DEPARTMENT OF TRANSPORTATION

Federal Transit Administration

49 CFR Parts 625 and 630

[Docket No. FTA–2014–0020]

RIN 2132–AB07

Transit Asset Management; National Transit Database

AGENCY: Federal Transit Administration (FTA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: The Federal Transit Administration is publishing a final rule to define the term *state of good repair* and to establish minimum Federal requirements for transit asset management that will apply to all recipients and subrecipients of chapter 53 funds that own, operate, or manage public transportation capital assets. This final rule requires public transportation providers to develop and implement out transit asset management (TAM) plans. TAM plans must include an asset inventory, condition assessments of inventoried assets, and a prioritized list of investments to improve the state of good repair of their capital assets. This final rule also establishes state good repair standards and four state of good repair (SGR) performance measures. Transit providers are required to set performance targets for their capital assets based on the SGR measures and report their targets, as well as information related to the condition of their capital assets, to the National Transit Database.

DATES: Effective October 1, 2016.

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SUPPLEMENTARY INFORMATION:

Table of Contents

I. Executive Summary
A. Purpose of Regulatory Action
B. Statutory Authority
C. Summary of Major Provisions
1. Transit Asset Management
2. National Transit Database
D. Summary of Costs and Benefits
II. Summary of Notice of Proposed Rulemaking (NPRM) Comments and Responses
A. Rulemaking Background
B. General NPRM Comments and FTA's Responses
C. Section by Section NPRM Comments and FTA's Responses
III. Regulatory Analyses and Notices
A. Regulatory Analyses and Notices NPRM Comments and FTA's Responses
B. Final Rule Analyses and Notices

I. Executive Summary

A. Purpose of Regulatory Action

This final rule establishes a National Transit Asset Management (TAM) System in accordance with section 20019 of the Moving Ahead for Progress in the 21st Century Act (MAP–21; Pub. L. 112–141 (2012), codified at 49 U.S.C. 5326).[1] A transit asset management system is ''a strategic and systematic process of operating, maintaining, and improving public transportation capital assets effectively through the life cycle of such assets.'' 49 U.S.C. 5326(a)(3).

Critical to the safety and performance of a public transportation system is the condition of its capital assets—most notably, its equipment, rolling stock, infrastructure, and facilities. When transit assets are not in a state of good repair, the consequences include increased safety risks, decreased system reliability, higher maintenance costs, and lower system performance.

Comprehensive quantitative information about the consequences of capital assets not being in a state of good repair is unavailable. However, insufficient funding combined with inadequate transit asset management practices have contributed to an estimated $85.9 billion transit state of good repair (SGR) backlog—a value derived from FTA's Transit Economic Requirements Model (TERM).[2] The SGR backlog is representative of the reinvestment cost to replace any transit assets whose condition is below the midpoint on TERM's 1 (poor) to 5 (excellent) scale, or 2.5. The SGR backlog poses a significant challenge during these fiscally constrained times, given FTA's estimates that an additional $2.5 billion per year above current funding levels from all levels of government is needed just to prevent the SGR backlog from growing.

The National TAM System is a scalable and flexible framework. The components of the National TAM System will work together to ensure that achieving and maintaining a state of good repair becomes, and remains, a top priority for transit providers, as well as States and Metropolitan Planning Organizations (MPOs).

B. Statutory Authority

Section 20019 of MAP–21 amended Federal transit law by adding a new section 5326 to Chapter 53 of title 49 of the United States Code. The provisions of 49 U.S.C. 5326 require the Secretary of Transportation to establish and implement a National TAM System which (1) defines the term state of good repair, (2) requires that all Chapter 53 recipients and subrecipients develop a TAM plan, (3) establishes annual reporting requirements, and (4) includes technical assistance. 49 U.S.C. 5326(b).

The Secretary also must establish SGR performance measures, and recipients must set performance targets based on the measures. 49 U.S.C. 5326(c)(1) and (2). Each designated recipient must submit two annual reports to the Secretary—one report on the condition of their recipients' public transportation systems, including a description of any change in condition since the last report, and another describing its recipients' progress towards meeting performance targets established during that fiscal year and a description of the recipients' performance targets for the subsequent fiscal year. 49 U.S.C. 5326 (b)(3) and 49 U.S.C. 5326(c)(3).[3]

C. Summary of Major Provisions

1. Transit Asset Management

This final rule adds a new part 625, ''Transit Asset Management,'' to title 49 of the Code of Federal Regulations (part 625). This rule implements the several statutory requirements of 49 U.S.C. 5326(b) and (c), referenced in the previous section, by coalescing them into a comprehensive National TAM

[1] On December 4, 2015, the President signed into law the Fixing America's Surface Transportation (''FAST'') Act (Pub. L. 114–94), which supersedes MAP–21; however, FAST made no amendments to the transit asset management statute at 49 U.S.C. 5326. This notice will refer to MAP–21 throughout the preamble.

[2] Individual transit agencies were not involved in developing the assessment of the $85.9 billion state of good repair backlog. FTA developed the estimate by feeding combined data into TERM. TERM produces national-level estimates of the national state of good repair backlog, based on an underlying set of models relating the expected average true condition of an asset to the asset's age. Currently, FTA does not collect the systematic data necessary to do a detailed time-series analysis on whether the SGR backlog is growing in real terms. The $2.5 billion estimate is based on the 2013 Conditions and Performance Report, which uses a combination of National Transit Database, systematic and ad hoc data collections in combination with estimates produced by TERM. Under this final rule, FTA will collect additional data which will improve future estimates. The 2013 Conditions and Performance Report is available at *http://www.fhwa.dot.gov/policy/2013cpr/*.

[3] The term ''designated recipient'' is defined in statute as ''(A) an entity designated, in accordance with the planning process under sections 5303and 5304, by the Governor of a State, responsible local officials, and publicly owned operators of public transportation, to receive and apportion amounts under section 5336 to urbanized areas of $200,000 or more in population; or (B) a State or regional authority, if the authority is responsible under the laws of a State for a capital project and for financing and directly providing public transportation.'' 49 U.S.C. 5302(4).

System. The National TAM System is comprised of the following five pillars: (1) The definition of ''state of good repair,'' 49 U.S.C. 5326(b)(1); (2) a requirement that recipients and subrecipients develop TAM plans, 49 U.S.C. 5326(b)(2); (3) SGR performance measures, and a requirement that recipients and subrecipients set performance targets based on the measures, 49 U.S.C. 5326(c)(1) and (2); (4) annual reporting requirements for recipients and subrecipients, 49 U.S.C. 5326(c)(3); and (5) technical assistance from FTA. 49 U.S.C. 5326(b)(4) and (5). The elements of the National TAM System are listed in § 625.15.

Section 625.17 establishes basic principles of transit asset management and requires a transit provider to balance competing needs when considering the life-cycle investment needs of its assets. The disrepair of any particular asset within a public transportation system does not necessarily mean that other assets are in disrepair; whether an asset has achieved a state of good repair is an independent determination that would be made by each transit provider.

Sections 625.25 through 625.33 set forth specific requirements for TAM plans. Each transit provider that receives Chapter 53 funds as a recipient or subrecipient and either owns, operates, or manages capital assets used in the provision of public transportation, is required to develop and implement a TAM plan. A TAM plan is a tool that will aide transit providers in: (1) Assessing the current condition of its capital assets; (2) determining what the condition and performance of its assets should be (if they are not already in a state of good repair); (3) identifying the unacceptable risks, including safety risks, in continuing to use an asset that is not in a state of good repair; and (4) deciding how to best balance and prioritize reasonably anticipated funds (revenues from all sources) towards improving asset condition and achieving a sufficient level of performance within those means.

Section 625.25 lists the TAM plan requirements, including an asset inventory, condition assessments, a description of analytical processes or decision-support tools used to estimate and prioritize capital investment needs over time, and a project-based prioritization of investments. In general, an asset inventory must include all equipment, rolling stock, facilities and infrastructure that a provider owns. A provider may exclude from its asset inventory any equipment with an acquisition value of less than $50,000, unless the asset is service vehicle equipment. The inventory also must include all rolling stock (revenue vehicles), passenger stations, administrative and exclusive use maintenance facilities, and guideway infrastructure owned by a third-party and used by the provider in the provision of public transportation. The level of detail in a provider's asset inventory should be commensurate with the level of detail in its program of capital projects. A transit provider is required to conduct a condition assessment on all inventoried assets for which the provider has direct capital responsibility, and also set targets and develop a project-based prioritization of investments for those assets.

Section 625.27 requires States to develop a group TAM plan for all subrecipients under the Rural Area Formula Program, authorized under 49 U.S.C. 5311, including American Indian tribes. TAM plan sponsors, which include States, and designated and direct recipients, must develop group TAM plans for their tier II provider subrecipients, except those subrecipients that also are direct recipients under the Urbanized Area Formula Program authorized at 49 U.S.C. 5307. Tier II providers are those transit operators that do not operate rail fixed-guideway public transportation systems and have either one hundred (100) or fewer vehicles in fixed-route revenue service during peak regular service or have one hundred (100) or fewer vehicles in general demand response service during peak regular service hours. Tier I providers are those operators with one hundred and one (101) or more vehicles in revenue service during peak regular service or operators of rail fixed-guideway public transportation systems. Tier I providers must develop their own, individual TAM plan.

The group TAM plan approach is intended to reduce the burden on smaller transit providers of developing their own TAM plans and reporting to FTA's National Transit Database (NTD). A group TAM plan is subject to the same requirements for individual TAM plans. However, sponsors and participants should coordinate to determine their specific roles and responsibilities in complying with this rule.

Section 625.33 implements requirements for investment prioritization. Transit providers are required to rate state of good repair projects in order of priority. The investment prioritization requirements aid a transit provider in making more informed investment decisions to improve the state of good repair of its capital assets.

Sections 625.41 through 625.45 implement specific performance management requirements. Section 625.41 lists the objective standards for measuring the condition of capital assets. Section 625.43 establishes SGR performance measures based on the SGR standards. Section 625.45 requires recipients and subrecipients to set one or more performance targets per asset class based on the SGR measures and also requires transit providers to coordinate with States and with Metropolitan Planning Organizations (MPOs), to the maximum extent practicable, in the selection of State and MPO performance targets.

Together, these requirements allow transit providers to better assess their SGR needs, and in turn make more informed investment decisions. The coordination amongst transit providers, States and MPOs should influence MPO and State transportation funding investment decisions and is intended to increase the likelihood that transit SGR needs are programmed, committed to, and funded as part of the planning process.

Section 625.55 requires transit providers to report their targets and the condition of their capital assets annually to FTA's NTD. This data both helps FTA better estimate the Nation's SGR backlog and supports the need for additional funding at all levels of government to maintain, improve, and replace the Nation's aging transit capital assets.

2. National Transit Database

This final rule amends the regulations for FTA's National Transit Database (NTD) at 49 CFR part 630, to conform to the reporting requirements for the National TAM System. Previously, the scope of 49 CFR part 630 was limited to implementing the reporting mandate at 49 U.S.C. 5335(b) for recipients and beneficiaries of section 5307 urban formula funds and section 5311 rural formula funds to report to the NTD. Under this rule, FTA has aligned 49 CFR part 630 with the requirements found at 49 U.S.C. 5326(c)(3) that require recipients of Federal financial assistance under 49 U.S.C. Chapter 53 that own, operate, or manage capital assets used in the provision of public transportation to report their performance targets and their progress towards meeting those targets to the NTD. Under this rule, recipients that receive neither Urbanized Area Formula funds (49 U.S.C. 5307) nor Rural Area Formula funds (49 U.S.C. 5311) remain excluded from other NTD reporting

requirements that are unrelated to transit asset management.

D. Summary of Costs and Benefits

TABLE 1—SUMMARY OF THE FINAL RULE'S BENEFITS AND COSTS

[$ Millions] [4]

	Low cost case			High cost case		
	Undiscounted dollars	Discounted at 7% discount rate	Discounted at 3% discount rate	Undiscounted dollars	Discounted at 7% discount rate	Discounted at 3% discount rate
Quantified Costs (20 years)	449	246	338	868	471	652
Quantified Costs Annualized	22.5	23.2	22.8	43.4	44.5	43.8
Unquantified Costs	• Additional asset maintenance, rehabilitation and replacement. • Costs of inventory and assessment for non-revenue vehicles and for equipment, administrative buildings, and parking facilities that are not part of a station or maintenance facility. • Other third party assets not reported to NTD.					
Qualitative Benefits	• Reduced operation and maintenance costs and/or reduced lifecycle costs of asset ownership. • Reduced mechanical breakdowns and other improvements to transit system performance, reliability and safety.					

The costs benefits analysis includes both qualitative and quantitative components and is designed to provide information about the likely impacts of the final rule at the societal level. FTA estimated the costs and benefits of the final rule by using Bureau of Labor Statistics studies and through dialogue with transit providers. Due to the limited number of quantitative resources, many of the estimated impacts are based on explicit assumptions that are outlined in section III of this notice. As described in section III, both low case and high case estimates were calculated based on in-house versus contractor estimated costs.

According to Government Accountability Office (GAO) reports and other studies, existing practices in transit asset management vary widely from transit provider to transit provider, though most providers already perform at least some of the functions required under the final rule. FTA estimated the costs of the final rule based on the incremental time that it will take a transit provider's staff to fulfill each of the National TAM System requirements, deducting the costs of the transit industry's current practices. Where relevant, the estimates are associated with the size of a transit provider's asset portfolio, as reported in the NTD. FTA monetized the time requirements using average wage rates from relevant job categories, as reported by the Bureau of Labor Statistics in 2015, and adjusted for employee fringe benefits.

Table 1 includes a summary of the estimated costs of the National TAM System. The quantified costs are for transit providers to assess their assets, develop TAM plans, and report certain information to the NTD. They do not include any incremental costs related to asset replacement, rehabilitation or maintenance—those costs are presented in the table as unquantified costs. FTA was also unable to estimate costs for assessing the condition of equipment that is not located at maintenance facilities or passenger stations or facilities not reported to NTD. The analysis covers a period of twenty years following the effective date of the final rule. Under the low cost case, the total undiscounted costs for the twenty years are $449 million. Using a discount rate of 7% (with 3% sensitivity case) for future values, the final rule has annualized costs of $23.2 million.

Under the high cost case, if all the tasks are contracted out by the transit agencies or States, rather than performed in-house, the cost of the final rule will be roughly double the estimated in-house cost. The total undiscounted costs for the twenty years are $868 million. Using a discount rate of 7% (with 3% sensitivity case) for future values, the final rule has annualized costs of $44.5 million.

The initial costs for collecting data and developing new methodologies will be just over $62 million spread over the first two years, followed by reduced amounts in subsequent years under the low cost case. Under the high cost case, initial costs will be approximately $115 million over two years. FTA expects that the benefits of the final rule will stem from improved maintenance practices and from improved decision-making in capital asset maintenance and replacement. By identifying and prioritizing state of good repair needs, a transit provider could reduce costs for mechanical breakdowns of transit vehicles, reduce travel delays for passengers, and yield potential safety improvements. For some providers, this may be feasible by shifting priorities within their maintenance budgets. For example, by identifying slow zones where deteriorated asset conditions have reduced system travel speeds, transit systems may assign maintenance efforts towards repairs that will eliminate the slow zone and ensure consistent and reliable travel times for passengers. For other providers, this may be accomplished through proactive replacement of capital assets. For example, rather than operating buses until they become unreliable in old age, some transit providers will now establish a consistent replacement age for their buses that will prevent costly in-service breakdowns.

Some providers may need additional funding to more effectively maintain their capital assets. To increase funding for maintenance, providers may, need to reduce expenditures for system expansion, particularly if the agencies' goal is to reduce the SGR backlog. Additionally, assembling a quantitative asset inventory and condition assessments will better equip transit providers to make the case to funding stakeholders for how much money is needed to bring their systems into a state of good repair. However, it is difficult to predict accurately how each provider is likely to respond.

The final rule's benefits could not be quantified due to the lack of available information on the impacts of asset

[4] Cost estimates are sensitive to the extent agencies use in-house or contractor staff to conduct compliance activities. If all compliance activities are contracted out by the transit agencies or States, rather than performed in-house, the cost of the final rule will be roughly double the estimated in-house cost.

management programs on transit systems. Instead, FTA conducted a breakeven analysis based on the incidence of transit vehicle mechanical breakdowns reported to NTD and their associated costs. For instance, in 2013, 524,629 mechanical failures of vehicles in service were reported to the NTD, and a total of $2.2 billion in vehicle maintenance costs were reported to the NTD. Assuming that in the absence of the rule, vehicle maintenance costs in each of the next 20 years are the same as they were in 2013, the final rule would need to avoid 1.02% or 1.95% of the mechanical failure breakdowns each year to yield savings that are equal to the portion of the rule's costs that FTA was able to monetize, in the low and high cost cases, respectively. For the rule's benefits to equal all of its costs, it would need to prevent a larger but unknown amount of vehicle maintenance costs. The full methodology for the low and high cost cases are described in the Regulatory Analysis section.

Current management practices may delay maintenance of vehicles due to various reasons. For instance, some providers may keep vehicles in operation to meet the current demand, delaying regular maintenance of vehicles, resulting in mechanical failure of vehicles in service. Others may shortchange maintenance budgets to expand their systems. In each case, providers struggle to meet system demands with limited resources.

Implementing a TAM system will require a provider to collect and use asset condition data, set targets, and develop strategies to prioritize investments to meet the provider's goals. One strategy may be to ensure that assets are maintained on a regular schedule to avoid failure of vehicles in service, which are expensive to manage and cause delays on the system. Based on limited findings on transit asset management-related cost savings from transit provider initiatives and from the literature in other transportation fields, notably highways, this level of improvement appears readily achievable. Additionally, there will be important non-quantifiable benefits in areas such as improved transparency and accountability.

II. Summary of Notice of Proposed Rulemaking (NPRM) Comments and Responses

A. Rulemaking Background

On October 3, 2013, FTA published a consolidated advance notice of proposed rulemaking (ANPRM) requesting public comment on a wide range of topics pertaining to the Public Transportation Safety Program and the TAM program authorized by MAP 21. 78 FR. 61251 (Oct. 3, 2013). Throughout the ANPRM, FTA expressed its intention to adopt a scalable and flexible approach to transit asset management and safety and highlighted the inherent linkages between asset condition and safety performance.

On September 30, 2015, FTA published a Notice of Proposed Rulemaking (NPRM) for Transit Asset Management and the National Transit Database (80 FR 58911). The NPRM provided a summary of the status of the Nation's state of good repair backlog and the history behind FTA's proposals for the National TAM System. FTA took into consideration public comments it received in response to the ANPRM and NPRM during the development of this final rule.

FTA received a total of 119 public comments on the NPRM. In general, FTA has not responded to those comments that related specifically to other rulemakings. Several commenters requested an extension to the comment period. FTA did not extend the comment period, but did accept late filed comments. A couple of comments suggested that FTA provide an opportunity for States and others to offer additional comments after FHWA and FTA issue all of the performance management-related NPRMs. FTA will continue to engage with the States, transit agencies and other members of the public on the implementation of its programs and requirements. The public can also submit questions or comments at any time to FTA's Web site at *http://ftawebprod.fta.dot.gov/ContactUsTool/Public/NewRequest.aspx.*

A number of comments requested guidance from FTA on how to implement the requirements of the proposed rule. The Transit Asset Management page on FTA's Web site at *www.transit.dot.gov/regulations-and-guidance/asset-management/transit-asset-management* contains a number of useful guidance documents and resources. For example, FTA has developed an Asset Management Guide for Small Providers [5] to assist small providers and States' Department of Transportations in developing TAM plans. FTA encourages transit providers and sponsors to visit the page regularly to access the most up-to-date resources.

Following is a summary of the public comments on the NPRM and FTA's responses.

[5] *https://www.transit.dot.gov/research-innovation/asset-management-guide-small-providers-fta-report-no0092.*

B. General Comments and FTA's Responses

This section provides summarized comments that are not specifically related to a section of the NPRM. This section is organized around common themes found in the responses to the NPRM such as, FTA's approach to implementing the TAM requirements, Nexus between state of good repair and safety, Nexus between transit asset management and planning, responses to the NPRM appendix that provided examples of asset classes and individual assets, Implementation and Oversight, and Technical assistance needs.

COMMENTS: FTA's Approach to Implementing the TAM Requirements

Some commenters expressed general support for FTA's efforts to use transit asset management to help transit providers maintain bus and rail systems in a state of good repair (SGR). A State agency expressed support for FTA's efforts to increase safety through the NRPM. A transit operator emphasized that investments to resolve the SGR backlog must be guided by a plan that emphasizes the goals stated for the TAM program.

However, a few commenters expressed general concern about the proposal. For example, although supporting the idea of a National TAM System, one commenter urged that the implementation be directed towards bringing the nation's transit system into a state of good repair, rather than creating reporting and oversight requirements that have no relation to this goal. A transit operator expressed concern that the guidance prescribed in the NPRM could require transit providers already mature in TAM best practices to alter their programs, which could result in compliant but less optimal TAM programs. An anonymous commenter said the rule must be kept as simple as possible.

FTA'S RESPONSE: FTA's Approach to Implementing the TAM Requirements

FTA appreciates those comments in support of its efforts to implement a National TAM System to achieve and maintain a state of good repair for the Nation's transit assets, improving transit safety, and increasing service reliability and performance. FTA agrees that transit providers should be guided by the goals of the National TAM System in using their funding from all sources for state of good repair.

Throughout the NPRM, FTA expressed its intention to adopt a scalable and flexible approach to transit asset management and safety. This final

rule sets minimum Federal requirements that can be adopted by any transit provider and tailored to any transit system.

COMMENTS: Nexus Between State of Good Repair and Safety

Several transit operators, a business association, and other commenters recommended that FTA clarify the interaction between TAM and safety, expressing concern that failure to do so could subject transit agencies to unnecessary litigation risk. These commenters suggested that Useful Life Benchmarks (ULBs) should not drive replacement cycles to the exclusion of safe operations and asserted that the safety of any asset should be the determining factor in prioritization of asset replacement. For similar reasons, a professional association argued that SGR and safety should not be tied together and urged FTA not to use SGR and safety reporting as a methodology for awarding or not awarding funding to transportation agencies. A transit operator stated that operator experience, training, and prudence play a more critical role in life safety than asset condition. This commenter suggested that it would be more prudent to have a separate safety flag that identifies any asset that poses an ''imminent danger'' to an operator or passenger with specific guidelines for the management of such assets.

Although acknowledging that consideration for safety in asset management decisions is important, one transit operator stated that there should not be a direct measurable link to safety performance because that determination would require greater innovation in integrating safety and asset management systems. Further, this commenter stated that it is difficult to assess the link between safety and asset management because it is not a direct relationship.

A local transit operator suggested that FTA provide documentation and guidance on how to integrate SMS directly into TAM plans. Further, this commenter suggested that FTA allow each individual transit provider to make their own determinations about the safety of their assets.

A State transit association expressed concerns about the viability of a top-down approach, stating that it may conflict with already-negotiated union contracts or hinder future negotiations. The commenter stated that, rather than the overly burdensome SMS and TAM plan requirements, a National Transit Institute (NTI) course with appropriate certification(s) could achieve the same goals and outcomes. In contrast, one transit operator concurred with FTA that MAP–21 requirements for a National TAM System can best be implemented within the context of an SMS framework imposed by the overarching Public Transportation Safety Program.

Another transit operator and an individual commenter expressed concern that because FTA has not published a final National Public Transportation Safety Plan, it is difficult to address issues in the TAM NPRM that pertain to the linkage between the two documents. A transit operator expressed concerns about the identification of unacceptable safety risks in safety plans and TAM plans, reasoning that public access to this information may increase safety risks for the rail system.

An individual commenter said a National TAM System will significantly affect the efficiency and cost-effectiveness of capital asset management and maintenance. The commenter said it also will help to improve transit safety. A State agency and a transit operator also agreed with FTA's statements on the linkages between SGR and safety.

A transit operator recommended that part 625 should reference part 670 and ''prioritize'' the significance that safety plays in determining SGR.

FTA'S RESPONSE: Nexus Between State of Good Repair and Safety

FTA believes that Congress intended for it to establish a National TAM System that not only increases the performance and reliability of capital assets, but also ''improve[s] safety.'' [6] For example, pursuant to 49 U.S.C. 5329(b)(2)(B), FTA must develop and implement a new National Public Transportation Safety Plan that includes the definition of state of good repair developed under this final rule. Additionally, pursuant to 49 U.S.C. 5329(d)(1)(E), a transit agency safety plan must include performance targets based on the SGR measures that will be included in a National Safety Plan.

The final rule reflects FTA's recognition of the nexus between transit asset management and safety. While asset condition is not always a contributing factor in safety events, FTA believes that there is a relationship between the condition of an asset and safety performance. FTA acknowledges that a transit asset that is in a state of good repair may be operated unsafely; conversely, a transit asset that is not in a state of good repair may be operated safely through appropriate safety risk mitigation strategies.

FTA's approach to TAM is consistent with its proposed SMS approach to safety. A fundamental aspect of transit asset management is the monitoring of asset condition data as an indicator of system performance. Similarly, SMS is a formal data-driven approach to managing safety risk and assuring the effectiveness of safety risk mitigations. SMS does not require a provider to take a specific action be taken to address a specific safety risk. Implementing SMS merely provides an organization with a systematic way to identify and understand safety risks, and subsequently make a determination about how to mitigate those risks.

The requirements of this final rule can be implemented in the absence of the components of the National Safety Program referenced in the comments. Again, this final rule is scalable and flexible. The final rule neither defines nor prescribes standards for ''unacceptable safety risk.'' FTA believes that each provider is in the best position, based on knowledge of both its unique operating environment and availability of resources, to make determinations regarding categorization and mitigation of risks. The final rule merely requires that a transit provider give due consideration in its investment prioritization to those assets that pose an identified unacceptable safety risk.

FTA does not agree with the commenter who suggested that public access to those safety risks that may be identified in a TAM plan or safety plan, may increase safety risks for the rail system. FTA did not propose in the NPRM that a transit provider document its safety risks in its TAM plan. In determining the state of good repair of an asset, FTA proposed that a provider consider whether or not the asset poses an identified unacceptable safety risk and that a provider considers those risks in the development of its investment prioritization.

This final rule allows a transit provider to determine its own ULBs, based on knowledge of its operating environment and the performance of its individual assets. Each transit provider will need to determine what investments should be made in order to improve the performance of its transit system.

[6] H.R. Rep. No. 112–557 at 603 (2012) (Conf. Rep.). In addition, the text of the Public Transportation Safety Act of 2010 was incorporated into both the transit asset management and safety provisions of MAP–21. *See* S. 3638, 111th Cong. (2010). In the report accompanying the 2010 Act, Congress stated that ''state of good repair directly relates to the safety of a public transportation system, as the likelihood of accidents increases as the condition of equipment and infrastructure worsens.'' S. Rept. 112–232 at 10 (2010). The requirements proposed under the Act were intended to establish a ''monitoring system for the safety and condition of the nation's public transportation assets.'' *Id.* at 1.

FTA understands the uncertainty expressed by some commenters regarding the nexus between transit asset management and safety. FTA also understands the uncertainty expressed in those comments regarding compliance with the requirements of the final rule that are related to safety, in the absence of a final National Public Transportation Safety Plan and a final rule for public transportation agency safety plans.

On February 5, 2016, FTA issued a proposed National Public Transportation Safety Plan (81 FR 6372–3) and a notice of proposed rulemaking (NPRM) for Public Transportation Agency Safety Plans (Agency Safety Plans). 81 FR 6344–71. The proposed rule for Agency Safety Plans would require transit agencies to set performance targets based on the safety performance criteria under the National Safety Plan. FTA proposed one criterion to measure the relationship between asset condition and safety performance. The proposed Agency Safety Plan rule also would require a transit operator to establish methods for identifying and evaluating safety risks throughout all elements of its public transportation system, including its capital assets. In the coming months, FTA plans to issue both a final National Safety Plan and a final rule for Agency Safety Plans and accompanying guidance, technical assistance and other tools for both safety and TAM.

COMMENTS: Nexus Between Transit Asset Management and Planning

A Metropolitan Planning Organization (MPO) commented that States and MPOs must consider and integrate transit providers' TAM plans and targets, as well as Transit Agency Safety Plans and targets, into the planning process, including decision-making on funding allocations and prioritization of investment strategies. A State DOT stated that consistency between FTA's and Federal Highway Administration's (FHWA's) TAM final rules is necessary and that State DOTs should be given flexibility to choose a phase-in option for the development of its first initial asset management plan and targets.

Several State DOTs said FTA should promote more definitive language for how TAM plans will feed into long- and short-range transportation planning and programming. Some commenters said the investment prioritization approach must be relevant to the existing planning and programming process without supplanting the statewide transportation improvement program (STIP) project selection process and capital programming processes.

One commenter requested clarification on the relationship between TAM plans and their future impacts on the development of Regional Transportation Plans. A transit operator said the proposed rule is written as if the National TAM System and TAM Program start at procurement and there is little to no mention of planning, requirements gathering, concept of operations, and hazard avoidance, which are central to true whole life-cycle management and SMS concepts.

FTA'S RESPONSE: Nexus Between Transit Asset Management and Planning

The NPRM did not propose that a transit provider abandon its existing capital planning program and the TAM requirements are not intended to supplant the capital planning process. This final rule is a baseline. The TAM requirements are intended to produce information critical to informed, sound decision-making for capital asset lifecycle investment needs. FTA understands that there may be other processes, considerations, or concepts that are not explicitly referenced in the rule, but may be central to a transit provider's implementation of a comprehensive TAM program. FTA believes that a transit provider could incorporate these other elements into its TAM plan through several of the requirements at § 625.25(b), specifically:

1. The SGR policy;
2. The TAM plan implementation strategy; and
3. An outline of how the TAM plan and related business practices will be monitored, evaluated and updated, as needed, to ensure the continuous improvement of transit asset management practices.

FTA acknowledges that compliance with the requirements for metropolitan planning will not become effective until the publication of the final TAM rule that establishes the SGR performance measures. Therefore, in the final rule on metropolitan and statewide and nonmetropolitan planning, FTA and FHWA have provided a phase-in of certain requirements to support States, MPOs and transit providers as they transition into performance-based planning and programming. FTA directs commenters to the Final Rule on Metropolitan and Statewide Planning and Non Metropolitan Planning [7] where State and MPO integration of transit providers' TAM plans, targets, and investment priorities into the performance-based planning and programming process are addressed.

COMMENTS: Appendix A: Examples of Asset Categories, Asset Classes, and Individual Assets

One commenter supported FTA's approach in Appendix A. However, a professional association and several State DOTs recommend that either Appendix A be removed from the final rule, or that the content included in Appendix A be replaced with asset categories and asset classes required for reporting to the NTD in order to align the two processes and keep reporting to a minimum. If Appendix A is retained, several of these commenters recommended that FTA either remove ''Administration'' assets from Appendix A or amend its definition to clarify what falls under the class of assets known as ''Administration.''

A professional association and a couple of State DOTs asked if the asset category infrastructure is only applicable to fixed guideway. Based on Appendix A, a couple of State DOTs said it is unclear whether FTA envisions that office equipment and vehicle related equipment (such as bus cameras) or shop equipment (*e.g.,* vehicle lifts, fueling and lubricating fuel dispensers, test equipment, etc.) would be included in a TAM plan.

A local government recommended that FTA delineate furniture and fixtures as an asset class or individual asset that is not applicable when categorizing under TAM. The commenter also suggested that FTA clarify that TAM is not a replacement for, nor should be confused with, the standard generally accepted accounting principle fixed asset categories such as Buildings, Leasehold Improvements, Land, Furniture and Fixtures, Technology, etc. Rather it is an extension or categorization of transit capital assets within the limited scope of TAM in improving safety, reliability, and performance of our nation's public transportation; thereby reducing the SGR backlog.

An individual commenter asked if FTA will provide a cross reference from Appendix A—Asset Classification in the TERM Lite Quick Start User Guide—to the Asset Category/Asset Class in Appendix A in the rule.

A transit operator stated that, in lieu of the categorizations as proposed for Appendix A, and associated definitions throughout the rule, it would support a system of asset categories and classes that is consistent with the one described in Table 2.9 in Transit Cooperative Research Program (TCRP) Report 172, ''Guidance for Developing a Transit

[7] *https://www.federalregister.gov/articles/2016/05/27/2016-11964/statewide-and-nonmetropolitan-transportation-planning-metropolitan-transportation-planning.*

Asset Management Plan,'' which also aligns more closely with the asset aggregations used in the TERM model. Another transit operator suggested that Appendix A should align with the corresponding table in FTA's 2012 Asset Management Guide because proposed Appendix A deviates from past FTA sanctioned practices and would likely disrupt systems already in use without improving the quality of data obtained. An MPO asked FTA to clarify the detail expected in Appendix A when a TAM plan is prepared as part of a group TAM plan by a State versus when prepared by the individual transit provider.

FTA'S RESPONSE: Appendix A: Examples of Asset Categories, Asset Classes, and Individual Assets

FTA included Appendix A in the NPRM to provide an illustrative example of an asset hierarchy. FTA did not intend for Appendix A to serve as an exhaustive list of asset classes and individual assets. Appendix A did not include systems as a separate asset category because systems would fall under the infrastructure category. Each asset category in the final rule is broad enough for a transit provider to incorporate its existing defined categories. Components of an asset, such as bus cameras or shop equipment, would be itemized in the asset inventory at the level of detail found in a transit providers program of capital projects. Specifically, with regard to the equipment asset category, the only assets that a provider must include in its inventory are non-revenue service vehicles and owned equipment over $50,000 in acquisition value. Additionally, equipment assets considered under the SGR performance measure and reported to NTD are exclusively non-revenue service vehicles. The equipment asset category does not include supplies, such as trash bins or pencils. A transit provider is not required to include any third-party equipment in its asset inventory. Also, see FTA's response to comments on ''Capital Asset'' and ''Equipment'' in § 625.25 Definitions.

The infrastructure asset category includes infrastructure assets for all modes. However, FTA proposed that the performance measure for infrastructure be limited to rail fixed-guideway assets. Therefore, a transit provider that does not operate a rail system would not have to set a performance target for its non-rail infrastructure assets. Similarly, the performance measure for equipment is limited to non-revenue service vehicles, and a transit provider is only required to set an equipment target for service vehicles. However, all other owned equipment over $50,000 must be included in a TAM plan. The asset inventory compiled for a transit provider's own TAM plan, particularly a rail transit provider's TAM plan, may have a greater level of detail than the inventory information reported to the NTD.

COMMENTS: Implementation and Oversight

Two commenters suggested that the oversight of the asset management reporting requirements should occur as part of a regularly scheduled oversight activity and existing programs, such as the triennial oversight program. One of these commenters encouraged FTA to set forth criteria that would prompt an as-needed asset management review, ensuring that reviews are triggered based on quantifiable criteria and defined risk, rather than on an arbitrary basis. Another commenter assumed that audit and compliance checks will be done during the triennial review because it was stated at the FTA webinars supporting the issuance of the NPRM that the TAM plans would not be submitted to FTA. The commenter requested that FTA clarify the audit and compliance verification of TAM plans in the final rule. One commenter expressed concern about FTA's assertion that it reserves the right to conduct additional oversight of TAM plans outside the triennial review process. A State DOT asked for FTA's determination of whether the National TAM System will be part of Satisfactory Continuing Control or Maintenance as it relates to the triennial review.

Several commenters said the rule should state how individual and group TAM plans will be reviewed and approved. A professional association said FTA should explicitly state that for rail fixed guideway systems, the State Safety Oversight Agency has a review and approval role.

Some commenters recommended that FTA further engage stakeholders with regard to implementing the rule. A State DOT suggested that FTA conduct a survey of all data requirements from the user level to determine if there is a way to coordinate and consolidate the process. A transit operator said FTA should consider providing an opportunity for a small delegation of transit providers to have a face-to-face dialogue to discuss concerns with the NPRM. A transit operator said there should be no additional changes to add more specific requirements in the final rule beyond those included in the NPRM, without another opportunity for the transit industry to review and comment.

FTA'S RESPONSE: Implementation and Oversight

FTA will not routinely collect or approve TAM plans. Individual transit providers, and sponsors on behalf of group TAM plan participants, must self-certify their compliance with the requirements of the final rule. FTA will consider developing a self-assessment tool as part of its technical assistance efforts. FTA intends to oversee self-certifications of TAM plans through the existing Triennial Review and State Management Review (SMR) processes, likely through the addition of a TAM module. FTA continues to reserve the right to conduct additional oversight of any of its requirements, including those related to TAM, outside of the Triennial Review and SMR processes.

FTA fully appreciates the role that State Safety Oversight (SSO) Agencies play in the safety of rail fixed guideway transit systems. FTA supports a rail transit provider's decisions to further align its safety program with its TAM program by seeking review and approval of its TAM plan by its SSO Agency. However, the final rule does not require SSO Agencies to review and approve the TAM plans of the rail transit systems that they oversee.

FTA has provided a number of opportunities for the public to comment on its approach and proposals on transit asset management. In addition to the ANPRM and NPRM, FTA sponsored several SGR roundtables, conducted an online dialogue, and issued a Transit Asset Management Guide. FTA will continue to engage with the industry on the implementation of both the TAM and safety requirements.

COMMENTS: Technical Assistance Needs

Several commenters provided statements concerning a potential template for TAM plans. A transit operator asked if FTA will issue a template that service providers can use to assure they are providing all required information FTA requires in an acceptable format. One commenter said FTA should offer technical assistance for tier II providers, or work with tier II stakeholders, to create TAM plan templates for smaller agencies and/or group TAM plans. Another commenter supported the idea that the State DOT and other sponsoring agencies develop one TAM plan template, but expressed concern about DOT's lack of adequate resources to develop a template, provide oversight, track assets and provide NTD reports on SGR and asset management.

Several commenters said FTA should provide training on the use of TERM

and the TERM scale for State DOTs and subrecipients prior to inclusion of facilities in the TAM plan.

A couple of commenters said FTA could provide assistance to those transit agencies that are new to asset management by publishing a sample definition of an asset. One of these commenters also said FTA should provide a toolkit as part of the final rule.

Some commenters asked for technical assistance from FTA on the following specific topics:

1. Decision processes and tools for assessing probability of risks.
2. SGR backlog calculation.
3. Developing quality and cost-effective condition assessments.
4. The new reporting requirements.

One commenter requested that FTA engage in a comprehensive asset management technical assistance effort as soon as the final rule has been published.

FTA'S RESPONSE: Technical Assistance Needs

FTA appreciates the recommendations for technical assistance tools. FTA's suite of TAM technical assistance tools will include one or more TAM plan templates, guidance or training for TERM, and guidance for performance measurement. Currently, the 2012 TAM Guide is FTA's primary guidance on transit asset management. It combines previous research, case studies, lessons learned from other FTA initiatives, and best practices.

COMMENTS: Additional Comments

A couple of commenters said FTA should ensure consistency between FTA and FHWA transportation asset management rulemakings.

One commenter said FTA should clarify to what degree the new asset management framework is potentially displacing local agency decision-making. The commenter said it has been a long-standing understanding that FTA will not substitute its judgment for that of its grantees, and final decisions on the allocation of both Federal and local funds should still rest with the implementing agency, not an entity operating at the national level.

Another commenter urged FTA to consider and request comments on adding governance metrics to the TAM rule that would permit external stakeholders to understand the challenges faced by individual agencies in balancing their capital and operating needs, and to identify agencies exerting insufficient effort in prioritizing SGR projects. For example, the commenter suggested that the following metrics might be appropriate: Available capital funding per transit asset; available capital funding per cumulative annual passenger trip; and proportion of capital budget appropriate to SGR projects.

An individual commenter asserted that the proposed rule's failure to address public transportation's human capital assets is a missed opportunity to address the high risks to both safety and performance that have resulted from the sector's failure to take a more strategic and systematic approach to acquiring, developing, and retaining individuals with needed skills. This commenter urged FTA to incorporate into the National TAM System requirements that would ensure the collection and reporting of basic workforce data, and provided specific suggestions of human resources performance data to collect.

FTA'S RESPONSE: Additional Comments

The FHWA and FTA asset management statutes are not identical; therefore the requirements under each agency's asset management rule will be different. However, the purpose of both rulemakings is to improve the condition of the Nation's transportation assets. Another rulemaking effort, the coordinated FHWA and FTA Metropolitan and Statewide and Non-Metropolitan Transportation Planning, will implement a performance-based approach to planning and programming (PBPP). This final rule supports the PBPP framework by requiring transit providers to share their TAM plans with their State and MPO planning partners and to coordinate with States and MPOs in the selection of State and MPO targets.

The requirements of the final rule do not displace local agency decision-making. The requirements of the final rule do not limit a transit provider from implementing additional TAM provisions, activities, and metrics. The final rule's information gathering, analysis, and prioritization requirements are intended to inform the local decision-making process.

FTA recognizes that human capital assets are an essential component of implementing a TAM plan; however they do not meet the statutory definition of ''capital asset.'' In the NPRM, FTA proposed that a tier I provider develop a nine element TAM plan, and has maintained this requirement in the final rule. One of the nine elements was a specification of resources, including personnel needed to develop and implement the TAM plan.

C. Section by Section NPRM Comments and FTA's Responses

This section provides summarized comments by NPRM section, FTA's responses, and changes made in the final rule.

Section 625.1 Purpose

This section proposed that the purpose of these regulations is to carry out the mandate of 49 U.S.C. 5326 for transit asset management.

COMMENTS:

A few commenters expressed support for the Federal objectives for the National TAM System laid out in proposed § 625.1. A transit operator asked if FTA has considered using the ISO 55000 framework to accomplish this mandate.

FTA'S RESPONSE:

Prior to MAP–21, FTA began researching transit asset management and developing TAM policies and best practices for the transit industry. FTA reviewed a number of resources prior to developing the NPRM, including the international asset management standard established by ISO. FTA believes that this final rule sets forth a flexible approach to implementing transit asset management that is consistent with current best practices.

FINAL RULE:

FTA is including this section in the final rule without change.

Section 625.3 Applicability

This section proposed that the regulations would apply to all transit providers that: (1) Are recipients or subrecipients of Federal financial assistance under 49 U.S.C. Chapter 53; and (2) own, operate, or manage transit capital assets.

COMMENTS: Applicability—Assets Maintained, Owned, or Operated by a Third-Party

Many public comments addressed the applicability of the rule to contractor assets. Numerous local transit operators, several State DOTs, and other commenters asserted that a third party contractor's assets should not be required to be included in a provider's TAM plan. Some of these commenters suggested that this is a matter of contract administration and a transit provider should determine how they will approach the issue of the condition of a contractor's assets based on the nature of each individual contract. A private company in supply of transit assets recommended that assets other than rolling stock that are fully owned

by a private contractor (*e.g.,* tools and diagnostic equipment) should not be incorporated into TAM asset inventory. In contrast, one State DOT expressed support for the applicability of TAM performance targets to a transit provider's leased assets and assets operated under a service contract.

Two transit operators and an MPO pointed out that in some instances a contractor may be providing services to several transit agencies using the same assets or multiple transit agencies may share an intermodal terminal, and it is unclear which agency would be responsible for collecting condition information and reporting of those shared assets. For this reason, the MPO commented that overlapping reporting of the same assets by different agencies would cause reconciliation issues, unnecessary data collection costs, and unnecessary coordination issues to ensure consistency in asset representation. Also relating to shared assets, a transit operator expressed concern that the transit provider has no control over the maintenance schedule; repair or replacement of contractor owned assets and suggested that each transit provider should be allowed to determine which assets to include in its TAM plan. For similar reasons, two transit operators and a business association recommended that capital assets outside a transit operator's control—such as passenger stations maintained by station cities, track owned and maintained by freight railroads used under shared-use agreements, or a building for which a transit agency is leasing a portion—should not be included in the agency's TAM plan.

Some commenters asked whether assets owned by a third party contractor and used in the provision of public transportation service (*e.g.,* vehicles owned by third party paratransit provider, maintenance facilities where contractor-owned buses are stored and maintained) must be included in a recipient's asset inventory. A transit operator asked if space it leases for its administrative offices needs to be included in its TAM asset inventory. Two transit operators asked if taxicabs and other vehicles occasionally used to provide paratransit service pursuant to the Americans with Disabilities Act (ADA) should be included in the TAM asset inventory. If so, one of these commenters requested that FTA provide an explanation in the final rule as to how an agency would decide which vehicles to include. Commenting that a transit provider has little control over which assets are used by a third-party provider, a transit operator asked if rolling stock that is used intermittently through third-party providers would be included in the TAM plan.

A transit operator expressed concern that condition assessments for assets maintained by its contractual partners may be considered proprietary information that the private carriers are not willing to share due to liability issues. A local transit provider asked how FTA would suggest an agency impose and monitor more stringent safety/SGR investment standards to third party providers that have a service contract for asset maintenance and/or operation. Several State DOTs and another commenter recommended that leased assets that otherwise would be required to be included in a TAM plan should not be included unless the lease is for a minimum of 5 years.

A State DOT asked whether a non-profit agency providing specialized transportation service to complement a subrecipient's service would need to include all of its vehicles in a TAM plan or only those vehicles that is leases from the subrecipient.

If the assets of a contracted service provider do fall under a transit agency's asset inventory for purposes of TAM plan requirements, a transit operator recommended that FTA allow for a transition period for contracted services in which existing contracts can be modified or new contracts can be bid and awarded to accommodate the new requirements. This commenter also expressed concern that the introduction of TAM requirements into service contracts would increase contract costs without meaningfully improved service, and in some cases could lead to service reductions as a result of contracted cost increases.

An MPO suggested that, if FTA is interested in getting the full picture of an agency, it could require reporting of the shared, leased, and contracted assets that are directly used by the agency, but at a very basic level and that the non-owners should be exempted from the performance metrics for these assets. As an alternative to reporting leased and contracted assets, this commenter suggested that FTA could request that agencies meet the performance requirements of leased and contracted assets by including language regarding compliance with FTA's SGR performance standards in the agency's contracts with vendors.

A transit operator commented that a tier I provider should not be required to include assets used and maintained by other tier I providers as part of its TAM asset inventory. An MPO requested guidance from FTA on how and which TAM plan(s) should incorporate capital assets that are collectively purchased and collectively maintained by a regional authority.

FTA'S RESPONSE: Applicability—Assets Maintained, Owned, or Operated by a Third-Party

The applicability of the requirements proposed in the NPRM was consistent with FTA's analysis of the SGR backlog and with current NTD reporting requirements. The Nation's $85.9 billion SGR backlog is a value derived from FTA's TERM, which is based on a comprehensive assessment of the Nation's transit capital stock reported to the NTD, including those assets that are owned by third parties.

FTA agrees with commenters who suggested that requiring the inclusion of contracted assets in a TAM plan may be difficult to implement and may prove to be overly burdensome and costly. However, the agency continues to believe that a TAM plan should, to a certain extent, take into account these types of assets. Thus, in this final rule, FTA has attempted to strike a balance between these concerns.

This final rule requires that a transit provider include in its asset inventory all equipment, rolling stock, facilities, and infrastructure that it owns. A provider may exclude from its asset inventory any equipment with an acquisition value of less than $50,000, unless the equipment asset is a service vehicle. A transit provider must only include in its asset inventory third-party owned, or jointly-procured rolling stock, passenger stations, administrative and exclusive-use maintenance facilities, and guideway infrastructure assets for which it has direct capital responsibility.

Further, the final rule only requires a transit provider to conduct condition assessments, establish performance targets, and include in its investment prioritization, those inventoried assets for which it has direct capital responsibility.[8] A transit provider has direct capital responsibility for any asset that it owns. A transit provider also has direct capital responsibility for any asset that is currently included in its program of capital projects or an asset that the provider can reasonably anticipate it will include in its program of capital projects during the TAM plan horizon period. Once an asset becomes a part of a transit provider's capital program, the transit provider must comply with the final rule's condition assessment, target setting (if applicable), and investment prioritization requirements. This

[8] See Appendix C for example tables to illustrate the relationship amongst TAM plan elements.

reduction of scope allows a transit provider to obtain a broad view of the condition of the assets within its system, but limits the majority of the burden of associated with other activities that may have limited impact due to the provider not having direct capital responsibility.

FTA does not believe that it will be overly burdensome for a transit provider to include third-party owned vehicles, facilities, and guideway infrastructure in its asset inventory. Transit providers are already required to include detailed information on third-party vehicles and third-party guideway infrastructure in the NTD. FTA believes expanding asset inventories to include third-party passenger facilities and exclusive use maintenance facilities is important, as it will provide valuable information on the total number, size, and scope of facilities in the transit industry. The inclusion of a broad set of assets into the inventory is intended to provide funding decision makers with a full picture of their system and an opportunity to think proactively and long term about investment priorities for state of good repair.

FINAL RULE:

FTA is including this section in the final rule without substantive change. However, FTA is revising § 625.25(b)(1) to clarify which assets used in the provision of public transportation must be included in an asset inventory and to require condition assessments for those asset that a transit provider has direct capital responsibility for. FTA will issue guidance to aid transit providers in the implementation of the requirements of this final rule.

COMMENTS: Applicability—Other Comments

Some public comment submissions included other comments relating to the scope or applicability of the proposed rule. A State DOT, a business association, and a tribal government suggested that the TAM rule should apply only to capital assets purchased (or eligible to be funded) with FTA funding. State DOTs and other commenters said TAM plans for providers that only receive Section 5310 funds should only be required to include ''FTA-funded'' assets, even if FTA does not apply this definition to all TAM plans. An MPO, a State DOT, and a State transit agency said Section 5310 recipients should be excluded if they do not own vehicles funded through FTA sources. Two State DOTs and a transit operator suggested that all Section 5310 subrecipients that are not also Section 5307 or 5311 subrecipients should be excluded from the FTA TAM requirements. Three State DOTs, an MPO, and other commenters recommended that 5310 requirements for TAM reporting should be scaled back to a level that is reasonable and appropriate, reasoning that most 5310 subrecipients do not have the resources to implement a TAM or report to the NTD.

A professional association and a transit operator requested that FTA provide an exemption from the FTA TAM requirements to transportation providers that have fewer than 30 or 31 vehicles operating during peak service, which the commenters said would include most Section 5310 agencies. The transit operator stated that subrecipients awarded Section 5310 program funds are predominantly very small human service agencies including disability, aging, and health service providers, and asserted that human services agencies performing as transit providers are vastly different than transportation agencies in size, function, investment, and target populations served. Further, the professional association stated that the 30-vehicle threshold is consistent with the definition used in NTD reporting requirements to differentiate small from large agencies.

Similarly, a State DOT urged FTA to reduce the requirements for rural transit systems that have a minimal number of assets, including Section 5310 and Section 5311 subrecipients. An MPO recommended the creation of a tier III for Section 5311 subrecipients to ensure that the Group plans are manageable in scope and size. Two State DOTs and other commenters suggested that Section 5310 subrecipients should be exempt from the rule; however, if they are included, then these commenters recommended that Section 5310 subrecipients having less than ten vehicles should be exempt. Another State DOT suggested that any transit agency with fewer than ten vehicles should be exempt from TAM plan requirements. One commenter stated that the inclusion of Section 5310 vehicles was confusing because they have a much smaller useful life and operate in a different area than public transportation vehicles. This commenter was concerned that including these vehicles would dilute the SGR for the program as a whole.

An association that serves as a liaison between state departments of transportation and the Federal government said that 5310 subrecipients will find the burden of accepting FTA funds to significantly outweigh the benefits to their organization. According to this association:

> ''State DOTs will find it increasingly difficult to find effective subrecipients with the final result being loss of essential transportation services. Seniors and persons with disabilities will lose their only means for transportation to the grocery store, friends and family, and medical services. Section 5310 is an important aspect of the Rides to Wellness Initiative. One of the goals of the Coordinating Council on Access and Mobility is to ''Streamline federal rules and regulations that may impede the coordinated delivery of services, and improve the efficiency of services using existing resources.'' However, without scaling back the TAM plan requirements for Section 5310 subrecipients, FTA is adding barriers that may be impossible to overcome.''

Other commenters also stated that the cost of complying with the TAM requirements may result in Section 5310 entities discontinuing the services they provide.

A transit operator recommended that tier II providers that can demonstrate that they have effective existing asset management systems should be eligible for waivers from the TAM plan requirement. Several State DOTs and other commenters said subrecipients that receive solely Section 5311(f) funds should be excluded from the TAM planning process because intercity bus service (Section 5311(f)) is expressly excluded as a public transportation provider under the MAP–21 definition of public transportation in 49 U.S.C. 5302. If the final rule does not exempt the Section 5311(f) program in its entirety, one State DOT suggested that the rule should clarify that for the Section 5311(f) program, each State DOT may limit its TAM plan to just those assets deployed in their State and the State DOT has directly funded with Section 5311(f) funds, given that many States contract with national or regional private companies for the program.

An anonymous commenter asked if subrecipients of 5309 grant-funded vehicles that serve their clients and do not provide public transit service must be included in the TAM plan.

Two State DOTs said assessing the condition of and making an investment plan for each capital asset unit will place too large of a burden on subrecipients since the unit or units in question might represent a very small portion of the total dollar value of the provider's assets. Another State DOT suggested that (1) the rule should only focus on those assets that require long-term financial planning windows, (2) leased assets should not be included in the scope of the rule unless the lease is for a minimum of 5 years, and (3) the rule should expressly exclude office

space or other administrative support facilities or equipment.

A representative of tribal governments commented that it interprets the proposal as covering every Indian tribe that receives Chapter 53 transit funding, regardless of how small such Federal assistance may be or how few capital assets a tribal transit system may possess. A tribal government suggested that FTA consider a tier III transit provider classification for Indian tribal governments that would mandate much simpler planning and reporting requirements. This commenter reasoned that because Indian tribes own and operate ten vehicles or less at any given point in time, the man-hours burden to comply with the TAM rule cannot be justified for transit systems of this size and scale.

A State DOT recommended that FTA should develop a four tiered approach similar to current Federal regulations, with tier requirements based on population (*i.e.,* less than 50,000, 50,000–200,000, and greater than 200,000), with a fourth tier for specialized services. This commenter reasoned that the proposed two-tier framework based on a threshold of peak revenue vehicles would not adequately segregate systems with varying sizes and asset management capabilities. A trade association recommended that FTA revise its proposed TAM rule to incorporate scalable mechanisms for TAM plans appropriate to the size and scope of each agency.

Two commenters suggested that FTA change proposed § 625.3 language to read: ''This part applies to all recipients or subrecipients of Federal financial assistance under 49 U.S.C. Chapter 53 that own, operate, or manage capital assets used in the provision of all modes of public transportation.''

A State DOT recommended that FTA provide in § 625.3 a more comprehensive list of all FTA recipient and subrecipient types that would be subject to the FTA TAM regulation.

An MPO commented that the requirements for non-public transit provider recipients to comply with the TAM rule potentially would create an undue burden for FTA and the funding recipients and the cost for these projects and services to comply likely outweighs their impacts to the transit SGR for most regions. For this reason, the commenter recommended that FTA should either exempt recipients that receive only Section 5307 or Section 5310 funds from the TAM plan requirements, or further reduce the requirements for those providers.

Asserting that TAM requirements should be different for bus-only systems, a professional association suggested that FTA consider using the language and concepts developed in the voluntary bus safety program developed from the 2003 Memorandum of Understanding signed by FTA, American Association of State Highway and Transportation Officials (AASHTO), the American Public Transportation Association (APTA), and the Community Transportation Association of America (CTAA).

FTA'S RESPONSE: Applicability—Other Comments

In order to address the SGR backlog in a meaningful way, FTA believes that a TAM plan must account for both those assets acquired with FTA funding and those that were not. In many cases, it is neither feasible nor does it make sense to distinguish between assets that were acquired with FTA funds and those that were not. Indeed, many of the legacy rail assets in the state of good repair backlog that are most in need of replacement were procured decades ago, prior to the establishment of a Federal financial assistance program for public transportation. The source of funds used to acquire the asset is of no consequence when making a determination regarding whether or not an asset is in a state of good repair and whether or not the asset needs to be included in the investment prioritization. FTA believes that accounting for all assets will provide a transit provider with important information that should be used to make more informed investment decisions for state of good repair.

FTA believes that this final rule is sufficiently scalable and flexible. FTA does not agree that it should provide waivers for tier I providers who already have effective transit asset management systems. The rule does not require a transit provider to abandon existing effective practices. Instead, the requirements of the rule can be integrated into and complement existing practices. Moreover, FTA does not agree that some or all tier II providers should be exempted from the TAM requirements. Tier II providers are only required to develop a four element TAM plan. A tier II plan must include only (1) an asset inventory, (2) condition assessments, (3) a decision support tool, and (4) a prioritization of investments for state of good repair.[9] A tier II provider also is required to set performance targets and report to the NTD. The fewer assets a provider has, the fewer assets would be included in an asset inventory, and the less time and effort would be required to comply with the other requirements.

In addition to the reduced requirements, tier II providers also may be eligible to participate in a group TAM plan that would be developed by a sponsor. The sponsor would be responsible for developing the TAM plan, setting targets, and reporting to the NTD on behalf of the group TAM plan participants. FTA believes that the two-tiered approach and group TAM plan option significantly reduce the burden of the TAM requirements on smaller, less sophisticated transit providers.

To the commenter concerned that inclusion of 5310 would ''dilute the SGR of the program as a whole,'' under the final rule, the performance measure for vehicles is based on the ULB. A transit provider may set a ULB in consideration of the type of vehicle, type of service, and operating environment. The ULB option allows for a more accurate assessment of the useful lives of vehicles based on operational realities.

This final rule only applies to recipients and subrecipients of chapter 53 funds who own, operate, or manage public transportation capital assets used in the provision of public transportation. The final rule does not apply to recipients of planning or research grants and cooperative agreements that do not provide public transportation. The term ''public transportation'' is defined at 49 U.S.C. 5302(14) and means regular, continuing shared-ride surface transportation services that are open to the general public or open to a segment of the general public defined by age, disability, or low income; and does not include—

1. intercity passenger rail transportation provided by the entity described in chapter 243 (or a successor to such entity) of Title 49,
2. intercity bus service,
3. charter bus service,
4. school bus service,
5. sightseeing service,
6. courtesy shuttle service for patrons of one or more specific establishments, or
7. intra-terminal or intra-facility shuttle services.

Public transportation does not include intercity bus transportation that may be

[9] By contrast, a tier I plan must include these four elements and also these five additional elements: A TAM and SGR policy; a TAM plan implementation strategy; a description of key TAM activities that the provider intends to engage in over the TAM plan horizon period; a summary or list of the resources, including personnel, that the provider needs to develop and carry out the TAM plan; and an outline of how the provider will monitor, update, and evaluate, as needed, its TAM plan and related business practices, to ensure the continuous improvement of its TAM practices.

eligible for financial assistance under 49 U.S.C. 5311(f). In addition, public transportation does not include service that is closed to the general public and only available to a particular clientele. For example, a subrecipient under the formula program for elderly persons and persons with disabilities (49 U.S.C. 5310) that operates service that is open to a segment of the general public (*e.g.* elderly persons or persons with disabilities) must comply with this final rule. However, a nonprofit subrecipient under the section 5310 program that operates closed-door service (*e.g.* for members of a specific senior center or for participants in a specific sheltered workshop program only), is not a provider of public transportation and is not subject to the final rule.

To clarify, recipients and subrecipients of 49 U.S.C. 5310 program funds that do not operate public transportation are not subject to this rule. FTA estimates that this rule would apply to approximately 20% of all recipients and subrecipients of section 5310 funds. Those 5310 providers that are subject to the rule are eligible to participate in a group plan developed by a TAM plan sponsor which significantly reduces the impact of this rule to 5310 providers.. FTA does not believe the TAM provisions in this rule will result in a reduction or discontinuation of 5310 services, nor does FTA believe that State DOTs will find it difficult to find effective subrecipients to participate in their 5310 programs as a result of the rule.

FINAL RULE:

FTA is including this section in the final rule without substantive change. However, FTA has revised § 625.25(b)(1) to clarify which assets used in providing public transportation, including but not limited to all revenue vehicles, all passenger stations, all exclusive use maintenance facilities, all non-revenue service vehicles regardless of value, and owned equipment over $50,000 in acquisition value, must be included in an asset inventory and § 625.25(b)(2) to require condition assessments of only those asset that a transit provider has direct capital responsibility for.

Section 625.5 Definitions

This section proposed definitions for terms that would be applicable to the proposed part. Some of the terms were familiar to the transit industry, but were defined slightly differently for purposes of the NPRM. This final rule includes a number of non-substantive changes to the definitions proposed in the NPRM to provide further clarity regarding the meaning of terms.

COMMENTS: Definition of ''Accountable Executive''

Several State DOTs and other commenters recommended that FTA should clarify the definition of Accountable Executive by adding, ''An official of a State may not be considered to be an Accountable Executive unless the State is a transit provider and, if so, only with respect to the State's activities as a transit provider.'' One State DOT requested that FTA redefine ''Accountable Executive'' for State DOTs or subrecipients who are in a group plan and state that the executive does not necessarily have the full range of responsibilities as defined.

Three commenters suggested that the definition should take into consideration that some transit agencies may have an organizational structure where the listed responsibilities are divided among more than one executive. For such agencies, these commenters suggested that the agency should be allowed to identify the Accountable Executives and their respective roles as part of the TAM plan. For similar reasons, rather than defining the Accountable Executive, a transit operator suggested that FTA inform State and local governing bodies that whoever is designated as the Accountable Executive must be granted authority to implement the adopted capital and TAM plan. Further, this commenter proposed that FTA add a provision that states no liability rests on the Accountable Executive personally.

An industry association commented that it may be overly burdensome and cause an overlap of job duties to have one Accountable Executive that oversees all safety and asset management requirements in planning, operations, maintenance, and other departments. A transit agency recommended that the Accountable Executive for asset management decisions and for the certification of agency TAM plans, be enabled to be separate from the decision-maker on safety because in many agencies the safety management decision-maker and the asset management decision-maker are different people, reporting to the chief executive.

Two MPOs stated that, in the case of the small, urbanized areas, it is unclear how the Accountable Executive at the local level can be responsible for approving the TAM plan if it is developed, approved, and implemented by the State.

A transit operator asked FTA to clarify whether the Accountable Executive may be the Chief Executive Officer (CEO) or General Manager (GM). Stating that the proposed definition of Accountable Executive is not consistent with the SMS rule that was provided earlier this year, one commenter suggested that if the intent is to point directly at the GM, CEO, President, or highest ranking executive, the definition should be shortened to that statement.

FTA'S RESPONSE: Definition of ''Accountable Executive''

FTA agrees with commenters who suggested that a group TAM plan sponsor is not the Accountable Executive for each participating transit provider. However, by participating in a group TAM plan, an individual transit provider's Accountable Executive may be required to defer to the decisions of the sponsor regarding prioritization of investments. Nonetheless, each transit provider's Accountable Executive is ultimately responsible for implementing TAM at their agency.

An Accountable Executive should be a transit provider's chief executive; this person is often the CEO or GM. FTA understands that at many smaller transit providers, roles and responsibilities are more fluid. However, FTA does believe that, even in circumstances where responsibilities are either shared or delegated, there must be one primary decision-maker who is ultimately responsible for both transit asset management and safety. It is a basic management tenet that accountabilities flow top-down. Therefore, as a management system, transit asset management requires that accountability reside with an operator's top executive.

FINAL RULE:

FTA is including the definition in the final rule without substantive change.

COMMENTS: Definitions of ''Asset Category'' and ''Asset Class''

A transit operator commented that the grantee should have flexibility to establish classes that match its existing planning and/or budgeting systems. This commenter recommended that Appendix A should be clearly labeled as not being definitive.

Three commenters recommended that FTA align the proposed asset categories with FTA's TERM/TERM Lite programs. A transit operator expressed support for FTA's approach to asset categories stating that this flexible approach would allow the classes to mirror each provider's capital program more effectively.

FTA'S RESPONSE: Definitions of ''Asset Category'' and ''Asset Class''

FTA proposed simple, flexible definitions for the terms ''asset category'' and ''asset class.'' The proposed definitions are compatible with most existing planning and budgetary systems, including those used by TERM-Lite. The asset class examples listed in appendix A do not represent all possible classes of assets, nor do they represent the only asset categories that may be used. For example, TERM-Lite uses a separate asset category for systems, whereas this rule includes systems as part of the infrastructure category. Nonetheless, the two definitions are compatible, and can be cross-referenced with each other.

FTA has labeled Appendix A as an example, as suggested by a commenter. Each transit provider may define its own asset classes within an asset category, provided that the transit provider is able to meet the performance measure target-setting and NTD reporting requirements of the final rule.

FINAL RULE:

FTA is including the definition in the final rule without change.

COMMENTS: Definition of ''Asset Inventory''

A transit provider recommended that the regulation and any guidance should specify that the term ''asset inventory'' refers to the required biennial inventory and that references to the inventory are comparable wherever it is required. Further, this commenter suggested that FTA consider adopting the FHWA Highway Economic Requirements System (HERS) approach, which is based on statistical sampling, and which the commenter asserted would improve data quality and reduce data collection burden.

FTA'S RESPONSE: Definition of ''Asset Inventory''

FTA proposed a simple definition for the term ''asset inventory.'' A transit provider may develop an asset inventory to meet the requirements of the final rule by using a number of sources, including its existing biennial inventory. FTA did not set forth a sampling method for a transit provider to determine which assets it should include in its asset inventory. This final rule requires that a transit provider's asset inventory include all assets used in providing public transportation. However, a transit provider may satisfy the requirement for condition assessments by conducting a sampling of assets within an asset class, or use another method of their choosing.

FINAL RULE:

FTA is including the definition in the final rule without change. However, FTA notes that § 625.25(b)(1) has been modified to clarify the assets this final rule requires to be included in the TAM plan asset inventory.

COMMENTS: Definition of ''Capital Asset''

Several transit operators and State DOTs requested a clearly defined monetary threshold for ''capital assets.'' Some commenters that recommended a minimal monetary threshold reasoned that it would allow for the collection of only useful data and eliminate the tracking of items of minimal value that are not critical to the provision of public transportation (such as trash dumpsters, office desks, copiers, fax machines, floor jacks, desk calculators, office chairs, coffee pots, clocks, battery chargers, etc.), which would impose a substantial burden on transit agencies. A transit operator urged FTA to decide on a dollar threshold based on evidence with some likely projection of outcome (*e.g.,* number of assets and value of the data from the assets).

Some commenters recommended specific monetary thresholds, including $100,000, $50,000, $25,000, $10,000, and $5,000.

Other commenters suggested other criteria in addition to monetary thresholds for what should be considered an asset. For example, three State DOTs and other commenters recommended that a capital asset must meet all of the following criteria to be required as part of TAM plan asset inventory: (a) FTA-funded, including assets likely to be maintained, replaced, or repaired with FTA funds; (b) an initial cost of at least $50,000 (as determined by the provider) or any rolling stock; (c) a ULB of at least 5 years or greater. Two transit operators also suggested that only federally funded assets should be considered capital assets for purposes of the TAM plans. In contrast, one State DOT expressed support for the TAM plan covering all assets in the provision of public transportation and not just the ones purchased with Federal funding, reasoning that it would allow for more consistency in the TAM development, implementation, and review process.

A business association agreed with criteria (b) and (c) of the above suggested capital asset definition. This commenter and an MPO also requested that FTA specify the assets to be included to avoid inconsistencies during reviews. For example, these commenters asked whether spare parts with a new bus should be included. These commenters also recommended that FTA provide a phase-in for asset classes that are lower priority, such as equipment with a value of less than $50,000.

A State DOT agreed with criteria (a) of the above suggested capital asset definition, but for the monetary threshold (criteria (b)), it recommend a lower value threshold of $20,000. Similarly, to reduce the cost burden to transit providers, two MPOs and three other commenters recommended that FTA limit assets reported in the TAM plan to assets with a value of at least $50,000 and a ULB of five years or greater. A State DOT agreed with these thresholds for non-rolling stock transportation assets, but suggested that the scope of assets included in a TAM plan should include all rolling stock.

A joint submission from regional transit organizations said FTA should define a cost/expected life threshold of an asset to be tracked and assessed. For purposes of FTA's TAM program, assets thresholds should be at higher levels (*i.e.,* over $50,000 and more than a 3-year life) or established risk vulnerabilities. A transit operator suggested further defining what is considered a capital asset for purposes of the National TAM System by providing thresholds of a minimum cost of $50,000 and a useful life of 1 year.

A professional association, a State DOT, and transit providers requested that FTA permit States and direct recipients to use their own definition of capital asset or existing industry standard best practices (*e.g.,* ISO 12224 standards). Some transit operators recommended that each transit operator should be allowed to determine which assets to include in its TAM plan (*e.g.,* only assets deemed critical to a transit provider's operation or service/risk model), with one commenter expressing concern about double counting of shared assets. Although commenting that the definition of asset is unique to each agency, an MPO requested that FTA issue broad guidance or a set of parameters that would clarify what FTA considers an asset.

A transit operator made the following comments: (1) It is important that asset definitions are understood uniformly across the departments of a single organization, and across transit agencies, nationwide, (2) FTA should refrain from expanding the definition of capital asset beyond the level of detail prescribed by 49 U.S.C. 5326, and (3) the regulatory definition should be narrowed, rather than broadened, to provide clarification. The commenter also said FTA should update its C5010.1

Grants Management and C5300.1 State of Good Repair Grants Program guidance documents to reflect the definitions established by this rulemaking.

In contrast, expressing concern that the term ''minimum level of granularity'' could be construed to include assets whose value is so minimal as to make the maintenance of the asset inventory unreasonable, a State public transportation system urged FTA to instead define and construe capital assets more broadly. Similarly, a transit agency recommended that FTA not restrict agencies to focus only on ''capital assets'' and simply use the term ''assets.'' Two commenters suggested that FTA revise the definition to reference an asset ''used in any mode of public transportation.''

A transit operator suggested that capital assets should, at a minimum, include items that most agencies presently track as an asset due to their cost and impact on the overall asset's condition (*e.g.,* bus engines, bus transmission, bus axles, rail HVAC units, and rail trucks). Another transit operator also expressed concern with the proposed definition of capital asset, commenting that systems within facilities or portions of infrastructure may be more realistically considered capital assets.

FTA'S RESPONSE: Definition of ''Capital Asset''

FTA proposed a broad definition of ''capital asset''. The definition encompassed all capital assets that may be used in the provision of public transportation service. Commenters who suggested that FTA include a monetary threshold in the definition of the term capital asset should understand that there is a distinction between what a capital asset is and whether or not it must be included in an asset inventory. FTA clarifies that the definition of ''capital asset'' does not include supplies (such as trash dumpsters, office desks, copiers, fax machines, floor jacks, desk calculators, office chairs, coffee pots, clocks, battery chargers, etc.); implementation guidelines will provide specific alignment with other FTA program guidance, for example, FTA's Grant Management Requirements Circular 5010.1.D. FTA has revised the final rule to clarify which capital assets a transit provider must include in its asset inventory.

FTA considered including a monetary threshold in the definition of a capital asset, and alternatively, a monetary threshold for including a capital asset in the TAM plan, but has decided against this approach. FTA wanted to propose a flexible and scalable approach to TAM that could apply to all different types of transit agencies. FTA believes the proposed definition is consistent with a scalable and flexible approach that can accommodate many existing capital planning practices. A monetary threshold could work against that interest because it would establish a one size fits all fiscal indicator, which may not have the same significance for every transit provider. Further, in order to stay current, FTA would need to regularly adjust a monetary threshold for inflation over time.

However, FTA has identified a monetary threshold for the equipment category to provide structure and consistency to the types of assets required in this category. The equipment category could be misapplied depending on the size of a transit provider's portfolio, as some transit providers identify equipment to a level of specificity beyond usefulness in a TAM plan. FTA has determined that all non-revenue service vehicles regardless of value and any owned equipment over $50,000 in acquisition value must be included in a TAM plan asset inventory. These constraints maintain the value of including equipment assets in the TAM plan without introducing undue burden on transit providers to include items of minimal value.

Historically, FTA has not required tracking of Federally-funded assets below $5,000 in value. This rule does not change that. Transit providers will not be required to include in their asset inventories any assets, regardless of funding source, that fall below the $5,000 threshold, or whatever subsequent threshold is established by FTA Circular 5010 or its successors.

In addition, FTA does not agree with the comments that recommended FTA phase-in requirements for assets. Each transit provider will determine the appropriate asset hierarchy and the level of detail based on the level of detail a transit provider already captures in their program of capital plans. The practice of transit asset management requires that a transit provider have a robust and complete assessment and understating of all of the assets within its system. To require a transit provider to identify ''priority'' assets would undervalue this fundamental aspect of TAM. Moreover, only when a transit provider has a complete understanding of the condition of the assets within its system is it able to create meaningful investment prioritization to improve or maintain a state of good repair.

FTA believes that third-party assets are mission-critical to the provision of public transportation service, and need to be accounted for in an asset inventory in order to have a clear picture of which assets are essential to the transit provider in delivering service. In this final rule, a transit provider must incorporate into its inventory only those capital assets that either it owns or specific asset types owned by a third party. Specifically, transit provider is not required to include in its asset inventory equipment that is owned by a third-party or third-party owned shared-use maintenance facilities. For example, a transit provider that uses a commercial, third-party maintenance facility, such as a national chain oil change company, attached to a commercial gas station does not need to include this asset in its inventory. However, a transit provider must only comply with the requirements in the rule for conditions assessments, targets, and investment prioritization for those assets for which the provider has direct capital responsibility, including third-party owned assets.

This final rule does not prescribe a level of detail for the asset inventory hierarchy. Instead, the final rule requires that a transit provider disaggregate divisible capital assets in a manner that is consistent with how the assets are identified in the transit provider's program of capital projects. For example, a project for a facility, which is comprised of multiple components, could be programmed as a project for an HVAC system or as a project for condenser and duct work; in either case, if the provider's program of capital projects itemizes the project as HVAC, then the provider may report HVAC in the TAM asset inventory. If a capital asset is of such low value that it would not be included in a transit provider's program of capital projects, then that asset need not be identified in the asset inventory required under this final rule.

FINAL RULE:

FTA is including the definition in the final rule without change. However, § 625.25(b)(1) has been revised to clarify which assets used in the provision of public transportation must be included in an asset inventory, including but not limited to all revenue vehicles, all passenger stations, all exclusive use maintenance facilities, all non-revenue service vehicles regardless of value, and owned equipment over $50,000 in acquisition value, must be included in an asset inventory at a level of detail commensurate with the level of detail used to describe assets in a transit provider's program of capital projects.

COMMENTS: Definition of ''Decision Support Tool''

Two commenters recommended that FTA revise paragraph (1) of the proposed definition of ''decision support tool'' to add the phrase ''including safety critical systems and components'' after ''condition data.''

FTA'S RESPONSE: Definition of ''Decision Support Tool''

FTA proposed a broad definition of ''decision support tool.'' FTA does not believe that it is necessary for the definition to explicitly include reference to ''safety-critical systems and components'' in the definition of decision support tool

FINAL RULE:

FTA is including the definition in the final rule without substantive change.

COMMENTS: Definition of ''Equipment''

A State transit association said the definition of ''equipment'' should have a dollar threshold attached. An MPO recommended that a unit of equipment be defined as an FTA-funded asset with an initial cost of at least $50,000, or any rolling stock with a ULB of at least 5 years or more.

A public transportation association said that no individual asset with an initial value under $50,000 or such higher value as the agency has established for financial statement purposes should be tracked as a ''unit of equipment.'' Requiring agencies to assess and report TAM information for equipment with lesser values could capture mundane assets such as trash dumpsters. According to this commenter, ''even with a $50,000 or locally established threshold, transit agencies would be free to track other assets deemed critical to their operation. Rolling stock such as paratransit vans would continue to be captured as rolling stock. Both FTA and the individual agency would have useful data, free from the clutter of hundreds or thousands of line items of minimal value and not critical to the agency mission, consistent with the example in draft Appendix A. Additionally, this would allow agencies to report with an eye to risk. Without linking the reporting requirement to operational risk, the transit industry is simply counting and spending money to gather irrelevant data.''

Several commenters stated that the proposed definition of ''equipment'' seems to include a wide range of asset classes, while other parts of the proposed rule define equipment as non-revenue vehicles (*e.g.,* Appendix A, § 625.41, § 625.43(a)). One transit agency recommended that non-revenue vehicles should be included in the vehicle asset class, not the equipment class. Similarly, another transit agency asserted that transit providers use the term ''equipment'' in regards to portable tools, work machinery, or components, and that it is not a term reserved for non-revenue vehicles.

Another commenter suggested that FTA allow the transit agency to define equipment, as well as other categories in the TAM plan, at a level that is suitable to the agency (*e.g.,* ''equipment means an item that is necessary to perform the primary transit function of moving people in a safe efficient manner'').

A transit operator expressed concern that the definition as proposed would unintentionally drive useful life to less than 1 year. This commenter proposed that equipment be grouped together; for example, overhead doors would be maintained and replaced as one group instead of individual assets. Asserting that a 1-year useful life threshold is too short, a transit operator suggested that FTA allow grantees to rely on State laws that determine eligibility for capital investments to determine what property qualifies as ''equipment.''

FTA'S RESPONSE: Definition of ''Equipment''

The purpose of the National TAM System is to tackle the Nation's growing SGR backlog by improving the condition of transit assets. FTA does not believe that a definition of equipment should exclude assets that are not in a state of good repair, but don't meet a monetary threshold. However, FTA acknowledges that an unspecified minimum threshold is confusing to transit providers. The final rule allows a provider to exclude from its asset inventory all equipment with an acquisition value below $50,000. However, an asset inventory must include all non-revenue service vehicles regardless of value.

This final rule does not prescribe a level of detail for the equipment asset category. Instead, the final rule requires that a transit provider identify capital assets in a manner that is consistent with how the assets are identified in the transit provider's program of capital projects. FTA conducted a review of nine transit providers, representing three types of transit operations, to find out the level of detail captured in their program of capital projects. FTA found that each transit provider, included varying levels of detail in their program of capital projects, but none so detailed as to include items of de minimus value, such as trash bins, pencils etc. FTA clarifies that ''equipment'' does not include supplies; implementation guidelines will provide specific alignment with other FTA program guidance, for example, FTA's Grant Management Requirements Circular 5010.

FTA recognizes that the threshold in this final rule differs from the current definition of equipment in the 5010 Circular, which states a $5000 acquisition value. FTA believes that equipment assets that fall between the $5000 threshold of the current 5010 Circular and the $50,000 threshold of this final rule are likely to be limited to assets that do not affect the SGR backlog. However, FTA notes that transit providers are encouraged to include equipment assets in their TAM plan that will impact their safety and operations to be considered alongside other assets in their inventory and investment prioritization.

FTA included Appendix A example in the NPRM to provide examples of asset classes. FTA did not intend for Appendix A to serve as an exhaustive list. A transit provider may choose how it defines asset classes within the equipment category for its TAM plan.

FTA agrees with the commenter that highlights that the final rule allows transit providers to establish locally defined thresholds to track assets deemed critical to their operation, providing ''useful data free from clutter of hundreds of thousands of line items of minimal value not critical to the agency mission''. FTA notes that this rule does not specify a risk-based approach to asset management but does recognize linking reporting to operational risk is a practice some transit providers may undertake.

FINAL RULE:

FTA is including the definition in the final rule without change. However, § 625.25(b)(1) has been revised to clarify that the only equipment assets that must be included in a TAM plan asset inventory are; non-revenue service vehicles regardless of value and owned equipment over $50,000 in acquisition value.

COMMENTS: Definition of ''Facility''

A transit provider commented that FTA's definition should recognize that not all buildings or structures used in the provision of public transportation are the same and asserted that the proposed definition does not provide an adequate description of public facing, operational, and administrative facilities.

FTA'S RESPONSE: Definition of ''Facility''

To clarify, FTA proposed a broad definition of facility that encompassed any buildings or structures used in providing public transportation, including passenger stations, operations, maintenance, and administrative facilities.

FINAL RULE:

FTA is including the proposed definition in the final rule without change.

COMMENTS: Definition of ''Full Level of Performance''

Three transit operators suggested that this term should not include the word ''full''; rather, they suggested that the performance of the asset is the ability to provide the required level of service to customers or performance. Further, one of these commenters suggested the addition of the sentence, ''Generally, this can be measured in terms of reliability, availability, capacity, and meeting customer demands and needs.'' The other transit operators reasoned that a benchmark for legacy transit systems is subject to interpretation.

Two commenters suggested that FTA expand the definition of ''full level of performance,'' reasoning that the proposed meaning is unclear because an asset degrades from new overtime and with use, thus, never again being at its ''full level'' of performance. These commenters also recommended that FTA add references for compliance with the Americans with Disabilities Act (ADA) requirements as set forth in 49 CFR parts 37, 38, and 39, which would speak to ensuring entities are meeting their obligations under 49 CFR 37.161.

A transit operator and a business association recommended that FTA use ''fit for intended purpose'' rather than ''full level of performance'' because it would still allow for reduced performance as long as an asset meets the required performance level and that the FTA's proposed SGR definition does not allow for the somewhat degraded performance of some assets experienced over time under even ideal conditions. Minimally, this commenter asserted that ''full level of performance'' requires additional explanation or slight modification to say ''acceptable level of performance'' or something similar, reasoning that ''full level of performance'' implies an absolute condition, which is not always achievable in transit. Although expressing support for the FTA definition of SGR because it would provide flexibility for each local agency to establish its own standards, a State DOT recommended that FTA reconsider the previously proposed definition that included ''fit for purpose'' and similar descriptions.

A State transit association said using safety as a component of ''full level of performance'' without further clarification overlooks the reality of operating policies.

FTA'S RESPONSE: Definition of ''Full Level of Performance''

FTA intentionally proposed an aspirational definition of ''state of good repair.'' FTA intended for the proposed definition to describe an asset at its best ideal performance condition. The term ''full'' describes an aspirational level of performance, which would require a transit provider, even those of legacy systems, to consider how far beyond optimal performance the system is operating. Full level of performance is not an absolute ''like new'' condition, but FTA proposed that a transit provider measure the state of good repair of its assets by applying the three objective standards.

FTA recognizes that old assets and assets in deteriorated condition may still provide an acceptable level of performance. However, merely operating at an ''acceptable'' level of performance with older assets in need of replacement does not represent a state of good repair.

FTA does not believe that ''fit for its intended purpose'' is sufficient to meet the statutory requirement that the definition of state of good repair include ''objective standards'' for measuring the condition of capital assets. For example, it is not uncommon for a transit provider to continue to use a railcar with limited functioning HVAC during high demand periods. While the rail car may be ''fit for the intended purpose'' of meeting revenue service demands, the performance of the HVAC system indicates the deteriorating condition of that rail car, which is not the same as full performance. This initial indicator of declining condition should be used to inform decisions on asset replacement. The purpose of the National TAM System is to improve the condition of the Nation's aging capital assets. In order to bring about meaningful change, FTA does not believe it should establish a system based on the status quo. Instead, FTA must establish a baseline that will bring about change.

FINAL RULE:

FTA is including the definition in the final rule without change.

COMMENTS: Definition of ''Horizon Period''

A transit operator suggested that FTA explain how the term ''horizon period'' compares to the term ''useful life.''

FTA'S RESPONSE: Definition of ''Horizon Period''

The ''horizon period'' is the period of time beginning with the completion of a TAM plan and ending four years later. The term ''useful life,'' used in FTA grant programs refers to the FTA-developed performance period for a capital asset. In general, FTA funds may not be used to replace an asset until it has reached or exceeded its useful life.

FINAL RULE:

FTA is including the definition in the final rule without substantive change.

COMMENTS: Definition of ''Infrastructure''

Two commenters recommended that the definition for infrastructure should also provide itemized categories including but not limited to Power, Track, Ventilation, Elevators, Escalators, Detectable Warning Strips, PA/VMS Equipment, Rolling Stock Subsystem Elements including doors, ramps, bridge plates, lifts, designation signs, public address equipment, and securement systems, among others.

A local government said the word ''interconnect,'' as used in the definition, can be interpreted tangibly or intangibly. In order to provide consistency across what is reported among bus and van providers, the commenter recommended that the final rule should either include applicable examples or else establish that this asset category may not apply to providers whose rolling stock capital assets are limited to buses and vans.

A transit operator said that the definition is vague when it is applied to assets other than rail infrastructure. Another transit operator commented that this term overlaps with ''facility.''

FTA'S RESPONSE: Definition of ''Infrastructure''

FTA proposed a broad definition of infrastructure, which encompassed all infrastructure classes for all modes of public transportation. Given this broad definition, FTA does not believe that more narrowly itemized categories are necessary.

FINAL RULE:

FTA is including the definition in the final rule without substantive change.

COMMENTS: Definition of ''Investment Prioritization''

A transit operator recommended that paragraph (2) of the definition should reference safety risk considerations. Expressing confusion that under this definition, investment prioritization must be fiscally constrained, a transit operator asked what needs to be reported if activities are not undertaken due to such constraints. Another transit operator suggested adding language to acknowledge other factors outside the prioritization criteria, such as intangibles, outside influences, and other defendable mitigating circumstances.

FTA'S RESPONSE: Definition of ''Investment Prioritization''

The NPRM proposed that a transit provider consider safety needs in the process of developing its investment prioritization. Resilience to climate change and service reliability are two other risks that transit providers may consider in the process of prioritizing investments. FTA did not propose a mandatory requirement for specific risk based analyses. However, FTA encourages and supports the application of a risk based asset management approach to the development of a transit provider's investment priorities.

Funding for any transit purpose is defined by Congress. FTA may not, through rule, establish additional sources of funding for any purpose that is not already eligible for such funding. A TAM plan should provide a transit provider with quantitative information that may be provided to a transit board and local funding bodies to support a strategic justification for the allocation of additional funds.

FINAL RULE:

FTA is including the definition in the final rule without substantive change. Section 625.33 included requirements for investment prioritization. Investment prioritization is both the analytical process used to prioritize investments and the resulting list of capital programs and projects. Investment prioritization is temporally and fiscally constrained, and should be based on reasonably anticipated funding levels from all revenue sources. The resultant list can be ranked by category or order.

COMMENTS: Definition of ''Key Asset Management Activities''

A transit operator commented that for a large grantee the size and complexity of this list will reflect the scale of the organization, and the interconnectedness of the grantee's management structure may make the presentation of such a list seem like an ''unwieldy organization chart.''

FTA'S RESPONSE: Definition of ''Key Asset Management Activities''

FTA agrees with the commenter that the scale and complexity of key asset management activities will reflect the scale and complexity of the transit provider's system.

FINAL RULE:

FTA is including the definition in the final rule without substantive change. Key asset management activities are the actions that a transit provider determines are necessary for implementing TAM practices within the organization and are critical to achieving the provider's transit asset management goals. These activities are not limited to outputs of transit asset management, but may include activities that support asset management, such as the purchase of decision-support software or a training program for key personnel.

COMMENTS: Public Transportation System

A State DOT asked if Section 5310 fund recipients are considered general public transportation.

FTA'S RESPONSE: Public Transportation System

Public transportation does not include service that is closed to the general public and only available for particular clientele. For example a subrecipient under the section 5310 program that operates service which is open to a segment of the general public, (*e.g.,* all elderly persons or persons with disabilities) would be required to comply with this rule. However, a subrecipient nonprofit or community organization under the section 5310 program that operates closed-door service, (*e.g.,* for members of senior center or work program only) would not be providers of public transportation and therefore are not required to comply with this rule.

FINAL RULE:

FTA is including the definition in the final rule without change.

COMMENTS: Definition of ''Rolling Stock''

An individual commenter asked which vehicles fall under the Asset Category/Asset Class of Equipment/Service Vehicles and which vehicles fall under the Asset Category/Asset Class of Rolling Stock/Cars and Vans.

FTA'S RESPONSE: Rolling Stock

Rolling stock includes vehicles used primarily to transport passengers. Service vehicles, which fall under the equipment category, are used primarily to support maintenance and repair work for a public transportation system, supervisory work, or for the delivery of materials, equipment, or tools.

FINAL RULE:

FTA is including the definition in the final rule without change and is adding a definition for the term ''service vehicle.''

COMMENTS: Safety Management Systems

A transit operator recommended that FTA consider how it will implement this part of the rule if there will be additional rules for the National Public Transportation Safety Program, suggesting that FTA may want to implement all of its safety related rules at the same time.

FTA'S RESPONSE: Safety Management Systems

In the NPRM, FTA proposed that the Accountable Executive be responsible for the development and implementation of a TAM plan. The requirements of this rule related to the role and responsibilities of an Accountable Executive related to transit asset management may be implemented in the absence of rules to implement the several components of the National Public Transportation Safety Program.

FINAL RULE:

FTA is including the definition in the final rule without change.

COMMENTS: Definition of ''State of Good Repair''

Asserting that the proposed rule followed the spirit of MAP–21, one commenter said that MAP–21 directed FTA to establish a nationwide definition for SGR and to use this definition to establish the National TAM System, the goal of which is to enable transit agencies to better use capital funding, and for decision-makers to more efficiently and effectively distribute grants. A transit operator supported FTA's definition of SGR as the condition in which a capital asset is able to operate at a full level of performance.

Another commenter approved of the proposed SGR definition, as it is aspirational with some flexibility.

A State DOT said the SGR definition is too limiting and creates a situation where SGR may only be achieved for a very limited time, or not at all, for most

assets, especially vehicles, due to the use of the phrase ''full level of performance.'' Another State DOT said an older asset may not be ''able to operate at a full level of performance,'' but still be in a state of good repair.

A local transit operator asked how FTA envisions tying the asset performance measures to the SGR definition, particularly to safety risk, as well as how FTA would account for asset rehabilitations and life extensions. A State agency said the definition should require that the asset be shown to operate in a safe and reliable manner in order to be considered in a SGR. An individual commenter said the definition may need to be subjective in some way to enable the individual responsible for measuring SGR to improve the safety of the asset.

A transit operator proposed a definition that includes ''an asset that performs as designed safely and cost effectively,'' reasoning that the proposed definition did not address the idea of risk or cost to maintain full level of performance. Two commenters recommended that FTA revise the definition to mean ''the condition in which a capital asset is able to operate safely at a full level of performance,'' and define ''operate safely'' as asset functioning within the manufacturer's recommended specified work limits.

A transit operator said that the proposed definition is not consistent with the SGR principles (§ 625.19) and SGR performance metrics (§ 625.41). This commenter recommended that the definition be modified to ''a state of good repair means the condition in which a capital asset is able to operate at the required level of performance and is fit for its intended purpose.''

FTA'S RESPONSE: Definition of ''State of Good Repair''

FTA appreciates commenters' agreement that the definition of SGR achieves the intent of the MAP–21 mandate, while providing flexibility and objective standards for measuring state of good repair. FTA intended for the proposed definition to describe an asset at its best ideal performance condition.

FTA disagrees that the SGR definition is not consistent with the SGR principles and standards for measuring condition of capital assets. As proposed, if an asset meets each of the objective standards, it is operating at a full level of performance and is therefore in a state of good repair. FTA agrees that the cross-section of cost and performance are the basis of asset management principles. State of good repair is a threshold that identifies the desired performance condition. Please note the ''full level of performance'' definition response above provides a more expanded description of this term. The SGR principles § 625.17 outline the relationship of TAM to SGR.

FTA recognizes the critical relationship of safety and asset condition. The SGR definition is in part expressed by identifying the presence of an unacceptable safety risk. The National TAM system does not direct transit providers to prove the safe and reliable operation of their assets. FTA will define safety hazard identification and safety risk assessment requirements in a proposed NPRM for public transportation agency safety plans.

FINAL RULE:

FTA is including the definition in the final rule without change.

COMMENTS: Definitions of ''Tier I Provider'' and ''Tier II Provider''

A transit operator requested that the distinction between tier I and tier II operators be revised for consistency with the Federal formula grant definition of small-to-medium transit agencies. Specifically, this commenter suggested that tier II should be defined as operators that provide service to geographic areas with populations under 200,000 people. A State DOT recommended the tiers be based on FTA program type (49 U.S.C. 5307, 5310, 5311, etc.) rather than on the number of vehicles a transit provider operates.

To limit the administrative load on smaller transit agencies, transit providers, an industry association, and a business association suggested that the tier I and tier II definitions or the definition of vehicle in revenue service during peak operations should be specifically limited to buses, excluding paratransit cutaways, vans, and non-dedicated assets (*e.g.,* taxis, vanpools). A transit provider said that the ''100 or fewer vehicles during peak operations'' criteria for a tier II provider should not include non-dedicated equipment (*i.e.,* contractor-owned and used for other non-contract purposes) and vanpool vehicles.

A business association recommended that FTA revise the definition of ''Tier II provider'' to include any 49 U.S.C. 5310 subrecipients. A transit operator said many small agencies have more than 100 revenue vehicles in peak service if vanpools, mobility programs, and other services are counted, but they may not have more than 50 motorbus revenue vehicles in peak revenue service. The commenter recommended expanding/revising the definition of tier I and tier II agencies to include the types of vehicles and potentially revise the vehicle threshold.

An MPO requested clarity on how the TAM tier thresholds relate to differing service levels. For example, this commenter stated that many vanpool programs have vehicles operating in a single peak hour trip, rather than operating continuously throughout the peak hours. The commenter requested flexibility in how the threshold is defined, particularly for agencies that have limited service operations. A local government asked which tier it would fall under, as it operates less than 100 vehicles but also operates a Vehicular Inclined Plane.

FTA'S RESPONSE: Definitions of ''Tier I Provider'' and ''Tier II Provider''

FTA proposed to establish separate requirements for smaller (tier II) and larger (tier I) transit providers. FTA agrees that the tier definition should parallel the calculation used to determine if a small operator in a large urbanized area is eligible for operating assistance under the 49 U.S.C. 5307 Urbanized Area formula program. FTA does not agree that the tier delineations should solely be based on population, area served or funding program. FTA notes that some of the smallest transit providers in the country, with just a handful of vehicles in operation, are sometimes actually located in some of the largest urbanized areas with more than one million persons in population. Likewise, there are some very large operators that receive some funding under the 49 U.S.C. 5311 Rural Area Formula Grant Program and under the 49 U.S.C. 5310 Grant Program for special services to the elderly and disabled.

FTA clarifies that a tier I provider has 101 or more fixed-route vehicles in peak revenue service, or has 101 or more non-fixed route vehicles in peak revenue service. To calculate, the fixed-route vehicles and non-fixed route vehicles should be considered separately. For example, an urbanized area transit provider with no rail service, 80 fixed-route vehicles, and 35 non-fixed-route vehicles (for a total of 115 vehicles) would be considered a tier II provider. This clarification makes the calculation consistent with how the calculation for operating assistance eligibility in large urbanized areas is calculated.

Therefore, FTA believes this rule limits the administrative load on smaller transit agencies and has clarified that tier definitions are based on the type of services a provider offers either, fixed route (*e.g.* busses) or non-fixed route (*e.g.* paratransit cutaways) peak revenue vehicles.

FINAL RULE:

FTA has revised the definitions transit provider, tier I provider, and tier II provider in the final rule.

COMMENTS: Definition of ''Transit Asset Management''

A transit operator said this definition should also include ''disposing'' in the list of specified lifecycle stages. Two commenters suggested that FTA revise this definition to read in part ''. . . costs over their life cycle in order to provide safe, cost-effective, ADA-compliant, and reliable service.''

FTA'S RESPONSE: Definition of ''Transit Asset Management''

FTA proposed a comprehensive definition of the term ''transit asset management,'' which can be applied to a number of activities, including ensuring that an asset is ADA-compliant. FTA does not believe that adding the language proposed in the comments is necessary.

FINAL RULE:

FTA is including the definition in the final rule without change.

COMMENT: Definition of ''Transit Asset Management Policy''

One commenter suggested modifying the proposed language defining TAM policy to avoid implying that every agency that falls under this rule is out of SGR.

FTA'S RESPONSE: Definition of ''Transit Asset Management Policy''

FTA did not intend for the proposed definition to imply that every agency that falls under the rule is not in a state of good repair. In fact, FTA purposely proposed an asset-based definition, as opposed to a system-based definition, in order to make achieving and maintaining a state of good repair an achievable goal.

FINAL RULE:

FTA has revised the definition in the final rule to clarify that a TAM policy and the final rule applies to a provider whose entire inventory of capital assets is in a state of good repair.

COMMENTS: Definition of ''Transit Asset Management System''

Two MPOs recommended removing ''operating, maintaining, and improving'' from the definition and replacing it with ''managing the use of.'' A transit operator recommended that FTA revise this definition to replace the word ''system'' with ''program,'' reasoning that ''system'' implies that a software package is necessary for asset management, which the commenter asserted is counter to other recommendations made by FTA. Another commenter expressed support for the proposed definition.

FTA'S RESPONSE: Definition of ''Transit Asset Management System''

The proposed definition of the term transit asset management system was derived from the statute, 49 U.S.C. 5326(a)(3). FTA believes that the statutory definition is sufficient.

FINAL RULE:

FTA is including the definition in the final rule without change.

COMMENTS: Definition of ''Transit Provider''

Several State DOTs and other commenters suggested that FTA clarify the definition of ''transit provider'' by adding, ''A State is not considered to be a transit provider by virtue of passing on funds to subrecipients, administering the programs under 49 U.S.C 5310 and 5311, developing and implementing a TAM plan, or taking any other steps required of a State by this or other FTA rules.''

Two commenters recommended that FTA revise the definition to specify ''capital assets used in the ''provision of *all modes* of public transportation.''

A State DOT expressed concern that because the definition of ''transit provider'' includes operators providing services under the 49 U.S.C. 5310 and 5311 programs, there would be double reporting by the transit providers and the State sponsors of the group TAM plans in which the transit providers are included.

FTA'S RESPONSE: Definition of ''Transit Provider''

In the NPRM, FTA proposed a definition of the term ''transit provider'' meaning ''a recipient or subrecipient who owns, operates, or manages capital assets used in the provision of public transportation.'' A transit provider must provide transit service, either directly or through a third-party, not merely pass funds through to a transit provider or develop a group TAM plan.

FTA proposed that a sponsor satisfy the reporting requirements on behalf of its group plan participants. Alternatively, any transit provider that develops its own individual plan, including eligible tier II providers that choose to opt-out of a group TAM plan, must report directly to the NTD.

FINAL RULE:

FTA is including the definition in the final rule without change.

COMMENTS: Definition of ''Useful Life Benchmark''

Several State DOTs recommend removing the word ''acceptable'' from the definition, reasoning that it could lead to arguments that operation past that period is ''not acceptable.'' If this term cannot be removed, these commenters suggested that at a minimum the final rule should include a statement that the use of the term ''acceptable'' in the definitions of ''useful life'' and ''useful life benchmark'' ''are solely for general asset management planning purposes.''

A transit operator supported the establishment of a ULB as the proxy for the condition of revenue vehicles but recommended that FTA's guidance reflect that age is only one aspect that affects SGR. According to this commenter, other factors include usage (including passenger loads, service hours/miles) and operating conditions (including topography and stop frequency). Similarly, another transit operator expressed concern that the ULB assessment threshold based on an asset's age is problematic in that a set of rolling stock may be beyond its ULB yet remain roadworthy and safe as a result of the agency's maintenance practices. The commenter said this could discourage agencies from utilizing strong maintenance practices, as even a well-maintained bus or rail vehicle would fail the test of age-based asset condition reporting. One transit provider suggested that FTA revise the definition of ULB to include both safety and cost effectiveness.

Another transit operator urged FTA to allow for recognition of obsolescence in defining ULB by ensuring flexibility that would allow individual transit systems to adjust ULBs based on changing conditions or changes in technology lifecycles. Further, this commenter recommended that FTA should allow an exception for the ULB to be less than the minimum life in FTA's formula programs to account for impacts due to obsolescence if justified with proper documentation. Similarly, a transit operator commented that a ULB could be less than the minimum useful life used in FTA's formula programs and may also be different from agency depreciation schedules, which are set when the assets are placed on the agency's books.

A transit operator stated that while ULB works well for most of the capital assets, it is challenging to define it based on traditional replacement standards for some assets, such as historic streetcars. This commenter recommended that FTA add language to

the ULB definition that includes ''or when they are considered renewed to a good condition.''

A local government recommended that FTA create a ULB table specific to regions from which transit providers can base their performance and set targets to reduce the potential wide swings from one similar provider to the next.

Two commenters suggested that FTA consider referencing compliance with ADA requirements as set forth in 49 CFR parts 37, 38, and 39.

FTA'S RESPONSE: Definition of ''Useful Life Benchmark''

A ULB takes into consideration both the age of an asset and its operating environment. Consideration of the asset's operating environment allows transit providers to develop performance targets that reflect their specific operating environments. Transit providers operate their assets in diverse environments, where the geography, frequency of service, passenger loads, etc. will vary. Therefore, a general national standard may not adequately address asset condition. For example, a transit provider that operates for only 4 hours per day would have different vehicle conditions than a transit provider that offers 24-hour service, even if the vehicles for both providers are the same age. As a result, the estimate of a vehicle's useful life also may be different. The ULB framework enables a transit provider to report its performance and set targets for its performance on a scale that is tailored to it.

The term ''acceptable'' in the proposed definition of ULB was intended to allow a transit provider the ability to define their own period of use based upon their operating environment. A transit provider should establish a ULB by taking into consideration the operating environment of its assets, historical evidence, manufacturer guidelines, and any other relevant factors. Transit providers may elect to use the default ULB for assets, which is derived from FTA's TERM.[10] If an asset exceeds its ULB, then it is an indicator that it may not be in a state of good repair.

FTA agrees that age alone is not the only aspect that affects SGR and will provide guidance to assist transit providers in developing their own ULBs to reflect their operating conditions, which may include the considerations provided by commenters, historical evidence, and manufacturer guidelines.

FTA agrees with the commenter that suggests an asset may be roadworthy and safe as a result of its agency's maintenance practices. A transit provider may develop its own ULB which reflects its maintenance practices. FTA will provide default ULBs, and encourages providers to develop their own customized ULBs. Once a provider establishes its ULB, it is entirely possible that over time and changes in their policies and practices, the transit provider may need to establish a revised ULB and submit it to FTA for approval.

FTA did not propose to change the useful life requirements for vehicle replacement under FTA's grant programs. A ULB is distinct from the term ''useful life'' or ''minimum useful life'' that applies to FTA grant programs. Under FTA grant programs, ''useful life'' refers to the Federal financial interest in a capital asset, which is based on the length of time in service or accumulated miles. Generally, assets are not eligible for replacement with FTA funds until they have met or exceeded their minimum useful lives. A ULB, however, takes into consideration operational factors, discussed above, that may impact the condition of a capital asset. Thus, a ULB that is less than the useful life for grant programs may impact a transit provider's ability to maintain their SGR targets.

The proposed rule would have required a transit provider to consider ADA requirements in the development of its investment prioritization. FTA has determined that referencing ADA compliance in the definition of ULB is not feasible.

FINAL RULE:

FTA is including the definition in the final rule without change.

COMMENTS: Definitions—Other Comments

Two transit agencies and an anonymous commenter requested a definition for ''non-revenue vehicles''. Another transit operator suggested that FTA consider adding a definition for ''asset condition'' to mean ''reflects the physical state of the asset, which may or may not affect its performance.'' A transit operator suggested that the list of definitions should be numbered subparagraphs.

FTA'S RESPONSE: Definitions—Other Comments

FTA did not propose definitions for ''non-revenue vehicles'' or ''asset condition'' because both terms are commonly understood within the transit industry.

The structure of the definitions section is consistent with the structure of the definitions sections in previous FTA regulations.

FINAL RULE:

FTA did not make any changes to the final rule based on these comments. However, FTA has added a definition of ''service vehicle'' in the final rule. In addition FTA has modified the definition of ''Performance Measure'' and ''Performance Target'' to match the definitions in the coordinated FHWA and FTA Metropolitan and Statewide and Non-Metropolitan Transportation Planning final rule.

625.15 Elements of the National Transit Asset Management System

This section proposed the elements of the National TAM System as set forth at 49 U.S.C. 5326(b). FTA will establish performance measures, transit providers will set targets, and transit providers will report their targets to FTA's NTD. The performance management and reporting components of the National TAM System are important for assessing both the benefits of transit asset management on a National level and the transit industry's current SGR needs.

COMMENTS: 625.15 Elements of the National Transit Asset Management System

A couple of commenters agreed with the elements of the National TAM System as specified in proposed § 625.15. A State DOT appreciated the flexibility given to transit providers to develop SGR performance measures and performance targets.

Regarding paragraph (d), a transit operator said FTA should allow industry best practices (for example ISO) to be the basis of analytical processes and decision tools. The commenter suggested that the paragraph could indicate FTA ''or equivalent'' best practices.

FTA'S RESPONSE: 625.15 Elements of the National Transit Asset Management System

FTA appreciates the comments on the elements of a proposed National TAM System. FTA currently is developing guidance and other resources that will aid the industry in its implementation of the requirements of this final rule. FTA is aware that other organizations

[10] The TERM model consists of a database of transit assets and deterioration schedules that express asset conditions principally as a function of an asset's age. Vehicle condition is based on an estimate of vehicle maintenance history and major rehabilitation expenditures in addition to vehicle age; the conditions of wayside control systems and track are based on an estimate of use (revenue miles per mile of track) in addition to age.

have developed resources for asset management and encourages transit providers to research those options and use them, as appropriate, to aid in the implementation of the requirements of this final rule.

FINAL RULE:

FTA is including this section in the final rule without substantive change.

625.17 State of Good Repair Principles

FTA proposed SGR principles intended both to highlight the relationship of SGR to other transit priorities and to guide a transit provider's practice of transit asset management. SGR is related to, but not synonymous with, TAM and is a condition that can be achieved through good TAM practices. TAM practices inform the capital investment planning and programming processes by producing data that informs investment prioritization. TAM allows a transit provider to realistically predict the impact of its policies and investment decisions on the condition of its assets throughout an asset's life cycle. TAM enhances a transit provider's ability to maintain a state of good repair and proactively invest in its assets before the asset condition deteriorates to an unacceptable level.

A key connection of SGR to TAM is performance management. Asset management is a business model that uses the condition of assets to determine the finances needed in order to achieve predetermined outcomes. In the case of TAM, and this rulemaking, the goal is to achieve and maintain a state of good repair. A key focus of asset management is cost-risk balancing to achieve performance goals through a transparent, organization-wide process of decision-making.

TAM provides a framework for how to maintain a state of good repair by considering the condition of assets in the transit provider's inventory and the transit provider's local operating environment, along with the policies that a transit provider establishes for prevention, preservation, rehabilitation, disposal, and replacement. TAM allows a transit provider to realistically predict the impact of their TAM and maintenance policies on the condition of their assets and how much it would cost to improve asset condition at various stages of an asset's life cycle, while balancing prioritization of capital, operating and expansion needs.

COMMENTS: 625.17 State of Good Repair Principles

Several commenters expressed concern about the use of the term ''full level of performance'' in § 625.17(a) and (b) (and elsewhere in the rule). Some commenters said FTA should instead use the term ''required level of performance'' and others suggested ''fit for intended purpose.'' Another commenter suggested that the second sentence of § 625.17(a) be removed because the ''state'' of an object is the condition at any point in time without respect to any previous or future conditions. A transit operator said § 625.17(a)'s emphasis on life-cycle maintenance as a determining factor in assessing a capital asset's SGR would amount to establishing a misleading ''bright line measurement tool'' based on an asset's maintenance schedule. A State agency said, due to increased financial constraints, providers may be managing the decline of assets. The commenter said the rule should include specific language stating that without additional financial resources, establishing an asset management plan may not in itself enable a provider or a group to reach a SGR.

Several commenters provided input on § 625.17(c), expressing concern about how this paragraph affects the role of the accountable executive. A professional association and several State DOTs said the provision for a transit provider's accountable executive to ''balance transit asset management, safety, operation, and expansion needs'' should use the word ''consider'' rather than ''balance,'' to help ensure, for example, that an executive does not have to put some funding into expansion in order to ''balance'' that factor. A State agency said safety should be given a higher level of consideration than other agency needs (*e.g.,* expansion of service). Some of these commenters said this paragraph underscores the importance of a State not being construed as a ''transit provider'' if it is not an operator (directly or through operating contracts) of public transit service.

A few commenters noted that the SGR principles (§ 625.17), SGR standards (§ 625.41) and SGR performance measures (§ 625.43) do not appear to be consistent. In each case, according to these commenters, SGR is defined or measured differently. A couple of these commenters said this is not a concern, as long as affected agencies and the departments understand the differences, and suggested that inserting compliance with ADA requirements as set forth in 49 CFR parts 37, 38, and 39 may also strengthen this definition.

Regarding the proposal that each transit provider determine whether they have achieved a state of good repair regarding their assets, a State transit association said this is too subjective and base perimeters need to be set, as well as having third party determinations. Similarly, a transit operator stated that, if an asset's SGR is determined by the agency without a clear definition and validation by FTA, there will be very little value in the determination.

A couple of commenters said the SGR status of an asset should not be affected by the condition of the other assets in the same category.

FTA'S RESPONSE: 625.17 State of Good Repair Principles

FTA has addressed the ''full level of performance'' comments previously, in the definition section.

FTA disagrees that the term ''state'' should be removed from the ''state of good repair'' in § 625.17(a). This section describes the principles of SGR and removing state would be misleading. However, FTA does agree with the commenter that the state of an asset is a condition at a point in time. The intent of this section is to describe the principles supporting SGR and their relationship to TAM.

FTA disagrees that elevating the importance of lifecycle investments would establish a misleading emphasis on an asset's maintenance schedule, although effective and proactive lifecycle investment and maintenance practices are fundamental to SGR. The proposed SGR definition contained three objective standards and maintenance schedules relate directly to just one; the lifecycle maintenance needs being met or recovered. While FTA recognizes that the maintenance of an asset is not the only relevant factor in determining SGR, it is critical to achieving and maintaining a state of good repair.

FTA disagrees that a third-party determination is necessary to measure a transit provider's' SGR. FTA believes the objective standards are the base parameters for a transit provider to measure its SGR. FTA did not propose that it would validate a transit provider's SGR determination.

FTA agrees that financial constraints may leave a transit provider in the position of managing the deterioration of assets that it can no longer afford to maintain and replace on a timetable that sustains the assets' full level of performance. The proposed SGR principles do not preclude the management of declining asset condition. In some instances, FTA expects that maintaining an asset's condition may not be a transit provider's highest priority, and therefore the asset's condition may

decline based on strategic and informed decisions.

FTA agrees that a sponsor is not an accountable executive merely because it develops a group TAM plan. Each transit provider has its own accountable executive. FTA does not agree that it should change ''balance'' to ''consider'' because the change would make no substantive difference. In order to balance transit asset management, safety, operation and expansion needs, an operator must consider a number of things, including financial and human capital resources.

FTA disagrees that the proposed SGR principles (§ 625.17), standards (§ 625.41) and performance measures (§ 625.43) are inconsistent. These three sections described the fundamental principles of SGR and its relationship to TAM (§ 625.17); the definition and objective measures for a transit provider to measure their assets' SGR (§ 625.41); and the description of performance measures for which FTA will collect targets (§ 625.43). As discussed above, the SGR performance measures are a proxy for the SGR, nationally. The proposed SGR definitions were intended to standardize the term and its objective measures. The SGR principles are provided to describe the foundation of the SGR definition and its relationship to TAM. The performance measures are provided to describe a transit providers' obligation to establish and report targets.

FINAL RULE:

FTA is including this section in the rule without substantive change. FTA is including an example in Appendix B to the final rule to illustrate the relationship amongst the measures, definition and principles.

Section 625.25 Transit Asset Management Plan Requirements

Pursuant to 49 U.S.C. 5326(b)(2), the NPRM proposed all recipients and subrecipients of Chapter 53 funds must develop a TAM plan. FTA interpreted this requirement to apply only to those recipients and subrecipients that actually operate public transportation systems and own, operate, or manage capital assets for that system. Therefore, the TAM plan requirements do not apply to an MPO that merely receives funds from FTA and passes the funds along to transit operators. However, a pass through MPO would be required to sponsor a group TAM plan for its eligible tier II subrecipients. Accordingly, § 625.25(a) required each transit provider that owns, operates, or manages public transportation capital assets to develop and carry out a TAM plan.

The NPRM proposed that tier II providers have the option to participate in a group TAM plan. The group TAM plan concept is intended to reduce the burden on smaller operators associated with developing individual TAM plans. Under a group TAM plan, a sponsor (typically a State, or direct recipient) develops a single group TAM plan on behalf of one or more tier II providers. Each tier I provider, including group TAM plan sponsors, that operates or manages capital assets must develop its own individual TAM plan for its own system. Under all circumstances, it is the responsibility of the relevant State or MPO to integrate the TAM plans (group or individual) into the statewide and metropolitan transportation planning process.

It is the responsibility of each transit provider's Accountable Executive to ensure that the TAM plan is carried out at his or her organization. For those transit providers that develop an individual TAM plan, the Accountable Executive is responsible for making informed investment decisions and ensuring that meaningful SGR targets are set. The Accountable Executive for a group TAM plan participant is responsible for coordinating development of the group TAM plan with the sponsor, and for implementing the TAM plan at their transit agency. This coordination may involve providing accurate asset inventory data, maintenance and repair records, or other relevant data to the sponsor. It may also involve participating in development of targets for the group and negotiations about investment priorities.

Section 625.25(b) listed elements of a TAM plan, including:

1. An asset inventory, which is a list of the transit provider's capital assets;
2. A condition assessment, which is a rating (*e.g.,* good/fair/poor or percentage of residual life) of the condition of assets in the inventory. The NPRM did not speak to the condition rating scale or process a transit provider should use;
3. A list of the decision support tool or tools that were used to create the TAM plan. A decision support tool is a methodology to help transit providers make decisions, such as prioritizing projects based on condition data and objective criteria. A decision support tool can be software, but is not exclusively software. A decision support tool may be a process;
4. An investment prioritization. The investment prioritization is a list of the proposed projects and programs that a transit provider estimates would achieve its SGR goals, and a ranking of the projects and programs based on priority;
5. An identification of the transit provider's policies and strategies for developing an effective TAM plan, including a transit provider's executive-level directions to set or support the goals for its TAM plan;
6. A strategy for implementation of the TAM plan, which is the process a transit provider identifies to follow in order to achieve its TAM plan. This strategy differs from the strategies identified in element (5) in that this is an operation-level decision;
7. A list of the key activities or actions that are critically important to achieving the transit provider's asset management goals for the year (—*e.g.,* management-supported activities such as purchasing software or training);
8. An identification of the financial resources that a transit provider estimates are necessary for implementing its TAM plan and achieving its asset management goals. This might include internal staff time, technology requirements, etc.; and
9. A continuous improvement plan that sets timelines and milestones that can be revisited to track the transit provider's progress towards meeting its asset management goals.

The first four elements relate to identifying performance goals, while elements 5 through 9 relate to the implementation of TAM concepts. To reduce the burden on smaller transit providers, a TAM plan for a tier II provider or other eligible group TAM plan participant is required to include only elements 1 through 4. The majority of the SGR backlog exists in capital assets at larger transit systems, particularly those with rail fixed-guideway public transportation systems. As a result, FTA believes that these larger, complex operations require a more holistic and strategic process, addressed through elements 5 through 9, for consideration of asset conditions throughout the asset's life cycle, as well as institutionalization of TAM principles. Although not required, FTA nevertheless still recommends that tier II providers incorporate elements 5 through 9 as best practices.

Section 625.25(b)(1) required that each TAM plan include an inventory of the transit provider's capital assets. The asset inventory is expected to cover the capital assets that a transit provider owns, operates or manages, including leased assets and those assets operated under contract by an external entity. This asset inventory may be a combination of other inventories a transit provider may have on hand. For example, the grant management

guidance circular 5010 requires grantees to collect, maintain, and report records for rolling stock and equipment. This existing inventory could be used to initiate or refresh the capital asset inventory to satisfy the requirements of the proposed rule.

Section 625.25(b)(2) required that each TAM plan include a condition assessment of capital assets that generates information in a level of detail sufficient to monitor and predict the performance of each capital asset identified in the asset inventory. Condition assessments are required for only those capital assets in the asset inventory for which a transit provider has direct financial responsibility. This section does not prescribe how a condition assessment must be conducted, rather the required result of the assessment. It is up to the transit provider or group TAM plan sponsor to decide whether to conduct condition assessments at the individual or asset class level.

COMMENTS: TAM Plan—Role of Accountable Executive in Development of TAM Plan

Several commenters addressed the proposed role of the Accountable Executive in the development of TAM plans at § 625.25(a)(3). A State transit association asserted that the TAM requirements of Accountable Executive, decision support tools, etc. will result in more transit providers under the 49 U.S.C. 5310 program disengaging from coordination efforts and ''siloing,'' as was seen with the Community Development Transportation Coordination Plan requirements. A transit provider agreed that a responsible executive should approve the plan, but requested flexibility with regards to where the responsible executive sits within their organization.

FTA'S RESPONSE: TAM Plan—Role of Accountable Executive in Development of TAM Plan

FTA estimates that approximately 80 percent of 49 U.S.C. 5310 providers will be exempt from this rule because as providers of closed-door service to a specific group or specific program, they are not considered providers of public transportation. Almost all other 49 U.S.C. 5310 providers fall into the tier II category, eligible to participate in a group TAM plan with reduced requirements. The group TAM plan option is intended to reduce the administrative burden on smaller providers associated with developing a TAM plan.

An Accountable Executive should be a transit provider's most-senior executive; often times this person is the CEO or GM. FTA understands that at many smaller transit providers, roles and responsibilities are more fluid. However, FTA does believe that, even in circumstances where responsibilities are either shared or delegated, there must be one primary decision-maker.

FINAL RULE:

FTA is revising 625.25 (a)(3) to clarify the role and responsibilities of complying with this final rule for group plan sponsors and participants is a local level decision.

COMMENTS: TAM Plan—Coordination With State and Metropolitan Planning Organizations (MPOs)

Some public comments addressed the proposed requirement that a TAM plan must be coordinated to the extent practicable with States and MPOs at § 625.25(a)(4). A transit operator said that the role of the MPO should be to aggregate the transit operators targets, prioritization, performance and condition information, etc. to form the MPO's targets and priorities. This commenter stated that it should be a bottom up approach from the transit operators rather than top down imposition of goals from the MPO. A transit operator asked if the State and MPO would now be required to include local transit operators' asset planning in their TAM plan and, if so, whether the transit operator is required to follow the State/MPO recommendations. Another transit operator recommended that FTA revise § 625.25(a)(4) to state that the ''TAM will be used to inform the grantee's portion of the MPO TIP, to the extent practicable.'' An industry association predicted that it is unlikely that States and MPOs could incorporate TAMs in their STIPs and TIPs within the proposed timeline. A transit provider requested clarification about the role of MPOs in setting investment priorities. A State DOT asked if the State can reject a provider's priorities if they do not meet the state's investment priorities.

A State DOT and an industry association asked that FTA provide an example of when the MPO would have the responsibility for integrating group TAM plans and when it is a State responsibility. One of these commenters stated that it believes it is ultimately the State's responsibility. An MPO recommended strengthening the requirements for TAM plan developers to coordinate with the MPO. The specific regulatory language recommended by this commenter is ''A TAM plan developed under this part should/shall be developed cooperatively coordinated, to the extent practicable, with States and Metropolitan Planning Organizations.'' A transit operator suggested that continuous coordination with States and/or MPOs on TAM plans, asset data, finances, and strategies should be restricted to documents and processes where the State and MPO can directly contribute and play a role.

FTA'S RESPONSE: TAM Plan—Coordination With State and MPOs

MAP–21 fundamentally shifted the focus of Federal investment in transit to emphasize the need to maintain, rehabilitate, and replace existing transit investments. The ability of FTA grant recipients, along with States and MPOs, to both set meaningful transit SGR performance targets and to achieve those targets is critically dependent upon the ability of all parties to work together to prioritize the funding of SGR projects from existing funding sources. How a transit provider sets its performance targets is an entirely local process and decision. However, FTA strongly encourages transit providers, States, and MPOs to set meaningful progressive SGR targets based on creative and strategic leveraging of all available financial resources.

This rule does not prescribe requirements for how States and MPOs should integrate TAM plans or targets into the planning process. The rule requires transit providers and sponsors to coordinate with States and MPO's to the extent practicable in the selection of State and MPO SGR performance targets. However, the NPRM suggested that transit providers and sponsors coordinate individual and group TAM plans, respectively, with the relevant State or MPO to aid in the planning process. FTA clarifies that coordination of TAM plan development with States and MPOs is optional by removing regulatory language for transit providers to coordinate to the extent practicable. Early coordination with planning partners is encouraged but not required under this rule.

The joint FHWA/FTA final planning rule prescribes requirements for incorporating components of the National TAM System into the planning processes. FTA and FHWA will develop and issue guidance to aid the transit industry in its implementation of the performance-based planning requirements.

FINAL RULE:

FTA has removed § 625.25 (a)(4) from the final rule in response to these comments.

COMMENTS: TAM Plan—Responsibilities for Development of TAM Plans

Some public comments addressed other issues relating to responsibilities for the development of TAM plans. An anonymous commenter asked whether the following entities must develop their own TAM plan or whether they could be a member of a group TAM plan: (1) a tribal agency that receives both funding from FTA as a direct recipient and funding from the State DOT as a subrecipient under the 49 U.S.C. 5310 or 5311 programs, and (2) an inter-city agency that receives 49 U.S.C. 5310 funds and serves several States.

FTA'S RESPONSE: TAM Plan—Responsibilities for Development of TAM Plans

All tier II providers are eligible to participate in a group TAM plan. Although Group Plan sponsors are not required to include those tier II providers that are also recipients of 49 U.S.C. 5307 funds, a sponsor may allow those tier II providers to participate in a group plan. A transit provider with only 30 vehicles operated in regular, peak, fixed route service that receives both Section 5307 urbanized area formula funds and Section 5311 rural area formula funds from multiple states, remains a tier II provider. A Tribe that receives funds directly through the Tribal Transit Program remains a tier II provider, regardless of other funding received. FTA notes that intercity bus providers are not providers of public transportation, and are therefore exempt from the rule.

FTA recognizes the commenter's confusion in determining the appropriate tier in certain instances and has clarified the definitions of tier I and tier II and is providing the following examples: (1) A transit provider that is a subrecipient of 49 U.S.C. 5311 funds only, but has 150 vehicles and no rail service, is a tier II provider and eligible to participate in a group TAM plan sponsored by a State. (2) a transit provider that is a subrecipient of funds under 49 U.S.C. 5310, 5311, or 5339 with a fleet of 30 vehicles and no rail service, is a tier II provider and eligible to participate in a group TAM plan sponsored by a sponsor. (3) a transit provider that is a subrecipient of funds under 49 U.S.C. 5307 and 5311 with 110 vehicles and no rail service, is a tier II provider, but is only eligible to participate in a group TAM plan through consent of sponsor.

FINAL RULE:

FTA is revising the definition of tier II provider in the final rule to clarify that all American Indian tribes are considered tier II providers and are eligible to participate in a group TAM plan, regardless both of the source of funding it may receive and of its status as a recipient or subrecipient.

COMMENTS: TAM Plan—Asset Inventory

Several public comments addressed the asset inventory required by proposed § 625.25(b)(1), with several expressing concerns or confusion relating to the expected level of granularity at which transit agencies would be expected to inventory capital assets. A transit provider and several State DOTs asserted that ''the level at which a project would be identified in a provider's program of capital projects'' is too vague and could lead to confusion because ''program of capital projects'' is not a defined term.

Two associations and several State DOTs recommended that the final rule include a clearly worded provision that would limit the coverage of the rule to important assets. At least for non-rail assets, these commenters recommended that FTA:

1. Limit coverage to revenue vehicles and to assets other than revenue vehicles with an initial cost of at least $50,000.

2. Limit coverage of assets other than revenue vehicles to those with an initial minimum ULB of at least 5 years.

3. Limit coverage of assets other than revenue vehicles by excluding office space or other administrative support facilities or equipment (and by not including an ''administrative'' line item in Appendix A to part 625).

Similarly, a transit operator stated that the proposed definition of ''equipment'' would include office chairs, storage cabinets, and other incidental ''equipment,'' that are not worth investing in data capture and management. The commenter recommended a risk-based approach to prioritize detailed data collection for more important assets (*e.g.,* trackway and rail vehicles) and limited data collection for less important assets (*e.g.,* office chairs).

A transit operator requested that FTA clarify the level of detail required in reporting asset data, asserting that it is described differently in sections 625.5 and 625.25(b)(1). Another commenter asked whether it could simply list a bus or whether it needed an inventory for all equipment installed on the bus post-manufacture (*e.g.,* Drive Cam, cameras, fare box, radios, CAD/AVL). This commenter also asked if a vehicle camera system would be classified in the rolling stock or equipment categories. An MPO said that the final rule should either confirm that the TAM plan sponsor has flexibility in defining the granularity of the asset inventory or FTA should provide additional guidance as part of the final rulemaking.

A couple of commenters requested additional clarity on the definition of equipment, stating that it is different in §§ 625.5, this section, and 625.43.

One of these commenters, a transit agency stated that guidance is necessary for consistency and suggested that FTA could have transit agencies report at a systems-level (*i.e.,* electrical, plumbing, building envelope, roof, lifts, etc.) for facilities/stations, and by miles or linear feet of ROW for specific types of infrastructure assets. Further, the commenter suggested that substations could be reported both as a facility (broken out by systems) with the traction power equipment identified separately based on age and type. This transit agency asserted that by specifying a concrete approach that is replicable across agencies, FTA would ensure that data sets from various agencies can be merged at the national level and aggregated. Another transit operator suggested that transit agencies consider asset attributes in the development of an asset inventory, reasoning that otherwise performance targets would be difficult to establish.

Expressing concern about the ability for transit operators to have completed a full asset inventory within the 2-year deadline, a transit operator requested clarification on whether a full inventory would need to be submitted with the first TAM plan.

A regional transit operator commented that it will take all prudent steps to complete the data inventory for its contracted assets; however, some of the information may be considered proprietary and the private carriers may not be willing to share it due to liability issues.

FTA'S RESPONSE: TAM Plan—Asset Inventory

FTA disagrees with the commenters who suggested that FTA only require the asset inventory to include assets above a specific monetary threshold. This final rule does not prescribe a level of detail for the asset inventory. Instead, the rule requires that the disaggregation of a divisible capital asset be identified in a manner that is consistent with the assets identified in a transit provider's program of capital projects. If an asset is ''large'' enough that a transit provider

includes it in its capital program, then it should be included in its asset inventory. However, FTA has added clarity for the equipment asset category of what to include in the asset inventory. Specifically, only transit provider owned equipment assets over $50,000 and all non-revenue service vehicles regardless of value must be included in a TAM asset inventory. FTA encourages transit providers to include additional equipment assets that impact safety and operations to be considered alongside other equipment assets in their TAM plan elements.

FTA does not believe that the final rule needs to include a definition of program of capital projects. Each transit provider regularly undergoes capital planning and programming activities to determine needs for the following year. FTA understands that each transit provider's planning and programming process may be unique, and as a result, the final rule provides the flexibility for each transit provider to fulfill the asset inventory requirement without imposing a one-size-fits-all process for identifying capital assets.

Readers should understand that there is a distinction between the categorization of an asset (*i.e.* whether it meets the definition of equipment, infrastructure, rolling stock, or a facility) and whether or not a transit provider must include the asset in its asset inventory. Categorization of an asset is also distinct from whether or not a transit provider must set an SGR performance target for the asset (tabular illustration in Appendix C—Table 1). The final rule requires each transit provider to include in its asset inventory infrastructure, all non-revenue service vehicles regardless of value and owned equipment assets over $50,000, at a level of detail commensurate with its program of capital projects, and conduct a condition assessment of those assets for which it has capital responsibility. However, at this time, the performance measure for infrastructure is limited to rail fixed guideway assets and the performance measure for equipment is limited to non-revenue service vehicles. Therefore, a transit provider that does not operate a rail fixed guideway transit system would not have to set an SGR performance target for its non-rail infrastructure assets nor any equipment other than non-revenue service vehicles.

FTA further clarifies the asset inventory must include all revenue vehicles, all passenger stations, all exclusive use maintenance facilities, all non-revenue service vehicles and provider owned equipment over $50,000, regardless of funding source. Also see FTA's response to definition of ''Capital Asset'' for an extended discussion.

An illustrative example of the relationship between asset inventories, condition assessments and SGR performance measures is found in Appendix C—Table 2.

FINAL RULE:

FTA is revising § 625.25(b)(1) to clarify which assets (including but not limited to all revenue vehicles, all passenger stations, all exclusive use maintenance facilities, and provider owned equipment over $50,000 including all non-revenue service vehicles regardless of value) used in the provision of public transportation must be included in an asset inventory, at a level of detail commensurate with the level of detail used to describe assets in a transit provider's program of capital projects.

COMMENTS: TAM Plan—Condition Assessment

A State DOT and an individual commenter recommended that § 625.25(b)(2) should include a universal condition rating scale. A State agency said it is important to develop objective methodologies to evaluate asset condition and to establish a link between those assessments and an investment prioritization plan.

Several transit operators said the asset condition assessment must be more flexible. Two transit operators said FTA should allow transit operators to adopt a more rigorous means of condition assessment than age and ULB and report the results of their local assessment process. Two State DOTs and other commenters recommended allowing condition assessments to be made at the class level, rather than by individual projects, because targets are set at the class level. Another transit operator expressed support for FTA's proposal for allowing transit providers to choose a method or methods for conducting condition assessments, provided that the level of detail is sufficient to monitor the performance of capital assets. One transit company assumed that because the rule is silent with respect to how condition should be determined, any method is acceptable.

Several commenters requested guidance on condition assessment. A transit operator asked if FTA will provide condition assessment guidance and what method of tracking should transit agencies follow. A transit agency similarly expressed concern that ''condition'' alone is vague, subjective, and open to individual interpretation and requested additional direction regarding condition assessment. An individual commenter requested a minimal condition assessment outline for guidance and to provide consistency. In particular, another transit operator asked to what level of detail service providers are expected to break down facilities and stations and their components for the purpose of the facilities asset category performance measure condition assessment, and whether the standard of condition being ≥3.0 would apply to the whole facility (*e.g.,* a weighted average of all its components). A transit agency requested additional guidance on condition assessments for facilities but also requested that the guidance be flexible to allow current assessment processes to apply. A transit agency asked if actual condition of the asset is required or if age would be an acceptable substitute. The commenter also asked if other proxies, as determined by the implementing agency, would be acceptable in lieu of physical condition.

A State DOT said that the requirement to use a 1–5 TERM scale is inconsistent with the NPRM preamble, which states that transit providers may continue to use their own existing condition rating systems. This commenter requested clarification on this point, TERM training, and a conversion mechanism for ratings arrived through other assessment mechanisms. Similarly, a transit agency recommended that FTA develop criteria for assessing asset condition utilizing the TERM scale, recommending that the TERM condition of 2.5 be set as the minimum for which an asset is in a state of good repair, to remain consistent with previously published FTA guidance.

A transit operator said that whole collection of actual asset condition data would be useful in the establishment of targets and investment prioritization, and that particular focus should be paid to performance of the asset relative to its designed purpose and cost effectiveness. This commenter asserted that using age, mileage, standard replacement, and maintenance schedules as a condition assessment does not keep to the intent of MAP–21. The commenter suggested that FTA define ''condition assessment'' in a manner that may include age and mileage information. In its own assessments, this transit operator explained that it also uses fluid analysis and corrosion inspections to determine the remaining useful life of rolling stock assets. This commenter suggested that condition assessments along with performance-based monitoring be used for measuring the condition of infrastructure.

A transit operator stated that the text implies that that the condition assessment should be informed by the SMS. The commenter expressed concern that because this requirement ties the evaluation of safety risk to another proposed regulation, the application of SMS to the National TAM System is not definitive until the SMS rule is final.

A transit operator said the preamble discusses the TAM requirement for a condition assessment that must identify a safety hazard or failure to meet ADA requirements related to the use of that capital asset. The commenter said the requirement to include this sensitive data and analysis in the public TAM document could potentially expose a transit agency to risks that could compromise the agency and its efforts to keep assets in a state of good repair.

FTA'S RESPONSE: TAM Plan—Condition Assessment

FTA has provided flexibility for condition assessments so individual transit providers and sponsors can determine the most effective methodology to use for their circumstances. A universal condition rating scale would not support this intent. FTA agrees that it is important for a transit provider to develop objective methodologies to evaluate asset condition. FTA is developing guidance to assist transit providers with developing these methodologies, but the final rule does not establish a universal condition rating scale.

It is important to note the differences between the TAM plan condition assessment requirement and performance measure development. For the TAM plan asset inventory, FTA only requires that ''a condition assessment generates information in a level of detail sufficient to monitor and predict the performance of capital assets.'' Conversely, the performance measures are not reflective of the entire asset inventory, only those specific asset classes related to the performance measures. For facilities the performance measure includes: (1) Administrative and maintenance facilities as well as (2) passenger and parking facilities. The equipment performance measure only includes non-revenue service vehicles. The rolling stock performance measure includes all revenue vehicles, by mode. Lastly, the infrastructure performance measure only includes rail fixed guideway. See also Appendix C_Table 1 and 2.

FTA asked the industry a number of questions regarding measuring condition in the ANPRM and analyzed those responses in the NPRM. The resulting performance measures represent a range of condition measurement approaches from simple to complex. FTA does not require sophisticated condition measurement methodologies for the TAM plan element or for SGR performance measures, but encourages transit providers of sufficient experience and sophistication to pursue more complex condition assessments based on more than age and mileage for rolling stock as well as other asset categories. FTA recognizes that some transit providers are prepared for more sophisticated condition assessment requirements and some are not, therefore the final rule provides for flexibility. FTA agrees that condition assessments can be conducted at the class level. A transit provider may develop its own condition assessment methodologies. FTA is developing guidance for measuring facility and infrastructure conditions.

The performance measure for the facility asset category is measured by the TERM scale. However, FTA does not require that transit providers use this scale in the condition assessments required under § 625.15(b)(2). FTA declines to set the performance benchmark at 2.5, rather than 3.0, because a benchmark of 2.5 would require all transit providers to use the TERM-Lite model in order to calculate the 2.5 rating. FTA believes that this would be overly burdensome on many transit providers. The TERM scale is an integer based scale, thus a direct measure of condition 2.5 is not possible. Instead, condition ratings to one decimal point are produced by the TERM-Lite model as an estimate of condition between condition assessments. Thus, FTA is setting the benchmark at 3.0, as this will reflect the actual results being produced by transit providers carrying out their own condition assessments.

FTA does not plan to produce a TERM conversion mechanism, as there are a number of methodologies a transit provider could use for condition assessment. It would not be possible for FTA to produce conversion mechanisms for all of them. However, FTA will provide technical assistance to those transit providers who require assistance with either determining the best condition assessment methodology or adapting their existing methodology to the TERM scale for the SGR performance measure targets.

FTA agrees that there is a link between condition assessments and the investment prioritization. The condition assessment informs the investment prioritization and thus must collect the relevant information regarding the asset's ability to perform in its current condition. For example, if an asset fails to meet an ADA requirement which will increase costs associated with any program or project related to that asset class, this information is gathered at the condition assessment stage and will inform the investment prioritization. This final rule does not increase a transit provider's responsibilities under the ADA, but merely explicitly incorporates ADA accessibility assets into the TAM framework.

FINAL RULE:

FTA is not making any revisions in the final rule related to these comments. However the final rule does clarify that recipients and subrecipients are required to assess and report the condition of only assets inventoried for which the transit provider has direct capital responsibility.

COMMENTS: TAM Plan—List of Analytical Processes or Decision Support Tools

Some public comments addressed the § 625.25(b)(3) proposed requirement that a TAM plan must include the identification of which decision support tool or tools were used to create the TAM plan.

A professional association and a State DOT asked for clarification on what decision and support tools are considered appropriate and sufficient. A transit operator asked if an agency's decision support tool should prioritize investment using the same methodology that FTA has previously used to report to Congress (*i.e.,* TERM and TERM Lite). An individual commenter also urged FTA to provide guidance on this TAM plan element and asserted that requiring a description of decision support tools is shortsighted because the purpose of this section is to ask grantees to provide the method of prioritizing projects.

A transit operator asked how FTA anticipates that analytical tools will assist decision-making. Another transit operator recommended that rather than referring to ''list of the'' following, FTA should say ''A description of the transit provider's analytical processes or decision-support tools that. . .'' One transit agency said the decision support tool and methodology will result in more 5310 providers disengaging from coordination efforts and ''siloing.''

FTA'S RESPONSE: TAM Plan—List of Analytical Processes or Decision Support Tools

A decision support tool must be able to support development of the investment prioritization. The tool may be a documented process and does not

need to be electronic. Whatever the medium, the tool should assist a transit provider in understanding its capital investment needs and in prioritizing reasonably anticipated funding towards those needs.

FTA agrees with the commenter who suggested that FTA change requirements from a listing to a description of analytical processes and decision support tools. FTA believes that this change will make it clearer that the analytical process or decision support tool need not be electronic.

FINAL RULE:

FTA is revising this section based on comments from NPRM to require that a TAM plan include a description of analytical processes or decision support tools.

COMMENTS: TAM Plan—TAM and SGR Policy

A few public comments addressed the fifth proposed TAM plan element (§ 625.25(b)(5)), which was described in the NPRM as an identification of the transit provider's policies and strategies for developing an effective TAM plan, including a transit provider's executive level directions to set or support the goals for its TAM plan. A transit operator asked what needs to be reported in response to § 625.25(b)(5) and (6) if an agency already has a TAM plan and policy.

FTA'S RESPONSE: TAM Plan—TAM and SGR Policy

The NPRM did not propose to require a transit provider to report its TAM policy to FTA. Transit providers are required to submit to the NTD an annual data report that includes the SGR performance targets for the following year and a current assessment of the condition of the transit providers' public transportation system. Transit providers are also required to submit an annual narrative report to the NTD that provides a description of any change in the condition of a transit provider's transit system from the previous year and describes the progress made during the year to meet the performance targets set in the previous reporting year. There are no additional reporting requirements under this rule.

This final rule is flexible and scalable. A transit provider may incorporate its existing TAM policies and practices into its TAM plan.

FINAL RULE:

FTA is not making any revisions in the final rule related to these comments.

COMMENT: TAM Plan—Strategy for Implementation of TAM Plan

A few public comments addressed the sixth proposed TAM plan element (§ 625.25(b)(6)), which was described in the NPRM as a strategy for TAM plan implementation, *i.e.,* the process a transit provider will follow in order to achieve its TAM plan. A transit agency expressed support for the inclusion of a TAM policy as part of a certified TAM plan. However, the commenter requested additional information on how to meet this non-statuary requirement without being duplicative of other TAM plan components. Without clarification, the commenter recommended removing this provision.

FTA'S RESPONSES: TAM Plan—Strategy for Implementation of TAM Plan

A transit provider's TAM plan implementation strategy should outline a plan showing the activities necessary to achieve its asset management goals (including all aspects of change management). The plan should outline a schedule with roles, responsibilities, accountabilities, tasks, and dependencies. The implementation process should addresses dependencies, including reliance on the hiring of new staff, funding availability, or software development. The process also should reconcile asset management priorities against other agency initiatives. Implementing activities should be established based on an assessment of how well they are expected to accomplish the goal of achieving or maintaining a state of good repair of the provider's assets. To the extent possible, the implementation strategy should address specific problems or deficiencies that improve performance.

FINAL RULE:

FTA is not making any revision to this section in the final rule related to these comments.

COMMENTS: TAM Plan—Description of Annual Key Transit Asset Management Activities

Some public comments addressed the seventh proposed TAM plan element (§ 625.25(b)(7)), which was described in the NPRM as a list of the key activities or actions that are critically important to achieving the transit provider's asset management goals for the year. A transit operator asked if the ''key activities'' are intended to focus on discrete projects and actions or if it meant to document ongoing, routine asset management practices for each asset class (*i.e.,* describing asset life-cycle procedures from specification and procurement, through to disposition). If the latter, the commenter asked how it should determine which asset classes warrant specific levels of detail documentation, and how much additional cost and staff effort would be required to prepare such a TAM plan.

A transit operator requested that, if FTA is proposing to require a list of annual activities in a TAM plan, then FTA should provide an easy way to update the previous year's submission because anticipated annual changes would be minor. Another transit operator asked, in the case of an agency that already has a TAM plan, if this TAM plan element would be a list of next steps for continual improvement.

FTA'S RESPONSES: TAM Plan—Description of Annual Key Transit Asset Management Activities

In the NPRM FTA proposed that a TAM plan include a description of a transit provider's key asset management activities that it plans to accomplish in the upcoming year. This final rule does not prescribe what the description must include or how a transit provider must develop it. However, examples of activities include ''combine three departments' asset inventories'', ''develop a lifecycle management template and populate it with information from three most-critical asset classes,'' or ''hire an asset management program manager.'' A description of activities also could include a list of next steps for continual improvement.

FINAL RULE:

FTA is not making revisions to this section in the final rule related to these comments.

COMMENTS: TAM Plan—Specification of Resources Needed To Develop and Implement the TAM Plan

Some public comments addressed the eighth proposed TAM plan element (§ 625.25(b)(8)), which was described in the NPRM as an identification of the financial resources that a transit provider estimates are necessary for implementing its TAM plan and achieving its asset management goals. A transit operator asked FTA to clarify if this TAM plan element should include an analysis of resources required to perform maintenance activities in addition to capital investment work or whether it is only intended to capture the costs associated with TAM plan preparation. Another transit operator stated that this additional TAM plan requirement for tier I providers as well as the one in proposed § 625.25(b)(9) would create a reporting burden that

may divert time and resources from improving asset condition and system safety.

FTA'S RESPONSES: TAM Plan—Specification of Resources Needed To Develop and Implement the TAM Plan

The NPRM proposed that a transit provider identify the resource needs to develop and implement a TAM plan, including those resources that a transit provider reasonably anticipates would be available over the TAM plan horizon period. In order to set achievable SGR goals and in order to do a meaningful investment prioritization, a transit provider needs to know what resources it anticipates needing and what is available. The resources could include financial, human, equipment, and software. FTA has not required a specific methodology or format in the final rule.

FINAL RULE:

FTA is not making any revisions to the final rule related to these comments.

COMMENTS: TAM Plan—Monitoring TAM Plan and Related Business Practices

A few public comments addressed the ninth proposed TAM plan element (§ 625.25(b)(9)), which was described in the NPRM as a continuous improvement plan that sets timelines and milestones to track the transit provider's progress towards meeting its asset management goal. A transit operator recommended that if FTA is planning to adopt an oversight schedule to evaluate grantees' TAM plans then it should be integrated into existing FTA oversight functions instead of being a stand-alone requirement. Another transit operator said the requirement for a monitoring and evaluation plan should be better differentiated from other TAM plan components. An individual commenter asked for guidance and instruction on the continuous improvement process.

FTA'S RESPONSE: TAM Plan—Monitoring TAM Plan and Related Business Practices

FTA intends to incorporate compliance with requirements of the final rule into its existing oversight activities. FTA will issue guidance to aid transit providers in their implementation of the final rule.

FINAL RULE:

FTA is not making any revisions to this section in the final rule related to these comments.

COMMENT: TAM Plan—Tier II Providers Exempt for TAM Elements

A business association expressed appreciation for FTA's efforts to create a tiered approach for the proposed National TAM System that acknowledges the diversity of transit systems.

Some public commenters provided other comments on FTA's proposed approach to transit asset management. For example, a transit operator asserted that the proposed rule has not provided the necessary flexibility to facilitate the effective participation of small transit operators. A professional association urged FTA to recognize the inherent differences in the size of agencies by ensuring that any new regulations allow flexibility for small operators to more easily comply and by establishing minimal universal requirements that can be applied across all agencies to allow for greater flexibility and a scaled approach for implementation. Voicing similar concerns, a transit operator recommended that FTA finalize the rule by implementing TAM principles without overly burdening States, small providers, and 49 U.S.C. 5310 subrecipients.

Some public comments addressed the proposed special provision for tier II providers that would allow them to include only the first four proposed TAM plan elements in their TAM plans (§ 625.25(c)).

Several State DOTs and other commenters expressed support for the reduced requirements for small operators. Three State DOTs said Section 5310 subrecipients should be excluded from this rule. One of the State DOTs and another commenter recommended that, at a minimum, Section 5310 subrecipients should be limited to only including the TAM plan elements at proposed § 625.25(b)(1) and (2). Similarly, a transit operator recommended further scaling back the requirements for small operators.

A tribal government appreciated the reduced TAM plan requirements for tier II providers but asserted that it is not enough of a burden reduction given FTA's expectations for the analytical processes, decision support tools, investment needs, and prioritization strategies for tier II providers. However, one State DOT said the non-statutory criteria should extend to tier II providers who are transporting the public.

A transit operator supported inclusion of the non-statutory TAM plan requirements in proposed § 625.25(b)(5) through (9) because they align with ISO 55000 and international best practices for asset management. However, the commenter said FTA must understand that grantees will have to dedicate significant resources to developing TAM plans that exceed the statutory requirement. In contrast, a private transit operator asserted that because the TAM plan requirements in proposed § 625.25(b)(5) through (9) are not included in MAP–21, those elements should not be a requirement of the final rule.

FTA'S RESPONSE: TAM Plan—Tier II Providers Exempt for TAM Elements

The National TAM System is a scalable and flexible framework that establishes terms and concepts and allows for consistency and standardization of formats, without being prescriptive on methods or application. FTA understands that smaller, rural, or less sophisticated transit providers may not have the expertise or resources to develop and implement a nine element TAM plan. FTA believes that this final rule imposes the least burdensome reporting requirements while still meeting the requirements in the law by allowing tier II providers the option to develop and implement a four element TAM plan and participate in a group TAM plan developed by a sponsor. The sponsor would be responsible for reporting required information to FTA on behalf of all group TAM plan participants, thereby reducing the burden on those small providers.

FTA believes that the mechanics of the development for a group TAM plan is a local decision. Although sponsors are primarily responsible for the development of the group TAM plan, participants should collaborate or contribute to the development of the group TAM plan, to the extent practicable.

FINAL RULE:

In the final rule FTA revises the definition of tier II provider to include explicitly American Indian tribes.

COMMENTS: TAM Plan—Additional Comments

Some commenters provided other comments on the proposed TAM plan requirements that were not otherwise addressed above.

Two trade associations and a transit operator urged FTA to provide as much flexibility in compliance as possible so that agencies can make use of their existing processes and documents—including TAM plans required by the State—without too much additional burden. Similarly, a transit operator said attempting to define how each TAM

plan should look and how each agency will perform asset management by means of strict regulation and use of required methodology limits all agencies from creating a plan that would add value to their existing processes while meeting the needs of the legislation. An MPO and two transit operators requested that the final rule clarify, that if other documents contain all of the required elements, such as Short Range Transit Plans (SRTPs), such documents may be used to satisfy the requirement for a TAM plan.

Two transit operators recommended that FTA eliminate a separate requirement to prepare fleet management plans, stating that separate asset management and fleet management reporting requirements will create redundancy and unnecessarily burden grantees.

Some commenters provided suggestions for additional elements to include in the TAM plan, including a description of QA/QC methods, organizational charts, and a list of asset management personnel. A trade association recommended that the grantees' TAM plan and project prioritization be made public.

Expressing concern about the limited resources of tier II systems, a trade association urged FTA to not require—either stipulated or a functional byproduct of the rulemaking—that small urban, rural, or tribal providers hire additional staff to oversee compliance with new regulations. A transit operator recommended that FTA revise its SGR formula program language so that ''transit asset management practices inform the capital investment planning and programming processes by producing data that informs the investment prioritization.''

FTA'S RESPONSE: TAM Plan—Additional Comments

When possible, FTA has remained silent on methodologies transit providers must use and has recognized that a strict national system would not be useful or effective. FTA does not want to create redundancy with effective practices and has established a framework and standard terminology the industry can follow to compare their TAM and SGR nationally.

A transit provider may use any source available to it, including existing asset inventories, to develop a TAM plan required under the final rule. The fleet management plan required at the grant making stage of a project may differ from the TAM plan asset inventory as the TAM plan has a four year horizon, while the grant application primarily reflects current acquisitions.

FTA encourages and supports the use of additional TAM plan elements such as QA/QC methods, organizational charts, etc. but does not require them in the final rule.

FTA will not collect or approve TAM plans. A transit provider will certify compliance with the final rule through FTA's certification and assurances process. The role of the sponsor of a group TAM plan is to certify on behalf of their participants. In addition, the sponsor will accept certification from their subrecipients that opt-out of a group TAM plan.

FTA has addressed the comments related to the role of SSO previously in the Implementation and Oversight section.

FTA has attempted to minimize the compliance burden on small operators and has also provided an option which shifts the administrative and oversight burden from the small operator to the sponsor. However, the individual transit provider is the only entity capable of implementing TAM at its agency.

Unless protected under State law, a TAM plan would be available to the public.

FINAL RULE:

FTA is not making any revisions to this section in the final rule related to these comments.

625.27 Group Plans for Transit Asset Management

The NPRM proposed that all recipients and subrecipients of Chapter 53 financial assistance must develop a TAM plan. This requirement is met either through an individual TAM plan or through a group TAM plan. The statute includes other requirements for the National TAM System, which were proposed in the NPRM, and tied to the sponsorship of the TAM plan. Sponsoring a group TAM plan does not make the sponsor a transit provider; a sponsor must own, operate or manage capital assets in transit service to be a transit provider.

This section proposed that any recipient of FTA funds with subrecipients must sponsor a group TAM plan for their tier II provider subrecipients that are not also recipients of 5307. Thus, all subrecipients under the 49 U.S.C. 5311 rural area formula program that are not also direct recipients of 49 U.S.C. 5307 urbanized area formula grants, regardless of size, must have the opportunity to participate in a group TAM plan. Sponsors would not be permitted to reject requests from a tier II provider to participate in a group TAM plan and must develop a group TAM plan for all eligible tier II providers. However, a group TAM plan participant may choose to opt-out of a group TAM plan by notifying the group TAM plan sponsor of its intent and by creating its own TAM plan. In addition, an eligible participant that is a subrecipient to more than one sponsor may select which group TAM plan it would like to participate in. For example, a rural area formula program subrecipient that operates in multiple states may be eligible to participate in more than one group TAM plan. The subrecipient would need to select which group TAM plan it wanted to participate in, and formally opt out of the plan that it chose not to participate in. In the absence of explicit notification from a tier II provider of its intent to opt-out, the sponsor must include that provider in the group TAM plan. A State or direct recipient that is also transit provider may only participate in a group TAM plan as the sponsor. Such a State or direct recipient may not include itself in the group plan it is sponsoring for its subrecipients; it is required to develop a separate, individual TAM plan for its own transit system.

Each transit provider's Accountable Executive is required to coordinate, to the extent practicable, with a group TAM plan sponsor in the development of the group TAM plan. Accordingly, a group TAM plan sponsor is required to coordinate the development of the plan with each of the plan participants' Accountable Executive. Notably, the transit provider retains responsibility for implementing the group TAM plan at their agency.

COMMENT: Group Plans—Responsibilities for States, Tribes, and Direct Recipients

Numerous public comments addressed the option for tier II providers to participate in a group TAM plan (proposed § 625.27(a)(2)) and the related responsibilities for States, tribes, and direct recipients relating to group TAM plans (proposed § 625.27(a)(1) through (3)). Two State DOTs opposed a mandate on the State to develop a group TAM plan for all of its tier II providers. One State DOT suggested that States should not be required to prepare a TAM plan for their tier I or tier II subrecipients. One State DOT requested that DOTs be allowed to prepare a group TAM plan that includes all transit operators in the State (tier I and tier II). A transit operator stated that sponsorship of a group TAM plan should be a voluntary choice and that the sponsor should serve in a coordinating and collaborative role. The commenter stated that any costs incurred by the group TAM plan

sponsor should either be allowed to be passed through to the participating subrecipients or else should be eligible for reimbursement by FTA.

Several State DOTs and other commenters recommended that State DOTs be mandated only to do a group TAM plan for its subrecipients under the 49 U.S.C. 5310 and Section 5311 programs as these subrecipients are already subject to State oversight and their Federal funds are already programmed by the State across the entire group. One of these State DOTs and other commenters suggested that separate group TAM plans should be allowed for subrecipients under the 49 U.S.C. 5310 and 5311 programs.

A State DOT urged FTA to establish a smaller fleet size threshold for urban systems to qualify for inclusion in a State plan, which the commenter said would recognize the urban/rural distinctions that already exist. Alternatively, this commenter would endorse limiting mandatory State plan participation for subrecipients under 49 U.S.C. 5310 and 5311. Two State DOTs suggested that 49 U.S.C. 5310 subrecipients with less than 10 vehicles should be excluded from the group TAM plan requirements. To decrease the burden further, these commenters recommended that FTA require reporting only on FTA-funded assets for 49 U.S.C. 5310 subrecipients.

A State public transportation system also suggested that group TAM plans should be limited to only FTA-funded assets used in the provision of public transportation services, reasoning that it would be an inappropriate burden to apply the TAM regulations to all of subrecipients' assets that directly or indirectly support its transportation service. This commenter also urged FTA to eliminate the TAM plan requirements for subrecipients that only receive 49 U.S.C. 5310 funds, reasoning that a majority of such subrecipients in the State have fewer than five vehicles, which are used to provide transportation to only program participants with specific needs, rather than for public transportation services.

Some State DOTs and a professional association said that for subrecipients other than those that are solely subrecipients under 49 U.S.C. 5310 or 5311, it should be a mutual decision between a group TAM plan sponsor and the eligible providers in the group if a group TAM plan will be done. One of the State DOTs and the professional association stated that after the mutual decision to produce a group plan is made, it should be the sponsor, not the individual providers, who determine if an individual provider may opt out. A State DOT requested that rather than requiring State DOTs to develop a group plan unless participants opt out, the FTA TAM rule should allow operators to develop their own plans with State DOTs developing a group TAM plan for remaining participants.

A few State DOTs and a professional association said that by mandating the State DOT to prepare a group plan for small urban providers (*e.g.,* subrecipients under 49 U.S.C. 5307 and Section 5339), FTA would significantly increase the role of the State DOT in planning and subsequent oversight of this group of providers. These commenters opposed the transferring of additional responsibilities for small urban providers from FTA to the States. A professional association requested additional funding for State DOTs to be able to prepare the group TAM plans.

A transit operator said it is the direct recipient of 49 U.S.C. 5307 funds, and that it also has one subrecipient of its 49 U.S.C. 5307 funds. This commenter stated that its subrecipient is also a subrecipient of 49 U.S.C. 5310 and Section 5311 funding from the State, and asked if it would be required to complete a Group TAM plan. A transit operator expressed concern that while it will need to complete an individual TAM plan because of its Tier I status, as a 49 U.S.C. Section 5311 subrecipient it will also be obliged to participate in a State group TAM plan. The commenter said this will result in an additional cost that may not have been captured in the cost analysis performed by FTA.

A transit operator asked if tier I agencies that have subrecipients will be able to combine their agency plan with those of their subrecipients. A State DOT and a professional association suggested that States that are both transit operators and sponsors of group TAM plans should only be required to prepare a single TAM plan inclusive of the statewide system, which may include all the assets of direct recipients, subrecipients, and transit providers if that makes sense for their State. Some State DOTs and a professional association requested clarity on the State's roles and responsibilities in resolving conflicts that may arise between TAM plan sponsors and a subrecipient.

A State DOT requested an example of a non-State group TAM plan sponsor and clarification as to whether an MPO could be a group TAM plan sponsor. This commenter requested an example of when the MPO would have the responsibility for integrating group TAM plans and when it is a State responsibility. An MPO requested that FTA add explicit clarifying language to the final rule stating that an MPO that merely receives funds from FTA and passes the funds along to transit operators would not be required to develop and carry out a TAM plan or a group TAM plan, consistent with the analysis of §§ 625.5 and 625.27 in the NPRM. Another MPO requested that FTA clarify the level of responsibility of a group TAM plan sponsor by setting a minimum expectation that requires the sponsor to focus on coordination and collaboration while preserving local decision-making.

A professional association supported the ability of American Indian tribes to develop their own TAM plans, even when they are (tier II) subrecipients of the State under the 49 U.S.C. 5311 program. This commenter also recommended that the rule should clarify that it is a mutual decision between the tribe and the group TAM plan sponsor if a tribe will be include in a group TAM plan and should clearly state that, if a tribe opts to be part of a group TAM plan, the tribe must to agree to setting targets and prioritizing investment across the entire group, which could result in the State DOT being involved in programming Federal funds available to the tribe both as a subrecipient and direct recipient.

A State transit association recommended that FTA should eliminate the lead agency model and not implement a requirement that ''designated recipients [must] review TAM plans for subrecipients.'' The commenter asserted that many transit agencies the DOT has approached to be lead agency have refused based on unwarranted liability, lack of staffing to monitor sub-grantees, and lack of additional administrative funding to cover oversight.

FTA'S RESPONSE: Group Plans—Responsibilities for States, Tribes, and Direct Recipients

FTA has established a two-tier approach to TAM plan development to reduce the burden on smaller transit providers. The NPRM proposal was consistent with other FTA programs whereby a State, direct or designated recipient oversees subrecipients and certifies to FTA on their behalf. The costs associated with developing a group TAM plan are eligible under many grant programs (*e.g.,* Urban area formula program, rural area formula program, state of good repair formula), and the Sponsor is in a better position to determine the future funding for investment prioritization.

The feasibility of the group TAM plan assumes that the funding relationship between recipients and subrecipients

naturally lends itself to this type of arrangement because the process of prioritizing investments is already occurring at the sponsor level. As a result, it is logical to require States and direct recipients (or designated recipients of 49 U.S.C. 5310 funds) to take a leadership role in developing group TAM plans for their subrecipients. However, if this relationship is not appropriate for a particular tier II provider, then that tier II provider can opt out of the group TAM plan and develop its own TAM plan.

The sponsor may determine that multiple group TAM plans are necessary for their subrecipients. For example, a State DOT may decide to establish separate group TAM plans for its 49 U.S.C. 5310 and 5311 subrecipients. Or a State DOT may decide to establish a single group plan for all of its subrecipients. The final rule provides flexibility to sponsors to decide the number of group plans that it should develop.

FTA agrees that the group TAM plan should include those subrecipients already subject to the sponsor's oversight and does not intend to create new relationship of oversight not already in practice. Thus, FTA has revised the final rule to clarify that sponsors are not required to offer a group TAM plan to those subrecipients that are also direct recipients of 49 U.S.C. 5307 funds. However, any direct recipient of 49 U.S.C. 5307 funds that is a tier II provider remains eligible to participate in a group plan by mutual agreement of the sponsor and the transit provider. For example, a tier II transit provider that is a direct recipient of 49 U.S.C. 5307 funds, and is a subrecipient of 49 U.S.C. 5311 funds from the State may participate in the State's group plan by mutual agreement, but the State is not required to include this subrecipient in a group TAM plan.

FTA recognizes that subrecipients with very small fleets of less than ten vehicles have unique circumstances, and FTA has sought to minimize the burden on these providers as much as possible.

As noted earlier, the intention of the asset inventory is to provide a strategic perspective capital assets used in the provision of public transit. As such all assets, regardless of funding source, are parts of the landscape and subject to these provisions.

FTA wishes to clarify that there are three types of TAM plans (1) a nine element individual tier I plan, (2) a four element individual tier II plan, and (3) a four element group TAM plan. A transit provider that is a recipient under one program and subrecipient under another is not required to do two TAM plans, but must determine which is most appropriate.

The role of a sponsor in the development of the TAM plan is that of the leader—the sponsor determines the asset inventory level of detail, the condition assessment methodology, and the criteria and weighting for investment priorities as well as which tools to use to support these efforts. As the leader, the sponsor is responsible to the extent practicable, for coordination and collaboration with all participants, while preserving local decision making. The participant is an active partner in the development of the TAM plan providing information necessary to conduct the analyses and providing feedback to the sponsor. The tier II participant maintains the autonomy to opt-out of a group plan if it is not effective.

An example of a non-State sponsor is an MPO or transit provider who may be the designated recipient of 49 U.S.C. 5310 funds for their urbanized area and distributes those funds to subrecipients. Another example would be an MPO or transit provider that distributes some of the 49 U.S.C. 5307 funds for their urbanized area to subrecipients.

FTA agrees that Native America tribes preserve the autonomy to develop their own TAM plan even if they are tier II provider subrecipients of the State. A tribe also may choose to participate in a group TAM plan sponsored by the State. Each participant must provide the sponsor with information necessary for the development of the group TAM plan.

FTA disagrees that it should eliminate the lead agency model. The lead agency model reduces the burden on smaller providers, which FTA believes justifies the additional coordination burden placed on the sponsor. The lead agency approach seeks to use existing oversight relationships to reduce additional oversight burden to the sponsor.

FINAL RULE:

FTA has made revisions to the final rule to clarify eligibility for participation in a group TAM plan and the responsibilities of a sponsor.

COMMENTS: Group Plan—Opting Out of Group TAM Plan

Some public comments addressed the proposed option for a tier II provider subrecipient to ''opt-out'' of a group TAM plan and create its own TAM plan at proposed § 625.27(a)(4). An MPO requested clarification on the requirements for a State to develop a group TAM plan for all tier II recipients and the ability of a participating accountable executive to opt-out of the State plan. A professional association expressed support for the provision that tier II agencies can elect to complete their own TAM plan.

FTA'S RESPONSES: Group Plan—Opting Out of Group TAM Plan

The NPRM proposed that all sponsors develop a group TAM plan for their tier II provider subrecipients. A tier II provider's accountable executive may choose to opt-out of a group TAM plan for a number of reasons, including if the provider will develop its own individual TAM plan.

FINAL RULE:

FTA is not making any substantive revisions in the final rule related to these comments.

COMMENTS: Group Plan—Plan Requirements

Several commenters provided input on the group plan requirements proposed in § 625.27(b). A State DOT said the group TAM plan requirements seem reasonable.

Several commenters requested clarification on investment prioritization under group plans. Several State DOTs and other commenters said that the sponsor of a group TAM plan should establish targets and investment prioritization for all members of the group, as a whole. An MPO said FTA should clarify that the group investment prioritization should be based on the priorities of the individual tier II providers rather than those of the agency responsible for the development of the group TAM plan. A State DOT said language should be included to specify that policy guidelines by group TAM plan sponsors can guide asset investment prioritization at a high level. A State DOT said investment priorities for group TAM plans should only be advisory since they are set across the entire group.

An individual commenter asked if all assets in a group TAM plan must be prioritized as if it were one transit agency, and if so, how this would affect grant decision-making.

One commenter questioned whether it would then be advantageous or disadvantageous for a small operator to opt-out of the group plan and create its own plan in order to compete separately for State grant funding.

A State DOT said it is unclear whether the proposed rule would require group TAM plan sponsors to develop ULBs for all providers

regardless of the providers' unique operating environments.

A transit operator asked for guidance on asset planning, management, and inventory in a group TAM plan where a transit agency operates and maintains assets owned by another transit agency.

FTA'S RESPONSES: Group Plan—Plan Requirements

In the NPRM, FTA proposed that sponsors develop unified targets for group TAM plans. This means that a sponsor would develop performance targets for each asset class in the group plan, for the entire group. While some participants may not have assets in every asset class included in the group plan, they are responsible for the programs and projects identified in the group plan investment prioritization that relate to their asset inventory. For example, a group plan participant that has ten cutaway vans, but no buses would have its assets included in the cutaway van mode SGR target, but the group plan may also include a target for buses. This participant is only responsible for implementing the TAM plan as it relates to their vans. They would not however, be involved in the attainment of the bus target.

FTA agrees that a sponsor should establish the investment prioritization based on the priorities of the whole group, to the extent practicable. The methodology and practice for developing the group TAM plan are a local decision. FTA will provide guidance and technical assistance for sponsors and participants to assist in developing TAM group plans.

A benefit of participating in a group TAM plan is the reduced administrative burden. A potential drawback is the lack of individuality in the TAM plan, as the TAM group plan is developed as if the group were one transit operator, pooling asset inventories and ultimately developing unified targets across the group as a whole.

FTA clarifies that a ULB is not transit operator specific, but may be specific to a particular number of vehicles within the asset inventory. Group TAM plan sponsors will be able to specify different ULBs for different participants, or even for different fleets operated by a single group plan participant.

FTA disagrees with the commenter that asserts the two tiered approach would lead to tier I Accountable Executives being responsible for tier II providers. The group TAM plan approach uses existing relationships between recipients. A tier II provider always reserves the option to opt-out of a group plan. A group TAM plan sponsor that is also a tier I provider must develop its own separate individual TAM plan.

FINAL RULE:

FTA is not making any revisions to the final rule related to these comments.

COMMENTS: Group Plan—Role of the Accountable Executive in Development of Group TAM Plans

Several public comments addressed the role of the Accountable Executive in the development of group TAM plans as proposed in § 625.27(c)(2) and (3).

Several commenters, including transit operators and professional associations, requested clarification on whether the Accountable Executive responsibilities remain with each tier II agency or whether the responsibility ''rolls up'' to the group TAM plan sponsor's Accountable Executive, with most generally expressing that each participating transit agency should have its own Accountable Executive. Some commenters requested FTA to clarity that tier II reporting agencies are not required to cede the role of Accountable Executive (or management of their agency) to their respective States or other direct recipients. A State DOT stated that, if States are required to include tier II 49 U.S.C. 5307 recipients, then it does not wish to assume the responsibility of the group's Accountable Executive. Another commenter asserted that the group TAM plan sponsor's designated Accountable Executive, if necessary under the rule, would have limited authority in making progress towards the targets. If the responsibility ''rolls up'' to the group TAM plan sponsor's Accountable Executive, a transit operator asked if such responsibility would provide the commenter with the authority to establish the capital program priorities for each of the tier II subrecipients.

Some State DOTs and a professional association recommended that FTA clarify that just because the State DOT (as a group TAM plan sponsor) coordinates a group TAM plan, it does not mean that the State is responsible for implementation of the group TAM plan. Additionally, these commenters suggested that the State should not be considered a transit provider and not be required to have an Accountable Executive solely as a result of sponsoring a group TAM plan.

A transit operator asserted that since tier I providers do not control the funding of the tier II providers, tier I should not be dictating how tier II providers manage their assets. This commenter said that this would force greater centralization of decision-making and tier I would need to have control over tier II funding decisions. Thus, according to this commenter, the Accountable Executive would end up being responsible for both the primary agency and the roll-up agencies managing their assets.

FTA'S RESPONSES: Group Plan—Role of the Accountable Executive in Development of Group TAM Plans

In this final rule, FTA clarifies that a sponsor for a group TAM plan is not the Accountable Executive for each participating transit provider. By participating in a group TAM plan, an Accountable Executive may be required to defer to the decisions of the sponsor regarding prioritization of investments. However, each Accountable Executive is ultimately responsible for implementing a TAM plan. The Accountable Executive responsibilities do not ''roll-up'' to the sponsor.

FINAL RULE:

FTA is not making any revisions to the final rule related to these comments.

COMMENT: Group Plan—Providing Sponsors With Necessary Information (Role of Sponsor and Participant)

A few public comment submissions addressed the proposed requirement that group TAM plan participants must provide group TAM plan sponsors with all relevant and necessary information for the development of the group TAM plan as proposed in § 625.27(c)(4). An MPO suggested that the rule clarify the consequences of a group TAM plan participant not providing the required information, and provide the group TAM plan sponsor with a remedy or methodology to proceed without the missing information.

FTA'S RESPONSES: Group Plan—Providing Sponsors With Necessary Information (Role of Sponsor and Participant)

The ultimate responsibility for development of a group TAM plan lies with the sponsor. However, participants should collaborate with sponsors and contribute to the development of the group TAM plan, to the extent practicable. FTA believes that the mechanics of the development for a group TAM plan are a local decision.

FINAL RULE:

FTA is not making any revisions to the final rule related to these comments.

COMMENTS: Group Plan—Other Comments

Some commenters provided other comments on group TAM plans. For example, a transit operator asked how

SGR measures for several different agencies within a region can be rolled up if each service provider can define its own approach to quantify SGR. This commenter also asked what the role of a regional oversight board would be in the TAM effort if it oversees providers that would develop individual TAM plans due to the tier I level designation. An individual commenter stated that the group TAM plan provider cannot guarantee that they will be able to meet the plan's SGR goals because they cannot allocate the local funding that is required for capital grants.

A trade association requested additional guidance on group TAM plans, including ongoing participation of grantees and subrecipients, in order to ensure consistency.

Several State DOTs and other commenters urged FTA to clarify that a group TAM plan is not to be a collection of individual subrecipient plans into a single document; rather, it should provide group-level information. A State DOT requested that the group TAM plan approach provide increased flexibility.

An MPO requested clarification on the relationship between the Coordinated Plan and the group TAM plan process requesting confirmation that the TAM plan investment prioritization does not supplant the Coordinated Plan.

A State DOT requested guidance on the approval or certification process of a TAM plan. The commenter suggested that group TAM plans should be approved by the plan's sponsor, in coordination with each member of the group. However, the commenter said that formal approval by each Accountable Executive who is in a group TAM plan should not be mandated because the Accountable Executive for an individual member may not be fully supportive of the investment priorities made for the group as a whole.

FTA'S RESPONSES: Group Plan—Other Comments

This final rule establishes the SGR performance measures in § 625.43. Each provider or sponsor must set performance targets based on the measures.

Each transit provider can make its own SGR determinations taking into consideration the three objective standards.

FTA agrees that a sponsor cannot guarantee results of their TAM plan because the responsibility for implementing the TAM plan resides with each transit provider. However, each participant should support the group's investment priorities. There are no financial rewards or penalties associated with target attainment.

The group TAM plan is most effective if the group remains consistent over time. However, the tier II participants maintain the option to opt-out of the group TAM plan and create their own. In addition, a group TAM plan approach will be most effective where the required activities and analyses are conducted in consideration of the group as a whole, as opposed to a compilation of individual analyses, in order to develop unified targets. Nevertheless, the mechanics of the group TAM plan are a local decision. Additionally, FTA agrees that the group TAM plan process does not supplant existing decision making practices, such as the Coordinated Plan for Human Service Transportation.

FTA will not routinely collect or approve TAM plans. Each transit provider or sponsor will certify compliance with the final rule through FTAs certification and assurances process.

FINAL RULE:

FTA is not making any revisions to the final rule related to these comments.

625.29 Transit Asset Management Plan: Horizon Period, Amendments and Updates

This section proposed timeframes for developing and updating a TAM plan. A TAM plan is required to be forward looking, and is required to forecast projects, targets, and activities for at least four fiscal years. Some transit providers may desire a longer analysis period, however, the analysis period must be at least four years. Ideally, the TAM plan cycle should coincide, to the extent practicable, with the State and metropolitan planning cycle for development of the STIP and the TIP.

This section also provided that a TAM plan should be updated in its entirety at least every four years, and again, this should ideally, coincide, to the extent practicable with the update cycle for the STIP and the TIP. The requirement to update the TAM plan means that a transit provider must revisit every element of its TAM plan and make any necessary changes for a subsequent version, at least once every four years. Additionally, during the course of the horizon period, a transit provider may choose to amend its TAM plan to reflect changes to investment priorities, targets, or other unforeseen occurrences (like a natural disaster) that impact the relevance of the TAM plan.

FTA recommends that transit providers should consider current and future climate and weather-related hazards as part of their prioritization of investments. For example, the frequency and severity of potential hazards such as heavy rainfalls, coastal and riverine flooding, heat waves, extreme cold, and wind events may directly impact assets located in vulnerable areas. These potential hazards affect how a provider identifies and prioritizes necessary hazard mitigations, asset-replacement schedules, or the expected useful service duration of capital assets. A transit provider should have knowledge of the vulnerability of its system to natural hazards and prioritize protecting their assets from those hazards and improve the resilience of the system; however, FTA is not requiring a formal climate resiliency analysis as part of this rule.

COMMMENTS: Horizon Period

Several commenters suggested that the TAM plans allow agencies to better align other plans, such as their capital plan. Accordingly, a few of these commenters suggested that the plan should be valid for four to eight years. Another commenter suggested that the TAM plan and targets should be valid for five years.

A business association expressed support for proposed section 625.29 because it would align TAM plans on a cycle that coincides with TIP and STIP development. In contrast, one transit operator commented that the metropolitan planning process (LRTPs, STIPs, and TIPs) is every five years and the FTA triennial review process is every three years, and asked why the TAM plan does not match one of these timeframes.

A State transit association supported the peer recommendation that investment prioritization time periods should reflect a provider's short-term capital plans and be closely coordinated with TIP and STIP processes. However, this commenter recommended that FTA provide some guidance to DOT staff responsible for procurement regarding purchasing timelines, explaining that from the time an agency receives an award confirmation letter from the DOT, it typically takes up to 3 years to receive the vehicle.

A transit operator asked in which instances, if any, would FTA allow investment prioritization to exceed the four-year target. If none, this commenter asked if FTA would provide a method in which agencies could request an extension of time to set forth the ''sufficient investment'' that must be directed to projects that pose safety risks. Another transit operator said that the rule is unclear about how to reflect evolving priorities from year-to-year in

a TAM plan that requires project planning and prioritization to occur for a four year period.

FTA'S RESPONSE: Horizon Period

FTA established the horizon period for TAM plans of four years to align with the Federal metropolitan and statewide planning processes. FTA recognizes that priorities and funding may shift over a four year horizon and has provided the option to update or amend the TAM plan during the horizon period.

FINAL RULE:

FTA is not making any revisions to the final rule related to these comments.

COMMENTS: Amendments and Updates

Some transit operators and an MPO stated that developing a fixed 4-year investment plan would be in conflict with their shorter capital budget cycles. These commenters suggested that the updates to the capital budgets should not require updates to the TAM plan. Also, two of the commenters suggested that agencies should be enabled to deviate from the project list in the TAM plan without alerting FTA in order to respond appropriately to changes in risk, financial conditions, service levels, or other considerations of asset management.

A transit operator recommended that FTA allow agencies to update projects included in the TAM plan annually, reasoning that it may be difficult for agencies to forecast all projects to be included in the 4-year timeframe, particularly in the early stages of implementing the TAM System.

Two commenters recommended that the final rule state that annual target setting should adjust the prior year's targets only if significant asset changes occurred. Another commenter asserted that requiring updates each time the prioritization of projects changes equates to a yearly update, which is unnecessarily burdensome. This commenter suggested that updates should only be required concurrent with production of the STIP or TIP as written by the governing MPO. A transit operator asked FTA to clarify how it would define a ''significant change'' that would warrant an annual update to the TAM plan.

FTA'S RESPONSE: Amendments and Updates

FTA agrees that an update to a transit providers' capital budget does not by itself require a TAM plan update. However, depending on the magnitude of funding differential initially expected, a transit provider may determine an amendment or update is necessary to align the TAM approach with the current funding conditions. The investment prioritization and program of projects are a strategic projection for the four year horizon period. Using the best data and analysis available, the transit provider should be able to determine the priorities of investments. However, if deviations occur due to change in condition, risk, or other considerations, a transit provider may update or amend its TAM plan to reflect those deviations.

The difference between a TAM plan update and a TAM plan amendment is the degree of the unexpected change. For example, a transit provider may update its TAM plan if it receives discretionary program funds that it did not anticipate receiving when it developed its investment prioritization.

FINAL RULE:

FTA is not making any revisions to the final rule related to these comments.

COMMENTS: TAM Plan Process

A professional association and three State DOTs said that FTA should clarify in the final rule how individual and group plans will be approved.

A transit operator commented that the NPRM is unclear on how transit agencies will report TAM plans and updates to those plans. This commenter also asked to what extent reviewers during the FTA triennial review process will be empowered to reject performance targets in TAM plans.

A transit operator said FTA should delay finalization of the present rulemaking to coincide with promulgation of final safety performance criteria for all modes of public transportation; and minimum safety performance standards for vehicles in revenue operations, as prescribed by 49 U.S.C. 5329(b)(2)(A) and (C).

FTA'S RESPONSE: TAM Plan Process

FTA will not routinely collect or approve all TAM plans. Individual plans will be certified by a transit provider and group TAM plans will be certified by a sponsor as part of the other certifications and assurances that must be provided to FTA as part of any grant. The development and implementation of a TAM plan should not be merely an exercise to comply with the requirements of the final rule. The TAM plan is supposed to be a tool that a transit provider can use to assess the condition of its assets and make decisions on how to best prioritize funding for those assets in order to achieve and maintain a state of good repair. FTA intends to verify compliance with todays' final rule through its existing oversight activities. Performance targets are a local decision, and are neither approved nor rejected by FTA.

FINAL RULE:

FTA is not making any revisions in the final rule related to these comments.

625.31 Implementation Deadline

This section proposed that all TAM plan development should be completed no more than two years after the effective date of the final rule. If the rule becomes effective at any time after the first day of the transit provider's or sponsor's fiscal year, the initial TAM plan should cover the remaining portion of that year plus a four-year time horizon. FTA will allow transit providers to extend the TAM plan implementation deadline by submitting a written request. A written request would need to include documentation which shows that the transit provider has made a good faith effort to meet the deadline, an explanation of why the transit provider could not meet the deadline, and a proposed new deadline, subject to FTA approval. FTA reserves the right to deny a request to extend the deadline.

COMMENT: 625.31 Implementation Deadline

Some public comments addressed the proposed implementation deadline in § 625.31. Several State DOTs supported FTA's recognition that the requirement to develop a TAM plan must have a delayed effective date. A State DOT and a transit operator expressed support for the two-year implementation period to develop a TAM plan. Another transit operator expressed support for the proposal to allow transit providers extra time to develop a TAM plan with a written request.

Several commenters recommended that FTA phase-in implementation of the TAM plan requirements. Four State DOTs and other commenters recommended that (1) the initial TAM plan (due after two years) only be required to include revenue vehicles, (2) within one year of TERM training in the State, facilities should be included in the plan and (3) all other assets should be included within four years from the final rule date. However, some of these commenters suggested that the third and final phase should only require FTA-funded assets and should occur four years after the initial TAM plan, versus four years from the final rule date. Similarly, a transit operator said two

years may be sufficient for some categories of assets (*i.e.,* rolling stock), but asked that FTA consider phasing in categories where guidance is not currently available, such as facilities. A professional association and a State DOT recommended that facilities be exempted from target setting and from inclusion in a TAM plan until training is provided (preferably State-by-State) on the use of the TERM for the State DOT and its subrecipients. One State DOT explained that it will need a significant amount of time to complete physical inspections on all its facilities.

A business association and an MPO recommended phasing in TAM requirements as follows: (1) begin with rail systems only (reasoning that these systems account for the greatest amount of capital assets and have the greatest safety risk exposure); (2) phase in transit systems with 100 vehicles or more between 2 and 4 years after phase 1; (3) consider phasing in transit systems with less than 100 vehicles in revenue service no more than two years after phase 2.

An industry association and three State DOTs said the TAM plan should be required no sooner than 2 years after FTA has issued a TAM plan manual and template. A State DOT requested that FTA extend the proposed implementation deadline from two years to three years, reasoning that the additional time would result in sponsored plans and asset management regimes nationwide that will better meet FTA's objectives. Similarly, two transit operators and a State DOT expressed concern that the two-year time frame is not sufficient to develop a TAM plan, inventory and assess the conditions of assets, and meet all the requirements stated in subpart C, particularly given the number of agencies and partners that must be involved in the TAM development process. A transit operator recommended that the two-year deadline should be for development of the TAM plan, not implementation.

Several commenters suggested that, while a two-year deadline for tier I transit agencies to develop an initial individual TAM plan is reasonable, the development of a group TAM plan and tier II plans should be extended to three years to allow adequate time for coordination between agencies. A State DOT said FTA should delay the implementation deadline until after all comments have been received for all performance management-related NPRMs in order to ensure cross-functionality for each individual performance management area. Two MPOs urged that the implementation of the FTA TAM rule must be coordinated with the implementation of other planning and safety rulemakings mandated by the authorization statutes and requested a single effective date that starts a phase-in process.

FTA'S RESPONSE: 625.31 Implementation Deadline

FTA believes that the two year statutory timeline is sufficient time for a transit provider to develop and implement a TAM plan. Moreover, the final rule includes an option for a transit provider to submit a written request to FTA for an extension of the implementation deadline.

The final rule provides each transit provider with the opportunity to develop and implement a TAM plan that is tailored to its public transportation system. Todays' final rule does not require a transit provider to conduct a condition assessment on all of its facilities within the two year initial TAM plan development timeframe. Each transit provider may adopt a condition assessment method that is appropriate for its particular operating environment and within its available resources. For example, one commenter suggested and FTA agrees that a transit provider may measure the condition of its assets by measuring the condition of a sampling of like assets.

It is not necessary for FTA to wait to issue a final rule for transit asset management until it issues final rules for safety or planning. Todays' final rule may be implemented in its entirety before the aforementioned rules become effective. FTA and FHWA are aware that transit providers, States, and MPOs will have to comply with the requirements of several rules. FTA will ensure that there is sufficient time for States, transit agencies, and planning agencies to implement the requirements of all related rules.

FINAL RULE:

FTA is not making any revisions in the final rule related to these comments.

625.33 Investment Prioritization

This section proposed requirements for investment prioritization. The investment prioritization provides strategic guidance for improving the condition of assets through both consideration of life-cycle costs and itemization of the actions necessary to achieve desired asset conditions. Each transit provider determines its own approach to investment prioritization and project selection. However, the transit provider is required to base its approach on the policies, goals, objectives, and strategies identified in their TAM plan and ensure that safety is given due consideration. A transit provider's approach to investment prioritization must reflect the balancing considerations of competing priorities in order to maximize a return on investment and achieve a desired state of good repair.

The investment prioritization needs to reflect adequate consideration of safety concerns previously identified within a public transportation system. Moreover, when a transit provider plans for the replacement of an asset, it should ensure that it is complying with all relevant regulatory requirements, including the ADA, which requires that accessibility features be maintained in operating order and are promptly repaired if they are out of service. Certain SGR projects may also be regarded as ''alterations'' under DOT ADA regulations, and may require additional resources. *See generally,* 49 CFR part 37.

Safety and minimizing life-cycle costs are the most common objectives in prioritizing projects. However, a transit provider may identify additional criteria and factors and weigh them according to local needs. Another criterion that a transit provider may consider is the resiliency of its assets and systems to natural disasters, as described in the NIST National Disaster Resilience Framework [11]. The impact that local concerns may have on condition-improvement costs should be reflected in the investment-prioritization list.

Investment prioritization uses the transit provider's selected prioritization approach and predetermined importance factors to determine rankings. The ability of a project or program to meet the objectives established by the transit provider in its TAM plan should be reflected by a rating. Based on the relative weight a transit provider assigns to each objective, a transit provider can establish a prioritized list of programs and projects. For example, a transit provider may identify track maintenance as the highest priority based on the condition of the track or its maintenance approach as part of its TAM policy. This may result in assigning a higher score to track-asset projects over facility-maintenance projects, even if the facility is in a worse condition, objectively. The costs associated with each project can be assessed and then compared with the transit provider's estimated funding (from all revenue sources) over the TAM plan horizon for each year. The output

[11] For more information on the NIST National Disaster Resilience Framework, please visit *http://www.nist.gov/el/resilience/*

of the process is a list of ranked projects by asset class that identify assets from the asset inventory required under § 625.25(b)(1) that would be funded over the TAM plan horizon period. A provider should only include programs and projects in its ranked list that it expects to undertake during the time horizon and identify the project year.

COMMENTS: 625.33 Investment Prioritization

Numerous public comments addressed the proposed requirements for TAM plan investment prioritization, specified in §§ 625.25(b)(4) (as an element of the TAM plan) and 625.33 (as proposed requirements for investment prioritization process).

Several State DOTs and other commenters said any ranking of projects under § 625.33(b) should be a categorical ranking (High, Medium, Low) and not a sequential ranking (First, Second, Third, Fourth etc.). Several State DOTs and a professional association said this approach is preferred if the investment prioritization must include individual projects rather than keeping the prioritization at the asset class level or program level; however, they would prefer there be no requirement to go below the asset class or program level. Specifically, two of these State DOTs said TAM plans and investment prioritization should focus on ''asset class'' to avoid conflicts between the TIP and TAM plans and to allow transit agencies of all sizes to advocate for Federal, State, and regional funding. A transit operator said an agency should be able to ''bundle'' less critical asset renewal and replacement projects to make improvements in a concentrated geographic area and achieve cost savings. An individual commenter suggested that it may be more practical to rank investment priorities within specific asset categories rather than across categories.

A regional commission requested that investment prioritization include categorical ranking (High, Medium, Low) of the projects in addition to the sequential numerical ranking (1, 2, 3, etc.). A transit operator recommended allowing agencies to define their own investment prioritization methodology or allowing the grouping of investment projects using qualitative levels of priority (*i.e.* most critical, critical, less critical) rather than age-based assessments. Similarly, some commenters suggested that assets should be weighted to reflect the criticality of a given asset on system operations.

Several State DOTs and a professional association said an asset management plan should be able to show assets in declining conditions, not just improving and maintaining. Specifically, one of the State DOTs requested that § 625.33(a) be revised to read ''A TAM plan must include an investment prioritization that identifies projects to improve or maintain or manage the decline in the state of good repair of capital assets over the horizon period of the TAM plan. Alternatively, an MPO suggested changing the phrase ''projects to improve or maintain the state of good repair'' to ''projects to manage or maintain the state of good repair.''

Two State DOTs requested clarification regarding the NPRM statement that ''transit providers should consider current and future climate and weather-related hazards as part of their prioritization of investment,'' asserting that it is unclear which future hazards should be included and which should be excluded from consideration. Two other commenters stated that, without further clarification, this requirement seems unrealistic. A professional association asked if the reference to including ''current and future climate and weather-related hazards'' meant that an all-hazards approach should be taken to investment prioritization. If so, the commenter asked for an enhanced description of what hazards should be included or excluded.

A State DOT, some transit operators, and a local utility, said that the safety of any asset should be the determining factor in prioritization of asset replacement, rather than the ULB. A State DOT recommended that FTA should reinforce this concept by clarifying the interaction between TAM and safety. A State transit operator proposed that each asset should receive a fixed safety rating based on how important that asset is to safety and funding should be prioritized for assets rated higher on the safety scale.

Several commenters took issue with the phrase ''pose an identified unacceptable safety risk'' in § 625.33(d). A professional association asserted that by identifying an opportunity to improve safety, a State has not indicated an unsafe condition. Several commenters proposed that FTA strike the reference to projects that are needed to address circumstances that ''pose an identified unacceptable safety risk.'' One of these commenters offered an alternative phrases: ''provide opportunities to improve safety or reduction in the frequency and severity of some undesirable events.'' Other commenters said the rule should state that investment prioritization ''must give due consideration to those projects for state of good repair that address safety risk.'' A transit operator and a private citizen requested that FTA explain how an unacceptable safety risk is to be incorporated in the investment prioritization, and how unacceptable safety risks should be mitigated, financially, if the investment money is not afforded.

One commenter also asked whether there is a requirement to follow the project rankings to address all non-SGR capital assets prior to funding other projects.

Regarding the NPRM preamble statement that a transit provider may identify additional criteria and factors for prioritizing projects (in addition to safety and minimizing life-cycle costs) and weigh them according to local needs, a State public transportation system suggested that FTA clarify that such additional criteria should not take priority over considerations of SGR or system safety. A transit operator asked if FTA is recommending any standardized approach for criteria weighting or whether the weighting of criteria is left to the discretion of the transit provider. A State DOT requested guidance on expected investment prioritization criteria and weighting. A transit operator recommended adding language to acknowledge other factors outside the prioritization criteria (*e.g.,* regional needs, non-asset based priorities, and funding mechanisms/constraints) so there is room for intangibles, outside influences, and other mitigating circumstances that are defendable.

A local transit operator asked whether future acquisitions and construction projects (*e.g.,* system expansion) should be included in the project prioritization. This commenter also asked if projects that prevent assets from falling out of a state of good repair should be given higher ranking if they provide a better return on investment. A State DOT and a local transit agency asked if the investment prioritization should be based on the available budget or the needs. If the prioritization must be constrained then the State DOT commenter said it may not be able to meet the SGR principal of ''full level of performance.'' A transit operator asked how an agency can account for projects/assets for which it would like to apply for grant funding if investment prioritization is fiscally constrained.

A State DOT asked if the investment ranking is binding (that is, if investments must be made in the specific order in the TAM plan).

An MPO and a transit operator requested that FTA provide an opportunity to use alternative approaches to prioritizing projects that

matches such grantee characteristics as organizational size and maturity. A transit operator supported the FTA in allowing transit providers to use a selected prioritization approach and predetermined importance factors for determining project rankings. A trade association requested that the final rule not specify the value/capitalization levels, but instead allow each agency the flexibility to form their own capitalization policies.

Regarding the proposed § 625.33(f) requirement that investment prioritization must take into consideration requirements concerning maintenance of accessible features (at 49 CFR 37.161 and 37.163), a transit operator said that other processes should be the basis for complying with ADA requirements and the TAM prioritization process should not include an expansion of the ADA mandate.

A transit operator suggested that existing documents (Metropolitan Transportation Plan (MTP), Regional Transportation Plan (RTP), Statewide Transportation Improvement Plan (STIP, Transportation Improvement Plan (TIP), and Capital Improvement Plan (CIP)) should continue to be the location for documenting specific project listings.

FTA'S RESPONSE: 625.33 Investment Prioritization

The ranking of investment prioritization programs and projects can be categorical (high, medium, low), sequential (first, second, third), or another method that is appropriate for the transit provider. It must, however, indicate which year the transit provider intends to carry out the program or project. The output of the process is a list of ranked projects at the asset class level that identify assets from the asset inventory. FTA will issue guidance on methodologies for investment prioritization and TAM plan development.

FTA notes that the requirement to develop an investment prioritization does not necessarily require a transit provider to invest in that plan. With the exception of 49 U.S.C. 5337 program recipients who are required to identify their projects are included in their TAM plans. However, FTA believes the TAM approach will result in a useable and effective investment prioritization that transit providers are encouraged to use to achieve or maintain a state of good repair for their assets.

FTA disagrees that investment prioritization itemized at the asset level could conflict with the TIP process. FTA believes that it is a best practice for transit providers to first prioritize their own projects based on their own needs, before engaging in larger planning processes in conjunction with the State, the MPO, and other transit providers to establish a prioritized over-arching program of projects for the larger area.

FTA understands that performance targets, and by extension, asset condition, may decline even with good asset management practices in place. The purpose of the final rule is to provide a proactive strategic framework for transit providers to balance competing needs and limited funds in an informed decision making process to reduce the SGR backlog. FTA agrees that'' improve or maintain SGR'' limits the options available and has modified § 625.33(a) to read ''improve or manage the state of good repair''.

FTA recommends that transit providers consider climate resiliency and reliability in their investment prioritization by identifying capital investment and other strategies to preserve the existing and projected future metropolitan transportation infrastructure, provide for multimodal capacity increases based on regional priorities and needs, and reduce the vulnerability of the existing transportation infrastructure to natural disasters.[12] For example, severe rainfall events may cause flooding that shuts down operations at a transit maintenance facility. In this case, the continued availability of the asset during such events may require the installation of a watertight perimeter around the facility, which will both protect the condition of the asset and ensure its availability for continued transit operations. FTA is aware of publicly available tools to assist in the identification of vulnerabilities for specific systems or assets, and encourages transit providers to conduct a vulnerability analysis as part of their overall asset management approach. For a TAM plan, FTA recommends that transit providers identify any fixed assets that are located within the current FEMA-published flood hazard area (100-year floodplain), and the degree to which these assets have been built to withstand projected hazards that may occur over the assets anticipated useful life.

FTA agrees that safety is a critical factor in determining the prioritization of asset investments; however it is not the only factor. FTA does not propose a specific methodology for investment prioritization. Safety needs are fluid and any fixed assessment limits a transit provider's ability to respond to the changing environment,

FTA agrees that identifying an opportunity to improve safety does not indicate an unsafe condition. If a transit provider identifies an unacceptable safety risk associated with its asset, it should place that asset higher up in its investment prioritization, to the extent practicable. However, this rule does not establish selection criteria for a transit providers' investment prioritization.

FTA supports the proactive strategic approach of identifying future projects and ranking preventative projects with better return on investment higher in the investment prioritization. The final rule establishes that an investment prioritization is a fiscally constrained list of needed projects, ranked or grouped in order of priority. Therefore, a transit provider has discretion in prioritizing projects and programs over the TAM plan horizon period.

FTA recognizes that no funding is guaranteed but most resources can be realistically estimated. For example, for FTA formula grant funds, a transit provider may not know the exact amount of funds it may receive two years hence, but it can make a reasonable determination of the projects it wants to pursue if it does receive the funding. Other funding that may be less estimable, such as discretionary funding, may require a TAM update.

FTA reiterates that the NPRM did not propose that a transit provider abandon its existing project listing documentation processes nor are these requirements intended to supplant existing decision making practices.

FTA disagrees that consideration of the costs associated with maintaining accessible features is an expansion of the existing mandate.

FTA further clarifies that the ULB is used for performance measure metrics not for investment prioritization.

FINAL RULE:

FTA is revising this section to reflect that programs or projects within an investment prioritization can be for either improving or managing state of good repair. FTA also has revised this section to require that investment prioritization only apply to assets for which a provider has direct capital responsibility.

625.41 Standards for Measuring the Condition of Capital Assets

Pursuant to 49 U.S.C. 5326(b)(1), the definition of state of good repair must contain objective standards for measuring the condition of capital assets. FTA proposed to define state of good repair for public transportation

[12] Fixing America's Surface Transportation Act (''FAST'') (Pub. L. 114–94),

capital assets as ''the condition in which an asset is able to operate at a full level of performance.'' This section proposed objective standards for equipment, rolling stock, facilities and infrastructure that are intended to further define ''full level of performance,'' and clearly indicate when an asset is in a state of good repair.

The objective standards allow transit providers to operationalize and quantify state of good repair to audit their SGR performance. To accomplish this, FTA proposed three objective standards, detailed in section 625.41. The proposed objective standards are: (1) the asset is able to perform its manufactured design function; (2) the use of the asset in its current condition does not pose an identified unacceptable safety risk; and (3) the asset's life-cycle investment needs have been met or recovered, including all scheduled maintenance, rehabilitation and replacements. The objective standards allow for an auditable SGR definition that is high-level and broad enough to incorporate existing transit asset management practices at transit providers of different modes, different sizes, and different operating environments.

An asset is in a state of good repair when each objective standard is met. The first objective standard in § 625.41(b)(1) requires that an asset is able to perform its manufactured design function. This objective standard takes into consideration that an asset may be in poor condition, but is still able to operate. For example, a transit provider may institute a slow zone to allow a rail car to operate on deteriorated track that can no longer support rail cars traveling over it at the original design speed, but can support rail cars traveling at slower speeds. In this case, the infrastructure track segment would not meet this SGR standard because it was designed to carry railcars at a speed that its current condition will not support. Achieving state of good repair means not accepting compromised performance from assets that are over age or of deteriorated condition.

The next objective standard in § 625.41(b)(2) requires that an asset not pose an unacceptable identified safety risk. Going back to the previous example, track deterioration can lead to derailments and other safety hazards and, depending on the condition, may not meet this standard. If the asset is operating according to its designed function, but is introducing a safety risk to the system that the Accountable Executive considers to be unacceptable, then the asset is not in a state of good repair. A safety risk may be identified through a number of ways, including through a transit provider's practice of Safety Management Systems (SMS) as proposed under FTA's notice of proposed rulemaking for public transportation agency safety plans. Achieving state of good repair means not compromising designed performance to mitigate safety risks or otherwise accepting safety risks from assets that are over age or in deteriorated condition.

Lastly, the third objective standard proposed in § 625.41(b)(3) requires that the life-cycle investment needs of the asset be met. This means that the inspection, maintenance, rehabilitation, and replacement schedules have been met or recovered for the asset. Deferring maintenance on an asset may not have immediate consequences for an asset's safety, reliability, or performance. However, deferred maintenance leads to these long-term consequences in the future. Thus, it cannot be said that an asset is in a state of good repair, when the maintenance practices that will maintain the asset's full performance level are being deferred.

An asset that meets all three objective standards is in a state of good repair.

COMMENTS: Objective Standard—''Capital Asset Is Able To Perform Its Designed Function''

A few commenters provided input on the SGR standard that an asset must be able to perform its designed function, as specified in § 625.41(b)(1). A transit operator said FTA should add the word ''constructed'' to the term ''manufactured design function'' since many facilities and infrastructure assets are constructed on-site rather than manufactured. A couple of transit operators said the inclusion of the term ''designed function'' in the SGR standard neglects to include the assets' performance and operating conditions. In the case of legacy transit operators, these commenters said the designed function of an asset may be different than the required performance function.

Another commenter asserted that this proposed SGR standard is not objective because the rule provides no definitions for ''perform'' and ''design standards,'' which will make it impossible for FTA and other stakeholders to accurately compare agencies against each other. This commenter recommended that FTA define each of these terms, provide transit agencies with additional guidance beyond the definitions that is applicable to varying vehicles and infrastructure, and request comment on the inclusion of specific, measurable statistics (*e.g.,* requiring a vehicle to have fewer than a certain number of maintenance-related breakdowns or fewer than a certain number of maintenance-related passenger injuries per 100,000 revenue miles) to increase the objectivity of this standard.

FTA'S RESPONSE: Objective Standard—''Capital Asset Is Able To Perform Its Designed Function''

This final rule clarifies that the term ''designed function'' is intended to include facilities that are constructed on-site rather than manufactured. FTA agrees that the designed function objective standard does not explicitly include assets' performance and operating conditions. When used in concert with the other objective standards, specifically, the lifecycle investment needs standard, a representation of the asset is more fully fleshed out. In addition, a SGR determination is aspirational and should reflect the absence of compromises accepted due to over age and deteriorated assets. With regard to comments about legacy assets, FTA recognizes that the designed function may be outdated. However, this standard is intended to identify the extent of those potential discrepancies.

FTA disagrees that this standard is not objective. The intention of the SGR determination and objective standards is to provide agencies with a method to measure their assets' SGR based on standard principles, as provided by FTA. The final rule also establishes national performance measures to allow for comparisons across similarly situated providers. The metrics proposed by commenters, such as maintenance-related injuries per 100,000 revenue vehicles, are not asset-based measures, but are an output metric of a process that, prior to this final rule, has not been standardized.

FINAL RULE:

FTA is not making any revisions in the final rule related to these comments.

COMMENTS: Objective Standard—''Use in Current Condition Does Not Pose an Unacceptable Safety Risk''

Some public comments provided input on the SGR standard that use of the asset in its current condition does not pose a identified unacceptable safety risk, as specified in § 625.41(b)(2).

Several State DOTs said the final rule should delete the phrase ''[assets that] pose an identified unacceptable safety risk'' and use a different formulation, possibly such as to projects that ''provide opportunities to improve the safety of an already safe system.'' These commenters also said the rule should specify that, ''by identifying an

opportunity to improve safety, a State has not indicated an unsafe condition.''

A professional association and a couple of State DOTs supported the rule's language in § 625.41(b)(2) as a measure for SGR, but said FTA needs to ensure that a provider or plan sponsor is not required to maintain records and report to the FTA that a specific asset has an ''identified unacceptable risk.''

A trade association and two transit operators stated that identifying ''unacceptable safety risks'' cannot be defined or addressed until FTA has established safety performance criteria, through notice and comment, for all modes and minimum safety performance standards for vehicles in revenue service.

A transit operator said ''unacceptable risk'' should not apply in an asset management planning context because such risks will be immediately addressed through safety initiatives or safety planning prior to adoption measures through a TAM plan.

Stating that ''unacceptable safety risks'' seems subjective, a transit operator suggested that transit agencies should use procedures under their SMS program to determine unacceptable safety risk and that FTA require transparency on what a provider defines as unacceptable safety risks. Another commenter similarly asserted that this proposed SGR standard is not objective because the rule provides no definitions for ''known,'' ''unacceptable,'' and ''safety risk,'' each of which could be interpreted differently by agencies, which would make it impossible for FTA and other stakeholders to compare transit agencies to each other accurately. This commenter recommended that FTA define each of these terms, provide transit agencies with additional guidance beyond the definitions that is applicable to varying vehicles and infrastructure, and request comment on the inclusion of specific, measurable statistics (*e.g.,* requiring a vehicle to have fewer than a certain number of maintenance-related breakdowns or fewer than a certain number of maintenance-related passenger injuries per 100,000 revenue miles) to increase the objectivity of this standard.

FTA'S RESPONSE: Objective Standard—''Use in Current Condition Does Not Pose an Unacceptable Safety Risk''

FTA understands the uncertainty expressed in some comments regarding compliance with the requirements of this final rule that are related to safety, in the absence of a final National Public Transportation Safety Plan and a final rule for public transportation agency safety plans. However, FTA believes that the requirements of this final rule can be implemented in the absence of the two aforementioned components of the National Safety Program because they are not dependent on the requirements under a final National Safety Plan or a final rule for Public Transportation Agency Safety Plans. Operators are already making decisions about what risks and level of risks are unacceptable within their system. Again, the final rule is scalable and flexible.

This proposed standard has both an objective and subjective component. Whether or not the condition of an asset poses a particular risk is an objective determination—it either does or does not pose a risk. Whether or not that risk is unacceptable is a subjective determination. The final rule neither defines nor prescribes standards for ''unacceptable safety risk.'' To the contrary, intentionally, the rule leaves the determination of what constitutes an ''unacceptable safety risk'' to the individual transit provider. FTA believes that each provider, not FTA, is in the best position to make a determination, based on knowledge of both its unique operating environment and availability of resources, regarding the categorization and mitigation of risks, to include managing risks arising from an asset not being in state of good repair. Therefore, it would be up to the individual provider to determine what investments should be made to improve the performance of its transit system. The rule does not require that a transit provider rely on performance target as the primary driver in setting its investment priorities. Instead, the rule final requires a transit provider to give due consideration to those assets that pose an identified unacceptable safety risk when setting its investment priorities.

FTA's approach to TAM is consistent with its proposed SMS approach to safety. A fundamental aspect of transit asset management is the monitoring of asset condition data as an indicator of system performance. Similarly, SMS is a formal data-driven approach to managing safety risk and assuring the effectiveness of safety risk mitigations. SMS does not require that an organization take a specific action to address a specific safety risk. Identification, analysis and mitigation of safety risks, and any other risks that exist within a transit system, are activities that a transit provider should already be engaging in.

FTA does not agree with the commenter who suggested that public access to safety risks that may be identified in a TAM plan or safety plan may increase safety risks for the rail system. The NPRM did not propose that a transit provider document safety risks in its TAM plan. In making a determination regarding the state of good repair of an asset, the provider must consider whether or not an asset poses an identified unacceptable safety risk. Where the condition of an asset may pose an unacceptable safety risk, the final rule requires a provider to apply an appropriate level of consideration to those assets when making investment prioritization decisions.

FINAL RULE:

FTA is not making any changes in the final rule related to these comments.

COMMENTS: Objective Measure—''Lifecycle Investment Needs of the Asset Have Been Met or Recovered''

Several public comments provided input on the SGR standard that life-cycle investment needs of the asset have been met or recovered, as specified in § 625.41(b)(3).

Several commenters said the life-cycle maintenance condition must be flexible and fluid. For example, some of these commenters said a bus that is due for maintenance would not be rendered out of good repair because the oil change was delayed. One transit operator urged that maintenance schedules should not be so rigid as to incorrectly label a vehicle out of good repair based on minor deviations from the regular maintenance schedule. A transit operator stated that the maintenance life-cycle can be impacted by major overhauls and repairs, but not minor maintenance tasks. This commenter recommended the phrase ''meets required level of service performance, and whether major maintenance and rehabilitation have been completed.'' One commenter said there are times when certain assets do not meet the life-cycle expectations, and the agency must weigh the cost of continuous maintenance with the cost of replacement, regardless of the lifecycle. A couple of commenters said FTA should recognize that regulatory and technology changes could render assets obsolete prior to reaching their ULB ages and FTA's minimum life requirements.

A State DOT said FTA should clarify the term ''all scheduled maintenance,'' asking if it is just those items tied to safe operation of service or inclusive of oil changes and auxiliary systems maintenance. A couple of transit operators stated that the standard should be clarified to show that the

rehabilitation and replacement elements are ''as necessary'' rather than ''scheduled.'' One of those commenters stated that the proposed wording may lead agencies to prioritize meeting the SGR definition at the expense of making maintenance or replacement decisions based on condition or risk assessments. According to this commenter, it could also incentivize agencies to specify less aggressive maintenance plans in order to achieve greater compliance with the SGR definition. The other commenter noted that ''scheduled'' rehabilitation and replacement are not always necessary and can reasonably be postponed or cancelled without any notable effect on an asset due to varying usage and wear patterns. A couple of commenters suggested that FTA remove the term ''scheduled maintenance'' in order to limit the SGR standard to meeting all capital investment needs through an asset's life-cycle, as opposed to day-to-day operating expenditures.

A transit operator asked if, by including this SGR standard, FTA is asking if asset maintenance plans are being followed.

Another transit operator said that the addition of this SGR standard is not required under the authorization statute, 49 U.S.C. 5326. The commenter asked, unless FTA is willing to define the life-cycle investment needs of each asset, how will it be determined if they have been met? Another transit operator requested clarity and additional information on the exact meaning of ''recovered'' in terms of life-cycle investments being met or recovered, and how to make such a determination. A different commenter also expressed concerns that life-cycle needs are identified by the transit agencies and are not standardized where needs are equal, and that this standards does not take into account the quality of maintenance. To remedy this flaw, the commenter recommended that FTA develop standard guidelines for maintenance requirements, with variations permitted for factors such as climate conditions and operating conditions.

An individual commenter asked a number of questions about this provision: 1–What about unscheduled maintenance and repair needs such as a bus engine or transmission that needs to be replaced? 2–What are ''rehabilitation'' schedules when applied to buses? 3–How should assets such as engines and transmissions be tracked, reported, and prioritized as compared to buses? 4–How should ULBs be determined for buses as compared to major components such as engines and transmissions?

FTA'S RESPONSE: Objective Measure—''Lifecycle Investment Needs of the Asset Have Been Met or Recovered''

This final rule establishes three objective standards for the SGR determination. Each of the standards will be evaluated at the transit provider level, which is where the SGR determination occurs. FTA does not define an asset's life-cycle investment needs, which may include its maintenance schedules, rehabilitation policies and other operational decisions. A transit provider is in the best position to determine the life-cycle needs of its assets.

Each transit provider must define its assets' life-cycle investment needs, and thus must determine if the needs have been met or recovered. Meeting the life-cycle investment needs of an asset means that the maintenance, preventative and responsive, major and minor, has occurred on a schedule and as needed. Recovering the life-cycle investment needs means that the asset may have not strictly adhered to its schedule, but it has received all of the maintenance established for a particular point on its life-cycle.

FTA recognizes that some maintenance activities are more impactful to condition, costly, and time dependent. However, FTA also notes that long term delay of relatively minor maintenance has an impact on condition over time. Thus, FTA did not propose a minimum maintenance level for consideration in an asset's life-cycle investment needs. Further, FTA recognizes that unscheduled maintenance often is more impactful initially, but posits that scheduled maintenance can help to reduce unscheduled maintenance and provide valuable information to the local decision making process.

FTA disagrees with the commenter who states that the SGR standard is not required under MAP–21. The law explicitly requires FTA to develop a definition of state of good repair which includes objective standards.

FTA is developing guidance and technical assistance to assist transit providers in how to establish life-cycle investment needs. The guidance will address the questions posed by commenters regarding how to develop ULBs for assets and subsystems, how to apply rehabilitation schedules, and more.

FINAL RULE: FTA is not making any revisions in the final rule related to these comments.

COMMENTS: Objective Standards—Other Comments

A couple of commenters said § 625.41(b) should read ''. . . condition sufficient to enable the asset to operate *safely* at a full level of performance.''

A few commenters raised other general concerns with the SGR standards. A transit operator said FTA should promulgate final safety performance criteria for all modes of public transportation and minimum safety performance standards for vehicles in revenue operations. A tribal government expressed concern that, while the SGR standards make sense from a maintenance and depreciation standpoint, they do not make sense if funding is not available for capital replacement. This commenter asserted that there will be times when services will shut down in order to comply with these standards.

A transit operator said the SGR standards in this section are inconsistent with the definition provided in § 625.5 and the principles provided in § 625.17. The commenter said the final rule should align these three components of the regulation. A transit operator noted that condition by itself is not even a factor in considering whether an asset is in SGR (per the proposed SGR definition and § 625.41 standards).

One commenter asserted that none of the three proposed SGR standards are sufficiently objective to comply with the requirement of MAP–21. A transit operator asked how agencies could determine if assets are in SGR if agencies are not required to collect and report uniform objective measurements of safety performance, reliability performance, efficiency performance, and quality performance. Another transit operator suggested that limiting the designation of asset condition as a binary response of ''Yes'' or ''No'' in terms of whether the asset in in a state of good repair would be simpler.

One commenter requested guidance on measuring asset conditions. A couple of commenters requested guidance on calculating SGR backlog. Expressing concern that the proposed SGR criteria do now allow for sufficient flexibility in determining whether an asset is in an SGR or not, a transit operator recommended that the proposed SGR criteria be provided as guidelines, rather than mandatory criteria for determining SGR.

FTA'S RESPONSE: Objective Standards—Other Comments

FTA proposed an aspirational SGR definition which identifies an asset at

its best operation performance condition. Full level of performance is not an absolute condition, but it can be measured objectively by the three standards identified in § 625.41 (b) (1) through (3).

FTA recognizes that there are more SGR needs than funding available for state of good repair projects. The National TAM System provides a strategic, proactive framework for decision making.

FTA disagrees that the proposed SGR definition (§ 625.5), SGR principles (§ 625.17), and SGR standards (§ 625.41) are inconsistent with one another. Please refer to FTA's response to the comments on the state of good repair definition in § 625.5.

FTA disagrees that the condition of an asset is not a factor in SGR determination. Each of the objective standards is a measure of an asset's condition. FTA also disagrees that the standards are not sufficiently objective. Each transit provider can use the standards established in the final rule to determine if its assets are or are not in a condition to meet each standard, and thus operating at a full level of performance, which indicates a state of good repair.

FTA agrees that a binary (yes or no) determination of SGR would be simpler, but it would not meet the statutory requirement for objective standards for SGR.

FINAL RULE:

FTA is not making any revisions in the final rule related to these comments.

625.43 SGR Performance Measures for Capital Assets

In accordance with 49 U.S.C. 5326(c)(1), this section proposed four SGR performance measures based on the SGR objective standards proposed in § 625.41. FTA proposed one measure for each asset class. Each SGR performance measure is based on using calculable quantities of asset conditions to assess state of good repair. FTA's priority in selecting performance measures were to minimize reporting burden, especially on small operators, and to provide a meaningful and consistent basis for transit providers to compare their own state of good repair performance over time. In some cases, this means that FTA selected a proxy for measuring state of good repair, rather than measuring asset condition directly. Although FTA only proposed four performance measures in this rule, one per asset category, a transit provider may still apply its asset management systems to its entire inventory of capital assets, including those assets for which no performance measure has been established.

Performance Measures for each asset class might include several SGR measures within each asset category (rolling stock, infrastructure, equipment and facilities). For example, a transit provider that has a fleet of 40′ buses, light rail vehicles and paratransit vans would have 3 rolling stock performance measures: percent of 40′ buses that have met or exceeded their ULB, percent of light rail vehicles that have met or exceeded their ULB, and percent of paratransit vans that have met or exceeded their ULB.

COMMENTS: Performance Measures—General

Several commenters recommended flexibility in the use of performance measures. A few transit operators and a State DOT said that FTA should allow transit providers the flexibility to right-size their own performance measures and provide flexibility in the classification of certain assets. One commenter recommended replacing the entirety of § 625.43 with a simple statement that ''performance measures for each asset class must be set and approved by the responsible executive at each agency.''

Other commenters provided other suggestions for modification of the proposed performance measures. A couple of commenters recommended weighting (or allowing agencies to weight) the performance measures because some assets are of higher value or are more critical than others. A few commenters recommended a phase-in period for asset classes. Specifically, some of these commenters said FTA's focus should be on rolling stock and infrastructure; equipment and facilities should be phased in three to four years later. A transit operator proposed a comprehensive approach to measuring the condition of all transit assets, including age, physical condition, and performance measurements. Further, this commenter suggested that when grouping assets and measuring condition and performance, FTA should consider the idea that utilization impacts measures of performance at the asset category level. The commenter also cautioned that care must be taken when ''averaging'' or rolling assets into categories where variability in condition and performance can be hidden. A State DOT said asset performance measures should account for risk. A transit operator stated that FTA should consider permitting the terms ''systems,'' ''guideway elements,'' ''vehicles,'' and ''stations'' to be used as asset categories for rail transit properties.

Several commenters discussed ULBs. A State DOT said, for equipment and rolling stock, the ULB described in the proposed rule does not provide a useful overview of the asset's actual condition or a practical measure on which to base investment decisions. The commenter requested the flexibility to use its own life-cycle analysis to determine the appropriate useful life. One commenter recommended adding a requirement for RTAs to provide ULBs to State Safety Oversight Agencies (SSOAs) for review and comment. A transit operator said if FTA wishes to use a different ULB for a TAM plan than for grant authorization, the TAM plan useful life should not be shorter than grant useful life. In reference to FTA's statement that it anticipates publishing ''a default ULB based on TERM data that may be used in lieu of a local condition-based calculation of ULB,'' several commenters said FTA should cite where and when this default ULB will be published, provide an explanation of how the ULB measure will be calculated, and ensure that the default ULB is available to transit providers before initial targets will need to be set. A tribal government requested clarification regarding the NPRM statement that providers may use FTA-established default ULB in lieu of a local condition-based calculation of ULB.

Asserting that ULB of agency revenue vehicles is not alone a sufficient metric for measuring progress on improving SGR, one commenter recommended that FTA consider including additional performance metrics, such as measures relating to mechanical failures, effects on safety (*e.g.,* passenger injuries per 100,000 revenue miles attributable to maintenance failures). This commenter also discussed the potential costs and benefits associated with implementing this recommendation.

A couple of commenters stated that none of the proposed performance measures are tied directly to the proposed definition of SGR, which effectively requires that all three standards outlined in § 625.41 are met. The commenters said FTA should clarify that performance measures serve only as a ''proxy'' for measuring SGR—they cannot be used alone to calculate the SGR backlog.

A trade association urged FTA to issue guidance on performance measures. A transit operator requested more guidance on how to categorize assets such as tunnels, which the commenter said could fall under facilities or infrastructure.

Regarding the NPRM statement that FTA would support transit providers that elect to use more sophisticated performance measures, a transit operator asked how FTA intends to collect this data in the NTD if every agency uses a different measure for each asset class/category. This commenter also asked if FTA is open to using different measures across all three of the major asset categories, reasoning that in some instances, (*e.g.,* rolling stock) assets can and should be measured using condition and/or performance.

FTA'S RESPONSE: Performance Measures—General

FTA has developed a combination of performance measures using a variety of approaches, including age, condition, and performance. The measures are actionable and scalable. FTA encourages transit providers with sophisticated TAM practices to pursue more advanced approaches, in addition to setting targets for the performance measures in § 625.43.

FTA believes the industry is prepared to use SGR performance measures and a phased-in approach is not necessary. Minimizing reporting burden was a major consideration in FTA's selection of each measure. FTA believes that the relatively simple and straight-forward approach it selected for each measure will lend itself to immediate implementation.

FTA proposed the ULB option to allow a transit provider to incorporate consideration of its operating environment into its performance targets. FTA will publish default ULBs on its asset management Web page concurrent with publication of the final rule, and as suggested, will document the date of publication. FTA is also developing guidance for transit providers to use in calculating local-condition based ULBs.

FTA agrees with the comment that the SGR performance measures are a ''proxy'' for measuring SGR and they cannot be used to calculate the total SGR backlog. Further, the performance measures serve as a ''proxy'' for SGR and cannot necessarily be used to determine an assets' SGR. Similarly, the TERM Scale is calibrated such that the number of cases where a facility is below condition 3.0, but still meets all three objective standards for SGR in 625.41, and vice versa, should be relatively small. As discussed earlier, however, FTA believes that the lower burden on the industry of using a 3.0 condition threshold on the TERM Scale, rather than a 2.5 threshold, merits using this in the performance measure. However, almost all rail guideway infrastructure that has a slow zone in place will, by definition, not meet the three objective standards for SGR in 625.41.

FTA clarifies that each transit provider or sponsor is required to report their performance measure targets to the NTD as per § 625.43, regardless of the approach used to determine them.

FTA will develop guidance and technical assistance for transit providers to assist transit providers in applying each of the performance measures.

FINAL RULE:

FTA is not making any revisions in the final rule related to these comments.

625.43(a) Equipment- (non-revenue) service vehicles

This section proposed the performance measure for non-revenue, support-service and maintenance vehicles is the percentage of vehicles that have met or exceeded their useful life benchmark. To determine the ULB, a transit provider may either use the default ULB established by FTA or a ULB established by the transit provider in consideration of local conditions and usage and approved by FTA.

COMMENT: Performance Measure—Equipment

Several transit operators noted that the definition provided for equipment in § 625.43(a) is significantly different than the definition provided in § 625.5. One commenter said this provision implies that equipment is only non-revenue vehicles, while the definition states something more burdensome. A transit operator recommended that non-revenue vehicles be included in the vehicle asset class. Another transit operator said equipment that impacts operations should be defined as ''equipment,'' and non-revenue vehicles are not always considered equipment, but usually are grouped as part of a fleet. Several commenters concluded that the transit agency should be allowed to define and track ''equipment'' that is relevant to their service or risk model.

A State DOT recommended the following additional criteria for equipment (and rolling stock): Average ULB, measured as a percentage.

A transit operator said the term ''equipment'' is typically employed in regards to portable tools, work machinery, or components and not reserved for non-revenue vehicles.

FTA'S RESPONSE: Performance Measure—Equipment

FTA agrees that the definition of equipment (§ 625.5) and the equipment performance measure (§ 625.43) differ. Example 1 in Appendix B to the final rule explains the differences. Specifically, the SGR performance measure for equipment only applies to non-revenue service vehicles; the Asset Category equipment includes all ''articles of expendable, tangible property having a useful life of at least one year;'' and the TAM plan requires all non-revenue service vehicles and owned equipment over $50,000 in acquisition value. Non-service vehicles are an easily understood and readily identifiable category of equipment, and the age-based performance measure is the most-simple and straight-forward performance measure available. Thus, FTA believes that transit systems of all sizes will be reasonably able to implement this measure.

FTA did consider establishing other performance measures for different types of equipment, but ultimately declined to do so based on a desire to minimize reporting burden and there being relatively few ready-to-implement candidate performance measures for other types of equipment at a national level. For example, FTA's existing TERM Model does not have particularly robust treatment of equipment. Further, FTA did not receive any comments suggesting another performance measure for equipment. FTA, though, is considering conducting additional research in this area.

FTA recognizes that non-revenue service vehicles are not always labeled as equipment at every transit provider. However, FTA believes this is a minor burden to align the transit provider asset category for the required SGR performance measure calculation.

A transit provider should conduct its performance measure calculation by mode, which means a ULB cannot be averaged across modes. A transit provider may define, calculate, and track additional performance measures and targets.

FINAL RULE:

FTA is not making any revisions in the final rule related to these comments.

625.43(b) Rolling stock

This section proposed the performance measure for rolling stock is the percentage of revenue vehicles within a particular asset class that have either met or exceeded their ULB. To determine the ULB, a transit provider may either use the default ULB established by FTA or a ULB established by the transit provider in consideration of local conditions and usage and approved by FTA.

COMMENTS: Performance Measures—Rolling Stock

Many public comments provided input on the performance measure for rolling stock, as specified in § 625.43(b).

Several transit operators noted the deficiencies of an age-based performance measure and requested flexibility in determining ULB for rolling stock. Several commenters expressed concern that for many agencies (notably smaller and rural agencies), age-based ULB reporting for rolling stock may be inadequate and provide a skewed view of the condition of a particular agency's assets. Several of these commenters suggested that individual agencies should have the option of utilizing an age-based reporting format and also be allowed to adopt additional or alternative means of condition assessments (*e.g.,* by vehicle type as well as asset class). These commenters also said a strict age-based reporting system would discourage agencies from strong maintenance practices, since even a well-maintained, fully functional bus would fail the test of age based asset condition reporting. A few commenters said SGR for rolling stock should be based on mileage or maintenance history, rather than only age. Another commenter said FTA should consider a condition-based evaluation of vehicles. A transit operator recommended that FTA specify that age-based performance measures are a proxy and not a direct measure of condition when used to evaluate state of good repair.

Asserting that many electric vehicles have a useful life that may be largely independent from a strict age-based assessment of the SGR, a transit operator urged FTA to provide clarity regarding how ULB and the standard useful life requirement would apply to electric vehicles. A couple of commenters said this section should reference the standards at 49 CFR part 38.

FTA'S RESPONSE: Performance Measures—Rolling Stock

FTA proposed an age based performance measure for rolling stock. This measure is simple, well understood, and accessible to all transit providers. FTA believes that this performance measure is appropriate to address the national TAM system goals.

FTA notes that transit providers will be able to account for variations in maintenance practices and operating conditions by adjusting the useful life benchmark for particular fleets of vehicles. That is, a well-maintained vehicle may have a longer ULB and thus would not meet or exceed their ULB until a later date with regard to a less well-maintained vehicle. FTA encourages transit providers to develop performance measures for rolling stock, in addition to those required in § 625.43, that are more sophisticated and use advanced methods of calculation such as condition, performance, or a risk based models for use at their agency. FTA recognizes that age is not necessarily the most accurate performance measure available. However, age is a simple and widely-used performance measure for vehicles that can approximate the condition of rolling stock assets for capital investment planning.

FINAL RULE:

FTA is not making any revisions in the final rule related to these comments. Section 625.43(b) requires a measure for rolling stock that is based on the percentage of rolling stock that have met or exceeded their ULB. This performance measure is applicable to all asset classes of revenue vehicles. For example, a transit provider operating buses, replica trolleys, paratransit vans, and light rail vehicles would establish a performance target for each asset class. Each performance target would quantify the percentage of rolling stock in each class that is over the transit provider's ULB for that asset class.

Both the equipment and rolling stock measure assume that most vehicles provide reliable service for a predictable period of time (adjusted by level of usage for some types of assets), after which they should be replaced. Since there is typically a long lead time for replacing transit vehicles, this measure reflects the best practice of planning for the replacement of transit vehicles as they reach a certain age.

625.43(c) Infrastructure-rail fixed-guideway track, signals, and systems

This section proposed the performance measure for rail fixed-guideway track, signals, and systems is the percentage of track segments, signal, and systems with performance restrictions.

COMMENTS: Performance Measures—Infrastructure

A couple of commenters expressed concern with using performance restrictions (*i.e.,* slow zones or slow orders) as an indicator of asset condition. A State DOT said a slow zone may be imposed to address maintenance of a rail bridge, but has no connection to the state of good repair of the catenary, track or signal system. A transit operator said slow zones can be temporarily alleviated by short-term fixes to track, which do not resolve the underlying problems or create an asset that is truly in a state of good repair, and the connection is more tenuous for other asset types. The commenter said ULB may be more useful for these assets. However, this commenter also acknowledged that the performance restriction metric as applied broadly to this asset category may be an incremental step toward capturing more complete information by asset type, and that agencies may be asked to supply additional information as the industry develops more sophisticated asset tracking capabilities. A State agency said the infrastructure performance measure may discourage RTAs from issuing restrictions when needed, which could reduce safety.

A few commenters requested clarification about the parameters for developing performance measures for infrastructure assets. A transit operator specifically asked what standards would apply to calculating the percentage of a system subject to performance restrictions in response to a single defective track component. The commenter also asked if the measure would be calculated be based on the length of the signal blocks affected; the relative share of the defective component among all components of the same asset class; or by some other method. Another transit operator asked how bus systems that do not have guideway should report on assets within the infrastructure asset class (*e.g.,* systems).

A transit operator recommended that FTA align the components of the infrastructure asset class with the previously published asset management guidelines. This commenter also recommended utilizing a performance metric of age as a percentage of remaining useful life to assess the performance of infrastructure.

A transit operator said this provision should be subdivided to into three separate parts: Track, signals, and systems. However, another commenter said systems and signals be an element of their own and not included in the heavy rail element of infrastructure. A State DOT opposed any requirements that might conflict with the well-established, industry wide National Bridge Inventory (NBI) Rating Scale.

FTA'S RESPONSE: Performance Measures—Infrastructure

FTA recognizes that slow orders may be issued for bridge maintenance. The infrastructure measure is a proxy for both track condition and underlying guideway condition. However, FTA neither intends nor anticipates conflict

with the National Bridge Inventory (NBI) rating scale or other established structural policy and procedures.

Transit providers should use the data gathered to comply with the final rule to improve their decision making. There is no penalty or reward for target attainment.

The asset category for infrastructure includes more asset classes than the SGR performance measure, which only includes rail transit infrastructure. FTA encourages transit providers to develop additional performance measures for infrastructure assets such as signals and systems.

FINAL RULE:

FTA is not making any revisions in the final rule related to these comments. Section 625.43(c) requires a measure for infrastructure based on the percentage of guideway directional route miles with performance restrictions. This performance measure would be applicable to all rail fixed guideway infrastructure. Most transit providers already collect data on slow zones—this performance measure would standardize their reporting.

The performance-based approach is based on a regular, comprehensive assessment of a system's performance and relies upon the assumption that as assets age, they become less durable and reliable, resulting in decreased operational performance. The ability of an asset to safely and reliably perform its assigned function at a full-performance level is at the heart of state of good repair. The performance-based approach requires integration of operations and capital maintenance activities and is particularly beneficial because it focuses on the actual outcomes of capital assets being in a state of good repair.

625.43(d) Facilities

This section proposed the performance measure for facilities is the percentage of facilities within an asset class, rated below condition 3 on the TERM scale.

COMMENTS: Performance Measures—Facilities

Most of the commenters on this topic either requested clarification on or else proposed modifications to FTA's use of the TERM scale. Several commenters suggested that FTA should not alter its approach to the TERM scale and revert back to a threshold rating of 2.5 under the existing TERM system. For example, two transit operators expressed concern with the TERM scale defined in the proposed rule because FTA's Asset Management Guide sets 2.5 as the asset condition threshold for ''adequate,'' while the NPRM proposed 3.0 as ''adequate.'' One of these commenters asserted that this change would be problematic for agencies that have already begun working on transit asset management. Similarly, another commenter stated that the proposed SGR level of 3.0 is a move in the wrong direction and suggested that the adequate level be moved to level 1 or level 2.

Other commenters said use of TERM and the TERM scale should be optional, not required. A transit operator proposed using an industry-established system like the Facilities Condition Assessments and the Facilities Condition Index for buildings and facilities. Another transit operator said FTA should consider extending the ULB and asset age to all asset types, which will be more attainable for agencies than the condition assessment metric prescribed for facilities. The commenter said requiring all assets in this category to have a full condition assessment with a 1–5 ranking based on the TERM scale will be extraordinarily expensive for larger agencies and may also be cost-prohibitive for smaller agencies with fewer assets and less funding. A transit operator recommended using a performance metric of age as a percentage of remaining useful life to assess the performance of facilities. An MPO supported the condition-based approach proposed for measuring the condition of facilities and encouraged FTA to consider the inclusion of similar measures, in addition to the age-based approach, that were proposed to measure rolling stock and equipment conditions.

A State DOT said it currently performs a condition assessment for stations using a similar 0–9 scale as the rail bridges, and it is not familiar with the 1–5 TERM rating system. A transit operator requested clarification about the characteristics of a facility that would be determinate of specific ratings on the TERM scale and also about the parameters for defining facilities asset classes for purposes of grouping and reporting. The commenter stated that use of the TERM scale, in the absence of uniform standards for assessing the SGR of facilities, risks fostering an illusion of precision and comparability across properties. Absent such parameters, the commenter suggested revising the proposed performance measure for facilities to read: ''Percentage of Facilities within an asset class in marginal or poor condition,'' which would afford grantees with the flexibility they will need to define evaluation criteria based on their current practices.

A transit operator said this provision may benefit from measuring ADA compliance with the 49 CFR part 37 standards, at least with respect to sidewalks, walkways, lobbies, vertical circulation, signage, and platforms.

Another transit operator stated that FTA has included equipment that is located in the facilities, but some equipment does not lend itself to a condition-based evaluation and should instead be an age-based evaluation.

FTA'S RESPONSE: Performance Measures—Facilities

FTA proposed a condition based performance measure for the facilities asset category using the TERM scale. As previously mentioned, FTA did not set the performance benchmark at 2.5, because a benchmark of 2.5 would require all transit providers subject to the final rule to use the TERM-Lite model to calculate a 2.5 rating. The TERM scale is an integer based scale, thus a direct measure of condition rating 2.5 is not possible. In contrast, condition ratings to one decimal point are produced by the TERM-Lite model as an estimate of condition between condition assessments. Thus, FTA is setting the benchmark at 3.0, as this will reflect the actual results being produced by transit providers carrying out their own condition assessments.

FTA does not agree that TERM scale should be optional, but does agree that using the TERM-Lite model is optional. The TERM scale effectively acts as a standard for reporting facility condition and is already a well-known tool within the transit industry.

The condition-based SGR performance measure for the facility asset category is not equivalent to the condition assessment element of TAM plan § 625.25(b)(2). The facility grouping and reporting asset class are determined by the asset inventory asset classes. The asset inventory level of detail is commensurate to the level of detail provided in the transit providers' program of capital projects. Further, the subsystems and components of each asset category are determined by the transit provider, in their asset inventory. FTA recognizes that the subdivision of component asset classes within the facility asset category may differ from provider to provider.

FINAL RULE:

FTA is not making any revisions in the final rule related to these comments. Section 625.43(d) requires a condition-based performance measure for facilities based on the percentage of facilities

with a condition rating of less than 3.0 on the TERM). The TERM Scale rates asset condition on a 1 (poor) to 5 (excellent) scale. This condition-based approach would require a transit provider to conduct periodic condition assessments of its assets using a set of standardized procedures and criteria. This approach directly identifies the condition of each asset based upon its actual usage and maintenance history.

625.45 Setting Performance Targets for Capital Assets

In accordance with the statutory mandate at 49 U.S.C. 5326(c)(2), this section proposed that transit providers establish quantifiable targets for each performance measure identified in § 625.43. FTA recognizes that in its determination of targets, a transit provider would need to consider a wide range of factors that may either constrain its ability to impact outcomes or may adversely impact outcomes (such as the population growth of an area). Transit providers should consider these factors along with the expected revenue sources from all sources in establishing targets and should explain in the annual report to FTA how the factors were addressed in setting their targets.

Under this section, the NPRM proposed group TAM plan sponsors to set one unified performance target for each asset class in the group TAM plan asset inventory. FTA recognizes that the condition of assets may vary significantly among group TAM plan participants. Therefore, each unified target should reflect the anticipated progress in asset performance for a fiscal year for the entire group. For example, group TAM plan participants are responsible for meeting a target. Thus, each transit provider's asset inventory and condition assessment results are combined to determine the unified targets in the group TAM plan.

The group TAM plan sponsor is responsible for coordinating development of the targets with participating transit providers' Accountable Executives, to the extent practicable. In addition, transit providers are required to coordinate with States and MPOs, to the maximum extent practicable, in the selection of State and MPO TAM performance targets to ensure consistency.

COMMENT: Performance Targets—Three-Month Deadline

Several commenters expressed concern about the 3-month deadline for target setting specified in § 625.45(a)(1). Some commenters generally requested more time to develop targets, some recommended revising the target-setting deadline to a minimum of 6-months, and others recommended that FTA allow a year to develop the targets. One transit operator recommended that the two-year implementation period for TAM plans should apply to all aspects of the plan, including the performance targets. A trade association said FTA should require the initial setting of targets six months after the completion of the first TAM and annually after that. A State DOT said the three-month target setting process may be sufficient for an individual TAM plan, but a group TAM plan may require more time to build consensus for the targets. Several commenters said until FTA promulgates prerequisite performance criteria and standards, the 3-month turn-around deadline cannot be expected to produce meaningful results.

Multiple commenters recommended a phased-in approach for target setting where the initial target setting (those due in three months) are classified as preliminary, with some commenters reasoning that targets set within three months will not be useful in guiding investment decisions. A State DOT said the rule should clarify that recipients and subrecipients will not be held accountable to the initial targets, but rather to the targets that are included in the more formalized asset management plans.

Several commenters argued that the establishment of performance targets for capital assets should not need to be accomplished prior to the development of the TAM plan. Most of these commenters said the TAM plan should direct the process and criteria for performance targets and, therefore, must be developed in conjunction with, or prior to, the development performance targets.

A few commenters requested that FTA publish the rule but set an effective date several months in the future (consistent with all other U.S. DOT performance rules). A transit operator asked if FTA would consider adjusting the target setting timeframe based on the size of the transit agency.

FTA'S RESPONSE: Performance Targets—Three-Month Deadline

Pursuant to 49 U.S.C. 5326(c)(2), recipients must set targets within 3 months after the effective date of a final rule to establish performance measures. In many cases, the effective date of a final rule is several months after the publication of the final rule, in which case a transit provider would actually have more than three months to establish performance targets. FTA believes that three months is sufficient time to complete initial target-setting. Sponsors are responsible for setting initial and subsequent targets for small and rural operators that are eligible to participate in a group TAM plan.

FTA recognizes the transit industry will be engaged in a learning process as it implements the principles and practices of transit asset management, including those requirements contained in this final rule. FTA understands that as transit providers gather more information, the initial targets will be revised and refined in successive rounds of target-setting. However, the purpose of the initial targets is to establish a performance baseline. That baseline will change as a provider matures in its practice of transit asset management.

FINAL RULE:

FTA is not making any changes to the final rule related to these comments.

COMMENTS: Performance Targets—Annual Performance Targets

Some commenters provided input on the requirement to set SGR performance targets annually, as specified in § 625.45(a)(2). Several commenters said the annual target setting should be limited to revisiting the prior year's target based on prior year investments and updating if significant changes are needed. These commenters said a full re-evaluation of targets should only be required every 4 to 8 years as determined by the provider (for an individual plan) or a sponsor (for a group plan).

However, these commenters suggested that new target setting should be done more frequently if a TAM plan is amended prior to the established full reevaluation deadline. A State transit association did not support progressive SGR targets, unless they can be tied to increased levels of funding. A transit operator stated that requiring SGR performance targets to be set each year does not fit with generally accepted methods for developing multi-year capital programs.

FTA'S RESPONSE: Performance Targets—Annual Performance Targets

49 U.S.C. 5326 requires recipients of FTA funding to establish performance targets annually. The proposed rule did not prescribe a process for how a transit provider would establish a target, however. A transit provider may establish performance targets by updating the prior year's target based on the prior year's investment, or by another approach.

FINAL RULE:

FTA is not making any revisions in the final rule related to these comments.

COMMENTS: Performance Targets—Realistic Expectations

Several commenters provided input on the requirement that an SGR performance target must be set based on realistic expectations, as specified in § 625.45(a)(4). Several commenters requested clarification of the term ''realistic expectations.'' Multiple commenters recommended that FTA specify in that an ''SGR performance target must be set on realistic expectations, which could mean that targets are set based on managing a decline in asset condition,'' rather than just improving or maintaining conditions as proposed. A commenter said this requirement is prescriptive and not required as part of the MAP–21 legislation.

One of the State DOT requested that § 625.45(a)(4) be revised to read, ''An SGR performance target must be set on realistic expectations, which could require that targets be established to manage a decline in asset condition.''

FTA'S RESPONSE: Performance Targets—Realistic Expectations

Each transit provider should be setting its performance targets in consideration of the condition of its assets and the funding that it anticipates will be available to it from all available resources. For example, if 30 percent of a transit providers buses are beyond their useful life benchmark, it is not realistic for that provider to set a target of 100 percent to bring all of its buses under the ULB, if it will likely only have funding to renew a portion of those buses through either major life enhancing rehabilitation or replacement.

FTA understands that there may be instances where a transit provider may choose to set a negative target. A negative target would indicate a declining asset condition; the target itself is not a negative value, but represents a lack of improvement. For example, a transit provider with a fleet of 100 busses, 15 of which are beyond the default ULB, the current metric for their rolling stock performance measure: Bus metric is equal to 15 percent. If the provider plans to replace 3 vehicles and overhaul 2 in the next fiscal year its projected bus metric would be 10 percent-the target for the performance measure rolling stock, asset class: Bus. If 10 of the busses exceed the ULB this fiscal year, the current year metric is the same at 15 percent, but the projected bus metric is now 20 percent, which indicates a declining asset condition (older vehicle fleet) and a negative target. In this example, for rolling stock, asset class: Bus, a target of 20 percent represents a negative improvement over a target of 10 percent.

FINAL RULE:

FTA is not making any revisions in the final rule related to these comments.

COMMENTS: Performance Targets—Recent Data and Available Resources

Several commenters addressed the requirement in § 625.45(a)(5) to base the SGR target on recent data and available financial resources. A couple of commenters expressed concern that transit providers may unilaterally identify competitive (or flexed) financial resources and thus could potentially over-count available resources at the regional level. One commenter said this requires a financial measure, rather than a performance measure. The commenter said the definition of SGR as proposed is not compatible with this statement.

FTA'S RESPONSE: Performance Targets—Recent Data and Available Resources

In the NPRM, FTA proposed that a transit provider set performance targets based on recent data and resources that the provider could reasonably anticipate would be available. This final rule does not prescribe a method for setting performance targets and FTA understands that target-setting is not an exact science. However, FTA believes that the most accurate targets can be established based on recent data and reasonably anticipated funding. FTA understands that effective target-setting and effective development of investment prioritizations will require coordination and communication among funding partners and stakeholders to produce the best results.

FINAL RULE:

FTA is not making revisions to the final rule related to these comments.

COMMENTS: Performance Targets—Other Comments

A State DOT supported FTA's proposed requirement that performance targets be set for each asset class, as specified in § 625.45(a)(3). A transit operator agreed that agencies should have the ability to set their own performance targets, asserting that this would result in targets that are more aligned with each operating environment.

Asserting that the empirical basis for believing that TAM improves efficiency of transit operations is very limited, one commenter suggested that because the proposed National TAM System includes explicit blocks on funding decisions being tied directly to performance metrics, transit agencies may have little incentive to actually set or achieve a reasonable target.

FTA'S RESPONSE: Performance Targets—Other Comments

FTA does not have the authority to award or penalize a transit provider for achieving or missing a target. However, FTA encourages transit providers to be aggressive about setting targets, both to support making the case for additional funds to meet state of good repair goals, and to encourage finding innovative methods for using existing funding levels to meet state of good repair goals.

FINAL RULE:

FTA is not making any revisions in the final rule related to these comments.

COMMENTS: Performance Targets—Role of Accountable Executive

A transit operator asked if the Accountable Executive would be required to establish and approve each SGR performance target for the subrecipients.

FTA'S RESPONSE: Performance Targets—Role of Accountable Executive

The Accountable Executive for a transit provider that develops an individual TAM plan must approve the provider's performance targets. If a transit operator is also a group TAM plan sponsor, it must establish performance targets for the plan participants in coordination with each participant's Accountable Executive. In its responses to the comments regarding the definition of Accountable Executive, above, FTA clarified that a group TAM plan sponsor is not the Accountable Executive for each participating transit provider. However, by participating in a group TAM plan, a transit provider's Accountable Executive may be required to defer to the decisions of the sponsor regarding prioritization of investments.

FINAL RULE:

FTA is not making any changes to the final rule related to these comments.

COMMENTS: Performance Targets—Setting Targets for Participants

Some public comments addressed the requirement for setting targets for group plan participants in § 625.45(c). Several commenters said the rule should clarify that the plan sponsor for a group plan may establish targets and investment

prioritization across the entire group (*i.e.,* for all members of the group).

However, several commenters expressed concern that setting a single SGR target at the asset class level would not be useful. An MPO recommended that FTA devise a methodology that recognizes the array of operations and provides a means for setting meaningful performance targets within the group. Similarly, another MPO recommended that within a group plan that multiple performance targets be set depending on a transit agencies size, service type and service levels. A State DOT said setting a single target could be difficult if a group TAM includes rural and smaller urban transit providers from across the State, which may operate within quite different geographic and local conditions.

FTA'S RESPONSE: Performance Targets—Setting Targets for Participants

The sponsor is responsible for setting unified performance targets for plan participants based on the investment priorities established in the group TAM plan. FTA believes that target-setting approaches and methodologies are local decisions. The sponsor should coordinate with plan participants to develop an approach for setting unified targets. FTA agrees that it may be difficult to set a unified target for both rural and urban providers. This final rule does not prohibit a sponsor from establishing separate group plans and targets for its subrecipients under the urban and rural formula programs.

FINAL RULE:

FTA is revising the final rule to clarify that a sponsor must set one unified target per asset class, but may set more.

COMMENT: Performance Targets—Coordination

Some public comments provided input on the requirement in § 625.45(d) to coordinate with States and MPOs in the selection of performance targets.

Several commenters requested clarification regarding the role of the State and MPOs in target setting. Some commenters requested general guidance on how States and MPOs would be responsible for the targets being set or achieved. Some commenters sought clarification on the distinction between performance targets set at the State and MPO level and those established by the transit agencies themselves. A transit operator said it is unclear how transit agencies will report TAM plans and updates to MPOs and States, and it is also unclear how the State and MPO performance targets will impact individual transit agency TAM plans and performance goals.

A couple of commenters requested confirmation that the MPO would aggregate targets and measures, prioritization, performance and condition information from the local transit agency in order to set regional measure and targets. A transit operator said FTA should ensure that this section is not interpreted as giving MPOs mandate for developing parallel standards or targets that agencies must meet in addition to what is required by FTA. A State transit association supported the peer recommendation that FTA should not require MPOs to set a region-wide target or incorporate both the safety and transit SGR targets from each transit system within their jurisdictions into the performance-based planning process

A State DOT agreed that coordination with regional planning organizations supports the goals of effective transit asset management, but said the State should have the flexibility to develop the appropriate processes to achieve this coordination. However, a transit operator said there should be no requirements for agencies that are not State-funded to involve State agencies in target setting, project prioritization, or strategic leveraging of resources.

An MPO said that the requirement for coordination with the MPO should be strengthened by deleting ''to the maximum extent practicable.'' However, a couple of commenters expressed concern that the rule indicates significant additional work will be required of MPOs and all transit-related partners that may produce speculative results with few tangible benefits. A transit operator said FTA should clarify whether the coordination suggested with the MPO is required for asset management or for service performance.

FTA'S RESPONSE: Performance Targets—Coordination

Pursuant to the requirements at 49 U.S.C. 5303 and 5304, States and MPOs must coordinate with transit providers to the maximum extent practicable in selecting State and MPO TAM performance targets.[13] The performance targets set by transit providers, along with other performance targets set pursuant to other statutes, are an essential component of the planning process. The planning provisions at 49 U.S.C. 5303 and 5304 require States and MPOs to establish performance targets for transit that are based on the national measures for state of good repair and safety established by FTA and to coordinate the selection of those performance targets, to the maximum extent practicable, with performance targets set by transit providers to ensure consistency. See, specifically, 49 U.S.C. 5303(h)(2)(B)(ii), 5304(d)(2)(B)(ii).

This final rule does not require a transit provider to coordinate with its planning partners in the selection of its own performance targets. The rule requires transit providers to coordinate with States and MPOs in the selection of State and MPO performance targets. However, FTA would strongly encourage transit providers, States, and MPOs to coordinate in the establishment of meaningful, progressive local and regional targets.

FTA believes that target-setting approaches and methodologies are local decisions. Transit providers should work with their planning partners to integrate their TAM plans into the statewide and metropolitan transportation planning processes. *See* 49 U.S.C. 5303(h)(2)(D), 5304(d)(2)(B)(ii). To support this integration, transit providers must share information regarding transit system condition, targets, investment priorities and strategies, which are parts of its TAM plan, in accordance with § 625.53(b).

The final rule on Metropolitan and Statewide Planning and Non Metropolitan published May 27, 2016 [14] FTA and FHWA issued e guidance to aid the industry in the implementation of the performance-based planning requirements.

FINAL RULE:

FTA is not making any substantive changes to the final rule related to these comments.

COMMENTS: Performance Targets—Setting Performance Targets

Some public comments provided other comments on performance target setting that were not otherwise addressed above. A couple of commenters said additional guidance is needed from FTA to ensure consistent calculation and application of targets.

A couple of commenters recommended that facilities be exempted from target setting until training is provided on the use of TERM for the State DOT and its subrecipients. Specifically, commenters recommended that facilities be included in a TAM plan a year after the training has been provided in the region.

[13] *See* 49 U.S.C. 5303(h)(2)(B)(ii), 49 U.S.C. 5304(d)(2)(B)(ii).

[14] *https://www.federalregister.gov/articles/2016/05/27/2016-11964/statewide-and-nonmetropolitan-transportation-planning-metropolitan-transportation-planning.*

An MPO said the use of the term ''transit provider'' in this section is inconsistent with the use of tier I and tier II providers in the previous sections. The commenter said it is not intended that the TIP projects be constantly updated to make minor changes to projects that do not represent TIP amendments.

One commenter noted that the preamble states that performance targets are required ''for each performance measure identified in § 625.43.'' If this is the expectation, the commenter said this should be made clearer within the language of § 625.45.

A transit operator said FTA should clarify that having and meeting performance targets set at 100 percent is not a prerequisite to meeting the state of good repair standard under § 625.41. Without this clarification, the commenter said some transit agencies may be led to believe only agencies meeting 100 percent performance targets have assets in a state of good repair.

A transit operator said agencies need to have flexibility to determine performance targets and how best to establish their definition of a state of good repair. Another transit operator asked to what extent will reviewers during the triennial review process be empowered to reject these targets, and if a transit agency has self-certified its TAM plan, to what extent will the reviewers be empowered to reject the certification if they believe it does not meet the standards.

A transit operator said the NPRM includes discussion about the lack of authority for FTA to reward or penalize transit agencies whether or not they meet SGR performance targets. The commenter expressed concern that there is a reasonable expectation that funding, through FTA, MPOs, or States, may in the future be directed to performance areas where transit agencies fell short of SGR performance targets.

FTA'S RESPONSE: Performance Targets—Setting Performance Targets

FTA is preparing two guidebooks to aid in the calculation and application of the Facility and Infrastructure performance measures. The National Transit Institute offers training on TERM-Lite.[15]

FTA disagrees that the term transit provider is inconsistent with the definition of tier I and tier II.

FINAL RULE:

FTA is not making any substantive changes to the final rule related to these comments.

625.53 Recordkeeping for Transit Asset Management

This section proposed that a transit provider keep records of the documents it develops to meet the requirements of this part for at least four years. Excel spreadsheets, agreements, or policies that were used to develop a TAM plan may prove useful in the next iteration, as well as assist in certification and review. This section proposed also that a transit provider or group TAM sponsor share its records with its State and MPO to aid in the planning process.

COMMENTS: 625.53 Recordkeeping for Transit Asset Management

Some public comments addressed the proposed recordkeeping requirements in § 625.53. A few commenters expressed support for proposed § 625.53.

One commenter stated that the information in proposed § 625.53(b) is public and readily shared with partners, including MPOs and, therefore, unnecessary to include in the rule. A transit operator recommended that tier I agencies only be required to share performance targets and progress with States and MPOs. Another transit operator said the documentation required to be provided to States and MPOs should be limited as such agencies may not provide funding to the transit agency.

Expressing concern that the use of supporting records by the MPO would increase the staff burden for some MPOs, a transit operator recommended that FTA revise § 625.53 to only say that the grantee should use its TAM plan to inform its proposal of projects to the MPO for inclusion in the TIP.

A business association expressed support for State-level maintenance of records and documents for tier II TAM group plans along with NTD data, as it would lessen the administrative burdens on smaller systems.

FTA'S RESPONSE: 625.53 Recordkeeping for Transit Asset Management

Through the enactment of MAP–21 in 2012, the Congress fundamentally shifted the focus of Federal investment in transit to emphasize the need to maintain, rehabilitate, and replace existing transit investments. The ability of FTA grant recipients, along with States and MPOs, to both set meaningful transit SGR performance targets and to achieve those targets is critically dependent upon the ability of all parties to work together to prioritize the funding of SGR projects from existing funding sources. In order to work together, all parties, including tier II providers, must share information openly.

This final rule requires that a transit provider or group TAM sponsor make its TAM plan and supporting documents available to a State or MPO that provides funding to a transit provider. It will be up to the State or MPO to prescribe how it wants to receive the information.

FINAL RULE:

FTA has revised this section in the final rule to clarify that a transit provider must make its TAM plan available to a State or MPO that provides funding to it.

625.55 Annual Reporting for Transit Asset Management

This section proposed a description of the annual report a transit provider or group TAM plan sponsor would have to submit to NTD. The annual report would include a data report and a narrative report. The data report would need to include performance targets for the next fiscal year and the condition of the system, at minimum. In the case of a group TAM plan, the report would need to include the uniform performance targets and the condition of the amalgamated system. The narrative report would include a description of the change in condition of the transit system, and the progress toward achieving the performance targets set for the previous fiscal year. A report for group TAM plan participants should include the amalgamated system and progress toward the uniform performance targets.

Both reports would allow FTA to customize triennial reviews to the transit provider. In addition, the data will be used by FTA to estimate and predict the national SGR backlog and the default ULB for rolling stock assets.

COMMENT: 625.55 Annual Reporting for Transit Asset Management

Many public comments addressed the proposed annual NTD reporting required by a transit provider or a group TAM plan sponsor in § 625.55.

A State transit association supported the peer recommendation that FTA should build upon the existing NTD Safety Event Reporting data collection effort and leverage historical data collection to identify safety trends, rather than establishing a new data collection and reporting system. Similarly, a transit operator expressed support for using the NTD to submit the

[15] National Transit Institute (NTI) *Using the Transit Economic Requirements Model (TERM-Lite) Computer Lab* (*http://www.ntionline.com/courses/courseinfo.php?id=271.*)

annual data reports, performance target reporting, narrative changes in the condition of the transit system, and progress to meet SGR targets. Two State DOTs and other commenters urged FTA to keep the amount of reporting and target setting to a minimum of only what is required for the NTD.

A transit operator asked why the data report and the narrative report would not be due at the same time covering the same year. Another transit operator recommended that the deadline for the annual NTD data and narrative reports should be four months after the Federal Fiscal Year (FY) for the data report and six months after for the narrative report, asserting that four months after the end of the standard FY in June would be too short for agencies to collect necessary data and conduct analysis. A few commenters urged FTA to sync up NTD reporting and target setting with TAM plan reporting and target setting, as well as FHWA reporting cycles. A business association urged FTA to allow agencies to report asset condition consistently with their established internal asset management practices, reasoning that forcing agencies to report in what would normally be off years would be expensive and disruptive to agencies, without adding quality to the national view obtained by FTA.

A State agency suggested that rail fixed guideway transit systems be required to provide the annual data report and annual narrative report to State Safety Oversight Agencies (SSOAs) simultaneously with their delivery to FTA.

Several commenters expressed concern about the data collection resources that would be needed for transit providers to assess and submit performance conditions for all assets annually. A State DOT commented that requiring both annual data and narrative reports describing any changes and requiring TAM plan reassessment every four years is onerous and burdensome. A transit operator stated that annual reporting and annual target setting may be excessive and labor intensive since their own experience indicates that there are not significant changes over the course of a year. A transit operator stated asserted that annual reporting did not make ''good business sense'' from a risk perspective of a transit agency and that the volume of data in the annual assessment would overwhelm the database system.

Absent a change in funding or an unanticipated change in assets condition, an MPO commented that it would be more appropriate to report the SGR targets on a consistent basis with changes in the targets set as part of a new TIP/STIP development every four years.

A transit operator commented that it is difficult to comment on proposed reporting requirements without reviewing the forthcoming guidance proposal on the NTD Reporting Manual that would describe the content of the new data report. This commenter recommended that the final rule should include more guidance on the new reporting requirements and that FTA provide a template for the new data and narrative report requirements for NTD.

A local transit provider asked if service providers would have to report SGR for each asset in their inventory or whether this would be done at a higher, aggregated asset category level. This commenter also expressed concern about proposed Appendix A to part 625, asserting that FTA should endorse the TERM asset hierarchy throughout the rulemaking rather than changing to a different classification hierarchy.

Commenting that the NPRM did not provide guidance on the level of reporting that would be required when submitting NTD required reports, a State public transportation system urged FTA to ensure that the transit provider determine the level of detail in its asset inventory and that the NTD input requirements are structured so that the providers could have one database that could feed both NTD and asset management reporting requirements.

An MPO urged FTA to acknowledge in the final rule that it needs to expand the NTD to accommodate the additional reporting and that the scheme for reporting this data has not yet been developed. This commenter suggested that FTA should have a public comment request for its proposal to amend the NTD. A State DOT suggested that because the rule would require annual reporting of asset condition using the NTD, the NTD should include a function that automatically compares a currently reported condition to the most recent previously reported condition in order to meet the requirement for assessing the change in asset condition at § 625.55. The commenter reasoned that this function would help smaller agencies, which typically do not have staff resources to evaluate and document changes in asset condition.

A transit operator said capital asset inventories should be afforded the protections of Federal laws prohibiting the public disclosure of sensitive information. Similarly, two other operators said FTA should safeguard sensitive information related to condition and risk, stating that any compromise of data is almost certain to limit any agency's motivation to fully embrace this strong self-analysis. A transit operator asked to what extent assembled data could be protected from discovery in litigation or disclosure through the Freedom of Information Act (FOIA).

A State DOT recommended that the reporting requirement should be for a single annual report that includes both the asset condition report and performance target progress and milestones, rather than requiring both separately.

Two commenters noted that, although it seems like a good practice, the proposed rule would not require an agency to report the percentage of assets in SGR or the SGR backlog amount. A State DOT asked FTA to clarify whether annual reporting to NTD will be required for transit agencies receiving 49 U.S.C. 5307 funds. Another transit operator asked several detailed technical questions about the mechanics of National Transit Database Reporting.

FTA'S RESPONSE: 625.55 Annual Reporting for Transit Asset Management

The NPRM proposed that a transit provider submit two annual reports to the NTD. The reporting requirements for TAM do not conflict other NTD reporting requirements.

FTA did not propose that SSOAs review and approve TAM plans. However, a rail transit system may coordinate and collaborate with its SSOA to develop and carry out its TAM plan.

FTA believes the reporting and target setting requirements in this final rule are appropriate. FTA recognizes that for many transit providers there will be minimal changes to the asset inventory and condition information reported to the NTD from year to year. The online reporting system of the NTD will pre-populate asset inventory and condition information from the previous year, thus minimizing the annual reporting burden on transit providers when there are few changes. Interested parties can consult the existing NTD Reporting Manuals for technical questions about the logistics of NTD reporting.

The NTD data report will not include an exhaustive inventory of all of a provider's assets, nor an exhaustive deposit of all its condition information available. Transit providers can organize the asset inventory and condition assessment in their own TAM plan according to any asset hierarchy that still allows them to meet the relevant NTD reporting requirements.

FTA recognizes that the annual change in targets may be minimal. A transit provider may report targets that are either identical, or only

incrementally different from the targets it reported in the previous year. If there is little change from one year to the next, then a transit provider may have the same numerical target for more than one year. In addition, a transit provider may decide to set a longer range target and divide it incrementally to report as annual targets.

FTA does not have the statutory authority to exempt the reports required under the final rule from the Freedom of Information Act (FOIA).

FINAL RULE:

FTA is not making any revisions in the final rule related to these comments.

Part 630—National Transit Database

FTA proposed to revise §§ 630.3, 630.4, and 630.5 of subpart A of 49 CFR part 630 to conform to the reporting requirements set forth in proposed part 625. The proposed reporting requirements for National TAM System apply to all chapter 53 recipients or subrecipients who own, operate, or manage public transportation capital assets. FTA's National Transit Database (NTD) currently requires reports from recipients or beneficiaries of the Urbanized Area Formula Program (49 U.S.C. 5307) and the Rural Area Formula Program (49 U.S.C. 5311). FTA proposed to replace references to 49 U.S.C. 5307 and 5311 recipients with references to recipients and subrecipients of chapter 53 funds. This change will require recipients and subrecipients of other FTA grant programs, such as the 49 U.S.C. 5310 formula program for the enhanced mobility of seniors and individuals with disabilities who are not also receiving funds under 49 U.S.C. 5307 or 5311, to start reporting TAM required performance data to the NTD. FTA will not apply existing NTD reporting requirements to all recipients of chapter 53 funds. FTA will only apply the reporting requirements proposed under the National TAM System to those transit providers that do not currently report.

COMMENT:

A couple commenters expressed support for FTA's proposed changes to the NTD regulations at 49 CFR part 630.

FTA'S RESPONSE:

FTA appreciates the comments in support of its proposed amendments to the NTD.

On November 8, 2015, FTA published a notice in the **Federal Register** which responded to comments on a previous proposed expansion of the NTD; requested comments on additional proposed reporting; and requested comments on updating the NTD's approval to collect information under the Paperwork Reduction Act. 80 FR 72137. Some of the proposed reporting requirements in that notice relate to the contents of this rule. The comment period for the notice on NTD reporting closed on January 19, 2016 comments relevant to this final rule made to the docket for NTD reporting requirements are summarized below. The complete list of comments and responses including burden estimates can be found in the NTD Reporting Manual **Federal Register** notice.

NTD Reporting Manual Background

The proposed changes to the NTD Reporting Manual stem from amendments to Federal transit law made by the Moving Ahead for Progress in the 21st Century Act (MAP–21) (Pub. L. 112–141, July 6, 2012), which require recipients of Chapter 53 funds to report to the NTD any information relating to a transit asset inventory of condition assessment conducted by the recipient. (59 U.S.C. 5335(c)) Currently, the NTD only collects asset inventory information on revenue vehicles and summary counts for other asset categories, such as maintenance facilities and fixed guideway. There are some assets, such as signal or communications systems, for which NTD collects no data. In both the initial and second notice, FTA proposed to collect additional asset inventory data to meet the asset inventory and condition reporting requirements at 49 U.S.C. 5335(c).

Comments Relevant to National TAM System Final Rule From the NTD Reporting Manual Notice Docket

FTA received comments related to 1- Asset inventory burden, 2- Reporting requirements for 5310 recipients, 3- Reporting of service equipment, and 4- Guidance for useful life benchmark (ULB). In addition, the NTD Reporting Manual notice received duplicative comments to those addressed in this final rule on third party asset reporting and dollar thresholds for asset inventory. FTAs responses to the duplicative comments are addressed previously in this final rule.

NTD Notice Comments: Asset Inventory Burden

FTA received a number of comments expressing concern over the additional burden imposed by expanding the asset inventory. Twenty (20) commenters stated that the proposal was too burdensome. Thirteen (13) commenters expressed the concern that the additional reporting burden may divert resources away from transit service provision. Eight (8) commenters felt the burden estimates provided by FTA were 'understated'.

FTA's Response: Asset Inventory Burden

The NTD burden estimate, which will be more fully described in the separate **Federal Register** Notice responding to comments on FTA seeking approval under the Paperwork Reduction Act for updated NTD Reporting Manual guidance, assumes that an agency will already have an asset inventory in place as part of their compliance with the TAM rule and, therefore, only includes the time and costs estimated to enter existing asset inventory information into the NTD reporting system. In some cases, modifications to existing data may be necessary to enter this information into the NTD. The burden estimates provided in the second NTD notice take into account small modifications of existing information in the asset inventories required by the TAM Rule for reporting in the standard formats established by the NTD.

In calculating the burden estimate for NTD reporting, FTA asked several agencies to enter their existing asset inventory information into the proposed format and report the time necessary to complete this task. Three agencies completed an entire report and their experience with the new reporting requirements served as the foundation for the final estimates. A 'per field' reporting time was calculated and then multiplied out over the estimated data fields expected nationally to create a final burden estimate. Because the numbers presented are averages, some agencies may expect to spend more time and some agencies will spend considerably less than the estimated average.

FTA remains committed to implementing reasonable data reporting requirements, while also meeting the requirements in the law for reporting asset condition information. In response to the first round of comments on the asset inventory, FTA made several modifications to reduce the overall reporting burden including removing replacement cost information for all asset types and also eliminating the proposal for reporting details of individual components within facilities. FTA believes that this revised proposal for asset inventory reporting fulfills the MAP–21 update to 49 U.S.C. 4335(c) that recipients report asset inventory and condition assessment information to the NTD. These data will support better state of good repair estimates from

FTA's Transit Equipment Requirements Model and will support the calculation of performance results under the performance measures established in this rule. While FTA recognizes that the proposed changes would result in an increase over the current reporting requirements, the highest burden would exist in the first year of start-up reporting. Once an asset has been entered into the inventory module, the information would be pre-populated for each subsequent year. Reporters only would be responsible for providing annual updates to new or retired asset inventory items in subsequent years.

NTD Notice Comments: Reporting Requirements for 5310 Recipients

An additional area of concern was related to the new reporting requirements for 5310 recipients. Commenters stated that reporting for 5310 recipients should be limited or eliminated entirely. In addition, commenters felt that any reporting done on behalf of 5310 recipients should be done at the designated recipient level rather than the subrecipient level to minimize the burden of this new reporting. This same group of commenters suggested that only vehicles used in public transit and, preferably only vehicles purchased with federal money, should be reported. Some commenters requested that performance targets and reporting should be removed for 5310 recipients.

FTA's Response: Reporting Requirements for 5310 Recipients

FTA is committed to developing requirements that are mindful of the burden for small transit providers. FTA understands that direct reporting may prove to be a difficulty for small section 5310 recipients. In order to minimize this burden, FTA concurs with the comment that reporting on the assets for 5310 recipients should be done at the designated recipient or State level. The reporting guidance will be updated to reflect this change.

In response to the applicability of reporting for 5310 reporters: the NTD asset inventory requirements will mirror the reporting requirements established by the Transit Asset Management rule. The final reporting requirements for National TAM System apply to all chapter 53 recipients or subrecipients who own, operate, or manage public transportation capital assets. FTA currently requires NTD reports from recipients of funds under the Urbanized Area Formula Program (49 U.S.C. 5307) and the Rural Area Formula Program (49 U.S.C. 5311). As such, this new rule replaces references to 49 U.S.C. 5307 and 5311 recipients with references to recipients and subrecipients of chapter 53 funds. This change will require recipients and subrecipients of other FTA grant programs, such as the 49 U.S.C. 5310 formula program for the enhanced mobility of seniors and individuals with disabilities, who are not also receiving funds under 49 U.S.C. 5307 or 5311, to start reporting to the NTD. FTA will not apply existing NTD reporting requirements to all recipients of chapter 53 funds. FTA will apply only the reporting requirements mandated under the National TAM System final rule to those transit providers that do not currently report.

NTD Notice Comments: Reporting of Service Equipment

Some commenters requested the removal of service equipment from the NTD Asset Inventory.

FTA's Response: Reporting of Service Equipment

In order to best align the NTD asset inventory with the TAM rule reporting requirements, FTA believes it is appropriate to keep an inventory of 'service equipment' in the NTD. This information will provide verification of the TAM performance targets and performance against those targets. In addition, non-service vehicles and equipment represent a large capital expense for some agencies. Including a basic inventory of these vehicles and equipment in the NTD will provide additional clarity on the state of good repair backlog for the transit industry.

The final TAM rule requires transit providers to report the percentage of on non-revenue, support-service and maintenance vehicles that have met or exceeded their useful life benchmark. This is the identified SGR performance measure for equipment. FTA feels that non-service vehicles are an easily understood and readily identifiable category of equipment, and the age-based performance measure is the most-simple and straight-forward performance measure available.

NTD Notice Comment: Guidance for Useful Life Benchmark (ULB)

One commenter requested guidance on calculating a useful life benchmark (ULB) that is not based on accounting depreciation standards.

FTA's Response: Guidance for Useful Life Benchmark (ULB)

The calculation of a useful life benchmark may vary considerably between transit operators based on original equipment specifications, operating environment and maintenance or capital replacement schedules. Due to these variations, the FTA intends to leave the calculation of such a metric up to the individual providers. To facilitate reporting, FTA will provide a ULB default estimate based on the Transit Economic Requirements Model (TERM) depreciation curves in the NTD reporting system. These default estimates will also be available in the reporting manual. The ULB default estimate provided by NTD will be the point at which a vehicle reaches 2.5 in TERM.

FINAL RULE:

FTA is including the proposed amendments to the NTD in the final rule without change.

III. Regulatory Analyses and Notices

A. Regulatory Analyses and Notices NPRM Comments and FTA's Responses

COMMENTS: Funding for Transit Asset Management

A transit operator argued that because the TAM rule requirements will come with significant costs, there should be a dedicated funding source that does not diminish other programs. A business association similarly expressed concerns that the current investment from government is insufficient to meet both the capital and operating needs of the nation's mobility providers and is unlikely to change in the foreseeable future.

After expressing concern about the increased resources that would be required to comply with the rule, several commenters requested that funding be allocated to assist transit providers in developing and implementing TAM. A transit agency said dedicated funding should be made available with specific eligibility for TAM business processes needed to comply with the rulemaking requirements that does not include competing eligibilities with capital replacement projects. A transit operator requested that FTA identify a source of funding, in addition to formula funding, to help agencies comply with this new mandate. A State DOT said it is unclear if FTA will provide financial support for training of maintenance and reporting agency staff and for purchasing software to manage TAM systems. A transit operator requested clarification on how a service provider can request funding under specific grant programs.

A State transit association noted that the NPRM stated that ''on average, fare revenue cover only one-third of total operating expenses, and do not cover any capital expenses,'' but there is no discussion about the systems that do not

charge fares, thus allowing them to qualify for more Federal funding than the systems charging fares. The commenter said FTA should consider allowing at least 10 percent of fare collection to be set aside for capital purchases or major repairs as local match. The commenter asserted that this would result in an incentive to agencies to seek user financial support in achieving SGR goals.

Several commenters said FTA should recognize the lack of funding available to assure state of good repair. An MPO said it is not appropriate to place the burden of SGR on the transit operators' management practices when Congress has stepped away from the traditional partnership role in funding transit capital needs. Another commenter asked if national and local funding prioritization will be in alignment with SGR targets, as the Secretary is required to establish SGR performance measures and recipients are required to set performance targets based on these measures. This commenter also asked what portions of funding would the FTA consider reasonable to be allocated to achieving these targets and what level of confidence needs to be established that funding of projects will impact measures in reaching targets. A State DOT encouraged FTA to make the case for dedicated Federal funding for the TAM plan initiative, and/or consider clarifying which existing Chapter 53 planning and technical assistance funds may be applied to TAM plan development.

FTA'S RESPONSE: Funding for Transit Asset Management

In its 2013 Conditions and Performance Report, FTA estimated that the Nation's SGR backlog is $85.9 billion. FTA recognizes that addressing this backlog will require multiple approaches, including increased funding for asset management activities and state of good repair projects. However, FTA does believe that the National TAM System will support the transit provider's strategic allocation of available funds towards reducing the SGR backlog. FTA grant recipients, along with States and Metropolitan Planning Organizations (MPOs) will need to coordinate in order to set meaningful SGR targets and to prioritize funding from all sources towards reducing the SGR backlog.

There is specific funding available for transit asset management and state of good repair purposes. In MAP–21, Congress created the State of Good Repair Formula Program at 49 U.S.C. 5337. Funding for the SGR Program was reauthorized in the FAST Act at approximately $2.5 billion for fiscal years 2016–2020, a significant increase over MAP–21's authorized funding levels. Eligible projects include TAM plan development and implementation, and Capital projects to maintain a system in a state of good repair. Upon the effective date of this final rule, projects eligible for funding under the SGR Formula Program must be identified within the investment prioritization of a transit provider's TAM plan.[16]

Funds from other FTA grant programs may also be used to cover costs related to TAM plans. In general, costs associated with capital projects to purchase new capital assets or to rehabilitate or maintain existing assets are available for state of good repair purposes. The software costs for an asset inventory system, for estimating capital investment needs over time, or for a decision support tool for investment prioritization are all eligible capital costs. Costs related to assembling and maintaining an asset inventory, or related to condition inspections, are generally eligible preventive maintenance costs that can be funded by capital assistance. Finally, costs related to creating a TAM plan itself are an eligible expense under the section 5307 Urbanized Area Formula Program and the section 5311 Rural Area Formula Program.

Although fare revenues that are program income are not currently an eligible source of local match for FTA's grant programs, FTA does not have the statutory authority under current law to change this approach. Whether or not a transit provider charges a fare does not impact the amount of funding it may receive from FTA.

COMMENTS: Other Funding for TAM

An MPO said more recordkeeping without additional funding accomplishes nothing other than demonstrate the unmet need. This commenter asserted that a systematic approach to manage existing resources will not fully address the financial need to replace assets. Another commenter suggested that while the TAM rule may provide data and systemization for agencies as they assess their SGR, it is unclear if this will result in a better funding outlook.

One commenter expressed concern that requiring service providers to publicly document asset safety shortcomings while possibly not having sufficient funding to address all needs would increase legal liability risk for agencies.

A State transit association suggested that FTA (1) consider setting guidance to allow for local agencies to have fare set-asides to establish ''sinking funds'' to pay for new rolling stock purchases or major vehicle repairs, and (2) allow agencies be able to make loan payments from fares, reporting balance of fares less loan payments on quarterly DOT reports. A State DOT recommended that the rule should include specific language stating that, without additional financial resources, establishing an asset management plan may not in itself enable a provider or a group to reach a state of good repair.

Expressing concern that the rule would not allow legacy transit providers to work towards improvements in their facilities performance measure without diverting funds from other, potentially more critical needs, a local transit operator asked what the consequences would be of reporting declining performance measures for facilities to ensure maintaining or improving performance targets for fleet and infrastructure.

FTA'S RESPONSE: Other Funding for TAM

FTA believes recordkeeping and reporting will create a database that can be used to better identify the unmet needs. In many States, data-driven performance management practices have resulted in increased funding for transportation programs from state and local governments. Being able to demonstrate transportation needs, based on sound quantitative analysis, lends credibility to the funding requests and makes it easier for legislatures to support increased funding.

FTA acknowledges that the efficiencies realized through improved data-driven decision-making may not be adequate to meet all of the financial needs to address SGR, and that TAM plan development costs may divert funds from the current capital programs and that this may affect system performance. However, FTA anticipates that improved asset management practices will result in decisions that reduce maintenance and rehabilitation costs overtime. These cost savings might offset the costs of the TAM plan.

The TAM final rule does not include penalties for agencies that demonstrate declining performance of assets. The goal of the final rule is for transit service providers to develop or improve on existing asset management processes to provide and use data to make better decisions. Making trade-offs among

[16] For more guidance on the SGR Formula Program, please review the program guidance available on FTA's Web site at *http://www.fta.dot.gov/legislation_law/12349_16262.html.*

competing investments is part of the process. A goal of the TAM plan is to help agencies improve their current asset management practices to better manage assets over the whole life of an asset and to identify what can be achieved with current funding in order to meet desired performance goals.

This rule does not require agencies to list or document assets that pose an unacceptable safety risk.

FINAL RULE:

No change has been made in the final rule due to these comments.

COMMENTS: NPRM Regulatory Impact Analysis—Total Cost

Many comments were made on the costs associated with the proposed rule. Many commenters said FTA's estimated costs of compliance with the rule (coordination, data collection, reporting, etc.) are underestimated. One commenter said the rule's activities could require more than three times the number of hours estimated by FTA, and approximately five times the estimated cost. A State DOT said its current cost estimate for the initial phase of asset management planning (performance gap analysis) is about $300,000 in upfront costs, including project staff labor, training and consultant services for one year, which is significantly higher than the tier I annual cost of $33,451 per provider estimated by FTA. Some commenters provided specific estimated costs of complying with the rule, which ranged between $20,000 and $500,000 per transit agency. Another commenter stated that it uses two full-time equivalents (FTEs) just to update the asset inventory and the contracted costs for its recently completed TAM plan was three times the average cost from the FTA analysis for all TAM activities. Further, this commenter asserted that there would be further costs to bring it into compliance with the final rulemaking.

A transit operator said requiring all assets in the facilities category to have a full condition assessment with a 1–5 ranking based on the TERM scale would be extraordinarily expensive for larger agencies and may also be cost-prohibitive for smaller agencies with fewer assets and less funding. The commenter stated that, given the geographic breadth of the rail system and the number of stations, it would not be unrealistic to assume a $4–5 million undertaking to produce something of value. The commenter stated that because FTA has been supplied with the budget updates for this project on a monthly basis for several years, it was surprising that the estimates and approach did not reflect any of this information, but rather relied on the feedback from four newer and smaller agencies.

FTA'S RESPONSE: NPRM Regulatory Impact Analysis—Total Cost

FTA appreciates the comments on the cost estimates and the assumptions used. FTA acknowledges that the general consensus of the comments was that the estimated costs were lower than would be expected. FTA agrees that this may be the case in some instances for various reasons. However, it can be misleading to compare individual agency costs with an average for an industry that is very diverse in size, such that a few large agencies provide a large share of transit services. For example, among agencies receiving 5307 formula funds, 3 percent of the agencies own nearly 50 percent of the revenue vehicles. Since the average cost estimates in NPRM are the average cost per transit provider, they are more representative of the costs for the smaller providers, who are much more numerous, than for the large-medium to large providers. Thus, FTA agrees that costs for particular larger agencies may be higher, while, costs to smaller agencies may be lower, than the estimated average.

Tier I agencies range in size from agencies with revenue vehicles of over 101 to 10,000. Out of the 284 agencies in tier I, only twenty three have revenue vehicles greater than one thousand. As mentioned above, the average costs for tier I providers are more representative of the costs to the smaller tier I agencies. To illustrate this point, estimates are made for a large tier I agency, with 2500 vehicles and one with 500 vehicles. The quantified costs of implementing the rule are $234,477 for the larger agency and $109,312 for the smaller agency. The costs would approximately double if most of the tasks were contracted out.

However, for a more realistic comparison between the final rule's costs and the estimates cited by the commenters, FTA compared the costs for the specific agency providing the comment against the costs that would be predicted by FTA's model as used in the NPRM. For example, a State DOT commented that it has incurred $300,000 in upfront costs for asset management planning (performance gap analysis), significantly more than the average for tier I. FTA's cost estimate for this agency to implement the TAM rule is $99,000 in upfront costs. Many other agencies provided cost estimates ranging from $20,000 to $500,000. For these agencies, the NPRM upfront cost estimates ranged from $41,000 to $161,000. Another commenter noted that it could cost an agency between $4–5 million to undertake a full condition assessment based on TERM scales and other TAM requirements. For this agency the NPRM cost estimate is about $240,000 in upfront costs.

There are a number of reasons why the cost estimates in the NPRM are lower than the estimates provided by the commenters. First, the cost estimates in the NPRM were for the additional or incremental activities resulting from implementing the final rule. Adopting the requirements of the TAM rule will replace some existing practices and create new ones to better manage assets in a systematic way. In some instances, the TAM provisions may not add any new burden at all. Because the baseline compliance level is different across agencies, the final analysis does not estimate that every agency—or even every agency that is similar in size to the commenter's agency—will incur the same costs as identified by a particular commenter.

For instance, it is known that for the project with estimated costs of $4–5 million, a large component of the cost was for updating asset condition data that had been done previously using a new method. The cost estimate provided is therefore not an incremental cost of the rule. Also, it is noted elsewhere in this rule that FTA has not prescribed any specific condition assessment approaches or other analytical tools. So, if an organization decides to adopt an approach that is more expensive, it is their decision based on their need.

Second, the scope of the efforts for which commenters provided costs may be beyond what is required by this rule. For example, the document referenced by the State DOT commenter is referred to as 'performance gap analysis.' Performance management is generally more encompassing than asset management and particularly more than what is required in the TAM rule. Without additional information, it is hard to provide a realistic validation of these numbers.

Third, FTA acknowledges that its estimates are based on the data available in the NTD. It does not include all the assets owned or operated by an agency or even the ones required to be included in the TAM plan. Fourthly, FTA estimates assume the work is being done in-house with qualified staff available with the appropriate skills. This would result in significant underestimation if most of the work was contracted out. To address this issue the final rule includes a scenario for contracting out work tasks. The costs roughly double under

this scenario. This is presented as an upper bound cost (high case) and in-house as a lower bound cost (low case). The estimates presented above are for the in-house scenario (low case).

FINAL RULE:

No changes were made to the rule based on these comments. However, in consideration of other comments summarized below, changes have been made to the assumptions upon which the costs are estimated. These changes include additional asset inventory costs; the presentation of a high-cost case that assumes contractor support; modified personnel category, update of wage rates and additional IT costs.

COMMENTS: Regulatory Impact Analysis—Specific Task Costs

A commenter said FTA has underestimated the amount of labor hours needed for the continuous tracking and annual reporting process, particularly in the areas of vehicles and facilities. A transit operator said FTA underestimated the effort required for tier I providers in keeping large asset management datasets useful and coordinated. The commenter said FTA's estimate of 80 hours every 4 years should be at least 4 times that amount, equating to 80 hours per year. A transit operator also commented that creating a prioritized project list would require more time both initially and on an on-going basis to set criteria and score assets. A transit operator said an estimated 520 person-hours may be sufficient to update or enhance an existing decision support tool but not nearly enough for an agency that is implementing a new decision support tool. Several commenters said FTA should take into consideration that not all agencies have basic asset management software in place and, thus, will need additional time and resources to procure software. An individual commenter said software costs may be eligible for capital costs but the availability of capital costs are so limited that those funds are already allocated to the capital needs of the agency.

Several transit operators said it is not accurate to assume that a complete asset inventory (in the correct format) already exists as a baseline for every agency. These commenters explained that FTA's assumption that financial or property accounting systems may be used as asset inventories for TAM purposes is overstated. The commenters explained that the way this information is captured and reported would need to be modified to support TAM implementation and additional data elements would need to be collected. A transit operator said FTA's assumption that no incremental costs would result due to completion of asset inventories is not valid for commuter rail operators because currently only vehicle assets are included in the NTD report.

Another transit operator said using wage rates based on May 2013 Bureau of Labor Statistics data for urban transit systems significantly understates the cost associated with TAM implementation for services. A couple of commenters said FTA's average estimated cost for a tier I agency is understated. A State transit association said the assumption that an administrative support worker would develop the prioritized project list is probably incorrect. Similarly, a transit operator did not agree with the level of personnel that the FTA has assumed work on the prioritization of projects that is required of tier I providers. A medium to large size transit operator said the assumption of two staff members with the expertise necessary to assess the condition of all the equipment and subcomponents in one day seems optimistic.

A professional association and several State DOTs stated that the rule should take into consideration that transit agencies will likely be unable to implement the TAM requirements in-house, and would likely hire consultants. Similarly, several other commenters stated the rule would require transit agencies to add resources to comply with the new rules. A joint submission from several State DOTs said the regulations could divert scarce financial and personnel resources from investments that support transit service to regulatory compliance.

FTA'S RESPONSE: Regulatory Impact Analysis—Specific Task Costs

FTA agrees that existing inventory data may not be in the format required for the TAM provisions and may be dispersed in different databases. Therefore, additional costs for creating a single usable database are included in the final rule. Additional labor hours are added for the asset inventory task, which was previously assumed to be zero, to develop a TAM inventory database from disparate existing data systems. In response to comments received about employee responsibilities, FTA has also included costs for IT investments such as new software or other devices for recording information.

FTA agrees that some transit providers may use contract support versus in-house resources to develop their TAM plans and compliance. The final rule presents two sets of total costs, one assuming in-house plan development and another with contractor support. It is unknown what percentage of the plans would be in-house and what percent contracted out, so the cost of the rule is presented as a range. The results indicate the costs to contract development of the TAM plan are assumed to be double that of work performed in-house. FTA has updated the labor rates to use the latest year of data available in this final rule, which is the 2015 Bureau of Labor Statistics. In response to comments on the skill level of staff assumed for investment prioritization, FTA is using higher skilled personnel for the investment prioritization task in the final rule cost estimate.

FINAL RULE:

FTA made revisions to the Regulatory Impact Analysis and the Paperwork Reduction Act analysis of the final rule in response to these comments.

The following revisions are made to the final rule costs: The number of hours for asset inventory task is increased by 96 hours for the first 2 years and 36 hours thereafter for both tier I and tier II agencies; an additional cost of $5,000 per plan is now included for information technology to support TAM plan development; and the wage rate for the analytical processes and project prioritization task for tier II providers is increased from $23.04 to $41.98 to address the low personnel skill level comment. The average wage rate for the staff categories used in this rule has increased by about 2% on average since 2013, and costs estimates have been adjusted to account for the changes in wages in the final rule.

COMMENTS: Regulatory Impact Analysis—Other Assumptions

Regarding FTA's assumptions used for quantifying costs and benefits, a State DOT asserted that, while theory suggests best practices may yield cost benefits if employed, until the final rules are published, the cost and benefits will be unknown. Several commenters suggested that another non-quantifiable cost will be the time dedicated by managers who will need to attend asset management meetings as part of the coordination efforts throughout the year. Additionally, several commenters asserted that mechanics will need to be trained, which will improve efficiency for the agency, but will affect operating expenses. Another commenter stated that closer scrutiny should result in cost saving benefits but may require more staff time/resources in order to

implement the plan. Therefore, the commenter said any cost savings may be offset by a better state of good repair and less down time.

Several commenters responded about additional costs for States and MPOs in target setting beyond the coordination costs included in the planning rule. A State DOT said compliance with this rule may result in the need for additional staff or higher level of certification for mechanics. An MPO stated that targets are dependent on financial resources available during a particular time period, and that it is a challenging task for MPOs to coordinate transportation targets with fluctuating funding sources. Another MPO said MPOs, large and small, will need continued support and resources from Federal and State government to implement the new rules regarding transportation planning.

A transit operator said the rule does very little to mention or address operating costs which, over time, typically exceed original capital purchase cost. The commenter said this issue must be addressed along with capital asset investments.

A transit operator stated that if FTA provides the latitude that has been represented over the last few years in many presentations, then the cost has the potential to be within the limits proposed. However, if FTA mandates specific means of compliance, this commenter asserted that the cost would increase for those agencies that will need to modify existing processes that currently meet the intent of the legislation.

One commenter urged FTA to identify and seriously consider plausible alternatives, asserting that FTA did not provide any in the NPRM and where ANPRM commenters proposed alternatives, FTA's responses were inadequate. For example, this commenter asserted that there are conceivable ways to disaggregate safety and SGR from the way they were presented in the NPRM that would still be consistent with the statute.

A transit operator suggested that the analytical processes estimate may increase with implementation of a new SMS.

In response to FTA's request for any data that could assist in quantifying the costs or benefits of the rule, a State DOT said it could analyze rolling stock preventative maintenance costs of the past 2 years, beginning with baseline year of 2015 to determine a baseline and then adjust for inflation. However, these would all be projections and estimates, at best.

FTA'S RESPONSE: Regulatory Impact Analysis—Other Assumptions

FTA agrees that additional training for specialists, including mechanics, may be required to perform some of the tasks outlined in the final rule. Instead of adding additional resources for training, the revised cost estimates below include an estimate for contracting out the tasks for the TAM plan. So, rather than training agency staff, a transit agency can contract the services of a trained mechanic, or other skilled services, whichever is more cost effective. Since it is unknown which tasks may require skills unavailable at a transit agency, this rule presents a range of costs. The low cost case assumes in-house work and the higher cost case assumes that all tasks are contracted out.

FTA appreciates commenters who stated that the cost estimates are reasonable, providing the agencies latitude under TAM to develop their own practices, rather than being prescriptive. The goal of the TAM rule is not to be prescriptive, but allow agencies to develop practices that meet agency needs. Also, another commenter notes that the agencies will incur additional costs in implementing the TAM rule, but acknowledged that the benefits from improved asset management practice may cover these additional costs.

FTA believes that addressing operating costs is a separate issue from managing the assets and is not the subject of this rule. Operating costs are an optional consideration that transit providers may consider when developing their investment prioritization.

FTA agrees that the NPRM did not quantify other alternative approaches. However, alternative approaches were considered in developing the rule. As discussed in the NPRM, FTA developed a tiered approach that allows smaller operators to shift certain burdens of this rule to States. The TAM rule has not expanded on the requirements of the MAP–21 mandate, so an alternative was not considered to be essential. The TAM rule provides agencies significant discretion in choosing methods for data analysis, target setting and project selection.

The cost of applying SMS principles for the safety programs will be included in the appropriate rules—if such principles are adopted—and is not accounted for under this rule. The TAM NPRM assumed additional costs for coordination of group plans above what was estimated in the planning rule.

FINAL RULE:

There are no changes to the final rule as a result of these comments. However, other revisions were made to the analysis to conform with changes made to the final rule.

For example, the number of 49 U.S.C. 5310 subrecipients required to comply with the requirements of this rule is significantly reduced. Applicability changes that only public transportation providers must follow requirements led FTA to use information from a 2006 study from the University of Montana[17] in order to estimate the number of 5310 recipients likely to be effected by this rule. FTA reduced its estimate from 1700 affected in NPRM to 700 in the final rule. This change reduces the cost of inventory and asset condition assessment for the rule.

COMMENTS: Regulatory Flexibility Act

Some commenters provided input on the impacts of the rule to small entities. Several commenters stated that the rule's asset management requirements would be a burden to smaller transit providers and urged FTA to minimize the financial burden and allow flexibility so small operators can more easily comply (*e.g.,* minimal universal requirements that can be applied across all agencies). A tribal government expressed concern that the TAM rule requirements would have a profound effect on its transit program, which consists of only seven buses and no access to additional funding sources. An individual commenter suggested that FTA should define small entities as those entities that are not the certain large entities (which the commenter went on to list by name). A transit operator predicted that the additional cost of setup and continued maintenance would cost an additional 416 hours per year (8 hours per week) of staff time in order to meet the requirements set out by FTA.

Another commenter supported FTA's recognition of the disparate needs of the country's transit agencies and asserted that the proposal's accommodations for smaller agencies are practical and appropriate.

FTA'S RESPONSE: Regulatory Flexibility Act

The FTA accommodates the needs of the small providers by establishing a two-tiered approach that limits the number of TAM plan elements and

[17] *Allocation and Use of Section 5310 Funds in Urban and Rural America,* Tom Seekins, Alexandra Enders, Alison Pepper, and Stephen Sticka, Research and Training Center on Disability in Rural Communities of the Rural Institute, University of Montana

allows participation in group plans to leverage the administrative burden on small providers.

FINAL RULE:

No change has been made in the final rule in response to this comment.

COMMENTS: Paperwork Reduction Act

A transit operator agreed that performance targets are helpful for gauging progress, but expressed concern about the reporting burden FTA proposes to impose on transit agencies, and having this information be used to customize the focus of triennial reviews for individual agencies.

FTA'S RESPONSE: Paperwork Reduction Act

FTA agrees there is a reporting burden on transit agencies; these estimates of burden were included in the PRA section of the NPRM and are also included in this final rule estimates.

FINAL RULE:

No change has been made in the final rule due to these comments.

COMMENTS: Other Regulatory Analyses

A law firm on behalf of a tribal government stated that meaningful tribal consultation is required for this rulemaking and failure to do so can lead to arbitrary and capricious rulemaking. The commenter disagreed with the Administration's conclusion that the proposed rule will ''not have substantial direct effects'' on one or more Indian tribes or will not impose ''substantial direct compliance costs on Indian tribal governments.'' The commenter asserted that FTA has not yet engaged in any consultation specifically with tribal governments regarding the impact of the rule on tribal transit programs, the vast majority of which do not operate rail systems and receive only modest funding from the FTA. The commenter recommended that the final rule exempt Federally recognized Indian tribes and their transportation agencies from the definition of ''recipient'' under § 625.5 until such time as the FTA has undertaken meaningful consultation with tribes on this issue.

Asserting that the structure of the proposed TAM rule makes it impossible to review retrospectively due to a lack of defined baseline, a commenter recommended that FTA establish a baseline for the rule, *i.e.,* a current snapshot of asset management practices and the corresponding SGR of assets, which could take the form of an overall survey of asset quality sufficiently representative of transit agencies.

FTA'S RESPONSE: Other Regulatory Analyses

FTA appreciates the comments from tribal representatives and agrees that the final rule will have a substantial impact on tribes.

FTA believes that each of the four elements in a tier II plan is already a part of each transit provider's capital program. For example, in accordance with FTA's Grants Management Requirements Circular 5010.1D, those tribes that are direct recipients of FTA grants must demonstrate procedures for asset management and adequate maintenance of equipment and facilities and maintain an inventory of project property. In addition, FTA anticipates that tribes will coordinate with their State partners in the development of a group TAM plan. This rule does not impose a substantial direct effect on one or more Indian tribes, but merely establishes a framework to achieve and maintain a state of good repair by streamlining existing requirements and practices and supporting informed decision making.

Please also see the analyses of Executive Order 13175 for more specific information about FTAs approach to tribal outreach. FTA recognizes that developing an individual TAM plan, maintaining documentation and reporting requires that a TAM rule be flexible and scalable. This rule is scalable and flexible and provides several options to reduce the burden on small providers, including American Indian tribes.

The baseline for the analysis was developed using current reports published by GAO, FTA and TCRP, and input from five transit agencies interviewed by FTA. SGR baseline is based on current data submitted to NTD. Given the large number of transit agencies, it would be a challenge to develop an exact baseline for the industry to be covered by the rule under the current PRA regulations.

B. Final Rule Analyses and Notices

Executive Order 12866 and 13563; USDOT Regulatory Policies and Procedures

Executive Orders 12866 and 13563 direct Federal agencies to assess all costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits—including potential economic, environmental, public health and safety effects, distributive impacts, and equity. Also, Executive Order 13563 emphasizes the importance of quantifying both costs and benefits, reducing costs, harmonizing rules, and promoting flexibility.

FTA has examined the potential economic impacts of this rulemaking and has determined that this rulemaking is likely to be economically significant, in that it may lead to transit providers making investment and prioritization decisions that would result in economic impacts that could exceed $100 million in a year. However, as discussed in greater detail below, FTA was unable to quantify the potential impacts of this rule beyond the costs for transit agencies to assess their assets, develop TAM plans, and report certain information to FTA. Most significantly, due to lack of information about how and the extent to which agencies will change their asset maintenance, rehabilitation and replacement plans and practices in response to this rule, FTA was unable to estimate costs or benefits for additional asset maintenance, rehabilitation or replacement.

The Need for Federal Regulatory Action

In 2014, the number of transit trips exceeded 10 billion for the 8th year in a row. APTA,[18] the 10.7 billion public transportation trips taken in 2014 represented the highest ridership level for transit since 1956. There is reason to believe that this is just the beginning of a sustained period of growing demand for public transportation. Moreover, factors such as the migration of people to urban areas, an aging population that will rely heavily on public transportation and a retiring transit maintenance workforce will further increase demands on existing public transportation systems. While this will increase revenues for the transit agencies, there will be an increased need for funds for maintenance and expansion of the system to meet the growth in demand. Given existing fiscal constraints, it is unlikely that the Nation's SGR backlog can be addressed through increased spending alone. Rather, a systematic approach is needed to ensure that existing funding resources are strategically managed to target the SGR backlog and meet the increased demand for transit.

MAP–21 fundamentally shifted the focus of Federal investment in transit to emphasize the need to maintain, rehabilitate, and replace existing transit investments. The ability of FTA grant recipients, along with States and MPOs, to both set meaningful transit SGR performance targets and to achieve

[18] *http://www.apta.com/resources/statistics/Documents/FactBook/2016-APTA-Fact-Book-Appendix-A.pdf.*

those targets is critically dependent upon the ability of all parties to work together to prioritize the funding of SGR projects from existing funding sources. Although the new SGR Grant Program for fixed-guideway systems and for fixed-route bus systems operating on high-occupancy vehicle (HOV) lanes will also be an essential component of this process, the SGR grants alone will not be enough to address the backlog. The FAST Act increased appropriations to this program, but funding increases by any one source to any one program will not be enough to fully address the financial needs. In these financially constrained times, transit agencies will need to be more strategic in the use of all available funds. The various components of this new National TAM System would work together to ensure that state of good repair becomes and remains a top priority for transit providers, as well as States and MPOs. Together, these elements will assist FTA and the transit industry in justifying SGR investments, both for securing new funding resources and for prioritizing SGR investments with existing funding sources.

Congressional Mandate and Legal Authority

Section 20019 of MAP–21, amended Federal transit law by adding a new section 5326 to Chapter 53 of title 49 of the United States Code (section 5326). The provisions of section 5326 require the Secretary of Transportation to establish and implement a National TAM System which defines the term ''state of good repair;'' requires that all recipients and subrecipients under Chapter 53 develop a TAM plan, which would include an asset inventory, an assessment of the condition of those assets, decision support tools, and investment prioritization; establishes annual reporting requirements; and mandates that FTA provide technical assistance to Chapter 53 recipients and sub-recipients, including an analytical process or decision support tool that allows for the estimation of capital asset needs and assists with investment prioritization. 49 U.S.C. 5326(b). In addition, section 5326 requires the Secretary to establish SGR performance measures, and recipients are required to set performance targets based on the measures. 49 U.S.C. 5326(c)(1) and (2). Furthermore, each designated recipient must submit an annual report to the Secretary on the condition of their recipients' public transportation systems and include a description of any change in condition since the last report. (49 U.S.C. 5326(b)(3). Each designated recipient must submit also an annual report to the Secretary which describes its recipients' progress towards meeting performance targets established during that fiscal year and a description of the recipients' performance targets for the subsequent fiscal year. (49 U.S.C. 5326(c)(3)).[19]

Identification of Available Alternative Approaches

For the purposes of the analysis below, the costs and benefits of the rule are compared against the base case of existing practice. During the development of the rule, FTA considered various alternative approaches to ensure that the rule remained scalable and flexible enough for different types of transit modes and operating environments. As detailed in Section II of this document, FTA issued an advance notice of proposed rulemaking (ANPRM) and a notice of proposed rulemaking (NPRM) to get feedback from the transit industry and other stakeholders on specific questions relevant to developing the final rule.

For instance, transit providers are classified into two tiers, based on the number of vehicles operated in revenue service and the mode. A tier I provider owns, operates, or manages (1) a rail transit mode or (2) more than one hundred one revenue vehicles. A tier II provider owns, operates, or manages less than one hundred revenue vehicles, or is a rural subrecipient under 49 U.S.C. 5311, or is an American Indian tribe, and is a provider that has no rail fixed-guideway. A tier II provider's TAM plan would be required to include only elements 1 through 4 outlined in § 625.25(b), instead of all nine elements required for tier I providers. Moreover, most tier II providers are eligible to participate in a group TAM plan which would reduce the burden on the provider of developing an individual TAM plan.

FTA considered several definitions for state of good repair before selecting the definition in the rule. FTA believes that the proposed performance measures have the most potential for use by transit providers in estimating the performance of their system, while imposing the least burden for extensive data collection and calculation of measures. Transit providers have the option of using additional performance measures, in particular, for assets for which FTA did not establish performance measures.

As discussed in the NPRM, for example, FTA considered alternatives submitted by commenters that would have limited the asset inventory to rolling stock; however, FTA elected to include rolling stock, equipment, infrastructure and facilities because these other asset categories are important components of transit service and were specifically included in the MAP–21 mandate (49 U.S.C. 5326(b)(1)).

In response to the comments to the NPRM, FTA further reconsidered the choice of which assets to include in the TAM plan, considering the potential costs and benefits. Many commenters expressed concern about the inclusion of third party assets in the TAM plan, arguing that it would be difficult to implement and may prove to be overly burdensome and costly. In consideration of these comments, this final rule requires that only those vehicles, passenger stations, exclusive use maintenance facilities, and guideway infrastructure used in the provision of transit service be included in a transit providers asset inventory, including those vehicles, facilities, and guideway infrastructure that are owned, operated, or maintained by a third-party or were procured jointly. Equipment owned, operated, or maintained by a third-party need not be inventoried under this final rule.

FTA does not believe that it will be overly burdensome for a transit provider to include third-party owned vehicles, facilities, and guideway infrastructure in its asset inventory. Transit providers are already required to include detailed information on third-party vehicles and third-party guideway infrastructure in the NTD, and so already have access to this information for their asset inventory. Expanding asset inventories to include third-party passenger facilities is important, as it will provide valuable information on the total number, size, and scope of facilities in the transit industry, which is an important contributor to state of good repair needs. The inclusion of a broad set of assets into the inventory is intended to provide funding decision makers with a full picture of their system and an opportunity to think proactively and long term about investment priorities for state of good repair.

FTA recognizes the challenge of providing asset condition for assets the agencies have no capital responsibility for. This could be burdensome and of

[19] The term ''designated recipient'' is defined in statute as ''(A) an entity designated, in accordance with the planning process under sections 5303 and 5304, by the Governor of a State, responsible local officials, and publicly owned operators of public transportation, to receive and apportion amounts under section 5336 to urbanized areas of $200,000 or more in population; or (B) a State or regional authority, if the authority is responsible under the laws of a State for a capital project and for financing and directly providing public transportation.'' 49 U.S.C. 5302(4).

little value to FTA or the transit agencies as they are not responsible for the capital expenditures for these assets. So, the final rule only requires a transit provider to conduct condition assessments, establish performance targets, and include in its investment prioritization, those capital assets (vehicles, passenger facilities, exclusive-use maintenance facilities and guideway infrastructure) that it has direct capital responsibility for.

Estimated Costs and Benefits

FTA's estimates of the costs of the rule are based on current industry practices, and responses to the NPRM from the industry. There is no data on the cost of the current practice in the industry. The section below outlines the current practice based on studies available. FTA used information from the studies to estimate the incremental costs that transit providers likely would incur to implement the rule. FTA did not estimate the benefits of this rule. Instead, FTA conducted a threshold analysis based on a portion of the rule's costs—specifically those that FTA was able to monetize.

Baseline

There is no single comprehensive source of information on the existing level of compliance with this rule. Most of the roughly two dozen transit providers that have been profiled in existing reports already conduct some or all of the transit asset management activities that would be required under the rule, and this analysis attempts to consider that baseline as the starting point for identifying the incremental costs and benefits of the rule. The transit providers that were profiled in the reports, though, are not a representative sample of the whole transit industry. In general, they represent the large and medium sized urban transit agencies that would fall into tier I.

- The Government Accountability Office (GAO), Transit Asset Management (GAO–13–571) [20] studied nine agencies, which had transit asset management practices with varying levels of sophistication, along with a group of ''leaders'' in asset management. Overall, GAO found in its case study discussions that all agencies had at least some process for tracking assets and making investment decisions, but many faced challenges with collecting asset-condition data, analyzing performance, and making prioritization decisions in a systematic way. These challenges included a lack of funding, managing staff resources and change in general, and integrating processes such as ranking capital projects with established criteria. In addition, only two of these nine agencies specifically tracked the impact of their capital investment projects on their assets' conditions. However, at least four agencies did track the impacts on service reliability and on-time performance.
- FTA's 2009 Rail Modernization Study [21] Report to Congress examined seven of the nation's largest rail systems. The study found that of the seven agencies examined, all had asset inventory data, but only three had comprehensively updated asset condition data (namely, New York City Transit, Metro-North Railroad, and Long Island Rail Road). Experience with using decision support tools and objective investment prioritization was limited. Only one transit provider, the Massachusetts Bay Transportation Authority, used a decision tool. Prioritization decisions were based on mission critical, safety, coordination on line segment maintenance and maintenance of historical funding levels.
- A 2010 report from FTA, ''Transit Asset Management Practices: A National and International Review,'' [22] presents case studies from around the United States. In this report, FTA found that all fourteen of the US agencies studied had asset inventory data and an inspection program, although this was not always systematic; for example, information on asset condition or defects was not typically rolled up into an overall asset condition metric. Vehicles and track tended to have the best coverage. Most agencies had at least some strategies, performance measures, and maintenance policies, though agencies' project selection and other decision support tools were often separate from the system used to track asset inventory and condition.
- Transit Cooperative Research Program Report 92, Transit Asset Condition Report: A Synthesis of Transit Practice,[23] notes that large agencies generally have asset-tracking databases, but that many agencies maintain separate equipment rosters that are independent from the mainstream planning, programming and budgeting processes. Most large agencies determine asset condition through age and inspection, and generally do not use asset-condition data to set investment priorities for capital programming.
- FTA's Report to Congress on the State of Good Repair Initiative (2011) [24] stated that only two of the twenty-three agencies contacted were using an objective, multi-factor project- scoring process to help rank and prioritize their investment needs. The report also provided information on FTA's programs in this area, including SGR grants made to transit agencies to implement or enhance a transit asset management system.

Overall, the available literature on current practices suggests that there is room for improvement in transit providers' asset management practices. A handful of leaders in the field, including roughly a dozen agencies that have been profiled by FTA or GAO reports, have implemented sophisticated decision-support systems and integrated transit asset management principles into their planning and operations, with associated ''agency culture'' changes to encourage collaboration across departments.[25] However, at most other agencies, both large and small, some elements of transit asset management are in place, such as asset inventories, periodic condition assessments, and/or performance measures, but they have not been integrated into a comprehensive system to support data-driven decision-making and project prioritization, much less to trace impacts on ridership, service quality, life-cycle costs, safety and other outcomes. This rulemaking attempts to address that gap by establishing a framework for a National TAM System.

Definition and Evaluation of the Benefits and Costs

For estimating the incremental costs, FTA assumes that most agencies have already incorporated some elements of asset management into their practice. FTA made this assumption using findings from the literature on the state of the practice, comments received on the ANPRM and NPRM, and a limited number of case study interviews. As such, the incremental cost of some activities is likely to be minimal, as agencies move away from their old practices and adopt new ones. Smaller agencies are less likely to have full-fledged asset management systems, but

[20] *http://www.gao.gov/assets/660/655837.pdf.*

[21] *http://www.fta.dot.gov/documents/Rail_Mod_Final_Report_4-27-09.pdf.*

[22] *https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/TAM_A_National_and_International_Review_-_6.10_FINAL_0.pdf.*

[23] *http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_syn_92.pdf.*

[24] *http://www.fta.dot.gov/documents/SGR_Report_to_Congress_12-12-11_Final.pdf.*

[25] These initiatives are described as cost-effective in the literature, but there is very little quantitative information about the outcomes associated with these programs, because they have generally not had independent evaluation.

many of their TAM requirements are already standard practice, such as keeping an inventory of assets and tracking vehicle ages.

Costs are estimated for an average transit provider or asset-type. This is a challenge since it is hard to define an average for an industry that is very diverse, ranging from agencies with thousands of vehicles, multiple modes and many facilities to an operator with a few buses. Some of this has been addressed by estimating costs by tiers defined above. In addition, agencies may be at different stages of asset management practice. The estimates presented below are therefore very difficult to apply to any particular provider.

Costs are estimated using both FTA records such as NTD data and Bureau of Labor Statistics wage data as detailed more specifically in the sections below. To supplement the information available from existing studies, follow-up telephone interviews were conducted with four agencies that received funding through FTA-sponsored pilot programs for TAM initiatives.[26] Although the interviews did not directly address the proposed rule, interviewees' experiences with transit asset management programs provided background on transit provider impacts and helped to gauge the reasonableness of FTA's assumptions for development of a TAM plan and related activities. This very limited set must be regarded as a non-representative sample and merely illustrative of the types of impacts that TAM programs can have.

FTA has limited data on current practices and the costs associated with asset management activities, such as condition assessment, because TAM is a relatively new practice and requirement for transit agencies. FTA made assumptions in order to estimate costs based on the information available. There is also little in the academic literature on quantified benefits or costs for asset management programs for transit agencies.

Another key limitation of the analysis is that FTA has data only on certain asset categories, such as revenue vehicles, stations, maintenance facilities, and guideway miles. As a result, FTA's cost estimation process could not include non-revenue vehicles, or parking facilities and equipment that are not associated with a station or facility.

[26] North Dakota DOT, Long Beach Transit (CA), Sound Transit (WA), and Valley Regional Transit (ID).

The analysis takes a societal perspective, including benefits and costs regardless of to whom they accrue. FTA estimates the initial costs (*i.e.* ''upfront'' or ''non-recurring'') and recurring costs at different intervals. Future costs are estimated to reflect the time value of money, using a 7% discount rate (with 3% sensitivity case) and a base year of 2015.

Costs to Transit Providers To Implement the Requirements of the National TAM System

The costs of the rule are estimated using an incremental approach. The costs of the rule are defined as the costs of the required asset management activities *over and above* the baseline of current industry practices. Cost items include: the development and implementation of the TAM plan; coordination with group TAM plan sponsors; documentation, recordkeeping and reporting. While no specific training is required for most transit employees, at least one commenter noted that there may be additional training costs, or alternatively that contractor support would be needed. In the analysis below, that is presented as a high-cost case with contractor cost rates.

TAM implementation could also help agencies make more cost-effective investment choices with respect to asset maintenance, rehabilitation, and replacement, but FTA was not able to estimate the benefits and costs of those follow-on actions due to limited information. Of the cost items that were monetized, the specific cost estimates primarily reflect staff labor hours in the lower cost scenario and contractor support in the higher cost scenario. The costs of the TAM plan are estimated based on the costs of each component, including asset inventories, condition assessments, project lists, performance metrics, and targets.

The TAM final rule does not require transit providers to use any particular technology or software system. FTA has emphasized that transit agencies could use something as simple as an Excel spreadsheet to comply with the requirement for a multi-factor prioritization process. Some transit agencies may choose to engage consultants, purchase commercial software, or pursue other approaches that they find more cost-effective. In addition, some commercial software packages provide more sophisticated systems that integrate transit asset information with other modules, such as scheduling and crew assignment, or provide other functionalities. These packages go beyond what is required by the rule, so their costs are not necessarily indicative of the actual costs of the rule.

The overall approach in the subsections below is to estimate the labor-hours required for each TAM task and to multiply by an appropriate wage rate to generate the total cost. The labor-hour estimates are based on findings from the limited literature on transit asset management, expert judgment from FTA staff on the approximate level-of-effort required, the information from the four transit provider interviews, and information from public comments to the NPRM. In some cases, it was possible to cross-check the totals that would result from these assumed cost levels against agencies' actual expenditures on asset management programs, such as those funded through the SGR grant amounts or recent contract awards. These comparisons are discussed in more detail below.

Wage rates for transit provider labor hours are based on May 2015 Bureau of Labor Statistics (BLS) data for urban transit systems and interurban and rural bus transportation.[27] In response to comment, FTA adjusted the hourly wage rates to account for employee benefits.[28] Table 2 below describes the wage rates used and the TAM plan activities to which they relate. For simplicity, FTA applied the urban wage rates to tier I providers and rural rates to tier II providers. FTA received several comments in response to the NPRM noting that transit providers may be more likely to use contractor support to develop their TAM systems than in-house labor, and that costs would be higher in those cases. To address this comment, FTA developed a higher-cost case that assumes contractor support at costs that were roughly two times the fully loaded in-house costs as detailed above.[29] The number of hours per task

[27] *http://www.bls.gov/oes/current/naics3_485000.htm. http://www.bls.gov/oes/current/naics3_485000.htm.*

[28] Bureau of Labor Statistics News Release. Employer Costs for Employee Compensation—September 2014. Table 3, Service-providing industry group. *http://www.bls.gov/news.release/pdf/ecec.pdf.* BLS data show wages as 64.1% of total compensation, with benefits at 35.9%. Therefore, employees' wages are factored by 1.56 (100/64.1) to account for employer provided benefits.

[29] This cost factor was based on two sources of information. Federal Highway Administration collected data on the cost of developing highway asset management plans from 9 States, with preliminary findings showing the contractor support to cost in the range of 1.5 to 1.6 times as much as in-house efforts. A 2013 research report from the Project on Government Oversight study, while focused on the Federal government rather than state and local agencies, found that contractors were paid 1.8 times more than federal employees for similar work. *www.pogo.org/our-work/reports/2011/co-gp-20110913.html#Executive Summary.*

was assumed to be constant, as were IT costs.

TABLE 2—SUMMARY OF TRANSIT INDUSTRY WAGE RATES AND FRINGE BENEFITS FOR TAM ACTIVITIES

Title	Wage rate	Loaded wage rate	Relevant TAM activities
Urban Transit Systems (NAICS 485100)			
General and Operations Manager	$55.86	$87.14	Plan Strategy, Performance Measures and Targets, Data and Narrative Reporting to NTD.
Operations Specialties Manager	44.64	69.64	Asset Condition Assessment.
Business Operations Specialists	30.74	47.95	Data and Narrative Reporting to NTD.
Buyers and Purchasing Agents	28.94	45.15	Asset Condition Assessment, Analytical Processes, Prioritized Project List.
Installation, Maintenance, and Repair Occupations	24.14	37.66	Asset Condition Assessment.
Interurban and Rural Bus Transportation Systems (NAICS 485200)			
General and Operations Manager	49.35	76.99	Performance Measures and Targets, Data and Narrative Reporting to NTD.
Business Operations Specialists	26.91	41.98	Data and Narrative Reporting to NTD.
Other Office and Administrative Support Workers	13.85	21.61	Asset Condition Assessment, Analytical Processes, Prioritized Project List.
Installation, Maintenance, and Repair Occupations	22.82	35.60	Asset Condition Assessment.

Using NTD submissions and other information, FTA estimated that there are approximately 284 tier I providers and 2,714 tier II providers. These totals include subrecipients, as well as public transportation providers that are receiving 49 U.S.C. 5310 formula grant funding, and subject to this rule, but that do not currently report to the NTD.

For calculation purposes, FTA assumes, based on knowledge of the industry and the requirements of this final rule, that tier I providers and tier II direct recipient providers would develop their own TAM plans, while tier II subrecipient providers, which tend to be much smaller organizations, would participate in a group TAM plan. Participating in a group plan minimizes the burden and costs to small providers of transit services and transfers it to States.

FTA estimated the number of group TAM plans that would be developed for these subrecipients based on existing funding and reporting relationships. Specifically, it was assumed: That the 120 recipients of section 5307 funding would be covered by 10 group TAM plans; that the estimated 700 subrecipients of section 5310 funding would be covered by 200 group TAM plans; and that the 1,300 rural subrecipients of section 5311 funding and 104 American Indian tribes would be covered by 54 Group TAM plans by State DOTs or an equivalent entity. This yields an estimated total of 264 group TAM plans.

The table below shows the number of agencies impacted by the rule and also provides other relevant figures by tier based on our estimates and the 2013 NTD data.

TABLE 3—NUMBER OF AGENCIES, PLANS AND ASSETS BY TIER (2013) [30]

		Tier I agencies	Tier II agencies
	Number of Agencies	284	2,714
	Number of TAM Plans		
	Individual	284	490
	Group Plans	0	264
MAP–21 Asset Category	Number of Assets by Type		
Rolling Stock	Revenue Vehicles	116,472	62,858
Infrastructure	Way Mileage (Track)	12,746	0
	Bridges, Tunnels, & Transitions	2,563	0
Facilities	Rail & Bus Stations	4,195	822
	Maintenance Facilities	1,068	1,367
	Administrative Buildings and Parking Facilities (not part of a Station or Maintenance Facility).	Unknown	Unknown

[30] Source: National Transit Database, FTA, 2013 (This is the latest year for which data is available).

TABLE 3—NUMBER OF AGENCIES, PLANS AND ASSETS BY TIER (2013) [30]—Continued

		Tier I agencies	Tier II agencies
Equipment	Non-Revenue Vehicles [31]	Unknown	Unknown
	Equipment	Unknown	Unknown

(1) Asset Inventory

Under the final rule, transit providers are required to complete an inventory of their capital assets. The inventory needs to provide accessible, consistent, and comprehensive information about the state of good repair of a transit provider's capital assets. Depending on the provider's size, this information includes number of revenue vehicles, number of stations, number of facilities, number of equipment, and mileage of track as shown in appendix C.[32]

Based on knowledge of the transit industry and information from the transit provider interviews, FTA understands that almost all agencies have a basic inventory of assets that is used for accounting and audit purposes. This supports the intuitive conclusion that transit agencies know what assets they have. These inventories will likely be updated as new assets are purchased and others are depreciated or retired, even in the absence of the rule. Therefore, incremental costs for the asset inventory should be relatively minor. However, several agencies noted in response to the NPRM that existing asset inventories may not be in a format this is usable for TAM, and that there may be staff time and costs required for converting the inventory data to the new format and/or gathering information on non-owned assets (to the extent that they are covered by TAM).[33] For cost estimation purposes, it is assumed that each TAM plan (tier I plan, tier II individual plan, and tier II group plan) will require 96 hours of staff time in the first year, and 36 hours of staff time each year thereafter, to re-format agency asset data into a format that is usable for TAM. For tier I agencies, this labor is estimated at the rate for a purchasing agent ($45.15 per hour including benefits). For tier II agencies, labor costs are estimated using a business operations specialist ($41.98 per hour including benefits). Total costs for the asset inventory are summarized below.

The table below represents the calculations described above for tiers I and II as the low case. The high case was calculated in the same manner with the exception that labor costs were doubled as described above.

TABLE 4—INITIAL AND RECURRING COSTS FOR ASSET INVENTORY

Agency size	Low case		High case	
	Initial 2-year period	Annually recurring	Initial 2-year period	Annually recurring
Tier I	$1,229,246	$460,967	$2,458,492	$921,935
Tier II	3,038,651	1,139,494	6,077,303	2,278,989
Total	4,267,898	1,600,462	8,535,795	3,200,923

(2) Asset Condition Assessment

Under the final rule, transit providers are required to complete an assessment of capital assets for which they have direct financial responsibility. The assessment must include sufficient information to monitor and predict the performance of each capital asset identified in the asset inventory. Additionally, the process must identify unacceptable safety risks related to the condition of the capital assets. The assessment should also be used when prioritizing investments for transit asset management. While many transit providers already perform these assessments, at least for certain asset types, it is likely that additional effort will be required to meet the standards of the rule.

Estimates of the time required for assessment will vary by asset category. FTA's estimates of the time to assess particular assets are listed below. These estimates are based on FTA's experience with the asset assessment in the transit industry, including unpublished results from a pilot study.

For revenue and service vehicles, the rule calls for an age-based assessment for purposes of setting performance targets. Transit providers generally already have records of their vehicles' ages and many are already required to report this information to the NTD. To be conservative, however, FTA assumes that this information may be in a different format or database and/or require additional effort to be brought into the asset management system. For estimation purposes, FTA assumes that approximately 30 minutes per vehicle would be required. As noted above, one data limitation is that no information was available through NTD on non-revenue vehicles, but FTA does not expect this to have much impact on the overall total, as the number of service vehicles is presumed to be much smaller than the number of revenue vehicles, which is known. Nonetheless, FTA is including non-revenue vehicles in TAM because they are capital assets that can affect transit service quality, for example through maintenance calls and incident response.

For facilities, the rule calls for a condition-based assessment for purposes of setting performance targets. Costs per passenger station are estimated based on two staff members, each working a half day, for a total of eight hours per station. For maintenance facilities, costs are estimated based on two staff members working a full day, for a total of 16 hours per facility. FTA assumes that equipment and parking facilities that are part of stations or maintenance facilities would be part of the assessment for that station or maintenance facility. FTA does not have separate data on equipment,

[31] The table only includes assets reported to the NTD; therefore, it does not does not include non-revenue vehicles or equipment assets.

[32] *http://www.ntdprogram.gov/ntdprogram/assetInventory.htm.*

[33] Non-owned assets would need to be included in the asset inventory if the agency uses them for providing transit service. Asset condition assessment is only required for assets that an agency has direct capital responsibility.

administrative buildings or parking facilities. These are rough averages that reflect the wide range of assets in this category. For example, a downtown subway station may contain multiple platforms, exits, and passageways, whereas an outlying commuter railroad station may consist of little more than a platform and a shelter. It is also possible for equipment to be located at administrative facilities or parking facilities that are not reflected in these totals, though FTA believes that to constitute a small share of transit agency equipment or total facilities.

For infrastructure way mileage (*e.g.,* railroad tracks or separated BRT guideways), the rule calls for a performance-based assessment for purposes of setting performance targets. Transit providers already have some performance-related information such as speed restrictions, but again FTA assumes that some additional effort would be required to prepare this information in a way that is consistent with the rule. For estimation purposes, FTA assumes that this would require roughly 30 minutes per mile of way. However, under special circumstances such as for subway tunnels, elevated structures, and the transitions from ground level to these areas, additional time may be necessary to assess the performance and also determine the structural or tunnel integrity. In these cases, FTA assumes that this would require roughly 1 hour per mile of way.

For equipment, the rule calls for an age-based assessment for purposes of setting performance targets. Equipment is defined as an article of nonexpendable, tangible property having a useful life of at least one year. FTA lacks specific information about transit providers' ownership of equipment, this final rule clarifies that asset equipment inventory does not include third party equipment, or owned equipment under $50,000. As a result, the total size of this asset class is not known, and the cost estimates do not include TAM costs associated with equipment. In addition, FTA does not have data on the extent to which condition assessments are already routinely undertaken for these equipment assets. However, FTA believes that most equipment will be located within maintenance facilities and passenger stations, or along rail guideways, and thus the costs of condition assessments for equipment would often be included in the condition assessments for those facilities, stations, or guideways. Even in cases where they are not, the condition assessment for these assets should be relatively simple, as the rule requires only a simple, age-based assessment.

FTA assumes that the asset condition assessment would need to be performed as part of the initial plan development, and would also need to be repeated periodically in order to fully implement the other provisions, notably investment prioritization, performance measures, and reporting requirements. FTA assumes that assessments for revenue vehicles, equipment and guideway infrastructure are repeated on an annual basis, while passenger stations and exclusive use maintenance facilities are assessed every three years.

Following, is a detailed accounting of incremental costs by provider type.

Tier I Providers

Based on 2013 NTD data, tier I providers operate a total of 116,472 revenue vehicles, 4,195 stations, 1,068 maintenance facilities, 12,746 miles of standard track, and 2,563 miles of track within subway tunnels or on elevated structures (including transitions). These assets would be tracked or inspected by various employees at the transit provider. It is likely that the age-based assessment of the vehicles would be conducted by a buying or purchasing agent at a loaded wage rate of $45.15, the condition-based station and maintenance facility assessment would be conducted by an installation or maintenance repair worker at a loaded wage rate of $37.66, and the performance-based way mileage, elevated structure, and tunnel assessment would be conducted by an operations specialties manager at a loaded wage rate of $69.64. Multiplying the number of assets, by the corresponding time requirement described above, and by the corresponding wage rate leads to a total initial cost of $5.16 million. Thus, FTA's analysis finds that, on average, each tier I agency would incur an initial cost of just over $18,000 (low case) to just over $36,000 (high case) to comply with this rule's requirements for asset condition assessments.

FTA assumes that the vehicles and way mileage, elevated structures, and tunnels would be assessed annually at a total annual cost of approximately $3.25 million and the stations and maintenance facilities would be assessed triennially at a tri-annual cost of approximately $1.91 million.

Tier II Providers

Based on 2013 NTD data and our approximations for non-reporting providers, the tier II providers operate a total of 62,858 vehicles,[34] 822 stations, 1,367 maintenance facilities, and 0 miles of way mileage.[35] These assets would be tracked or inspected by various different employees of the transit provider. It is likely that the age-based assessment of the vehicles would be conducted by an office or administrative support worker at a loaded wage rate of $21.61, and the condition-based station and maintenance facility assessment would be conducted by an installation or maintenance repair worker at a loaded wage rate of $35.60. Multiplying the number of assets, by the corresponding time requirement described above, and by the corresponding wage rate leads to a total initial cost of $1.70 million.

FTA assumes that vehicles' age-based assessments would be updated annually at a total annual cost of approximately $0.68 million and the stations and maintenance facilitates would be assessed triennially at a tri-annual cost of approximately $1.01 million.

The table below represents the calculations described above for tiers I and II as the low case. The high case was calculated in the same manner with the exception that labor costs were doubled as described above. Thus, FTA's analysis finds that, on average, each tier II agency would incur an initial cost of just over $623 (low case) to $1,247 (high case) to comply with this rule's requirements for asset condition assessments.

[34] This includes the vehicle count from NTD, plus an estimated 21,000 vehicles for the roughly 700 section 5310 subrecipients who do not submit any vehicle counts or other asset data to NTD.

[35] Rural transit agencies do not submit annual reporting on their miles of right-of-way. These rural agencies typically operate buses and paratransit vehicles on public streets and generally do not own any rail systems or other transit rights-of-way. There may be a small number of exceptions that are not accounted for in this section due to the data limitation.

TABLE 5—INITIAL AND RECURRING COSTS FOR THE ASSET ASSESSMENT

	Low case			High case		
	Initial 2-year period	Annual recurring	Triennial recurring	Initial 2-year period	Annual recurring	Triennial recurring
Tier I	$5,158,711	$3,251,448	$1,907,262	$10,317,422	$6,502,897	$3,814,525
Tier II	1,691,781	679,055	1,012,726	3,383,562	1,358,110	2,025,452
Total	6,850,492	3,930,503	2,919,988	13,700,984	7,861,007	5,839,977

(3) Analytical Processes

Under the final rule, transit providers are required to present a list of analytical processes or decision-support tools that allow for capital investment needs to be estimated over time and to assist with capital asset investment prioritization. No specific format or software is mandated, but certain capabilities are required. The investment prioritization plan must identify each asset within the asset inventory that is included within an investment project over the timeframe of the TAM plan. Projects must be ranked in order of priority and the year in which they are expected to be carried out. The prioritization must account for SGR policies and strategies, as well as funding levels and the value of needed investments.

GAO's review of existing practices indicated that, at least among larger transit providers, staff already conduct some form of this analysis when making investment decisions, but to varying degrees and not necessarily in a way that conforms to the proposed requirements. Smaller transit providers may have less in the way of formal analytical tools for prioritizing projects and for incorporating asset condition information into this process. Estimates for this component generally assume that larger agencies would be expanding and strengthening their existing activities, while smaller agencies may be essentially starting from scratch or from more informal processes.

Transit providers have a number of options for developing a system that would satisfy the proposed requirements of the TAM plan. Some may choose to purchase commercial software specifically designed for enterprise asset management; these can include packages that combine asset management with software tools for other functions, such as maintenance and scheduling. Others may develop their own tools in-house, for example using a custom Excel workbook to incorporate asset-condition information and other asset-management considerations into project prioritization. The in-house development option is used here for cost-estimation purposes, though some providers may find it more cost-effective to purchase software.

There are also free and low-cost software packages available for agencies to adapt to their needs, including the TERM-Lite tool from FTA, available free of charge. The TCRP also has a free tool composed of four spreadsheet models entitled the Transit Asset Prioritization Tool (TAPT). This tool ''is designed to assist transit agencies in predicting the future conditions of their assets, and in prioritizing asset rehabilitation and replacement.'' [36] Such a tool would be particularly useful for smaller providers.

The following, is a detailed accounting of incremental costs by provider type.

Tier I Providers

The resources required to implement the analytical processes would vary significantly across transit providers, based on the size and complexity of their asset portfolios and the strength of their current practices. As an overall average based on interviews and past pilot projects, FTA estimates that a transit provider would spend the equivalent of 520 person-hours for strengthening its analytical and decision-support tools and processes (or alternatively, purchasing or learning a ready-made software tool for an equivalent sum). FTA assumes that this task would be completed by the aforementioned buyer or purchasing agent at a loaded wage rate of $45.15. Multiplying the hours required, by the number of transit providers, by the wage rate leads to a total initial cost of $6.66 million.

Once the initial investment is made in the analytical and decision-support tools and processes, maintaining and updating those processes is estimated to take the equivalent of 208 hours per year on average. The same buyer or purchasing agent is assumed to conduct these recurring updates at the $45.15 wage rate. Multiplying the recurring hours required, by the number of agencies, by the wage rate leads to a total recurring cost of $2.66 million.

Tier II Providers

Tier II providers have smaller vehicle fleets and no rail fixed-guideway service, removing some of the complexities in project prioritization that tier I providers face, but they also tend to have fewer existing formal processes in this area. In order to implement the analytical processes, FTA estimates that providers would spend the equivalent of 520 person-hours on average developing their analytical and decision-support tools or processes (or alternatively, purchasing or learning a ready-made software tool for an equivalent sum) for each individual TAM plan or group TAM plan. FTA assumes this task would be completed by a business operations specialist at a loaded wage rate of $41.98. Multiplying the hours required, by the estimated number of individual and group plans created, by the wage rate leads to a total initial cost of $16.46 million.

Once the initial system investment is made, maintaining and updating the analytical processes is estimated to take the equivalent of 104 hours per year. This is half of the assumed time needed for tier I providers because of the comparative simplicity of the systems overseen by tier II providers. The same business operations specialist is assumed to conduct these recurring updates at the $41.98 wage rate. Multiplying the recurring hours required, by the estimated number of individual and group plans created, by the wage rate leads to a total recurring cost of $3.29 million.

The table below represents the calculations described above for tiers I and II as the low case. The high case was calculated in the same manner with the exception that labor costs were doubled as described above.

[36] Schwager, Dianne. Transit Cooperative Research Program Report 172: Guidance for Developing a Transit Asset Management Program. Sponsored by the Federal Transit Administration. 2014. *http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rpt_172.pdf.*

TABLE 6—INITIAL AND RECURRING COSTS FOR THE ANALYTICAL PROCESSES

Agency size	Low case		High case	
	Initial 2-year period	Annually recurring	Initial 2-year period	Annually recurring
Tier I	$6,658,417	$2,663,367	$13,316,834	$5,326,733
Tier II	16,459,362	3,291,872	32,918,723	6,583,745
Total	23,117,778	5,955,239	46,235,557	11,910,478

(4) Prioritized Project List

Under the final rule, transit providers are required to develop a list of projects from the investment prioritization process described above. The list must include projects for which funding would be sought under the section 5337 SGR Formula Program. While it is known that agencies generally have a method of determining which projects they would need to invest in next—and many large, multi-modal agencies often have sophisticated, multi-year planning tools—the level of detail and process involved in updating the list is unknown. Following is a detailed accounting of incremental costs by provider type.

Tier I Providers

The large tier I providers in this category tend to have existing processes for generating prioritized project lists based on scenario analysis.[37] However, for some transit providers, additional effort may be needed to develop a project list that reflects the requirements of the rule. While there is less case-study information on the practices of medium-sized tier I providers, most are believed to have existing processes for developing prioritized project lists. To align this process with the requirements of the rule, FTA estimates that transit providers would spend an average of 96 hours above their current baseline in creating the prioritized project list. FTA assumes this task would be completed by the aforementioned buyer or purchasing agent (in coordination with other staff) at a loaded wage rate of $45.15. Multiplying the hours required, by the number of agencies, by the wage rate leads to a total initial cost of $1.23 million.

Once the initial project list is created, maintaining and updating the list is estimated to take 36 hours per year. The same buyer or purchasing agent is assumed to conduct these recurring updates at the $45.15 wage rate. Multiplying the recurring hours required, by the number of agencies, by the wage rate leads to a total recurring cost of $0.46 million.

Tier II Providers

As with larger transit providers, smaller transit providers generally have some form of an existing process for developing a prioritized project plan, but are assumed to require time above their current baseline to make this process consistent with the proposed TAM requirements. FTA estimates that each tier II provider developing a TAM plan, along with each group TAM plan sponsor would spend an average of 96 hours creating their prioritized project list. FTA assumes this task would be completed by the business operations specialist (in coordination with other staff) at a loaded wage rate of $41.98. Multiplying the hours required, by the estimated number of individual and group plans, by the wage rate leads to a total initial cost of $3.04 million.

Once the initial project list is created, maintaining and updating the list is estimated to take 24 hours per year. The same business operations specialist is assumed to conduct these recurring updates at the $41.98 wage rate. Multiplying the recurring hours required, by the estimated number of individual and group TAM plans, by the wage rate leads to a total recurring cost of $0.76 million.

The table below represents the calculations described above for tiers I and II as the low case. The high case was calculated in the same manner with the exception that labor costs were doubled as described above.

TABLE 7—INITIAL AND RECURRING COSTS FOR THE PRIORITIZED PROJECT LIST

Agency size	Low case		High case	
	Initial 2-year period	Annually recurring	Initial 2-year period	Annually recurring
Tier I	$1,229,246	$460,967	$2,458,492	$921,935
Tier II	3,038,651	759,663	6,077,303	1,519,326
Total	4,267,898	1,220,630	8,535,795	2,441,260

(5) Plan Strategy

Under the final rule, tier I transit providers are required to develop TAM and SGR policies and strategies. This includes a description of key TAM activities spanning the time horizon of the plan, a specification of the resources needed to develop and implement the plan, and an outline of how the plan and related business practices would be updated over time.

These components are optional for tier II providers. Following, is a detailed accounting of incremental costs by provider type.

Tier I Providers

FTA estimates that these providers would spend an average of 96 hours developing the elements of the plan strategy above what they are currently doing in this area. Because this component deals with high level strategy, FTA assumes this planning

[37] FTA, *Transit Asset Management Practices: A National and International Review,* June 2010.

task will be completed by a general operations manager at a loaded wage rate of $87.14. Multiplying the hours required, by the number of providers, by the wage rate leads to a total initial cost of $2.37 million.

Every four years, providers would need to update their strategy document based on recent and planned activities and other developments. FTA estimates that this document update would require an average of 80 hours of incremental staff time. The same operations manager is assumed to conduct these recurring updates at the $87.14 wage rate. Multiplying the recurring hours required, by the number of providers, by the wage rate leads to a total four-year recurring cost of $1.98 million.

Tier II Providers

There are no initial or recurring costs for this aspect of the TAM plan because tier II providers may opt out of completing these requirements, whether they develop their own TAM plan or participate in a group TAM plan.

The table below represents the calculations described above for tiers I and II as the low case. The high case was calculated in the same manner with the exception that labor costs were doubled as described above.

TABLE 8—INITIAL AND RECURRING COSTS FOR THE PLAN STRATEGY

Agency size	Low case		High case	
	Initial 2-year period	Quadrennially recurring	Initial 2-year period	Quadrennially recurring
Tier I	$2,372,691	$1,977,243	$4,745,383	$3,954,486
Tier II	0	0	0	0
Total	2,372,691	1,977,243	4,745,383	3,954,486

(6) Performance Measures and Targets

In addition to the TAM plan, under the final rule transit providers are required to use performance measures to set targets for capital assets. Transit providers need to use their asset condition assessments to determine the percentage of their assets that meet specified performance standards. Based on these performance measures and available funding, transit providers are required to develop annual SGR performance targets that align with their TAM plan priorities. With the exception of a few transit providers profiled in more depth by GAO reports, it is unknown to what extent agencies are currently monitoring performance or whether their existing metrics and targets would meet the requirements of this section.

Transit providers have a number of resources to draw on in developing their measures and targets, including FTA publications [38] and TCRP Report 172.[39] Nonetheless, some compliance costs are assumed to be necessary to adapt this guidance to the details of each transit provider's assets, operating environment, and strategies. Setting performance measures and targets should be more straightforward for tier II providers, which are smaller and do not have the complexities associated with rail fixed-guideway elements. Following, is a detailed accounting of costs by provider type.

Tier I Providers

FTA's 2010 review of practices found that many large transit providers have existing performance measures for asset management. However, practices vary, and some transit providers would need additional work to comply with the proposed provisions. Compared to the largest tier I providers, medium-sized tier I providers have less complex asset portfolios, but also may have less in the way of existing activities for performance measures. Overall, based on information from interviews, FTA estimates that transit providers would spend an average of 208 hours developing their performance measures and targets. FTA assumes this task would be completed by the aforementioned operations manager at a loaded wage rate of $87.14. Multiplying the hours required, by the number of transit providers, by the wage rate leads to a total initial cost of $5.14 million.

Once the initial measures and targets are developed, FTA estimates that reviewing and updating them annually would take the equivalent of 36 hours per year on average. The same operations manager is assumed to conduct these recurring updates at the $87.14 wage rate. Multiplying the recurring hours required, by the number of transit providers, by the wage rate leads to a total recurring cost of $0.89 million.

Tier II Providers

Tier II providers do not have the complexities associated with developing performance measures for rail fixed-guideway transit. FTA estimates that tier II providers developing their own TAM plan and group TAM plan sponsors would each spend an average of 80 hours developing the performance measures and targets. FTA assumes this task would be completed by the operations manager at a loaded wage rate of $76.99. Multiplying the hours required, by the estimated number of individual and group plans, by the wage rate leads to a total initial cost of $4.64 million.

Once the initial measures and targets are developed, FTA estimates that reviewing and updating them annually would take the equivalent of 24 hours per year on average. FTA assumes the same operations manager will conduct these recurring updates at the $76.99 wage rate. Multiplying the recurring hours required, by the estimated number of individual and group plans, by the wage rate leads to a total recurring cost of $1.39 million.

The table below represents the calculations described above for tiers I and II as the low case. The high case was calculated in the same manner with the exception that labor costs were doubled as described above.

[38] *http://www.fta.dot.gov/documents/FTA_Report_No._0027.pdf.*

[39] TCRP Report 172 is available at *http://www.tcrponline.org/PDFDocuments/tcrp_rpt_172.pdf.*

TABLE 9—INITIAL AND RECURRING COSTS FOR THE PERFORMANCE MEASURES AND TARGETS

Agency size	Low case		High case	
	Initial 2-year period	Annually recurring	Initial 2-year period	Annually recurring
Tier I	$5,140,832	$889,759	$10,281,663	$1,779,519
Tier II	4,643,796	1,393,139	9,287,591	2,786,277
Total	9,784,627	2,282,898	19,569,254	4,565,796

(7) Data and Narrative Reporting to NTD

Under the final rule, transit providers are required to submit an annual data report to the NTD, which reflects the SGR performance targets for the following year and assessment of the condition of the transit provider's transit system. Additionally, transit providers are required to submit an annual narrative report to the NTD that provides a description of any change in the condition of its transit system from the previous year and describes the progress made during the year to meet the targets previously set for that year. FTA estimated costs for the new reporting to the NTD based on a pilot program with seven rail transit providers. Based on internal FTA reports, it is expected that the reporting requires a transit provider's staff time that is equivalent to 0.16 hours per revenue vehicle initial and 0.08 hours per vehicle in subsequent years. (For simplicity these figures are expressed in terms of hours per vehicle, but include time required for reporting on other assets such as stations and facilities. FTA's pilot program also used an alternative methodology based on the time required per data field submitted, which yielded nearly identical results.) These estimated labor-hour requirements have been applied in the calculations below. The calculations also include the estimated time required for the narrative report, which was not included in FTA's pilot program or earlier estimates.

Tier I Providers

With a total of 116,472 revenue vehicles and FTA's estimate of 0.16 reporting hours per vehicle, FTA estimates that these providers collectively require a total of 18,636 hours for their initial reporting to the NTD under the rule. Multiplied by the loaded wage rate of $47.95 for a Business Operations Specialist, the total cost is approximately $0.89 million for tier I providers. The narrative report is separately estimated to require 24 labor hours per provider to develop and submit, including 22 hours for a Business Operations Specialist (loaded wage rate $47.92) and 2 hours for managerial review of the document by a general operations manager (loaded wage rate $87.14). Across the 284 agencies in this group, the total cost is approximately $0.35 million.

Once the initial report and template are created, FTA estimates that updating the data reports annually would take the equivalent of 9,318 hours per year, based on FTA's estimate of 0.08 hours per revenue vehicle and 116,472 vehicles. At a loaded wage rate of $47.95 for a Business Operations Specialist, the total cost is approximately $0.45 million. Updating the narrative report is estimated to require an additional 20 hours per year (18 hours for preparation by a Business Operations Specialist and 2 hours for review by the general operations manager). Multiplying the respective hours required, by the number of transit providers, by the wage rates leads to a total recurring cost of $0.29 million.

Tier II Providers

With an estimated total of 62,858 revenue vehicles and FTA's estimate of 0.16 reporting hours per vehicle, FTA estimates that collectively these providers require a total of 10,057 hours for their initial reporting to the NTD under the rule. Multiplied by the loaded wage rate of $41.98 for a Business Operations Specialist, the total cost is approximately $0.42 million. The narrative report is separately estimated to require 16 labor hours per TAM plan (individual or group TAM plan) to develop and submit, including 14 hours for a Business Operations Specialist (loaded wage rate $41.98) and 2 hours for managerial review of the document by a general operations manager (loaded wage rate $76.99). Across the 754 individual and group tier II TAM plans, the total cost is approximately $0.56 million.

Once the initial report and template are created, FTA estimates that updating the data report annually would take the equivalent of 5,029 hours per year, based on FTA's estimate of 0.08 hours per revenue vehicle and 62,858 vehicles. At a loaded wage rate of $41.98 for a Business Operations Specialist, the total cost is approximately $0.21 million. Updating the narrative report is estimated to require an additional 8 hours per year (6 hours for preparation by a Business Operations Specialist and 2 hours for general operations manager review). Multiplying the respective hours required, by the number of transit providers, by the wage rates leads to a total recurring cost of $0.31 million.

TABLE 10—INITIAL AND RECURRING COSTS FOR THE DATA AND NARRATIVE REPORTING TO NTD

Agency size	Low case		High case	
	Initial 2-year period	Annually recurring	Initial 2-year period	Annually recurring
Tier I	$1,242,310	$741,078	$2,484,619	$1,482,156
Tier II	981,432	517,111	1,962,864	1,034,222
Total	2,223,742	1,258,189	4,447,484	2,516,378

(8) State and MPO Target Setting

Under the performance management framework established by MAP–21, States, MPOs, and transit providers must establish targets in key national performance areas to document expectations for future performance. In accordance with 49 U.S.C. 5303(h)(2)(B)(ii) and 5304(d)(2)(B)(ii), States and MPOs must coordinate the selection of their performance targets, to the maximum extent practicable, with performance targets set by transit providers under 49 U.S.C. 5326 (transit asset management) and 49 U.S.C. 5329 (safety), to ensure consistency.

In the Joint FTA and FHWA Statewide and Nonmetropolitan Transportation Planning; Metropolitan Transportation Planning (Joint Planning) NPRM, both agencies indicated that their performance-related rules would implement the basic elements of a performance management framework, including the establishment of measures and associated target setting. Because the performance-related rules implement these elements and the difficulty in estimating costs of target setting associated with unknown measures, the Joint Planning NPRM did not assess these costs. Rather, FTA and FHWA proposed that the costs associated with target setting at every level would be captured in each provider's respective ''performance management'' rules. For example, FHWA's second performance management rule NPRM, published after the joint planning NPRM, assumes that the incremental costs to States and MPOs for establishing performance targets reflect the incremental wage costs for an operations manager and a statistician to analyze performance-related data.

The RIA that accompanies the forthcoming Joint Planning final rule captures the costs of the effort by States, MPOs, and transit providers to coordinate in the setting of State and MPO transit performance targets for state of good repair and safety. FTA believes that the cost to MPOs and States to set transit performance targets is included within the costs of coordination.

(9) Other Costs

In addition to the costs estimated in the subsections above, the final rule also entails costs for FTA to provide technical assistance to support the transit industry in implementing the new requirements, and for internal costs associated with training for FTA employees who work with the new TAM system. FTA estimates that the agency could incur an annual cost of $2 million to develop and provide guidance and training, as well staff for program management. This is based on current FTA costs for research, stakeholder outreach and staffing costs since the MAP–21 Reauthorization Act. It is likely that the FTA costs may decline over time as the program matures and asset management becomes an integral part of transit agencies' project prioritization practice. FTA assumes that after the first five years, the costs would fall to $1.5 million and then $1 million after 10 years and to $0.5 million after fifteen years.

Another cost area is for coordination necessary to develop group TAM plans. For example, group TAM plan sponsors and their participating providers may need to hold meetings or conference calls to collect data, test a software tool, or more generally to coordinate efforts to develop plans for the smaller agencies. For estimation purposes, this coordination is assumed to require a mix of transit provider staff and managerial oversight. For each of the estimated 264 group TAM plans, FTA assumes that coordination would require 120 hours of staff time (business operations specialist, loaded wage rate $41.98) and 40 hours of management time (general operations manager, loaded wage rate $76.99) per transit provider. This yields a total annual coordination cost of approximately $2.1 million.

Transit providers are required to keep records of its TAM plan development for at least one cycle of plan development which covers four years. FTA assumes that the tier I providers may spend approximately 80 hours every four years to coordinate the collection and formatting of the data for record keeping purposes. Using the business operations specialists loaded wage rate, the cost of recordkeeping for tier I providers would be $1.1 million every four years. For the tier II providers, FTA assumes that the group plan developers would retain the records on behalf of the small transit agencies. The level of effort for record keeping would be lower at 40 hours per plan cycle, since the coordination cost of gathering the relevant cost is already accounted for. Using the business operations specialist loaded wage rate $41.98, the total cost for recordkeeping for tier II providers would be $1.3 million for every plan cycle. Therefore, the total cost for recordkeeping would be $2.4 million.

A final cost area is related to the information technology (IT) costs associated with establishing an asset management system. The TAM requirements are intended to be technology-neutral, and no specific hardware or software is required. However, FTA is aware that some agencies may need to make IT investments to support their implementation of TAM, such as asset management software or handheld computers. The nature and size of these expenditures will vary by agency, and some agencies may not require IT investments. An assumed figure of $5,000 per TAM plan (individual plan or group plan) is used as an overall average. This equates to approximately $1.42 million for tier I providers ($5,000 multiplied by the 284 estimated plans) and $3.77 million for tier II providers ($5,000 multiplied by the 754 estimated plans, which is 490 individual plans and 264 group plans).

Cost Summary

The costs estimated in the subsections above are based on best estimates of the required labor hours and other costs of implementing the required components of the National TAM System available to the FTA. They are inherently imprecise given the lack of consistent data on existing industry practices, and the variability in costs across agencies due to different labor rates, system sizes and complexities, and other factors. Indeed, even among agencies that have already implemented TAM plans, little information exists on the total costs of implementation due to limited recordkeeping on internal labor costs.

One means of providing an external check on the reasonableness of the cost estimates is to compare estimates from the model used here against known TAM projects. For example, for a small tier I transit provider with an asset profile of 10 revenue vehicles and one maintenance facility, the model would predict TAM implementation costs of roughly $42,535 initial (over a period of two years, and thus roughly $21,000 per year) and $9,856 per year thereafter in the lower cost (in-house) case or roughly double for the higher-cost contractor case (see Table 11 below). The figures would be lower if this agency elected to participate in a group TAM plan, as certain fixed costs could be spread across multiple agencies. In addition, the incremental cost now assumed for inventory database development is unlikely to be an issue for an agency operating 10 vehicles and they may not incur extra IT costs, as those are attributed to the group plan sponsor. Making an allowance for these costs, the small agency cost could be as low as around $21,000 upfront. By comparison, in fiscal year 2010, FTA made SGR grants to small transit providers in

California and Washington to implement asset management systems; the Federal share of these grants were in the range of $16,000 to $17,000 for agencies that were similar to, or slightly smaller than, the example used here. The general correspondence between model results and actual grant levels for asset management systems suggests that the cost model is producing results that are consistent with the limited real-world experience, at least for smaller agencies. For larger transit providers, actual versus predicted costs may vary more significantly due to differences in existing practices. Information from past grants may not provide a clear picture, and they might face little to no incremental costs from the rule because their existing practices generally meet or exceed the proposed TAM requirements.

The table below represents the calculations described above for the low case along with illustrative examples of three other agency types: A comparatively larger tier II agency with 80 revenue vehicles, a mid-size tier I agency with 500 revenue vehicles, and a large tier I agency with 2,500 revenue vehicles.

TABLE 11—ESTIMATION OF INITIAL TAM COSTS FOR ILLUSTRATIVE TRANSIT PROVIDERS

	Mid-size tier I agency	Larger tier I agency	Small tier II agency	Larger tier II agency
Revenue Vehicles	500	2,500	10	80
Number of Stations	50	200	0	2
Low Case—Initial 2-Year Period Cost	$109,312	$234,477	$42,535	$44,331
Low Case—Annually Recurring Cost	$45,979	$127,320	$9,856	$11,071
High Case—Initial 2-Year Period Cost	$213,624	$463,955	$80,070	$83,662
High Case—Annually Recurring Cost	$91,958	$254,640	$19,712	$22,141

Table 12 below shows the total estimated costs for TAM activities under the rule for the low case, aggregated by provider size and separated by initial and recurring costs. Note that TAM-related implementation costs for capital investments are unknown; this category represents the capital and maintenance projects that agencies would undertake as a result of their TAM analysis. FTA could not estimate this category due to data limitations. However, FTA believes that these implementation actions would result in zero or negative net costs over the life of the asset (*i.e.* lifecycle cost savings) compared to a baseline of actions unsupported by TAM analysis where avoided regular timely expenditures may result in higher repair or rehabilitation costs later in the life of the asset, because TAM activities provide insight into prioritization decisions. Table 13 shows the total estimated costs for TAM activities under the rule for the high cost case of contracting out the work.

TABLE 12—SUMMARY OF AGENCY COSTS BY GROUP FOR LOW CASE

Agency size	Initial 2-year period	Annually recurring	Triennially recurring	Quadrennially recurring	TAM-related capital investment costs
Tier I	$24,449,578	$8,467,587	$1,907,262	$3,065,328	Unknown.
Tier II		9,923,220	1,012,726		Unknown.
FTA Cost	4,000,000	2,000,000, then lower over time.	0	0	$0.
	62,073,251	20,390,807	2,919,988	4,331,433	Unknown.

TABLE 13—SUMMARY OF AGENCY COSTS BY GROUP FOR HIGH COST CASE

Agency size	Initial 2-year period	Annually recurring	Triennially recurring	Quadrennially recurring	TAM-related capital investment costs
Tier I	$47,481,030	$16,935,174	$3,814,525	$6,130,656	Unknown.
Tier II	63,477,346	19,846,440	2,025,452	2,532,209	Unknown.
FTA Cost	4,000,000	2,000,000, then lower over time.	0	0	$0
Total	114,958,376	38,781,614	5,839,977	8,662,866	Unknown.

Table 14 below shows the total quantified costs and the present value of the rule over the 20-year analysis period, including tier II group TAM plan coordination costs. For the purposes of this analysis, 2015 serves as the discounting base year and dollar figures appear as 2015 dollars. For the low cost case, the annualized cost of the rule is $23.2 million (at the 7% rate) and $22.8 million (at the 3% rate). For the high cost case, the annualized cost of the rule is $44.5 million (at the 7% rate) and $43.8 million (at the 3% rate).

TABLE 14—SUMMARY OF QUANTIFIED UNDISCOUNTED AND DISCOUNTED COSTS 2016–2035

[Millions]

Year	Low case			High case		
	Undiscounted	Discounted (7%)	Discounted (3%)	Undiscounted	Discounted (7%)	Discounted (3%)
2016	$31.0	$29.0	$30.1	$57.5	$53.7	$55.8
2017	31.0	27.1	29.3	57.5	50.2	54.2
2018	20.4	16.6	18.7	38.8	31.7	35.5
2019	20.4	15.6	18.1	38.8	29.6	34.5
2020	23.3	16.6	20.1	44.6	31.8	38.5
2021	24.2	16.1	20.3	46.9	31.3	39.3
2022	19.9	12.4	16.2	38.3	23.8	31.1
2023	22.8	13.3	18.0	44.1	25.7	34.8
2024	19.9	10.8	15.2	38.3	20.8	29.3
2025	24.2	12.3	18.0	46.9	23.9	34.9
2026	22.3	10.6	16.1	43.6	20.7	31.5
2027	19.4	8.6	13.6	37.8	16.8	26.5
2028	19.4	8.0	13.2	37.8	15.7	25.7
2029	26.6	10.3	17.6	52.3	20.3	34.6
2030	19.4	7.0	12.4	37.8	13.7	24.3
2031	18.9	6.4	11.8	37.3	12.6	23.2
2032	21.8	6.9	13.2	43.1	13.7	26.1
2033	23.2	6.9	13.6	45.9	13.6	27.0
2034	18.9	5.2	10.8	37.3	10.3	21.3
2035	21.8	5.6	12.1	43.1	11.1	23.9
Total	449.0	245.5	338.4	867.7	470.9	652.0

Benefits

As noted above, FTA research, the academic literature, and external reviews from organizations such as GAO have documented a strong case for the value of asset management programs for capital-intensive public agencies in general, including transit agencies. Asset management programs have been described as leading to the following outcomes and benefits:

(1) Improved transparency and accountability from the use of systematic practices in tracking asset conditions and performance measures. In turn, this can lead to improved relationships with regulators, funding agencies, taxpayers and other external stakeholders, as well as improved internal communications and decision-making. While difficult to quantify or monetize, these impacts are sometimes described as some of the most important benefits from asset management because they relate to stewardship of public resources and the effective delivery of services.

(2) Optimized capital investment and maintenance decisions, leading to overall life-cycle cost savings (or alternatively, greater value for dollars spent).

(3) More data-driven maintenance decisions, leading to greater effectiveness of maintenance spending and a reduction in unplanned mechanical breakdowns and guideway deficiencies. These impacts can be considered as two distinct benefit areas: travel time savings for passengers in terms of fewer canceled trips and fewer speed restrictions on tracks, and savings for the transit provider in unplanned maintenance and repair.

(4) Finally, potential safety benefits, in that greater effectiveness of dollars spent on maintenance can lead to improved vehicle and track condition and fewer safety hazards, and thus reduced injuries and fatalities related to incidents for which maintenance issues or poor conditions were a contributing factor.

These benefits have been presented by GAO and others almost exclusively in qualitative terms, presenting a challenge for estimating the quantitative benefits of this rule. Accordingly, a review of the academic literature in this area revealed few studies that attempted to quantify the benefits of transit asset management programs, as distinct from provider-specific implementation details or descriptions of best practices. Within the trade literature, one recent case study from the Bi-State Development Agency (St. Louis) presents results from a transit asset management program that has altered bus maintenance and replacement practices. The results include an increased ''mean time between failures'' for its bus fleet from 3,400 miles in 2000 to 22,000 in 2014, and bus lifespan targets that have gone from 12 years/600,000 miles to 15 years/825,000 miles. These outcomes are the equivalent of a roughly 85% decrease in the failure rate and a 25% increase in bus longevity (with associated capital cost savings).[40] Some of the practices that Bi-State put into place were (1) no longer performing major engine overhauls during the period right before a bus was to be retired from service, (2) making investments earlier in bus lifecycles, and (3) replacing key vehicles components proactively based on their average lifespans, rather than waiting for them to fail, which is more costly. Future plans include a condition-based (rather than mileage-based) assessment at the major component level. These actions all go beyond what is required by the TAM rule, but provide a useful real-world illustration of the point that the implementing actions associated with an asset management program are not additional costs but instead opportunities for significant lifecycle cost savings.

Case studies of this type provide compelling evidence of the benefits of transit asset management, though by their nature they make it difficult to control for exogenous factors and other initiatives implemented by the transit provider at the same time. Beyond these case studies, there is little to no hard data on the impacts of asset management on ultimate outcomes such as service quality, reliability, and ridership, which would also influence benefit estimates. Indeed, one recent

[40] Harnack, Leah. ''Transit as an Economic Driver,'' *Mass Transit,* December 2014–January 2015, 10–15.

academic review of the literature in this field noted that ''efforts to quantify benefits of transit state of good repair have generally stopped short of linking asset condition with user impacts or ridership.'' [41] This is an unsurprising result given the relatively short period of time in which transit asset management practices have been studied.

The literature on asset management for highway investments and pavement management is more mature and includes a few examples of quantified benefits. Many state DOTs use a quantitative model of highway system condition to forecast pavement deterioration. These systems allow planners to allocate funds in the most efficient way among capital and maintenance projects on the highway network to achieve the lowest overall lifecycle costs. A before-and-after study of the Iowa Department of Transportation's adoption of such a pavement management tool found that the system improved project selection, ultimately leading to benefits in the form of better pavement conditions on the roadway network for the same expenditure level. The value of the improved pavement condition was equivalent to roughly 3% of total construction spending during the 5-year ''after'' period studied.[42] A similar analysis with data from the Arizona Department of Transportation's pavement management program found that the asset management approach had improved pavement longevity by about 13.5%, with concomitant savings in the pavement budget.[43] While useful as benchmarks, the extent to which these findings are applicable to transit agencies is unclear, since transit agencies' key assets are vehicles, facilities, and guideway rather than pavement, and thus may exhibit different characteristics. However, the voluntary use of asset management programs by for-profit entities, such as utility companies and freight railroads, also strongly suggests that asset management programs allow the efficient selection of capital and maintenance projects that yield cost savings, at least over the longer term, that exceed the implementation costs of the asset management effort.[44]

Since FTA does not have a study on which to estimate the potential benefits of adopting asset management by transit providers, FTA employed a threshold analysis focused on areas where asset management is likely to have an impact by improving decision-making and targeting investments to achieve the highest return on the dollars invested. By implementing the requirements of the TAM rule, providers would develop policies and plans that direct funds toward investments to meet the goal of maximizing the lifespan of assets with timely rehabilitation and maintenance activities. These activities have the potential to reduce the rate of mechanical failures experienced by the transit industry. In 2013, transit agencies in urbanized areas reported to the NTD a total of 524,629 mechanical failures in revenue service, which collectively required an estimated 64.3 million hours of labor for inspection and maintenance.[45] At a loaded wage rate of $35.52 per hour (BLS, vehicle and equipment mechanics, interurban and rural bus transport), this equates to annual spending of just under $2.3 billion on unplanned mechanical breakdowns across the industry, in addition to the value of travel time delays that passengers experience during a breakdown.

Reducing the mechanical failures by just over 5,300 incidents (1.02 percent) through TAM-supported improvements in project selection would create maintenance cost savings that equal the subset of the rule's cost that FTA monetized ($23.2 million). (The threshold would be roughly 1.95% in the higher cost case using higher labor costs for contractor support.) In addition to the savings in maintenance expenditures, reduced mechanical failures also would reduce the delays in service, increasing reliability of transit services and yielding travel time savings.

FTA expects that the rule's requirements will significantly reduce potential safety risks, as assets are better maintained and likely to reduce safety hazards due the asset condition, as noted in the nexus between asset condition and safety in this final rule. In addition, transit asset management practices as outlined in the final rule identify list of projects that better serve the performance goals of FTA and the industry to improve safety, asset condition and system performance by allowing for improved cross-functional decision-making.

The requirements of this final rule will generate data for transit agencies to analyze over time showing trends in condition and performance, enabling them to better understand the relationship between their actions (expenditures) and outcomes (asset condition, safety, operations). Transit providers will select investments to meet their stated goals and targets. If the transit provider cannot meet the stated goals, it can explore the potential reasons for the gap between the actual performance and targeted performance. This may lead the transit provider to collect additional data, such as the cost of projects, with the intention of better understanding the underlying causes of why it is unable to attain the stated goal. Based on this analysis the transit provider may adjust the target, reprioritize its investments or make other changes in its processes to gain efficiencies. Through this asset management process of planning, executing, re-evaluating and revising, a transit provider can identify economies and best practices that result in better use of resources and improve performance. The performance targets may be achieved through increased efficiencies or shift in funding priorities. The transit asset management process can also help transit providers develop better estimates of its' systems needs to meet established targets.

In addition, the TAM plan will make a transit provider's policies, goals and performance targets, more transparent to the public and the legislative decision-makers. The performance reports required under this final rule show how well the agencies are performing against their established targets. Through increased transparency and accountability, it may be possible to make a better case for increased funding, resulting in improved performance over time and reducing the SGR backlog that has accumulated over the years.

Other Impacts

In 2012, $16.8 billion of capital expenditures were incurred by the transit agencies. As noted above, there is an estimated $85.9 billion transit SGR backlog. Given the size of capital expenditures, the size of the SGR backlog, and the potential benefits of adopting transit asset management systems and creating TAM plans, it is likely that economic impacts in excess

[41] Patterson, L. and D. Vautin. ''Evaluating User Benefits and Cost-Effectiveness for Public Transit State of Good Repair Investments,'' Transportation Research Board 94th Annual Meeting (2015).

[42] Smadi, O. ''Quantifying the Benefits of Pavement Management,'' 6th International Conference on Managing Pavements (2004).

[43] Hudson, W.R., et al. ''Measurable Benefits Obtained from Pavement Management,'' 5th International Conference on Managing Pavements (2001).

[44] See, for example, private sector case studies at *http://www.twpl.com/?page=CaseStudies.*

[45] The 2013 NTD data do not provide total hours for inspection and maintenance, only the number of mechanical failures. This analysis applies the average number of hours per failure from the most recent year for which both those data points are available (2007).

of $100 million in a year could result from this final rule. However, FTA has no information on which to estimate the size of these impacts. As noted above, FTA believes that investing funds to improve the state of good repair of capital assets have important benefits. Experience of adopting asset management systems in capital intensive industries has demonstrated that significant gains over time are possible.

Regulatory Flexibility Act

In compliance with the Regulatory Flexibility Act (Pub. L. 96–354; 5 U.S.C. 601–612), FTA has evaluated the likely effects of the requirements of this final rule on small entities, and has determined that the rule may have a significant economic impact on a substantial number of small entities.

The rule would impact roughly 2,700 small entities, most of whom are small government entities and small non-profit organizations that operate public transit services in non-urbanized areas. Compliance costs would vary according to provider size and complexity and the extent of current asset management practices. Costs are illustrated by an example calculation for a transit provider with 10 vehicles, for which compliance costs were estimated at $42,535 (over two years) for initial implementation and $9,816 per year for updates and reporting (from Table 11 example above). Over a period of years, this would represent a small share (less than 1%) of the operating budget that would be typical for a transit provider of that size. However, under the final rule, small entities who met the criteria for tier II designation and subrecipients under the Rural Area Formula Program, could participate in a group TAM plan sponsored by their State DOT or direct recipient. This would allow for some of the costs of implementation (such as developing analytical tools, prioritization project list, target setting and performance measures) to be borne by the group TAM plan sponsor or spread across a larger number of entities, reducing the cost for each.

Overall, while the rule would impact a substantial number of small entities, these effects would not be significant due to the low magnitude of the costs and the potential for offsetting benefits. Moreover, FTA has designed the rule to allow flexibility for small entities, including exemption from certain requirements and the option to participate in a group TAM plan. In addition, transit agencies would also see benefits from improved data-driven decision-making, including qualitative benefits to transparency and accountability and the potential for direct cost savings in maintenance and life-cycle costs of asset ownership.

Unfunded Mandates Reform Act of 1995

This rulemaking would not impose unfunded mandates as defined by the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4; 109 Stat. 48). Under FTA's grant programs, the development of a TAM plan is eligible for funding as a planning or administrative expense, or capital expense under the SGR Grant Program authorized at 49 U.S.C. 5337.

Executive Order 13132 (Federalism)

This rulemaking has been analyzed in accordance with the principles and criteria established by Executive Order 13132 (Aug. 4, 1999). FTA has determined that the action does not have sufficient Federalism implications to warrant the preparation of a Federalism assessment. FTA has also determined that this action does not preempt any State law or State regulation or affect the States' abilities to discharge traditional State governmental functions. Moreover, consistent with Executive Order 13132, FTA has examined the direct compliance costs of the final rule on State and local governments and has determined that the collection and analysis of the data are eligible for Federal funding under FTA's grant programs.

Executive Order 12372 (Intergovernmental Review)

The regulations effectuating Executive Order 12372 regarding intergovernmental consultation on Federal programs and activities apply to this rulemaking.

Executive Order 13653

Preparing the United States for the Impacts of Climate Change, declares a policy that the Federal government must build on recent progress and pursue new strategies to improve the Nation's preparedness and resilience. The executive order directs Federal agencies to support climate-resilient investment, in part by identifying ''opportunities to support and encourage smarter, more climate-resilient investments by states, local communities and tribes, including by providing incentives through agency guidance, grants, technical assistance performance measures, safety consideration and other programs.'' This rulemaking does not incorporate risk analysis as part of transit asset management. However, FTA does address the requirements of 1315(b) of MAP–21, in the Emergency Relief Program rule at 49 CFR part 602, by requiring transit agencies to evaluate reasonable alternatives, including change of location and addition of resilience/mitigation elements, for any damaged transit facility that has been previously repaired or reconstructed as a result of an emergency or major disaster. FTA also encourages transit providers to consider climate change resiliency in developing the investment prioritization in their TAM plan.

Paperwork Reduction Act (PRA)

In compliance with the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.;* ''PRA'') and the OMB regulation at 5 CFR 1320.8(d), FTA is seeking approval from OMB for the Information Collection Request abstracted below. FTA acknowledges that this final rule entails collection of information to implement the transit asset management requirements of 49 U.S.C. 5326. Specifically, a transit provider subject to the rule would do the following: (1) Develop and implement a TAM plan; (2) set performance targets; (3) submit an annual narrative and data report to the NTD; and (4) maintain required records.

Please note, the information provided below pertains to the requirements for the National TAM System final rule. This collection approval does not cover the proposed amendments to regulations for FTA's NTD at 49 CFR part 630, to conform to the reporting requirements for the National TAM System final rule. The amendments to the NTD are covered by a separate NTD Paperwork Reduction Act Justification Statement.

Respondents: Recipients and subrecipients of Chapter 53 funds that own, operate, or manage public transportation systems, including 284 tier I providers and roughly 2,714 tier II providers, or States or direct recipients that sponsor group TAM plans.

Estimated Annual Burden on Respondents

Tier I Providers—The initial costs for establishing new processes for collecting asset condition data; developing analytical processes, performance measures and targets; and reporting would be higher than the subsequent annual, triennial and quadrennial updates and would be incurred over a period of two years. The initial hours of burden for tier I providers are expected to be 431,424 hours in total for 284 transit providers, averaging to just over 1,519 hours per provider. The annual average recurring burden is 200,015 hours, averaging at 704 hours per transit provider. For the low case, the initial dollar cost of implementing the rule would be $24.45

million over two years and a recurring annual average cost of $9.87 million, averaging to $86,090 and $34,752 per provider respectively. For the high case, the initial dollar cost of implementing the rule would be $47.48 million over two years and a recurring annual average cost of $19.74 million, averaging to $167,187 and $69,505 per provider respectively. Additional costs for FTA exist but are not included here.

Tier II Providers—The initial burden for tier II providers is expected to be 679,166 hours in total for 754 plans to be developed by the direct recipients and/or group TAM plan sponsors, with an average of just over 900 hours per plan. The annual average recurring burden is 243,504 hours, averaging at 323 hours per TAM plan. For the low case, the initial dollar cost of implementing the rule would be $33.62 million over two years and a recurring annual average cost of $10.58 million, averaging to $44,594 and $14,028 per plan, respectively. For the high case, the initial dollar cost of implementing the rule would be $63.48 million over two years and a recurring annual average cost of $21.15 million, averaging to $84,187 and $28,057 per plan, respectively. Additional costs for FTA exist but are not included here.

Estimated Total Annual Burden: Tables 15 below shows the initial hours of burden and the dollar cost to the tier I and tier II transit providers to be incurred in the first two years of implementing the rule and the recurring annual average costs thereafter. The table below is based on the assumptions made for the level of effort and the loaded wage rates (wage rate adjusted to account for employer cost of benefits) [46] used for estimating the hours of burden and the cost of implementing the final rule. Hours and costs presented here are based on the assumptions detailed in the regulatory impact analysis above.

TABLE 15—ESTIMATED TOTAL ANNUAL PAPERWORK BURDEN

Agency size	Initial costs (total over two years)	Average annual recurring costs	Initial hours of burden (total over two years)	Average annual recurring hours of burden
Low Case:				
Tier I Providers	$24,449,578	$9,869,673	431,424	200,015
Tier II Providers	33,623,673	10,577,321	679,166	243,504
Total	58,073,251	20,446,994	1,110,590	443,519
High Case:				
Tier I Providers	47,481,030	19,739,346	431,424	200,015
Tier II Providers	63,477,346	21,154,643	679,166	243,504
Total	110,958,376	40,893,989	1,110,590	443,519

National Environmental Policy Act

The National Environmental Policy Act of 1969 (42 U.S.C. 4321 *et seq.*) requires Federal agencies to analyze the potential environmental effects of their proposed actions in the form of a categorical exclusion, environmental assessment, or environmental impact statement. This rulemaking is categorically excluded under FTA's environmental impact procedure at 23 CFR 771.118(c)(4), pertaining to planning and administrative activities that do not involve or lead directly to construction, such as the promulgation of rules, regulations, and directives. FTA has determined that no unusual circumstances exist in this instance, and that a categorical exclusion is appropriate for this rulemaking.

Executive Order 12630 (Taking of Private Property)

This rulemaking will not affect a taking of private property or otherwise have taking implications under Executive Order 12630 (March 15, 1998), Governmental Actions and Interference with Constitutionally Protected Property Rights.

Executive Order 12898 (Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations)

Executive Order (EO) 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, and DOT Order 5610.2(a) (77 FR 27534) require DOT agencies to achieve environmental justice (EJ) as part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects, including interrelated social and economic effects, of their programs, policies and activities on minority and/or low-income populations. The DOT Order requires DOT agencies to address compliance with the Executive Order and the DOT Order in all rulemaking activities. In addition, on July 17, 2014, FTA issued a Circular to update to its EJ Policy Guidance for Federal Transit Recipients (*www.fta.dot.gov/legislation_law/12349_14740.html*), which addresses administration of the EO and DOT Order.

FTA has evaluated this rule under the EO, the DOT Order, and the FTA Circular and has determined that this rulemaking will not cause disproportionately high and adverse human health and environmental effects on minority or low income populations.

Executive Order 12988 (Civil Justice Reform)

This action meets the applicable standards in sections 3(a) and 3(b)(2) of Executive Order 12988 (February 5, 1996), Civil Justice Reform, to minimize litigation, eliminate ambiguity, and reduce burden.

Executive Order 13045 (Protection of Children)

FTA has analyzed this rulemaking under Executive Order 13045 (April 21, 1997), Protection of Children from Environmental Health Risks and Safety Risks. FTA certifies that this final rule will not cause an environmental risk to health or safety that may disproportionately affect children.

[46] BLS data show wages as 64.1% of total compensation, with benefits at 35.9%. Therefore, employees' wages are factored by 1.56 (100/64.1) to account for employer provided benefits.

Executive Order 13175 (Tribal Consultation)

FTA has analyzed this action under Executive Order 13175 (November 6, 2000), and believes that it will have substantial direct effects on one or more American Indian tribes and will impose substantial direct compliance costs on Indian tribal governments.

However, FTA has engaged in active consultation with American Indian tribes in the development of todays' rule, to the extent practicable and consistent with other FTA coordination efforts. In advance of publishing an NPRM, FTA sought comment from the transit industry, including tribes, on a wide range of topics pertaining to the new Public Transportation Safety Program and the requirements of the new transit asset management provisions authorized by MAP–21. FTA asked specific questions about how FTA should apply the new TAM and safety requirements to recipients of the section 5311 Tribal Transit Formula Program and Tribal Transit Discretionary Program. FTA did not receive any comments from American Indian tribes on the ANPRM, although several commenters argued that small transit systems operated by American Indian tribes should be subject to the same requirements as other small systems.

In addition to the ANPRM, FTA sought comment from the entire transit industry, including tribes, when it published the NPRM. During the NPRM comment period, FTA engaged with the industry through a number of outreach efforts, including a webinar for small providers held on October 27, 2015. FTA also held several listening session across the country including one at the National Rural Transit Assistance Program Annual Meeting, which historically has been well attended by a number of tribal representatives. FTA remains committed to continuing to provide outreach and technical assistance to American Indian tribes on compliance with the requirements of this rule.

FTA recognizes that developing an individual TAM plan, maintaining documentation and reporting requires that a TAM rule be flexible and scalable. This rule is scalable and flexible and provides several options to reduce the burden on small providers, including American Indian tribes.

Executive Order 13211 (Energy Effects)

FTA has analyzed this rulemaking under Executive Order 13211, Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use (May 18, 2001). FTA has determined that this action is not a significant energy action under the Executive Order, given that the action is not likely to have a significant adverse effect on the supply, distribution, or use of energy. Therefore, a Statement of Energy Effects is not requirement.

Privacy Act

Anyone is able to search the electronic form of all comments received into any of FTA's dockets by the name of the individual submitting the comment or signing the comment if submitted on behalf of an association, business, labor union, or any other entity. You may review USDOT's complete Privacy Act Statement published in the **Federal Register** on April 11, 2000, at 65 FR 19477–8.

Statutory/Legal Authority for This Rulemaking

This rulemaking is issued under the authority of section 20019 of the Moving Ahead for Progress in the 21st Century Act (MAP–21), which requires the Secretary of Transportation to prescribe regulations to establish a system to monitor and manage public transportation assets to improve safety and increase reliability and performance and to establish SGR performance measures. The authority is codified at 49 U.S.C. 5326.

Regulation Identifier Number

A Regulation Identifier Number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN set forth in the heading of this document can be used to cross-reference this action with the Unified Agenda.

List of Subjects

49 CFR Part 625

Public Transportation.

49 CFR Part 630

National Transit Database.

Issued this day of July 12, 2016, in Washington, DC, under authority delegated in 49 CFR 1.91.

Carolyn Flowers,

Acting Administrator, Federal Transit Administration.

For the reasons set forth in the preamble, and under the authority of 49 U.S.C. 5326, 5335, and the delegations of authority at 49 CFR 1.91, FTA hereby amends Chapter VI of Title 49, Code of Federal Regulations as follows:

■ 1. Add part 625 to read as follows:

PART 625—TRANSIT ASSET MANAGEMENT

Subpart A—General Provisions

Sec.
625.1 Purpose.
625.3 Applicability.
625.5 Definitions.

Subpart B—National Transit Asset Management System

625.15 Elements of the National Transit Asset Management System.
625.17 State of good repair principles.

Subpart C—Transit Asset Management Plans

625.25 Transit Asset Management Plan requirements.
625.27 Group plans for transit asset management.
625.29 Transit asset management plan: horizon period, amendments, and updates.
625.31 Implementation deadline.
625.33 Investment prioritization.

Subpart D—Performance Management

625.41 Standards for measuring the condition of capital assets.
625.43 SGR performance measures for capital assets.
625.45 Setting performance targets for capital assets.

Subpart E—Recordkeeping and Reporting Requirements for Transit Asset Management

625.53 Recordkeeping for transit asset management
625.55 Annual reporting for transit asset management
Appendix A to Part 625—Asset Categories, Asset Classes, and Individual Assets
Appendix B to Part 625—Relationship Amongst SGR Performance Measures, SGR Definition, and SGR Principles
Appendix C to Part 625—Assets Included in National TAM System Provisions

Authority: Sec. 20019 of Pub. L. 112–141, 126 Stat. 707, 49 U.S.C. 5326; Sec. 20025(a) of Pub. L. 112–141, 126 Stat, 718, 49 CFR 1.91.

Subpart A—General Provisions

§ 625.1 Purpose.

This part carries out the mandate of 49 U.S.C. 5326 for transit asset management. This part establishes a National Transit Asset Management (TAM) System to monitor and manage public transportation capital assets to enhance safety, reduce maintenance costs, increase reliability, and improve performance.

§ 625.3 Applicability.

This part applies to all recipients and subrecipients of Federal financial assistance under 49 U.S.C. Chapter 53 that own, operate, or manage capital assets used for providing public transportation.

§ 625.5 Definitions.

All terms defined in 49 U.S.C. Chapter 53 are incorporated into this part by reference. The following terms also apply to this part:

Accountable Executive means a single, identifiable person who has ultimate responsibility for carrying out the safety management system of a public transportation agency; responsibility for carrying out transit asset management practices; and control or direction over the human and capital resources needed to develop and maintain both the agency's public transportation agency safety plan, in accordance with 49 U.S.C. 5329(d), and the agency's transit asset management plan in accordance with 49 U.S.C. 5326.

Asset category means a grouping of asset classes, including a grouping of equipment, a grouping of rolling stock, a grouping of infrastructure, and a grouping of facilities. See Appendix A to this part.

Asset class means a subgroup of capital assets within an asset category. For example, buses, trolleys, and cutaway vans are all asset classes within the rolling stock asset category. See Appendix A to this part.

Asset inventory means a register of capital assets, and information about those assets.

Capital asset means a unit of rolling stock, a facility, a unit of equipment, or an element of infrastructure used for providing public transportation.

Decision support tool means an analytic process or methodology:

(1) To help prioritize projects to improve and maintain the state of good repair of capital assets within a public transportation system, based on available condition data and objective criteria; or

(2) To assess financial needs for asset investments over time.

Direct recipient means an entity that receives Federal financial assistance directly from the Federal Transit Administration.

Equipment means an article of nonexpendable, tangible property having a useful life of at least one year.

Exclusive-use maintenance facility means a maintenance facility that is not commercial and either owned by a transit provider or used for servicing their vehicles.

Facility means a building or structure that is used in providing public transportation.

Full level of performance means the objective standard established by FTA for determining whether a capital asset is in a state of good repair.

Group TAM plan means a single TAM plan that is developed by a sponsor on behalf of at least one tier II provider.

Horizon period means the fixed period of time within which a transit provider will evaluate the performance of its TAM plan.

Implementation strategy means a transit provider's approach to carrying out TAM practices, including establishing a schedule, accountabilities, tasks, dependencies, and roles and responsibilities.

Infrastructure means the underlying framework or structures that support a public transportation system.

Investment prioritization means a transit provider's ranking of capital projects or programs to achieve or maintain a state of good repair. An investment prioritization is based on financial resources from all sources that a transit provider reasonably anticipates will be available over the TAM plan horizon period.

Key asset management activities means a list of activities that a transit provider determines are critical to achieving its TAM goals.

Life-cycle cost means the cost of managing an asset over its whole life.

Participant means a tier II provider that participates in a group TAM plan.

Performance Measure means an expression based on a quantifiable indicator of performance or condition that is used to establish targets and to assess progress toward meeting the established targets (*e.g.,* a measure for on-time performance is the percent of trains that arrive on time, and a corresponding quantifiable indicator of performance or condition is an arithmetic difference between scheduled and actual arrival time for each train).

Performance target means a quantifiable level of performance or condition, expressed as a value for the measure, to be achieved within a time period required by the Federal Transit Administration (FTA).

Public transportation system means the entirety of a transit provider's operations, including the services provided through contractors.

Public transportation agency safety plan means a transit provider's documented comprehensive agency safety plan that is required by 49 U.S.C. 5329.

Recipient means an entity that receives Federal financial assistance under 49 U.S.C. Chapter 53, either directly from FTA or as a subrecipient.

Rolling stock means a revenue vehicle used in providing public transportation, including vehicles used for carrying passengers on fare-free services.

Service vehicle means a unit of equipment that is used primarily either to support maintenance and repair work for a public transportation system or for delivery of materials, equipment, or tools.

Sponsor means a State, a designated recipient, or a direct recipient that develops a group TAM for at least one tier II provider.

State of good repair (SGR) means the condition in which a capital asset is able to operate at a full level of performance.

Subrecipient means an entity that receives Federal transit grant funds indirectly through a State or a direct recipient.

TERM scale means the five (5) category rating system used in the Federal Transit Administration's Transit Economic Requirements Model (TERM) to describe the condition of an asset: 5.0—Excellent, 4.0—Good; 3.0—Adequate, 2.0—Marginal, and 1.0—Poor.

Tier I provider means a recipient that owns, operates, or manages either (1) one hundred and one (101) or more vehicles in revenue service during peak regular service across all fixed route modes or in any one non-fixed route mode, or (2) rail transit.

Tier II provider means a recipient that owns, operates, or manages (1) one hundred (100) or fewer vehicles in revenue service during peak regular service across all non-rail fixed route modes or in any one non-fixed route mode, (2) a subrecipient under the 5311 Rural Area Formula Program, (3) or any American Indian tribe.

Transit asset management (TAM) means the strategic and systematic practice of procuring, operating, inspecting, maintaining, rehabilitating, and replacing transit capital assets to manage their performance, risks, and costs over their life cycles, for the purpose of providing safe, cost-effective, and reliable public transportation.

Transit asset management (TAM) plan means a plan that includes an inventory of capital assets, a condition assessment of inventoried assets, a decision support tool, and a prioritization of investments.

Transit asset management (TAM) policy means a transit provider's documented commitment to achieving and maintaining a state of good repair for all of its capital assets. The TAM policy defines the transit provider's TAM objectives and defines and assigns roles and responsibilities for meeting those objectives.

Transit asset management (TAM) strategy means the approach a transit provider takes to carry out its policy for

TAM, including its objectives and performance targets.

Transit asset management system means a strategic and systematic process of operating, maintaining, and improving public transportation capital assets effectively, throughout the life cycles of those assets.

Transit provider (provider) means a recipient or subrecipient of Federal financial assistance under 49 U.S.C. chapter 53 that owns, operates, or manages capital assets used in providing public transportation.

Useful life means either the expected life cycle of a capital asset or the acceptable period of use in service determined by FTA.

Useful life benchmark (ULB) means the expected life cycle or the acceptable period of use in service for a capital asset, as determined by a transit provider, or the default benchmark provided by FTA.

Subpart B—National Transit Asset Management System

§ 625.15 Elements of the National Transit Asset Management System.

The National TAM System includes the following elements:

(a) The definition of *state of good repair,* which includes objective standards for measuring the condition of capital assets, in accordance with subpart D of this part;

(b) Performance measures for capital assets and a requirement that a provider and a group TAM plan sponsor establish performance targets for improving the condition of capital assets, in accordance with subpart D of this part;

(c) A requirement that a provider develop and carry out a TAM plan, in accordance with subpart C of this part,

(d) Reporting requirements in accordance with subpart E of this part; and

(e) Analytical processes and decision support tools developed or recommended by FTA.

§ 625.17 State of good repair principles.

(a) A capital asset is in a state of good repair if it is in a condition sufficient for the asset to operate at a full level of performance. In determining whether a capital asset is in a state of good repair, a provider must consider the state of good repair standards under subpart D of this part.

(b) An individual capital asset may operate at a full level of performance regardless of whether or not other capital assets within a public transportation system are in a state of good repair.

(c) A provider's Accountable Executive must balance transit asset management, safety, day-to-day operations, and expansion needs in approving and carrying out a TAM plan and a public transportation agency safety plan.

Subpart C—Transit Asset Management Plans

§ 625.25 Transit Asset Management Plan requirements.

(a) *General.* (1) Each tier I provider must develop and carry out a TAM plan that includes each element under paragraph (b) of this section.

(2) Each tier II provider must develop its own TAM plan or participate in a group TAM plan. A tier II provider's TAM plan and a group TAM plan only must include elements under paragraphs (b)(1) through (4) of this section.

(3) A provider's Accountable Executive is ultimately responsible for ensuring that a TAM plan is developed and carried out in accordance with this part.

(b) *Transit asset management plan elements.* Except as provided in paragraph (a)(3) of this section, a TAM plan must include the following elements:

(1) An inventory of the number and type of capital assets. The inventory must include all capital assets that a provider owns, except equipment with an acquisition value under $50,000 that is not a service vehicle. An inventory also must include third-party owned or jointly procured exclusive-use maintenance facilities, passenger station facilities, administrative facilities, rolling stock, and guideway infrastructure used by a provider in the provision of public transportation. The asset inventory must be organized at a level of detail commensurate with the level of detail in the provider's program of capital projects;

(2) A condition assessment of those inventoried assets for which a provider has direct capital responsibility. A condition assessment must generate information in a level of detail sufficient to monitor and predict the performance of the assets and to inform the investment prioritization;

(3) A description of analytical processes or decision-support tools that a provider uses to estimate capital investment needs over time and develop its investment prioritization;

(4) A provider's project-based prioritization of investments, developed in accordance with § 625.33 of this part;

(5) A provider's TAM and SGR policy;

(6) A provider's TAM plan implementation strategy;

(7) A description of key TAM activities that a provider intends to engage in over the TAM plan horizon period;

(8) A summary or list of the resources, including personnel, that a provider needs to develop and carry out the TAM plan; and

(9) An outline of how a provider will monitor, update, and evaluate, as needed, its TAM plan and related business practices, to ensure the continuous improvement of its TAM practices.

§ 625.27 Group plans for transit asset management.

(a) *Responsibilities of a group TAM plan sponsor.* (1) A sponsor must develop a group TAM plan for its tier II provider subrecipients, except those subrecipients that are also direct recipients under the 49 U.S.C. 5307 Urbanized Area Formula Grant Program. The group TAM plan must include a list of those subrecipients that are participating in the plan.

(2) A sponsor must comply with the requirements of this part for a TAM plan when developing a group TAM plan.

(3) A sponsor must coordinate the development of a group TAM plan with each participant's Accountable Executive.

(4) A sponsor must make the completed group TAM plan available to all participants in a format that is easily accessible.

(b) *Responsibilities of a group TAM plan participant.* (1) A tier II provider may participate in only one group TAM plan.

(2) A tier II provider must provide written notification to a sponsor if it chooses to opt-out of a group TAM plan. A provider that opts-out of a group TAM plan must either develop its own TAM plan or participate in another sponsor's group TAM plan.

(3) A participant must provide a sponsor with any information that is necessary and relevant to the development of a group TAM plan.

§ 625.29 Transit asset management plan: horizon period, amendments, and updates.

(a) *Horizon period.* A TAM plan must cover a horizon period of at least four (4) years.

(b) *Amendments.* A provider may update its TAM plan at any time during the TAM plan horizon period. A provider should amend its TAM plan whenever there is a significant change to the asset inventory, condition assessments, or investment prioritization that the provider did not reasonably anticipate during the development of the TAM plan.

(c) *Updates.* A provider must update its entire TAM plan at least once every

four (4) years. A provider's TAM plan update should coincide with the planning cycle for the relevant Transportation Improvement Program or Statewide Transportation Improvement Program.

§ 625.31 Implementation deadline.

(a) A provider's initial TAM plan must be completed no later than two years after October 1, 2016.

(b) A provider may submit in writing to FTA a request to extend the implementation deadline. FTA must receive an extension request before the implementation deadline and will consider all requests on a case-by-case basis.

§ 625.33 Investment prioritization.

(a) A TAM plan must include an investment prioritization that identifies a provider's programs and projects to improve or manage over the TAM plan horizon period the state of good repair of capital assets for which the provider has direct capital responsibility.

(b) A provider must rank projects to improve or manage the state of good repair of capital assets in order of priority and anticipated project year.

(c) A provider's project rankings must be consistent with its TAM policy and strategies.

(d) When developing an investment prioritization, a provider must give due consideration to those state of good repair projects to improve that pose an identified unacceptable safety risk when developing its investment prioritization.

(e) When developing an investment prioritization, a provider must take into consideration its estimation of funding levels from all available sources that it reasonably expects will be available in each fiscal year during the TAM plan horizon period.

(f) When developing its investment prioritization, a provider must take into consideration requirements under 49 CFR 37.161 and 37.163 concerning maintenance of accessible features and the requirements under 49 CFR 37.43 concerning alteration of transportation facilities.

Subpart D—Performance Management

§ 625.41 Standards for measuring the condition of capital assets.

A capital asset is in a state of good repair if it meets the following objective standards—

(a) The capital asset is able to perform its designed function;

(b) The use of the asset in its current condition does not pose an identified unacceptable safety risk; and

(c) The life-cycle investment needs of the asset have been met or recovered, including all scheduled maintenance, rehabilitation, and replacements.

§ 625.43 SGR performance measures for capital assets.

(a) *Equipment: (non-revenue) service vehicles.* The performance measure for non-revenue, support-service and maintenance vehicles equipment is the percentage of those vehicles that have either met or exceeded their ULB.

(b) *Rolling stock.* The performance measure for rolling stock is the percentage of revenue vehicles within a particular asset class that have either met or exceeded their ULB.

(c) *Infrastructure: rail fixed-guideway, track, signals, and systems.* The performance measure for rail fixed-guideway, track, signals, and systems is the percentage of track segments with performance restrictions.

(d) *Facilities.* The performance measure for facilities is the percentage of facilities within an asset class, rated below condition 3 on the TERM scale.

§ 625.45 Setting performance targets for capital assets.

(a) *General.* (1) A provider must set one or more performance targets for each applicable performance measure.

(2) A provider must set a performance target based on realistic expectations, and both the most recent data available and the financial resources from all sources that the provider reasonably expects will be available during the TAM plan horizon period.

(b) *Timeline for target setting.* (1) Within three months after the effective date of this part, a provider must set performance targets for the following fiscal year for each asset class included in its TAM plan.

(2) At least once every fiscal year after initial targets are set, a provider must set performance targets for the following fiscal year.

(c) *Role of the accountable executive.* A provider's Accountable Executive must approve each annual performance target.

(d) *Setting performance targets for group plan participants.* (1) A Sponsor must set one or more unified performance targets for each asset class reflected in the group TAM plan in accordance with paragraphs (a)(2) and (b) of this section.

(2) To the extent practicable, a Sponsor must coordinate its unified performance targets with each participant's Accountable Executive.

(e) *Coordination with metropolitan, statewide and non-metropolitan planning processes.* To the maximum extent practicable, a provider and Sponsor must coordinate with States and Metropolitan Planning Organizations in the selection of State and Metropolitan Planning Organization performance targets.

Subpart E—Recordkeeping and Reporting Requirements for Transit Asset Management

§ 625.53 Recordkeeping for transit asset management.

(a) At all times, each provider must maintain records and documents that support, and set forth in full, its TAM plan.

(b) A provider must make its TAM plan, any supporting records or documents performance targets, investment strategies, and the annual condition assessment report available to a State and Metropolitan Planning Organization that provides funding to the provider to aid in the planning process.

§ 625.55 Annual reporting for transit asset management.

(a) Each provider must submit the following reports:

(1) An annual data report to FTA's National Transit Database that reflects the SGR performance targets for the following year and condition information for the provider's public transportation system.

(2) An annual narrative report to the National Transit Database that provides a description of any change in the condition of the provider's transit system from the previous year and describes the progress made during the year to meet the performance targets set in the previous reporting year.

(b) A Sponsor must submit one consolidated annual data report and one consolidated annual narrative report, as described in paragraph (a)(1) and (2) of this section, to the National Transit Database on behalf of its participants.

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Appendix A to Part 625—Asset Categories, Asset Classes, and Individual Assets

EXAMPLE of asset categories, asset classes, and individual assets:

ASSET CATEGORY		ASSET CLASS	INDIVIDIUAL ASSET
	Equipment	Construction	Crane Prime Mover
		Maintenance	Vehicle Lift Track Geometry Car
		Non-revenue Service Vehicles	Tow Truck Emergency Response Vehicle Supervisor Car Track Maintenance Vehicle
	Rolling Stock	Buses	40 Foot Bus 60 Foot Articulated Bus
		Other Passenger Vehicles	Cutaway Van Minivan
		Railcars	Light Rail Vehicle Commuter Rail Locomotive
		Ferries	Ferry Boat
	Infrastructure	Systems	Signal Substation
		Fixed Guideway	Track Segment Ballast Segment Exclusive Bus Right-of-Way Segment
		Power	Catenary Segment Third Rail Segment
		Structures	Bridge Tunnel Elevated Structure
	Facilities	Support Facilities	Maintenance Facilities Administrative Facilities
		Passenger Facilities	Rail Terminals Bus Transfer Stations
		Parking Facilities	Parking Garages Park-and-Ride Lots

Appendix B to Part 625—Relationship Amongst SGR Performance Measures, SGR Definition, and SGR Principles

EXAMPLE Relationship amongst SGR performance measures, SGR definition, and SGR principles:

(a) A tier I provider has a TAM asset inventory containing, in total across all modes, over 150 revenue vehicles in peak revenue service, no rail fixed guideway, multiple passenger and exclusive use maintenance facilities, and various pieces of equipment over $50,000. Their asset inventory is itemized at the level of detail they use in their capital program of projects; it also includes capital assets they do not own but use. The provider conducts condition assessments on those assets in its inventory for which it has direct financial responsibility. The results of the condition assessment indicate that there is an identified unacceptable safety risk in the deteriorated condition of one of their non-revenue service vehicles, but that the non-revenue service vehicles are being used as designed. The condition assessment results show the provider that one non-revenue service vehicle is not in SGR.

(b) The condition assessment results also inform the investment prioritization process, which for this provider is a regression analysis in a spreadsheet software program. The provider's criteria, as well as their weightings, are locally determined to produce the ranked list of programs and projects in their investment prioritization. The provider batches its projects by low, medium or high priority, identifying in which funding year each project will proceed. The provider has elected to use the ULB defaults, provided by FTA, for each of their modes until such time as they have resources and expertise to develop customized ULBs.

(c) The provider separates assets within each asset category by class to determine their current performance measure metric. For example, the equipment listed in its TAM asset inventory includes HVAC equipment and service vehicles; however, the SGR performance metric for the equipment category only requires the non-revenue vehicle metrics. Thus, the provider measures only non-revenue vehicles that exceed the default ULB for the modes they own, operate, or manage. This metric is the baseline the provider uses to determine its target for the forthcoming year.

(d) The provider's equipment baseline, its investment priorities that show minimal funding for non-revenue vehicles over the next 4 years, and its TAM policies, strategies and key asset management activities are used to project its target for the equipment category. Since one of its non-revenue service vehicles indicated an unacceptable safety risk, it is elevated in the investment prioritization for maintenance or replacement. The provider's target may indicate a decline in the condition of their equipment overall, but it addresses the unacceptable safety risk as an immediate priority.

(e) The cyclic nature of investment prioritization and SGR performance target setting requires the provider to go through the process more than once to settle on the balance of priorities and targets that best reflects its local needs and funding availability from all sources. The provider's accountable executive has ultimate responsibility for accepting and approving the TAM plan and SGR targets. The targets are then submit to the NTD and shared with the provider's planning organization. The narrative report, which describes the SGR performance measure metrics, is also submitted to the NTD.

Appendix C to Part 625—Assets Included in National TAM System Provisions

Table 1—Assets Included in National TAM System Provisions

MAP-21 Asset Category	TAM Plan Element		SGR Performance Measure 625.43 (a) – (d)
	Asset inventory 625.15 (c)(1)	Condition assessment 625.15 (c)(2)	
Equipment	All non-revenue service vehicles and equipment over $50,000 used in the provision of public transit, except third-party equipment assets.	Only inventoried equipment with direct capital responsibility, no third party assets	Only non-revenue service vehicles with direct capital responsibility.
Rolling Stock	All revenue vehicles used in the provision of public transit	Only revenue vehicles with direct capital responsibility	Only revenue vehicles with direct capital responsibility, by mode
Infrastructure	All guideway infrastructure used in the provision of public transit	Only guideway infrastructure with direct capital responsibility	Only fixed rail guideway with direct capital responsibility
Facilities	All passenger stations and all exclusive-use maintenance facilities used in the provision of public transit, excluding bus shelters	Only passenger stations and exclusive-use maintenance facilities with direct capital responsibility, excluding bus shelters	1- Maintenance and Administrative facilities with direct capital responsibility, 2- Passenger stations (buildings) and Parking facilities with direct capital responsibility

Table 2—*EXAMPLE* of Multiple SGR Performance Targets for a Sample Fleet

MAP-21 Asset Category	Asset Class	Performance Targets
Equipment	one non-revenue service vehicle type (automobile)	**Total 1- Equipment Performance Target:** 1- supervisor car
Rolling Stock	3 vehicle types (cutaway, van, 30 ft. bus)	**Total 3- Rolling Stock Performance Targets:** 1- cutaway, 2- van, 3- 30 ft. bus
Infrastructure	no track	**Total 0 - Infrastructure Performance Targets:**
Facilities	2 exclusive-use maintenance garages, 1 administrative office, and 3 passenger stations	**Total - 2 Facilities Performance Target:** 1- maintenance and administrative facilities 2- passenger and parking facilities

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PART 630—NATIONAL TRANSIT DATABASE

■ 2. The authority citation for part 630 is revised to read as follows:

Authority: 49 U.S.C. 5335.

■ 3. In § 630.3, amend paragraph (c) by revising the definitions of ''Applicant'' and ''Reporting entity'' to read as follows:

§ 630.3 Definitions.

* * * * *

(c) * * *

Applicant means an entity seeking Federal financial assistance under 49 U.S.C. chapter 53.

* * * * *

Reporting entity means an entity required to provide reports as set forth in the reference documents.

* * * * *

■ 4. Amend § 630.4 by revising paragraph (a) to read as follows:

§ 630.4 Requirements.

(a) *National Transit Database Reporting System.* Each applicant for and beneficiary of Federal financial assistance under 49 U.S.C. chapter 53 must comply with the applicable requirements of 49 U.S.C. 5335, as set forth in the reference documents.

* * * * *

■ 5. Revise § 630.5 to read as follows:

§ 630.5 Failure to report data.

Failure to report data in accordance with this part may result in the noncompliant reporting entity being ineligible to receive any funding under 49 U.S.C. chapter 53, directly or indirectly, until such time as a report is filed in accordance with this part.

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