percent of respondents reported that their LRTP includes a list of major projects. This element is most frequently developed by the regional transportation policy board or technical committee (48 percent) or jointly by the state DOT and region (41 percent).

- **Financial plan:** 78 percent of respondents include

When the long-range transportation plan is completed,

FIGURE 10 How is it used in the planning process?

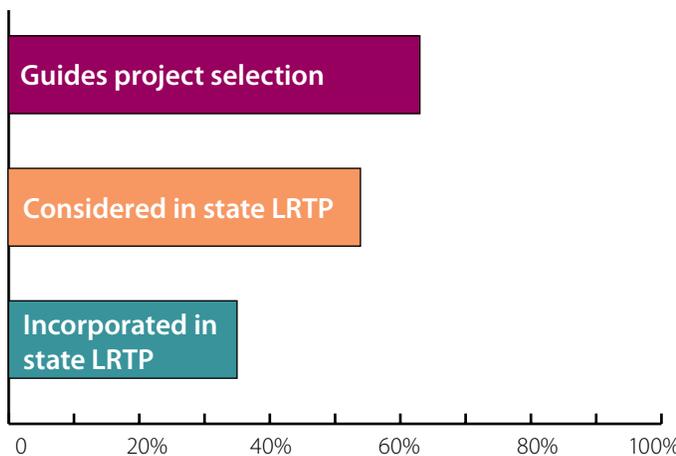
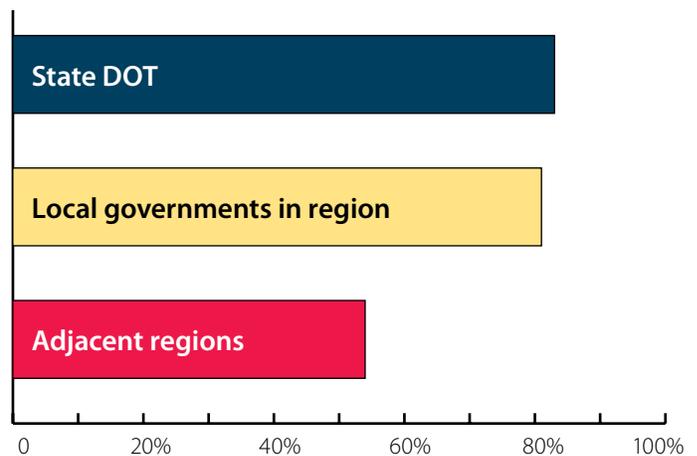


FIGURE 11 Who receives the completed plan?



Percent of respondents that complete a long-range transportation plan

a financial plan in their regional long-range plan. This element is most frequently developed jointly by the state DOT and region (41 percent) or the state DOT (23 percent).

• **Reporting mechanism:** 69 percent of respondents include a reporting mechanism in their regional long-range plan. This element is most frequently developed jointly by the state DOT and region (47 percent) or the regional planning staff (25 percent). In some cases, there is also a statewide dashboard or other reporting mechanism that reports on information relevant to RPO members' interests.

The NADO Research Foundation explored whether particular characteristics of organizations affected the work completed on rural and small metropolitan transportation planning. Having an established MPO under the same organizational roof as an RPO, funding level, and years of existence as an RPO were analyzed to determine if those characteristics affected how LRTP elements are developed. From analyzing the scan responses, the following generalizations can be made:

- When an organization administers both an RPO and an MPO, regional transportation policy board or technical committees are less likely to have sole responsibility for developing the elements of regional long-range plans specifically mentioned above, such as goals and objectives

- However, when an organization administers both an RPO and an MPO, it is more common for elements of regional long-range plans to be jointly developed by state DOTs and regions (which may indicate stronger relationships among the regional stakeholders and state agency, as well as planning staff at the regional and state level), as does the development of plan elements by regional planning staff

- As the annual contract amount increases, regional transportation policy board or technical committees are more likely to have primary responsibility for the development of elements of regional long-range plans

- Although the joint development of elements of regional long-range plans by state DOTs and regions is widespread across the range of contract amounts, RPOs with smaller annual contracts are most likely to jointly develop elements of long-range plans with their state DOTs

- The older an organization, the greater the likelihood that elements of long-range plans will be jointly developed by state DOTs and regions

- The involvement of regional staff in the development of elements of long-range plans is more likely to occur in younger organizations

- There does not appear to be any relationship between the size of an RPO's service area or population and the party responsible for developing elements of regional long-range plans

Of the 105 scan respondents who complete a long-range plan, 63 percent indicate that it is used to guide project selection and transportation project programming. Fifty-four percent say the state DOT considers their LRTP while developing the statewide long-range plan, and 35 percent of respondents have their regional long-range plan directly incorporated into the statewide plan – this includes states such as South Carolina, Virginia, and Washington. Of the respondents with an LRTP, 83 percent deliver it to the state DOT, 81 percent distribute the document to member local

governments and stakeholders, and 54 percent share it with neighboring rural or metropolitan planning organizations.

In interviews conducted through the national scan, specific consideration was given to the issue of targets as an element of policy framework that is often identified as a hinge point in framing decisionmaking. A fairly large number of scan respondents indicated that they assign qualitative and quantitative targets to the goals (68 percent and 74 percent, respectively), however targets were not very visible in the review of planning documents that occurred in the course of this research. Individuals interviewed indicated that targets are generally process-oriented rather than system-oriented, such as adopting benchmarks

Spotlight: Virginia's Statewide and Rural Long-range Plans

As part of the Virginia DOT's work to complete the 2035 Transportation Plan, the agency added long-range planning as a new element in the rural transportation work programs of Virginia's Planning District Commissions (the state's regional development organizations). The regional long-range plans will all be finalized and adopted by the end of 2011 and will include some common goals across all regions of the state, as well as goals developed within each individual region.

Virginia's statewide rural transportation goals include supporting economic vitality through industrial access, recreational travel, and intermodal connectivity; preserving the existing transportation system to benefit the movement of people and goods; and encouraging land use and transportation coordination, among other goals.

Individual regions adopted additional goals specific to their transportation facilities and concerns. For instance, Roanoke Valley-Alleghany Regional Commission's goals include accommodating bicycle and pedestrian traffic, which are beneficial to regional recreation and tourism for the area situated along the Blue Ridge Mountains. For the rural areas served by the Hampton Roads Planning District Commission, providing economic opportunity for all Virginians was important; the Hampton Roads region is home to a major deepwater port.

In addition, each rural region analyzed the performance of the transportation system in its current condition. The analysis focused on identifying priority areas and recommendations to address deficiencies in performance for those facilities.

Performance was assessed in three areas for roadways:

- safety
 - sight distance and visibility, access management, and signage
- operations and maintenance
 - geometric conditions such as lane and shoulder width and curvature, with priority on segments with higher levels of traffic
 - bridge condition, with a rating of under 50 for functional obsolescence and structural deficiency indicating a need for upgrade or replacement
- level of service, both current and projected to 2035

Performance and recommendations were also assessed for public transportation, bicycle and pedestrian facilities, goods movement, travel demand management, and other issues relevant to each region, and an overview of local land use and future growth was provided.

For more information, visit http://www.virginiadot.org/projects/rural_regional_long-range_plans.asp.

regarding which planning partners are responsible for implementation. Desired outcomes for the transportation infrastructure tend to play a greater role as weighted criteria that are used in the identification of priority projects to recommend for the STIP, rather than being defined as targets in the rural LRTPs.

Alternatively, targets may be viewed as an issue area where the regional planning and projects support a statewide target rather than one formally adopted in the regional plan. For instance, safety is an issue area that is more commonly assigned a quantitative target. Several states have initiated a Toward Zero Deaths initiative through their strategic highway safety planning process. Some states are working to reduce traffic fatalities by a certain percentage over an amount of time, while others have actually adopted a zero deaths target. RPOs and small MPOs can also adopt the state's

performance structure in their regional plans by referencing the statewide goals, objectives, and targets in the regional planning documents. The regions' efforts toward a set of shared safety goals and objectives is helping to reach the state's target.

Analysis of planning documents reveals that mobility is one goal area that lends itself more to qualitative targets, as is economic development. For the latter, since permanent job creation (not construction jobs) as a result of infrastructure investment is often something that does not directly appear for several years after a project's completion, it may be difficult to measure or estimate either through forecasting or reviewing the impact soon after project completion. However, economic development may be considered by proxy by qualitatively analyzing factors such as whether new or improved access to markets is a result of a project.

Spotlight: Kentucky's Regional Concept Plans

Through the Kentucky Transportation Cabinet's contracts with each of the state's 15 Area Development Districts, a Regional Concept Plan is developed to inventory significant facilities and traffic generators in the rural portions of the state. In addition to this descriptive information, the Lincoln Trail Area Development District (LTADD), which staffs a rural planning program as well as the Radcliff/Elizabethtown MPO, defines its goals, objectives, strategies, and measures.

Within the vision developed through LTADD's Regional Concept Plan and many other regions' LRTPs, stakeholders set a series of goals that narrow the focus of the vision to a set of core issues, for instance, describing high level ambitions for issue areas like safety, economic competitiveness, mobility, connectivity, or equity. A series of objectives often identifies more specifically what results the goals aim to produce.

In addition, planning documents sometimes define measures (sometimes also called metrics or indicators) that demonstrate progress in a goal area. LTADD has developed a series of measures for each objective, and published through its Regional Concept Plan.

In the safety goal area, for example, LTADD's objectives address corridor identification, developing transportation projects that improve safety, and facilitating completion of safety-related projects. Several measures are used to track movement for each objective, including metrics such as the number of roadways with over 500 collisions per year, percent of dangerous corridors with identified countermeasures, and the number of projects on dangerous corridors included in the Kentucky Highway Plan.

Strategies to implement the objectives are also listed; these include developing a database for collisions and safety statistics, identifying low-cost safety improvements, and identifying safety-oriented projects, along with several other safety strategies, a timeline, and whether LTADD staff or regional transportation committee are responsible for completing the strategies.

A similar set of objectives, measures, and strategies have been developed for other goal areas, including economic development, accessibility, environmental protection, and coordination of the planning process with other parties. For more information, visit <http://www.ltadd.org/transportation>.

Statewide and Regional Transportation Improvement Programs

Of responding organizations who perform transportation activities in rural areas, 71 percent reported compiling a regional TIP or list of priority projects for consideration for the STIP. Over half of these organizations (56 percent) reported that their regional TIP or list of priority projects is updated annually; 26 percent reported that they are updated every two years, and 6 percent reported that they are updated every three or more years. A few RPOs (7 percent) reported that the regional TIP or list of priority projects is updated continuously, or as needed (5 percent). The majority of respondents (80 percent) most recently compiled a regional TIP or a list of projects for the STIP between 2010 and the present. Another 18 percent compiled a regional TIP or list of projects for the STIP between 2008 and 2009, and only one organization did before 2008.

Figures 12 - 14 address TIP development. Projects that are included in the regional TIP or list of priority projects are most frequently ranked on a multi-county regional basis (59 percent). In other instances, projects are ranked on a county basis (15 percent), or the lists of priorities are not ranked (13 percent). RPOs are roughly split on whether all

projects are considered through a single decision-making process, or whether projects are separated by type (highways, bridges, enhancements, transit, etc.), with 52 percent ranking different types of projects separately and 48 percent putting them together.

Of the respondents who complete a regional TIP or list of priority projects as part of their planning work program, 68 percent share it with member local governments and stakeholders, while 78 percent submit it to the state DOT and 35 percent share it with neighboring rural and metropolitan planning organizations. Sixty-two percent of respondents say their region's TIP is considered in development of the statewide transportation improvement program, or STIP, and 57 percent indicate that their region's priority projects are included in the STIP. The states that commonly include the region's priority list in the STIP include Arizona, California, Connecticut, Indiana, Iowa, Kentucky, Maine, Missouri, New Hampshire, North Carolina, Pennsylvania, South Carolina, and Washington. These states use a variety of methods for including the regionally significant projects. For instance, Arizona, South Carolina, Pennsyl-

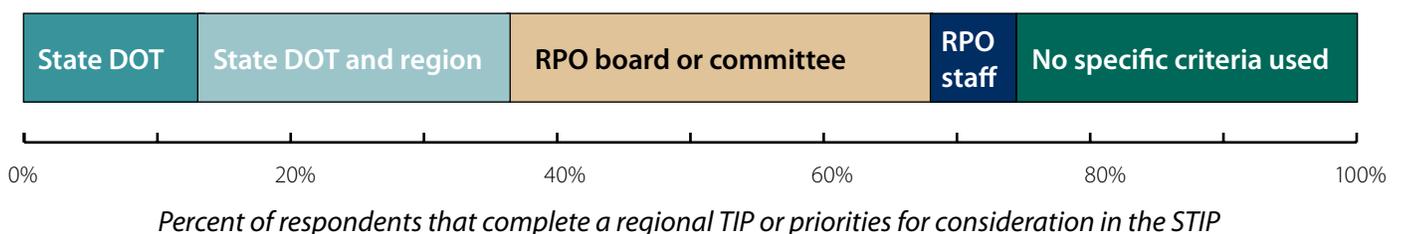
FIGURE 12 How are projects on the regional TIP ranked?



FIGURE 13 What kind of criteria are used to rank projects in the regional TIP?



FIGURE 14 Who determines the criteria used to prioritize projects?



vania, New Hampshire, and Iowa are among a few states that use a formula to determine funding amounts that are hypothetically sub-allocated to each region. As a result, the regional TIPs are constrained in RPO regions just as in MPO regions. Other states, such as Missouri and Kentucky, develop priority lists within each region that are further prioritized at the DOT District level, and in Missouri, a special class of projects of statewide significance are determined in a transparent process by all of the state's planning partners (MPOs, RPOs, and their local government members along with the Missouri DOT).

The results of the planning process vary according to the structure and function of RPOs, as well as the level of responsibility within their local government members. In general, the state DOT considers the rural regional planning documents as it develops the statewide transportation plan and selects projects for eventual construction through the STIP. In some cases, the state DOT takes a fiscally constrained regional TIP or a selection from among the priority needs of a region, and uses that as the section of the STIP for that geographic area, as is more common with metro regions.

Because decisionmaking about transportation investments occurs in the ranking and programming of projects, the NADO Research Foundation sought to analyze the criteria used in regional planning by RPOs and small MPOs. It is most common for regions to combine qualitative factors with numeric ranking criteria, with 56 percent of respondents using the two together. Another 26 percent use only qualitative criteria, while 18 percent use only a numeric scoring process.

The criteria used to select and rank projects for inclusion in the regional TIP or list of priority projects are provided by the state DOT for 12 percent of respondents, as occurred in the new process initiated by the North Carolina DOT's Strategic Planning Office of Transportation for the 2010 STIP (see accompanying case study). However, 36 percent of RPOs reported that criteria are determined at the regional level, either by a regional transportation governing board or policy or technical committee (30 percent), as is the case with the Yakima Valley Conference of Governments (see accompanying case study), or by regional transportation planning staff (six percent). A number of RPOs rank projects

Southeast Iowa Regional Planning Commission's economic development project evaluation criteria:

- Promotes local and regional economic development
- Enhances or improves tourism
- Improves or enhances movement of freight and services
- Improves or enhances the movement of workers
- Improves access to jobs and opportunities
- Improves access to other transportation facilities

based on criteria that are jointly developed by state DOTs and regional leadership (22 percent). Other RPOs reported that no set criteria are used to rank projects for inclusion in the regional TIP or list of priority projects (24 percent).

Through analyzing planning documents, the NADO Research Foundation identified patterns in the criteria used to rank projects included in the regional TIP (or the region's recommendations for the STIP if no rural, regional TIP is developed). The seven planning factors identified in the 2005 surface transportation authorization (known as SAFETEA-LU) are frequently used even though there is no federal requirement that rural regions consider them. Criteria relating to safety, mobility, use, connectivity, economic impact, and condition of the facility are the most commonly cited decision factors used in considering project ranking.

For data that are readily available, specific quantitative numbers are used to figure the project's score. Safety is usually a quantitative measurement, such as accident rate, but also includes qualitative measurements, such as project effects on pedestrian and bicycle safety. Data such as average

annual daily traffic, level of service, and volume/capacity ratio give an indication of the use of the facility. Common quantitative criteria indicating the condition of the facility include pavement quality index or pavement condition index, structural capacity, bridge sufficiency rating, International Roughness Index, or lane width deficiency.

Economic impact measurements are usually qualitative and vary widely from region to region. The Southeast Iowa Regional Planning Commission (SEIRPC), for example, places great emphasis on economic impact criteria. Some SEIRPC criteria include: promotes general economic development locally and regionally; enhances or improves tourism; improves or enhances movement of freight and services; improves or enhances the movement of workers; improves access to jobs and opportunities; and improves access to other transportation facilities.²

For economic impact criteria, projects are often assigned a score based on whether or not the project lies in a corridor or zone identified through the policy goals, such as areas with high growth potential due to connections to markets and other economic hubs, or economically distressed areas.³

Scoring for economic development, mobility, and connectivity generally indicate the presence or absence of a condition, rather than an indication of how much an economic characteristic is present in a proposed project. For example, the Lowcountry Council of Governments in Beaufort, South Carolina uses a ranking schema in which projects may be awarded 0 or 25 points for facilitating freight movement and 0 or 15 points for providing opportunities for targeted business sectors. However, 0, 1, 3, or 5 points are awarded based on economic

development potential, which is determined based on whether development is expected in a certain time frame, the availability of other infrastructure for businesses locating in that corridor, availability of sites, existing development, and related issues.⁴

Environmental impact scores in some cases are based on the extent to which the NEPA process has been fulfilled (which tend to start at 0 for no preliminary environmental evaluation and range to positive scores if evaluation has been started or completed), while in other regions the environmental criteria reflect the variety of impacts possible in a transportation project, with negative scores assigned if the project is found to have harmful environmental or community impacts.⁵

Other issues are also commonly seen in project ranking schemas, including equity within the region or state, time since last project in a region or jurisdiction, project readiness, and funding sources, such as project cost, the security of matching funds, source of funding, the amount of a local match, the alignment of resources, cost benefit, financial viability (comparing project and maintenance costs and vehicle miles traveled), and cost per unit change in condition. Another set of qualitative criteria cover the extent to which projects are consistent with statewide or local plans.

Planning practitioners indicated that although these other factors do not relate as closely to the performance of the transportation infrastructure or as indications of economic development, they are significant to public and public official support, maintaining buy-in for the planning process, and ensuring the fastest possible pace for project delivery.

Case Study: North Carolina Develops Statewide Performance-based Prioritization Process

In 2009, under direction from the new governor, the North Carolina Department of Transportation (NCDOT) commenced efforts to launch the state's strategic prioritization process. NCDOT's Strategic Planning Office of Transportation (SPOT) was charged with developing a data-driven, transparent process. The process would ultimately result in a 10-Year Work Program and the State Transportation Improvement Program (STIP). The three-member SPOT team designed a new process around three primary NCDOT goals: Safety, Mobility, and Infrastructure Health (Condition). The new process, according to Alpesh Patel, SPOT Senior Transportation Engineer, "formalizes the use of data to determine project need" around these three goals. Local planning partners also contributed to the development of the new process through webinars and regional meetings.⁶

The strategic prioritization process will formally engage planning partners every two years and will continue to be improved and refined over time.

The ranking process works as follows: projects are sorted by goal and then by transportation tier – statewide, regional, and subregional – within each goal. A project's total score combines quantitative data, qualitative data, and multimodal points. For the first version of Prioritization (referred to as "P1.0"), quantitative data points accounted for the majority of a project's total score and were based on crash rates, capacity/traffic counts, and pavement conditions. Qualitative points were assigned based on a top 25 ranking by each MPO, RPO, and NCDOT Division Office (Figure 13 shows the state's 17 MPOs and 20 RPOs; 14 NCDOT field or Division offices work with the regional partners).

In this manner, the new process, says Patel, "provides a balanced picture of projects scores reflecting both data and local interest throughout the state." Finally, SPOT awards multimodal "bonus" points to highway projects that encourage efficient connections between transportation modes. The three tiers within each goal category address the different transportation needs and interests of urban and rural areas. Quantitative data points are weighed more heavily for higher-tier statewide projects, and decrease for regional and subregional tier projects. Local input points are weighed more heavily for subregional tier projects, and decrease for regional and statewide projects.

According to Patel, in P1.0 the state and regional/local partners found their priorities were generally

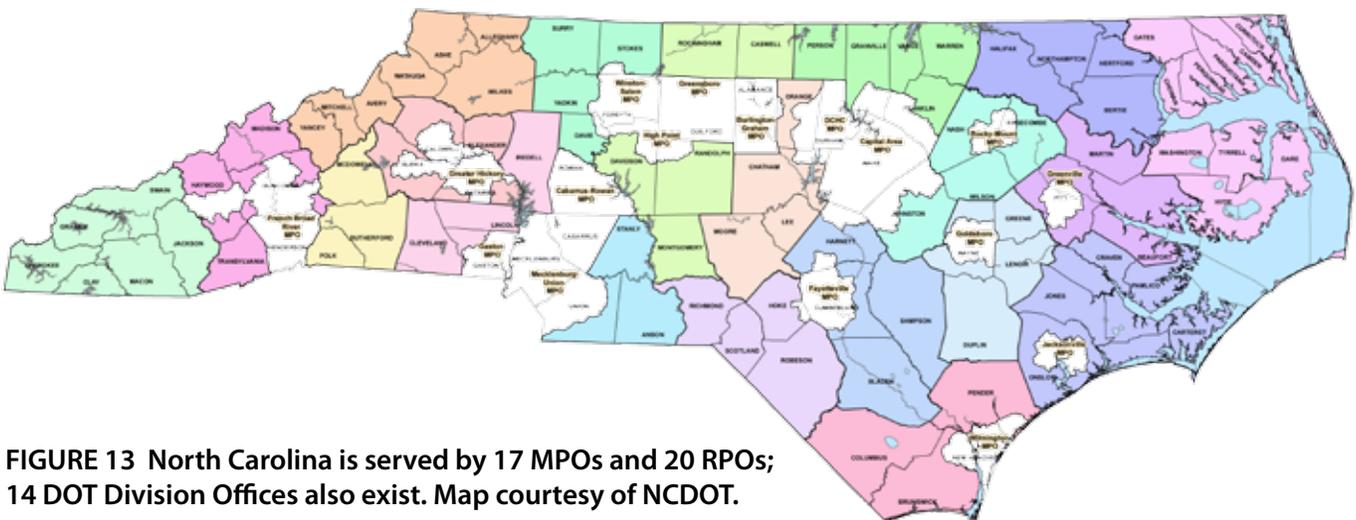


FIGURE 13 North Carolina is served by 17 MPOs and 20 RPOs; 14 DOT Division Offices also exist. Map courtesy of NCDOT.

in alignment. Patel says that the majority of MPOs and RPOs support the new statewide prioritization process; however, some of the larger MPOs found the exercise a burden due to the challenge of satisfying a large number of municipalities within a top 25 ranking process. Following the qualitative input of MPO and RPO partners, SPOT finalized project rankings and published results for both partner and public consumption. These results are also forwarded to a separate NCDOT division for programming projects based on funding allocations and eligibility. This input helps drive the creation of NCDOT's 10-Year Work Program and STIP.

Within the last year, SPOT has continued to reach out to its partners to improve the project prioritization process. According to Patel, the initial selection of quantitative criteria for Prioritization 1.0 flowed easily from NCDOT's goals. A work group (consisting of MPOs, RPOs, and other governmental agencies) was convened in 2010 and contributed to the enhancement of this criteria and helped shape the second version of Prioritization (P2.0).

In response to the input of MPO and RPO partners, Prioritization 2.0 will incorporate new criteria, including benefit/cost (measured by travel time savings) and economic competitiveness. P2.0 will also

include criteria to address modernization issues identified by partners, including sight distances and deficiencies in lane and shoulder widths. The strategic prioritization process will formally engage planning partners every two years and will continue to be improved and refined over time.

Elements of the new process are also being employed for purposes outside of STIP preparation. MPOs and RPOs in North Carolina prepare regional transportation improvement programs. These processes are separately developed at the local level. Patel says that some MPOs and RPOs have revised their regional processes to incorporate elements of the new statewide prioritization process.

North Carolina's transportation reforms, which resulted in a new statewide project prioritization process, have been well received. According to Patel, MPOs and RPOs are comfortable with the openness and transparency of the new process. SPOT has heard positive feedback on the process from board members at the state level and division leadership alike. Says Patel: "It's a success story."

For more information, visit www.ncdot.gov/performance/reform.

With a new **project prioritization process** organized around the goals of **safety**, **mobility**, and **infrastructure health**, NCDOT and its regional and local planning partners are formalizing the **use of data** to determine **project need**.

Case Study: North Central Pennsylvania's Project Prioritization Process

In the 2007 – 2035 Long Range Transportation Plan (LRTP), North Central Pennsylvania Regional Planning and Development Commission set out to “define and develop a regional core transportation system that connects local and regional facilities with the state’s system and coordinates with other community initiatives and priorities.”⁷⁷ The regional core system is used with defined selection criteria to rigorously analyze projects for inclusion in planning documents. To create project selection criteria, North Central benchmarked other counterpart planning regions for applicable developments.

They found that a project prioritization process is especially useful when funding is limited. One of the previous limitations of the region’s LRTP, Comprehensive Economic Development Strategy (or CEDS, a document required by the U.S. Department of Commerce’s Economic Development Administration through its planning grant program) and Regional Action Strategy (developed through the state’s integrated Land Use, Transportation, and Economic Development, or LUTED, initiative) was the failure to identify spatial priorities – *where* in a large region a few affordable and targeted investments should be made. The most important

North Central formed a **Project Prioritization Committee**, bringing together a variety of **regional stakeholders** from the **rural transportation and economic development committees** to develop and weight **selection criteria**.

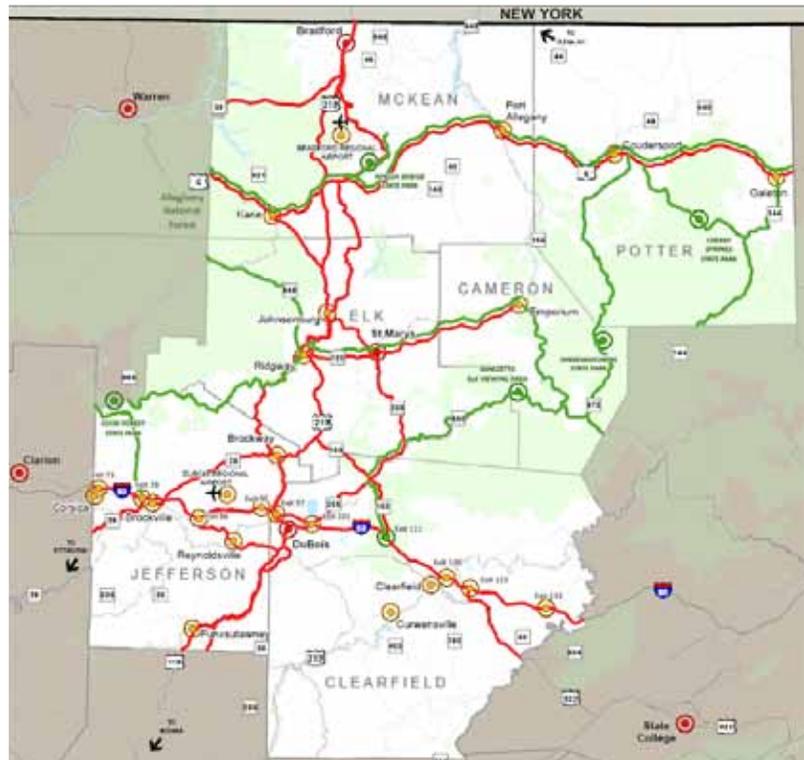


FIGURE 14 The core system in the North Central Pennsylvania region, including the most significant economic and transportation activity centers

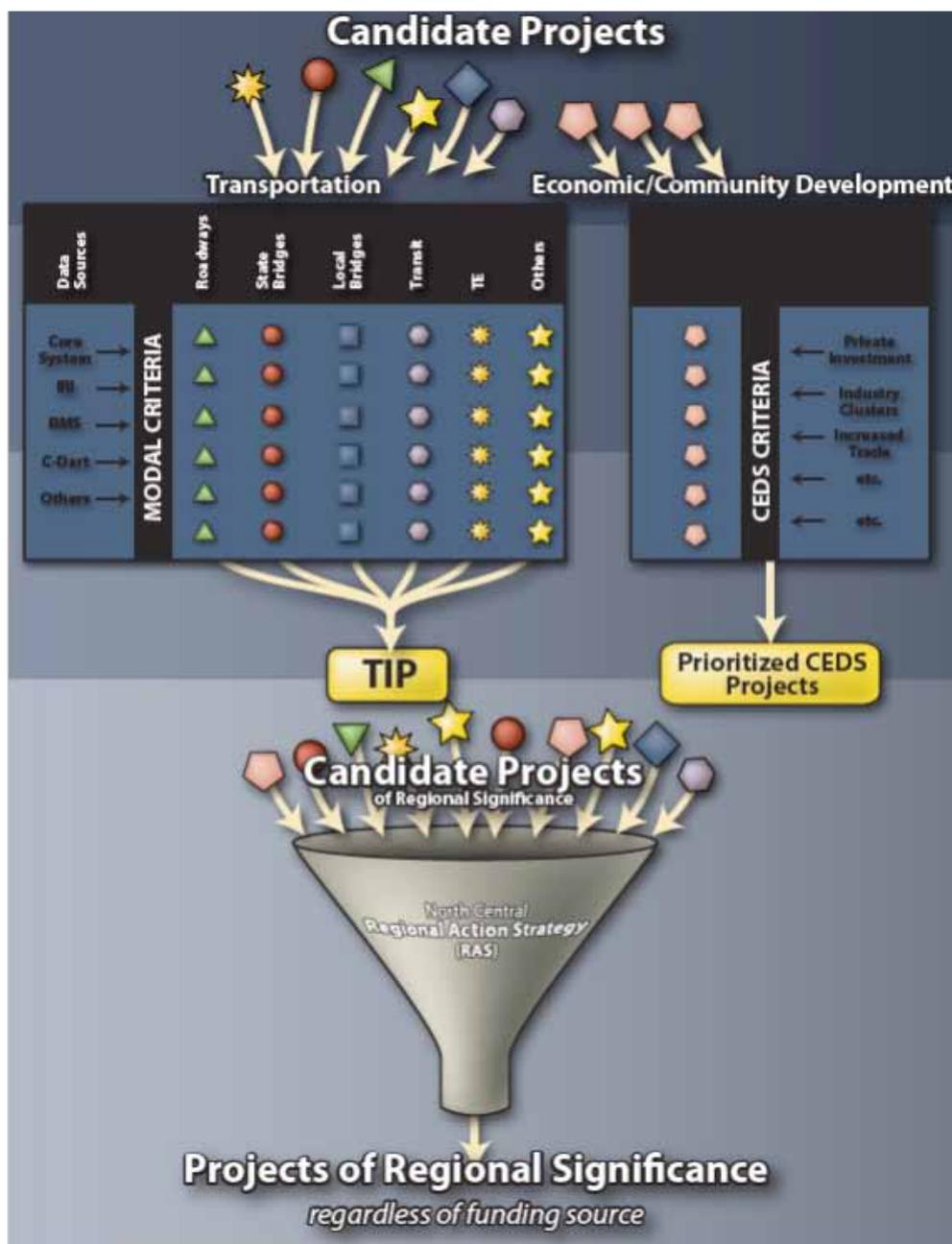
economic and transportation centers are identified by the core system. The core system follows the model of the Pennsylvania Mobility Plan as a tool to consider multi-modal interconnection, the flow of goods and people in the region, and integrated investments.

In December 2008, a Project Prioritization Committee was formed, bringing together a variety of regional stakeholders from the RPO and CEDS committees to develop and weight selection criteria. To assist with weighting, North Central utilized dynamic software called Decision Lens, through a statewide license purchased by the Pennsylvania Department of Transportation (PennDOT). Developed to improve capital resource planning and decision making, Decision Lens software allowed for pairwise comparisons of each proposed criterion. Various sets of project criteria and weighting were developed for each project funding area. In a second round of review, all projects are then ex-

amined against “Overall Transportation Criteria” for a total score. These criteria include 14 elements in five basic groupings of (in order of importance): safety; job creation and community benefits; transportation planning and project support; project location factors; and transportation benefits. This process will be used beginning with the 2011 TIP.

A similar process is used for North Central’s economic and community development projects under consideration for inclusion in their region’s CEDS. The Project Prioritization Committee’s role will continue to evaluate candidate Projects of Regional Significance and forward recommendations to North Central’s executive board.

FIGURE 15 The Project Prioritization Committee ranks projects from multiple planning programs to determine regional priorities



North Central’s planning process will continue to evolve through both region-specific and statewide efforts. For example, the state’s RPOs, MPOs, and PennDOT are all working together to identify the most important indicators to track regarding preservation of the existing system, an effort that began in 2011. Preservation has been identified as a priority in the state’s long-range plan. These indicators will help the state to better program funds dedicated to preservation and to justify its overall investments in the transportation system.

For more information, visit www.ncentral.com/index.php?page=transportation.

Images courtesy of North Central Regional Planning and Development Commission

Case Study: Flexible Process Enables Yakima Valley Region to Quickly Respond to Changing Priorities

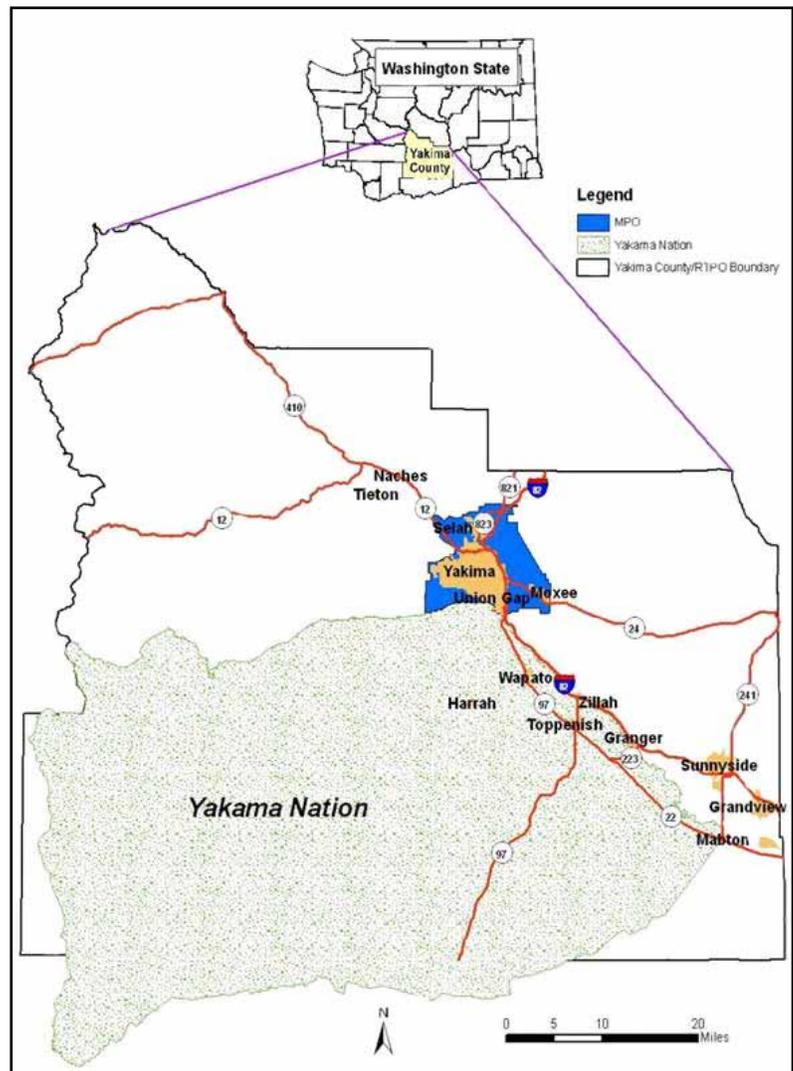
Under the State of Washington’s Regional Competitive Program, Surface Transportation Program (STP) regional funds must be allocated based on regional priorities. Metropolitan planning organizations (MPOs), regional transportation planning organizations (called RTPOs in Washington) and other approved entities have the authority to select regional projects and distribute STP regional funds. MPOs and RTPOs are tasked with developing selection criteria and application procedures based on regional priorities, and selecting and funding projects through a competitive process based on those criteria. Projects must meet basic federal and state eligibility requirements, and the Washington State Department of Transportation (WSDOT) provides guidance on goals and priorities to assist MPOs and RTPOs with the development of selection criteria; however, regional entities are entirely autonomous, and criteria are determined exclusively at the regional level.

The Yakima Valley Conference of Governments (YVCOG) serves as the MPO and the RTPO for the Yakima Valley region, located in south central Washington. Prior to 2006, YVCOG distributed a portion of the STP regional funds per a formula based on population and the remainder was distributed using a competitive process. Under this model, jurisdictions received regular funding regardless of need, and it took a number of years for them to accumulate adequate funds to fully fund an eligible improvement project. In 2006, under federal and state guidance, YVCOG revised its regional project prioritization criteria and STP regional funds application. According to Deb LaCombe, Senior Transportation Planner for YVCOG, the new process “gets shovels in and projects done faster.”

YVCOG’s Technical Advisory Committee (TAC) – which includes the

public works director (or their designee) of each of YVCOG’s 15 member jurisdictions, Yakama Nation tribal staff, transit representatives, and two non-voting WSDOT representatives – was tasked with establishing selection criteria and developing the new STP regional funds application in 2006. The selection process is not stagnant; every year, the TAC reexamines selection criteria and revises the application to meet current regional needs so that they “actively change as the times change,” according to LaCombe.

FIGURE 16 Yakima Valley Conference of Governments service area



Map courtesy of YVCOG

Since the new process was instituted in 2006, the TAC **reexamines selection criteria** every year and revises the application to **meet current regional needs**.

Over time, the criteria have become more **quantitative-data based**, removing some subjectivity from the process.

The 2010 – 2011 funding cycle selection criteria and application, for example, were revised to emphasize projects that were “shovel ready” and which created jobs for the region. One change to the application to address this priority was the addition of a new category to credit projects for money already invested by the sponsoring agency: the “Non-match Project Funding Investments” category awarded points to projects for which pre-engineering or environmental assessments had already been completed. In addition, over time, the selection criteria and application are increasingly based on quantitative measurements and less narrative-based. This approach, says LaCombe, removes a great deal of subjectivity from the process.

To a certain degree, the community is involved in the TAC’s selection criteria and application development process through two local coalitions: Driving Rural Yakima Valley’s Economy (DRYVE) and TRANS-Action. DRYVE is a coalition of agency officials, government officials, businesses, chambers of commerce, tourism and agricultural organizations and the general public that focuses on the aspects of rural transportation, economic development, jobs and ag-tourism in the lower Yakima Valley region. TRANS-Action is a coalition

of agency officials, government officials, private sector, and real estate professionals which focuses on urban transportation issues and market needs in the upper Valley, metropolitan area. In the past, these organizations have brought their priorities to the TAC for consideration in the development of selection criteria and STP regional applications.

The 2010 – 2011 funding cycle application included nine weighted categories, seven of which related to project details, and two of which related to funding sources. A brief explanation of each of the nine categories, and the maximum number of points available in each category follows. A total of 100 points were possible.

- **Traffic Volume** (12 points maximum): Projects receive points on a scale measuring the current average annualized daily traffic (AADT) for a roadway. Two scales are provided: one for cities with a population over and one for cities with a population under 10,000 persons.

- **Freight Mobility** (20 points maximum): Projects receive points on a scale based on the WSDOT Freight and Goods Transportation System which classifies roadways according to the average annual gross truck tonnage they carry to establish which roadways are most heavily used by trucks.

- **Roadside Hazards** (5 points maximum): Projects receive one point for each roadside hazard corrected or eliminated.

- **Collision Rate** (12 points maximum): Projects receive points on a scale measuring the current collision rate.

- **Alternative Modes** (9 points maximum): Projects receive points if they facilitate alternative transportation modes. Cities with a population over 10,000 receive two points per alternative mode, and cities with a population under 10,000 receive three points per alternative mode.

- **Existing Surface Condition** (10 points maximum): Projects received points on a scale measuring the existing surface conditions of the roadway.

• **Roadway Width Deficiency** (12 points maximum): Projects receive points on a scale measuring the deficiency of the roadway's width from specified standards, based on its classification.

• **Excess Funding Match** (10 points maximum): STP regional funds require a 13.5 percent local match. Projects receive one point for each one percent match over the 13.5 percent requirement.

• **Non-match Funding Investment** (10 points maximum): Projects receive points for money invested in a project, but which cannot be classified as a matching contribution.

Although the selection criteria and STP regional application is reviewed and modified periodically to reflect current priorities, the application process is more established. When new STP funding amounts are disclosed, customarily on a yearly basis, YVCOG issues a Call for Projects to all MPO/RTPO member jurisdictions. YVCOG staff reviews all applications to determine if they are complete and if the applicant is eligible to receive STP regional funding. For example, in order to be eligible, roadways must be functionally classified,

at a minimum, as a minor collector in rural areas and a collector in urban areas, and projects must be included in the jurisdictions' transportation improvement program (TIP). Complete applications are referred to the TAC for evaluation and ranking based on regional criteria. A TAC sub-committee scores and ranks all applications. Then, the full TAC votes on and forwards recommendations to the MPO/RTPO Executive Committee for a final decision concerning the projects to be awarded funding.

Using the above process, in the 2010 - 2011 funding cycle, the Yakima Valley MPO/RTPO identified eight projects for STP regional funding totaling \$5.75 million. The projects are located throughout the Yakima Valley region in seven discrete jurisdictions, and are located in urban (MPO) and rural (RTPO) areas alike. Next funding cycle, the application may look completely different. "The entire process can change every time," says LaCombe. Because of the TAC's ability to revisit selection criteria, "It really shows during every funding cycle where the priorities are."

For more information, visit www.yvcog.org.

Through two coalitions, representatives of **chambers of commerce**, the **tourism industry**, **agricultural organizations**, **real estate professionals**, other **private sector** representatives, and the **general public** contribute to the **Yakima Valley MPO/RTPO TAC process**.

CONCLUSIONS

This research project indicates that more states are turning to regional-level transportation planning in non-metropolitan areas than has been seen in prior work conducted by the NADO Research Foundation.¹² The findings also suggest that in spite of increasingly limited budgets for planning, rural planning organizations are seeking ways to improve peer accountability and the quality of deliverables that contribute to statewide planning. This is demonstrated as project selection is becoming more formalized with performance-based criteria that connect projects to a regional vision and goals.

Also, the research indicates that regions are taking steps to link planning processes, such as transportation, with economic development, land use, housing, environment, and other issues. As transportation planning processes increase in formality, shared goals and objectives and complementary project scoring criteria can help to ensure that these planning processes occur in harmony rather than funding projects with conflicting priorities or unassociated purposes with one another. Just as federal agencies are coordinating their programs and investments more and more—such as through the Sustainable Communities Initiative announced by the U.S. Department of Transportation, Environmental Protection Agency, and Housing and Urban Development in 2009—regions are also finding ways to leverage limited planning funds, stakeholder time and resources, and project funds

Many regions are already developing a shared vision, goals, and objectives in their transportation plans and other documents. As their state DOT partners move toward performance-based planning, RPOs and small MPOs are also likely to contribute to statewide performance efforts.

As planning processes increase in formality, shared goals and objectives and complementary scoring criteria among multiple regional planning initiatives can help to ensure integrated project outcomes rather than conflicting priorities.

by coordinating LRTP and TIP development with other federal and state plans, including the Comprehensive Economic Development Strategy (CEDS, required by the Economic Development Administration) and plans developed through HUD's Sustainable Communities Regional Planning Grant.

The scan and interview data suggest that because RPOs function mainly under contract to state DOTs, the initiatives, goals, objectives and decisionmaking processes and strategies that are espoused at the state level will also have an effect on the manner in which priority projects are ranked at the regional level. The relationship of rural planning as a sub-set of activities conducted through statewide planning explains this in part, but it also is indication of the levels of partnership that exist between many state DOTs, regional development organizations, and the local government members and public they serve. Through emphasizing an inclusive engagement process, many state DOTs' goals contain similar priorities to common local goals, such as an efficient transportation network in good repair that supports the state's economy and provides mobility and connectivity for the traveling public and freight. Although specific local priorities may not rise to the same level of importance at the state level, statewide decision-making is understood by local and regional stakeholders when it is transparent and based on shared goals and objectives.

Many of the planning elements emerging as com-

monalities in the performance-based planning process are evident in the planning activities conducted in rural and small metropolitan regional plans. Defining a common vision for the region's future (a foundational step in performance-based planning) is already occurring for the vast majority of respondents, who indicated that their organization has engaged the region in a visioning or scenario planning effort. Several of these organizations have taken additional steps of identifying goals, objectives, and strategies in their LRTPs that further define that vision and steps toward achieving it, as well as working with local government members and stakeholders to determine criteria that guide project ranking according to their region's vision and policy priorities. As their state DOT partners move toward performance-based planning, RPOs and small MPOs are likely to engage in discussions and contribute to statewide target-setting and monitoring processes.

The research conducted by the NADO Research Foundation through this national scan raises further questions about regional transportation planning outside of metropolitan areas. Interview data suggest that the development of the public participation plan has a significant effect on the manner in which planning is performed and the outcomes of planning practice. Additional research on the nature of public participation plan development and the outcomes of implementing the public participation plan in shaping the regional planning effort and performance-based planning may be of use. In addition, future research will analyze the nature of plan elements more thoroughly, such as analyzing how typical goals, objectives and quantitative and qualitative targets are translated into project ranking criteria and in developing a plan for the future of the regions' transportation network.

Notes:

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³ Eric Curtit, Missouri DOT. "Developing Criteria for Project Prioritization," presented at 2008 National Rural Transportation Peer Learning Conference, August 2008. Marlie Sanderson, North Central Florida RPC, personal communication, December 2010.

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⁶ Interview with Alpesh Patel, Senior Transportation Engineer, North Carolina Department of Transportation, Strategic Planning Office of Transportation, September 16, 2011.

⁷ North Central Regional Planning and Development Commission. *Long-Range Transportation Plan*, and "Project Prioritization Process & Scoring Methodology," 2009.

⁸ The formation of RTPOs to facilitate the planning process in areas outside of MPOs, is authorized by the Growth Management Act enacted by the Washington State Legislature in 1990.

⁹ Washington State Department of Transportation. *WSDOT Local Agency Guidelines*, Chapter 12, FHWA Funding Programs, pages 12-17, 2008.

¹⁰ Interview with Deb LaCombe, Senior Transportation Planner, Yakima Valley Conference of Governments, September 8, 2011.

¹¹ Yakima Valley Conference of Governments. "2010-2011 STP Regional Competitive Application," 2010.

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