



TRANSIT
ASSET
MANAGEMENT

2019 TAM Data Summary

A Snapshot of Asset-
Related Data Reported
to the National Transit
Database

June
2021



U.S. Department of Transportation
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Disclaimer

The TAM Data Summary report supports FTA's efforts to provide a national snapshot of asset conditions. FTA summarizes and compiles data self-reported directly by agencies to the NTD in the Asset Inventory Module (AIM), and publishes an annual summary report. While all agencies report performance metrics and targets for the same performance measures, they have discretion over the methods that they use to set their targets. FTA verifies the data to resolve discrepancies such as values reported outside of the expected range, but does not model or extrapolate this data. Please refer to the [TAM Performance Management](#) webpage for additional context on the TAM Data Summary, its intended use, and limitations.

If you or your agency reference data from this report, please consider including the following abbreviated disclaimer: 'This statistic is from the TAM Data Summary report. Please refer to the [TAM Performance Management](#) webpage for additional context on the TAM Data Summary, its intended use, and limitations.'

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INTRODUCTION

This report summarizes data that transit agencies reported to the National Transit Database (NTD), providing an inventory and assessment of the condition of assets used to provide transit service nationally. This report provides a snapshot of the data submitted for reporting year 2019, with some references and comparisons to the 2018 reporting year data; 2018 was the first year in which transit agencies reported this information on transit assets, in accordance with the requirements of the Transit Asset Management (TAM) rule (49 CFR 625).

BACKGROUND ON TAM REQUIREMENTS AND REPORTING

The Moving Ahead for Progress in the 21st Century Act (MAP-21) amended Federal transit law to require the Department of Transportation to develop rules to establish a system to monitor and manage public transportation assets to improve safety and increase reliability and performance, and to establish performance measures. On July 26, 2016, FTA published the Transit Asset Management (TAM) Final Rule. The purpose of the TAM Rule is to help achieve and maintain a state of good repair (SGR) for the nation's public transportation assets. Transit asset management is a business model that uses transit asset condition to guide the optimal prioritization of funding.

The regulations apply to all transit providers that are recipients or subrecipients of Federal financial assistance under 49 U.S.C. Chapter 53 and own, operate, or manage transit capital assets used in the provision of public transportation. The TAM Rule groups providers into two categories: Tier I and Tier II. Each agency subject to the rule is required to develop a compliant TAM Plan (first required in October 2018), submit an annual data report to the NTD with performance targets and status (inventory and condition assessment), and submit an annual narrative report (first required in October 2019).

Agencies fulfill this requirement through an individual or group TAM plan. Group Plans are designed to collect TAM information about groups

State of Good Repair (SGR) - the condition in which a capital asset is able to operate at a full level of performance. A capital asset is in a state of good repair when that asset:

1. Is able to perform its designed function,
2. Does not pose a known unacceptable safety risk, and
3. Its lifecycle investments have been met or recovered.

(typically subrecipients of 5311 or 5310 grant programs) that do not have a direct financial relationship with FTA. Group Plan sponsors include direct or designated recipients of section 5311, 5307, and 5310 funds with at least one subrecipient that is a provider of public transportation. State Departments of Transportation (State DOTs) are the most common sponsors, but Metropolitan Planning Organizations (MPOs) or transit agencies can also sponsor Group Plans. Group Plan sponsors are required to include their Tier II subrecipients that do not have a direct funding relationship with FTA, and have the option of inviting other Tier II recipients of 5307 funds to join the Group Plan.

This report highlights data that transit agencies reported, providing a comprehensive look at the wide range of capital assets supporting transit service, including revenue vehicles, equipment (service vehicles), facilities, and infrastructure (guideway and track). The data include information on count and age, as well as current condition and expectations of their ability to maintain them in a state of good repair, as indicated by the reported performance targets. The data are self-reported to the NTD by transit agencies based on the best quality information available to them.

This report focuses on the TAM component of the NTD requirements and the data in the Asset Inventory Module (AIM). The data in this TAM NTD snapshot report are distinct from those documented in the “Status of the Nation’s Highways, Bridges, and Transit: Conditions and Performance Report,” which FHWA and FTA jointly produce and publish. The Conditions and Performance report also uses data from the AIM, as well as additional information from a sampling of transit agencies across the country, in order to model the nationwide condition of transit and cost of deferred replacement needs. The most recent edition of that report is available [online for download](#).

TIER I	TIER II
Operates rail	Subrecipient of 5311 funds
OR	OR
≥ 101 vehicles across all fixed route modes	American Indian Tribe
OR	OR
≥ 101 vehicles in one non-fixed route mode	≤ 100 vehicles across all fixed route modes
	OR
	≤ 100 vehicles in one non-fixed route mode

This report begins with an introduction of TAM requirements as well as the TAM performance measures. It continues with a discussion of NTD reporting requirements and terminology. The report proceeds with a discussion of group plan participation before walking through the data reporting, analysis, and results for the four asset categories of revenue vehicles, service vehicles, facilities, and track and infrastructure. The report concludes with a discussion of the data reporting, analysis, and results for the TAM performance targets. Table 1 provides a summary of the overall transit asset inventory, and an estimate of the percentage of assets in SGR.

TABLE 1: SUMMARY OF THE OVERALL TRANSIT ASSET INVENTORY, AND AN ESTIMATE OF THE PERCENTAGE OF ASSETS IN SGR

Asset Category	Total Number of Assets	Assets with Capital Responsibility	% Assets in SGR
<i>Equipment (Service Vehicles)</i>	30,679	30,512	63%
<i>Facilities</i>	13,317	11,322	88%
<i>Infrastructure (Track Miles)</i>	13,839	11,729	97%
<i>Revenue Vehicles</i>	176,824	150,446	80%

NTD REPORTING

Reporting TAM data to NTD is a relatively new and emerging process. The FTA expects that there may be some reporting variability in the first several years of annual reports. Just as transit agencies are continuing to refine their methods and approaches for collecting and reporting the data, the FTA is also continuing to refine its methodology and approach to analyzing and representing the TAM-related data.

TAM Performance Measures

NTD reports capture a snapshot of the overall inventory and condition of the country's public transportation systems. FTA requires transit agencies to measure asset performance by asset class; a subgroup of capital assets within an asset category. Table 2 shows assets that must be reported to the NTD and the applicable performance measures. Assets whose condition is beyond the associated performance metrics (e.g., vehicles beyond useful life benchmark, track with performance restrictions, and facilities below the 3.0 TERM rating) are considered to be not in SGR. Transit agencies report on asset condition for the current year and set targets for each asset class for the coming year. The targets reflect an agency's expectation of its ability to keep assets in a state of good repair, based on current conditions, anticipated funding, and internal agency decision making procedures. While FTA provides resources and technical assistance to support target setting, there is no prescribed process that agencies must use. Further, there are no rewards for meeting the targets and no penalties for not meeting the targets. Note that the raw data is reported to NTD as percentages not in SGR; this report simplifies the data to present the percentages of asset classes in SGR.

TABLE 2: ASSET CATEGORIES AND PERFORMANCE MEASURES

Asset Category	Performance Measure	Key Metric
Equipment: Non-revenue support-service and maintenance vehicles	Percentage of non-revenue service vehicles (by class) that exceed the ULB.	Useful Life Benchmark (ULB): the expected lifecycle of a capital asset for a particular transit provider's operating environment, or the acceptable period of use in service for a particular transit provider's operating environment
Rolling Stock: Revenue vehicles by mode	The percentage of revenue vehicles (by type) that exceed the ULB.	
Infrastructure: Only rail fixed-guideway track, signals, and systems	Percentage of track segments (by mode) with performance restrictions.	Performance restriction: exists on a segment of rail fixed guideway when the maximum permissible speed of transit vehicles is set to a value that is below the guideway's full service speed. These restriction are often referred to as "slow zones".
Facilities: Maintenance and administrative facilities; and passenger stations (buildings) and parking facilities	Percentage of facilities that are rated less than 3.0 on the TERM Scale.	The Transit Economic Requirements Model (TERM) scale: for defining asset condition: 1-poor, 2-marginal, 3-adequate, 4-good, and 5- excellent.

Capital Replacement Responsibility

Transit agencies are required to inventory all assets used in provision of public transportation, but are only required to assess the condition of and set targets on the assets for which they have direct capital responsibility. Agencies have direct capital responsibility of a facility if they:

- Own the asset;
- Jointly own the assets with another entity; or
- Are responsible for replacing, overhauling, refurbishing, or conducting major repairs on that asset, or the costs of those activities are itemized as a capital line item in their budget

Calculating Performance Metrics and Targets

Transit agencies report condition information at the individual asset level for the current year, and set performance targets for all assets within each asset class for the following year. For this snapshot report, FTA has calculated the current year SGR metrics for each asset class across the country, based on the reported performance and condition of each asset. For example, this means calculating the total number of buses that all transit agencies have capital responsibility for, and the percentage of those buses that are beyond their agency-defined ULBs. Similarly, FTA compared the total number of buses for each agency to the SGR target to calculate a national total number of buses and percent in SGR for the following year target.

NTD v. TAM Terminology

While the TAM and NTD requirements overlap at data reporting, they are each their own programs with distinct timelines, requirements, and terminology. This report focuses on the TAM component of the NTD requirements and the data in the Asset Inventory Module (AIM). It does not include data or information from other NTD modules. In general, this report may frame or discuss NTD data reporting through the lens of the TAM program, rather than using the specific language found in the NTD reporting forms.

GLOSSARY

Asset Category: A grouping of asset classes, including a grouping of equipment, a grouping of rolling stock, a grouping of infrastructure, and a grouping of facilities.

Asset Class: 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.

Asset Inventory Module (AIM): NTD forms used to report on transit assets.

A-15: Facility Inventory Form

A-20: Transitway Mileage Form

A-30: Revenue Vehicle Inventory Form

A-35: Service Vehicle Inventory Form

A-90: Transit Asset Management Performance Measures Form

Direct Capital Responsibility: Transit agencies have direct capital responsibility for assets that they own, jointly own with another entity, or for assets that they are responsible for replacing, overhauling, refurbishing, or conducting major repairs on that asset, or the cost of those activities are itemized as a capital line item in the agency's budget.

FTA Funding Programs:

5307, Urbanized Area Formula Grant Program: Makes federal resources available to urbanized areas and to governors for transit capital and operating assistance in urbanized areas and for transportation-related planning. An urbanized area is an incorporated area with a population of 50,000 or more that is designated as such by the U.S. Department of Commerce, Bureau of the Census.

5310, Grant Program for special services to the elderly and disabled: provides formula funding to states for the purpose of assisting private nonprofit groups in meeting the transportation needs of older adults and people with disabilities when the transportation service provided is unavailable, insufficient, or inappropriate to meeting these needs.

5311, Rural Area Formula Grant Program: provides capital, planning, and operating assistance to states and federally recognized Indian tribes to support public transportation in rural areas with populations less than 50,000, where many residents often rely on public transit to reach their destinations. It also provides funding for state and national training and technical assistance through the Rural Transportation Assistance Program.

Tribal, Tribal Transit Program: A set-aside from the Formula Grants for Rural Areas program that consists of a formula program and a competitive grant program subject to the availability of appropriations.

Group Plan: A single TAM plan that is developed by a sponsor on behalf of at least one Tier II provider.

Group Plan Participant: A Tier II transit agency participating in a TAM Group Plan.

GLOSSARY, CONT.

Group Plan Sponsor: A transit provider with sub-recipients or State DOT organizing and creating a Group Plan on behalf of their FTA fund sub-recipients.

National Transit Database (NTD): Repository of data about the financial, operating and asset conditions of American transit systems. The NTD records the financial, operating, and asset condition of transit systems helping to keep track of the industry and provide public information and statistics.

Performance Restriction: Exists on a segment of rail fixed guideway when the maximum permissible speed of transit vehicles is set to a value that is below the guideway's full service speed. These restrictions are often referred to as "slow zones."

State of Good Repair (SGR): The condition in which a capital asset is able to operate at a full level of performance. A capital asset is in a state of good repair when that asset:

- Is able to perform its designed function,
- Does not pose a known unacceptable safety risk, and
- Its lifecycle investments have been met or recovered.

Tier I: A recipient that owns, operates, or manages either (a) 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 (b) rail transit.

Tier II: A recipient that owns, operates, or manages (a) 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, (b) a subrecipient under the 5311 Rural Area Formula Program, (c) or any American Indian tribe.

Transit Asset Management (TAM): 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. TAM is a business model that prioritizes funding based on the condition of transit assets to achieve and maintain a state of good repair for the nation's public transportation assets. The 2016 TAM Final Rule develops a framework for transit agencies to monitor and manage public transportation assets, improve safety, increase reliability and performance, and establish performance measures in order to help agencies keep their systems operating smoothly and efficiently.

Transit Economic Requirements Model (TERM): An analysis tool developed for the FTA designed to estimate transit capital investment needs to maintain a state of good repair across the nation's transit systems.

Useful Life Benchmark (ULB): 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.



GROUP PLANS

Group plans are designed to reduce the burden on smaller transit providers by consolidating the administrative and reporting efforts of TAM to the sponsor agency. State DOTs are the most common sponsors, but MPOs and larger transit agencies also sponsor Group Plans. Group Plan sponsors are required to include their Tier II subrecipients that do not have a direct funding relationship with FTA, and have the option of inviting other small urban providers to join the Group Plan. In 2019, there were a total of 70 Group TAM Plan sponsors, developed by 49 State DOTs and 21 other sponsoring agencies, covering a total of 2,041 Tier II participants. This total represents growth from 2018, with 3 additional sponsoring agencies, and a total of 100 more participating agencies.

DATA REPORTING

Agencies Reporting in Group Plans

The number of participants in each Group Plan ranged from 1 to 142, with approximately 37% of plans having 15 or fewer participants. There were two plans with greater than 100 participants. Figure 1 shows the distribution of the number of participants in Group Plans.

FIGURE 1: DISTRIBUTION OF PARTICIPANTS IN GROUP PLANS

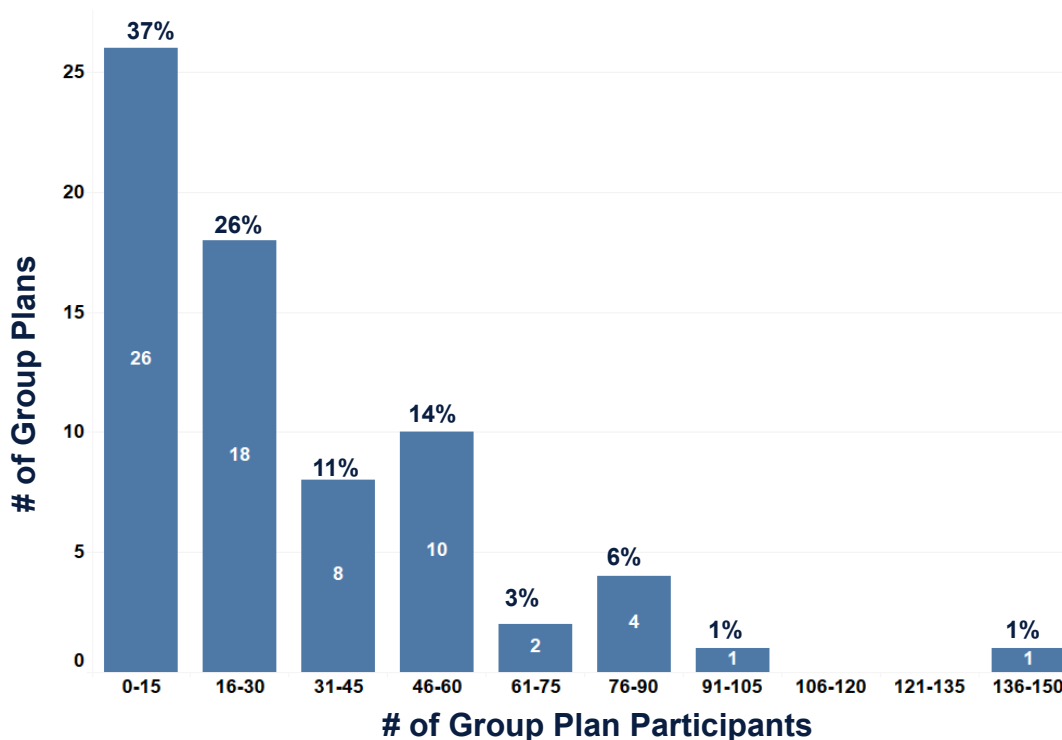


Table 3 shows the makeup of participating agencies. Group Plan sponsors are required to include their Tier II subrecipients that do not have a direct funding relationship with FTA (5310 and 5311 funding recipients), and have the option of inviting other Tier II recipients of 5307 funds to join the Group Plan.

TABLE 3: PARTICIPATING TIER II AGENCIES BY TYPE

Agency Type	Number of Participating Agencies	% of Total Participating Agencies
5310	589	28.9%
5311	1,086	53.2%
Tribal	37	1.8%
Tier II 5307	329	16.1%
Total	2,041	100%

ANALYSIS AND RESULTS

Number and Condition of Transit Assets Included in Group Plans

Nationally, approximately 20% of all transit assets are included in Group Plans. As shown in Table 4, this has remained steady between 2018 and 2019. While there was a slight increase in both the total number of assets and overall percentage of assets included in Group Plans between 2018 and 2019, the overall percentage has remained consistent.

TABLE 4: PERCENT TRANSIT ASSETS INCLUDED IN GROUP PLANS, 2018-19

Asset Category	% Total Assets in Group Plans (2018)	% Total Assets in Group Plans (2019)
Equipment	16%	18%
Facilities	16%	19%
Revenue Vehicles	21%	22%
Total	20%	21%

Table 5 shows the number of assets included in Group Plans in the equipment, facility, and revenue vehicle asset categories, and the percentage that are in SGR. Because Group Plan participants are all Tier II agencies, there are no rail-related assets included in Group Plans. The participating agencies have capital responsibility for their transit assets; sponsoring agencies do not have capital responsibility for the assets in a Group Plan.

TABLE 5: ASSETS INCLUDED IN GROUP PLANS AND IN SGR (CAPITAL RESPONSIBILITY ONLY)

Asset Category	Type	Total Number of Assets	Assets with Capital Responsibility	% Group Plan Assets with Capital Responsibility in SGR
Equipment	Automobiles	715	712	55.9%
	Bus Service Vehicles	1,391	1,385	70.3%
	Total	2,106	2,097	65.4%
Facilities	Administrative	288	288	87.5%
	Maintenance	816	814	89.5%
	Parking	141	126	83.6%
	Passenger	336	272	91.6%
	Total	1,581	1,500	85.6%
Revenue Vehicles	Bus	7,661	7,245	82.0%
	Other Vehicles	7,395	6,573	67.7%
	Vans/Cutaways	23,439	22,320	79.0%
	Total	38,495	36,138	80.3%



REVENUE VEHICLES

Revenue vehicles are the largest capital asset category used in the provision of public transit, and the most familiar assets to the public. There are 25 classes of revenue vehicles (Table 6) reported to the NTD; for ease of understanding, this fact sheet combines them into four asset types: rail vehicles, buses, vans, and other vehicles.

DATA REPORTING

Agencies report revenue vehicles to the NTD as fleets, providing information such as date of manufacture, useful life benchmark (ULB), and the number of vehicles in each fleet. Agencies also report whether they hold capital replacement responsibility for each vehicle fleet.

ANALYSIS AND RESULTS

TABLE 6: CATEGORIZATION OF REVENUE VEHICLES BY ASSET TYPE AND CLASS

Asset Type	Asset Classes	
Rail Vehicles	Aerial Tramway Automated Guideway Vehicle Cable Car Commuter Rail Locomotive Commuter Rail Passenger Coach Commuter Rail Self-Propelled	Passenger Car Heavy Rail Passenger Car Inclined Plane Vehicle Lightrail Vehicle Monorail Vehicle Streetcar Rail
Buses	Articulated Bus Bus Double Decker Bus Over-the-Road Bus	School Bus Trolleybus Vintage Trolley
Vans/Cutaways	Cutaway	Van
Other Vehicles	Automobile Ferry Minivan	Other SUV

Table 7 and Figure 2 show the breakdown of asset types by agency Tier. Agencies with rail vehicles are automatically classified as Tier I agencies. Some Tier II agencies participate in Group Plans, which are designed to reduce the burden on smaller transit providers by consolidating the administrative and reporting efforts to the sponsor agency. Of the 57,754 revenue vehicles that are reported by Tier II agencies, 67% are included in Group Plans.

TABLE 7: NUMBER OF TRANSIT REVENUE VEHICLES

Asset Type	Tier I	Tier II (included in individual plans)	Tier II (included in Group Plans)	Total
Buses	52,986	8,361	7,661	69,008
Rail Vehicles	22,380	--	--	22,380
Vans/Cutaways	30,088	8,917	23,439	62,444
Other	13,616	1,981	7,395	22,992
Total	119,070	19,259	38,495	176,824

FIGURE 2: NUMBER OF TRANSIT REVENUE VEHICLES IN THE U.S. (THOUSANDS)

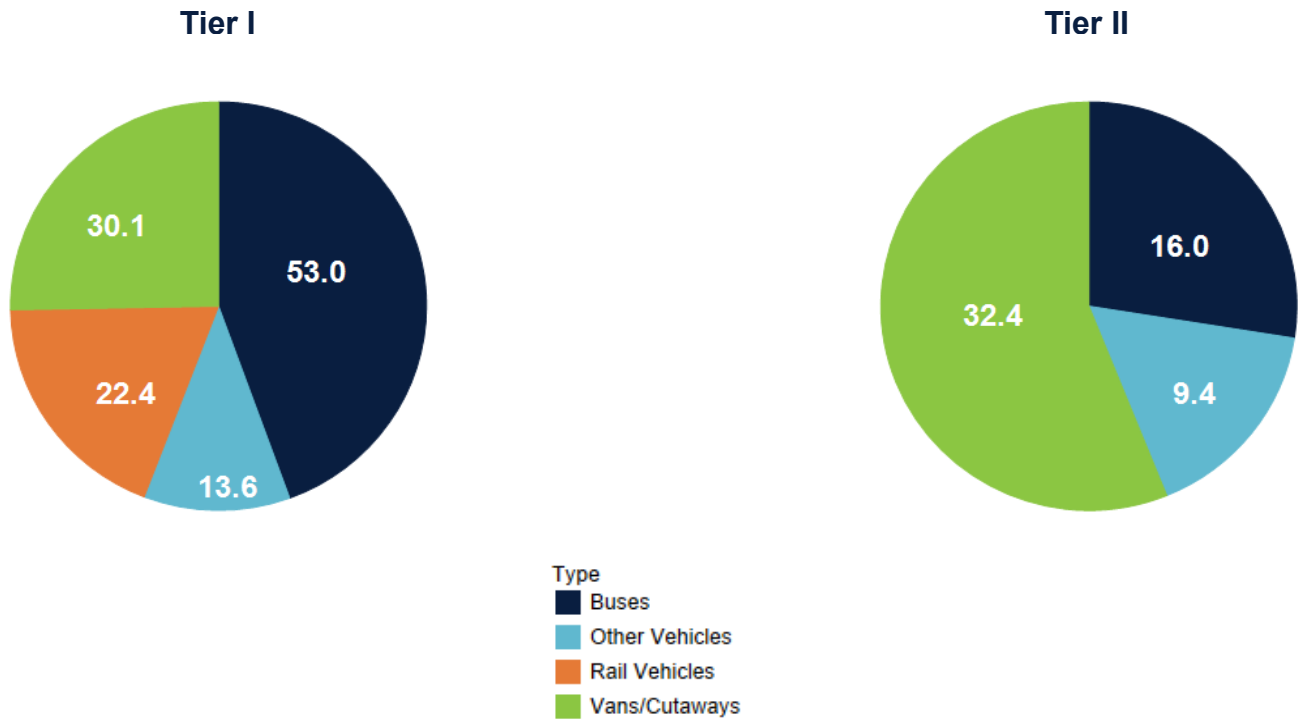


TABLE 8: NUMBER OF TRANSIT REVENUE VEHICLES (CAPITAL RESPONSIBILITY ONLY)

Asset Type	Number in Tier I Agencies	Number in Tier II Agencies
Buses	52,268	15,193
Other Vehicles	5,577	7,655
Rail Vehicles	19,573	--
Vans/Cutaways	20,026	30,154
Grand Total	97,444	53,002

TABLE 9: REVENUE VEHICLE NUMBERS BY TIER

Asset Type	Asset Class	Total Number	Number in Tier I Agencies	Number in Tier II Agencies
Rail Vehicles	Automated Guideway Vehicle	115	115	0
	Cable Car	37	37	0
	Commuter Rail Locomotive	879	879	0
	Commuter Rail Passenger Coach	3,732	3,732	0
	Commuter Rail Self-Propelled Passenger Car	2,780	2,780	0
	Heavy Rail Passenger Car	12,144	12,144	0
	Inclined Plane Vehicle	6	6	0
	Light Rail Vehicle	2,372	2,372	0
	Monorail Vehicle	8	8	0
	Streetcar Rail	307	307	0
Buses	Articulated Bus	6,008	5,903	105
	Bus	55,625	41,070	14,555
	Double Decker Bus	209	194	15
	Over-the-road Bus	6,422	5,151	1,271
	School Bus	98	22	76
	Trolleybus	562	562	0
	Vintage Trolley	84	84	0
Vans/ Cutaways	Cutaway	39,397	14,225	25,172
	Van	23,047	15,863	7,184
Other Vehicles	Aerial Tramway	70	2	68
	Automobile	7,275	5,963	1,312
	Ferryboat	218	53	165
	Minivan	12,981	5,752	7,229
	Other	53	2	51
	Sports Utility Vehicle	2,395	1,844	551
Total		176,824	119,070	57,754

Useful Life Benchmark (ULB)

The ULB is the age at which a vehicle asset class is estimated to no longer be in SGR; it can also be interpreted as the estimated replacement cycle for a specific asset class.

FTA established default ULBs for each vehicle asset class, using the average age at which it would reach the midpoint (a rating of 2.5) on the FTA Transit Economic Requirements Model (TERM) scale. Transit agencies may set a customized ULB, if FTA defaults do not accurately reflect their operating environment. Assets that are beyond the ULB, whether it is the FTA default or a custom value, are considered to not be in SGR and therefore need to be replaced. Table 10 below shows the number of agencies that set a custom ULB for at least one revenue vehicle asset class.

TABLE 10: AGENCIES THAT SET A CUSTOM ULB FOR AT LEAST ONE REVENUE VEHICLE ASSET CLASS

Reporting Year	Number of Agencies Reporting Custom ULB	Total Number of Agencies Reporting	Percent of Agencies Setting Custom ULB
2018	1,466	2,725	53.8%
2019	1,417	2,757	51.4%

Agencies set customized ULBs for both longer and shorter periods than the FTA defaults, indicating a range in expected replacement cycles, based on their unique operating environments. However, custom values were more frequently lower than the default, indicating that the vehicles would need to be replaced sooner than the FTA estimated lifespan.

Table 11 outlines the default and range of custom ULBs for each revenue vehicle asset class. The share of agencies reporting an asset reflects the number of agencies that report at least one asset of that class to NTD, out of the total number of agencies that report to NTD. For example, 3.2% of agencies that submitted data to the NTD reported Articulated Bus assets. Of those agencies that reported Articulated Buses, 52.4% of them set a custom ULB.

TABLE 11: DEFAULT AND CUSTOM USEFUL LIFE BENCHMARKS (CAPITAL RESPONSIBILITY ONLY)

Asset Type	Asset Class	Share Reporting Asset	FTA Default ULB (yrs)	Share Agencies Setting Custom ULBs	ULB Range (yrs)
Buses	Articulated Bus	3.2%	14	52.4%	4.0 - 25.0
	Bus	37.5%	14	55.6%	1.0 - 25.0
	Double Decker Bus	0.3%	14	33.3%	12.0 - 20.0
	Over-the-road Bus	3.9%	14	36.9%	10.0 - 25.0
	School Bus	0.7%	14	33.3%	10.0 - 15.0
	Trolleybus	0.2%	13	80.0%	13.0 - 18.0
	Vintage Trolley	0.3%	58	11.1%	58.0 - 110.0
Other Vehicles	Aerial Tramway	0.1%	12	50.0%	12.0 - 50.0
	Automobile	8.2%	8	37.0%	10.0 - 10.0
	Ferryboat	1.4%	42	44.4%	10.0 - 105.0
	Minivan	42.8%	8	38.6%	2.0 - 84.0
	Other	0.3%	14	77.8%	5.0 - 14.0
	Sports Utility Vehicle	4.5%	8	24.6%	3.0 - 12.0
Rail Vehicles	Automated Guideway Vehicle	0.2%	31	80.0%	25.0 - 50.0
	Cable Car	0.0%	112		112.0 - 112.0
	Commuter Rail Locomotive	0.8%	39	72.7%	20.0 - 80.0
	Commuter Rail Passenger Coach	0.9%	39	60.0%	25.0 - 45.0
	Commuter Rail Self-Propelled Passenger Car	0.5%	39	53.9%	30.0 - 77.0
	Heavy Rail Passenger Car	0.6%	31	73.3%	22.0 - 77.0
	Inclined Plane Vehicle	0.1%	56	33.3%	56.0 - 197.0
	Light Rail Vehicle	0.9%	31	54.2%	25.0 - 41.0
	Monorail Vehicle	0.0%	31	100.0%	80.0 - 80.0
	Streetcar Rail	0.7%	31	50.0%	25.0 - 114.0
Vans/ Cutaways	Cutaway	81.9%	10	45.4%	1.0 - 20.0
	Van	39.2%	8	37.7%	1.0 - 15.0

Asset Replacement

Assets are considered due for replacement when their age (calculated from date of manufacture) reaches the ULB value. Assets that are beyond their ULB, as highlighted in Table 12, are considered due for replacement. Figure 3 shows the percentage of assets nationwide that currently exceed ULB, or will by 2022, which is the time horizon for the first TAM plans completed in 2018. On average, 16.1% of buses owned by Tier I agencies, and 21.1% of buses owned by Tier II agencies are beyond ULB, or are already overdue for replacement. By 2022, 34.4% of buses owned by Tier I agencies, and 39.8% of buses owned by Tier II agencies will be beyond ULB, if no replacements are made.

FIGURE 3: PERCENTAGE OF ASSETS NOT IN SGR

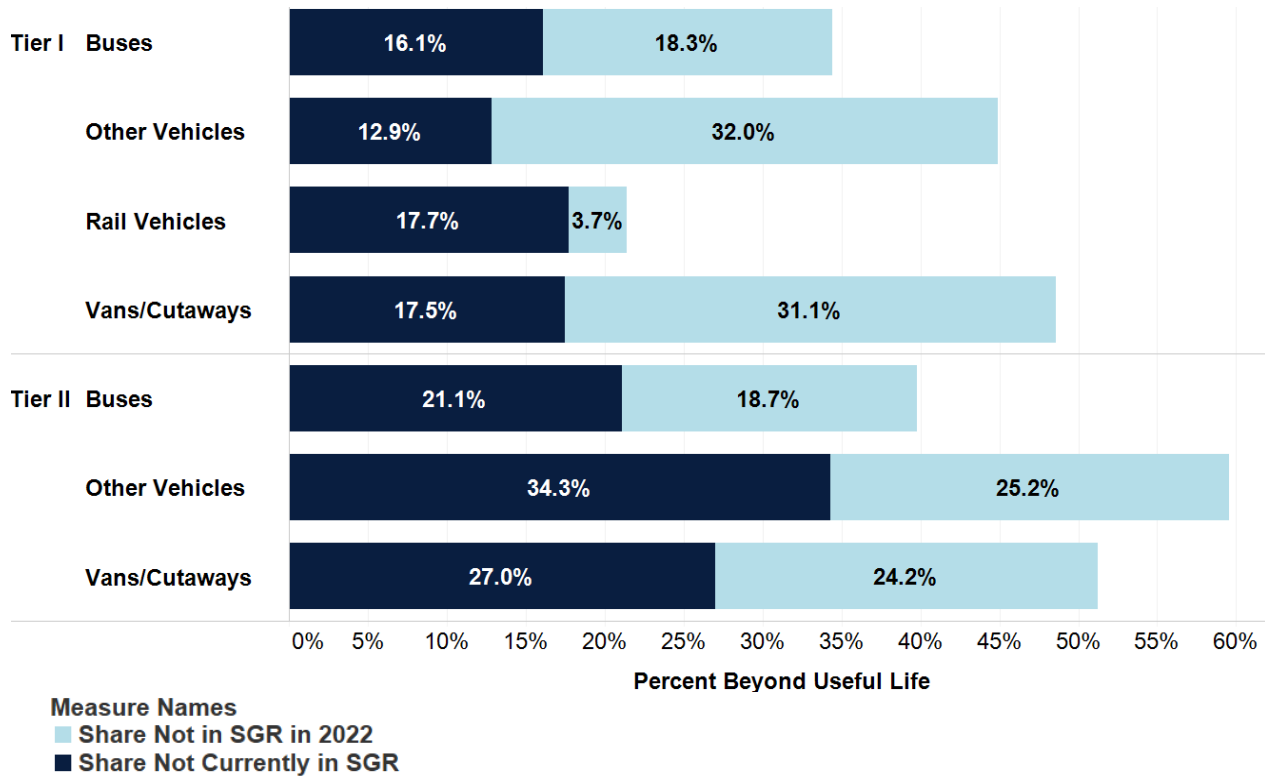


TABLE 12: REVENUE VEHICLES AVERAGE NUMBER OF YEARS UNTIL AN ASSET CLASS REACHES ITS ULB, WEIGHTED FOR THE TOTAL NUMBER OF ASSETS IN EACH CLASS (CAPITAL RESPONSIBILITY ONLY)

Asset Type	Asset Class	Useful Life Remaining (years)
Buses	Articulated Bus	5.8
	Bus	4.6
	Double Decker Bus	2.4
	Over-the-Road Bus	5.6
	School Bus	-1.8
	Trolleybus	7.8
	Vintage Trolley	-11.8
Other Vehicles	Aerial Tramway	0.1
	Automobile	-0.7
	Ferryboat	18.1
	Minivan	1.6
	Other	4.8
	Sport Utility Vehicle	1.9
Rail Vehicles	Automated Guideway Vehicle	11.0
	Cable Car	26.4
	Commuter Rail Locomotive	10.3
	Commuter Rail Passenger Coach	2.1
	Commuter Rail Self-Propelled Passenger Car	22.4
	Heavy Rail Passenger Car	10.5
	Inclined Plane Vehicle	31.0
	Light Rail Vehicle	13.3
	Monorail Vehicle	23.0
	Streetcar Rail	-9.9
Vans/ Cutaways	Cutaway	2.8
	Van	1.4



EQUIPMENT

TAM plan requirements and NTD reporting for Equipment focus on service vehicles, which indirectly support transit service by helping to maintain revenue vehicles and perform transit-related administrative activities. Examples include transit tow trucks, rail track de-icing vehicles, and supervisor cars used by the transit agency.

DATA REPORTING

Agencies report service vehicles to the NTD as fleets, providing information such as date of manufacture, useful life benchmark (ULB), and the number of vehicles in each fleet. The three classes of service vehicles are: automobiles, rubber tire vehicles (or 'bus service vehicles'), and steel-wheel vehicles (or 'rail service vehicles'). Agencies report the proportion of capital responsibility they have for each asset class. Agencies also report the replacement costs for each fleet of assets, including a year for the estimate. This is the only asset category for which agencies report replacement cost.

ANALYSIS AND RESULTS

Total Service Vehicles

Nationwide, transit providers use nearly 30,000 vehicles to support transit service (including more than 6,600 automobiles, 1,700 rail vehicles, and 22,000 trucks and other bus service vehicles). These vehicles are used to maintain tracks, provide transportation for workers between sites, and support other crucial functions. Figure 4 shows the number of service vehicles by class.

FIGURE 4: NUMBER OF VEHICLES (BY ASSET CLASS, IN THOUSANDS)

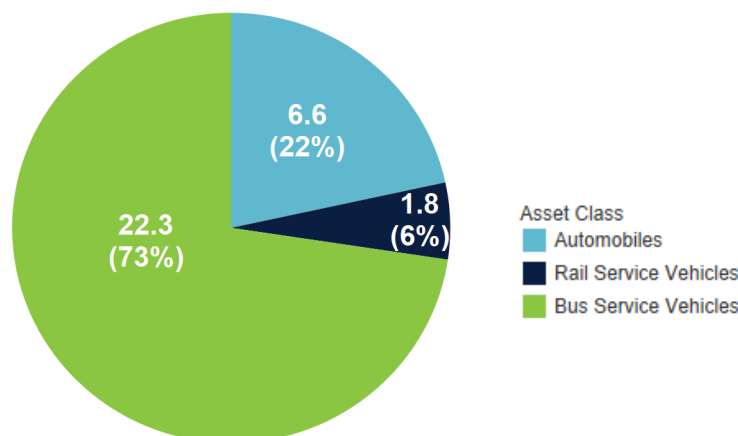


TABLE 13: NUMBER OF SERVICE VEHICLES (BY ASSET CLASS, TIER, AND YEAR)

Asset Class	Tier I 2019	Individual Tier II 2019	Tier II Group Plan 2019	2019 Total	2018 Total
Automobiles	5,089	819	715	6,623	7,666
Bus Service Vehicles	19,247	1,642	1,391	22,280	20,194
Rail Service Vehicles	1,772	--	--	1,772	1,667
Grand Total	26,108	2,461	2,106	30,675	29,527

TABLE 14: NUMBER OF VEHICLES IN 2019 (BY TIER) (CAPITAL RESPONSIBILITY ONLY)

Asset Type	Tier I	Tier II
Automobiles	5,088	1,531
Bus Service Vehicles	19,107	3,015
Rail Service Vehicles	1,767	--

Useful Life Benchmarks (ULBs) and Vehicle Replacement

Agencies report ULBs for service vehicles similarly to revenue vehicles (see discussion of ULBs in Revenue Vehicle section above). Agencies set a wide range of ULBs across the three asset classes that make up service vehicles. Table 15: Useful Life Remaining by asset class in years shows the average years until replacement across the entire fleet (calculated from year of manufacture and ULB).

TABLE 15: USEFUL LIFE REMAINING BY ASSET CLASS IN YEARS

Asset Class	-30 to -26	-25 to -21	-20 to -16	-15 to -11	-10 to -6	-5 to -1	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 30
Rail Service Vehicles	17	53	115	158	247	194	212	165	116	180	136	39
Bus Service Vehicles	26	70	199	485	1,047	2,997	6,265	5,301	3,502	139	19	6
Automobiles	1	13	16	148	484	1,944	2,825	2,086	111	8	4	--

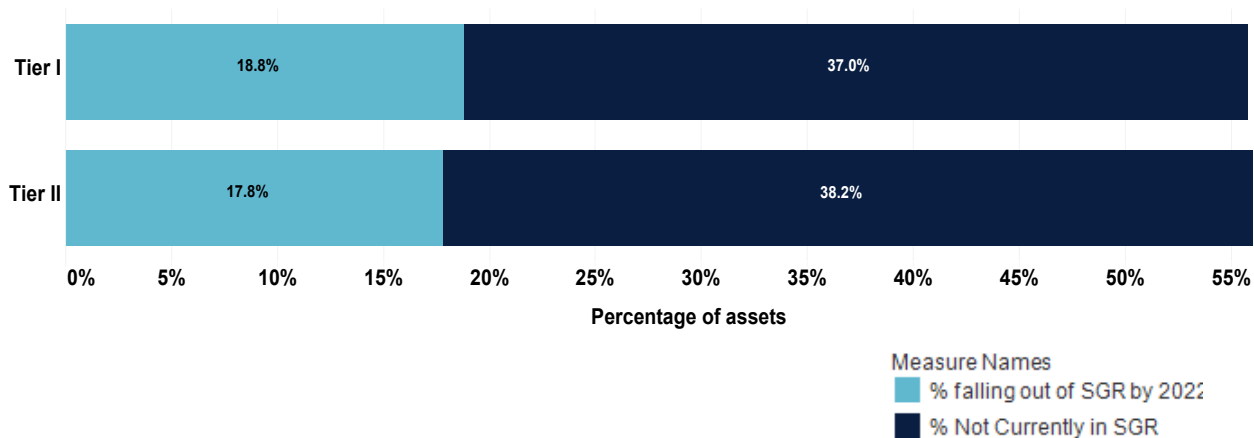
Table 16 provides information on custom ULBs, including the percent of agencies setting custom ULBs and the range of ULB values for each service vehicle asset class. ULB ranges include a variety of values, including an outlier of a 100 year expected service life for a bus service vehicle (the bus in question is part of a museum installation). On average, rail service vehicles and automobiles are within a year of requiring replacement, while bus service vehicles have over two years until they would need to be replaced.

TABLE 16: ULB FOR SERVICE VEHICLES

Asset Class	FTA Default ULB (yrs)	Percent Agencies Setting Custom ULBs	Average Years Until Replacement	Minimum ULB	Maximum ULB
Automobiles	8	32%	0.9	2	40
Bus Service Vehicles	14	51%	2.7	3	100
Rail Service Vehicles	25	62%	0.3	5	45

Figure 5 shows the percentage of service vehicles beyond ULB for the current reporting year as well as the horizon period for the first TAM plans. Over 11,000 (37%) of Tier I service vehicles are already beyond their ULB, meaning they are currently considered overdue for replacement. Over 5,000 additional Tier I service vehicles will exceed their ULB by 2022, bringing the total percentage of assets in need of replacement to 55%.

FIGURE 5: PERCENT OF SERVICE VEHICLES NOT IN SGR CURRENTLY AND BY 2022 (BY AGENCY TIER)





FACILITIES

As reported to the NTD, there are over 13,000 facilities supporting transit service in the U.S. On average, facilities are approximately 28 years old, yet 3% of all facilities in use today were built at the turn of the 20th century. Approximately 88% of all facilities are in a state of good repair and, on average, facilities have a condition rating of 3.5 on the 1-5 TERM scale.

DATA REPORTING

Transit agencies report information on four classes of facilities that are used to support transit: maintenance, passenger, administrative, and parking. Agencies report information on the year of construction, percent capital responsibility, condition, and date of condition assessment.

Facility Condition and Responsibility

Transit agencies are required to conduct regular condition assessments of their assets for which they have capital responsibility. The condition assessment process involves inspections that evaluate asset physical conditions, performance characteristics, and potential risks and impacts of failures. Agencies self-assess the condition for each of their facilities on the 1-5 TERM scale, and submit condition ratings, which are then aggregated to calculate the facility condition performance measure metric. This condition rating is based on the TAM Facility Performance Measure Reporting Guidebook requirements.

Transit agencies assess and report facility condition to the NTD based on the five-point scale used in the Transit Economic Requirements Model (TERM). The TERM scale indicates that an asset is considered in a state of good repair if it has a rating of 3 (adequate), 4 (good), or 5 (excellent) on this scale. Likewise, a facility is deemed to not be in good repair if it has a rating of 1 (poor) or 2 (marginal).

Phase-in of Facility Condition Assessment Reporting

Facility condition assessments must be updated every four years at minimum. FTA allowed agencies to phase in the reporting of facility condition assessments specifically over the first TAM Plan reporting period, in order to reduce the burden of collection potentially thousands of facility ratings at one time. In 2019, agencies were required to report at least 50 percent of their facilities condition assessment ratings, continuing to phase in the reporting until all facilities have condition assessments reported by 2021.

ANALYSIS AND RESULTS

Table 17 provides summary statistics for all transit facilities by tier and asset class in 2019. As transit agencies continue to gain more experience in reporting and analyzing TAM-related data, the total reported numbers may continue to shift. Agencies reported a total of 13,317 facilities to their asset inventories in 2019, including 178 newly constructed facilities. By contrast, agencies reported 12,506 facilities in 2018; the remaining 633 facilities appear to be newly-accounted-for older facilities due to improved reporting.

TABLE 17: TOTAL TRANSIT FACILITIES BY TIER

Facility Asset Class	Tier I	Individual Tier II	Group Plan Tier II	Total
Administrative	402	132	288	822
Maintenance	2,123	472	816	3,411
Parking	3,212	163	141	3,516
Passenger	4,846	386	336	5,568
Total	10,583	1,153	1,581	13,317

In 2019, agencies reported having direct capital responsibility for 11,322 facilities. Of this total, agencies reported condition ratings for 10,069 facilities. The subsequent discussion and analysis only includes those facilities that have reported condition ratings in NTD.

FTA used the condition ratings reported by transit agencies to assess the percentage of facilities in SGR. Table 18 provides summary statistics for these facilities in 2019.

TABLE 18: 2019 SUMMARY OF TRANSIT FACILITIES (CAPITAL RESPONSIBILITY ONLY)

	Tier I	Tier II	Total
Number of Facilities	7,656	2,413	10,069
Average Age (Years)	30	20	28
Average Condition Rating	3.4	3.8	3.5

Condition Rating

Figure 6 details the percentage of facilities in SGR by agency tier. In 2019, 88% of all transit facilities were in SGR. Among reported facilities, 85% of Tier I facilities are in SGR and 93% of Tier II facilities are in SGR.

FIGURE 6: FACILITY CONDITION RATING BY TIER (CAPITAL RESPONSIBILITY ONLY)

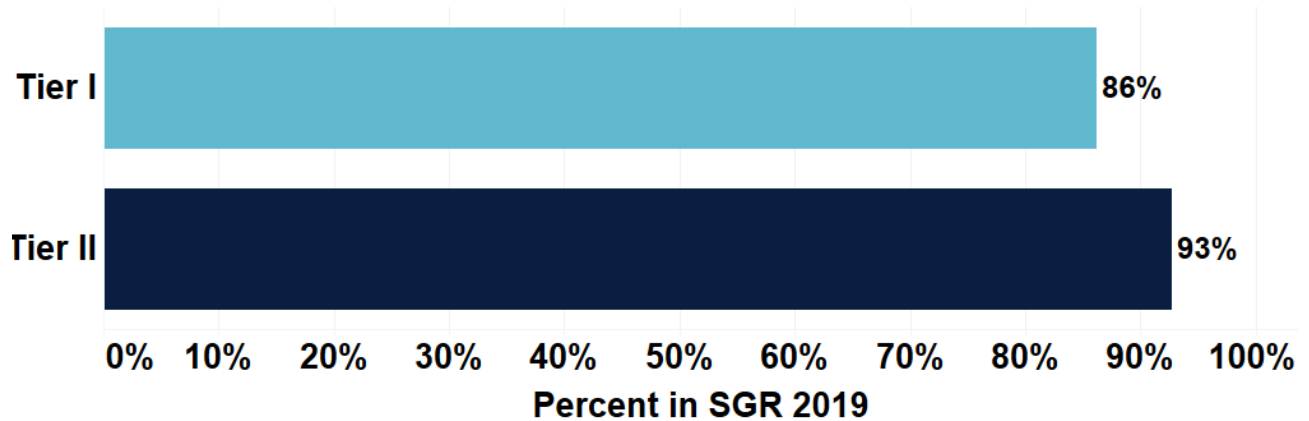


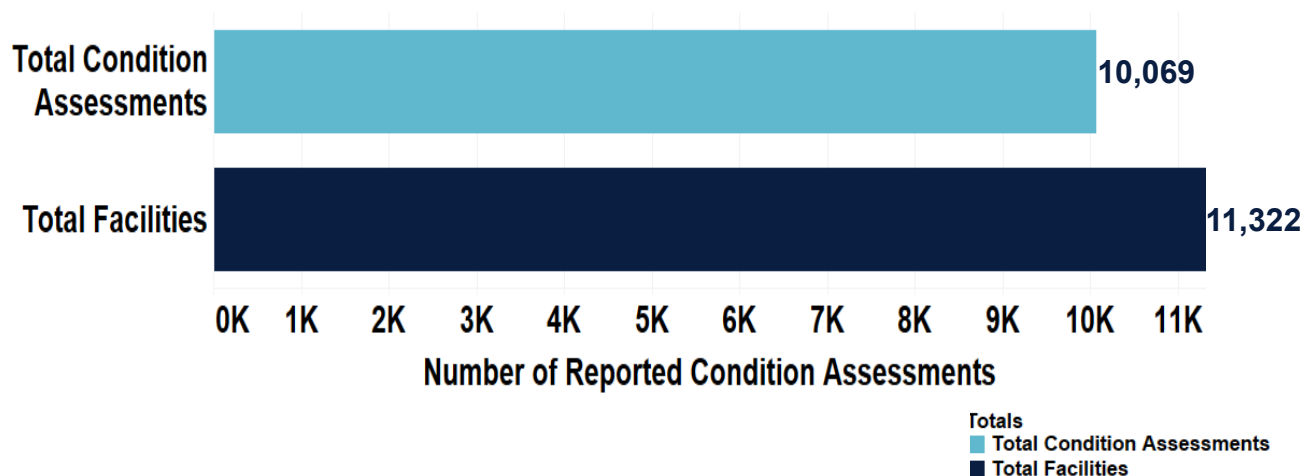
TABLE 19: SHARE OF FACILITIES IN SGR BY FACILITY TYPE (CAPITAL RESPONSIBILITY ONLY)

Asset Class	Facility Type	Average Condition Assessment	Share of Facilities in SGR	Year Built for Oldest Facility
Administrative	Administrative Office / Sales Office	3.6	91%	1900
	Revenue Collection Facility	3.7	92%	1900
Maintenance	Combined Administrative and Maintenance Facility (describe in Notes)	3.6	90%	1900
	General Purpose Maintenance Facility/Depot	3.5	89%	1900
	Heavy Maintenance & Overhaul (Backshop)	3.1	78%	1900
	Maintenance Facility (Service and Inspection)	3.3	84%	1900
	Other, Administrative & Maintenance	3.1	69%	1900
	Vehicle Blow-Down Facility	4.0	100%	1960
	Vehicle Fueling Facility	3.7	90%	1900
	Vehicle Testing Facility	2.7	67%	1978
	Vehicle Washing Facility	3.6	91%	1914
Parking	Other, Passenger or Parking	3.9	98%	1900
	Parking Structure	3.9	97%	1939
	Surface Parking Lot	3.4	89%	1900
Passenger	At-Grade Fixed Guideway Station	3.5	91%	1900
	Bus Transfer Center	3.7	95%	1900
	Elevated Fixed Guideway Station	3.2	79%	1900
	Exclusive Platform Station	3.5	94%	1900
	Ferryboat Terminal	3.7	93%	1900
	Simple At-Grade Platform Station	3.8	94%	1900
	Underground Fixed Guideway Station	2.8	67%	1904

2019 Condition Assessment Phase-In

Figure 7 shows that agencies reported condition assessments for 89% of all facilities in 2019, exceeding the reporting percentage requirement. The average condition rating of facilities is 3.5 in both 2018 and 2019.

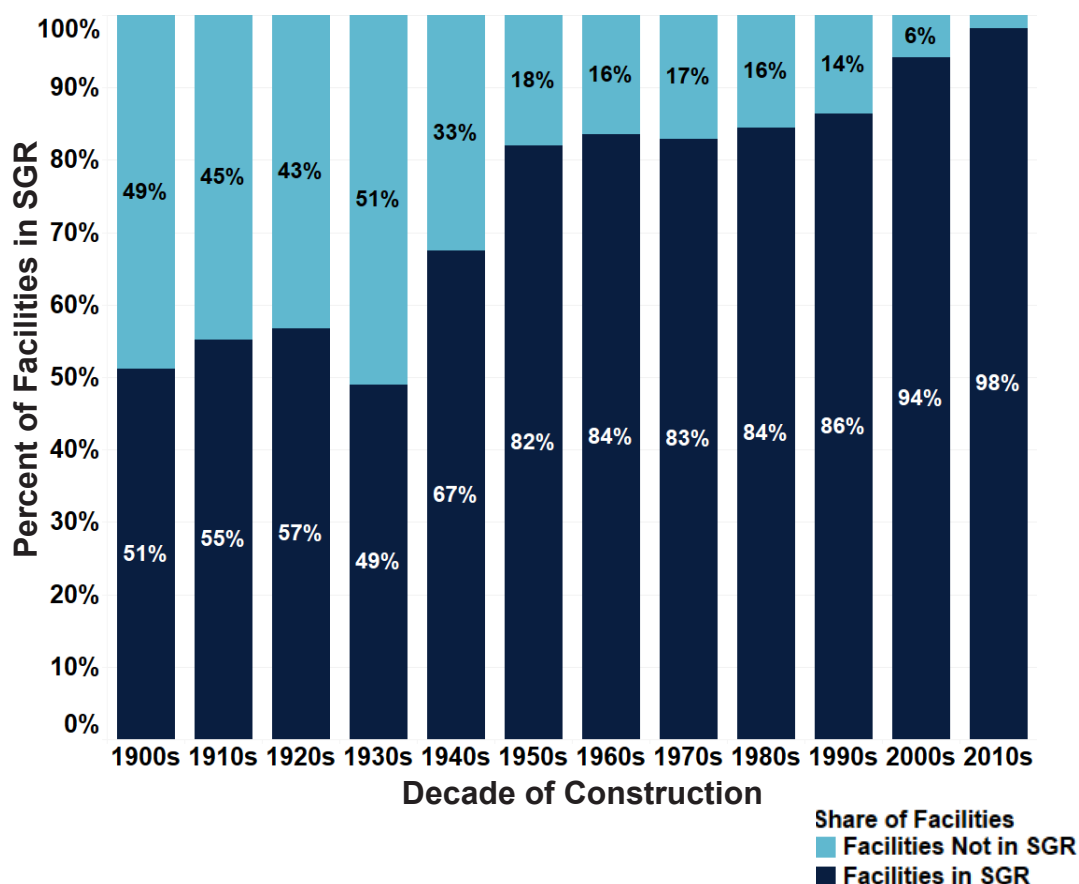
FIGURE 7: CONDITION ASSESSMENTS REPORTED IN 2019 (CAPITAL RESPONSIBILITY ONLY)



State of Good Repair and Age of Transit Facilities

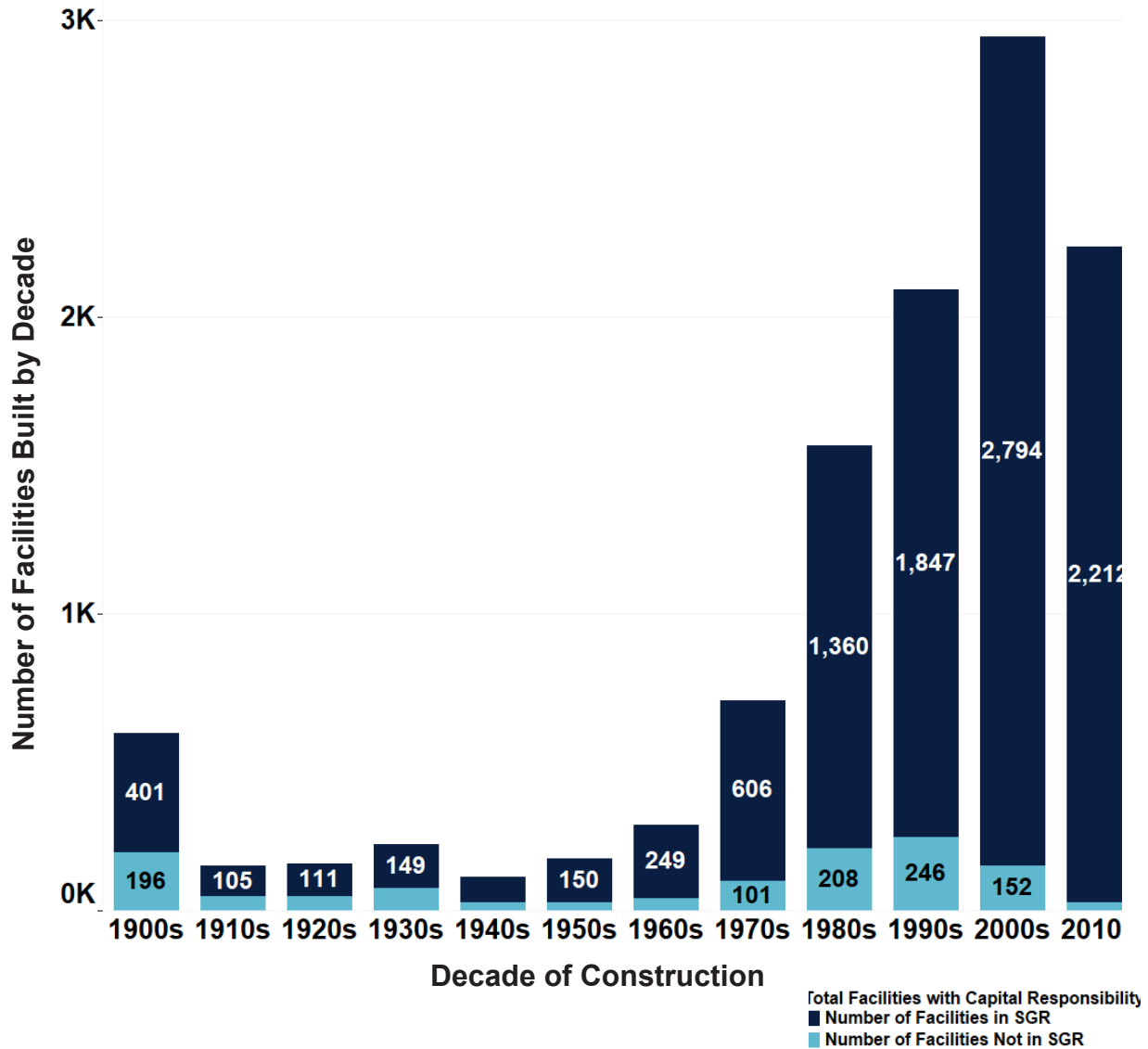
The 2019 NTD data offers a snapshot look at 10,069 of the transit facilities nationwide. FTA was able to assess the share of facilities in SGR by construction year using condition and construction year data provided to the NTD. Figure 9 shows that over 80 percent of facilities built in the 1950s remain in SGR and over 95 percent of facilities built in the past 20 years remain in SGR.

FIGURE 8: PERCENT OF FACILITIES IN SGR BY DECADE BUILT (CAPITAL RESPONSIBILITY ONLY)



Similarly, FTA was able to determine the total number of facilities in SGR based on their decade of construction. The data shows that nearly 4% (512) of facilities were built at the turn of the last century, and half of them are still in SGR. Transit agencies underwent a construction boom in the past 40 years building over 8,000 of total facilities, 92 percent of which are in SGR. Figure 9 shows the breakdown of facilities built by decade and the number of those that are in not in SGR.

FIGURE 9: TOTAL FACILITIES IN SGR BY DECADE BUILT (CAPITAL RESPONSIBILITY ONLY)





TRACK + INFRASTRUCTURE

As reported to the NTD, there are over 13,800 miles of track used to provide transit service in the U.S. This includes approximately 8,500 miles for commuter rail (64%), 2,200 miles of heavy rail (16%), 1,700 miles of light rail (12%), and 1,200 miles (8%) in other rail modes (articulated rail, cable car, inclined plane, monorail/automated guideway, streetcar rail, and hybrid rail). The average reported expected service life for track across all modes was 64.2 years.

DATA REPORTING

Transit agencies report on track infrastructure in two ways; 1) one collects information on the age, mileage, and characteristics of the fixed guideway right of way (ROW) on which the rail service runs, and 2) the other collects data on mileage and condition of the track. As transit agencies continue to gain more experience in reporting and analyzing TAM-related data, the total reported numbers may continue to shift.

Guideway Miles

For each rail mode, agencies report the decade of construction, as either before 1930 or in one of the decades from the 1930s through the 2010s, and the years of expected service life (ESL) of the guideway. Between 2018 and 2019, FTA updated the reporting requirements for guideway elements, making the method for counting mileage more consistent. In addition to the changes in NTD reporting methodology, some transit agencies updated the data sources used to calculate guideway miles, which impacted the total number of miles reported, as well as the allocation among the decades of construction for guideway elements.

Track Condition and Responsibility

For each rail mode, agencies report on the number of miles for three elements: Tangent (Revenue Service), Curve (Revenue Service), and Non-revenue Service. The sum of these three elements comprises the total track mileage. Within this total, transit agencies also indicate the miles of revenue track for which they have no capital replacement responsibility, and the miles of track with performance restrictions. While transit agencies report all track used to provide public transit service in their asset inventory, they only report on condition of and set targets for the track mileage with capital responsibility.

Rail providers are required to establish a target for the infrastructure asset category -- the percent of track under performance restriction -- and report the performance measure to the NTD. A performance restriction is defined to exist on a segment of rail fixed guideway when the maximum permissible speed of transit vehicles is set to a value below the guideway's full service speed. These restrictions are often referred to as "slow zones."

The TAM Infrastructure Reporting Guidebook details the following requirements for reporting performance restrictions:

- Agencies must measure the length of track miles under performance restrictions each month based on a snapshot of conditions that existed as of 9:00 AM local time on the first Wednesday of the month. This calculation must be performed separately for each combination of rail fixed guideway mode (or type of system) and type of service.
- All performance restrictions that can be applied to a specific section of track (excluding system-wide restrictions for inclement weather, for example) must be included in the calculation, regardless of cause or duration. This includes temporary speed restrictions placed due to construction or maintenance activity.
- Agencies are required to report an annual value for length of track miles under performance restrictions to FTA by averaging the values calculated each month over the course of the year.

ANALYSIS AND RESULTS

Table 20 shows the summary of total track miles reported by transit agencies in 2018 and 2019. As discussed above, most of the increase in track mileage between 2018 and 2019 is due to improvements or refinements in agencies track reporting methodology. Of the 753 additional miles of track reported in 2019, approximately 38 miles are new track construction – 32 miles of commuter rail and 6 miles of light rail. The remaining 715 miles appear to be older track miles newly accounted for due to improved reporting.

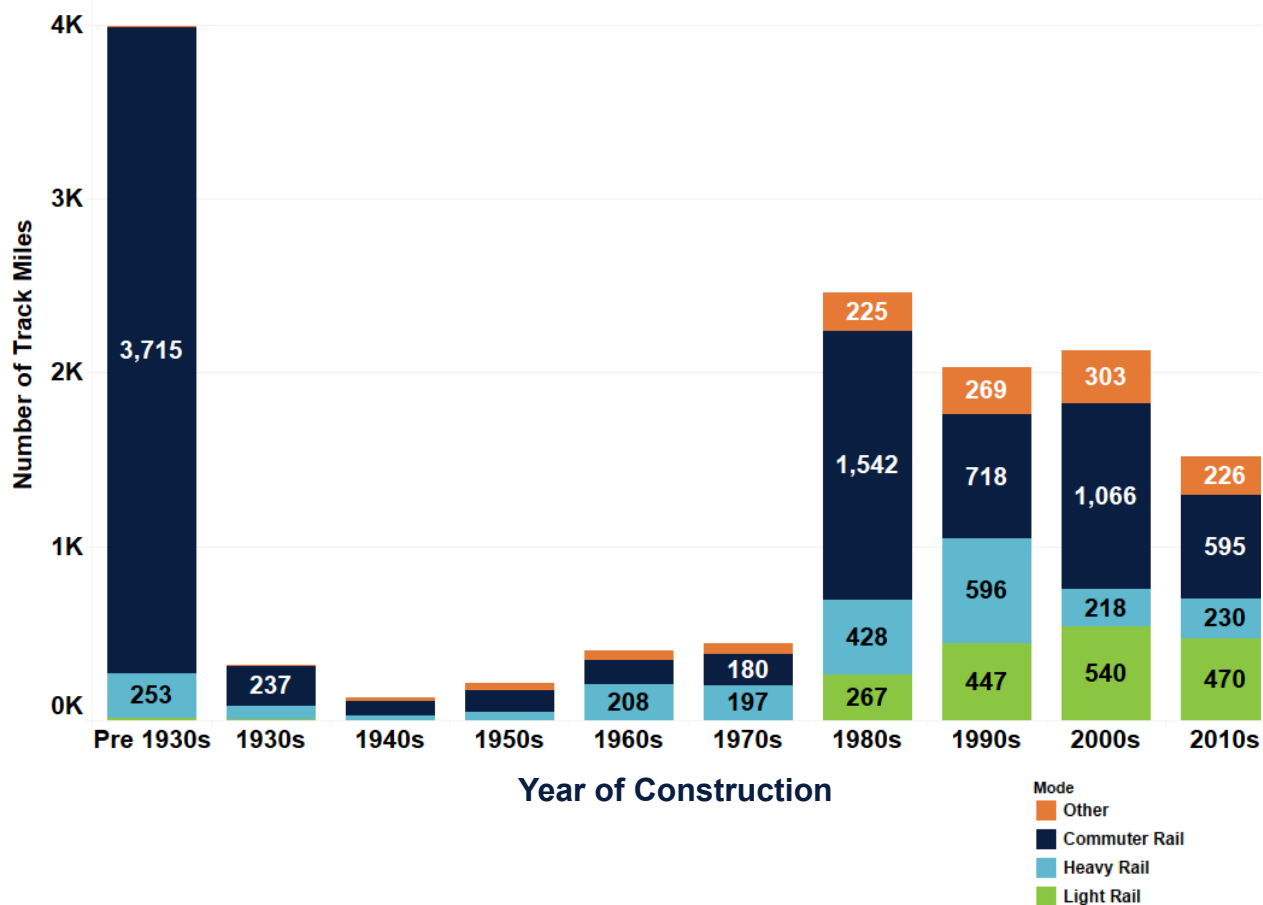
TABLE 20: COMPARISON OF TOTAL TRACK MILES BETWEEN 2018 AND 2019

Mode	Track Miles (2018)	Total Track Miles (2019)
Commuter Rail	7,917	8,597
Heavy Rail	2,235	2,280
Light Rail	1,735	1,752
Other	1,198	1,211
Total	13,086	13,839

Age of Guideway Miles

Figure 10 shows the total miles of guideway infrastructure constructed by rail mode and by decade. Most guideway constructed before the 1980s was for heavy rail and commuter rail systems, with nearly all light rail construction since the 1980s. Note that the year of construction could include both expansion projects as well as replacement of even older guideway elements.

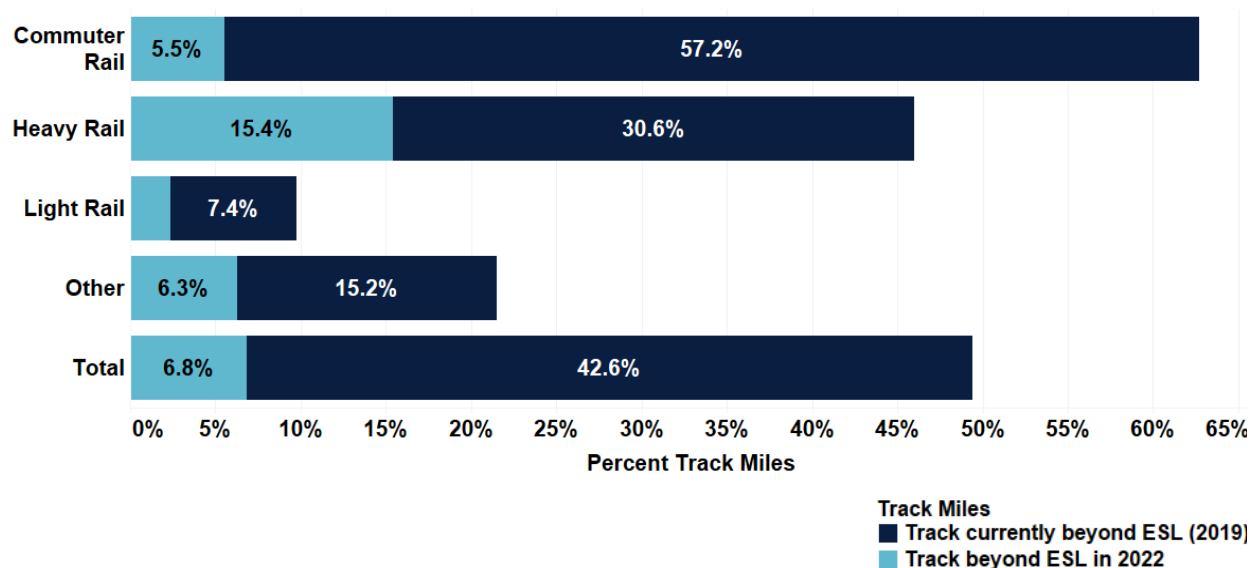
FIGURE 10: DECADE OF GUIDEWAY CONSTRUCTION BY RAIL MODE



Using the reported data, FTA estimated the percent of guideway miles currently in use beyond the expected service life (ESL) by years. Because the age is reported by decade rather than a specific year, FTA assigned the miles constructed in each decade group to the midpoint year of that decade (e.g., guideway constructed in the 1980s was assigned the year 1985). Once assigned to a specific year, FTA compared the construction year plus ESL to the current reporting year (2019), to identify guideway currently beyond ESL. Figure 12 summarizes this estimate by rail mode and for all rail, using the current reporting year as well as the year 2022, which is the horizon period for the first TAM plans developed in 2018.

Approximately 42.6% of all reported fixed guideway miles are beyond the ESL, most of which are associated with commuter rail and heavy rail. This represents 5,814 miles of guideway needing replacement or major rehabilitation. An additional 6.8% of fixed guideway miles (approximately 928 miles) is estimated to exceed the ESL by the year 2022 (the end of the first TAM plan time horizon).

FIGURE 11: AVERAGE PERCENT GUIDEWAY INFRASTRUCTURE BEYOND EXPECTED SERVICE LIFE (CAPITAL RESPONSIBILITY ONLY)



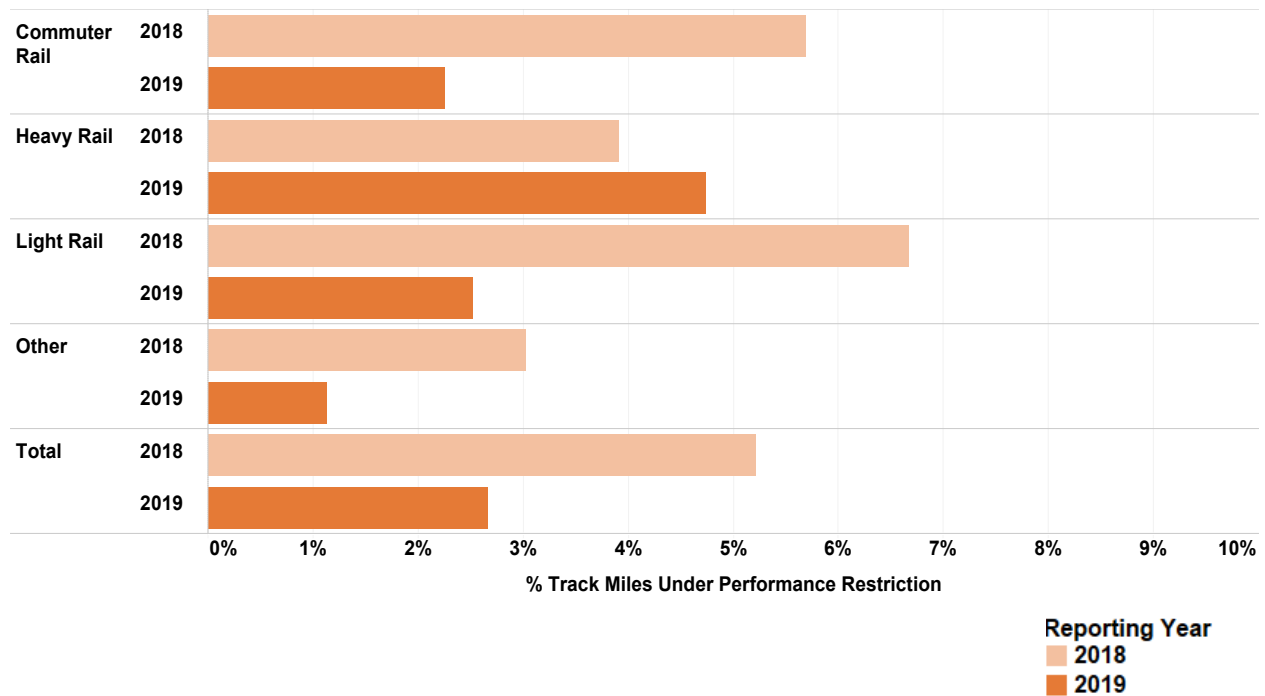
Track Condition and Responsibility

The miles of track with performance restriction applies only to the track for which agencies have capital replacement responsibility. Table 21 shows the total track miles with capital responsibility, and the percent track miles with performance restrictions in 2019. Transit agencies reported 3% or less of track under performance restriction for most rail modes, except for heavy rail, which had 4.7% of track was reported under performance restriction. Agencies reported a total of 312 miles of track with slow zones in 2019, compared to 597 miles of track with slow zones in 2018. Because the miles under performance restriction is a measure of performance at specific point in time, it may vary more than the performance metrics for other asset categories that are based on age or asset condition.

TABLE 21: TOTAL TRACK MILES WITH PERFORMANCE RESTRICTIONS IN 2019

Mode	Total Track Miles (2019)	Total Track Miles with Capital Responsibility	Percent Track Miles with Performance Restriction
Commuter Rail	8,597	6,504	2.3%
Heavy Rail	2,280	2,280	4.7%
Light Rail	1,752	1,752	2.5%
Other	1,211	1,194	1.1%
Total	13,839	11,729	2.7%

FIGURE 12: PERCENT TRACK MILES UNDER PERFORMANCE RESTRICTION 2018-19





PERFORMANCE TARGETS

Transit agencies set performance targets for the coming year, which reflect their expectation of their ability to keep assets in SGR. FTA encourages transit agencies to set targets based on available asset condition data and anticipated financial resources from all sources. For some agencies, the projections reflect increasing SGR goals; in other cases, they may reflect an expectation of decreasing SGR based on the agency's constraints. FTA has clearly explained there are no rewards for meeting the targets and no penalties for not meeting the targets.

DATA REPORTING

Agencies set performance targets and report them to the NTD aggregated by asset class, rather than individually by each asset. In 2019, transit agencies reported 4,087 targets across 38 transit asset classes, representing their expected SGR in the upcoming 2020 reporting year. Transit agencies set targets only on the assets with capital replacement responsibility.

The performance metrics included in this report are calculated from the asset class condition and performance that transit agencies provide to the NTD. Performance metrics represent the percent of assets in SGR and are calculated based on the current report year data, while performance targets are forecasts of assets percent in SGR set for the following year.

ANALYSIS AND RESULTS

Table 22 shows the performance targets that agencies set to forecast 2019 conditions, the calculated performance metrics for 2019, and the targets that they have set for 2020. In this report the targets are weighted by the number of assets in that asset class. The targets reflect a national snapshot of agencies' expectations in their ability to maintain or improve the condition of transit assets in the near future.

TABLE 22: PERCENT OF ASSETS IN STATE OF GOOD REPAIR TARGETS AND METRICS (BY ASSET CLASS) (CAPITAL RESPONSIBILITY ONLY)

Asset Category	Asset Class	2019 Target	2019 Metric	2020 Target
Equipment	Automobiles	60.8%	55.5%	61.9%
	Rail Service Vehicles	46.4%	49.8%	50.5%
	Bus Service Vehicles	62.4%	66.2%	66.5%
	Total	56.5%	57.2%	59.6%
Facilities	Admin. / Maintenance	50.2%	86.0%	60.7%
	Passenger / Parking	74.4%	88.9%	82.4%
	Total	62.3%	87.4%	71.5%
Infrastructure	Commuter Rail	79.9%	98.1%	91.9%
	Heavy Rail	92.4%	95.3%	96.1%
	Light Rail	93.6%	97.5%	96.7%
	Other	96.1%	98.9%	97.8%
	Total	90.5%	97.4%	95.6%
Revenue Vehicles	Buses	81.8%	82.8%	83.0%
	Rail Vehicles	75.9%	82.3%	79.3%
	Vans	75.3%	76.8%	77.6%
	Other Vehicles	68.2%	74.7%	72.6%
	Total	75.3%	79.1%	78.1%

Comparing 2019 Metrics to 2019 and 2020 Targets

Figure 13 shows the comparison of the 2019 performance targets (set in 2018) and the metrics calculated based on the 2019 data submissions, broken down by asset class. The data show that for most asset classes, the actual condition exceeded the forecast from the previous year, with many asset classes coming close to the forecast condition and others far exceeding it. Overall condition for buses, vans, and automobile service vehicles slightly decreased relative to the 2019 target.

FIGURE 13: 2019 TARGETS AND 2019 METRICS (CAPITAL RESPONSIBILITY ONLY)

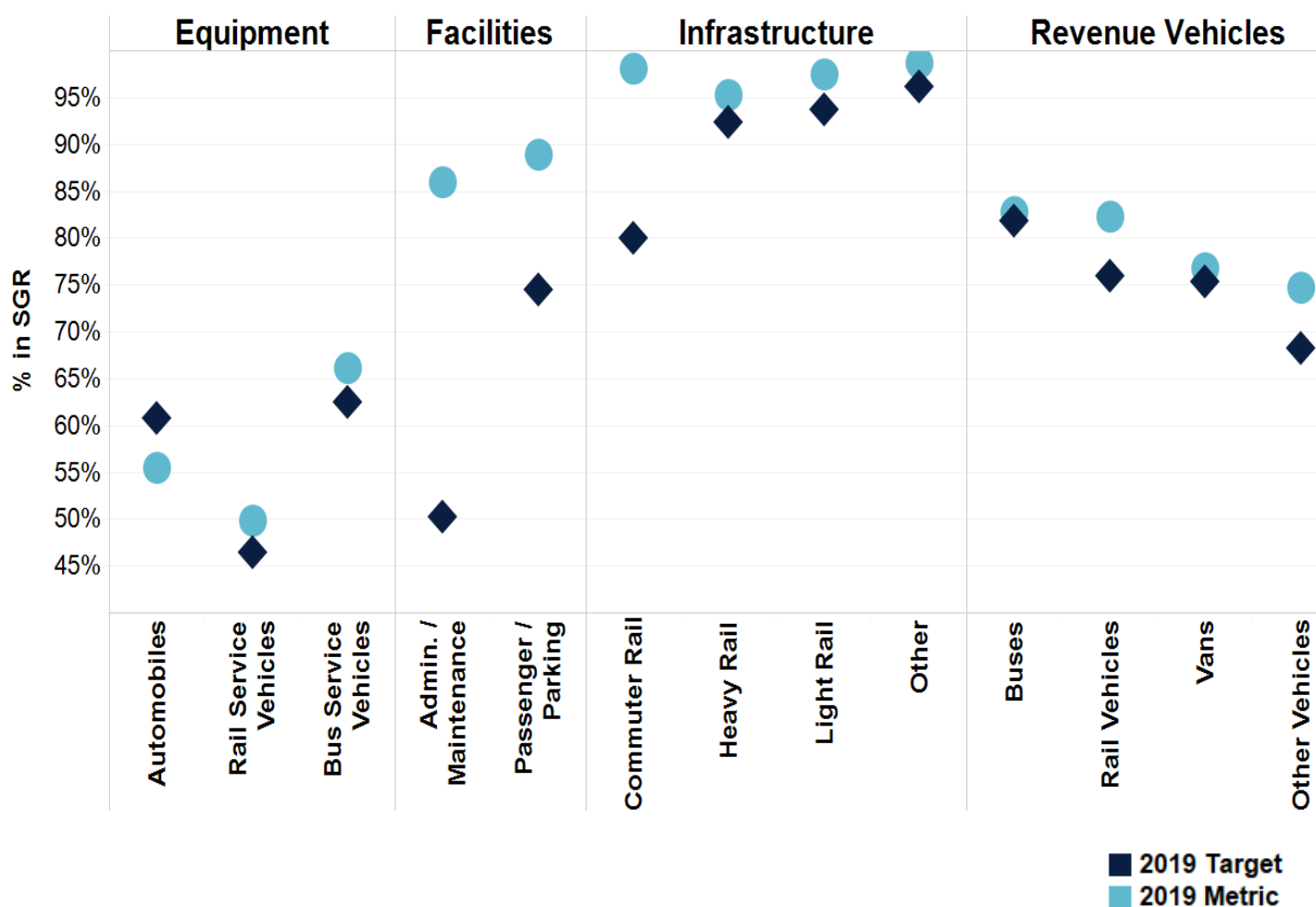


Figure 14 shows the comparison of the 2019 performance metrics and the 2020 performance targets, by asset class. The data show that in general, transit agencies are projecting the 2020 condition to be very similar to that in 2019, with some increases for the equipment and revenue vehicle asset classes, and decreases for the facility asset classes.

FIGURE 14: AVERAGE SGR METRIC (2019) AND TARGET (2020) (CAPITAL RESPONSIBILITY ONLY)

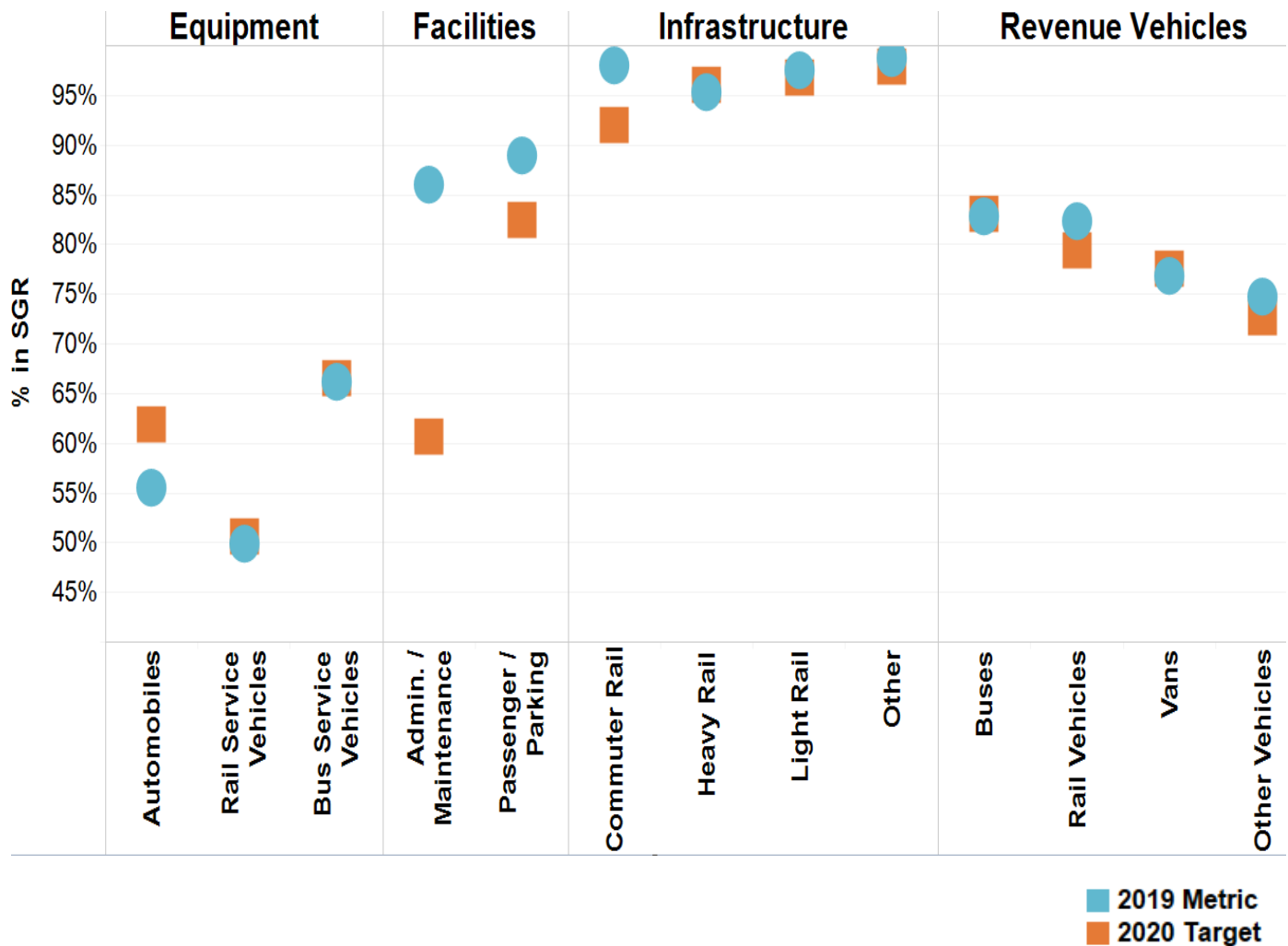
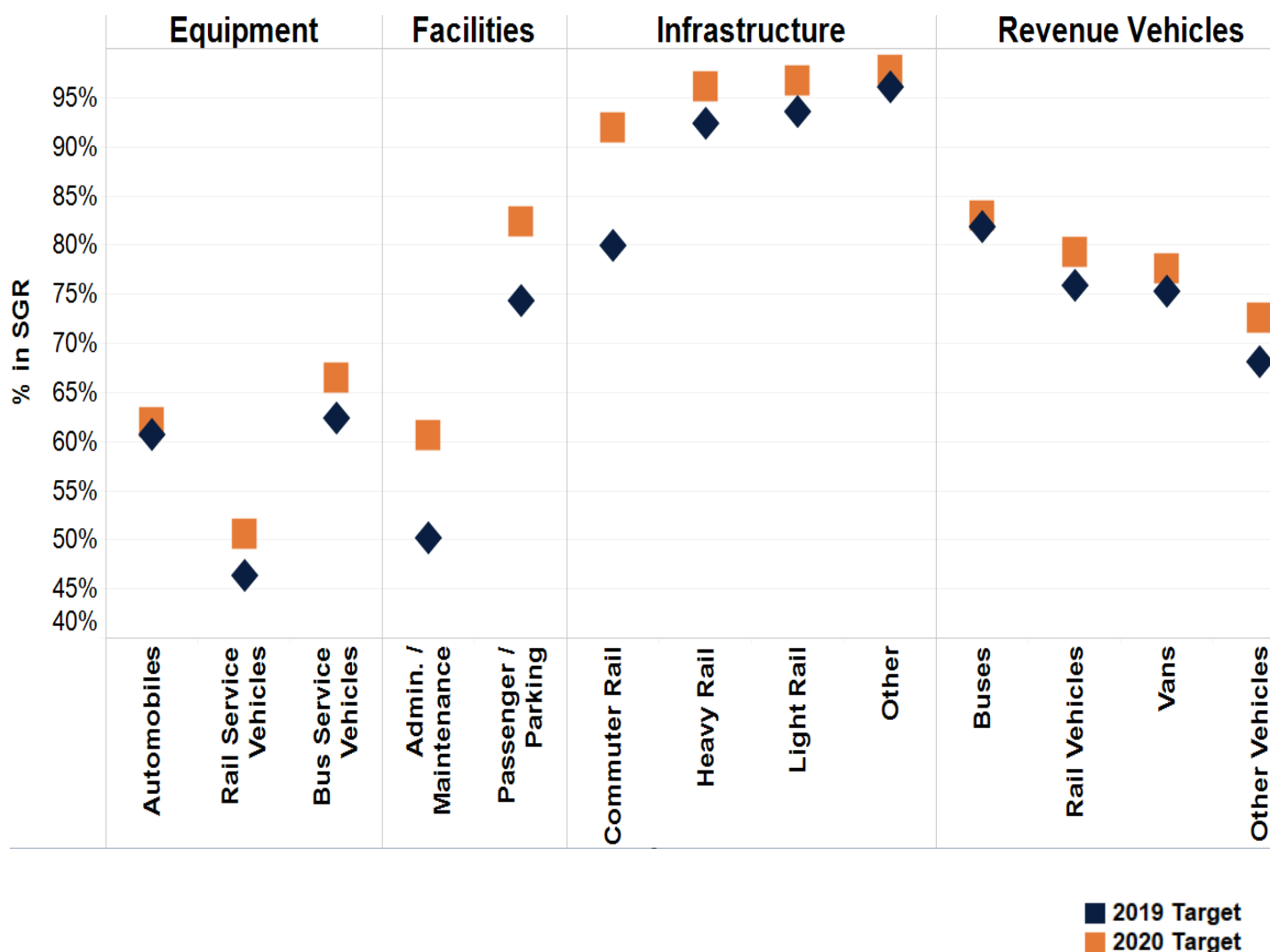


FIGURE 15: 2019 AND 2020 TARGETS (CAPITAL RESPONSIBILITIES ONLY)



Expected Increases and Decreases in SGR for the Next Year

For each asset class reported by each agency, FTA compared the 2019 metric (e.g., percent of assets in SGR) to the 2020 target, and determined whether the target was lower, higher, or the same as the 2019 metric. For purposes of this analysis, a target lower than the current reported metric indicates an expected decrease in SGR for that asset class for the following year; a target higher than the current reported metric indicates an expected increase in SGR for the following year. Many agencies reported an expectation of maintaining the same level of SGR for the next year.

Table 23 provides the number of assets (e.g., vehicles, facilities, or track miles) that would be newly in SGR or not in SGR based on comparing the 2020 target to the 2019 calculated metric. While for most asset categories there is a relatively small net change in the number of assets in SGR, the data shows a range in the increases or decreases. The first column shows the additional assets that will attain SGR if every agency that set a 2020 target higher than their 2019 metric achieves their target. The second column shows the additional assets that will no longer be in SGR if every agency that set a 2020 target lower than their 2019 metric achieves their target exactly. The third column provides the net change between the two.

TABLE 23: ANTICIPATED INCREASES OR DECREASES IN SGR FOR 2020 RELATIVE TO 2019 CONDITION (NUMBER OF ASSETS) (CAPITAL RESPONSIBILITY ONLY)

Asset Category	Additional assets in SGR	Assets no longer in SGR	Net Change in Assets in SGR
Equipment	1,809	-1,295	514
Facilities	105	-178	-73
Infrastructure	107	-421	-314
Revenue Vehicles	8,620	-8,932	-312

Figure 16 provides another representation of the expected change in SGR between 2019 and 2020, by number of assets in each class. The x-axis represents a baseline of the 2019 calculated metric, and the bars above would be additional assets in SGR, while the bar below would be number of assets no longer in SGR.

FIGURE 16: ANTICIPATED INCREASES OR DECREASES IN SGR FOR 2020 RELATIVE TO 2019 CONDITION (NUMBER OF ASSETS) (CAPITAL RESPONSIBILITY ONLY)

