Impact Assessment Indicators for Administration of Public Transportation Grants

FINAL REPORT

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Executive Summary

This study examines the indicators that states' Departments of Transportation develop to evaluate the efficiency and effectiveness of their transit program administration activities. An online survey and follow-up case studies gathered such indicators from 27 state DOTs, the way the indicators are reported, and state officials' views on the effectiveness of the indicators in measuring administration performance.

The research team designed and conducted an online survey with 45 state DOTs. The survey included questions on:

- What indicators of transit program administration effectiveness and efficiency they use;
- What indicators they find most effective;
- How they report the indicators and make use of the report.

27 out of the 45 state DOTs responded to this survey. Among the 27 states responding to the survey, Missouri, Texas and Virginia were selected for more in-depth case studies. From the online survey and the case studies, a large number of indicators were reported. ES-Table 1 provides a summary of the indicators that are most representative in each of three aspects of transit program administration, (1) funding and program level, (2) funding administration, and (3) grantee support. For a complete list of indicators reported in the online survey responses, please see Appendix C.

ES-Table 1. Performance Indicators of Transit Program Administration Reported in Survey and Case Studies

Admin Area	Indicators	Target	State
Overall	Admin cost as % of total annual expenditure (in aggregate or by program)	Varies (e.g. 3%, 7%)	FL, MO, OR, VA, WV
	Actual expenditure to budget ratio	100% or less	MA, MO
	Program administration cost per trip supported by the program	Not used	MN
	Percent of partners indicated "Satisfied" or "Very Satisfied" with DOT in delivering transportation services	Not used	MO
Funding and Program Level	Total state and federal transit funding received/under contract/available in all open grants/active/planned projects/expended annually	Not used	AZ, IL, MO, NM, VA, TX
Funding Administration	Number of grants awarded/opened/managed	Not used	AZ, IL, TX, VA

	(Percent of)vendor invoices paid on time or time it takes to pay a requisition	Checks issued within 30/31 days from the invoice date	AZ, MO, OH, IL
	Operating/capital payments processed and to Finance on time	within 16 days of Operating Assistance Report or invoice	MI
	• Average number of days from sponsor project selection to project award (MO) • Time from grant application until time of grant award contract (IL)	Not used	IL, MO
	Percent of federal funds subject to forfeiture at the end of the fiscal year (Sept 30) committed by the department	100%	FL
	Staff hours per application review	Not used	WI
	Number of grants closed	Not used	AZ
Grantee Support	Staff hours per procurement	Not used	WI
	Number of subrecipient grantees served	Not used	VA
	Number of vehicles purchased/delivered to grantees	Not used	AZ, MO
	Average purchased vehicle delivery time	Less than 30 days	AZ
	Number of compliance program field visit technical support	Not used	TX
	Site visits for transit grantees' compliance with federal and state requirements	Annual visits to 50% of all 5309/5311/5316 grantees, and 33% of all 5310/MEHTAP grantees	MO
	Number of participants in transit training	Not used	MO
	Number of grant recipient compliance reviews completed	Varies from period to period	TX

Among the numerous indicators, some have been found used by several states, with minor variations. These commonly used indicators include:

- Administration cost as a percentage of total annual expenditure
- Total transit funding level
- Federal funding lapsed
- Timeliness of grant administration activities
- Provision of grantee support

State DOT administrators find them effective in measuring the overall administration efficiency, effectiveness of funding programming, timeliness of grant administration activities, and provision of grantee support. One caveat is that the change of the indicators over time may not be caused solely by changes in administration effectiveness and efficiency. Users of the indicators must understand the sources and circumstances of the indicators, and hence be able to correctly interpret the changes in the indicators. For example, factors such as funding level change, scope change of state DOT's administrative responsibilities, and policy changes, will affect some or all of the indicators above. That creates challenges for transit program administrators to accurately interpret and communicate the indicators to their audiences. It creates risks in broader use of the indicators and in trend analysis, cross program comparisons, or cross state comparisons.

Reporting performance indicators can take various forms. This research has found state DOTs use at least three reporting methods:

- strategic plans, or general planning documents setting out program changes and direction illustrated with the performance measures
- performance reports, or the assessment phase of strategic plans looking simply at recent history to assess performance relative to goals and objectives, and
- dashboards or graphic or tabular compilations of statistics including performance indicators.

Each method has its own advantages. Reporting in strategic plans is the broadest context and makes it easier for readers to align indicators with the history and strategic goals of the department or division. Reporting in performance reports provides a direct and central place for readers who look for performance results, and allows transit program administrators to explain the purpose, construct, target, and value of indicators. Reporting in dashboards is the most simple and straightforward way that serves an audience that is familiar with the indicators and the transit program administration process, or wants a quick, objective insight into the program. Depending on the targeted audience, the three reporting methods can be combined in ways that best serve a department's needs to communicate administration performance.

1. Background and Introduction

Significant research has been done on the efficiency and effectiveness of transit program funding, including increases in ridership; shifts from single occupant automobile travel; and benefits to specific transit objectives, such as mobility of traditional riders, reduction in pollution, and reduction in congestion, which are achieved relative to federal and state funding expended. It is important to measure these benefits and keep these measures and the ultimate objectives of the programs in mind. However, state transit administrators are also faced with a more specific part of this broader picture – how to cost effectively manage the administration of grant funds at the state level.

Much of the daily reality of the state grant administration lies in assisting local transit operators with challenging tasks, as well as monitoring their compliance with important and sometimes challenging grant requirements.

A pragmatic set of state measures can be developed from volume and output parameters, and measures of program administrative effectiveness and efficiency. The challenge will be to find the formulation of these measures that best reflects the administrative resources required relative to the accomplishments, while respecting transit funding program cost-effectiveness.

Figure 1 describes a typical transit program administration cycle, with activities and their sequence identified in the three major areas of state transit administration – funding and program level, funding administration, and grantee support.

Many states have developed performance indicators to measure the effectiveness and efficiency of their transit program administration. This study focuses on these indicators and seeks to provide answers to the following questions:

- What indicators are being used by state DOTs?
- Which indicators are proven most useful, and under what institutional and organizational environment?
- How are the indicators tracked and reported?
- In what ways do the indicators inform decision making regarding program administration process improvement?

In this report, we will introduce the research approach we undertook in Chapter 2, present and analyze the research findings in Chapter 3, recommend a framework of utilizing potential indicators for performance measurement in Chapter 4, and end it with our conclusions and suggestions for further research.

Figure 1. State DOT Transit Program Administration Activities and Process

1. Funding Advocacy and Application

- State Transit Program Design & Management
- Making Federal Grant Application
- Securing State Match/Appropriation

2. Funding Allocation and Administration

- Funding and Allocation
- Receiving and Reviewing Grant Applications
- Eligibility and Selection of Grant Applications
- Making Grant Awards
- Administration and Reimbursement of Grants
- Audit
- Closeout

3. Grantee Support

- Local transit training
- State vehicle procurements
- Inspections
- Local transit planning,
- Construction management
- Drug and alcohol testing
- Compliance assistance
- MAP-21 (asset management plans, performance targets, safety plans)

2. Research Approach

The research team took a two-step approach in this study. First, a survey of all fifty state DOTs was conducted to gather performance indicators of transit program administration, and how state DOT officials make use of the indicators for purposes such as decision making and process improvement. Second, three states were selected for in-depth case studies, so the research team could comprehensively learn about the experience, perspectives, and considerations of the transit program administrators of those states on using the performance indicators they selected. Since the utility of indicators varies from state to state, the case studies also provided opportunities for the research team to get the interviewees' opinions on indicators adopted by their peer states, which revealed the utility or inapplicability of indicators from an independent perspective.

Based on the findings of the online survey and the case studies, the research team assembled a list of performance indicators that state DOTs have used. The ones that are commonly used and proven effective were analyzed in detail regarding how they are measured, tracked, reported and tied to decision making. Recommendations were made on how state DOTs could make use of those indicators for performance tracking purpose and what caveats they need to observe when tracking and interpreting the indicators to inform decision making[1].

2.1. State DOT Survey

In order to learn about the performance indicators state DOTs use for their transit program administration, the research team developed an online survey and distributed it to DOT officials from all fifty states. The survey included the following six questions:

- Do you currently use any measure(s) for the effectiveness and efficiency of the administration of state grant programs? If so, what are they?
- What measure(s) do you find most useful in guiding the administration of state grant programs?
- Are there any periodic reports or one-time studies of efficiency and/or effectiveness of the administration of state transit grant programs? If so, could you provide samples of them?
- Do you use any measure(s) for the turnover rate of state-administered grants, i.e. how fast the state-administered grants are appropriated to the grantees or subrecipients? Please list the measure(s) that you currently use for state-administered grant turnover rate.

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[1] In an earlier version of the project work plan, a dashboard-like performance tracking tool was proposed as a research product. The tool would encompass a list of performance indicators that are found effective through surveying state DOTs. It would be recommended as a best practice tool for all state DOTs that administer transit programs. However, a discussion with the research panel at the beginning of the study concluded that the varying administration processes and scopes among state DOTs cannot justify the use of a universal tool. Comparison of the indicators' results across states could be misleading. Therefore this research product was eliminated from the work plan. Instead, it is recommended that each state DOT develop its own performance indicators and set its own performance targets if applicable

- Do you use any measure(s) for grant administration cost-effectiveness? Following are two examples of such measures. Please list the measures that you currently use.
    - Total administrative cost as a percentage of grants awarded in the period
    - Total administrative cost as a percentage of grants appropriated/expended in the period
- Is there any formal procedure(s) according to which the measures you listed in the previous questions are used to improve administrative effectiveness and efficiency? (For example, a goal setting program or a mandated reduction in administrative burden rate) If so, please briefly describe the procedure and/or provide the governing document if available.

For the complete survey instrument, please see Appendix A.

The survey was created on SurveyMonkey.com, an online survey host site. An e-mail was sent to the transit program administrators of state DOTs with a link to the online survey. After the initial e-mail distribution, two reminder e-mails were sent to follow up with the state DOT officials who had not responded. A total of 45 states were surveyed. Excluded were the five[2] where the state directly operates substantial transit services, because accounts and indicators in these states would include direct operating data. Out of the 45 states, the following 27 responded to the survey:

Table 1. State DOTs that Responded to the Online Survey

- Alabama
- Arkansas
- Arizona
- California
- Florida
- Hawaii
- Illinois
- Indiana
- Kansas
- Massachusetts
- Michigan
- Minnesota
- Mississippi
- Missouri
- Montana
- Nebraska
- New Hampshire
- Ohio
- New Mexico
- Oregon
- Pennsylvania
- South Carolina
- South Dakota
- Texas
- Virginia
- West Virginia
- Wisconsin

The survey results were exported from SurveyMonkey.com for documentation and analysis. Based on the survey results, three states were selected for in-depth case studies because they demonstrated through the survey more comprehensive utilization of performance indicators and expressed willingness and interest in being a case study.

2.2. State DOT Case Studies

Missouri, Texas and Virginia were selected for more in-depth case studies. A case study guide was created to help the research team gather comprehensive and consistent information from the interviews with transit program administrators from the three states. Appendix B is the case study guide used for the interviews. Interviews with Missouri and Texas were conducted over the phone and

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[2] Rhode Island, Connecticut, Delaware, Maryland, and New Jersey.

followed up by emails to clarify any remaining questions. The interviews with Virginia Department of Rail and Public Transportation (VDRPT) were conducted in person at VDRPT's headquarters in Richmond, VA. The feedback obtained from the interviews, together with the survey responses, became the major basis of "Chapter 3. Findings" of this report.

3. Findings

3.1. Indicators in Use Reported

The 27 state DOTs responded to the online survey identified a large number of performance indicators, many of which are commonly used by more than one state, while others are unique to specific states. Table 2 is a summary of the reported indicators that groups similar indicators in one row, and organizes the indicators into the three areas of state transit program administration, i.e. (1) funding and program level, (2) funding administration, (3) grantee support, as well as a fourth area (4) overall efficiency and effectiveness.

Table 2. Performance Indicators Reported in Survey and Case Studies

Admin Area	Indicators	Target	State
Overall	Admin cost as % of total annual expenditure (in aggregate or by program)	Varies (e.g. 3%, 7%)	FL, MO, OR, VA, WV
	Actual expenditure to budget ratio	100% or less	MA, MO
	Program administration cost per trip supported by the program	Not used	MN
	Percent of partners indicated "Satisfied" or "Very Satisfied" with DOT in delivering transportation services	Not used	MO
Funding and Program Level	Total state and federal transit funding received/under contract/available in all open grants/active/planned projects/expended annually	Not used	AZ, IL, MO, NM, VA, TX
Funding Administration	Number of grants awarded/opened/managed	Not used	AZ, IL, TX, VA
	(Percent of)vendor invoices paid on time or time it takes to pay a requisition	Checks issued within 30/31 days from the invoice date	AZ, MO, OH, IL
	Operating/capital payments processed and to Finance on time	within 16 days of Operating Assistance Report or invoice	MI
	• Average number of days from sponsor project selection to project award (MO) • Time from grant application until time of grant award contract (IL)	Not used	IL, MO
	Percent of federal funds subject to forfeiture at the end of the fiscal year (Sept 30) committed by the department	100%	FL

	Staff hours per application review	Not used	WI
	Number of grants closed	Not used	AZ
Grantee Support	Staff hours per procurement	Not used	WI
	Number of subrecipient grantees served	Not used	VA
	Number of vehicles purchased/delivered to grantees	Not used	AZ, MO
	Average purchased vehicle delivery time	Less than 30 days	AZ
	Number of compliance program field visit technical support	Not used	TX
	Site visits for transit grantees' compliance with federal and state requirements	Annual visits to 50% of all 5309/5311/5316 grantees, and 33% of all 5310/MEHTAP grantees	MO
	Number of participants in transit training	Not used	MO
	Number of grant recipient compliance reviews completed	Varies from period to period	TX

Even though all survey respondents provided useful information in their first and follow-up responses, it is possible that their responses did not exhaust all performance indicators of transit program administration used in their departments for various reasons. In fact, seven out of the 27 states reported no performance indicators are being used in their departments. From the research team's knowledge and experience, however, some respondents may have interpreted the survey too narrowly or otherwise underreported the actual use of indicators. For example, only six out of 27 states explicitly reported that they track the amount of transit funding in some way; whereas it is known that funding amount is a closely tracked number in various documents of all state DOTs. But we believe with input from 27 states, this summary in Table 2 is a systematic representation of the most relevant and critical indicators.

3.2. Effectiveness of the Commonly Used Indicators

In this part of the report, we discussed the effectiveness of the most commonly used indicators among state DOTs. These most popular indicators measure one of the following aspects of state transit program administration:

- Overall administration efficiency
- Effectiveness of funding advocacy and funding programming
- Timeliness of grant administration activities

- Provision of grantee support

The survey and case studies revealed that state DOTs constructed indicators to measure similar aspects of program administration. This section explores these indicators and the variations among them, what these indicators measure, how the variations serve different purposes of states, how to interpret the value of such indicators and any caveats there may be.

Administration Cost as a Percentage of Total Annual Expenditure
This is an indicator of overall administration efficiency. The internet survey shows that at least five out of 27 state DOTs track this indicator.

The most common form of this indicator takes the administration cost (or total direct cost) of a state DOT's public transit division and divides it by its total annual budget, which is the aggregate of all transit funding budgeted for that fiscal year under the state DOT's administration. Although there is widespread appreciation of this ratio, and it conveys some useful information, there are also significant concerns about its use. Our recommendation is that if it is used, it should be accompanied with other data, particularly concerning the portion of total direct cost that is expended on technical assistance, compliance, and acticities other than grant administration.

Value of Cost as a percentage of Total Expenditure
From the perspectives of all key stakeholders such as FTA, state, transit operating grantees, and transit users, it is desired that as much of transit funding gets allocated to transit operating grantees for service delivery as possible. Therefore, a lower percentage is desired for this indicator. That implies it is positive for state DOTs to increase their administration efficiency to control their administration costs, given the same level of responsibilities is maintained. This is a straightforward indicator of a state DOT's overall transit administration efficiency. It is analogous both to an overhead expense ratio in the private sector, and to the fund-raising burden rate often used in non-profit enterprises.

An implicit assumption behind this indicator is that total administration cost is correlated with funding level. This may be based on two perspectives:

- Causation: if changes in funding amounts reflect a change in the administrative steps required (e.g. an increase or decrease in the number of recipients or the number of grant programs per recipient) or in general labor cost levels (i.e., inflation), then one would expect administrative costs to increase or decrease with those changes in funding amounts;
- Best use of money: if too little is spent on administration, the utilization of the funding and its effectiveness will suffer, but if too much is spent, then the effectiveness of the funding will be diluted as less is directed to the program's objects. When overall funding decreases, to the extent the administrative processes can absorb a decrease, they should, so that the direct spending does not reflect the full decrease, while if overall funding increases, it may be possible to increase administrative spending (e.g. with additional grantee support) to maintain or improve effectiveness without reducing the proportion spent directly on program objectives.

Concerns Regarding Cost as a percentage of Total Expenditure

A major caveat to the assumptions is that administration cost often does not vary proportionally with funding level, i.e., increases or decreases in funding for transit do not always directly cause increases or decreases in administrative expense required. Because state transit funding is largely discretionary and Federal programs have been volatile, administration costs tend to be more stable than funding level. DOT staff size may be relatively stable, and increases in funding do not necessarily add to a state administration's workload. For example, if there were a simple restoration of funding to programs that had been cut, increasing the authorized funds in each category while keeping the number of recipients and grants stable, there may be little need to increase grant administration effort. For reasons such as this, TxDOT chose not to use this indicator.

It is also possible that the responsibilities of state transit administration change without changes in grant funding, and these changes affect administrative costs even if efficiency is unaffected. For example, when a state decides to procure transit vehicles with federal funding for its subrecipients, the administration costs of the state will increase due to the expanded responsibilities; for the year this change occurs, one would observe an increase in the administrative cost percentage when other factors are constant. This concern applies particularly to such transfers of responsibility between the state and its subrecipients, because a function performed at the state level will increase the state administrative costs without changing the total, whereas one devolved to the local level will reduce the state administrative costs without changing the total (assuming the cost to perform the function is the same at the state or local level).

Some states establish targets for this indicator. Such targets range from 3% to 10%. The variation from state to state is partly a result of the varying scope of responsibilities of different state DOTs. For example, some state DOTs provide more technical support in areas of transit service planning, procurement, FTA compliance, etc., while other states are less involved in such areas; hence there are inherent differences in administration cost levels across states. For that particular reason, comparing this indicator across states may not provide any meaningful insight.

Even if cross-state comparisons are avoided and attention is focused on historical trends, to interpret the historical trend of this indicator requires scrutiny especially for states and periods with significant changes in funding level or in state transit respoinsibilities.

The direct tie between the extent of grantee support activities and the total state administrative cost is a major concern. At least one state (Minnesota, as was found in the survey) tracks the total administrative cost for each program. Conceptually, pure grant administration programs can be separated from grantee support programs, and the combined administrative cost as a percentage of the grant programs (without the administrative cost of support activities) can be monitored. This requires separate expense accounts and payroll time tracking for each program.

The administrative cost as a percentage of the total program is of such widespread interest that an improvement in this indicator may be worth considering. A significant improvement would result if all state transit administrative costs were tracked in simply two categories: grant program administration, and other (grantee support, technical assistance, planning, and research.) If all time and expenses were

charged to either grant program administration or "other," then administrative expense as a percentage of the total grant program could be reported and monitored, and the productivity of the other programs could be managed separately.

Total Funding Level
In addition to accounting and budgeting purposes, total funding level indicates a number of factors:

- the overall size of the state's transit program and the extent of public assistance provided to transit
- the output of the transit division, which can be viewed as related to the workload for the division, as discussed and with the caveats mentioned above
- the effectiveness of transit advocacy for transit funding, including the state DOT's own advocacy where that is supported, and to inform funding programming.

Even though only six out of 27 state DOTs identified it as a performance indicator of transit program administration in the survey, all state DOTs measure and report transit funding level in some way. Depending on the way funding level is measured and reported, it could serve various purposes and reveal multiple aspects of transit administration effectiveness and efficiency.

Among what were reported in the survey and what was found through internet research, the following are some examples of how state and federal transit funding level is measured by state DOTs:

- Total funding *received* (legally committed by appropriation or by FTA grant to the transit division's programs) in a given year
- Total funding *under contract with recipients* (total contract value, whether expended or not) at a given time
- Total funding *available in all open grants* (total contract value less amounts already expended under those grant contracts) at a given time
- Total funding *expended* in a given year
- Total funding *approved by the governing commission(or value of new grant contracts state DOTs entered into with recipients to provide funds)* in a given year (sometimes abbreviated "commitments" or "encumbrances")

Each variation in measuring funding level reveals a different aspect of transit administration. A well designed measurement could become a very informative indicator. Below is an example from TxDOT in its Public Transit Division's March 2014 performance report (see Figure 2). It reported FY2007 – FY2014 grant funds of active and planned projects in four categories, "Unprogrammed", "Programmed – Not Contracted", "Programmed – Contracted (Not Expended)", and "Programmed – Contracted (Expended)". The chart provides a quick snapshot of transit grant funds under the state's administration. One could get different pieces of useful information from the chart depending on his or her role and interests. For example, a relatively small but still significant amount of FY2007 grant money has not been expended yet, which reminds the administrator that aged grant money should be expended first, if possible, to

avoid the risk of forfeiture; similarly, the active grants of FY2007 through FY2009 should be expended and closed as soon as possible. It also tells readers that a substantial portion of FY2013's grant funds have not been programmed yet.

Figure 2. Transit Grant Programming and Expending
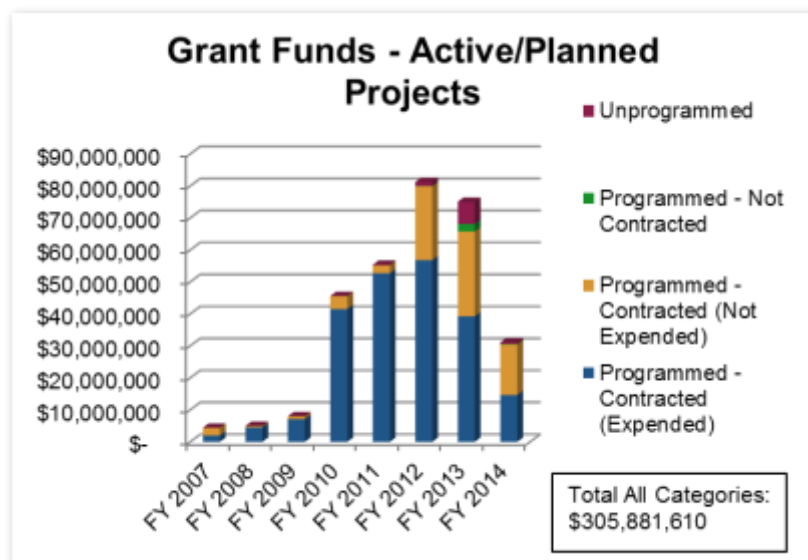
(Source: February 2014 Monthly Performance Report, Texas Department of Transportation – Public Transportation Division)

Federal Funding Lapsed

This is an indicator that evaluates funding programming.

In addition to the overall level of funding, the TxDOT example illustrates that effective use of available funding is also important. As opposed to measuring how much funding is made available for transit in the state, indicators are also found that measure how much funding reverted to the funder. FTA encourages that the oldest grant funding be disbursed first and sets a date, beyond which unexpended funding will lapse.

It is to the advantage of every state DOT to avoid funding reverting to FTA, and hence the need for indicators that inform the administrator how well they manage to avoid funding reversion. For example, Florida DOT tracks the percentage of federal funds subject to forfeiture at the end of the fiscal year committed by the department. The desired measure for this indicator should always be 100%, which implies no funding has reverted to FTA.

Timeliness of Grant Administration Activities

Indicators that measure timeliness are found for activities that are standardized and time sensitive. They reflect the efficiency of specific procedures of transit program administration. Table 3 is a summary of some typical indicators of activity timeliness.

Table 3. Performance Indicators – Timeliness of Transit Program Administration Activities

Activity Timeliness Indicator	Target	State
(Percent of)vendor/grantee invoices paid on time or time it takes to pay a requisition	Checks issued within 30/31 days from the invoice date	AZ, IL, MI, MO, OH
Time from grant application until time of award, or Time from award until time of contract, or Time from grant application until time of contract		IL, MI, MO, OR

The timeliness of grant administration activities is of great interests not only to state transit administrators for efficiency reasons, but also important to transit operating grantees. Since transit service relies heavily on state and federal funding programs, the operation cycles of transit operators are often planned based on state transit program administration cycles. Grant application deadlines, application review, grant award and contract, vehicle procurement and delivery, invoice processing and payment, among other activities, if not carried out according to a predetermined schedule, will all compromise the transit service quality and costs of the grantees. Therefore the timeliness indicators are established to track if the major administrative activities are implemented on time. In an economic sense, the grant funds have a time value; once a legislator (or FTA) knows the approved funds are available, they want no unnecessary delays in the use of the funds, and both funders and operating agencies are aware that inflation will reduce the amount of service offered as time passes.

The most commonly used indicator in this category, according to the survey, is timeliness of grantee invoice processing and payment. States have a fairly uniform standard for this procedure, i.e. issuing checks within 30 or 31 days from the invoice date. The indicator, however, has a few variations. Some states measure the percentage or number of invoices paid on time, while the others choose to measure the average time it takes to pay an invoice. The former is a more effective indicator if the administrator emphasizes punctuality and would like to have all invoices paid on time. The latter is a more effective indicator if the administrator emphasizes average efficiency.

Several states track the time a step in the grant application and review cycle takes the state administration to complete, e.g. time from receipt of grant applications, to award, and to contract. The target could be duration of time, such as 10 days, or a specific calendar date, such as Oct 1 or within ten days of the final appropriation bill.

Provision of Grantee Support

Part of state DOT's responsibility in transit program administration is to provide support for its grantees in various areas of operations, most typically transit service planning, procurement, compliance, and training. Vehicle procurement and testing for drug and alcohol are support activities undertaken by some states. Many states adopt indicators to measure how much support is provided to grantees. Some have indicators of the efficiency and effectiveness of their support provided.

Table 4 shows five indicators of how much support state DOTs provide for their grantees. The indicators are mostly in the form of numerical count. Depending on a state DOT's responsibilities in grantee support, they can develop indicators that best measure the amount of support provided. The indicators can be result-oriented, like number of vehicles purchased or number of participants trained, or activity-based, such as number of site visits for compliance assistance, or a combination of both.

It is common that states set targets for their indicators of amount of support provided. When a certain kind of support is regularly performed and the need is stable, setting a specific and constant target over time is meaningful, as in the case of measuring number of site visits for compliance assistance in Missouri. The state can compare the indicator to its target over time to draw insights on any change in efficiency and effectiveness in providing such support. But the amount of some other support may vary greatly from year to year, as the need is unstable. For instance, unless fleet replacement has been planned and smoothed, the indicator, *number of vehiclse purchased*, would need a year-specific target, as vehicle replacement is often not constant from year to year.

Table 4. Performance Indicators – Amount of Grantee Support Provided

Indicators	Target	State
Number of grantees served		VA
Number of vehicles purchased/delivered to grantees		AZ, MO
Number of compliance program field visit technical support		TX
Site visits for transit grantees' compliance with federal and state requirements	Annual visits to 50% of all 5309/5311/5316 grantees, and 33% of all 5310/MEHTAP grantees	MO
Number of participants in transit training		MO

The expense of support activities is generally included in the division's total administrative cost, and is therefore reflected in the overall indicator of administration expense as a percentage of total division funding. The research found few other indicators related to the efficiency or effectiveness of support activities beyond the activity level indicators listed above. Two exceptions were:

- average purchased vehicle delivery time is tracked by Arizona to monitor the effectiveness or quality of this program, and

- staff hours per procurement is tracked by Wisconsin to monitor the efficiency of the procurement activity.

Because support activities are often discretionary on the part of the state, and some are within the discretion of the transit division, more focus on the efficiency and effectiveness of these activities may be warranted. If expense is separated between grant administration and other activities, with grant administration expense as a percentage of funding level as an indicator, with will be natural to consider effectiveness and efficiency indicators of the support activities. The level of activity and the percentage of subrecipients choosing to avail themselves of the support would be indicators of effectiveness, while cost per drug and alcohol test or per employee, cost per employee trained or per classroom hour, like procurement cost per vehicle procured would be typical efficiency indicators.

3.3. How Indicators Are Reported

In the examples identified through the internet survey and the case studies, performance indicators are reported either in a special performance report or as part of a strategic plan. Indicators are tracked and reported for internal as well as external audiences. Performance reports are often primarily for internal use, while strategic plans are publicly available documents.

Internally, management of state DOTs rely on the indicators to evaluate administration performance, identify areas of deficiency, and seek ways to improve effectiveness and efficiency. Externally, state DOT administrators demonstrate through the indicators to key stakeholders such as transit operating grantees, transit users, state and federal funding agencies, and the general public how responsibly their departments or divisions utilize the resources allocated and whether they provide quality services to their grantees. Therefore, effective communication of performance indicators is not only critical for continuous improvement internally, but ultimately could help funding advocacy by demonstrating effective and efficient program administration.

Reporting in Strategic Plans

Reporting performance indicators in strategic plans is found to be quite common among state DOTs. One obvious benefit of doing it is state DOTs can tie performance indicators to the strategic goals of the department or a division. Readers can easily align indicators to strategic goals and understand how well the organization performed in the report period in relation to such strategic goals. Within the context of a strategic plan, one can quickly identify, if an objective or goal is missed, what parts of the organization are concerned, what the possible causes may be, and what resources are required for remediation. This way the reported performance indicators directly contribute to the organization's strategic planning. The indicators are a key element of the feedback loop from performance and results into program planning and design.

On the other hand, strategic plans do and should change over time. As differing challenges are identified and as state policy changes, differing goals and objectives are set and among the continuing goals, differing emphasis is applied. Such changes in goals and objectives require changes in performance indicators, making trend analysis over time difficult or impossible (e.g., in the case of a new indicator that cannot be recreated for past periods).

Reporting in Performance Report

In several states, DOTs publish performance reports, either for internal use only or publicly. Such reports serve a simple purpose of tracking administration performance. They typically include all performance indicators formally tracked by the department or division, data for the report period and historical trends, targets, as well as a brief explanation of why an indicator gets measured and how to interpret the results. This is the most direct way of reporting performance indicators. It is suited to serve those who are familiar with the public transit division and the transit program administration process, e.g. employees of the public transit division and transit operating grantees served by the division.

Reporting with a Dashboard

Several states developed a dashboard-like tool for reporting indicators of administration performance of their transit programs. A dashboard is essentially a simplified version of a performance report. Since a dashboard contains minimal amount of information about any given indicator, it works well for an audience that is familiar with the indicators, what they measure, and how to interpret the indicators' values and changes over time, as well as with audiences that have very limited time to understand performance.

States can use a combination of the above ways to report performance indicators, depending on who their targeted audiences are and what format works best in their respective organizational structure and culture.

3.4. Recommendations and Conclusions

State DOTs have found indicators of various kinds effective in measuring and communicating to targeted audiences their transit program administration efficiency and effectiveness. The best constructs, targets, and reporting methods of indicators for a department or division are dependent on the unique nature of transit programs of the department or public transit division.

Even though there are no one-size-fits-all indicators, some practices have been proven effective in designing indicators for measuring administration performance. Here is a brief summary of such practices.

Indicators Selection and Design

A survey of state DOTs have shown successful experience in tracking and reporting performance indicators in four major aspects of transit program administration:

1. Overall administration efficiency
2. Effectiveness of funding advocacy and funding programming
3. Timeliness of grant administration activities
4. Provision of grantee support

The most commonly used indicator of overall administration efficiency is *administration cost as a percentage of total annual expenditure*. It takes into account the administration cost of all state DOT's administrative activities in transit program administration. It is a simple and easy to understand indicator, and works particularly well when transit funding is stable and state DOT's responsibilities remain the same over time. Then one could compare the indicator over several years to observe the trend of administration efficiency – whether it has been increasing or decreasing. However, if transit funding fluctuates severely over time, the change in the indicator may be caused substantially by the change in funding level rather than revealing anything about cost or efficiency. On a separate note, since the scope of responsibilities varies from state to state, this indicator should not be compared across states.

Among the drawbacks of the *administration cost as a percentage of total annual expenditure* is that it responds equally to grant administration costs and to grantee support, technical assistance, research and other costs which are more discretionary. States should consider separating grant administration costs from support and compliance costs, and computing *purely administrative costs as a percentage of total grant funding administered*. Even in the states that implement this, there will continue to be an audience for the percentage of total funds used at the state level. For this reason, we suggest that states that implement this change should also compute *other transit program costs as a percentage of total grant funding administered*, which would included subrecipient support and compliance costs. The sum of the two will be similar to the traditional *administration cost as a percentage of total annual expenditure.*

For the effectiveness of funding advocacy and funding programming, state DOTs use a series of variations of (1) total funding level and (2) amount of funding reverted.

State DOTs developed a wide variety of measures of total funding level:

- Total funding *received* in a given year
- Total funding *under contract with recipients* at a given time
- Total funding *available in all open grants* at a given time
- Total funding *expended* in a given year
- Total funding *approved by the governing commission* in a given year

A well-designed combination of some of the above indicators or a skillfully constructed indicator can reveal many aspects of transit program administration. For instance the stacked bar chart that TxDOT uses to track funding programming and spending.

Figure 3. Transit Grant Programming and Expending
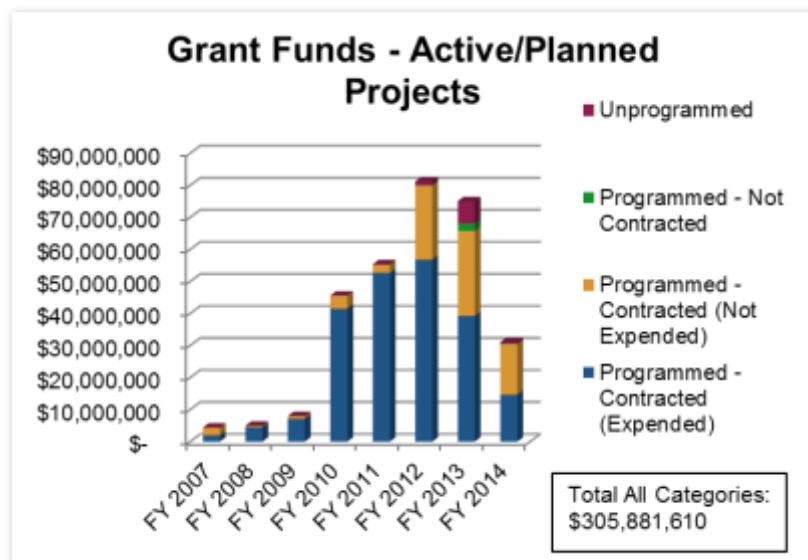
State DOTs also track *funding reverted to Federal Transit Administration* (FTA). FTA encourages that the oldest grant funding be disbursed first and sets a date, beyond which unexpended funding will lapse. Effectively using available funding is important. Florida DOT tracks the percentage of federal funds subject to forfeiture at the end of the fiscal year committed by the department. The desired measure for this indicator should always be 100%, which implies no funding has reverted to FTA.

Six of 27 state DOTs reported that they adopt a wide range of indicators to measure timeliness of grant administration activities, typically those that are standardized and time sensitive. They reflect the efficiency of specific procedures of transit program administration. Most common indicators of this kind measure *time required to pay an invoice* and *time from receiving grant application to grant award* and *to contracting*. The indicators can be designed to report the duration of an activity, or to track whether or not an activity is completed by a predetermined date.

Grantee support is another area of transit program administration for which state DOTs adopt performance indicators. States track the amount of support provided for grantees, and the effectiveness and efficiency of support provided. Indicators of amount of support measure the number of activities performed, e.g. number of visits to grantees for compliance assistance, or results of the support, e.g. number of vehicles purchased. Indicators of support effectiveness and efficiency are not widely reported. The only two indicators of this kind that we found in the online survey measure the average purchased vehicle delivery time, and staff hours per procurement. Because grantee support and other activities not required for grant administration (such as research or technical assistance) are more discretionary than grant administration activities, these areas may warrant more focus in any expansion of performance indicators. Separating grant administration expense from other state transit administration expense will facilitate the reporting of efficiency measures for support programs.

Reporting Methods

State DOTs report their performance indicators mainly in three ways, (1) in strategic plans, (2) in performance report, and (3) dashboard. Each way has its benefits and works well for certain audience. For example, reporting in strategic plans makes it easy for audience to align performance with strategic goals of the organization; reporting in performance report provides a direct and centralized source of performance information; reporting in dashboard is most suitable for internal and external audience who are very familiar with transit program administration activities, as it provides a quick, but only brief summary of performance measures. States should choose a combination of the above ways to report performance indicators, based on who their targeted audiences are and what format works best for their respective organizational culture and their relationship with grantees.

Appendix A   Online Survey Instrument

Survey for NCHRP 20-65(49) Impact Assessment Indicators for Administration of Public Transportation Grants

This survey is carried out as part of a study (NCHRP 20-65(49): *Impact Assessment Indicators for Administration of Public Transportation Grants*) under the National Highway Cooperative Research Program of Transportation Research Board. This study seeks to understand what measures state Departments of Transportation use to manage public transit grant programs in a cost-effective manner, so as to recommend a framework by assembling the best practices to help state administrators better measure productivity and manage state grant program activities. (Please note that the focus of this study should be distinguished from the more prevalently researched topic, efficiency and effectiveness of program funding, which includes increases in ridership, shifts from single occupant automobile travel to public transit, improved mobility for targeted population, and environmental benefits, relative to federal and state funding expended.)

Following are six questions asking what measures your state DOT uses to manage the state public transit grant program. Your responses will be valuable to this study. Thank you for your participation and input. If you have any questions regarding this survey, please contact Viktor Zhong at (703) 340-3068, or viktor.zhong@aecom.com.

1. Do you currently use any measure(s) for the effectiveness and efficiency of the administration of state grant programs? If so, what are they?

2. What measure(s) do you find most useful in guiding the administration of state grant programs?

3. Are there any periodic reports or one-time studies of efficiency and/or effectiveness of the administration of state transit grant programs? If so, could you provide samples of them?

4. Do you use any measure(s) for the turnover rate of state-administered grants, i.e. how fast the state-administered grants are appropriated to the grantees or subrecipients? Please list the measure(s) that you currently use for state-administered grant turnover rate.

5. Do you use any measure(s) for grant administration cost-effectiveness? Following are two examples of such measures. Please list the measures that you currently use.
   - Total administrative cost as a percentage of grants awarded in the period
   - Total administrative cost as a percentage of grants appropriated/expended in the period

   _____

6. Is there any formal procedure(s) according to which the measures you listed in the previous questions are used to improve administrative effectiveness and efficiency? (For example, a goal setting program or a mandated reduction in administrative burden rate) If so, please briefly describe the procedure and/or provide the governing document if available.

   _____

We appreciate your participation in this survey. Please provide your contact information below. One of the consultants for this study may contact you for additional information regarding your responses above. The project team may also get in touch with you if your state DOT is selected for a case study in the next phase of the study.

Name: _____
Affiliation: _____
Position: _____
Phone: _____
Email: _____

Appendix B   Case Study Interview Guide

NCHRP 20-65(49) State Impact Assessment Indicators
Interview Questions Outline

1. We have a list of performance indicators transit program administration activities, which were provided by _____ in response to our online survey. We would need your help understanding:
   - What do they measure?
   - Why were they initiated?
   - How have they been used?
   - Are they proven effective? If so, in what regards?
   - Is there any indicator being used but missing from this list?

2. Is there any other indicator(s) under consideration/development?
   - What is it?
   - Why is it of interest?
   - What is the plan for initiation and implementation?

3. How are data collected for the existing indicators? What are the data sources?

4. How are the indicators reported and used?
   - Are the indicators reported in any periodic reports, e.g. performance report or strategic plan?
   - Is there a tool to generate and track the indicators?
   - How are the reported indicators used? Are they used for goal setting, process improvement, or other purposes? Are targets set for the indicators?

5. Would you consider adopting indicators in the following areas that some state DOTs are currently using?
   - Timeliness of grant administration activities (elapsed time to completion, turnover rate)
   - Work completed, e.g. number of grants opened/closed
   - Administration costs and resources employed
   - Compliance and compliance assistance for grantees
   - Total funds provided (% of federal formula funds, % of state appropriations)
   - Others

Appendix C A Complete List of Indicators Reported in Survey

Table A - 1. A Complete List of Indicators Reported in the Online Survey Responses

Indicators	Target	States
Overall		
Admin cost as % of total annual expenditure (in aggregate or by program)	Varies (e.g. 3%, 7%)	FL, MO, OR, VA, WV
Actual expenditure to budget ratio	100% or less	MA, MO
Public Transit Division budget excluding grants	Vaires from period to period	TX
Full year budget	Varies from period to period	TX
Number of Full Time Equivalent Employees	Varies from period to period	TX
Program administration cost per trip supported by the program	Not used	MN
Percent of partners indicated "Satisfied" or "Very Satisfied" with DOT in delivering transportation services	Not used	MO
Funding and Program Level		
Total state and federal transit funding received/under contract/available in all open grants/active/planned projects/expended annually	Not used	AZ, IL, MO, NM, VA, TX
Precision of state and federal revenue projections - percent variance between projected and actual revenues	Not used	MO
Funding Administration		
Number of grants awarded/opened/managed/Active	Not used	AZ, IL, TX, VA
(Percent of)vendor invoices paid on time or time it takes to pay a requisition	Checks issued within 30/31 days from the invoice date	AZ, MO, OH, IL
Operating/capital payments processed and to Finance on time	within 16 days of Operating Assistance Report or invoice	MI
• Average number of days from sponsor project selection to project award (MO) • Time from grant application until time of grant award contract (IL)	Not used	IL, MO

Indicators	Target	States
Percent of federal funds subject to forfeiture at the end of the fiscal year (Sept 30) committed by the department	100%	FL
Staff hours per application review	Not used	WI
Number of grants closed	Not used	AZ
Plan in place for distribution of all state operating assistance appropriated funds within 10 days of October 1st or of the final appropriations bills (if late)	On time completion	MI
Review Transit Agency Cost Allocation Plans within two weeks of receipt.	On time completion	MI
Prior year reconciliations (for state operating assistance) completed w/in nine months of end of State FY.	On time completion	MI
Initiate checklist 30 days after request for match.	On time completion	MI
Annual capital match plan within 60 days of the final federal register and results communicated to each transit agency.	On time completion	MI
Review and provide comment letters on all transit programs within 30 days of receipt.	On time completion	MI
Submit Section 5311 grant within 30 days of federal register and other program grants by federal deadlines.	On time completion	MI
Issue Specialized Services contracts within 30 days of start of the fiscal year (or later if no appropriations bills)	On time completion	MI
Operating/capital payments processed and to Finance within 16 days of OAR or invoice.	On time completion	MI
Audit close outs completed w/in 9 months of the last audit due date.	On time completion	MI
By October have the Local Public Transit Revenue and Expenses Manual (guidance for state operating assistance) ready to print for next application cycle.	On time completion	MI
Email information about annual application package to tansit agenices each November.	On time completion	MI
Next fiscal year's state operating assistance percentage rate estimates available to transit agencies by July of each year	On time completion	MI
State Operating assistance payments released to transit agencies by first of the month.	On time completion	MI

Indicators	Target	States
Conduct three-year compliance and maintenance reviews for federal subrecipients (Section 5310 and 5311) as they come due.	On time completion	MI
State Operating assistance payments released to transit agencies by first of the month.	On time completion	MI
Grant allocation date	Not applicable	MA
Grant contract date	Not applicable	MA
Response to and close-out of FTA state management review findings	Completion	AZ
Grantee Support		
Staff hours per procurement	Not used	WI
Number of subrecipient grantees served	Not used	VA
Annual repair expenditures from Transit Vehicle Disposition Fund	Not used	MO
Number of vehicles purchased/delivered to grantees	Not used	AZ, MO
Average purchased vehicle delivery time	Less than 30 days	AZ
Number of compliance program field visit technical support	Not used	TX
Site visits for transit grantees' compliance with federal and state requirements	Annual visits to 50% of all 5309/5311/5316 grantees, and 33% of all 5310/MEHTAP grantees	MO
Number of participants in transit training	Not used	MO
Number of grant recipient compliance reviews completed	Varies from period to period	TX
Complete a specified number of compliance reviews by a specified date	On time completion	VA
Number of grant recipient deficiencies by FTA program area found in compliance review	Not used	TX
Conduct a specified number of grantee financial compliance reviews for the use of state funds in the department's rail and trnasit programs	On time completion	VA
Number of transit agencies reporting data	Varies from period to period	TX
Number of passenger boardings	Varies from period to period	TX

Indicators	Target	States
Grant dollar amount per passenger boarding	Varies from period to period	TX
Grant dollar amount per service mile	Varies from period to period	TX
Safety incidents / service mile	0.75	TX
Safety metric - number of hurts	0	TX
Safety metric - lost time	0	TX
Complete yearly security and emergency preparedness assessments	On time completion	VA
Number of transit systems operating in the state	Not used	VA
Ridership on transit systems and state-sponsored passenger rail service in the state	Not used	VA
Conduct three-year compliance and maintenance reviews for federal subrecipients (Section 5310 and 5311) as they come due.	On time completion	MI
Oversee and assist contractor in conducting annual Drug and Alcohol compliance monitoring activities and training per an approved work plan; ensure MIS reports are completed timely.	Completion	MI
For those events with local lead, secure federal funds and issue a project authorization and provide a staff support person for each locally led transit training event.	Completion	MI
Plan and deliver annual accounting training for transit agencies	Completion	MI
Guide MPTA (one of two transit associations in the state) in RTAP program administration.	Completion	MI
Submit NTD report for nonurban transit agencies by FTA deadline and provide any additional information required for validation.	Completion	MI
Maintain and manage state transit vehicle contracts – determine contracts are needed and get them in place. Monitor purchases against contracts and extend or rebid state vehicle contracts prior to expiration. Maintain a log of vehicle issues and problems to assist in the development of vehicle specifications and awarding of state vehicle contracts and resolve issues.	Completion	MI

Appendix D   Summaries of Case Studies

Texas DOT Case Study Summary

Overview

The Public Transit Division (PTN) of Texas DOT (TxDOT) is under the Director of Planning within its Planning and Projects Office. This is a result of a recent organization restructuring of the department. PTN administers transit grants for small and rural transit system, but not the large transit systems, which manage their federal grants by themselves.

TxDOT uses two tracking tools for transit program administration:

- A higher level performance report tool that tracks overall efficiency and effectiveness of transit program administrative activities. This is the tool of primary interest for this study.
- A contract report tool that tracks the expensing status of each transit grant contract and is relied upon for the day-to-day administrative activities of PTN's field staff.

Indicators

Performance Report Tool

TxDOT transitioned to a dashboard environment a few years ago for administrative performance reporting. The dashboard consisted of a list of indicators that all divisions within TxDOT were required to report on, for example, number of full time equivalent employees, safety and annual compliance review, which could be rolled up to higher level dashboards. But there were also indicators specific to each division, including PTN. After the recent organizational restructuring, a new tool called Performance Report came into use, which includes a modified list of numerical indicators and qualitative description of major initiatives and progress.

The dashboard was in a spreadsheet format, where all indicators were numerical, calculated from data fed by TxDOT's financial system. Targets were predetermined for each indicator. 10% deviation from the targets was allowed to maintain a "green" status. The targets were selected based on historical data like spending patterns. Inputs from field staff were critical in setting targets and making schedules for reaching targets.

Figure A - 1. Performance Measures Dashboard – TxDOT, Public Transportation Division

TEXAS DEPARTMENT OF TRANSPORTATION — **Performance Measures**

Public Transportation Division	Oct-13				Year To Date		
	Actual (October 2013)	**Target**	**Prev. YR** (October 2012)	**Prev. Mo** (September 2013)	**Actual** (September-October 2013)	**Target**	**Prev. YR** (September-October 2012)
FTE	46	50					
Safety Metric - Hurts	0	0	0	0	0	0	0
Safety Metric - Lost Time	0	0	0	0	0	0	0
Budget (Excl. Grants)	$238,322	$235,439	$210,635	$218,908	$458,201	$466,637	$409,222
	FY 2014 Projection		FY 2014 Actual Budget		Description of Change/No Change		
FY 2013 Full Year Budget	$88,405,130		$88,405,130		No Change		
Grants $ Received	$0	$0	$0	$29,655,568	$29,655,568	$29,655,568	$30,676,067
Funding Approved by Commission	$0	$0	$2,285,500	$0	$0	$0	$2,285,500
Grants $ Under Contract	$11,371,394	$177,548	N/A	$28,254,839	$39,626,233	$47,291,933	N/A
Grant Expenditures	$1,113,168	$871,874	$1,160,803	$25,891	$1,139,059	$871,874	$1,160,803
# of open FTA Grants	33	30	N/A	33	33	30	N/A
Completion of Annual Compliance Review	13	13	7	6	19	19	8
On Time Completion of Quarterly Line Item Reviews [1]	80	80	N/A	58	301	313	N/A
Compliance Program Field Visit Technical Support	0	0	0	0	0	0	0
Number of Transit Agencies Reporting Data [2]	69	69	69	69	207	207	69
Boardings [2]	7,870,529	7,540,000	7,447,873	8,706,378	24,887,506	23,930,000	23,677,679
$'s / Passenger Boardings [2]	$6.52	$6.66	$6.41	$5.37	$6.01	$6.41	$6.06
$'s / Service Mile [2]	$3.54	$3.46	$3.30	$3.56	$3.54	$3.30	$3.32
Safety Incidents / Service Mile [2]	0.41	0.75	0.35	0.38	0.45	0.75	0.39

1 Data reported is 4th Quarter 2013. This is the second dashboard reporting 4th Quarter data. 1st Quarter 2014 data is expected to be available starting with the December dashboard, reported in January 2014.
2 Data reported is 3rd Quarter 2013. This is the second dashboard reporting 3rd Quarter data. 4th Quarter 2013 data is expected to be available starting with the December dashboard, reported in January 2014.

(Source: October 2013 Performance Measures Dash Board, Texas Department of Transportation – Public Transportation Division)

The PTN performance indicators reported in the dashboard in 2013 that are relevant to this study include:

- Full-time equivalent employees
- Budget (excl. grants)
- Grants $ under contract
- Grant expenditures
- Number of open FTA grants
- Completion of annual compliance review
- On time completion of quarterly line item reviews
- Compliance program field visit technical support
- Number of transit agencies reporting data

The **Performance Report**, which replaced the dashboard, is a combination of numerical indicators visualized in graphics and qualitative description of the division's administrative performance. Targets of indicators are no longer set for grant dollar amount and grant expenditure, which is welcomed by PTN, because target selection is somewhat arbitrary and how to interpret the difference between actual

achievements and targets is often ambiguous. This new tool also provides more flexibility in how the indicators can be used to best inform activities and decision making.

Indicators relevant to this study in February 2014's Performance Report include:

- Status of grant funds for active/planned projects, the amount unprogrammed, programmed but not contracted, contracted but not expended, and contracted and expended by fiscal year

Figure A - 2. Transit Grant Programming and Expending Tracker - TxDOT, Public Transportation Division
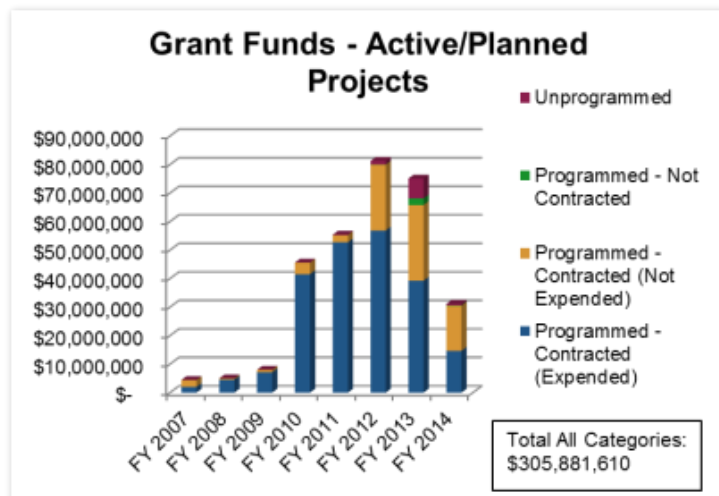
(Source: February 2014 Monthly Performance Report, Texas Department of Transportation – Public Transportation Division)
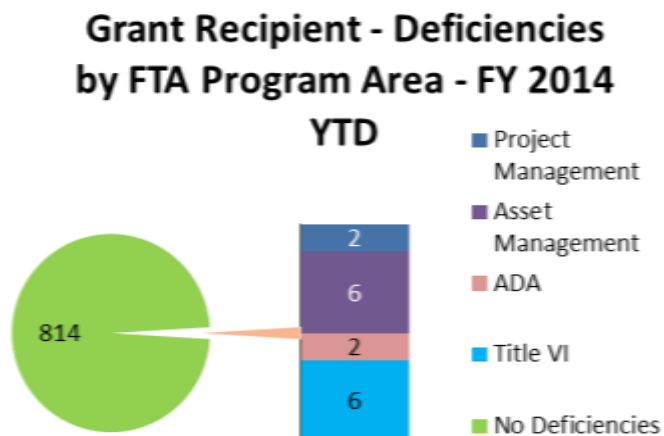
- Number of active contracts by month

Figure A - 3. Number of Active Contracts - TxDOT, Public Transportation Division

(Source: February 2014 Monthly Performance Report, Texas Department of Transportation – Public Transportation Division)

- Number of deficiencies found in compliance review

Figure A - 4. Number of FTA Program Area Deficiencies - TxDOT, Public Transportation Division

Grant Recipient - Deficiencies by FTA Program Area - FY 2014 YTD

- Project Management: 2
- Asset Management: 6
- ADA: 2
- Title VI: 6
- No Deficiencies: 814

Of the 83 transit agencies reviewed, 16 deficiencies out of a possible 830 were found within the 4 program areas identified in the chart above. None from these six program areas: Financial Management, Procurement & DBE, Charter Bus, School Bus, EEO, or Drug & Alcohol.

(Source: February 2014 Monthly Performance Report, Texas Department of Transportation – Public Transportation Division)

- Number of quarterly grant recipients financial reviews completed:

Figure A - 5. Status of Grantees' Quarterly Financial Reviews - TxDOT, Public Transportation Division
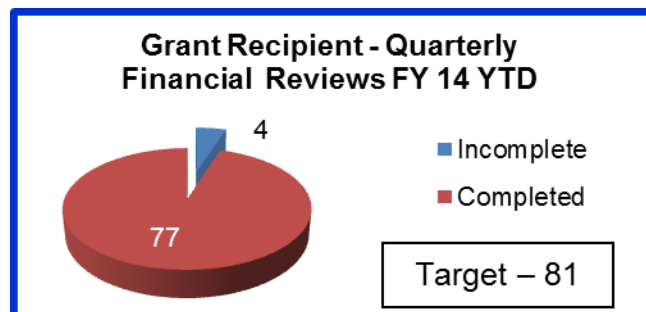
Grant Recipient - Quarterly Financial Reviews FY 14 YTD

- Incomplete: 4
- Completed: 77

Target – 81

(Source: February 2014 Monthly Performance Report, Texas Department of Transportation – Public Transportation Division)

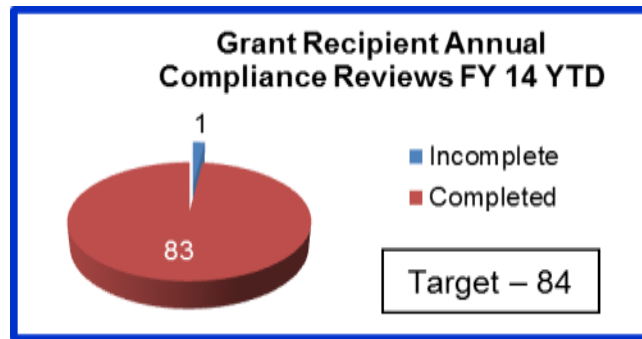- Number of annual grant recipients compliance reviews completed:

Figure A - 6. Status of Grantees' Annual Compliance Review – TxDOT, Public Transportation Division

(Source: February 2014 Monthly Performance Report, Texas Department of Transportation – Public Transportation Division)

Most Useful Indicators

Director of PTN found the most useful indicators to be

1) Funding approved by Texas Transportation Commission;
2) Grant dollar amount under contract;
3) Number of open FTA grants.

For 1), the objective of tracking it is to get funding approved as quickly as possible once released by FTA.

For 2), it is important to be informed of the grant dollar amount being administered and how it has been changing over time.

For (3), it is FTA requirement to expend the oldest grant money first. The unexpended grant lapsed after a specified time. It is in TxDOT's interest to minimize the number of open grants. This indicator is helpful for PTN's grant programming. For example, avoid using the most recent fund when older fund is available, and how to program projects so as to use up the oldest grant money quickly so as to get new grant money.

Contract Report

The Contract Report is a tool that PTN uses to track the expensing status of each transit grant contract and is relied upon for the day-to-day administrative activities of PTN's field staff. Below is a snapshot of the Contract Report.

Table A - 2. An Excerpt of Transit Grant Contract Report – TxDOT, Public Transportation Division

AGENCY	FY	PTC	PGA	MGR	START DATE	EXP DATE	OBLIGATION	EXPENDED	BALANCE	% EXPENDED	STATUS
ABILENE TRANSIT SYSTEM	3	8	F7276	47	6/4/2013	5/31/2014	242,662.57	75,035.64	167,626.93	31%	MAY NEED ATTN
ABILENE TRANSIT SYSTEM	4	8	F7092	16	10/11/2013	12/31/2014	80,611.00	54,198.22	26,412.78	67%	MAY NEED ATTN
AFFECTIONATE ARMS ADULT DAY HEALTH CARE	4	16	F7093	16	9/20/2013	12/31/2014	15,000.00	3,168.00	11,832.00	21%	ON TARGET
ALAMO AREA COUNCIL OF GOVERNMENTS	2	15	F7181	16	3/15/2012	12/31/2013	185,000.00	0	185,000.00	0%	MAY NEED ATTN
ALAMO AREA COUNCIL OF GOVERNMENTS	3	15	F7097	30	3/12/2013	3/31/2014	480,000.00	0	480,000.00	0%	MAY NEED ATTN

(Source: February 2014 Contract Report, Texas Department of Transportation – Public Transportation Division)

A report like this is generated monthly with data from TxDOT's financial system. A simple linear expenditure pattern is assumed to indicate whether a grantee is on track in spending the grant money. The Status column of the report will show different colors to indicate whether or not attention is needed for a particular contract.

The monthly frequency of this report is a decision by PTN. The report is circulated to field staff and managers in the headquarters. It provides a quick overview of the performance of each grant, and the users could easily notice which grants need their attentions. The report is used during compliance visit, too. Since the spending pattern is not always linear depending on the nature of the programs, it requires project specific knowledge to determine if investigation is needed. Field staff usually has better knowledge in this regard as they work most closely with the grantees. PTN's field staff also replies on the report to determine which contracts are ready to be closed.

Sometimes PTCs from grantee systems ask for and use the report to inform internal activities.

Compliance Indicators

Compliance is a sensitive area of performance tracking. In TxDOT, incompliant grantees could be reported in the Improvement Action Plan, but only if naming them helps with improving their compliance.

Indicators Used in Other State DOTs

- Administration Costs / Total Grant Dollar Amount

PTN does not use indicators to track resources employed for transit program administration. The indicator "Administration Costs/Total Grant Dollar Amount" is not considered a good one, because PTN does not agree that total grant amount should correlate with administrative expense. On the one hand, compared to the volatility of grant amount, administration cost is much more stable. Much of the change in this ratio is probably from the fluctuation of grant amount. On the other hand, if the number of recipients of grant money (and the amount they receive respectively) changes significantly every year, a higher grant amount may require more labor hours for administration of more grants, and hence more volatile administration cost. However, that's not the case for PTN. The number of grant recipients is stable over years. Furthermore, grant amount is heavily influenced by the external economic and political environment, which is beyond the control of PTN. PTN believes it would be useful to find out the cost drivers of transit program administration, which may shed light on a good indicator.

- Number of projects administered by each staff person

Administration labor hours required for each project is highly variable. This indicator may be useful for risk assessment, but not for efficiency and effectiveness tracking.

Virginia DRPT Case Study Summary

Agency Overview

Virginia Department of Rail and Public Transportation is an independent state department that is parallel to Virginia Department of Transportation from an administrative perspective. Its independence from other modes of transportation, especially from highway, a typically dominant mode in a state DOT, gives DRPT the right and ability to advance its transit programs. This unique institutional status of DRPT benefits the state's transit programs at least in the following ways:

- Having the autonomy to design its management process to fit the unique features of transit program administration, e.g. FTA requirements, the relationship and interaction with transit operators, etc.
- More effective in advocating for state and federal funding for transit programs; transit funding level has been rising in the recent years]

DRPT positions themselves as the funding partner of transit operators. They try to help transit operators obtain more federal and state funding where there is a valid need, while representing the General Assembly in making sure the grant money is spent responsibly by the grantees. DRPT provides assistance to the subrecipients, especially small and rural systems, in the following regards, which is instrumental in securing more transit funding:

- developing Transit Development Plan (TDP)
- procurement of vehicles and non-professional services
- compliance with federal and state grant requirements
- quarterly communication with grantees, by phone, email or in person

In addition, DRPT is introducing a performance-based funding allocation formula. With this new formula, transit funding above $160 million will be allocated according to each system's ridership and operating expenses. This formula encourages efficient and effective transit operations and management by providing additional funding proportional to their performance. DRPT's executives have seen that accountability increases funding overtime. This new approach to funding allocation is expected to incentivize more efficient use of grant money, and in turn help DRPT advocate for more funding. The department is in the process of fine tuning the performance measures to ensure fairness across grantees. For example, DRPT is considering how to normalize performance data so that grantees are not discriminated by size and average trip length.

Indicators of Administrative Effectiveness and Efficiency

DRPT uses numerical as well as qualitative indicators to track its administrative efficiency and effectiveness. The indicators are reported regularly in (1) Strategic Plans, mostly quantitative indicators,

and (2) Business Plans, mostly qualitative indicators. For the quantitative indicators, data are drawn from DRPT's financial system for calculation.

Strategic Plans

The Strategic Plan reports the following indicator that measures how efficiently resources are used and how effectively programs are manage:

- Total annual agency administrative cost as a percentage of total expenditures administered

DRPT's goal is no more than 3% of the department's annual total expenditures is agency administrative cost. In the past few years, this ratio has been lower than 2%.

The Strategic Plan also reports the following indicators:

- Number of transit systems operating in Virginia
- Ridership on transit systems in Virginia
- Ridership on state-sponsored passenger rail service

The CFO and COO of DRPT believe ridership and number of transit systems operating in Virginia are valid indicators for a program if a state is vested in its grantees success, as it is in the case of Virginia. But by definition it's not the focus of this research - ridership of funded transit systems is generally considered as an indicator of program effectiveness rather than the effectiveness of program administration.

Business Plan

The Business Plan identifies initiatives of DRPT for the reporting fiscal year and anticipated completion dates of each initiative, and reports the progress and completion status of Business Plan Initiatives (BPIs) for the previous fiscal years. Some of the BPIs are measures of DRPT's administration efficiency and effectiveness of transit programs. Following are such BPIs:

Table A - 3. Business Plan Initiatives (BPIs) as Performance Measures – Virginia DRPT Business Plan

BPI Description	Anticipated Completion Date	Anticipated Completion Date
Complete 20 compliance reviews	Summer 2015	
Conduct yearly security and emergency preparedness assessments	Spring 2015	
Conduct at least 15 grantee financial compliance reviews for the use of state funds in DRPT's rail and transit programs	Summer 2014	Completed Summer 2014

(Source: FY2015 Business Plan, Virginia Department of Rail and Public Transportation)

Indicators under Consideration

During the interview, several possible indicators were discussed and DRPT executives expressed interest in considering adopting.

- Federal grant age

It is FTA's requirement that oldest grants should be spent first. FTA's triennial review examines this aspect. It is DRPT's established practice to expend grant money in the order of grant age, but currently it does not have a measure to track how well this practice is followed and whether any grant money has been returned to FTA due to lapsing.

Applicability of Indicators from Other DOTs

Indicators that other DOTs use to measure their transit program administration performance were discussed with DRPT. DRPT executives think the following indicators are not applicable or not useful for DRPT.

- Timeliness of administrative activities, e.g. grant approval, project award and contracting, reimbursement, etc.

It was emphasized that administrative activities of transit programs are always timely in DRPT. DRPT executives think it is not helpful to track this indicator as it will always turn out to be 100% on time with very rare exceptions; therefore resources should be invested to track areas where improvement is needed. However, the consultant pointed out tracking and reporting indicators of timeliness of administrative activities demonstrates to the public, the Commonwealth Transportation Board, and the General Assembly DRPT's administration efficiency and effectiveness. That would help its advocacy for transit funding. DRPT executives agreed with this point.

- Projected vs. actual revenue

Funding level is affected by a wide range of factors, including the overall economy and competing policy priorities of the federal government and the state. DRPT believes tracking how projected revenue compares to actual revenue does not provide any meaningful insight for administration efficiency and effectiveness.

- Grantees satisfaction

DRPT believes this should not be DRPT's goal, because even though DRPT is a partner to the grantees in terms of securing funding, it is also responsible for grantee compliance, which may be in conflict of grantees satisfaction.

Missouri DOT Case Study Summary

Overview

The Multimodal Operations Division of Missouri Department of Transportation (MODOT) administers transit programs for the small urban and rural transit operators, as well as the specialized transit operators in Missouri. The Multimodal Operations Division has an established and systematic way of tracking administrative performance with quantitative and qualitative indicators. Such indicators are tracked and reported in the division's annual business plan and a performance report that documents and interprets the indicators of a particular year.

Indicators

Performance Report

The performance report of the Multimodal Operations Division is called "Division Tracker Performance Report". It reports a list of "Trackers" by modes, including aviation, waterway, rail, and transit. The trackers include both measures of administration efficiency and effectiveness and program outcomes. From the Oct 2013 Trackers Report, those of interest to this study, i.e. on transit program administration efficiency and effectiveness, are listed in the table below.

Business Plan

The Multimodal Operations Division publishes annual Business Plans that reports the major achievement of the previous fiscal year and set goals for the current fiscal year.

The FY 2014 Business Plan utilizes the following numerical indicators to track transit program administration for the previous fiscal year:

- **Number of new transit vehicles procured** – *procured 249 new transit vehicles to replace aging and end of life cycle vehicles currently in service;*
- **Number of full-time employees** – *fulfilled MoDOT's Bolder Five Year Direction staffing implementation plan by reducing the number of full-time employees from 32 to 28. All MoDOT employees reapplied for position resulting in a team of outstanding employees. In all, 24 of the 28 division employees are in new positions or are new to the division;*
- **Reduction of office space** – *implemented the division's modified organizational structure and cost reduction measures by aggressively right sizing our facility needs requirements. This initiative resulted in the increase of telecommute opportunities for employees, shared work spaces for field staff, and the reduction of 14 cubicles, a 60% reduction in office space.*

The Multimodal Operations Business Plan also sets expectations for the current fiscal year. For each expectation, trackers will be identified to assess whether the expectations are met by the end of the fiscal year; and such trackers will be reported in the Division Tracker Performance Report. In Multimodal

Operations Business Plan 2014, the following trackers are identified that are relevant to transit program administration:

- Number of individuals receiving transit training (for safety)
- Site visits for transit grantees' compliance with federal and state requirements
- Annual repair expenditures from Transit Vehicle Disposition Fund
- Number of transit vehicles purchased for rural and specialized transit systems
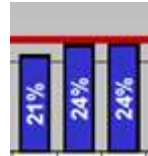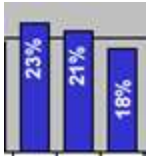
How is the Trackers Report Used?

MoDOT senior managers use all the Tracker Reports. MoDOT has the Department Tracker (known as the Big Tracker), a Tracker Supplement that dives a bit deeper into selected Department Tracker measures and then each MoDOT District has a District Tracker and each MoDOT Division has a Division Tracker, (the last two are both known as D-Trackers). Senior management and the measurement drivers of individual measures are users of the Department Tracker. District Engineers and Division Directors along with their individual measurement drivers are users of the D-Trackers.

Other Indicators

- "Administration Costs/Total Grant Dollar Amount" – It was indicated in the survey that MODOT informally tracks it, but it was not made public. Multimodal Division can analyze this ratio from periodic reports they receive from their automated financial system. The Department Tracker is public; however the Tracker Supplement and the D-Trackers have only been used as internal management tools. That automated report from their financial system is also used internally.

- "Number of open grants" – some states track it because they believe it's important to use up the oldest funding first as FTA requires and to avoid returning grant monies to FTA. The NUMBER of open grants is not as important as the AGING of open grants as measured in years. The earlier referenced report from our financial system not only gives us the number and age of the grants, but also the balances remaining in those old grants.

Table A - 4. Performance Indicators Tracked by Missouri DOT

#	Tracker	Goal	Notes
1	Percent of vendor invoices paid on time by mode	Checks issued 31 days from the invoice date	This tracker is measured for the entire MODOT by district and by division, including Multimodal Operations Division. But transit program administration is not measured separately.
2	Budget to actual (Personal Service and Expense and Equipment) all appropriations	n.a.	This tracker measures percent of annual budget expended by a certain date. The Multimodal Operations Division was tracked as a whole, but not transit programs administration separately. This was a new tracker populated by the Financial Services Division. Below are snapshots from the Tracker Report. The red bar in the graph for "personal services" shows a desired percentage by a certain date (e.g. 25% of the budget year in the graph shown below). For "personal services": MC MO MT For "expense and equipment": MC MO MT
3	Precision of state and federal revenue projections	0% variance between projected and actual revenues	Such projections help MoDOT staff do a better job of budgeting limited funds for its operations and capital program. Projected and actual revenues from state and the federal government are tracked for the past four fiscal years for modes other than roads and bridges.
4	Measure of how many transit vehicles procured with federal funding	Approximately 300 vehicles per year (one fifth of statewide fleet, derived from lifetime service miles)	
5	Site visits for transit grantee's compliance with federal and state requirements	Visit annually: 50% 5309/5311/5316 grantees, and 33% 5310/MEHTAP grantees	
6	Annual repair expenditures from Transit Vehicle Disposition Fund	n.a.	Repair expenditure is related to average transit vehicle age, which depends on how many new vehicles are procured and delivered on time every year.

#	Tracker	Goal	Notes
7	Transit training funds – measure # of participants in transit training, including RTAP, and Operation Lifesaver (OL) and National Safety Council (NSC) course.	n.a.	The desired trend is increasing, i.e. more individuals receiving transit training is desired.
8	Percent of partner satisfaction	n.a.	This tracker measures percent of partners rated the Multimodal Operations Division "Satisfied" or "Very Satisfied". Transit operator grantees were included in the survey for their satisfaction with MODOT's transit program administration.
9	Funding (state and federal) for transit programs	n.a.	It tracks total state and federal funding for transit. The desired trend is increasing.

(Source: October 2013 Division Tracker Performance report, Missouri Department of Transportation – Multimodal Operations Division)