



# Transportation Planning Capacity Building Program

## Chicago Metropolitan Agency for Planning Peer Exchange on Performance-Based Planning

### *A TPCB Peer Exchange*

**Location:** Chicago, Illinois

**Date:** July 10-11, 2012

**Host Agency:** Chicago Metropolitan Agency for Planning (CMAP)  
Illinois Department of Transportation (IDOT)

**Peer Agencies:** Minnesota Department of Transportation (MnDOT)  
Metropolitan Council  
North Carolina Department of Transportation (NCDOT)  
Capital Area Metropolitan Planning Organization (CAMPO)  
Pennsylvania Department of Transportation (PennDOT)  
Delaware Valley Regional Planning Commission (DVRPC)

**Federal Agencies:** Federal Highway Administration (FHWA)  
Federal Transit Administration (FTA)  
Volpe National Transportation Systems Center (Volpe Center)



U.S. Department of Transportation

Federal Highway Administration • Federal Transit Administration

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## Introduction

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This report highlights key recommendations and best practices identified at the peer exchange on performance-based evaluation criteria and transportation funding, held July 10-11, 2012 in Chicago, Illinois. This event was sponsored by the [Transportation Planning Capacity Building \(TPCB\) Peer Program](#), which is jointly funded by the [Federal Highway Administration](#) (FHWA) and [Federal Transit Administration](#) (FTA).

The TPCB Peer Program advances the state of the practice in multimodal transportation planning nationwide by organizing, facilitating, and documenting peer events to share noteworthy practices among State Departments of Transportation (DOTs), Metropolitan Planning Organizations (MPO), transit agencies, and local and Tribal transportation planning agencies. During peer events, transportation planning staff members interact with one another to share information, accomplishments, and lessons learned from the field, and help one another overcome shared transportation planning challenges.

## Background and Overview of the Peer Event

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The Chicago Metropolitan Agency for Planning (CMAP) requested this peer exchange to learn about different approaches to using performance-based evaluation criteria for transportation funding decisions. CMAP is the official metropolitan planning organization and regional planning organization for northeastern Illinois. CMAP developed and now guides the implementation of GO TO 2040, metropolitan Chicago's first comprehensive regional plan in more than 100 years. To address anticipated population growth of more than 2 million new residents, GO TO 2040 establishes coordinated strategies that help the region's 284 communities address transportation, housing, economic development, open space, the environment, and other quality-of-life issues. CMAP's primary interests in exploring performance-based funding systems stem directly from GO TO 2040. The plan recommends that transportation funding decisions are based on transparent evaluation criteria, and that the State and region's transportation stakeholders develop and utilize the necessary performance measures. GO TO 2040 specifically targets the longstanding "55/45 split" in highway funding in Illinois. The Illinois Department of Transportation (IDOT) uses a non-statutory formula that allocates 45% of highway funding to the Chicago region and 55% to the rest of the state, irrespective of conditions and needs. GO TO 2040 recommends that performance-driven criteria rather than a set formula are used to determine these investments, particularly as transportation resources become more limited. CMAP envisions a performance-based approach to include a strong role for MPOs throughout the state in setting regional priorities, identifying evaluation criteria, and helping to select meritorious projects for funding.

CMAP's specific goals for the exchange included the following:

- To identify project prioritization methods used by other states that could be appropriate in Illinois, including the use of both quantitative and qualitative metrics and the consideration of mode-specific funding and flexible funds
- To identify the need for and methods of data sharing between IDOT and Illinois MPOs
- To identify the next steps in developing a transparent, performance-based funding system in collaboration with IDOT and the other Illinois MPOs

The two-day peer exchange was held on July 10-11, 2012 at CMAP's offices in downtown Chicago. Representatives included Illinois transportation agencies and peers from three states. CMAP worked with the TPCB program to identify sets of peers from states with established performance based programs. Each peer set included a representative from the State Department of Transportation (State DOT), and a representative from an MPO from that state. This pairing allowed for a discussion from the perspective of both the State DOT and the MPO and presented an opportunity to discuss the collaboration between the agencies in developing and implementing a performance-based funding system.

The selected peers in attendance included the following:

- Pennsylvania
  - Pennsylvania Department of Transportation (PennDOT)
  - Delaware Valley Regional Planning Commission (DVRPC, the Philadelphia region MPO)
- Minnesota
  - Minnesota Department of Transportation (MnDOT)
  - Metropolitan Council (the Minneapolis-St. Paul region MPO)
- North Carolina

- North Carolina Department of Transportation (NCDOT)
- Capital Area Metropolitan Planning Organization (CAMPO, the Raleigh region MPO)

The following Illinois agencies were in attendance:

- Chicago Metropolitan Agency for Planning (CMAP)
- Illinois Department of Transportation (IDOT)
- Illinois Metropolitan Planning Organization Advisory Council (IL MPOAC)
- Regional Transportation Authority (RTA)

To focus the discussion at the peer exchange, CMAP and the TPCB program sent the following question set to peers agencies in advance of the event. Peers developed written responses to these questions, which CMAP and the TPCB program collected prior to the event. Copies of this packet were made available to participants and the audience at the peer exchange and are available in a supplemental appendix to this report.

- What is the overall process of the performance-based funding system? How frequently is it performed?
- Which performance data are used? How are criteria selected?
- How are performance criteria weighted, if at all? How are quantitative and qualitative criteria synthesized?
- How are projects selected? Who makes the final decision, and how are performance-based criteria incorporated into the decision-making process?
- What measures are taken to ensure transparency throughout the process? Which agencies are involved and when are they involved in the evaluation and programming process? What are their responsibilities? Specifically, what is the role of metropolitan planning organizations in the process?
- To which federal and state funding sources is the performance-based funding system applied? If applicable, why are some funding sources included but not others?
- How were the systems initiated?
- How have states dealt with complex issues such as project definition and classification, the stability of funding over time, and the reconciliation of equity with merit? How does the performance-based system account for mode? Has the performance-based system led to flexing of funds across modes?
- What has been the impact of performance-based funding systems on the distribution of funds by geography, mode, and work type?

The peer exchange was organized as a day and a half event. On the first day, CMAP presented the context of northeastern Illinois and its research objectives for the program and IDOT presented its process for developing the state highway program. After these two presentations, each of the six peers gave a presentation outlining its performance-based system, and FHWA provided a brief overview of the recently passed reauthorization bill, [Moving Ahead for Progress in the 21<sup>st</sup> Century](#) (MAP-21). The first day closed with a panel discussion among the peers on the implementation of performance-based funding systems.

The second day opened with an overview of the major findings from the previous session. Next, the peers evaluated their performance-based funding systems through a panel discussion, focusing on both the quantitative and qualitative effects of these systems. The RTA presented its recent efforts at developing an asset condition assessment and capital plan development tool for the Chicago regional transit agencies. The final session of the peer exchange returned to a panel discussion among the peers on best practices and take-aways. An agenda for the program is available in [Appendix B](#) of this report.

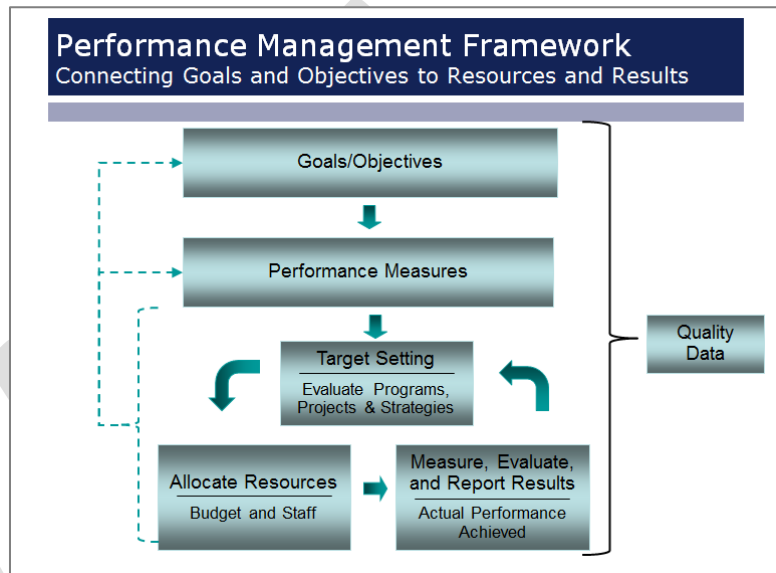
### What is performance-based planning?

Performance-based planning and programming is an approach to applying performance management principles to transportation system policy and investment decisions. This approach provides a link between short-term management and long-range decisions about policies and investments that an agency makes for its transportation system.

Performance-based planning and programming is a system-level, data-driven process to identify strategies and investments.<sup>1</sup>

During the peer exchange, PennDOT provided an overview (*right*) of its performance management framework, which is a good illustration of a basic performance-based system. While all peers used different methodologies, this overview image helps to provide a high-level understanding of how performance measures are used to help program transportation projects.

With the recent passing of MAP-21, the peer exchange was an excellent opportunity for Illinois and peer agencies to learn about the new Federal performance measuring requirements.



**Figure 1: PennDOT measures, evaluates and reports the results of funding decisions to show the degree to which projects or programs help meet the State's goals and objectives. PennDOT can use these results to adjust resource allocation to meet those goals and objectives. Image source: In-progress NCHRP 8-36(104) Pennsylvania Pilot Study.**

<sup>1</sup> [Performance Based Planning and Programming](#). Federal Highway Administration. May, 2012.

## Key Recommendations and Lessons Learned

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Over the course of the two-day exchange, peer agency staff delivered presentations and engaged in discussions about their experience with performance-based planning. This section highlights recommendations for Illinois and other States with an interest in using a performance-based system. It summarizes the key recommendations that emerged from the peer exchange and profiles best practices employed by peer agencies.

### A. Key Components in Developing Performance-Based Funding for Transportation

Performance-based funding systems have three key characteristics: 1) collaborative processes, 2) extensive data sharing, and 3) strong leadership from public agencies. Each of these characteristics is discussed below.

#### Collaborative Process

Collaboration is a critical element to a successful performance-based program. The State DOT, MPOs, and other appropriate agencies should work jointly to develop the criteria and methodology for performance-based funding decisions. The collaboration process can begin with a staff-level meeting to discuss a framework and the roles each agency should play in the process. Some States have an annual meeting of all the MPOs and the State DOT, which peers recommended as a good forum to initiate the discussion on a performance-based system.

**Best Practice Example:** For example, every two years PennDOT works with all of the MPOs and rural planning organizations (RPOs) within Pennsylvania to develop a guiding framework. This framework is used to allocate funding to categories of projects based on asset conditions and projected revenue, and also outlines funding targets for each MPO, RPO, public transportation operator, and PennDOT. The MPOs and RPOs use this guidance to develop their long range transportation plans (LRTPs) and transportation improvement programs (TIPs). PennDOT also provides annual performance reports containing asset data, other indicators, and regional performance goals to MPOs and RPOs so that all agencies can work together to manage the assets in their regions. DVRPC noted that the guidance and asset data helps each MPO develop TIPs that are complementary with the priorities of the state as well as neighboring MPOs.

#### Data Sharing and Transparency

A key component of the collaborative process is sharing data and maintaining a transparent process. Transparency helps develop trust and buy-in among stakeholders. Knowledge of asset conditions and performance criteria helps MPOs and RPOs align their plans and TIPs with State goals and objectives. The NCDOT peer recommended the [Utah DOT's UPLAN website](#), which makes asset management data publicly available, as an excellent example of how a State DOT can share data and information.

**Best Practice Example:** PennDOT provides data to each MPO and RPO on existing assets and their conditions, as well as summaries of annual funding needs and annual performance measure reports. The following two images provide overviews of the type and format of performance data shared by PennDOT with planning partners. The first image focuses on pavement conditions and the second focuses on bridge conditions. DVRPC undertakes regular quarterly data downloads of Road Management System, Bridge Management System, Functional Classification, Traffic Count, and MPMS "milestone" data (Multi-modal Project Management System which contains TIP project programming and status information). This data is used for a variety of purposes including needs assessment, TIP programming, Congestion Management Process, and Corridor Studies, and is made available on the DVRPC website in a variety of applications. Crash data is downloaded once a year.



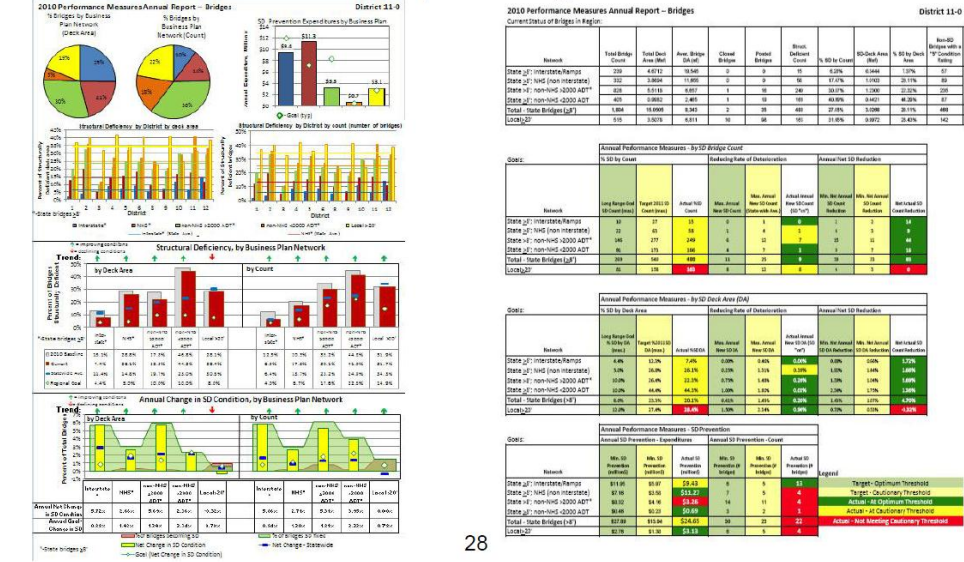
## Performance Measures Annual Reports - Pavements



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Figure 2: PennDOT Performance Measures Annual Report on Bridges

## Performance Measures Annual Reports - Bridges



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Figure 3: PennDOT Performance Measures Annual Report on Bridges

## Leadership roles and process initiation

Each of the peers noted the importance of leadership and encouraged CMAP and IDOT to engage the Secretary of Transportation and other high-ranking officials at an early stage. The peers recommended establishing a working group of staff from the State DOT, MPO, and stakeholders to begin developing potential performance measures. The peers also noted that developing and maintaining performance-



based systems is a resource-intensive task, and recommended that State DOTs devote staff resources exclusively to that effort.

Peers suggested that the best time to begin implementing a performance-based system may be when new funding sources become available or in response to a legislative change. Unless a “hold harmless” system is in place, MPOs and local agencies may object to a system that has the potential to reduce their investment amounts. The performance management requirements contained in the new Federal surface transportation legislation, MAP-21, should provide the impetus for all parties to move toward performance-based programming.

**Best Practice Example:** North Carolina’s work on performance management dates back to 2007, when the department hired an outside consultant to conduct an assessment of its activities. Like other State DOTs, NCDOT faced challenges in maintaining its transportation system in response to increasing demand and growing fiscal constraint. The consultant’s assessment emphasized the importance of the State DOT’s planning and prioritization processes, which led the State DOT to establish a strategic prioritization office with dedicated staff.

North Carolina had long faced a perception that transportation funding decisions were driven by politics rather than engineering or economic needs. In 2011, the newly-elected governor issued an [executive order](#) removing the State Board of Transportation from funding decisions and instructing the NCDOT Secretary to develop “a professional approval process” for transportation investments.

With the governor’s executive order and strong backing from NCDOT leadership, the new Strategic Planning Office developed and implemented the various iterations of the [strategic planning process](#). In 2012, the State legislature passed a [bill](#) codifying the transportation reforms into law, which the governor signed in June 2012. The law now requires NCDOT to “develop and utilize a process for selection of transportation projects that is based on professional standards”, and specifies that strategic prioritization should be “a systematic, data-driven process that includes a combination of quantitative data, qualitative input, and multimodal characteristics, and should include local input”. The law also requires NCDOT to “develop a process for standardizing or approving local methodology used in Metropolitan Planning Organization and Rural Transportation Planning Organization prioritization.”

## B. Using Performance Measures to Link Funding to Strategic Priorities

### Establish baseline conditions and targets

State DOTs and MPOs must first establish baseline conditions and targets. High-quality data is critical to an effective asset management system, and so it is important to collect and update data on a regular basis. PennDOT suggested NCHRP Report 551, [Performance Measures and Targets for Transportation Asset Management](#), as a reference for developing performance measures to be used in asset management systems.

**Best Practice Example:** Several State DOTs are active in measuring performance indicators and making this information readily available to the public. For example, MnDOT issues an annual performance report and an annual performance scorecard, which it posts to its Performance Measurement [website](#). Both the scorecard and annual report track data over time for several performance measures and compare that data to established targets from the State [Policy Plan](#). As examples, the 2010 Annual Performance Report is available [here](#) and the 2010 Scorecard is available [here](#). The following screenshot shows a portion of MnDOT’s 2010 Transportation Results Scorecard.

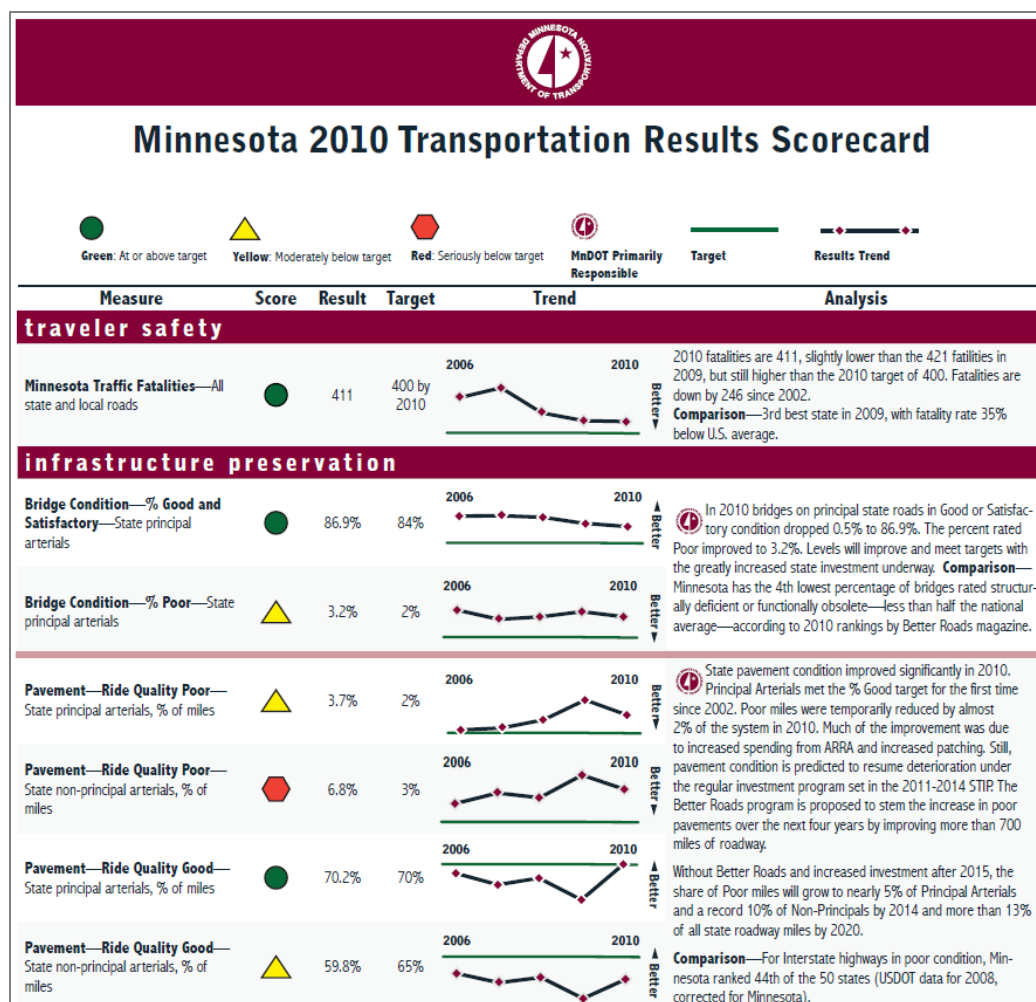


Figure 4: MnDOT 2010 Transportation Results Scorecard

### Tailor prioritization criteria to different categories of projects

A performance-based system must include appropriate measures to align transportation investment to goals and desired outcomes. DOTs and MPOs can use different measures for projects in different modes or different settings, or weight the same measures differently depending on the context. For example, if road congestion is a metric, the DOT may want to develop different targets for rural and urban settings.

**Best Practice Example:** NCDOT uses a separate performance criteria for various categories of projects. For example, highway expansion projects are scored based on congestion, safety, pavement, benefit/cost, and economic competitiveness criteria. Highway modernization projects, on the other hand, are judged on congestion, safety, pavement, and geometric criteria. All highway projects receive extra points for incorporating other modes of transportation. Bicycle and pedestrian projects have entirely different criteria focusing on connectivity, safety, local input, past planning efforts, and right-of-way acquisition.

Highway Scoring		
Total Score = <u>Quantitative Data</u> + Local Input + Multimodal Pts		
Criteria	Mobility	Modernization
- Congestion (Volume/Capacity Ratio + AADT)	✓	✓
- Safety Score (Critical Crash Rates, Density, Severity)	✓	✓
- Pavement Score (Pavement Condition Rating)	✓	✓
- Benefit/Cost (Travel Time Savings / Project Cost)	✓	
- Economic Competitiveness (Value Added in \$)	✓	
- Lane Width (Existing Width vs. Standard Width)		✓
- Shoulder Width (Existing Width vs. Standard Width)		✓

Figure 5: North Carolina DOT Highway Scoring Table. NCDOT applies different criteria to categories of projects, as not all criteria are applicable to all projects.

### Start with a few simple measures

The peers recommended starting with a short list of performance measures with the understanding that these measures will likely change or expand over time. The measures should have direct links to State and regional goals, and should be supported by readily accessible data. Upon updating the performance based funding criteria, MnDOT analyzed 120 variables for possible use, ultimately choosing nine measures that were best aligned with transportation goals and had the most reliable and available data.

Simple measures may include bridge or pavement condition, mobility, or safety ratings. More complex criteria, such as measures of economic benefit, may require significant data and analysis to determine an appropriate methodology to reflect the desired goals and outcomes. The peers all acknowledged the difficulty of linking economic benefits to individual transportation projects. Complex measures are not appropriate for all project types; North Carolina applies complex criteria to highway modernization and expansion projects, but not routine maintenance.

**Best Practice Example:** NCDOT's first strategic prioritization process, referred to as "Prioritization 1.0", focused on a small number of performance measures. For highways, quantitative data included three measures of safety (critical crash rate, crash severity, and crash density), two measures of mobility and congestion (volume-to-capacity ratios and annual average daily traffic), and one measure of infrastructure health (pavement condition ratings). The next iteration of the strategic prioritization process, Prioritization 2.0, incorporates a wider array of performance measures. As described in the previous section, some of the new highway performance measures include measures of benefit/cost analysis, economic competitiveness, lane width, and shoulder width. At the peer exchange, the NCDOT official stated that the State DOT is currently developing a Prioritization 3.0, which will provide data via an interactive online mapping tool. The NCDOT website contains more information on the first and second iterations of the strategic prioritization process.

### Focus on programs or categories

Performance measures can be used both to allocate funding to programs or project categories as well as to select projects for inclusion in the TIP or STIP. PennDOT's system starts at a high level, allocating funds to broad programmatic categories (such as bridge and highway). MPOs and RPOs use the asset

data to select projects within those categories based on the project's impact on performance. MnDOT develops alternative investment scenarios, or a mix of funding allocations by categories, for internal and public review, and uses these scenarios to determine the level of funding needed to meet goals.

**Best Practice Example:** North Carolina DOT applies a “bucket approach” to its capital development process. The State DOT categorizes projects into ten broad programmatic areas: aviation, bicycle and pedestrian, transit, ferry, rail, highway mobility, highway modernization, safety, pavement, and bridges. As discussed above, NCDOT applies different performance criteria to the various buckets. For most buckets, NCDOT analysts collect and analyze data to make programming decisions. For three categories—bicycle and pedestrian, highway mobility, and highway modernization—NCDOT incorporates the formal input of metropolitan and rural planning organizations into the project evaluation process. The weight of this local input varies depending on the scale of the project: MPOs and RPOs are assigned greater weight for regional projects and the most weight for local projects.



**Figure 6: NCDOT Prioritization Buckets**

To help determine how much funding to assign to each category, NCDOT incorporates public input through “Investment Summits.” At these meetings, NCDOT provides an interactive calculator tool that demonstrates the tradeoffs inherent to various investment scenarios. This tool shows the current level of service for the various buckets, the amount of spending required to meet the 10-year desired target for these levels of service, and the future level of service if NCDOT adopts a “stay the course” investment approach. The tool also calculates the levels of service resulting from any funding level. The general public is invited to explore the impacts of various funding scenarios within the fiscal constraint, and the preferred scenarios the public adopts inform the State DOT’s allocation of funds among the buckets.

Mode	Submitted Needs	Current LOS (A-F)	Desired Target for Year 2022	Meets All Desired Targets			Stay the Course			Your Recommendation (Allocation by \$)		
				\$	% of Total	LOS	\$	% of Total	LOS	\$	% of Total	LOS
Aviation	\$80	D	B	\$80	0.4%	B	\$60	0.6%	C		0.0%	D
	\$220	D	C	\$220	1.1%	C	\$70	0.7%	D		0.0%	F
	\$200	D	B	\$200	1.0%	B	\$100	1.0%	F		0.0%	F
Bicycle & Pedestrian	\$390	D	C	\$230	1.2%	C	\$20	0.2%	F		0.0%	F
Ferry	\$150	C	B	\$150	0.8%	B	\$70	0.7%	C		0.0%	D
	\$480	C	B	\$480	2.5%	B	\$0	0.0%	D		0.0%	D
Public Transportation	\$90	C	B	\$60	0.3%	B	\$10	0.1%	D		0.0%	F
	\$3,000	D	B	\$680	3.5%	B	\$520	5.1%	C		0.0%	F
	\$1,000	C	B	\$460	2.4%	B	\$210	2.1%	D		0.0%	F

Figure 7: NCDOT Table of Investment Scenarios linked to needs, investment options, and level of service.

### Include qualitative information with quantitative information

In addition to the traditional engineering criteria generally employed by State DOTs, peer agencies formalize the input of MPOs and other local agencies. Some MPOs and local agencies are often, as one peer described, “data-poor, but insight-rich,” and so it is imperative to include their input into the project selection process. While quantitative measuring systems are important in making funding decisions, they do not paint a full picture of the transportation needs facing a State DOT or MPO.

**Best Practice Example:** NCDOT uses a scoring system to select projects, which includes discretionary points for local government input. For highway projects, each MPO or RPO is assigned 1300 points to award to proposed projects. The MPO or RPO can choose to assign its points to its top 25 projects, awarding 100 points to its first choice, 96 points to its second choice, 92 points to its third choice, and so on until it awards 4 points to its twenty-fifth choice. Alternatively, the MPO or RPO can choose to award its points to as many projects as it chooses, provided that no project is awarded more than 100 points or fewer than 4 points.




Scoring for Highway <u>Mobility</u> Projects			
Tier	QUANTITATIVE	LOCAL INPUT	
	Data	Division Rank	MPO/RPO Rank
<b>Statewide</b> (Interstates and Major US and NC Routes) 	Congestion = 20% Benefit/Cost = 20% Safety = 10% Pavement Condition = 10% Economic Competitiveness = 10% <b>Total = 70%</b>	20%	10%
<b>Regional</b> (Other US and NC Routes) 	Congestion = 20% Benefit/Cost = 15% Safety = 5% Pavement Condition = 5% Economic Competitiveness = 5% <b>Total = 50%</b>	25%	25%
<b>Subregional</b> (County Routes) 	Congestion = 20% Safety = 5% Pavement Condition = 5% <b>Total = 30%</b>	30%	40%

Figure 8: NCDOT Highway scoring inputs, based on scale of project.



## **Include evaluation of results to tailor system**

The prioritization system should be an iterative, evolving process. DOTs and MPOs should regularly evaluate their performance-based systems to make adjustments to better align investment decisions to planning goals. For example, PennDOT evaluates its performance-based system every two years when developing its financial guidance to local agencies. MnDOT, in cooperation with the Metropolitan Council, will be exploring the use of joint measures of “person throughput, system reliability, and transit access” in place of or in addition to its previous “congestion” measure, because an evaluation of the measures found that “congestion” alone was not an adequate measure of MnDOT’s transportation plan’s guiding principles. NCDOT’s strategic prioritization has evolved from Prioritization 1.0 to Prioritization 2.0 and a future Prioritization 3.0, which increasing detail and sophistication in each successive iteration.

## **C. Creating Transparency in Decision-Making**

### **Develop performance criteria collaboratively with stakeholders**

As noted earlier, choosing the right measures for a performance-based system is a critical element in developing the system. Well-chosen measures should lead to investment outcomes that align with plans and policies. State DOTs should collaborate with a diverse set of stakeholders who bring multiple perspectives and insight into the selection of performance measures. This collaborative and inclusive approach is essential to ensure that investments bring about desired outcomes. To develop its performance-based system, MnDOT convened a technical working group comprised of 19 members from cities, counties, MPOs, each of the MnDOT districts, and several MnDOT issue experts. This working group met monthly over 16 months to develop performance measures and weighting scenarios.

### **Share data, goals, and the projected outcomes of multiple strategies with stakeholders and the public**

Transparency of the decision-making process is an important benefit of a performance-based system. All stakeholders, including elected officials, partner agencies, and the general public, can have access to the methodology and data used to make transportation investments and can understand why these investments were made. Moreover, these stakeholders can be directly involved in the selection of performance measures, developing the methodology, and scoring projects. This combination of genuine outreach to stakeholders, open data, and a transparent process results in a credible, accountable program. A more transparent system moves beyond a disclosure of “what” decisions were made to “how” and “why” they were made.

MPOs and DOTs can use scenario planning exercises to evaluate investment options and expected outcomes. These are especially useful when working with elected officials and the general public, as illustrated by NCDOT’s Investment Summits. Scenario planning helps illustrate the tradeoffs inherent to different investment decisions, and can focus attention on the effect of these decisions on the overall system. This approach helps stakeholders and the general public identify strategic investments that make progress toward performance targets and goals.

**Best Practice Example:** NCDOT uses an open, transparent, and consistent scoring process when evaluating projects submitted by MPOs. Project data and scores are provided to the MPOs and available online throughout the scoring process, which allows the MPOs to anticipate final project rankings. The scoring process uses a uniform cost estimation methodology to compare project costs across the MPOs.

NCDOT also posts the results of its prioritization scoring methodology online, which helps all stakeholders to understand how projects were prioritized and funded. The next image shows the scoring results for the four highest-ranked highway projects under NCDOT’s Prioritization 2.0 process. These results are available for download from the NCDOT [website](#). See Figure 9, next page.





## Next Steps

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Moving toward performance-based transportation funding will remain a high priority for CMAP. Next steps include disseminating the key findings from the Transportation Planning Capacity Building peer exchange, learning more about programming processes for local agencies in northeastern Illinois, and initiating high-level staff discussions between CMAP, IDOT, and other Illinois MPOs. This last effort will lead to a structure for CMAP to continue discussing performance measures with its planning partners. The use of performance measures in transportation programming applies not only to State DOTs, MPOs and RPO, but also to local agencies such as municipalities and counties. To improve its understanding of the use of performance measures in local programming, CMAP will convene a regional peer exchange in September 2012. This two-day workshop will provide an opportunity for local implementing agencies to describe their programming processes, and will showcase regional best practices to these agencies.

## About the Transportation Planning Capacity Building (TPCB) Program

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The [Transportation Planning Capacity Building \(TPCB\) Program](#) is a joint venture of the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) that delivers products and services to provide information, training, and technical assistance to the transportation professionals responsible for planning for the capital, operating, and maintenance needs of our nation's surface transportation system. The TPCB Program website ([www.planning.dot.gov](http://www.planning.dot.gov)) serves as a one-stop clearinghouse for state-of-the-practice transportation planning information and resources. This includes over 70 peer exchange reports covering a wide range of transportation planning topics.

The [TPCB Peer Program](#) advances the state of the practice in multimodal transportation planning nationwide by organizing, facilitating, and documenting peer events to share noteworthy practices among state departments of transportation (DOTs), Metropolitan Planning Organizations (MPOs), transit agencies, and local and Tribal transportation planning agencies. During peer events, transportation planning staff interact with one another to share information, accomplishments, and lessons learned from the field and help one another overcome shared transportation planning challenges.

## Appendix

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## B. Peer Exchange Agenda

### Performance-Based Evaluation Criteria and Funding Decisions

Tuesday, July 10, 2012 – Full Day

8:30-8:45	Welcome (CMAP and Volpe) <ul style="list-style-type: none"><li>• Introduction of participants, moderators, and event organizers</li><li>• TPCB Peer Program overview, goals, and deliverables</li><li>• Overview of schedule.</li></ul>
8:45-9:00	Introduction to Peer Agencies <ul style="list-style-type: none"><li>• Brief overviews of peer state DOTs and MPOs (2-3 minutes apiece).</li></ul>
9:00-9:15	Current Practice in Northeastern Illinois <ul style="list-style-type: none"><li>• CMAP (presentation)<ul style="list-style-type: none"><li>○ Overview of GO TO 2040 recommendations on performance based funding, past efforts, recent research and funding proposal<ul style="list-style-type: none"><li>▪ CMAP Issue Brief approved by its Board and MPO Policy Committee</li></ul></li><li>○ List CMAP's general research goals for the Peer Exchange:<ul style="list-style-type: none"><li>▪ To learn detailed best practices from peer groups, including selection of criteria and weights, coordination of quantitative and qualitative metrics, relationship between MPOs and state DOTs, consideration of modes and flexible funds.</li><li>▪ To understand how to implement a performance-based funding system, including institutional and administrative issues.</li><li>▪ To evaluate the experience of peer groups, including their applicability to Illinois.</li></ul></li></ul></li></ul>
9:15-9:30	Current Practice in Illinois <ul style="list-style-type: none"><li>• Illinois MPO Advisory Council<ul style="list-style-type: none"><li>○ Overview of other Illinois MPOs' experience in the use of performance measures for transportation funding.</li></ul></li></ul>
9:30-10:00	Current Practice in Illinois <ul style="list-style-type: none"><li>• Illinois Department of Transportation (presentation)<ul style="list-style-type: none"><li>○ Overview of the development of the state highway improvement program.</li><li>○ Overview of the department's asset management practices.</li></ul></li></ul>
10:00-10:30	Case Study Pair 1 – Minnesota Department of Transportation (presentation) <ul style="list-style-type: none"><li>• Introduce the state DOT.<ul style="list-style-type: none"><li>○ Discuss the state DOT's institutional context. Does the state have a transportation board or commission? What role does the state DOT secretary play? What is the relationship between the state DOT and state legislature?</li></ul></li><li>• Discuss the use of performance-based measures in the allocation of transportation funds.<ul style="list-style-type: none"><li>○ Discuss the department's asset management process and how it incorporates performance measures into funding decisions.</li></ul></li><li>• Research questions:<ul style="list-style-type: none"><li>○ What is the overall <b>process</b>?</li><li>○ Which <b>agencies</b> are involved and when are they involved in the evaluation and programming process? What are their responsibilities?</li><li>○ To which federal and state <b>funding sources</b> is the performance-based funding system applied? If applicable, why are some fund sources included but not others?</li><li>○ Which <b>performance data</b> are used? How were criteria selected?</li><li>○ What measures are taken to ensure <b>transparency</b> throughout the</li></ul></li></ul>

	<ul style="list-style-type: none"> <li>process?</li> <li>How are performance criteria <b>weighted</b>, if at all? How are quantitative and qualitative criteria synthesized?</li> <li>How are projects <b>selected</b>? Who makes the final decision, and how are performance-based criteria incorporated into the decision-making process?</li> <li>How does the performance-based system account for <b>mode</b>? Has the performance-based system led to flexing of funds across modes?</li> </ul> <ul style="list-style-type: none"> <li>Brief Q&amp;A.</li> </ul>
10:30-11:00	<p>Case Study Pair 1 – Metropolitan Council (presentation)</p> <ul style="list-style-type: none"> <li>Introduce the MPO, including its institutional structure.</li> <li>Discuss the role of the MPO in the state's highway programming process.</li> <li>Discuss the role of the MPO in the state's asset management process.</li> <li>Discuss the use of performance-based measures in the allocation of transportation funds. If appropriate, relate the MPO's role in the state highway program to its experience with the TIP, CMAQ, STP, and other fund sources under its discretion.</li> <li>Research questions: <ul style="list-style-type: none"> <li>What is the overall <b>process</b>?</li> <li>Which <b>agencies</b> are involved and when are they involved in the evaluation and programming process? What are their responsibilities?</li> <li>Which <b>performance data</b> are used? How were criteria selected?</li> <li>What measures are taken to ensure <b>transparency</b> throughout the process?</li> <li>How are performance criteria <b>weighted</b>, if at all? How are quantitative and qualitative criteria synthesized?</li> <li>How are projects <b>selected</b>? Who makes the final decision, and how are performance-based criteria incorporated into the decision-making process?</li> <li>How does the performance-based system account for <b>mode</b>? Has the performance-based system led to flexing of funds across modes?</li> </ul> </li> </ul> <ul style="list-style-type: none"> <li>Brief Q&amp;A</li> </ul>
11:00-11:15	Break
11:15-11:45	<p>Case Study Pair 2 – North Carolina Department of Transportation (presentation)</p> <ul style="list-style-type: none"> <li>Introduce the state DOT. <ul style="list-style-type: none"> <li>Discuss the state DOT's institutional context. Does the state have a transportation board or commission? What role does the state DOT secretary play? What is the relationship between the state DOT and state legislature?</li> </ul> </li> <li>Discuss the use of performance-based measures in the allocation of transportation funds. <ul style="list-style-type: none"> <li>Discuss the department's asset management process and how it incorporates performance measures into funding decisions.</li> </ul> </li> <li>Research questions: <ul style="list-style-type: none"> <li>What is the overall <b>process</b>?</li> <li>Which <b>agencies</b> are involved and when are they involved in the evaluation and programming process? What are their responsibilities?</li> <li>To which federal and state <b>funding sources</b> is the performance-based funding system applied? If applicable, why are some fund sources included but not others?</li> <li>Which <b>performance data</b> are used? How were criteria selected?</li> <li>What measures are taken to ensure <b>transparency</b> throughout the process?</li> <li>How are performance criteria <b>weighted</b>, if at all? How are quantitative and qualitative criteria synthesized?</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>○ How are projects <b>selected</b>? Who makes the final decision, and how are performance-based criteria incorporated into the decision-making process?</li> <li>○ How does the performance-based system account for <b>mode</b>? Has the performance-based system led to flexing of funds across modes?</li> <li>• Brief Q&amp;A.</li> </ul>
11:45-12:15	<p>Case Study Pair 2 – North Carolina Capital Area Metropolitan Planning Organization (presentation)</p> <ul style="list-style-type: none"> <li>• Introduce the MPO, including its institutional structure.</li> <li>• Discuss the role of the MPO in the state's highway programming process.</li> <li>• Discuss the role of the MPO in the state's asset management process.</li> <li>• Discuss the use of performance-based measures in the allocation of transportation funds. If appropriate, relate the MPO's role in the state highway program to its experience with the TIP, CMAQ, STP, and other fund sources under its discretion.</li> <li>• Research questions: <ul style="list-style-type: none"> <li>○ What is the overall <b>process</b>?</li> <li>○ Which <b>agencies</b> are involved and when are they involved in the evaluation and programming process? What are their responsibilities?</li> <li>○ Which <b>performance data</b> are used? How were criteria selected?</li> <li>○ What measures are taken to ensure <b>transparency</b> throughout the process?</li> <li>○ How are performance criteria <b>weighted</b>, if at all? How are quantitative and qualitative criteria synthesized?</li> <li>○ How are projects <b>selected</b>? Who makes the final decision, and how are performance-based criteria incorporated into the decision-making process?</li> <li>○ How does the performance-based system account for <b>mode</b>? Has the performance-based system led to flexing of funds across modes?</li> </ul> </li> <li>• Brief Q&amp;A.</li> </ul>
12:15-1:15	Lunch
1:15-1:45	<p>Federal Update – Moving Ahead for Progress in the 21<sup>st</sup> Century (MAP-21)</p> <ul style="list-style-type: none"> <li>• Federal Highway Administration <ul style="list-style-type: none"> <li>○ Staff will provide a brief overview of the language on performance measures and targets in MAP-21.</li> <li>○ Peers will have the opportunity to discuss the impact of MAP-21 on state and metropolitan transportation planning.</li> </ul> </li> </ul>
1:45-2:15	<p>Case Study Pair 3 – Pennsylvania Department of Transportation (presentation)</p> <ul style="list-style-type: none"> <li>• Introduce the state DOT. <ul style="list-style-type: none"> <li>○ Discuss the state DOT's institutional context. Does the state have a transportation board or commission? What role does the state DOT secretary play? What is the relationship between the state DOT and state legislature?</li> </ul> </li> <li>• Discuss the use of performance-based measures in the allocation of transportation funds. <ul style="list-style-type: none"> <li>○ Discuss the department's asset management process and how it incorporates performance measures into funding decisions.</li> </ul> </li> <li>• Research questions: <ul style="list-style-type: none"> <li>○ What is the overall <b>process</b>?</li> <li>○ Which <b>agencies</b> are involved and when are they involved in the evaluation and programming process? What are their responsibilities?</li> <li>○ To which federal and state <b>funding sources</b> is the performance-based funding system applied? If applicable, why are some fund sources included but not others?</li> <li>○ Which <b>performance data</b> are used? How were criteria selected?</li> </ul> </li> </ul>



	<ul style="list-style-type: none"> <li>○ What measures are taken to ensure <b>transparency</b> throughout the process?</li> <li>○ How are performance criteria <b>weighted</b>, if at all? How are quantitative and qualitative criteria synthesized?</li> <li>○ How are projects <b>selected</b>? Who makes the final decision, and how are performance-based criteria incorporated into the decision-making process?</li> <li>○ How does the performance-based system account for <b>mode</b>? Has the performance-based system led to flexing of funds across modes?</li> </ul> <ul style="list-style-type: none"> <li>• Brief Q&amp;A</li> </ul>
2:15-2:45	<p>Case Study Pair 3 – Delaware Valley Regional Planning Commission (presentation)</p> <ul style="list-style-type: none"> <li>• Introduce the MPO, including its institutional structure.</li> <li>• Discuss the role of the MPO in the state's highway programming process.</li> <li>• Discuss the role of the MPO in the state's asset management process.</li> <li>• Discuss the use of performance-based measures in the allocation of transportation funds. If appropriate, relate the MPO's role in the state highway program to its experience with the TIP, CMAQ, STP, and other fund sources under its discretion.</li> <li>• Research questions: <ul style="list-style-type: none"> <li>○ What is the overall <b>process</b>?</li> <li>○ Which <b>agencies</b> are involved and when are they involved in the evaluation and programming process? What are their responsibilities?</li> <li>○ Which <b>performance data</b> are used? How were criteria selected?</li> <li>○ What measures are taken to ensure <b>transparency</b> throughout the process?</li> <li>○ How are performance criteria <b>weighted</b>, if at all? How are quantitative and qualitative criteria synthesized?</li> <li>○ How are projects <b>selected</b>? Who makes the final decision, and how are performance-based criteria incorporated into the decision-making process?</li> <li>○ How does the performance-based system account for <b>mode</b>? Has the performance-based system led to flexing of funds across modes?</li> </ul> </li> </ul> <ul style="list-style-type: none"> <li>• Brief Q&amp;A.</li> </ul>
2:45-3:00	Break
3:00-3:45	<p>Implementation of performance-based funding systems (panel discussion)</p> <ul style="list-style-type: none"> <li>• How did the new funding system come to be <b>implemented</b>? <ul style="list-style-type: none"> <li>○ What was the impetus for pursuing a new funding system?</li> <li>○ Who initiated the new funding system? What role did the MPO and state DOT play in the implementation process?</li> </ul> </li> <li>• Which <b>legal or institutional</b> reforms were required for the system to be adopted? What were the relevant roles of the following institutions: <ul style="list-style-type: none"> <li>○ State DOT leadership</li> <li>○ State transportation board or commission</li> <li>○ State legislature</li> </ul> </li> <li>• What were the <b>obstacles</b> to implementation, and how were they overcome?</li> <li>• What is the applicability of the peer examples to Illinois?</li> </ul>
3:45-4:15	Open Q&A session

**Wednesday, July 11, 2012 – Half Day**

8:30-8:45	Recap of first day's proceedings
8:45-10:00	<p>Evaluation of performance-based funding and asset management systems (panel discussion)</p> <ul style="list-style-type: none"> <li>• <b>Compare and contrast</b> the experience of the three case studies <ul style="list-style-type: none"> <li>○ What are the commonalities across cases?</li> <li>○ What are the strengths and weaknesses of the different approaches?</li> </ul> </li> <li>• What were the <b>quantitative effects</b> of the performance-based systems? <ul style="list-style-type: none"> <li>○ Performance-based funding system: <ul style="list-style-type: none"> <li>▪ Change in funding over time</li> <li>▪ Change in funding across geography</li> <li>▪ Change in funding by mode</li> </ul> </li> <li>○ Performance-based asset management system: <ul style="list-style-type: none"> <li>▪ Change in asset conditions over time</li> <li>▪ Change in asset conditions across geography</li> <li>▪ Change in asset conditions by type of asset</li> </ul> </li> </ul> </li> <li>• What were the <b>qualitative effects</b> of these performance-based systems? <ul style="list-style-type: none"> <li>○ Have the performance-based systems improved <b>transparency</b> and the overall credibility of the programming process?</li> <li>○ How have the performance-based approaches affected <b>data sharing</b> among agencies?</li> <li>○ How have the performance-based systems affect <b>working relationships</b> among MPOs and DOTs?</li> <li>○ How have the new systems been received by elected officials and the general public?</li> </ul> </li> <li>• How has the <b>overall quality</b> of the state/region's transportation program been affected by the performance-based systems?</li> <li>• What is the applicability of the peer examples to Illinois?</li> </ul>
10:00-10:15	Break
10:15-10:45	<p>Current Performance-Based Practice in Northeastern Illinois – RTA (presentation)</p> <ul style="list-style-type: none"> <li>• Overview of RTA's Asset Condition Assessment</li> <li>• Overview of RTA's Capital Plan Development Process</li> <li>• Overview of current efforts in partnership with FTA's Transit Asset Management Program</li> <li>• Brief Q&amp;A</li> </ul>
10:45-11:15	<p>Best practices and take-aways (panel discussion)</p> <ul style="list-style-type: none"> <li>• Which approaches have proven most successful? Why?</li> <li>• How have successful cases been implemented?</li> <li>• Which unexpected difficulties emerged through the process? How were they resolved?</li> <li>• How can a performance-based funding system be applied to Illinois? How can political obstacles be overcome? What is the overall applicability of the peer examples to Illinois?</li> </ul>
11:15-11:45	Open Q&A Session
11:45-12:00	TPCB Peer Program Evaluations

## C. Links to Additional Resources

Chicago Metropolitan Agency for Planning

<http://www.cmap.illinois.gov/>

Illinois Department of Transportation

<http://dot.state.il.us/>

FHWA website on Performance Based Planning

[http://www.fhwa.dot.gov/planning/performance\\_based\\_planning/resources/](http://www.fhwa.dot.gov/planning/performance_based_planning/resources/)

## D. Acronyms

DOT	Department of Transportation
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
MPO	Metropolitan Planning Organization
STIP	Statewide Transportation Improvement Program
TIP	Transportation Improvement Program
TPCB	Transportation Planning Capacity Building