January 9, 2018

The Honorable Bill Shuster
Chairman, Committee on Transportation
and Infrastructure
U.S. House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

Enclosed is the U.S. Department of Transportation’s Performance-Based Planning and Programming Report.

The Moving Ahead for Progress in the 21st Century Act (MAP-21) requires State departments of transportation (State DOTs) and Metropolitan Planning Organizations (MPOs) to transition to a data-driven decision-making process for their Federal investments in surface transportation. While many State DOTs and MPOs have initiated a performance-based planning process, very few have fully implemented performance-based planning as envisioned by MAP-21 at this time. This is because, in part, the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) only completed the rulemaking process that establishes the performance measures required by MAP-21 in May 2017. State DOTs and MPOs will begin implementing some of the measures in October 2018. This report serves as a baseline for the implementation of a performance-based planning and programming process.

Under 23 United States Code (U.S.C.) § 134(l) and 49 U.S.C. § 5303(l) the Secretary is required to complete a one-time report on the effectiveness of the performance-based planning processes of MPOs. The Secretary is also required to complete a one-time report on the effectiveness of the performance-based planning processes of States (23 U.S.C. § 135(h)(2) and 49 U.S.C. § 5304(h)(2)). The enclosed report developed jointly by FHWA and FTA meets the reporting requirements of these provisions.

Similar letters have been sent to the Ranking Member of the House Committee on Transportation and Infrastructure; the Chairman and Ranking Member of the Senate Committee on Environment and Public Works; and the Chairman and Ranking Member of the Senate Committee on Banking, Housing, and Urban Affairs.

Sincerely,

[Signature]

Elaine L. Chao

Enclosure
Performance-Based Planning and Programming
A Report to Congress

December 2017

U.S. Department of Transportation
Federal Transit Administration
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<th>Term</th>
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<td>APTA</td>
<td>American Public Transportation Association</td>
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<tr>
<td>CMP</td>
<td>Congestion Management Process</td>
</tr>
<tr>
<td>CUTR</td>
<td>Center for Urban Transportation Research</td>
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<tr>
<td>DOT</td>
<td>U.S. Department of Transportation</td>
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<tr>
<td>FAST Act</td>
<td>Fixing America's Surface Transportation Act of 2015</td>
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<tr>
<td>FHWA</td>
<td>Federal Highway Administration</td>
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<td>FTA</td>
<td>Federal Transit Administration</td>
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<tr>
<td>LRSTP</td>
<td>Long-Range Statewide Transportation Plan</td>
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<tr>
<td>MAP-21</td>
<td>Moving Ahead for Progress in the 21st Century Act of 2012</td>
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<td>MPO</td>
<td>Metropolitan Planning Organization</td>
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<td>MTP</td>
<td>Metropolitan Transportation Plan</td>
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<td>PBPP</td>
<td>Performance-Based Planning and Programming</td>
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<tr>
<td>STIP</td>
<td>Statewide Transportation Improvement Program</td>
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<tr>
<td>TIP</td>
<td>Transportation Improvement Program</td>
</tr>
<tr>
<td>TMA</td>
<td>Transportation Management Area</td>
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<tr>
<td>TPM</td>
<td>Transportation Performance Management</td>
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Performance-Based Planning and Programming

A Report to Congress

Purpose

This report is in response to Sections 1201, 1202, 20005, and 20006 of the Moving Ahead for Progress in the 21st Century Act (MAP-21) and Sections 134(l) and 135(h)(2) of Title 23 of the United States Code (U.S.C.) and 49 U.S.C. 5303(l) and 5304(h)(2).

Section 134(1) of 23 U.S.C. and Section 5303(l) of 49 U.S.C. require that the U.S. Department of Transportation (DOT) prepare a report to Congress not later than 5 years after the effective date of MAP-21 (October 1, 2012) on the effectiveness of the performance-based planning processes (PBPP) of metropolitan planning organizations (MPO). The report is to cover:

(1) The overall effectiveness of performance-based planning as a tool for guiding transportation investments;
(2) The effectiveness of the performance-based planning process of each MPO;
(3) The extent to which MPOs have achieved, or are currently making substantial progress toward achieving, the performance targets specified and whether MPOs are developing meaningful performance targets; and
(4) The technical capacity of MPOs that operate within a metropolitan planning area with a population of 200,000 or less and their ability to carry out the requirements of section 134.

Similarly, Section 135(h)(2) of 23 U.S.C. and Section 5304(h)(2) of 49 U.S.C. require DOT to prepare a comparable report to Congress within 5 years of MAP-21 enactment on the effectiveness of the State departments of transportation (SDOT). The report is to evaluate:

(1) The overall effectiveness of performance-based planning as a tool for guiding transportation investments; and
(2) The effectiveness of the performance-based planning process of each State.

In recent decades, transportation agencies have been transitioning toward performance-based approaches to support decisionmaking, either voluntarily or in response to State or local legislation.¹ In 2012, MAP-21 began requiring SDOTs and MPOs to develop a performance-based approach to transportation planning and programming for statewide and metropolitan planning areas.² In 2015, the Fixing America’s Surface Transportation (FAST) Act reauthorized these requirements, thus establishing the nationwide shift to a data-driven, outcome-based approach to transportation planning and decisionmaking for States and metropolitan areas.

The Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) issued final joint planning regulations on May 27, 2016, that implement the PBPP provisions from MAP-21 and the FAST Act. Although a legislative and regulatory basis exists for PBPP, the PBPP requirements in the final performance management rules from MAP-21 and the FAST Act

¹ FHWA, Performance Based Planning and Programming Guidebook. September 2013.
will not all be fully phased in until at least 2019. As a result, this report focuses less on implementation of the MAP-21/FAST Act and PBPP-related final rules and more on the status of broader PBPP efforts nationwide.

Overview of PBPP

The PBPP concept involves a strategic approach that uses data to support decisions that help to achieve performance goals. A number of common elements are associated with PBPP, which SDOTs and MPOs adapt to help achieve desired outcomes, some of which include:

- **Goal**: a broad statement that describes a desired end state.
  - Example: A safe transportation system.
- **Objective**: a specific, measurable statement that supports achievement of a goal. A good objective should include or lead to development of a performance measure that can be tracked over time. This allows agencies to assess different investment or policy alternatives.
  - Example: Reduce the total number of highway fatalities.
- **Performance Measure**: an indicator that agencies can use to assess progress toward an objective. Performance measures can be used in strategy analysis to compare different investment or policy alternatives and can be used to track actual performance over time. Under MAP-21, the FAST Act, and the general purposes described in section 5301 of title 49 U.S.C., DOT has established performance measures through rulemaking that apply to SDOTs, MPOs and public transportation providers.
  - Example: Number of highway fatalities.
- **Target**: a specific level of performance that agencies desire to achieve within a given timeframe. A target can be used as a basis for comparing progress over time to a desired outcome or for making decisions on investments.
  - Example: Reduce fatalities by 5 percent by 2018.

Figure 1 provides a framework for PBPP and identifies the primary components of the process: planning, programming, implementation, and evaluation. This framework describes how the

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3 These include the following:

- Highway Safety Improvement Program (HSIP) Final Rule (23 CFR 924) and Safety Performance Management Measures Final Rule (23 CFR 490), effective 04/14/2016;
- Pavement and Bridge Condition Performance Measures Final Rule (23 CFR 490), effective 5/20/2017;
- Asset Management Plan Final Rule (23 CFR 515, effective 10/20/2017);
- System Performance/Freight Movement on the Interstate/CMAQ Program Performance Measures Final Rule (23 CFR 490), effective 5/20/2017;
- Transit Asset Management (TAM) Final Rule (49 CFR 625; 49 CFR 630), effective 10/01/2016; and
- Rule on Statewide and Nonmetropolitan Transportation Planning and Metropolitan Transportation Planning effective 6/27/16.

More information may be found at: http://www.fhwa.dot.gov/lpm/rule.cfm


stages of PBPP should be incorporated within the established statewide and metropolitan area multimodal planning and programming process developed by SDOTs and MPOs.

![Diagram of PBPP process]

Figure 1: Framework for PBPP

The key products of the transportation planning process are each MPO’s Metropolitan Transportation Plan (MTP) and Transportation Improvement Program (TIP) and each SDOT’s Long-Range Statewide Transportation Plan (LRSTP) and Statewide Transportation Improvement Program (STIP). The MTP and LRSTP are performance-based, multimodal transportation system plans that cover a period of no less than 20 years and bring together all of an agency’s planning efforts to present a comprehensive view of the transportation system at a statewide or metropolitan area scale, incorporating all components of the multimodal system, regardless of funding source. In many cases, these plans provide broad policy statements that may address transportation system needs and possibly funding levels and financial constraints. For the development of an MTP or LRSTP, PBPP attempts to ensure that transportation investment decisions are made based on their ability to meet established goals.

The TIP and STIP are critical decision documents in PBPP because they commit transportation funds to specific projects and operational strategies. Further, the TIP and STIP reflect short-term

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Figure 1: from Performance Based Planning and Programming Guidebook: https://www.fhwa.dot.gov/planning/performance_based_planning/pbpp_guidebook/

6 FHWA, Performance-Based Planning and Programming Web site.
priorities within a fiscally constrained financial plan where estimated revenues are adequate to meet estimated capital, operating, and maintenance costs. In this way, MPOs link planning to programming by prioritizing projects and allocating funds for projects in the near-term in the TIP that are consistent with goals established in the MTP. The SDOTs follow a similar approach when programming the STIP.  

Research Approach

To address the research questions established in MAP-21 for this report, the DOT compiled quantitative and qualitative data from a variety of data sources. Considering the complexity of PBPP as a process, and the inability to conduct comprehensive process reviews for the report to Congress for the large universe of SDOTs and MPOs, the DOT relied on the assessment of the products of the statewide and metropolitan area transportation planning processes (e.g., LRSTPs, MTPs, STIPs, TIPs, and other planning documents). This focus on the planning products provided a practical way to understand the process itself. The DOT used a variety of relevant data sources for this assessment, including:

- 2016 PBPP Planning Documents Database of information on all 52 LRSTPs and STIPs and a stratified random sample of 40 MPOs’ MTPs and TIPs;
- 2016 PBPP Center for Urban Transportation Research (CUTR) survey of 241 MPOs;
- FHWA/FTA Transportation Management Area (TMA) planning certification reports from 2011-2016 (providing data on the universe of 181 MPOs with primary responsibility for TMA planning);
- 2015 FHWA Congestion Management Process (CMP) database (170 MPOs);
- FHWA PBPP case studies and related research for four SDOTs and 12 MPOs; and
- Findings from seven FTA/American Public Transportation Association (APTA) PBPP Peer Roundtables in 2015 and 2016, which featured discussions with public transportation agencies, MPOs, and SDOTs about PBPP requirements and best practices.

A significant aspect of the research included coordinating among these multiple sources to ensure that in combination, they provide the data required to provide a comprehensive picture of PBPP nationwide.

Assessment of Current Practice: Adoption of PBPP

The DOT found that the majority of SDOTs and MPOs are transitioning to a PBPP approach. Almost all SDOTs and MPOs have adopted some performance-based elements into their

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7 National Highway Institute (NHI), Performance-Based Planning and Programming Course, 2016.
9 The universe of LRSTPs includes all 50 States, Washington, DC, and Puerto Rico (total universe size is 52). The sample of 40 MPOs (out of a universe of 408) represents a stratified random sample reflecting the overall distribution of MPOs by size:
- 20 MPOs planning for Urbanized Areas with population sizes less than 200,000;
- 15 MPOs planning for Urbanized Areas with population sizes between 200,000 and 1 million; and
- 5 MPOs planning for Urbanized Areas with population sizes greater than 1 million.
10 Respondents out of a universe of 408.
11 Respondents out of a universe of 186 MPOs planning for TMAs.
12 FHWA selected these SDOTs and MPOs qualitatively to represent a range of planning approaches, size, and geography.
planning and programming processes, although the level of adoption varies widely. Through the data analysis and case study assessments that inform this report, the DOT observed an evolution of PBPP approaches from initial adoption – often drawing from existing data-driven processes and developing limited performance measures based on available resources – to a mature approach that is fully integrated throughout an agency’s planning and programming processes and products (Figure 2).

**Figure 2: General Model for Evolution of a PBPP Approach**

The DOT observed this evolution, finding that a vast majority of the reviewed long-range transportation plans include goals, and most include objectives and performance measures; however, only about one-third have established performance targets. The large majority of current LRSTPs include goals (98 percent), objectives (83 percent), and performance measures (79 percent), but only 38 percent have performance targets (Figure 3). Similarly, of the 40 randomly sampled MTPs, 100 percent have goals, and 78 percent have objectives and performance measures, but only 33 percent have performance targets (Figure 4). Many SDOTs and MPOs begin by developing goals and performance measures, then establish targets once they have field-tested their performance measures and established baselines of performance related to goals.
Figure 3: LRSTP and plan elements, including vision statement, goals, objectives, performance measures, and targets (sample size: 52)

Figure 4: MTPs with PBPP elements, including vision statement, goals, objectives, performance measures, and performance targets (sample size: 40)

Assessment of Current Practice: PBPP Evaluation Topics

The DOT investigated the following evaluation topics required by MAP-21:

- Effectiveness of PBPP as a tool for guiding investments for SDOTs and MPOs;
- Effectiveness of the PBPP process of SDOTs and MPOs;
- MPOs’ development of and progress on meaningful performance targets; and
- MPOs’ technical capacity for PBPP when planning for small metropolitan planning areas.

**Effectiveness of PBPP as a tool for guiding investments**

Although most SDOTs and MPOs have adopted some level of PBPP into their LRSTPs and MTPs, fewer have documented how these elements are being used to guide investments within their long-range plans and STIPs/TIPs. For example, although most SDOTs (79 percent) have established performance measures in some component of their LRSTP, a minority (13 percent) have linked performance measures to screening or selecting investments or strategies within their LRSTP. Not all of the randomly sampled MPOs that have established performance measures link these to project selection or investment decisions, either; however, the DOT found this to be more common among the randomly sampled MPOs (58 percent of the sampled MTPs link their performance measures to project selection or investment decisions). This discrepancy may be because LRSTPs are more likely to be at a policy level and do not include details related to project selection.

The DOT found that very few STIPs and TIPs incorporate performance measures and targets from their respective LRSTPs and MTPs, although a substantially higher percentage of the sampled TIPs reference MTP goals (68 percent) than STIPs reference LRSTP goals (21 percent) (Figure 5 and Figure 6). Again, this discrepancy may be because LRSTPs are more likely to be policy-driven documents and not include details related to project selection.

![Figure 5: Number of STIPs that reference LRSTP goals, performance measures, and targets in relation to project selection (sample size: 52)](image-url)
Although many of the sample MTPs have started to link PBPP elements (e.g., performance measures) to investment decisionmaking, and many of the sample TIPs link to goals in the MTP, none of the sample MTPs or TIPs document whether PBPP has been successfully adapted to guide past investments. Therefore, it is too soon to evaluate the effectiveness of PBPP as a tool for guiding investments in long-range transportation plans and STIPs/TIPs.

**Effectiveness of the PBPP Process**

In addition to serving as a tool to guide investments, the PBPP process has the potential to be effective in assisting SDOTs and MPOs to meet the national goals. In accordance with MAP-21 and the FAST Act, the Planning Final Rule (23 CFR 450 and 771; 49 CFR 613) establishes that statewide and metropolitan transportation planning processes must provide for the use of a performance-based approach to decisionmaking in support of the national goals described in 23 U.S.C. 150(b) and the general purposes described in 49 U.S.C. 5301.

The national goals described in 23 U.S.C. 150(b) include:

1. Safety - To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.
2. Infrastructure Condition - To maintain the highway infrastructure asset system in a state of good repair.
3. Congestion Reduction - To achieve a significant reduction in congestion on the National Highway System.
4. System Reliability - To improve the efficiency of the surface transportation system.
5. Freight Movement and Economic Vitality - To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.
(6) Environmental Sustainability - To enhance the performance of the transportation system while protecting and enhancing the natural environment.

(7) Reduced Project Delivery Delays - To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies’ work practices.

In a series of rulemakings, FHWA and FTA are establishing national performance measures in key areas, including safety, infrastructure condition, congestion, system reliability, emissions, and freight movement. As part of this performance-based approach, the Final Planning Rule requires States, MPOs, and operators of public transportation to use these national performance measures to establish targets in the key performance areas to document expectations for future performance; they are to link their investment priorities contained in the STIP and TIP to achievement of performance targets. It also requires States and MPOs to coordinate to the maximum extent practicable with operators of public transportation when selecting performance targets that address transit state of good repair and safety performance measures described in 49 U.S.C. 5326(c) and 49 U.S.C. 5329(d) respectively. In establishing targets for the Federal-aid highway program, States and MPOs are required to coordinate to ensure consistency, to the maximum extent practicable as described in 23 U.S.C. 134(h)(2) and 23 U.S.C. 135(d)(2).

As Table 1 shows, SDOTs and the random sample of 40 MPOs have made similar progress in incorporating PBPP elements related to the MAP-21 national goals into their long-range transportation plans. Almost all LRSTPs and MTPs have a goal related to at least one national goal area; approximately three quarters have a performance measure related to at least one national goal area; and approximately one third have a performance target related to at least one national goal area.

<table>
<thead>
<tr>
<th>PBPP Element Related to at Least One National Goal Area</th>
<th>LRSTPs</th>
<th>MTPs</th>
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<tbody>
<tr>
<td><strong>Goals</strong></td>
<td>94%</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Performance Measures</strong></td>
<td>77%</td>
<td>76%</td>
</tr>
<tr>
<td><strong>Targets</strong></td>
<td>35%</td>
<td>33%</td>
</tr>
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The SDOTs and the random sample of 40 MPOs have made varying progress on each individual national goal area, as shown in Figure 7 and Figure 8. This may reflect the range of prior experience that SDOTs and MPOs have with planning for the different national goal areas. For example, SDOTs can incorporate performance elements from their existing Strategic Highway Safety Plans, while MPOs serving TMA's - urbanized areas with populations of 200,000 or more - can incorporate data-driven elements from their CMP before developing new performance measures and targets for other national goals.

This finding reflects how SDOTs and MPOs have successfully integrated their experience with prior Federal requirements into their PBPP approach. With time and completed Federal guidance, DOT anticipates that SDOTs and MPOs will make further progress toward addressing the other national goals.
Additional Benefits and Challenges to the Effectiveness of PBPP

The agencies that participated in the FHWA PBPP case studies and FTA/APTA PBPP Peer Roundtables identified the following ways in which PBPP has been effective:

- **Prioritizing limited funds** to maximize efficiency and cost-effectiveness of investments, based on agreed-upon goals with measures of expected results, supporting distinction among projects to move forward, delay, or not invest in;

![LRSTP Elements Related to National Goals](image)

**Figure 7: PBPP Elements for the national goals in LRSTPs (sample size: 52)**
MTP Elements Related to National Goals

<table>
<thead>
<tr>
<th>Goal</th>
<th>Performance Measure</th>
<th>Target</th>
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![Bar chart showing percentage of plans for different elements](image)

**Figure 8: PBPP Elements for the national goals in MTPs (sample size: 40)**

- **Building support for decisionmaking** among diverse constituents, modes, other stakeholders, and the public by increasing transparency and the data-driven nature of decisions;
- **Enabling a culture change** to a more collaborative and comprehensive approach by assisting SDOTs, MPOs, and their partners to analyze projects and needs within the larger State or region and across modes;
- **Making the case for additional funding** based on measurable needs expressed in terms of agreed-upon projections of costs and performance, and monitoring of results.

However, SDOTs, MPOs, and public transportation agencies also described the challenges to adopting an effective PBPP approach. These include:

- **Moving from measuring outputs to outcomes**: Although outcome-based measures more meaningfully reflect system performance, several agencies expressed concern about developing targets for elements that are beyond their control.\(^\text{13}\)
- **The danger of too much data and too many measures**: Although new data can be valuable for the PBPP process, SDOTs and MPOs were concerned that too many performance measures can confuse the overall message, and meeting the data requirements to support them can get very time-consuming and expensive.
- **Data cost and availability**: Agencies listed the availability and cost of data and their technical capacity as challenges to their PBPP approach. Data cost and availability can

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\(^{13}\) Outputs reflect an activity that the transportation agency can implement; outcomes reflect a response to changes in the transportation system or traveler behavior.
be especially challenging for MPOs representing urbanized areas with populations less than 200,000,\textsuperscript{14} since they typically have fewer staff resources and funding for data collection and analysis.

- **PBPP across planning jurisdictions:** Agencies expressed challenges coordinating with SDOTs and neighboring MPOs on performance management beyond their jurisdictional boundaries.

### MPOs’ Development and Progress on Meaningful Performance Targets

About one third of the random sample of 40 MPOs have established performance targets in their MTPs. For the purposes of this report, a performance target is considered “meaningful” if the agency links the target to overarching goals or objectives in the MTP, which are typically generated in response to national, State, or local policy or requirements. Applying this criterion, all of the sample MTPs that include performance targets relate those performance targets to the plan’s goals, as well as the national goal topic areas.

Of the sample of 40 MTPs, 28 percent contain targets that are time-bound, and 28 percent contain targets that project improvement over time. Thirteen percent of sample MTPs described a monitoring process to measure progress in achieving their targets. However, none of the random sample of 40 MTPs have yet documented progress toward achieving performance targets to date. Because many MTPs are starting to establish monitoring for their targets, assessing progress at this time would be premature, but FHWA and FTA should be able to evaluate related progress in the future.

### Non-TMA MPOs’ Technical Capacity for PBPP

In response to the MAP-21 reporting requirements, this study evaluated the technical capacity of non-TMA MPOs and their ability to carry out the PBPP requirements established in MAP-21. Technical capacity is a measure of what an agency, through its staff and use of other resources, can accomplish. It represents both an agency’s technical knowledge and skills, as well as the ability to apply this knowledge and skills to planning and programming.

Many MPOs are still in the process of adopting PBPP, and several non-TMA MPOs have indicated that they are waiting for their respective SDOTs to provide guidance before implementing their own approach. Because non-TMA MPOs typically have fewer staff and resources than MPOs serving larger urbanized areas, they may find PBPP requirements more challenging. In reviewing the seven non-TMA MPOs used by FHWA for case studies and related research, and survey data from CUTR, the DOT observed the following points regarding non-TMA MPOs’ technical capacity for PBPP:

- **Staffing:** Staffing is a concern for non-TMA MPOs in implementing PBPP. According to the CUTR survey results, non-TMA MPO respondents are less likely to have staff dedicated to PBPP than those that plan for TMAs, and one third of respondent non-TMA MPOs report that PBPP has affected staff workload overall. Although uncertainty

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\textsuperscript{14} A transportation management area (TMA) is an urbanized area having a population of over 200,000, or otherwise requested by the Governor and the MPO and officially designated by FHWA and FTA (23 U.S.C. 134(k); 49 U.S.C. 5303 (k)(1)). Non-TMAs are Urbanized Areas that do not meet these requirements. The term “non-TMA MPO” is used throughout this report to describe an MPO planning for a non-TMA.
remains at this stage of implementation, many non-TMA MPOs anticipate that PBPP will increase staff workload or require reallocation of resources.

- **Data:** The five non-TMA MPOs that the team studied for future PBPP case studies cited data collection and monitoring activities required for effective PBPP as significant technical capacity barriers. Some noted that they have not historically collected or maintained their own datasets, and do not believe they have the resources to undertake these activities. They often look to their respective SDOT, private consultants, public transportation agencies, or other local partners for data they can use in creating performance measures.  

- **Collaboration:** All seven of the non-TMA MPOs studied for this report highlighted collaboration as an important strategy for implementing PBPP. Important collaboration partners include the SDOT, other MPOs, regional public transportation agencies, and Federal agencies (FHWA/FTA). Two of the MPOs that FHWA studied cited regional or statewide MPO coalitions as useful for coordinating performance measures and targets, pooling resources, and bolstering overall technical knowledge on PBPP. Some of the studied MPOs expressed a desire for more collaboration, particularly among area MPOs. Similarly, a non-TMA MPO respondent to the CUTR survey indicated that the agency has developed sample measures, but that a lack of collaboration with the SDOT has hindered the establishment of performance targets.

### Next Steps

The FHWA and FTA have been undertaking steps to implement Transportation Performance Management (TPM) and PBPP with the affected stakeholders, including the State DOTs, the MPOs, and the operators of public transportation. Current or planned activities such as workshops and training courses on TPM and PBPP implementation are underway.

In response to a recent recommendation from the Government Accountability Office, FHWA is developing an implementation plan to create a roadmap for implementation of TPM, which will

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15 23 CFR 450.314, Metropolitan Planning Agreements, requires that SDOTs, MPOs and public transportation providers update their Metropolitan Planning Agreements that reflect respective roles and responsibilities with respect to data collection, data analysis and reporting. These same agreements and working structure apply to consultation process for implementing Performance Measures. However, there are also additional requirements required in 23 CFR 453.314(h) related to performance management.

16 FHWA has acquired a national data set of average travel times for use in performance measurement. This National Performance Management Research Data Set is being made available to States and MPOs on a monthly basis to use for their performance management activities.

17 **Note:** Federal law requires States to establish performance targets for the Federal-aid highway program measures established pursuant to 23 U.S.C. 150 within 1 year following the issuance of final rules establishing performance measures (23 U.S.C. 150(d)) Federal regulation requires providers of public transportation to establish state of good repair performance targets within 3 months following the issuance of the Transit Asset Management Final Rule by FTA (49 CFR 625.45). The MPOs are required to establish performance targets no later than 180 days after the State or provider of public transportation establishes its targets ((23 U.S.C. 134(h)(2)(C): 49 U.S.C. 5303(h)(2)(C)) States and MPOs coordinate to the maximum extent practicable with operators of public transportation when selecting performance targets that address transit state of good repair and safety performance measures described in 49 U.S.C. 5326(c) and 49 U.S.C. 5329(d) respectively. (49 U.S.C. 5303(h)(2); 49 U.S.C. 5304(d)(2)) In establishing targets for the federal aid highway program, States and MPOs are required to coordinate to ensure consistency, to the maximum extent practicable. (23 U.S.C. 134(h)(2); 23 U.S.C. 135(d)(2)).
include the implementation of performance based planning and programming as part of TPM implementation.18

Conclusions

This report provides a snapshot in time of national progress on PBPP as well as insight into how SDOTs and MPOs are adapting PBPP for transportation planning and decisionmaking. In general, DOT observed that SDOTs and MPOs are transitioning toward adoption of PBPP. At this time, some agencies have developed more mature, comprehensive PBPP approaches that link long-range planning and project selection, while other agencies are waiting for the final requirements and guidance from FHWA and FTA.

The experiences of the SDOTs and MPOs with sophisticated PBPP approaches highlighted in FHWA’s PBPP case studies complement the finding that agencies’ use of PBPP evolves over time, often starting with a particular element or focus. Agencies can then integrate additional PBPP elements into their approach as they gain experience, establish board and stakeholder support, and build their capacity to use PBPP effectively.

The FHWA’s PBPP case studies also suggest that agencies often begin developing a PBPP approach in response to requirements. Many of the highlighted agencies began developing performance measures, targets, and project selection criteria in response to State or local requirements. In several cases, the agencies have evolved beyond the initial requirements to apply PBPP elements to additional processes or goal areas that reflect their State’s or metropolitan area’s policies and priorities, which can vary greatly across the country.

Because many of the FHWA and FTA requirements for performance management and PBPP have not gone into full effect for SDOTs and MPOs at the time of this study, this report provides a preliminary national assessment and snapshot of progress. Future analyses, including use of new data sources that will become available, will help FHWA and FTA evaluate adoption and effectiveness of PBPP in the future, using this report as a baseline to assess progress.

For non-TMA MPOs, it is too early to evaluate whether they will have the technical capacity to implement the requirements from MAP-21, the FAST Act, and PBPP rulemakings. However, this report’s preliminary findings suggest that they will benefit from clear FHWA/FTA guidance, technical assistance, and strong collaborations with their SDOTs, providers of public transportation, and neighboring MPOs as they establish their PBPP processes.

The DOT’s investigations resulted in several PBPP recommendations related to successful implementation of PBPP nationwide. These include some possible next steps for FHWA and FTA to support further PBPP adoption, including:

- Clear guidance about PBPP requirements and expectations;
- Targeted technical assistance;
- Highlighting notable practices, with methods, results, level of effort, timing, and lessons learned;
- Providing basic templates for PBPP elements or successful performance reporting; and

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18 The GAO report can be found at http://www.gao.gov/products/GAO-17-638.
• Opportunities for agencies to learn from their peers (e.g., peer exchanges, web forums, shared data bases and exchanges, etc.).