SFMTA | Municipal Transportation Agency

Proposition E: Municipal Transportation Quality Review

July 1, 2008 – June 30, 2010

FINAL REPORT

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Introduction

This report is the fifth Transportation Quality Review produced since the passage of Proposition E in 1999 (meaning that Muni has now been making performance reports to the public for a decade). Proposition E amended the City Charter, creating the San Francisco Municipal Transportation Agency by combining the transit operations of Muni and the street operations of the Department of Parking and Traffic into a single agency. This report fulfills the requirement under Proposition E for a biennial audit of Muni "service standards" reporting. Data describing Muni performance in each of the service standards categories are published on a quarterly basis. Every two years, the Charter mandates that an independent auditor review the data, ensure that it is being accurately collected and reported, and make recommendations for improved reporting.

This report presents the findings of the Municipal Transportation Quality Review for the period between July 1, 2008 and June 30, 2010 (Fiscal Years (FY) 2009 and 2010). In order to ensure that the report is timely and relevant, it also includes more recent, unaudited data.

The report consists of three primary components:

- A review of data collection and reporting methods
- An analysis of trends in reported data
- Auditor recommendations

This chapter summarizes findings and recommendations. The following chapters present findings and recommendations specific to each individual service standard.

Summary

Review of data collection and reporting methods

Almost without exception, the auditors found that data reported by Muni appeared to be accurate and reliable. Only a handful of minor exceptions were noted: a few incorrect figures were reported for A2 Service Delivery, C3 Training, and D1 Grievances; and for service standard C4 Safety, a minor discrepancy in definitions resulted in a slight underreporting of accident rates.

Analysis of trends in reported data

Although overall Muni performance declined slightly during the audit period (a trend that can be attributed, at least in part, to budgetary constraints), improvements in the important areas of on-time performance and farebox performance were noted.

Auditor recommendations

The following section summarizes general and measure-specific recommendations. Some recommendations made in the previous audit that have not yet been adopted are repeated, in some cases with minor modifications.

General Recommendations

- Report A3 Load Factor and A13 Productivity by service type

- Make changes to make performance reporting more timely
- More proactively use data as a management tool

Measure-Specific Recommendations

- *A1 On-Time Performance* – Replace headway adherence standard with "bunching" and "gapping" standards, make these the primary measures of on-time performance for Rapid Network lines, and report only schedule adherence for other types of routes
- *A2 Service Delivery* – Measure the percentages of scheduled miles and trips delivered in addition to scheduled hours delivered
- *A5 Mean Distance Between Failure* – Report rates of "pull-ins"
- *A6 Vacancy Rate for Service Critical Positions* – Restore goal of no more than a 5% vacancy rate for Crafts and Maintenance positions
- *B3 Farebox Performance* – Report farebox recovery ratios
- *C1 Customer Perceptions* – Make reporting more timely
- *C2 Complaint Resolution Rate* – Change the timeline for resolution of Americans with Disabilities Act-related Passenger Service Reports to 60 days
- *C3 Training* – Restore measure
- *C7 Proof of Payment* – Report fare evasion rates, numbers of citations issued, and "contacts" by mode
- *D1 Grievances* – Report by division

Background

Proposition E – The Muni Reform Initiative

On November 2, 1999, the voters of San Francisco overwhelmingly approved Proposition E, the most substantial reform in Muni history. The voters' intent was to institute structural, administrative, and financial reforms designed to provide Muni with the "resources, independence and focus necessary" to become one of the best urban transit systems in the world. Recognizing the City's dependence on public transit and its need for efficient and reliable transit service that can compete with the private automobile, the drafters of the initiative sought to restructure the City's provision and administration of transportation and parking services, and strengthen the City's TransitFirst Policy.

The overall goals for transit service articulated in Proposition E (now Article VIIIA of the San Francisco City Charter) are as follows (Section 8A.100):

1. Reliable, safe, timely, frequent, and convenient service to all neighborhoods;
2. A reduction in breakdowns, delays, over-crowding, preventable accidents;

3. Clean and comfortable vehicles and stations, operated by competent, courteous, and well-trained employees;
4. Support and accommodation of the special transportation needs of the elderly and the disabled;
5. Protection from crime and inappropriate passenger behavior on the Municipal Railway; and
6. Responsive, efficient, and accountable management.

To achieve these goals, Article VIIIA created the San Francisco Municipal Transportation Agency (SFMTA), combining the responsibility for street operations (Department of Parking and Traffic) with the dominant "user" of the streets – Muni. Article VIIIA also established service standards and accountability measures, and requires an independent, biennial quality review of transit operations. This report represents the findings of an independent review of Muni's performance for Fiscal Years 2009 and 2010. Data collected beyond Fiscal Year 2010 is also included as unaudited information for trends analysis.

An Independent Transportation Quality Review

The biennial Quality Review mandated by Proposition E provides yet another tool that the SFMTA can use to continue to improve Muni's performance. This review has been conducted with the following goals in mind:

- Help the SFMTA assess Muni's progress toward the goals and objectives of Proposition E
- Evaluate Muni's established goals and performance against the letter and intent of Proposition E
- Assess whether specific implementation goals, methods, and definitions of measurement are appropriate or could be improved
- Provide independent verification to the public that Muni is on track by auditing Muni's data collection and analysis procedures

The Quality Review consists of the following main elements:

- **Data review and verification of performance**

  Proposition E requires a routine audit of Muni's quality assurance process including an audit of data collection methods and service standards reporting. This audit covers Fiscal Years 2009 and 2010 (July 1, 2008 – June 30, 2010). Auditors reviewed Muni's quarterly Service Standards Reports from this period to verify that data were collected according to the definitions and methods of measurement specified by Proposition E and the SFMTA Board of Directors, and that the data were calculated correctly. During the spring of 2011, auditors met with Muni staff responsible for data collection and reporting to review procedures as well as the actual reported data. Systematic spot checks of original source data and of

automated tracking systems and procedures were used to determine the accuracy of reported data.

- **Trends analysis**

  Auditors reviewed trends in data and performance achievement over the two-year audit period, as well as unaudited data and performance from Fiscal Year 2011. Findings from this trends analysis were used to develop recommendations for those areas in which Muni's performance could be improved.

- **Auditor recommendations**

  Auditor recommendations focus on ways to further refine or improve performance reporting to make it more relevant to the SFMTA and the public, or on ways to improve performance in areas where Muni has failed to meet its goals. Although the recommendations focus on the two-year audit period, they incorporate any changes that have been made since that time. The recommendations are reviewed with Muni staff to ensure that they are in line with current budget and resource constraints.

- **Documentation and communication of results**

  In addition to the final report, a more reader-friendly "Report Card" is developed that summarizes performance trends and recommendations in easy-to-understand, lay terms.

Summary of Service Standards and Changes since the Previous Audit

The service standards (or performance measures) adopted under Proposition E were not intended to create onerous reporting requirements, but rather to provide the SFMTA with the tools needed to create a world-class transit service. In order to do this effectively, the service standards need to provide information and feedback that SFMTA management can readily use to help shape decisions and policies so that the desired outcomes can be achieved.

While Proposition E specifically stated the method of measurement and goals for several of the service standards, it also provided some flexibility with regard to the way in which other standards could be measured and the milestones or goals could be achieved. When not specified by Proposition E, the SFMTA Board adopted methods and definitions of measurement as well as specific goals and milestones for each of the service standards. Additionally, Section 8A.104 of the City Charter allows the SFMTA Board to vote to amend any of the service standards (after holding a public hearing on any such amendments).

Muni's Citizens' Advisory Council (CAC) and the SFMTA Board review Muni's performance quarterly, and annually review the definitions of measurement, methods of measurement, and the goals for each of the service standards. The SFMTA publishes quarterly Service Standards Reports which include a description of each of the service standards and a summary of Muni performance, as well as performance by other SFMTA

divisions. (These reports are available to the public via Muni's website at *http://www.sfmta.com/cms/rstd/sstdindx.htm*.) These reports also include additional performance information that is not required by Proposition E.

A number of changes were made to service standards since the last Quality Review or are planned to be made, either based on recommendations made in previous Quality Reviews or as a result of actions taken independently by Muni staff and the SFMTA Board (for example, service standards that are not required by Proposition E may be discontinued if they are determined to be of limited value). Generally, only those service standards and subcategories of service standards that remain in existence were audited as part of this Quality Review (one measure introduced in FY 2009, D3 Equal Employment Opportunity Cases, is not included in this Review and one that has been eliminated, C3 Training, is included). Numbering and naming conventions used in this Quality Review correspond to service standards as they were defined at the end of the audit period (FY 2010).

Figure 1 below lists service standards reporting changes that were made or are planned to be made, as well as changes that were not made, in response to recommendations from the last Quality Review.

Figure 1 Recommendations from FY 2007-2008 Quality Review and SFMTA Responses

Measure	Recommendation from Previous Audit	Adopted (Y=Yes; N=No; P=Part)	Notes
(new)	Add "Average Speed" as a new service standard under System Performance.	P	Methodology is in development ,with a goal of FY 2012 implementation.
"A" Measures	Rename section A of the standards to "System Performance" to more accurately reflect the service standards it includes.	N/A	The use of section titles has been largely discontinued.

Measure	Recommendation from Previous Audit	Adopted (Y=Yes; N=No; P=Part)	Notes
A1 On-Time Performance; A2 Service Delivery; A5 Mean Distance Between Failure; A13 Productivity; B1 Ridership; and B4 Cost per Hour	Consistently use the term "light rail" to include both Metro and F-line operation.	Y	
A1 On-Time Performance; A3 Load Factors; and A13 Productivity	For some measures, report performance data by the "service type" defined in the Transit Effectiveness Project (TEP) rather than by mode or division.	P	Change proposed for the FY 2011/12 period for A1 only. The sub-recommendation to report only headway adherence for Rapid Network lines and schedule adherence for all other lines was not implemented.
A1 On-Time Performance	Use automated tools and follow best practices to streamline data collection and reporting of on-time performance.	P	Transition to automated collection (using NextMuni sensors) is in process.
A2 Service Delivery	Measure the percentage of scheduled trips delivered, in addition to scheduled hours delivered.	N	
A3 Load Factors	Use automated passenger counters (APCs) to collect data on load factors where possible.	P	Transition is in process.
A5 Mean Distance Between Failure	Improve consistency in collection and reporting.	N	

Measure	Recommendation from Previous Audit	Adopted (Y=Yes; N=No; P=Part)	Notes
A6 Vacancy Rate for Service Critical Positions	Stop reporting operator vacancies, as the number of positions filled is not an accurate indicator of the number of operators available for driving duty.	Y	
B1 Ridership	Use automated passenger counters (APCs) to collect data on boardings where feasible.	P	Transition is in process.
B3 Farebox Performance	Report farebox recovery ratios.	N	
C1 Customer Perceptions	Explore combining the SFMTA Ridership Survey with the City Survey conducted by the Controller's Office.	N	
C2 Operator Complaint Resolution Rate	Change timeline to 60 days for the resolution of Americans with Disabilities Act- and product/services-related Passenger Service Reports (PSRs), and 14 days for non-ADA, employee conduct complaints.	P	Non-ADA standard changed to 14 days, but ADA standard only changed to 45 days.
C4 Safety	Report systemwide accident rates.	Y	
C6 Security Incidents	Develop methods to ensure more accurate and complete reporting of security incidents, and report rates of fare evasion.	P	Fare evasion rate implemented (as separate measure, C7) with goal of < 2% (for FY 2011), rather than < 1.5% recommended.

Measure	Recommendation from Previous Audit	Adopted (Y=Yes; N=No; P=Part)	Notes
D1 Grievances	Report by division.	N	

Additionally, a recommendation made in a previous audit, for FY 2005-2006, was adopted by the SFMTA but has not yet been implemented. This is:

- *A13 Productivity, B4 Cost per Hour, and B5 Cost per Boarding* – "Establish goals for these important indicators." SFMTA had planned to develop goals "based on results benchmarked to peers," but this was "deferred due to limited staff resources." (While we continue to support development of goals in these categories, this recommendation is not repeated in this Quality Review as it has been formally adopted by the SFMTA Board.)

Previous audits have also made a number of general recommendations that at this point have been largely addressed by the SFMTA, but which continue to inform recommendations made as part of this Quality Review. These are described in detail in previous Quality Reviews, but in sum, they are:

- *Performance measures should reflect the multimodal nature of the SFMTA*
- *Improve the organization of measures to improve readability*
- *Set different performance standards for different types of Muni service*
- *Ensure technological resources are properly maintained and fully utilized*
- *Focus on improving the performance measures that address customer experience*

Finally, a few significant changes to service standards reporting were implemented during the audit period that were not made in response to Quality Review recommendations. The following list does not include minor changes to reporting, such as modifications to data collection methods, nor does it include changes to goals, as these are described under the discussion of each individual standard in the following chapter.

- *A2 Service Delivery* – Starting in the 4th Quarter of FY 2009, the subcategories of AM/PM Peak Equipment Availability and Operator Availability were no longer reported. Figures for both measures had historically been near 100 percent, and figures in the latter area were somewhat misleading, as "extra boards" of operators mean that on any given day, well more than 100 percent of the operators necessary to provide the

scheduled level of service are available before absences are taken into account.

- *C3 Training* – This measure was discontinued at the end of FY 2010 because "(o)utcomes of training are measured in customer satisfaction, safety, and maintenance metrics."
- *D3 Equal Employment Opportunity Cases* – This measure was introduced in FY 2009.

Data Collection and Reporting

For this Quality Review, auditors both reviewed Muni's Service Standards Reports and interviewed Muni staff to verify that data were collected according to the definitions and methods of measurement specified by the SFMTA and that data were calculated and reported correctly. Almost without exception, the auditors found that data reported by Muni appeared to be reliable. Only three minor issues are identified below.

A2 Service Delivery

Muni did not release a Service Standards Report in the 3rd Quarter of Fiscal Year 2010; instead, 3rd Quarter data were reported in the 4th Quarter Report. For this reason, the percentage of scheduled service hours delivered by the Kirkland Division in the 3rd Quarter was never reported (division-level data is reported for current quarters only; archival division-level data can be found in this report). However, internal data for the 3rd Quarter at Kirkland were incorrect and this appears to have been, at least in part, the source of the incorrect data that were reported, for Motor Coach as a mode and at the systemwide level, for both the 3rd Quarter and for FY 2010. For the quarter, the correct figure for the Motor Coach divisions was 96.7%, not 96.1% as reported, and the correct systemwide figure was 96%, not 95.7% as reported. For the year, the correct figure for the Motor Coach divisions was 96.6%, not 96.9% as reported, and the correct systemwide figure was 96.1%, not 96.6% as reported. As these differences are relatively minor, and as all of these figures are below (but not significantly below) the goal of 98.5% of scheduled service hours delivered, the overall impact on performance reporting was relatively minor.

C3 Training

The number of operator and maintenance training hours provided (excluding new employee training) in FY 2009 was alternately reported as 74,243 (in the reports for the 4th Quarter of FY 2009 and the 2nd Quarter of FY 2010), 79,900 (in the 1st Quarter of FY 2010), and 62,331 (in the 4th Quarter of FY 2010; no 3rd Quarter report was released). In fact, the first figure (74,243) appears to be correct, as it reflects quarterly totals that were consistently reported (with the exception of the figure for the 2nd Quarter of FY 2009, which was initially given as 11,498, but was revised to 12,408 in later reports).

C4 Safety

During the audit period, rates of "Collisions and Falls on Board per 100,000 Miles" were calculated using only those collisions and falls on board that occurred while vehicles were in revenue service, but using total mileage figures that included distance traveled while not in revenue service. This discrepancy between *revenue* and

platform, or total mileage, is a relatively minor one as most mileage logged by Muni vehicles occurs while in revenue service. For this reason, rates were only slightly underreported (and indeed, the reported rates are used in this Quality Review).

D1 Grievances

The number of operator grievances filed in FY 2009, 129, was incorrectly reported as 93 in the report for the 4th Quarter of FY 2010.

Trends Analysis

Figure 2 summarizes Muni performance in each of the service standards categories that were in effect during the period covered by this review (FY 2009 and 2010). The arrow graphics indicate general trends (up for "positive," facing right for "neutral," and turned down for "negative") in terms of both historic patterns and performance over the course of the audit period. Attainment of goals for each standard is not generally addressed below, but is addressed in the detailed performance review that makes up the body of this report.

Figure 2 FY 2009-2010 Performance Summary

Performance Summary	▲ Positive Trend ▶ Neutral Trend ▼ Negative Trend	
A1 On-Time Performance *Customer Observed Schedule Adherence*	▲	In Fiscal Years 2009 and2010, Muni remained well below the systemwide goal of 85% adherence to a standard of no more than 1 minute early or 4 minutes late, but on-time performance improved over the previous audit. Systemwide, schedule adherence was 73.3% in FY 2009 and 73.5% in FY 2010. There was a notable improvement in light rail performance and electric trolleybus lines continued to outperform other routes.
A1 On-Time Performance *Headway Adherence*	▶	A secondary measure of on-time performance, headway adherence, is based on a standard of vehicles operating within 30% or 10 minutes, whichever is less, of their scheduled headway (or frequency). Performance in this area continued to hover around 60% over the course of the audit period.
A2 Service Delivery *Scheduled Service Hours Delivered*	▲	The percentage of scheduled service hours that was delivered improved during the audit period, reaching its highest level in five years in FY 2009. However, Muni remained below its goal of 98.5% delivery of scheduled service hours.

A2 Service Delivery *Late Pull-Outs*		Late "pull-outs" from yards at the beginnings of peak periods increased in FY 2010 but remained well below the target cap of no more than 1.5%.
A3 Load Factors	*N/A*	In FY 2009, the standard for measuring overcrowding changed from the percentages of routes with loads greater than 85% of total (seated and standing) capacity over the course of the day to a more meaningful metric of the percentages of trips during peak periods experiencing loads of 125%. During the audit period, the number of Muni trips experiencing overcrowding by this new standard was close to the target of 4% in both the AM and PM peak periods.
A4 Unscheduled Absences		While the rate of unscheduled absenteeism for most positions is in the mid-single digits, the rate for operators has consistently been higher than 10% (over the course of the audit period it exceeded 13%, although this was due in part to a new, stricter definition). This is a key reason why Muni has historically been unable to achieve its target of 98.5% for Scheduled Service Hours Delivered.
A5 Mean Distance Between Failure		During the audit period there was a steep decline in the mechanical reliability of rail vehicles. From FY 2008 to FY 2010, average miles between "roadcalls" for mechanical failures disrupting service declined 47% for Breda LRVs, 48% for the F-Line, and 63% for cable cars. For Breda LRVs and the F-Line, this trend can be explained, at least in part, by a new, broader definition of mechanical failures. It should be noted that vacancy rates for maintenance personnel increased dramatically during the audit period.
A6 Vacancy Rate for Service Critical Positions		While vacancy rates for Operations personnel increased over the course of the audit period, the increase in the vacancy rate for maintenance staff was especially troubling: from 5.6% in the 4th Quarter of FY 2008 to 16.2% in the 1st Quarter of FY 2009 and 23.5% in the 4th Quarter of FY 2010. This rate has since improved slightly to 19.4% in the 2nd Quarter of FY2011, but remains unusually high.
A13 Productivity		The numbers of boardings onto Muni vehicles per hour of service increased slightly between FY 2008 and 2009 before falling back below 2008 levels in FY 2010.
A17 Sustainability	*N/A*	In SFMTA's first year of reporting this measure, FY 2009, 67% of commute trips were made by "sustainable" (non-drive alone) modes. Forty-one percent of commute trips were by transit. (Data comes from the biannual Controller's Survey and is thus reported only every other year.)

B1 Ridership		In FY 2009, Muni ridership reached its highest level since 2001, before falling to 216 million boardings in FY 2010. Only cable cars gained ridership during the audit period.
B2 Revenue		Despite decreased ridership in FY 2010, revenue increased precipitously due to increases in fares.
B3 Farebox Performance		While costs per hour increased, revenue increased at a faster rate. As a result, over the audit period, Muni experienced an increase in farebox performance.
B4 Cost per Hour		Muni's operating cost per hour of revenue service increased by 3% in FY 2009 and by an additional 6% in FY 2010.
B5 Cost per Boarding		In FY 2009 and FY 2010, Muni's operating costs grew at a faster pace than ridership, resulting in an increase in costs per boarding across modes.
C1 Customer Perceptions		In FY 2010, overall satisfaction (in terms of those rating service "good" or excellent") in Muni's customer service survey was just above 50%, roughly the same as in 2006 and 2007, the last years in which it was conducted.
C2 Customer Feedback Received	*N/A*	In FY 2008, the number of Passenger Service Reports (PSRs) submitted to Muni increased significantly, apparently due to implementation of 24-hour 311 customer service. The number of PSRs declined in FY 2009, but increased again in FY 2010.
C2 Complaint Resolution Rate		During the audit period, complaint resolution rates were near goals in all categories, although significant methodological changes make historical comparison impractical.
C3 Training		During the audit period, Muni continued to achieve its goal of 50,000 hours of annual training.
C4 Safety *Collisions per 100,000 Miles*		In FY 2009, numbers of collisions declined notably, before increasingly slightly in FY 2010.
C4 Safety *Falls on Board per 100,000 Miles*		Rates of Falls on Board increased significantly in FY 2010.

C6 Security Incidents		Numbers of security incidents reported to Muni by SFPD and tracked internally by Muni increased somewhat over the course of the audit period.
C7 Proof-of-Payment Program	*N/A*	In the last three quarters of FY 2010, Muni began reporting fare evasion in terms of both numbers of citations and warnings issued, as well as rates (based on numbers of contacts with riders). During this period, rates of fare evasion increased; however, in the 4th Quarter fewer citations and more warnings were issued. (No evaluation of trends is made here, as three quarters provides too limited of a basis for assessment.)
D1 Grievances		The number of grievances filed by operators and other employees rose significantly in the 3rd and 4th Quarters of FY 2010. An explanation from staff for this trend can be found in the following pages.
D2 Grievance Resolution Rate		The timeline for resolution of grievances has been extended from 30 to 90 days and the target rate of resolution from 75% to 90%. Throughout the audit period, this goal was rarely met, despite having been easily met in previous years.
D4 Employee Satisfaction	*N/A*	In 2009, the SFMTA did not conduct an employee satisfaction survey. In 2010, high-level results from a reconstituted survey were reported: most SFMTA employees strongly agreed with the statement, "At work, I have the opportunity to do what I do best every day."

Recommendations

Significant improvements have been made in performance reporting in recent years. The recommendations on the following pages are envisioned as further refinements to a process that has already been greatly improved.

Two types of recommendations are included in this Quality Review: general recommendations to improve both performance reporting and, in some cases, performance; and measure-specific recommendations related to individual service standards.

General

The Quality Review team identified a few general issues related to Muni performance reporting.

Report Load Factor (A3) and Productivity (A13) by service type.

In our last Quality Review, we recommended that performance in a few key areas be reported using Transit Effectiveness Project (TEP) service categories: Rapid, Local, Community Connector, Specialized, and Owl. These categories were developed to differentiate between Muni lines with different operating contexts and characteristics; or, to put it another way, lines designed to

serve different needs and for which expectations of performance would naturally be different. For example, Rapid lines operate in high-demand corridors and operate frequently. Riders, then, are unlikely to rely on schedules, making headway adherence (e.g., "every five minutes") a more important measure of on-time performance than schedule adherence.

SFMTA has adopted our previous recommendation to report schedule adherence by service category; however, it has not adopted our recommendation to rely on headway adherence as the primary metric of on-time performance for Rapid routes (a revised version of this recommendation, proposing "bunching" and "gapping" standards, can be found in the following section). Moreover, it has not adopted our recommendation that both Load Factor and Productivity be reported by service type. Passengers on different types of routes have different expectations regarding overcrowding: passengers on express (Specialized) routes, for example, typically take longer trips and would have a higher expectation of being able to find a seat than riders making shorter trips on a Rapid route. Likewise, Rapid routes should be more productive than Community Connectors, which are designed primarily to provide coverage. Data in these categories are already collected at the route level, making reporting by service type a relatively straightforward matter.

Make changes to make performance reporting more timely.

In the past, we have recommended that the SFMTA "(e)nsure technological resources are properly maintained and fully utilized." To the agency's credit, it has made great progress in adapting new technologies to improve performance reporting. Most notably, Muni is now transitioning to on-time performance reporting using on-board sensors rather than limited samples collected by staff.

The next logical step in this process is to take full advantage of these technologies – either already in place or currently being implemented – to rethink the way the agency conducts performance reporting. Existing resources might be leveraged to make performance reporting both more relevant to the public and more useful as a management tool (see the following recommendation, "More proactively use data as a management tool"). Most obviously, less labor-intensive processes are also faster processes, and one of the greatest flaws of the current system is that by the time performance is reported, it is often so dated as to be not particularly useful to passengers or management.

Reporting itself, apart from data gathering, can be a laborious process, so more frequent reporting would likely have to be coupled with prioritization of some measures to ensure that the performance reporting burden did not become unreasonable. Based on discussions with staff, we are recommending that the SFMTA transition to a system of monthly and annual, rather than quarterly reporting. A few, very important measures would be reported monthly, while other measures would only be reported annually.

Determination of which measures are of the highest priority (and which can be feasibly reported on a monthly

basis) would be a largely internal process, requiring extensive analysis by staff, and review and approval by the SFMTA Board of Directors. However, staff have already identified one promising example, the Chicago Transit Authority's Performance Metrics published on the Internet at *http://www.transitchicago.com/perfmetre.aspx.* Performance is reported monthly in categories including "ridership," "on-time," "efficient" (including maintenance-related measures), "safe," "clean," and "courteous." For Muni, a number of measures might be candidates for monthly reporting:

- A1 On-Time Performance
- A2 Service Delivery
- A3 Load Factors
- A5 Mean Distance Between Failure
- B1 Ridership
- C1 Customer Perceptions (see recommendation under "Measure-Specific Recommendations")
- C2 Customer Feedback Received/Complaint Resolution Rate
- C4 Safety
- C7 Proof-of-Payment Program

Certain measures, such as on-time performance, could be reported more often – weekly or even daily – on the SFMTA website. For the time being, however, monthly reporting of key measures would constitute yet another step toward more modern and effective performance reporting.

More proactively use data as a management tool.

In past years, we have made a number of general recommendations that, while they have been largely addressed by the SFMTA, should remain central to agency thinking about performance reporting. These are "permanent" recommendations in the sense that they are of lasting value and speak to the very reasons performance reporting is carried out in the first place. They are:

- *Performance measures should reflect the multimodal nature of the SFMTA*
- *Improve the organization of measures to improve readability*
- *Set different performance standards for different types of Muni service*
- *Ensure technological resources are properly maintained and fully utilized*
- *Focus on improving the performance measures that address customer experience*

To this list we would like to add another general recommendation: *More proactively use data as a management tool*.

While this recommendation is indeed a general one, we can think of several potential applications. For example, Mean Distance Between Failure (MDBF) is reported at the division level. Each division has a manager, as well as (with the exception of one division) a maintenance controller who reports to an agency-wide senior controller. A more formal process for responding to

quarterly MDBF results at the division level might prove a useful tool for sharing information and developing strategies to address obstacles to improved performance. Ultimately, passengers might benefit – which is the very point of performance reporting, an exercise that should not just be conducted for the sake of transparency.

Measure-Specific Recommendations

In addition to the general recommendations, a number of recommendations are made below to refine specific measures. Some of these recommendations are repeated (verbatim or with modifications) from the previous Quality Review (see descriptions earlier in this chapter).

A1 On-Time Performance

Replace headway adherence standard with "bunching" and "gapping" standards, make these the primary measures of on-time performance for Rapid Network lines, and report only schedule adherence for other types of routes.

In our last Quality Review, we recommended that reporting methodologies for On-Time Performance be changed in the following ways:

- On-time performance should be reported by service type, as defined by the Transit Effectiveness Project (TEP), rather than by mode.
- All routes on the TEP-defined Rapid Network should report headway adherence, using data collected by traffic checkers. Schedule adherence on these routes should also continue to be collected with Automated Passenger Counters (APC) in order to calculate system averages.
- All other routes should report schedule adherence using only data from APCs.

These recommendations have been partially adopted, if not yet fully implemented. Reporting of on-time performance by TEP service category has been approved by the SFMTA Board and Muni is in the process of transitioning toward reliance on automated equipment and processes for data collection. (This will be done using NextMuni sensors rather than APCs, as research by Muni staff has found that figures reported by APCs and NextMuni sensors are generally within 1 percent of each other. Further, the use of NextMuni sensors installed on all vehicles, as opposed to APCs installed on only some vehicles, will allow automated collection of headway adherence data or, if this proposal is adopted, bunching and gapping data.)

While we continue to believe that different standards should be applied to different types of services with different customer expectations, staff have proposed a pair of alternatives to headway adherence that they believe would be both easier to understand and more relevant to the public: "bunching" and "gapping." These phenomenons are certainly well known to Muni customers and most members of the public likely could not define "headway," a transit industry term. Moreover, the current standard of 30% of scheduled headway or 10 minutes, whichever is less, is somewhat complicated and can be problematic when applied to very high-frequency routes (e.g., a headway of four minutes is non-compliant

when scheduled headways are six minutes, despite a relatively minor difference of just two minutes).

For these reasons, we are recommending that Muni replace headway adherence with bunching and gapping standards, that these serve as the primary measures of on-time performance for Rapid Network lines, and that only schedule adherence be reported for other types of routes (schedule adherence data would continue to be collected on Rapid Network lines in order to calculate systemwide averages, as required under Proposition E). This is because when service is frequent, riders tend to base expectations about arrivals not on scheduled arrival times, but on scheduled intervals (e.g., "every 10 minutes"), making schedule adherence less meaningful. While some non-Rapid Network services are relatively frequent, we are recommending that Muni use existing service-type categories for reasons of simplicity and consistency (see previous recommendation, "Report Load Factor [A3] and Productivity [A13] by service type").

As for the actual standards to be applied, we are recommending the following:

- For *bunching*, less than two minutes; and
- for *gapping*, more than five minutes more than the scheduled headway.

These standards are consistent with the "Waiting Time Variability" Service Reliability Performance Metrics in the Transit Effectiveness Project Implementation Strategy.

It should be noted that "bunching" – too many vehicles arriving within a given period – is not necessarily a problem in and of itself; rather, it is gapping, or *too few* arrivals, that is the real problem for customers. Further, bunching is often a direct result of gapping, as a vehicle falls farther and farther behind the vehicle in front of it, resulting in gapping, the vehicle behind it may catch up, resulting in bunching. For these reasons, it might ultimately be preferable to simply measure gapping. However, customers rightly recognize bunching as a symptom and key indicator of poor on-time performance.

Finally, it should also be noted that transitioning to a different system of reporting for on-time performance represents an opportunity to address a number of issues associated with the current method. Data are currently based on very limited samples, which for various reasons do not include a number of different types of trips and locations. As was previously noted, systemwide automated data collection will allow more timely reporting, but it will also allow more comprehensive reporting, and Muni should take full advantage of this capability. According to staff, a more comprehensive methodology could result in notably lower rates of schedule adherence and it will be important that Muni seek to raise awareness that the methodology for calculating on-time performance has changed, rather than on-time performance itself.

A2 Service Delivery

Measure percentages of cheduled miles and trips delivered in addition to scheduled hours delivered.

This service standard includes multiple measures of Muni's ability to provide scheduled service, most notably

Scheduled Service Hours Delivered. Scheduled Service Hours Delivered is a straightforward, all-encompassing measure; it is simply the hours of revenue service provided as a percentage of the hours of revenue service that are scheduled. In FY 2009 and FY 2010, the systemwide averages were 96.6% and 96.1%, respectively. This means that in FY 2010, Muni was able to deliver about 24 out of every 25 scheduled hours.

However, a vehicle that is in service for all of its scheduled hours may not provide all scheduled service. In the last Quality Review, we recommended a new measure of Scheduled Trips Delivered. While this measure would directly capture missed trips, and as such would relate most directly to the customer experience, it has not been implemented due to the potential difficulty of data collection. We are therefore now recommending as an alternative, another, simpler measure, Scheduled Service Miles Delivered. Together with Scheduled Service Hours Delivered, this should serve to provide a more complete picture of Muni's ability to deliver its scheduled service.

Systemwide Hours and Miles Delivered are, however, somewhat abstract concepts; what the riding public ultimately cares about is whether a bus or train arrives – about whether a trip is made or missed. A measure of Scheduled Trips Delivered, then, would be a useful additional measure. Information would need to be compiled from two sources: the OPS (Operator Dispatching/Timekeeping) module of the Trapeze database, which can provide information about trips that were missed because no operator was available and Central Control logs, which can provide information about trips that were missed because of mechanical problems. Additional study would need to be conducted regarding the practicality of combining information from these two sources. Ideally, data would be reported overall and by cause of missed trip (no operator available or mechanical problem), systemwide by service-type, and at the route level, so routes on which relatively high numbers of trips are missed can be clearly identified.

A5 Mean Distance Between Failure

Report rates of "pull-ins."

In our last Quality Review, we described a pilot program in which crews of mechanics – one a specialist in repair of diesel motor coaches and the other a specialist in trolley coach repair – were stationed at locations around the City based on analysis of the most common locations for mechanical failures. The objectives of the program were twofold: to enable qualified mechanics to respond to failures more quickly, but also to increase the likelihood that a vehicle might be repaired on-site and put back into service immediately, as it is often easier to diagnose problems when a vehicle is still relatively "hot." We described this program in the context of a recommendation that Muni report rates of disabled vehicles removed from the street within 30 minutes of mechanical failures. However, Muni internally tracks a separate metric that might be more meaningful: rates of "pull-ins" or failed vehicles that must be removed from the street and taken into the shop for repair. According to staff, the pilot program helped to reduce pull-in rates from approximately 75% to 25%. However, the program has since been discontinued for a variety of reasons and pull-

in rates have returned to approximately 60%. However it is achieved, a reduction in pull-in rates is an important goal for Muni mechanical personnel and we believe that public reporting of pull-in rates might, along with continued reporting of Mean Distance Between Failures, help to illustrate or "shine a light on" the problems faced by Muni maintenance staff. (Note that we are not recommending a goal at this time, only that rates be publicly reported).

Additionally, we are again recommending that a maintenance controller be hired at the last remaining division without one, Potrero. As we noted in the last Quality Review, maintenance controllers report to the individual responsible for reporting MDBF, helping to ensure agency-wide consistency in data collection and reporting.

A6 Vacancy Rate for Service Critical Positions

Restore the goal of no more than a 5% vacancy rate for crafts and maintenance positions.

While the change was made outside of the period covered by this Quality Review, we feel compelled to comment on the goals for this measure, adopted for Fiscal Years 2011 and 2012, of no more than a 15% (in 2011) and 10% (in 2012) vacancy rate for positions in the Crafts and Maintenance divisions. Previously, the goal had been 5 percent, however, the standard was changed to "reflect anticipated hiring constraints in the two fiscal years to come," as the change was described in the SFMTA's FY 2011 Service Standards and Milestones document. While such a change is certainly understandable given the SFMTA's budgetary constraints and may fairly be described as a mere acknowledgment of reality, we do not believe that goals should necessarily be realigned to make them more achievable. Indeed, Muni has never achieved its Proposition E-mandated on-time performance goal of 85% – yet the goal was enshrined in the City Charter precisely because it represents the level at which the proposition's authors felt Muni service might be considered reasonably reliable. If the goal had been redefined to, say, 70%, then Muni would have "achieved" its on-time performance target in recent years – and yet few would describe 70% schedule adherence as "reliable." By the same token, a 15% vacancy rate in essential positions, while perhaps necessary, should never be construed as somehow acceptable.

B3 Farebox Performance

Report farebox recovery ratios.

Farebox recovery ratio, or the percentage of operating costs covered by fares, is an important measure because it relates fare collection to operating costs and is not simply a function of ridership and fare levels. Muni should continue to report average fares and total revenues, but supplement this information with farebox recovery ratios, both systemwide and by mode. Additionally, it should set annual goals, perhaps a goal of maintaining existing levels over time. (Note: This recommendation was made in several previous Quality Reviews. We repeat it here because we continue to believe strongly in its potential value, as both a tool for management and a measure of Muni performance meaningful to the general public.)

C1 Customer Perceptions

Make reporting more timely.

For budgetary reasons, SFMTA did not conduct a customer service survey in 2008 or 2009. In 2009, acting upon a recommendation in the previous Quality Review, Muni-related results from the biennial City Survey conducted by the Controller's Office were reported instead. However, in 2010 Muni once again conducted its own passenger survey.

We recommended in the last Quality Review that Muni discontinue its survey not because the agency shouldn't regularly poll public opinion or seek to provide the best possible customer service, but rather because we viewed the agency's efforts as duplicative and unnecessary. However, following conversations with staff, we are recommending in this Quality Review that the agency *increase* its survey efforts. Specifically, we are recommending that the agency conduct monthly high-level surveys in addition to more detailed annual or biannual surveys. The expense associated with this effort would not be significant in terms of the overall agency budget and more frequent surveys would provide management with more timely information regarding customer satisfaction in various areas. This, in turn, might allow the agency to be more responsive to customer needs.

In the previous Review, we added that if Muni were to continue to conduct its own survey, it should make a number of changes. These changes were recommended by former Muni staff, and include:

- conduct the survey in multiple languages, not just English;
- broaden its scope beyond customer satisfaction to include questions about customer preferences;
- target not just transit users, but all those impacted by transit, including cyclists and drivers; and
- if possible, supplement telephone surveys with intercept surveys.

We further recommend that questions about vehicle cleanliness be expanded to incorporate stop and station cleanliness.

C2 Complaint Resolution Rate

Change the timeline for resolution of Americans with Disabilities Act-related Passenger Service Reports to 60 days.

In our last Quality Review, we recommended that the timeline for resolution (meaning that a complaint has been dismissed or has been found to be potentially actionable) of ADA-related customer service complaints be set at 60 days. Instead, the previous standard of resolution of 75% of complaints within 30 days was changed to 85% within 45 days. This was a significant improvement; however, ADA complaint processes include three steps that can, by right, take up to 49 days to complete: 14 days for division managers to determine whether a complaint is viable, 21 days for complainants to respond to letters from customer service staff, and another 14 days for operators to respond to notices. In other words, staff might potentially resolve a customer

service complaint as promptly as possible, but still fail to achieve the standard. The standard of 85% resolution takes this into account to some extent, however, we continue to agree with staff that 60 days would be a more reasonable timeline.

C3 Training

Restore measure.

This service standard had been revised repeatedly in recent years (training hours for new operators were removed from totals in FY 2008 and hours for maintenance staff were added in FY 2009) before it was finally discontinued at the end of this audit period. There had been plans to expand it: in FY 2009, a secondary measure, "Percent of Operators Receiving Revised Customer Service Training," was proposed to be introduced, but the program was not implemented for budgetary reasons. The measure was ultimately eliminated because "(o)utcomes of training are measured in customer satisfaction, safety, and maintenance metrics." While this may be true, it is equally true of other measures that have been retained. For example, outcomes of A6 Vacancy Rates for Service Critical Positions," are measured in mechanical reliability and other metrics. If mechanical reliability is in decline, one might wish to know whether vacancy rates among mechanics have been increasing. By the same token, if rates of accidents are increasing, whether safety training has been reduced is a potentially valuable piece of information. For this reason, we are recommending that the measure be reinstated, with a focus on recurring safety and customer service training.

C7 Proof of Payment

Report fare evasion rates, the numbers of citations issued, and "contacts" by mode.

Following the last Quality Review, the SFMTA adopted our recommendation that rates of fare evasion (citations plus warnings divided by total numbers of "contacts" between fare enforcement officers and passengers) be reported in addition to the total numbers of citations issued. In this Quality Review, we are building on that recommendation by recommending that the agency report evasion rates, citations, and "contacts" by mode.

As Muni moves toward a systemwide "proof-of-payment" policy allowing passengers to board through any door, but requiring them to carry loaded Clipper Cards, passes, or transfers, the agency's fare enforcement efforts will have to be expanded beyond their current focus on Muni Metro to include regular enforcement on F Line streetcars, cable cars, and buses. There are logistical challenges associated with this – while on Muni Metro, officers can intercept passengers near fare gates or move about on more spacious light rail vehicles, enforcement on crowded buses, with their narrow aisles, is physically challenging. When Muni has conducted fare enforcement on bus routes, it has done so at stops. However, this has raised community concerns and in the 4th quarter of FY 2010 the agency reduced its fare enforcement efforts in response.

Reporting evasion rates, citations, and contacts by mode would be one way to help ensure that the agency has successfully been able to expand its efforts beyond Muni

Metro. Further, it would provide management with a tool that might prove useful in developing deployment strategies. Ultimately, fare evasion might be reported at the individual line level, further increasing the measure's usefulness.

D1 Grievances

Report by division.

In previous Quality Reviews, we have recommended that grievances be reported not just for operators and miscellaneous employees, but by operating division (e.g., Green and Potrero). This could help to make superintendents more accountable for the prevention and resolution of grievances.

A Operational Efficiency

Service standards in this category have to do primarily with service reliability, including Muni's ability to deliver all of its scheduled service. In Fiscal Years 2009 and 2010, performance in this category was mixed, with Muni improving in the key area of On-Time Performance (A1), but showing higher rates of unscheduled absenteeism among operators, vacancies among maintenance staff, and mechanical failures of rail vehicles.

While on-time performance improved, it remained well below the Charter-mandated standard of 85% schedule adherence. In Muni's defense, many of the factors contributing to its ongoing on-time performance problems are beyond its direct control, including increasing levels of traffic congestion (congestion is not, however, entirely beyond the control of SFMTA, which is responsible for managing the city's streets). Ongoing problems in other areas, meanwhile, are at least partially linked to Muni's ongoing budgetary challenges – its current shortage of maintenance workers, for example, appears to have manifested itself in a higher rate of breakdowns.

On the following pages are brief summaries of Muni's Fiscal Years 2009-2010 performance for each of the service standards in this category, including arrows indicating general trends (up for "positive," facing right for "neutral," and turned down for "negative") in terms of both historic patterns and performance over the course of the audit period. More detailed information about each service standard can be found on the following pages, including historic trends and data from recent quarters since the end of the audit period. Recommendations and issues identified in the data collection and reporting process can be found at the ends of the sections for some service standards.

A Operational Efficiency

A1 On-Time Performance

Customer Observed Schedule Adherence

In Fiscal Years 2009 and 2010, Muni remained well below the systemwide goal of 85% adherence to a standard of no more than 1 minute early or 4 minutes late, but on-time performance improved over the previous audit. Systemwide, customer observed schedule adherence was 73.3% in FY2009 and 73.5% in FY2010. There was a notable improvement in light rail performance, and electric trolley lines continued to outperform other routes.

A1 On-Time Performance

Headway Adherence

A secondary measure of on-time performance, headway adherence, is based on a standard of vehicles operating within 30% or 10 minutes (whichever is less) of their scheduled headway (or frequency). Performance in this area continued to hover around 60% over the course of the audit period.

A2 Service Delivery

Scheduled Service Hours Delivered

The percentage of scheduled service hours that was delivered improved during the audit period, reaching its highest level in five years in FY 2009. However, Muni remained below its goal of 98.5% delivery of scheduled service hours.

A2 Service Delivery

Late Pull-Outs

Late "pull-outs" from yards at the beginnings of peak periods increased in FY 2010 but remained well below the target cap of no more than 1.5%.

N/A A3 Load Factors

In FY 2009, the standard for measuring overcrowding changed from the percentages of routes with loads greater than 85% of total (seated and standing) capacity over the course of the day to a more meaningful metric of the percentages of trips during peak periods experiencing loads of 125%. During the audit period, the number of Muni trips experiencing overcrowding by this standard was close to the target of 4% in both the AM and PM peak periods.

A Operational Efficiency

A4 Unscheduled Absences

While the rate of unscheduled absenteeism for most positions is in the mid-single digits, the rate for operators has consistently been higher than 10% (over the course of the audit period it exceeded 13%, although this was due in part to a new, stricter definition). This is a key reason why Muni has historically been unable to achieve its target for Scheduled Service Hours Delivered of 98.5%.

A5 Mean Distance Between Failure

During the audit period there was a steep decline in the mechanical reliability of rail vehicles. From FY 2008 to FY 2010, average miles between "roadcalls" for mechanical failures disrupting service declined 47% for Breda LRVs, 48% for the F-Line, and 63% for cable cars. For Breda LRVs and the F-Line, this trend can be explained, at least in part, by a new, broader definition of mechanical failures. It should be noted that vacancy rates for maintenance personnel increased dramatically during the audit period.

A6 Vacancy Rate for Service Critical Positions

While vacancy rates for Operations personnel increased over the course of the audit period, the increase in the vacancy rate for maintenance staff was especially troubling: from 5.6% in the 4th Quarter of FY 2008 to 16.2% in the 1st Quarter of FY 2009 and 23.5% in the 4th Quarter of FY 2010. This rate has since improved slightly to 19.4% in the 2nd Quarter of FY2011, but remains unusually high.

A13 Productivity

The numbers of boardings onto Muni vehicles per hour of service increased slightly between FY 2008 and FY 2009 before falling back below FY 2008 levels in FY 2010.

N/A A17 Sustainability

In SFMTA's first year of reporting this measure, FY 2009, 67% of commute trips were made by "sustainable" (non-drive alone) modes. Forty-one percent of commute trips were by transit. (Data comes from the biannual Controller's Survey and is thus reported only every other year.)

A1 On-Time Performance (Customer Observed Schedule Adherence)

Goal *> 85%*

FY09-10 Performance

Goal Not Achieved

Trend

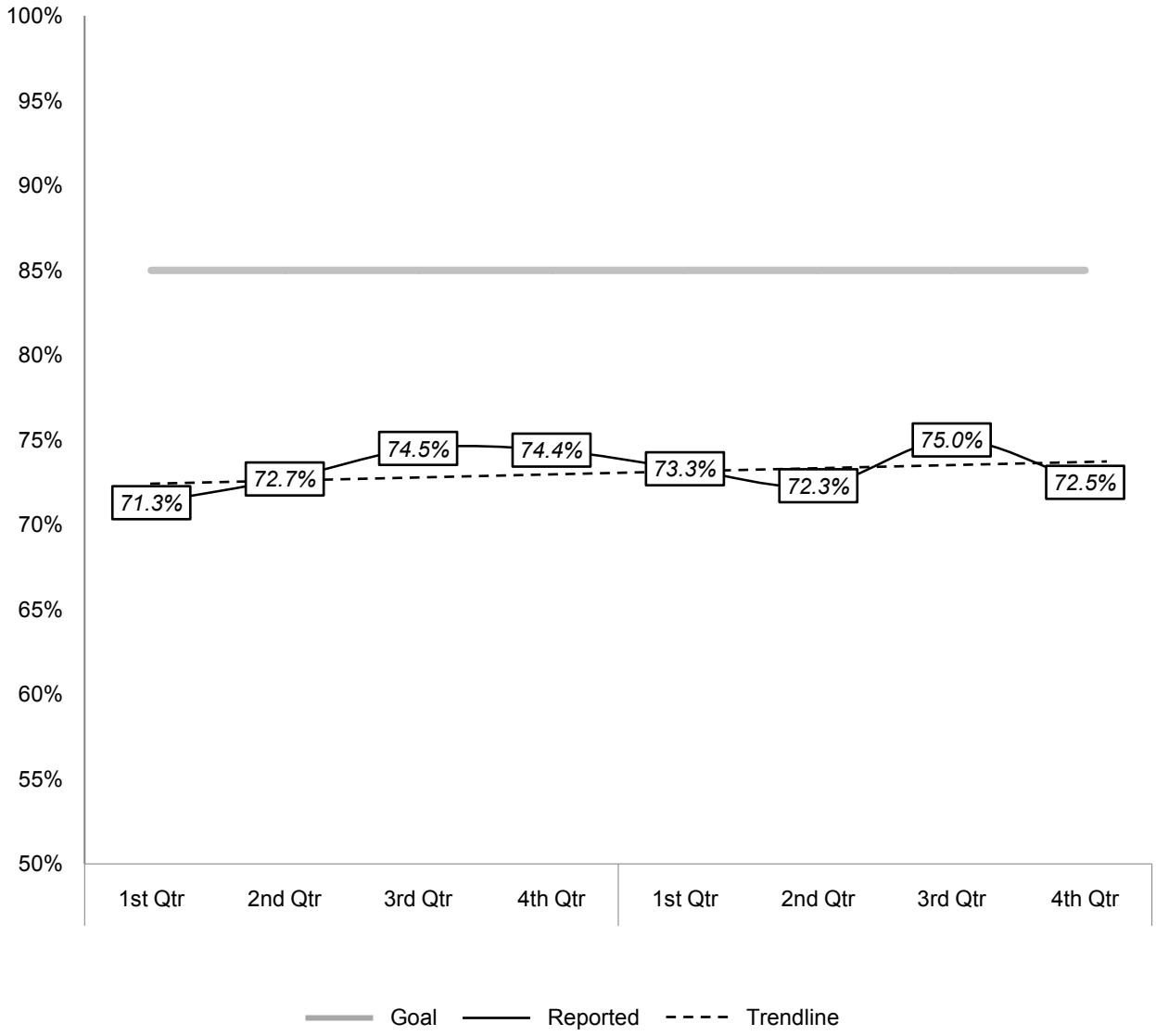
Positive

Purpose To measure schedule adherence.

Definition Each line is checked at least once in each six month period. Such checks shall be conducted no less often than 10 weekdays and weekends per period. An annual checking schedule shall be established for the routes. The order in which the routes are checked will be determined monthly through a random selection process. To the extent automated systems can be substituted at less cost for such checks, or the measurement of any performance standard, such systems will be used.

Method Check the designated lines using criteria of -1/+4 minutes. Periods of time include morning rush (6am-9 am), midday (9am-4pm), evening rush (4pm-7pm), and night (7pm-1am). Supervisors conduct a one-hour check at a point at mid-route during all four time periods stated above.

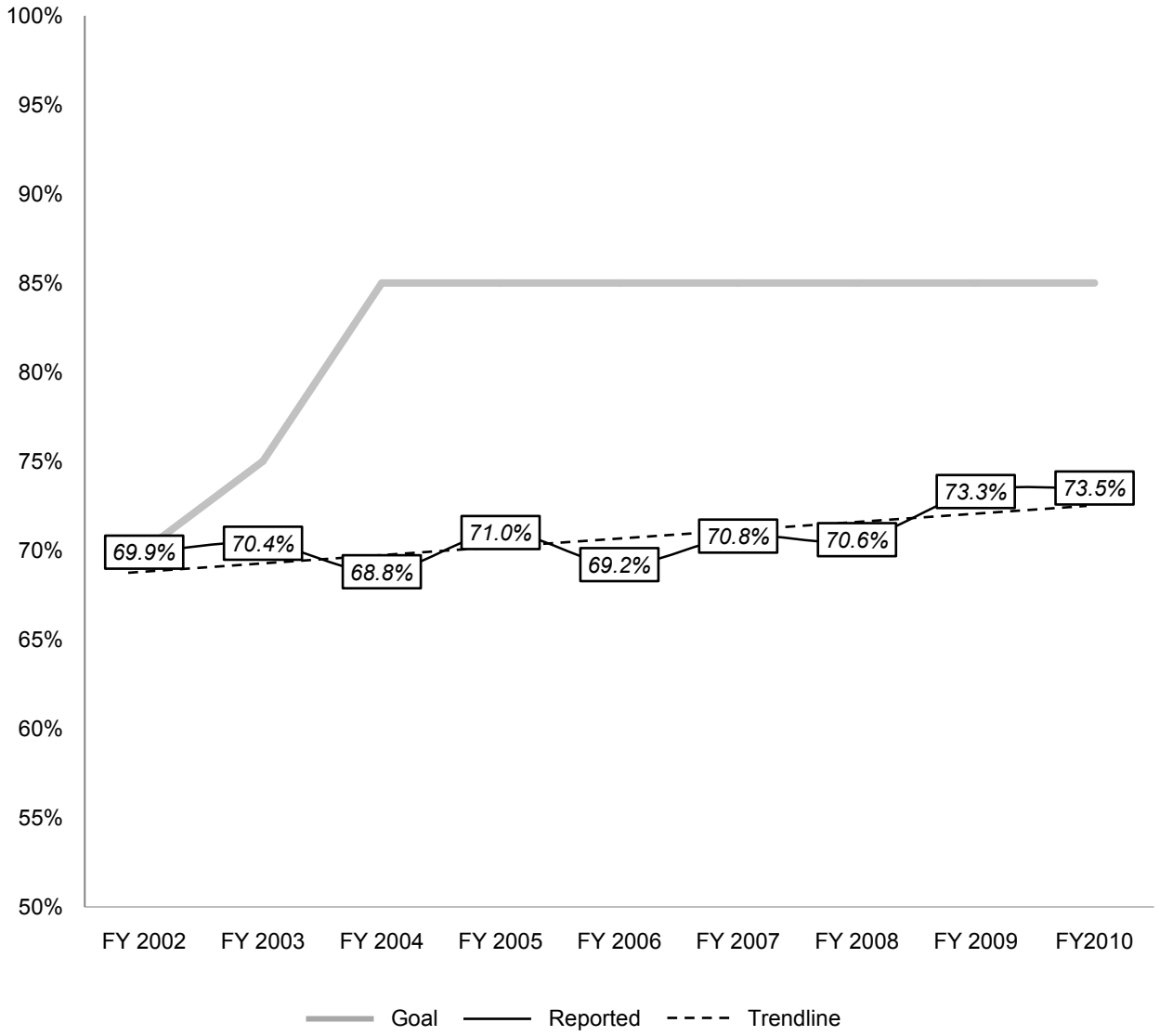
A1 On-Time Performance (Customer Observed Schedule Adherence)



Systemwide (Audit Period)

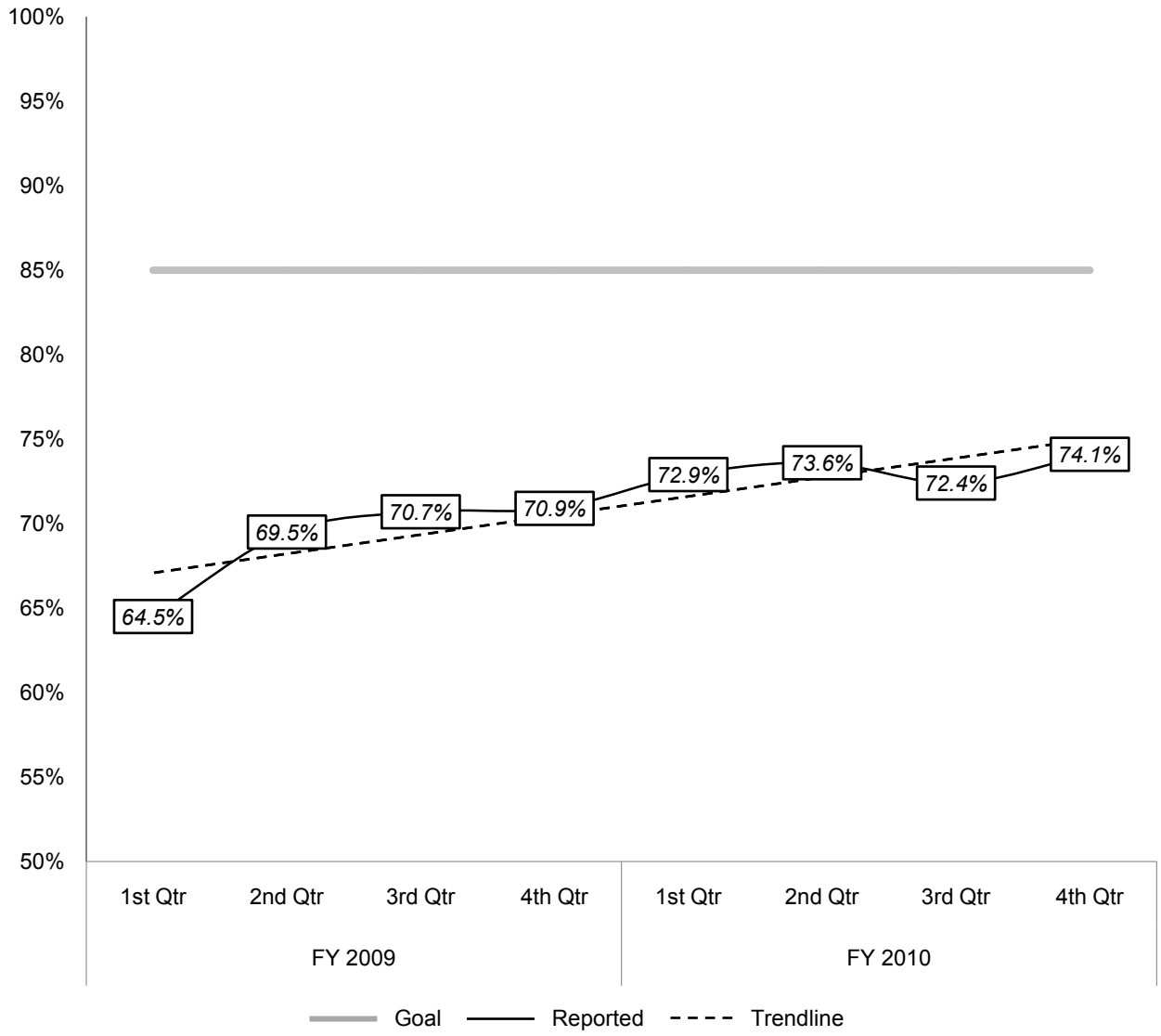
Historically, systemwide customer observed schedule adherence – vehicles arriving no more than 1 minute earlier or 4 minutes later than a scheduled arrival (whether or not it is the vehicle scheduled to arrive at that time; thus, "customer observed") – has hovered around 70%. During the audit period, however, some improvement was finally shown. It should be noted that since different lines are sampled each quarter, quarter-over-quarter changes are not especially meaningful; annual figures are more representative.

A1 On-Time Performance (Customer Observed Schedule Adherence)



Systemwide (Historic)
Schedule adherence improved notably in FY 2009 and in FY 2010 reached its highest level since performance reporting began.

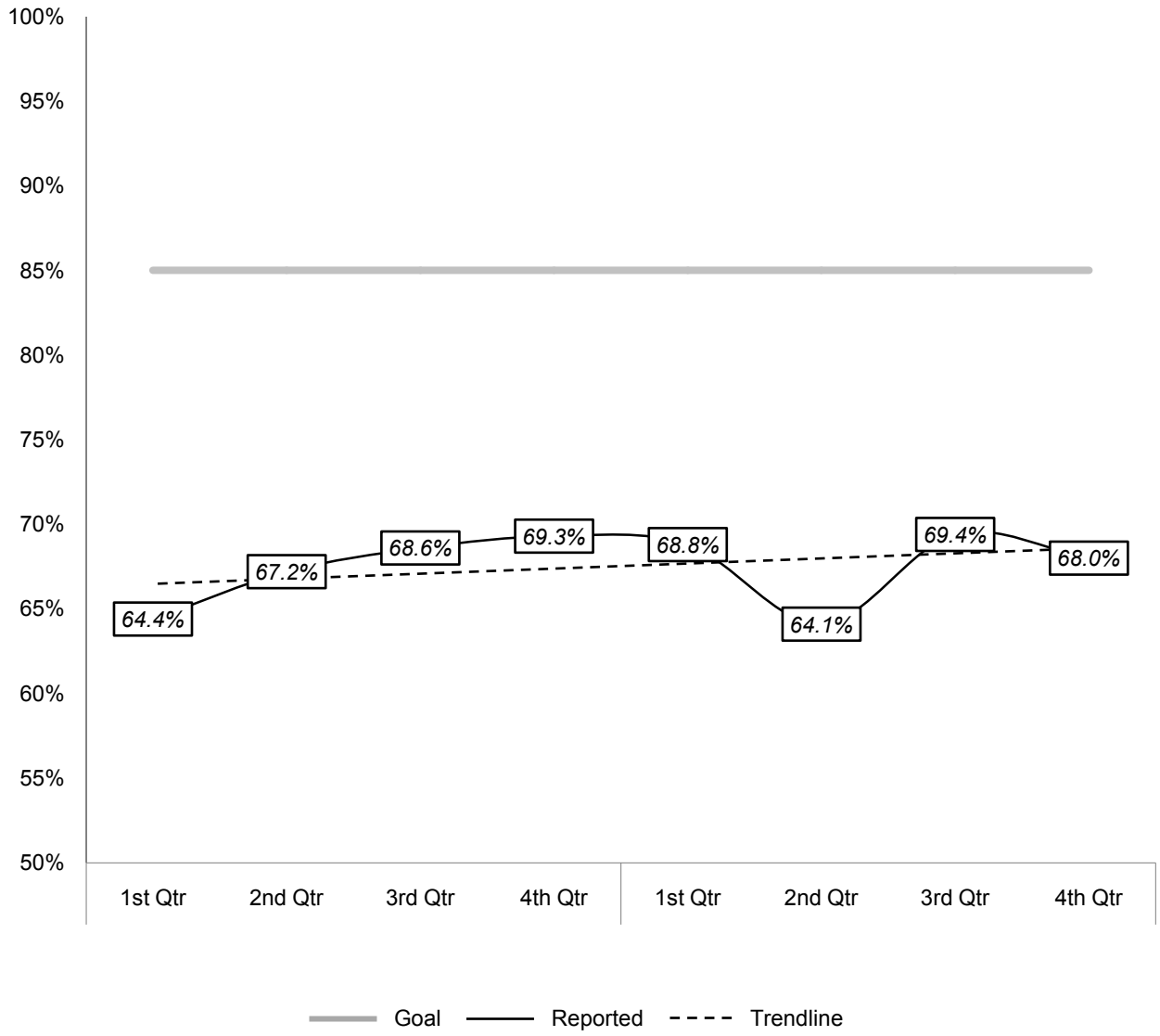
A1 On-Time Performance (Customer Observed Schedule Adherence)



Light Rail (Audit Period)

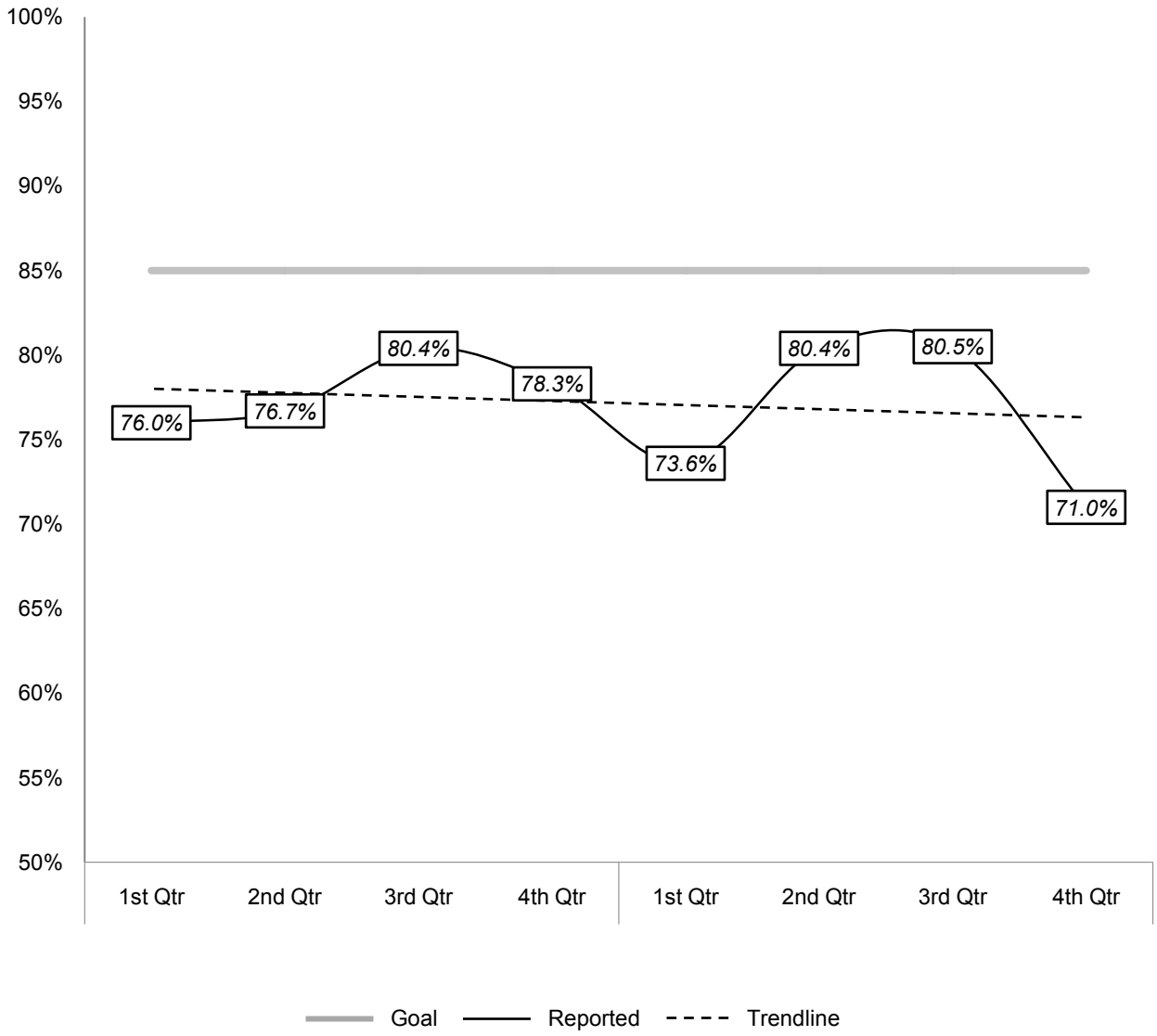
Much of the credit for Muni's improved on-time performance goes to light rail vehicles: quarterly schedule adherence improved by nearly 10 percentage points over the course of the audit period.

A1 On-Time Performance (Customer Observed Schedule Adherence)



Cable Car (Audit Period)
Cable car schedule adherence continued to lag somewhat behind other modes.

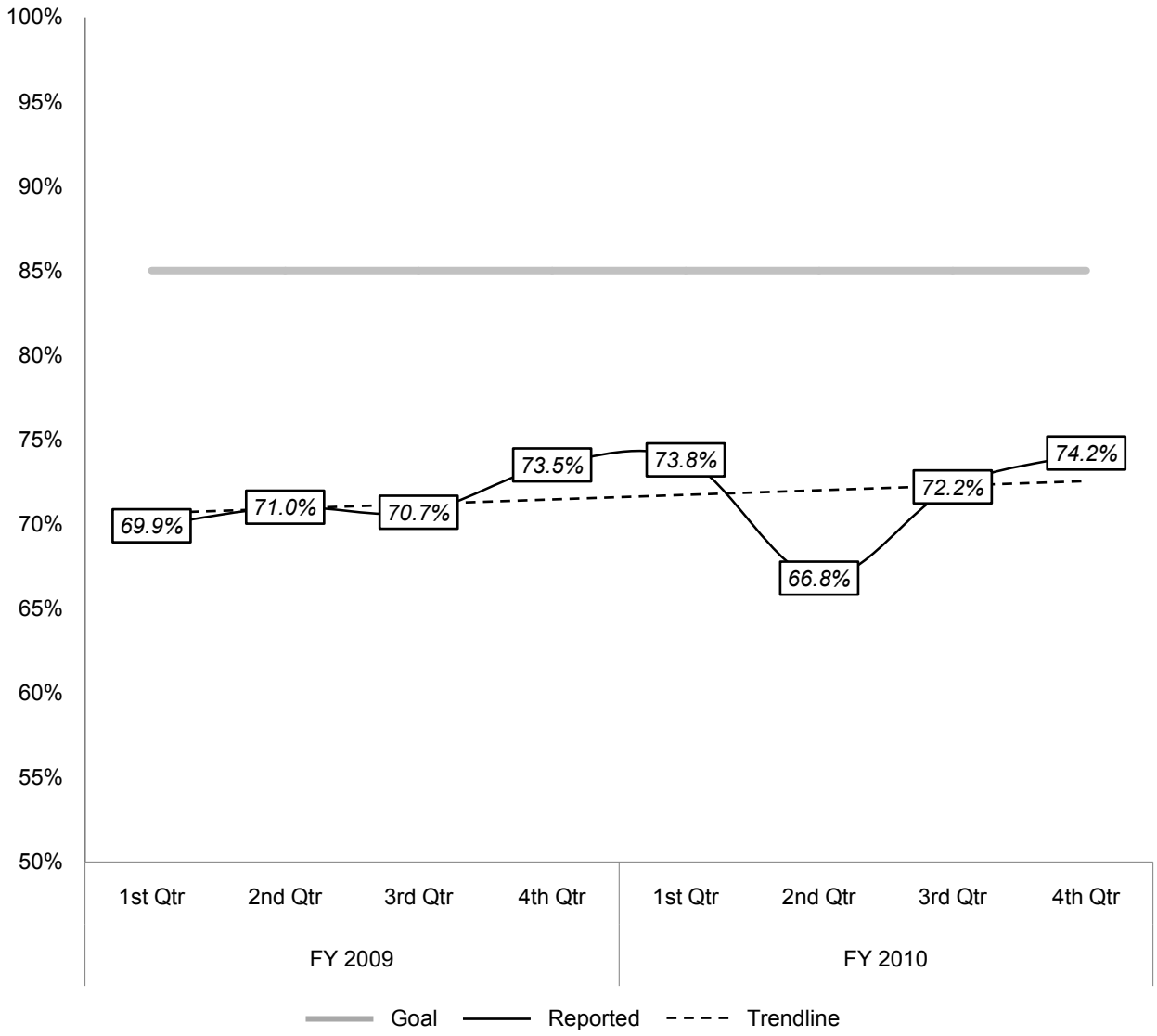
A1 On-Time Performance (Customer Observed Schedule Adherence)



Trolley Coach (Audit Period)

Electric trolley vehicles have historically been Muni's most reliable. Despite a couple of relatively poor performing quarters, this trend continued through the audit period.

A1 On-Time Performance (Customer Observed Schedule Adherence)



Motor Coach (Audit Period)

Most Muni service is provided by diesel buses, so it is to be expected that schedule adherence on these lines will track closely with the systemwide average.

A1 On-Time Performance (Customer Observed Schedule Adherence)

	FY 2010	FY 2011			
Category	**4th Qtr**	**1st Qtr**	**2nd Qtr**	**3rd Qtr**	**4th Qtr**
Systemwide	**72.5%**	**72.0%**	**71.1%**	**74.7%**	**72.9%**
Light Rail	74.1%	71.2%	64.0%	73.2%	66.6%
Cable Car	68.0%	72.5%	69.3%	63.1%	66.8%
Trolley Coach	71.0%	75.8%	74.1%	77.0%	71.8%
Motor Coach	74.2%	69.4%	70.3%	73.4%	74.9%

Since the Audit Period

The table at left shows customer observed schedule adherence since the end of the audit period (to better illustrate recent trends, it also includes data from the 4th Quarter of FY 2010). Post-audit period data have not yet been audited by the Quality Review team, but are included for the purpose of timeliness. Post-audit period trends in schedule adherence have been mixed: systemwide adherence improved markedly in the 3rd Quarter of FY 2011 before returning to previous levels in the following quarter.

A1 On-Time Performance (Headway Adherence)

Goal *> 85%*

FY09-10 Performance 

Goal Not Achieved

Trend 

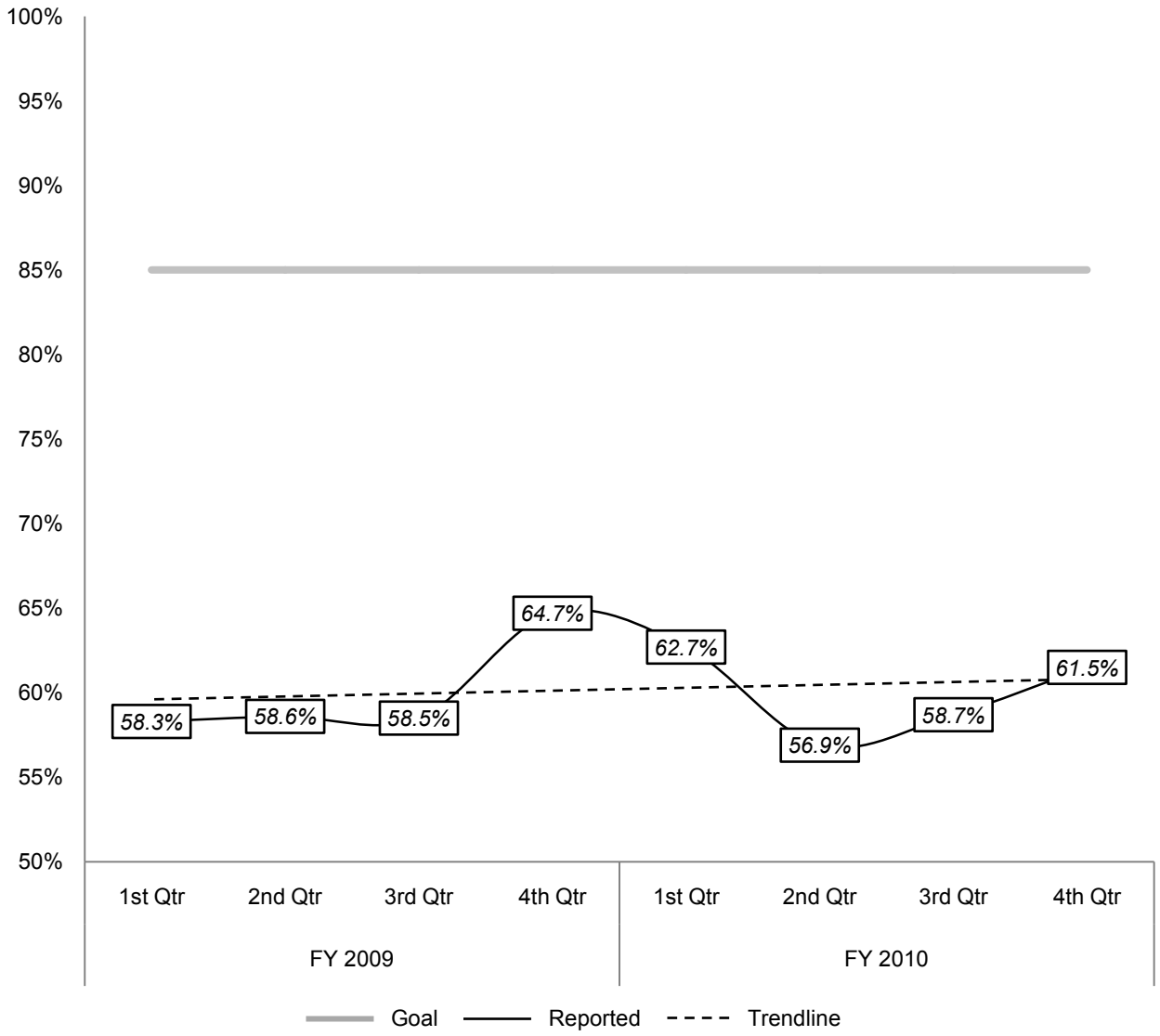
Neutral

Purpose To measure scheduled headways against actual headways.

Definition Actual headways against scheduled headways on all radial express, cross-town, secondary, and feeder lines during all time periods. Each line is checked twice a year. Such checks shall be conducted no less often than 10 weekdays and weekends per period. An annual checking schedule is established for the routes. The order in which the routes are checked will be determined monthly through a random selection process. To the extent automated systems can be substituted at less cost for such checks, or the measurement of any performance standard, such systems will be used.

Method Check the headways of designated lines. Periods of time include morning rush (6am-9am), midday (9am-4pm), evening rush (4pm-7pm), and night (7pm-1am). Supervisors conduct a one-hour standard check at a maximum load point at mid-route during all four time periods stated above. (*Note: The standard for headway adherence is +/- 30% or 10 minutes of scheduled headway, whichever is less.)*

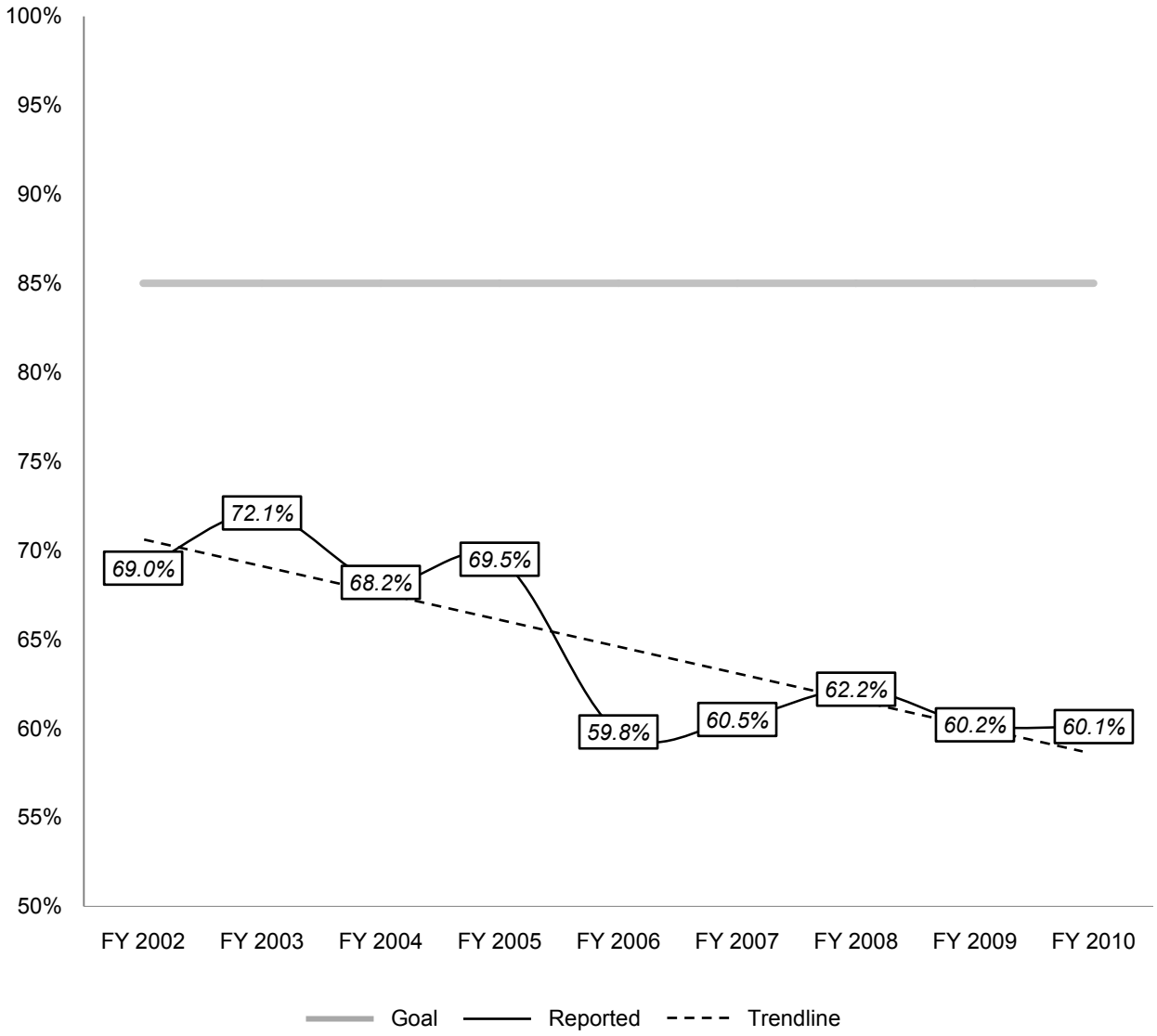
A1 On-Time Performance (Headway Adherence)



Systemwide (Audit Period)

Headway adherence is a secondary measure of on-time performance; it measures "gaps" between arrivals (e.g., 10 minutes) and is based on a standard of no more than 30% or 10 minutes of the scheduled headway, whichever is less. Since FY 2006, it has hovered around 60%. Recommended changes to Muni's methods for measuring and reporting on-time performance can be found at the end of this section.

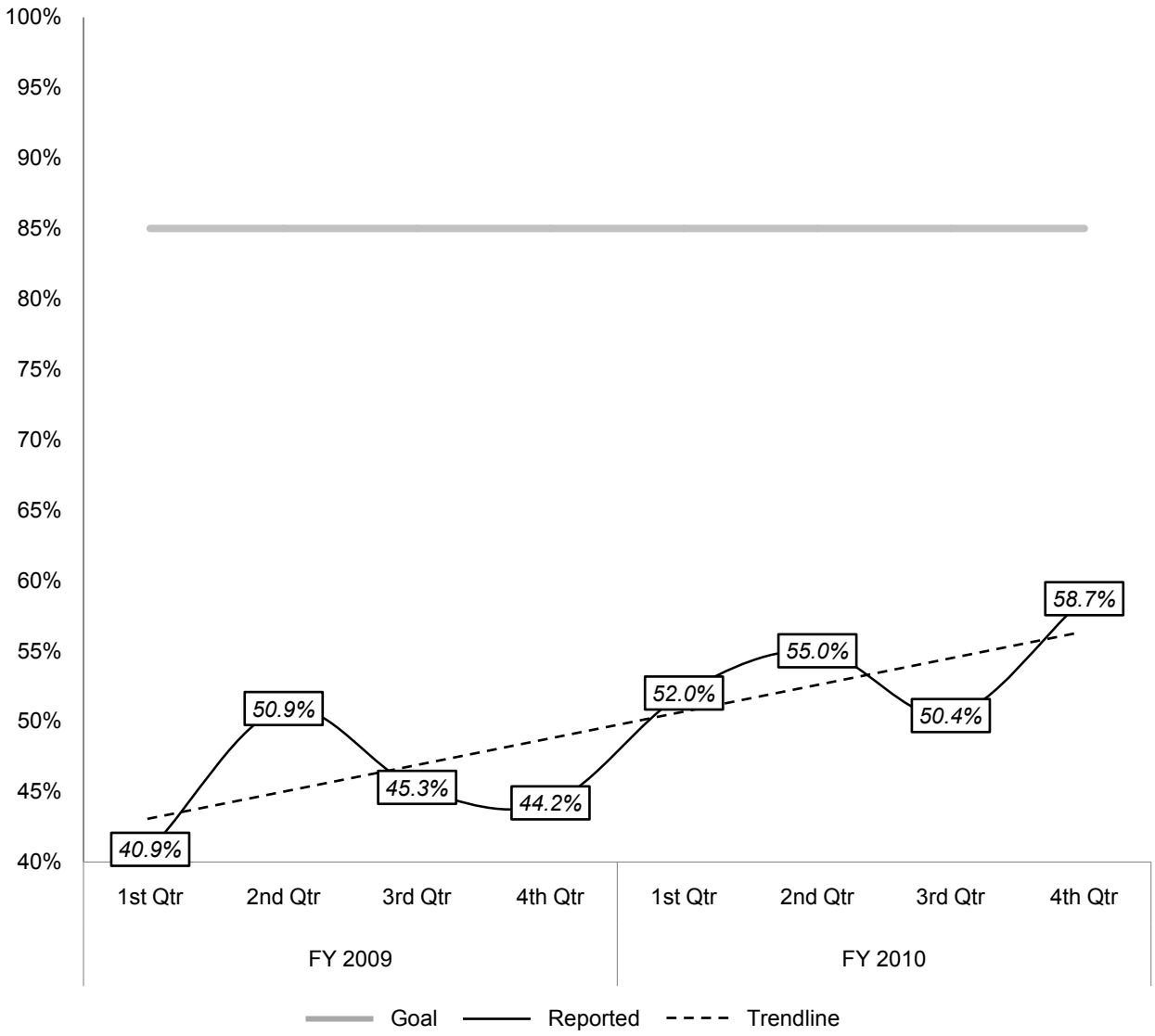
A1 On-Time Performance (Headway Adherence)



Systemwide (Historic)

Until FY 2006, headway adherence tracked closely with schedule adherence. Since then, however, headway adherence has declined significantly and now remains consistently below 65%.

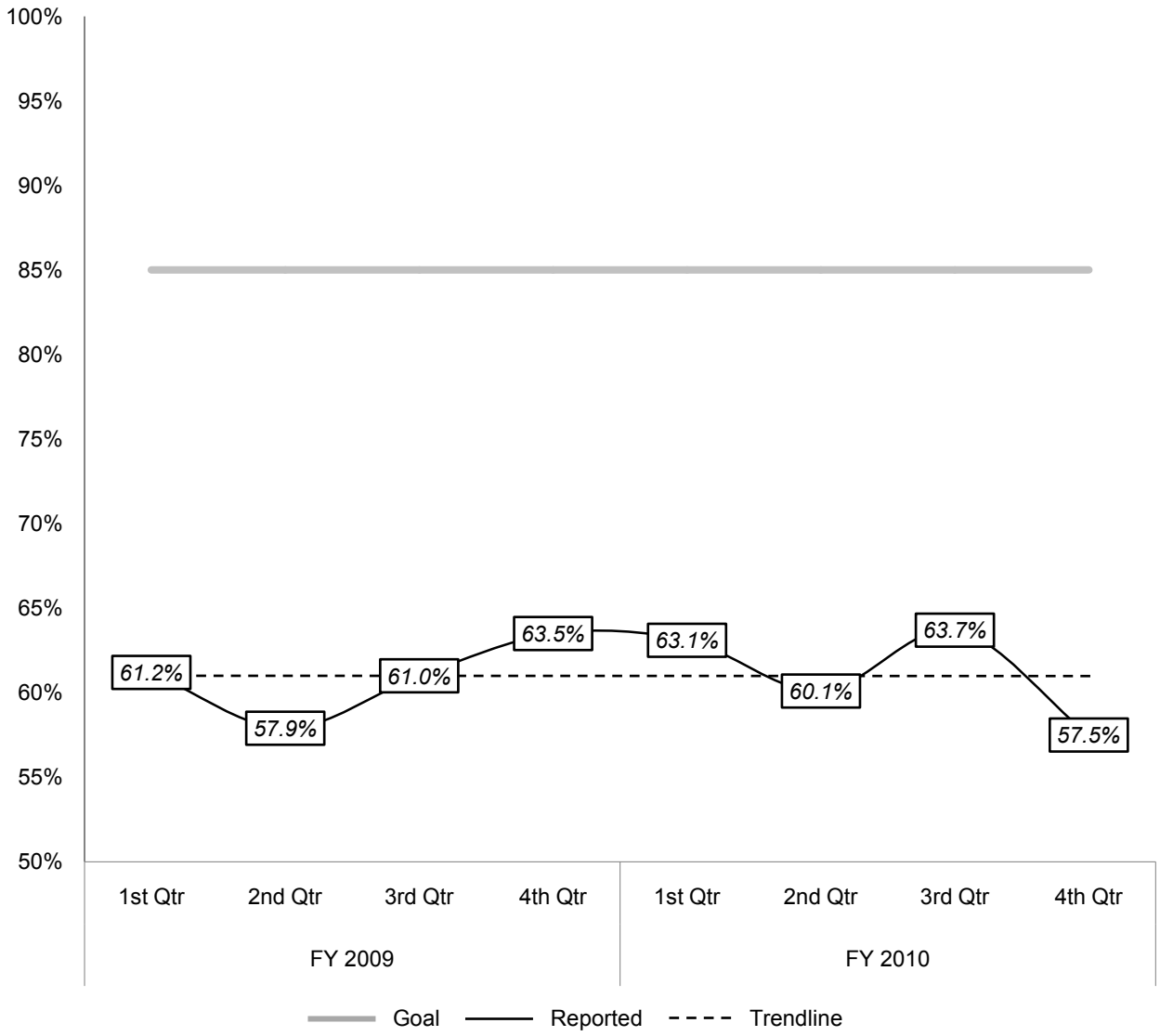
A1 On-Time Performance (Headway Adherence)



Light Rail (Audit Period)

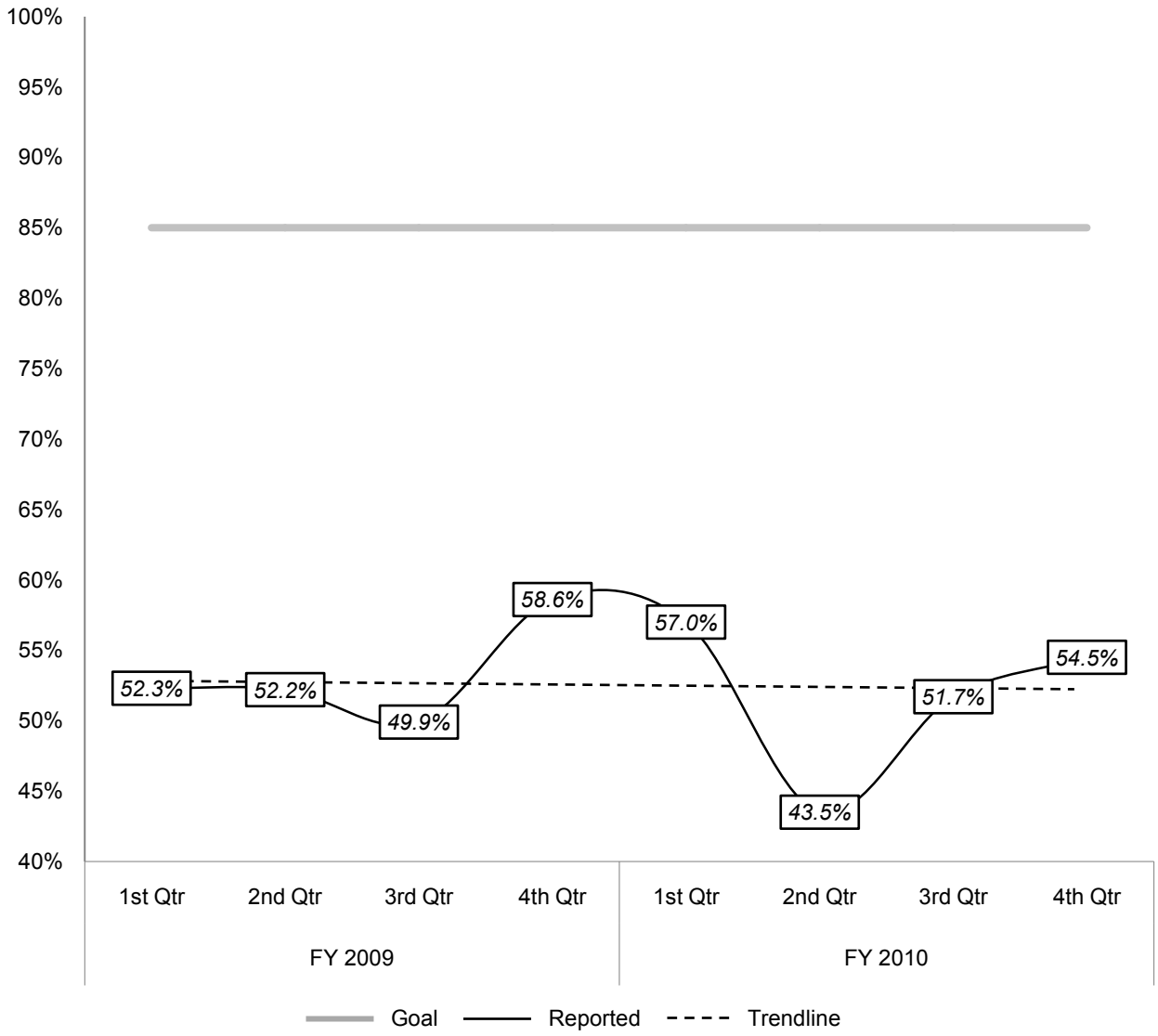
Under Muni's current headway adherence standard, light rail lines are especially susceptible to poor performance, as they operate relatively frquently, (e.g., 30% of 7 minutes – the peak headway on the N Judah – is just 2.1 minutes, leaving relatively little margin for error). In FY 2009, headway adherence on Metro lines was less than 50% in three out of four quarters, while in FY 2010, it improved somewhat but remained below 60%.

A1 On-Time Performance (Headway Adherence)



Cable Car (Audit Period)
Over the audit period, cable car headway adherence tracked closely with systemwide performance.

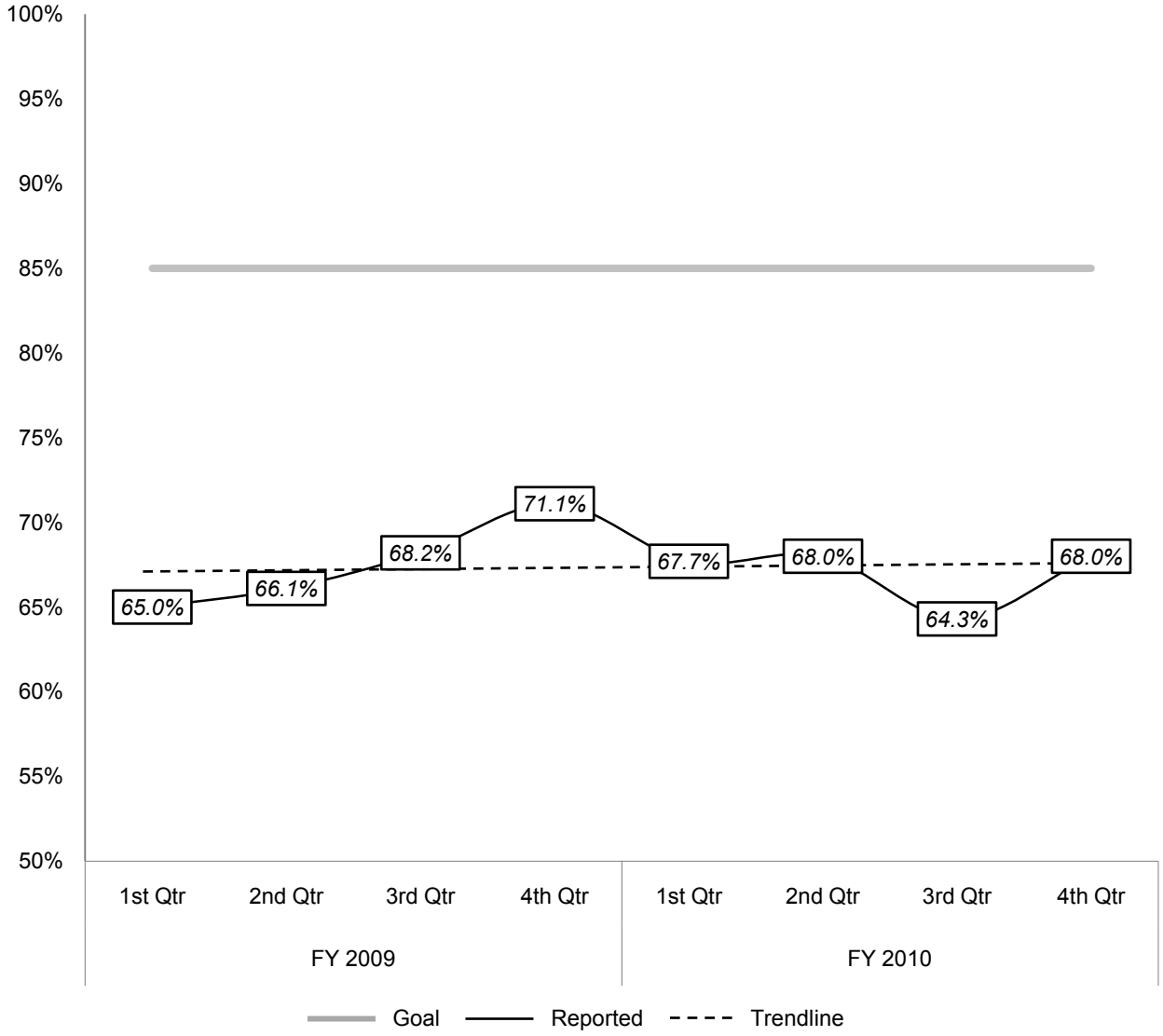
A1 On-Time Performance (Headway Adherence)



Trolley Coach (Audit Period)

While trolley coach schedule adherence was above the average for other modes, headway adherence on trolley lines was below the systemwide average.

A1 On-Time Performance (Headway Adherence)



Motor Coach (Audit Period)
In general, diesel bus lines operate on longer headways, thus offering a more generous margin of error.

A1 On-Time Performance (Headway Adherence)

	FY 2010	FY 2011			
Category	**4th Qtr**	**1st Qtr**	**2nd Qtr**	**3rd Qtr**	**4th Qtr**
Systemwide	**61.5%**	**63.2%**	**64.8%**	**64.7%**	**64.6%**
Light Rail	58.7%	57.2%	55.6%	59.4%	46.7%
Cable Car	57.5%	63.5%	69.4%	63.1%	62.4%
Trolley Coach	54.5%	56.1%	57.6%	54.1%	61.3%
Motor Coach	68.0%	69.4%	70.7%	73.2%	69.0%

Since the Audit Period

The table at left shows headway adherence since the end of the audit period (to better illustrate recent trends, it also includes data from the 4th Quarter of FY 2010). All post-audit period data have not yet been audited by the Quality Review team, but are included for purposes of timeliness. In contrast to schedule adherence, headway adherence improved in the first two quarters of FY 2011 and has remained relatively constant since.

A1 On-Time Performance

By Line (During and Since the Audit Period)

The tables on the following pages list schedule adherence and headway adherence, by line, for the most recent quarter during which each was observed. Most lines were observed in FY 2011, though some were last observed in FY 2010 and FY 2009 (for headway adherence). Lines are organized by service category. FY 2009 and FY 2010 on-time performance for each line can be found in the quarterly reports at: http://www.sfmta.com/cms/rstd/sstdindx.htm.

Rapid Network							
Line	Quarter Observed	Schedule Adherence	Headway Adherence	Line	Quarter Observed	Schedule Adherence	Headway Adherence
F Market & Wharves	FY11 Q4	70.90%	45.90%	9X San Bruno Express	FY10 Q2	64.70%	62.10%
J Church	FY11 Q4	65.50%	48.50%	14L Mission Limited	FY11 Q4	80.30%	69.30%
K Ingleside/T-Third Street	FY11 Q4	57.90%	45.30%	22 Fillmore	FY11 Q4	73.00%	52.60%
L Taraval	FY11 Q2	69.90%	66.20%	28L 19th Avenue Limited	FY11 Q4	42.30%	68.20%
M Ocean View	FY11 Q2	61.80%	53.30%	30 Stockton	FY11 Q1/ FY10 Q1	81.30%	42.00%
N Judah	FY11 Q1/ FY10 Q4	72.00%	81.80%	38L Geary Limited	FY11 Q4	79.20%	45.70%
1 California	FY11 Q1/ FY09 Q3	83.50%	33.80%	47 Van Ness	FY11 Q2	68.70%	57.90%
5 Fulton	FY11 Q4	77.10%	53.80%	49 Van Ness/Mission	FY11 Q2	71.00%	46.90%
9 San Bruno	FY11 Q4	75.60%	67.10%	71/71L Haight/Noriega & Limited	FY11 Q4	70.50%	58.60%

A1 On-Time Performance

By Line (During and Since the Audit Period)

Local Network							
Line	Quarter Observed	Schedule Adherence	Headway Adherence	Line	Quarter Observed	Schedule Adherence	Headway Adherence
California Cable Car	FY11 Q4	71.40%	59.50%	24 Divisadero	FY11 Q4	80.90%	75.50%
Powell-Hyde Cable Car	FY11 Q4	61.80%	65.70%	27 Bryant	FY11 Q4	69.60%	66.20%
Powell-Mason Cable Car	FY11 Q2	69.60%	70.20%	28 19th Avenue	FY11 Q4	66.30%	68.60%
2 Clement	FY11 Q1/ FY10 Q2	66.70%	66.70%	29 Sunset	FY11 Q1/ FY09 Q3	63.80%	59.50%
3 Jackson	FY11 Q1/ FY10 Q4	63.80%	82.50%	31 Balboa	FY11 Q4	60.10%	58.40%
6 Parnassus	FY11 Q2	75.60%	68.70%	33 Stanyan	FY11 Q4	69.10%	74.60%
10 Townsend	FY11 Q1/ FY10 Q1	61.40%	62.30%	38 Geary	FY11 Q4	74.10%	42.40%
12 Folsom	FY11 Q4	68.30%	90.20%	43 Masonic	FY11 Q1/ FY10 Q1	73.60%	70.80%
14 Mission	FY11 Q4	67.10%	50.60%	44 O'Shaughnessy	FY11 Q2	67.00%	67.30%
18 46th Avenue	FY11 Q4	72.80%	92.70%	45 Union/Stockton	FY11 Q1/ FY10 Q4	69.50%	71.80%
19 Polk	FY11 Q4	69.80%	73.10%	48 Quintara/24th Street	FY11 Q2	71.30%	76.40%
21 Hayes	FY11 Q4	78.40%	76.80%	54 Felton	FY11 Q4	67.90%	86.30%
23 Monterey	FY11 Q4	80.00%	88.50%	108 Treasure Island	FY11 Q1/ FY10 Q4	72.20%	85.40%

A1 On-Time Performance

By Line (During and Since the Audit Period)

Community Connectors							
Line	Quarter Observed	Schedule Adherence	Headway Adherence	Line	Quarter Observed	Schedule Adherence	Headway Adherence
17 Parkmerced	FY11 Q4	79.00%	98.50%	52 Excelsior	FY11 Q2	63.50%	81.80%
35 Eureka	FY11 Q2	90.00%	100.00%	56 Rutland	FY11 Q4	93.50%	100.00%
36 Teresita	FY10 Q2	81.50%	97.70%	66 Quintara	FY11 Q4	80.00%	96.00%
37 Corbett	FY11 Q2	74.60%	85.50%	67 Bernal Heights	FY11 Q4	82.70%	90.50%
39 Coit	FY11 Q2	72.20%	96.90%				

Owl Network							
Line	Quarter Observed	Schedule Adherence	Headway Adherence	Line	Quarter Observed	Schedule Adherence	Headway Adherence
90 Owl	FY11 Q12	61.10%	100.00%	91 Owl	FY11 Q1/ FY10 Q2	55.60%	93.80%

A1 On-Time Performance

By Line (During and Since the Audit Period)

Specialized Services							
Line	Quarter Observed	Schedule Adherence	Headway Adherence	Line	Quarter Observed	Schedule Adherence	Headway Adherence
1AX California "A" Express	FY11 Q4	53.40%	57.90%	31AX Balboa "A" Express	FY11 Q1/ FY10 Q4	47.40%	77.80%
1BX California "B" Express	FY11 Q2	82.60%	57.10%	31BX Balboa "B" Express	FY11 Q1/ FY10 Q4	58.80%	80.60%
8AX San Bruno Express	FY11 Q2	80.00%	57.10%	38AX Geary "A" Express	FY11 Q1/ FY10 Q2	66.70%	77.80%
8BX San Bruno Express	FY11 Q4	88.20%	65.60%	38BX Geary "B" Express	FY10 Q4	72.70%	80.00%
8X San Bruno Express	FY11 Q4	74.00%	60.20%	41 Union	FY11 Q2	83.10%	55.70%
9BX San Bruno "B" Express	FY10 Q2	55.40%	67.30%	80X Gateway Express	FY11 Q2	100.00%	Not reported between FY09 and FY11 Q2
9L San Bruno Limited	FY11 Q2	72.70%	74.80%	81X Caltrain Express	FY11 Q4	50.00%	100.00%
14X Mission Express	FY11 Q4	88.90%	70.70%	82X Presidio & Wharves Express	FY11 Q4	50.00%	75.00%
16X Noriega Express	FY11 Q4	61.70%	51.20%	88 BART Shuttle	FY11 Q4	100.00%	100.00%
1AX California "A" Express	FY11 Q4	53.40%	57.90%	31AX Balboa "A" Express	FY11 Q1/ FY10 Q4	47.40%	77.80%

A1 On-Time Performance

Recommendation

Replace headway adherence standard with "bunching" and "gapping" standards, make these the primary measures of on-time performance for Rapid Network lines, and report only schedule adherence for other types of routes.

In our last Quality Review, we recommended that reporting methodologies for On-Time Performance be changed in the following ways:

- On-time performance should be reported by service type as defined by the Transit Effectiveness Project (TEP), rather than by mode.

- All routes on the TEP-defined Rapid Network should report headway adherence, using data collected by traffic checkers. Schedule adherence on these routes should also continue to be collected with Automated Passenger Counters (APCs) in order to calculate system averages.

- All other routes should report schedule adherence only using APC data.

These recommendations have been partially adopted, if not yet fully implemented. Reporting of on-time performance by TEP service category has been approved by the SFMTA Board and Muni is in the process of transitioning toward reliance on automated equipment and processes for data collection. (This will be done using NextMuni sensors rather than APCs, as research by Muni staff has found that figures reported by APCs and NextMuni sensors are generally within 1 percent of each other. Further, the use of NextMuni sensors installed on all vehicles, as opposed to APCs installed on only some vehicles, will allow automated collection of headway adherence data or, if this proposal is adopted, bunching and gapping data.)

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A1 On-Time Performance

Recommendation

(Continued from previous page)

While we continue to believe that different standards should be applied to different types of services with different customer expectations, staff have proposed a pair of alternatives to headway adherence that they believe would be both easier to understand and more relevant to the public: "bunching" and "gapping." These phenomenons are certainly well known to Muni customers, and most members of the public could not likely define "headway," a transit industry term. Moreover, the current standard of 30% of scheduled headway or 10 minutes, whichever is less, is somewhat complicated and can be problematic when applied to very high-frequency routes (e.g., a headway of four minutes is non-compliant when scheduled headways are six minutes, despite a relatively minor difference of just two minutes).

For these reasons, we are recommending that Muni replace headway adherence with bunching and gapping standards, that these serve as the primary measures of on-time performance for Rapid Network lines, and that only schedule adherence be reported for other types of routes (schedule adherence data would continue to be collected on Rapid Network lines in order to calculate systemwide averages, as required under Proposition E). This is because when service is frequent, riders tend to base expectations about arrivals not on scheduled arrival times, but on scheduled intervals (e.g., "every 10 minutes"), making schedule adherence less meaningful. While some non-Rapid Network services are relatively frequent, we are recommending that Muni use existing service-type categories for reasons of simplicity and consistency (see previous recommendation, "Report Load Factor [A3] and Productivity [A13] by service type").

As for the actual standards to be applied, we are recommending the following:

- For *bunching*, less than two minutes; and
- for *gapping*, more than five minutes more than the scheduled headway.

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A1 On-Time Performance

Recommendation

(Continued from previous page)

These standards are consistent with the "Waiting Time Variability" Service Reliability Performance Metrics in the Transit Effectiveness Project Implementation Strategy.

It should be noted that "bunching" – too many vehicles arriving within a given period – is not necessarily a problem in and of itself; rather, it is gapping, or *too few* arrivals, that is the real problem for customers. Further, bunching is often a direct result of gapping, as a vehicle falls farther and farther behind the vehicle in front of it, resulting in gapping, the vehicle behind it may catch up, resulting in bunching. For these reasons, it might ultimately be preferable to simply measure gapping. However, customers rightly recognize bunching as a symptom and key indicator of poor on-time performance.

Finally, it should also be noted that transitioning to a different system of reporting for on-time performance represents an opportunity to address a number of issues associated with the current method. Data are currently based on very limited samples, which for various reasons do not include a number of different types of trips and locations. As was previously noted, systemwide automated data collection will allow more timely reporting, but it will also allow more comprehensive reporting, and Muni should take full advantage of this capability. According to staff, a more comprehensive methodology could result in notably lower rates of schedule adherence and it will be important that Muni seek to raise awareness that the methodology for calculating on-time performance has changed, rather than on-time performance itself.

A2 Service Delivery (Scheduled Service Hours Delivered)

Goal *> 98.5%*

FY09-10 Performance ▼ *Goal Not Achieved*

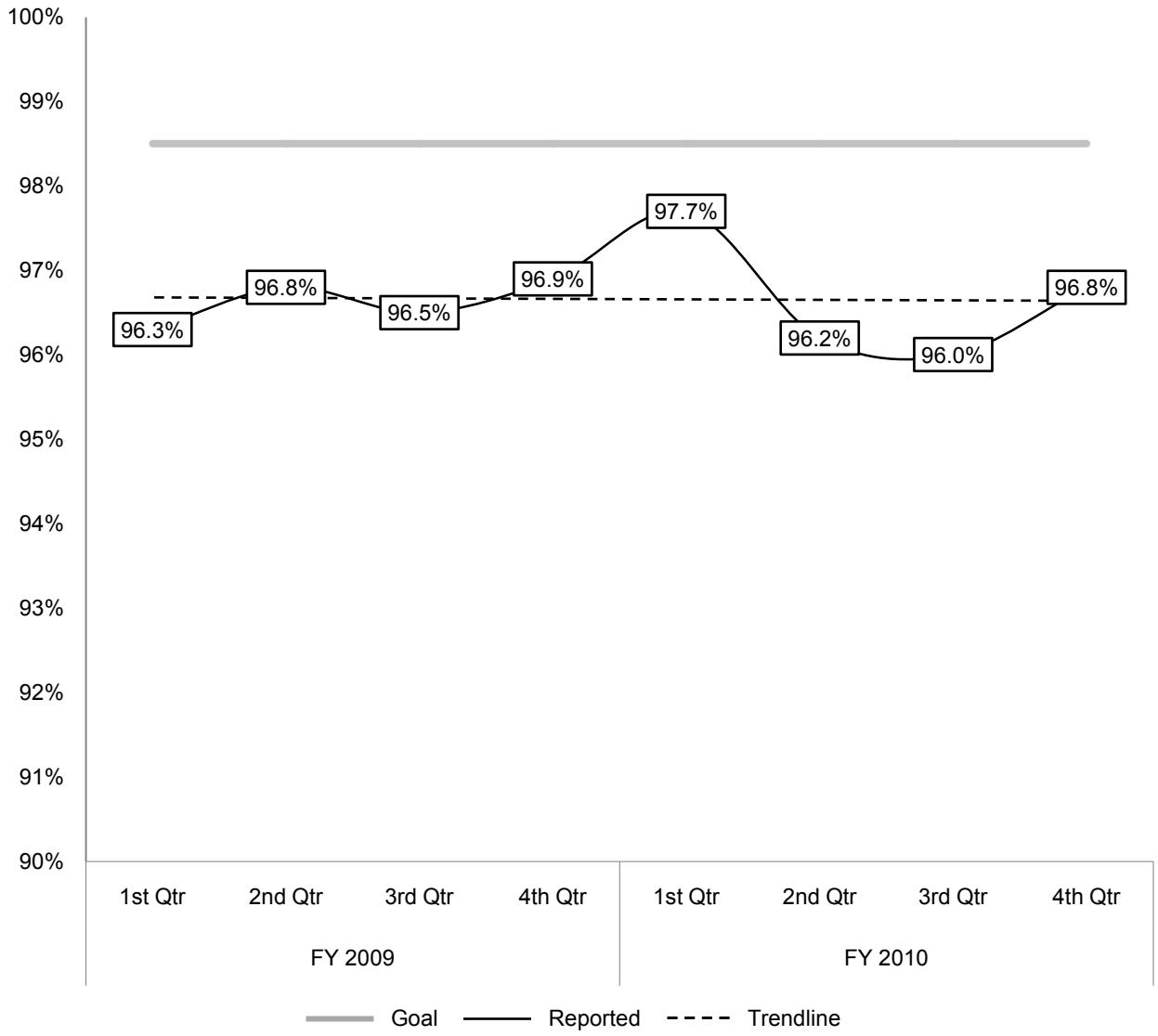
Trend ▲ *Positive*

Purpose To measure service hours through available operators and equipment deployed in revenue service, along with the percentage of equipment available for service; to measure timely deployment of service *(Note: AM/PM Peak Equipment Availability and Operator Availability are no longer reported.)*

Definition Monthly measurement of the percent of total available hours for service measuring operators and equipment and percentage of equipment available daily.

Method Both operators and equipment are measured as to the total number of hours in service as a percentage of the total scheduled hours. Data come from the Trapeze System.

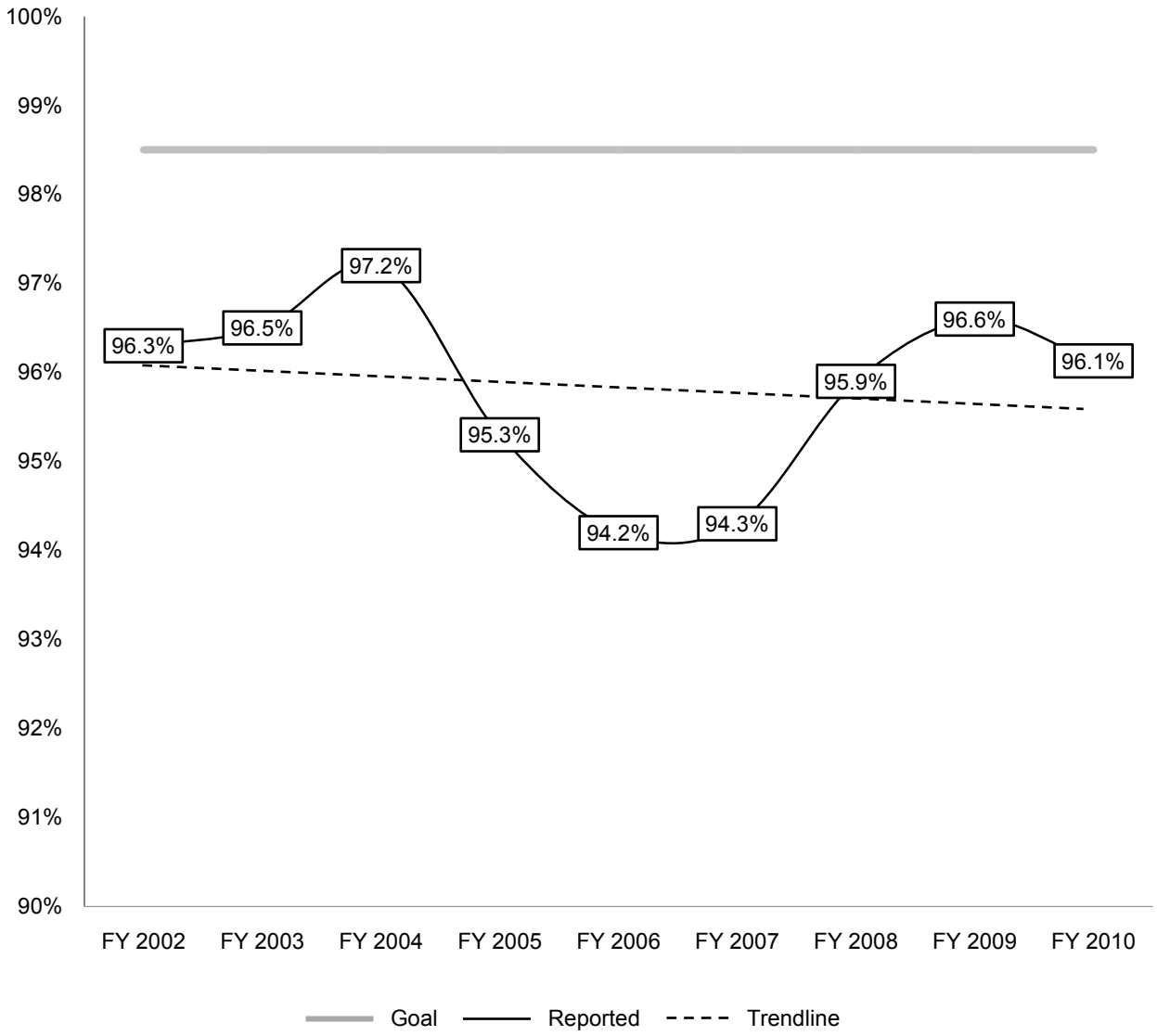
A2 Service Delivery (Scheduled Service Hours Delivered)



Systemwide (Audit Period)

The percentage of total scheduled service hours delivered remained relatively steady over the course of the audit period but remained below the goal of 98.5%.

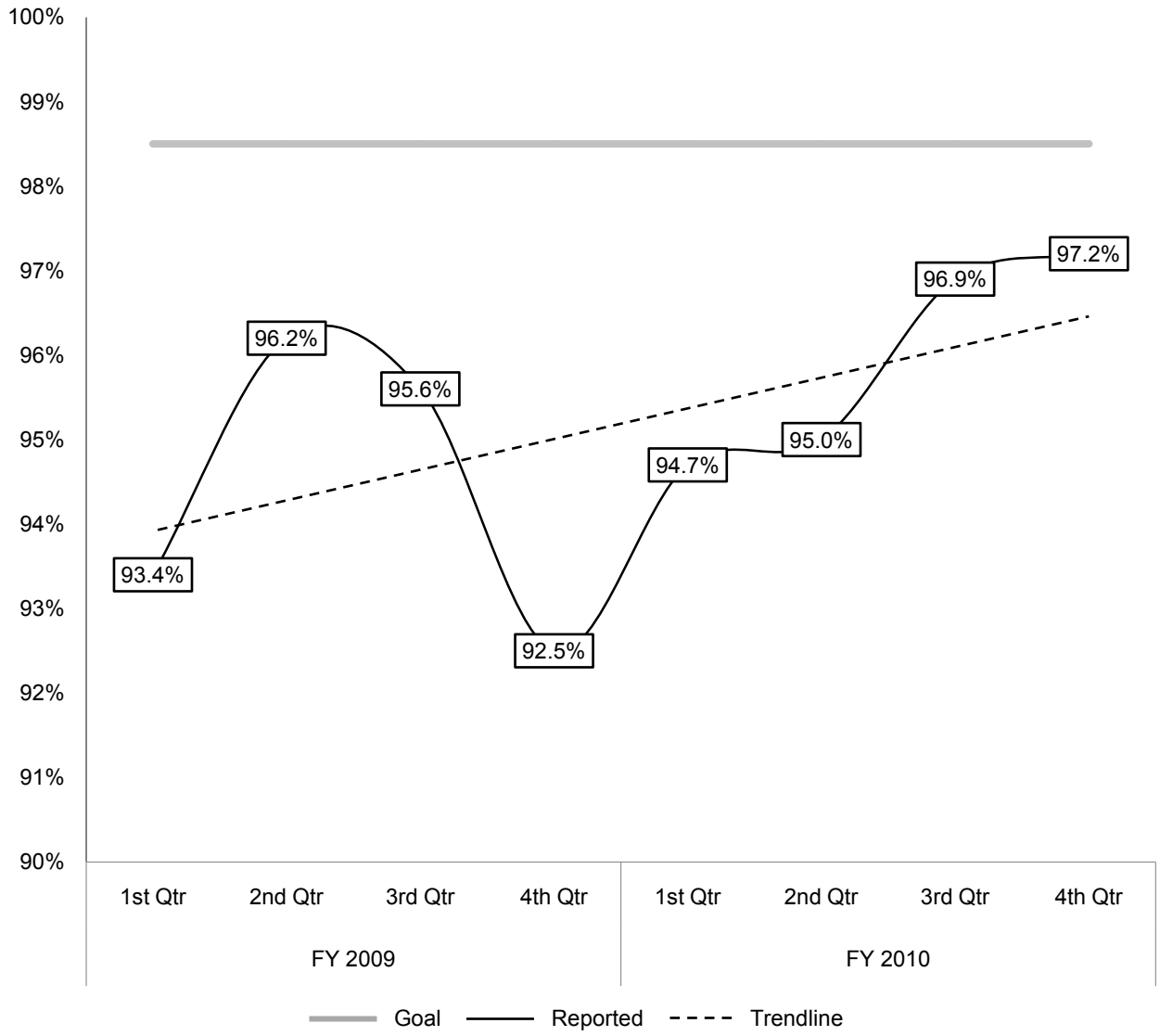
A2 Service Delivery (Scheduled Service Hours Delivered)



Systemwide (Historic)

The decline in systemwide service hours delivered experienced in FY 2005 through FY 2007 has been reversed, but figures remain well below the goal of 98.5%.

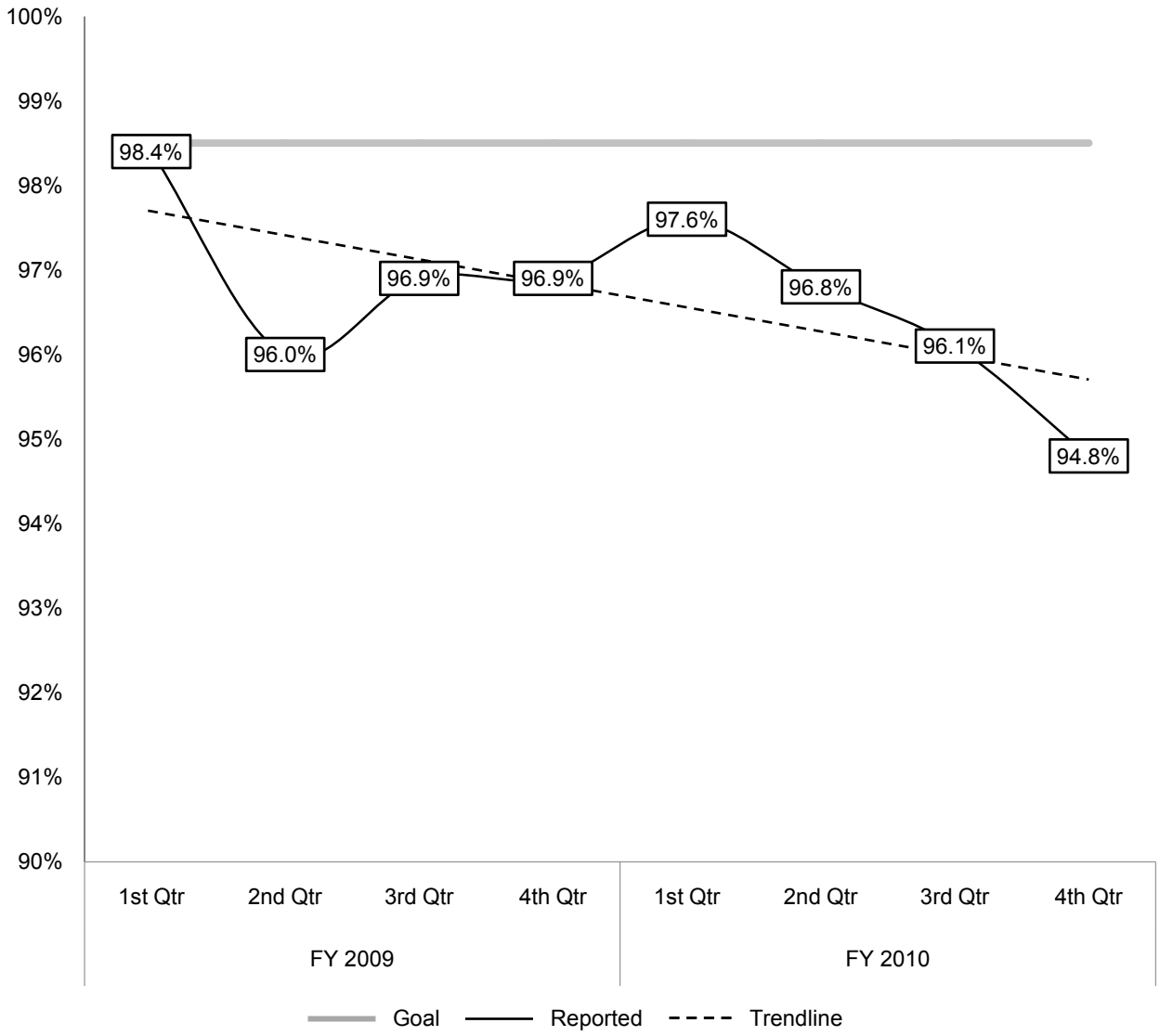
A2 Service Delivery (Scheduled Service Hours Delivered)



Light Rail (Audit Period)

While service hours delivered by light rail and historic streetcar vehicles declined precipitously in the 4th Quarter of FY 2009, performance steadily recovered in the following quarters, approaching the goal of 98.5%.

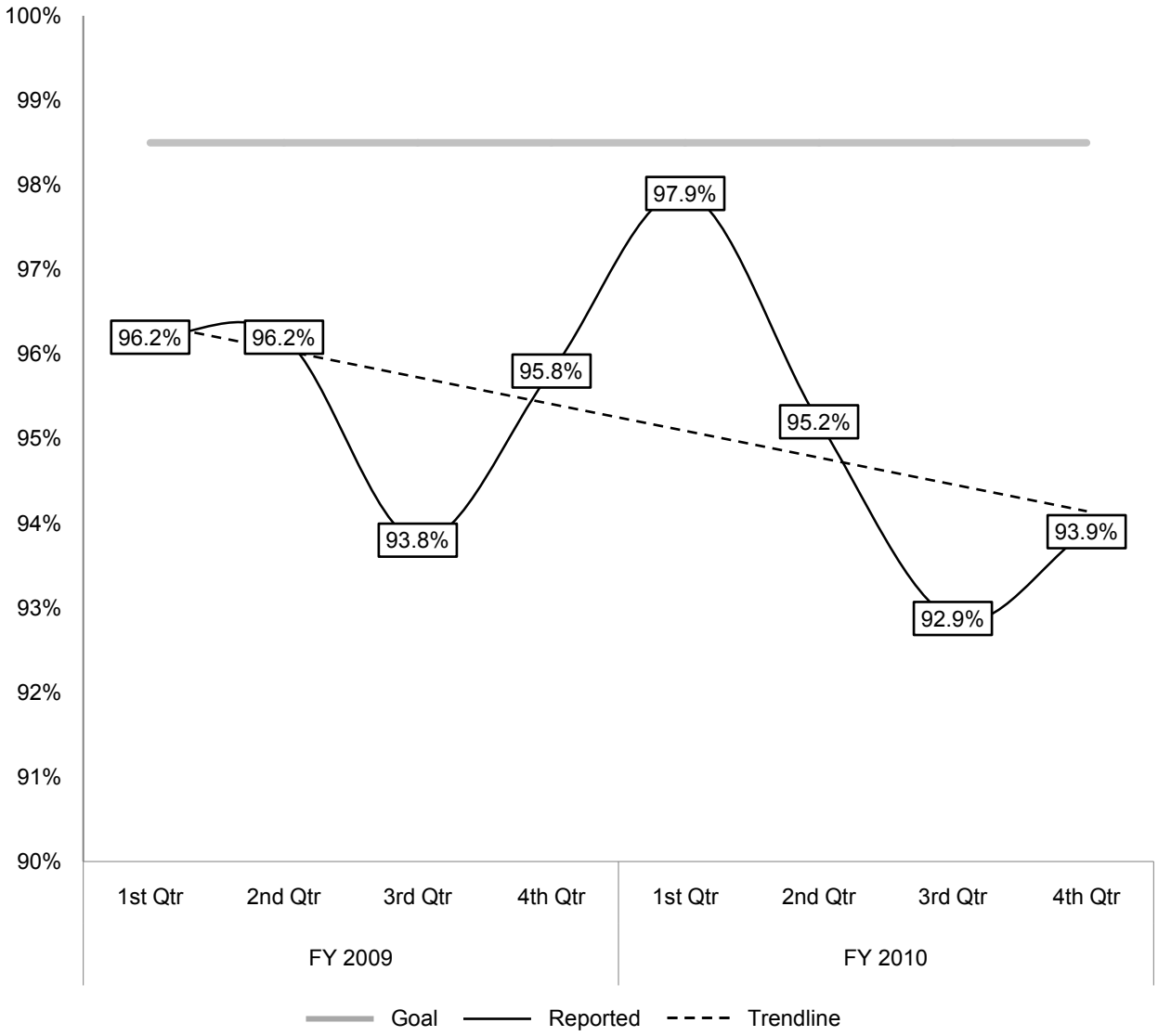
A2 Service Delivery (Scheduled Service Hours Delivered)



Cable Car (Audit Period)

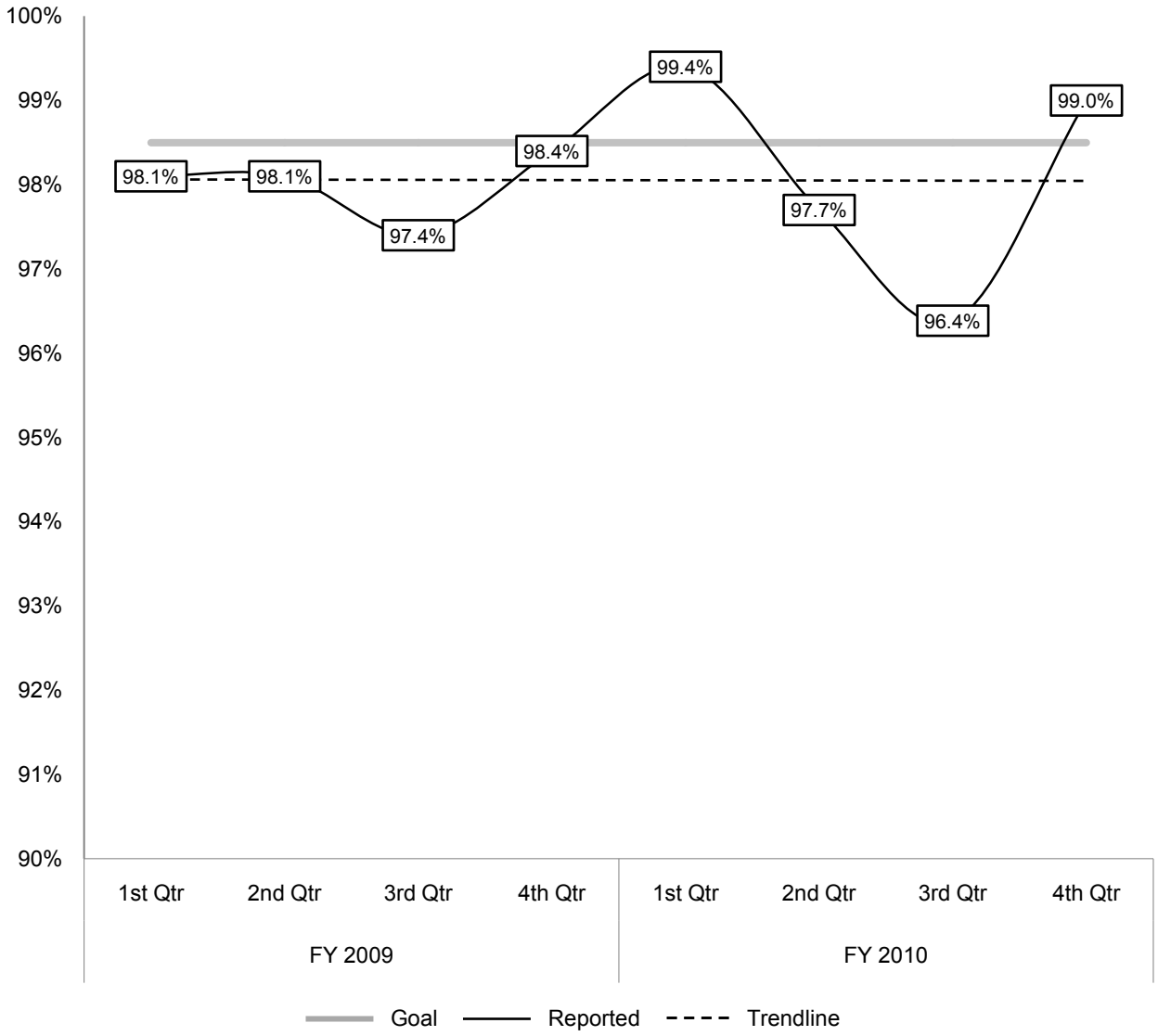
Service hours delivered by cable cars were near the goal of 98.5% of scheduled service in some quarters of the audit period but trended downwards in FY 2010, to a point below 95% in the 4th Quarter of FY 2010.

A2 Service Delivery (Scheduled Service Hours Delivered)



Potrero Trolley (Audit Period)
Performance by electric trolleys operated out of the Potrero Division varied between 94.3% and 97.9% of scheduled service hours delivered.

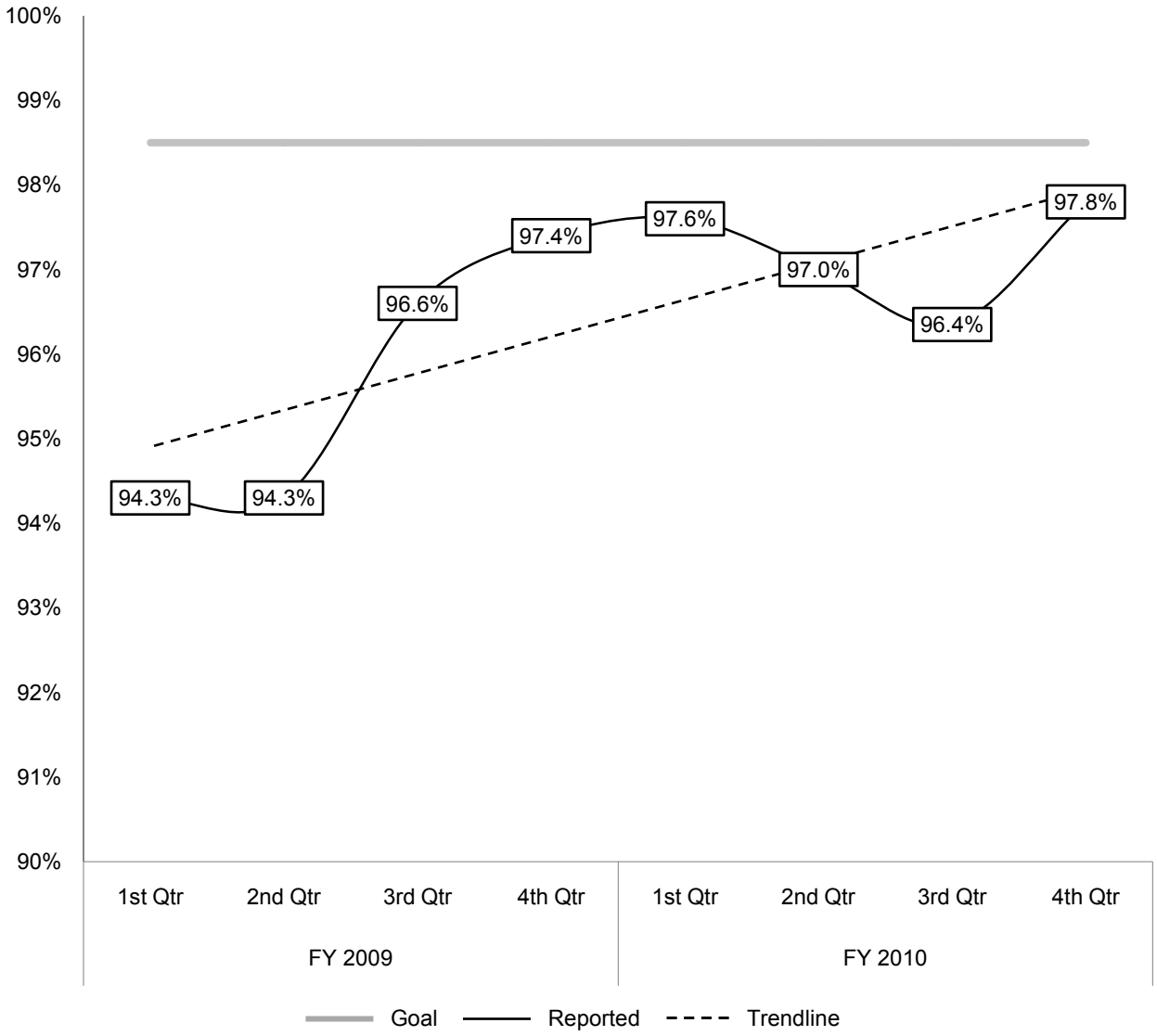
A2 Service Delivery (Scheduled Service Hours Delivered)



Presidio Trolley (Audit Period)

Presidio Trolley generally outperformed other divisions, meeting or exceeding service hour goals in several quarters. In both FY 2009 and FY 2010, the average percent of scheduled service hours delivered was 98%, the closest any division came to achieving the systemwide goal.

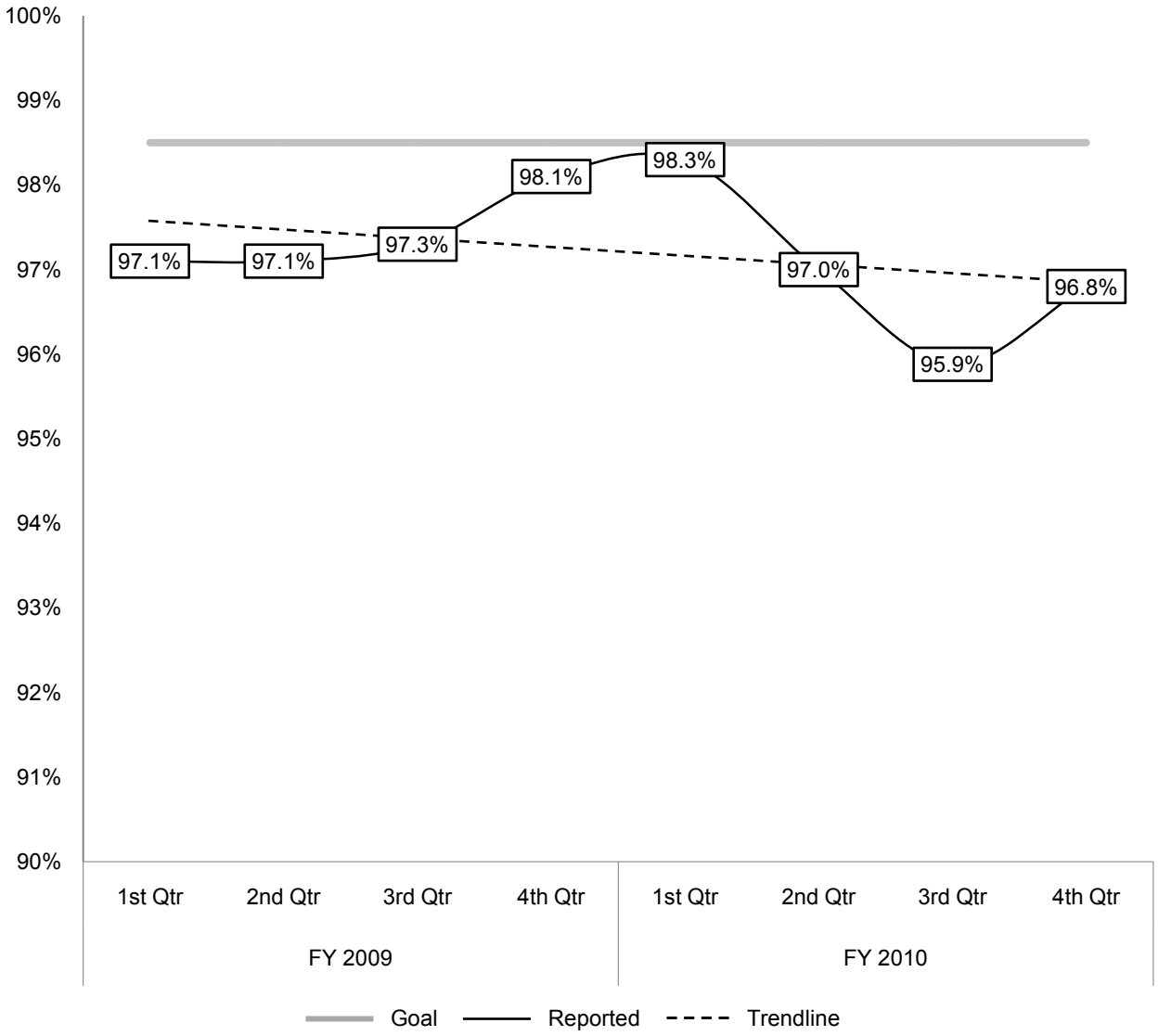
A2 Service Delivery (Scheduled Service Hours Delivered)



Flynn Motor Coach (Audit Period)

Performance by diesel buses operated out of the Flynn Division improved markedly in the 3rd Quarter of FY 2009, and remained relatively constant over the remainder of the audit period.

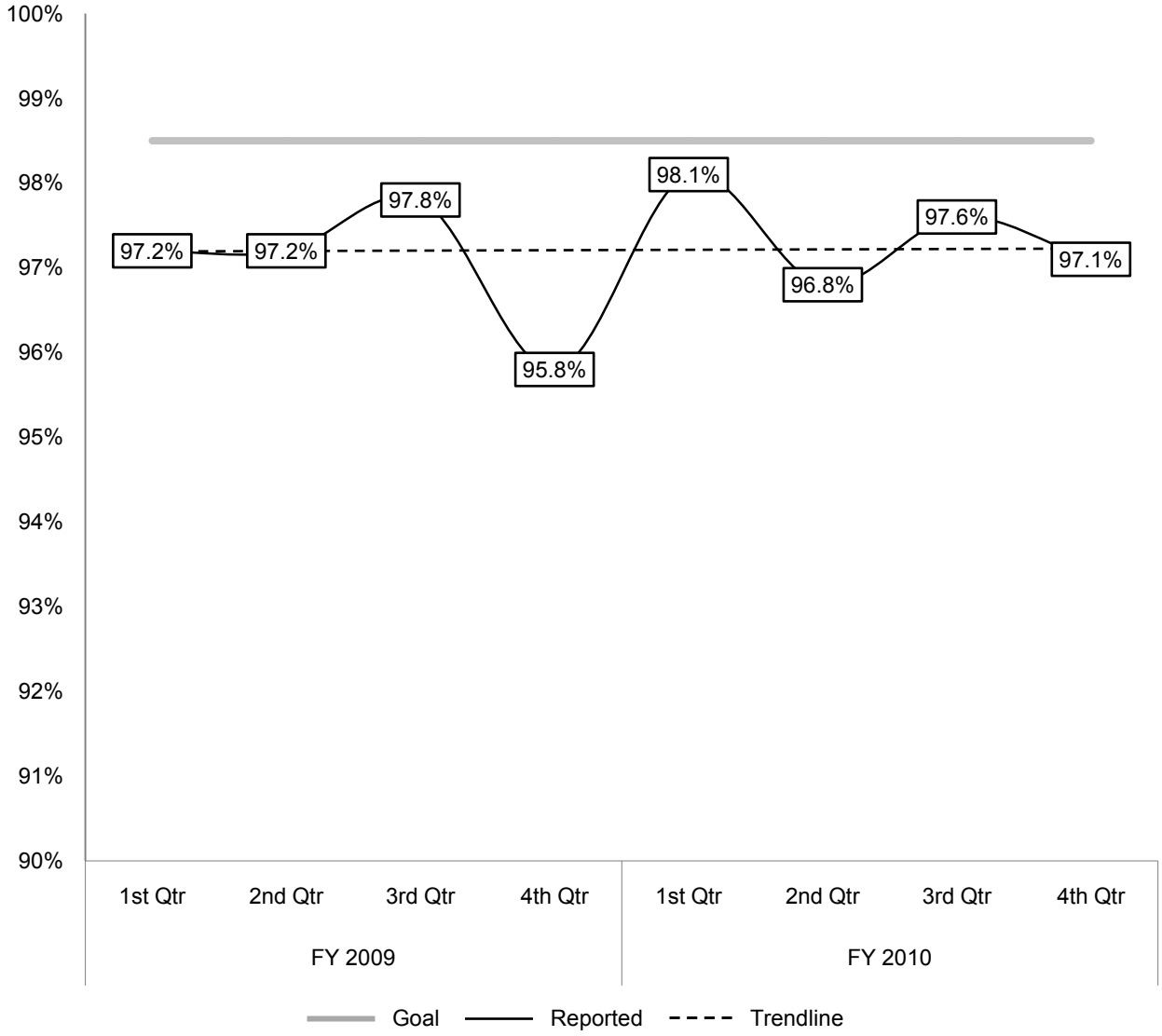
A2 Service Delivery (Scheduled Service Hours Delivered)



Kirkland Motor Coach (Audit Period)

Performance at the Kirkland Division was relatively constant, and similar to the average for other divisions. Service hours delivered approached the goal of 98.5% in the 4th Quarter of FY 2009 and 1st Quarter of FY 2010.

A2 Service Delivery (Scheduled Service Hours Delivered)



Woods Motor Coach (Audit Period)

Performance by the Woods Division varied slightly over the audit period, but hovered around 97%.

A2 Service Delivery (Scheduled Service Hours Delivered)

	FY 2010	FY 2011			
Category	**4th Qtr**	**1st Qtr**	**2nd Qtr**	**3rd Qtr**	**4th Qtr**
Systemwide	**96.8%**	**97.4%**	**96.9%**	**97.6%**	**96.2%**
Light Rail	97.2%	98.0%	98.0%	96.8%	93.1%
Cable Car	94.8%	94.7%	95.7%	98.9%	97.3%
Trolley Coach	96.3%	97.5%	96.7%	97.9%	96.1%
Motor Coach	97.2%	97.5%	97.1%	97.6%	97.1%

Since the Audit Period

Since the Audit Period, service delivery has remained between 96% and 98%. There was a notable decline in light rail hours delivered in the 4th Quarter of FY 2011.

A2 Service Delivery (Late Pull-Outs)

Goal *< 1.5%*

FY09-10 Performance

Achieved Goal

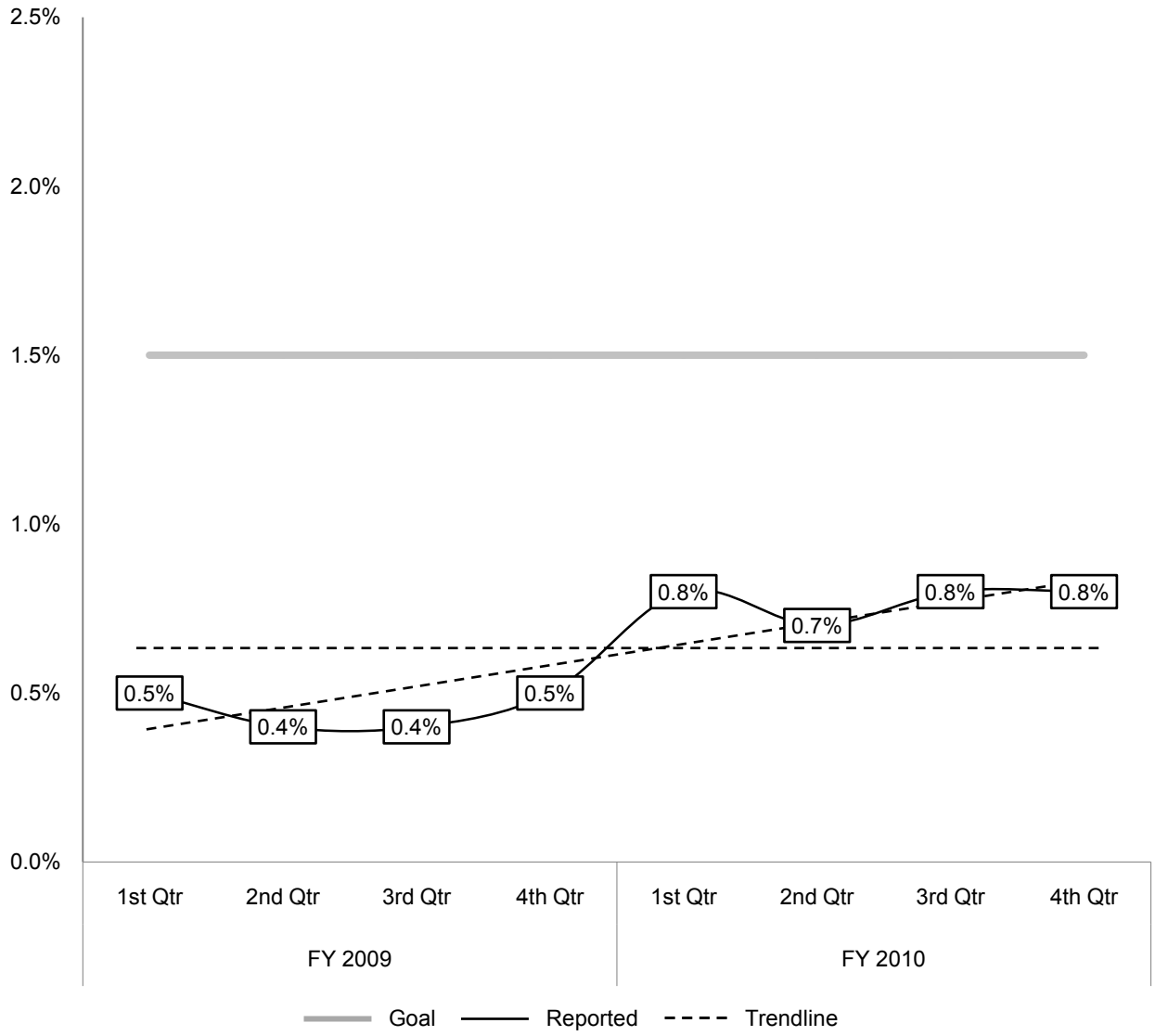
Trend

Negative

Purpose To measure timely deployment of service.

Method Measurement of the vehicles that begin service at the scheduled time will be provided from the 8am and 6pm "Not-Out Report" generated by Central Control and will show the percent of vehicles that went out at the scheduled time for both the AM and PM pullout.

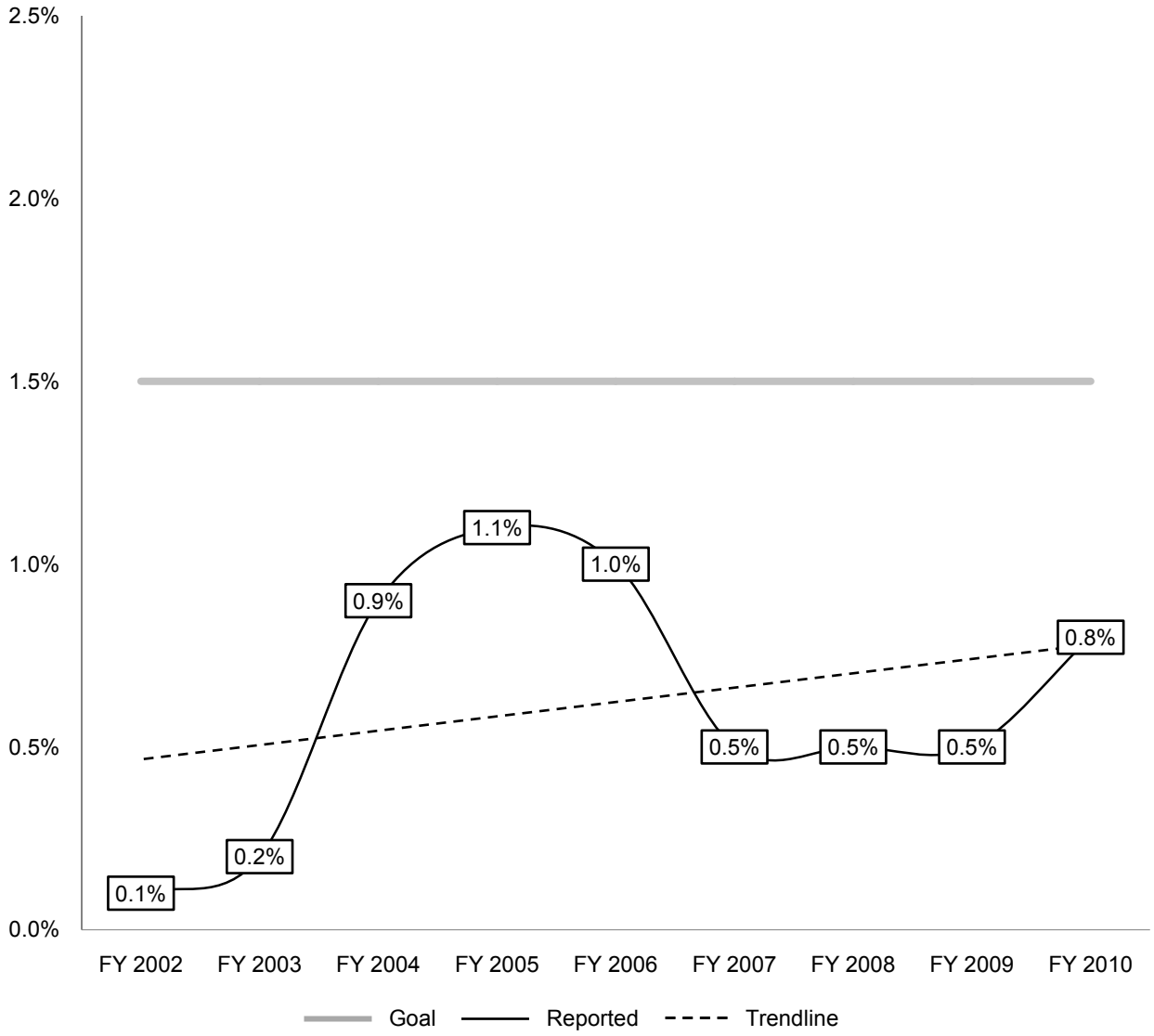
A2 Service Delivery (Late Pull-Outs)



Systemwide (Audit Period)

"Late Pull-Outs" is a measure of how many vehicles entering into service fail to do so at their scheduled times during the AM and PM peak periods. While Muni has always achieved the goal of fewer than 1.5% of vehicles pulling out of the station late, annual averages increased slightly in FY 2010. (Note that unlike most service standards, the goal for Late Pull-Outs is *below* a target level – 1.5% – rather than above it.)

A2 Service Delivery (Late Pull-Outs)



Systemwide (Historic)

Despite an increase in FY 2010, percentages of late pull-outs remain below their historic highs of FY 2004 through FY 2006.

A2 Service Delivery (Late Pull-Outs)

	FY 2010	FY 2011			
Category	4th Qtr	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr
Systemwide	0.8%	0.6%	0.7%	0.6%	0.8%

Since the Audit Period

Late-pull outs have also remained relatively constant, at between 6 and 8 of every 1,000 vehicles.

A2 Service Delivery

Recommendation

Measure percentages of scheduled miles and trips delivered in addition to scheduled hours delivered.

This service standard includes multiple measures of Muni's ability to provide scheduled service, most notably Scheduled Service Hours Delivered. Scheduled Service Hours Delivered is a straightforward, all-encompassing measure; it is simply the hours of revenue service provided as a percentage of the hours of revenue service that are scheduled. In FY 2009 and FY 2010, the systemwide averages were 96.6% and 96.1%, respectively. This means that in FY 2010, Muni was able to deliver about 24 out of every 25 scheduled hours.

However, a vehicle that is in service for all of its scheduled hours may not provide all scheduled service. In the last Quality Review, we recommended a new measure of Scheduled Trips Delivered. While this measure would directly capture missed trips, and as such would relate most directly to the customer experience, it has not been implemented due to the potential difficulty of data collection. We are therefore now recommending as an alternative, another, simpler measure, Scheduled Service Miles Delivered. Together with Scheduled Service Hours Delivered, this should serve to provide a more complete picture of Muni's ability to deliver its scheduled service.

Systemwide Hours and Miles Delivered are, however, somewhat abstract concepts; what the riding public ultimately cares about is whether a bus or train arrives – about whether a trip is made or missed. A measure of Scheduled Trips Delivered, then, would be a useful additional measure. Information would need to be compiled from two sources: the OPS (Operator Dispatching/Timekeeping) module of the Trapeze database, which can provide information about trips that were missed because no operator was available and Central Control logs, which can provide information about trips that were missed because of mechanical problems. Additional study would need to be conducted regarding the practicality of combining information from these two sources. Ideally, data would be reported overall and by cause of missed trip (no operator available or mechanical problem), systemwide by service-type, and at the route level, so routes on which relatively high numbers of trips are missed can be clearly identified.

A3 Load Factors

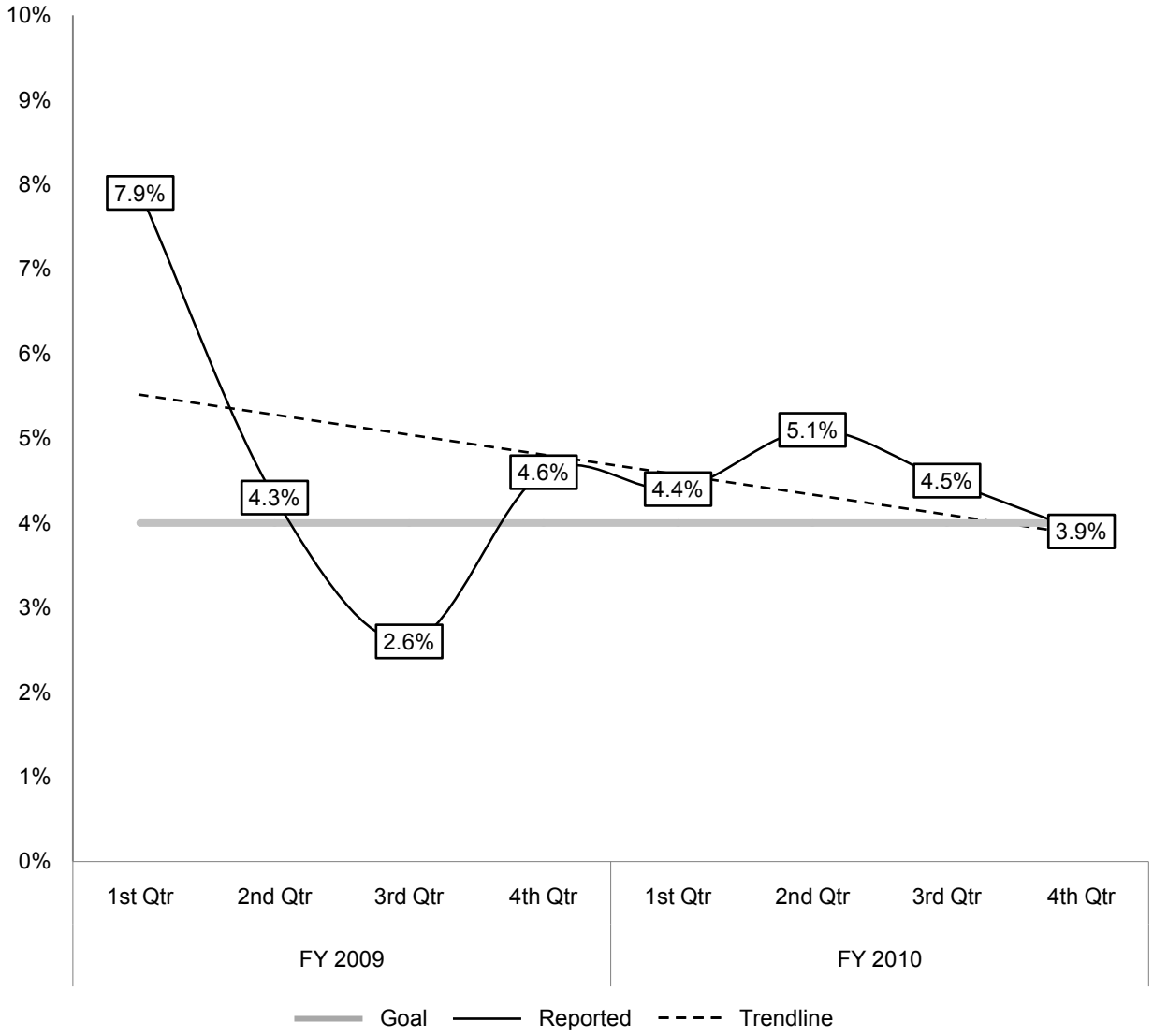
Goal	*< 4% of AM and PM Peak Trips Above 125% Load Factor*	**FY09-10 Performance**	 *Near Goal*	**Trend**	*N/A (Method Changed)*

Purpose To measure load factors at peak periods.

Definition Each line is checked twice a year. Checks are conducted at least 10 weekdays and weekends per period. A checking schedule is established for the routes. The order in which the routes are checked is determined monthly through a random selection process. To the extent automated systems can be substituted at less cost for checks, or the measurement of any standard, such systems are used. The maximum target load factor is 125% of seating/standing capacity during peak periods and 85% overall.

Method Periods of time includes morning rush (6am-9 am), midday (9am-4pm) afternoon rush (4pm-7pm), and night (7 pm-1am). Supervisors conduct a one-hour, on time, and load standard check at a maximum load point at mid-route during all four time periods stated above. (*Note: Starting in FY 2009, the midday and night time periods were no longer included in this measure.)*

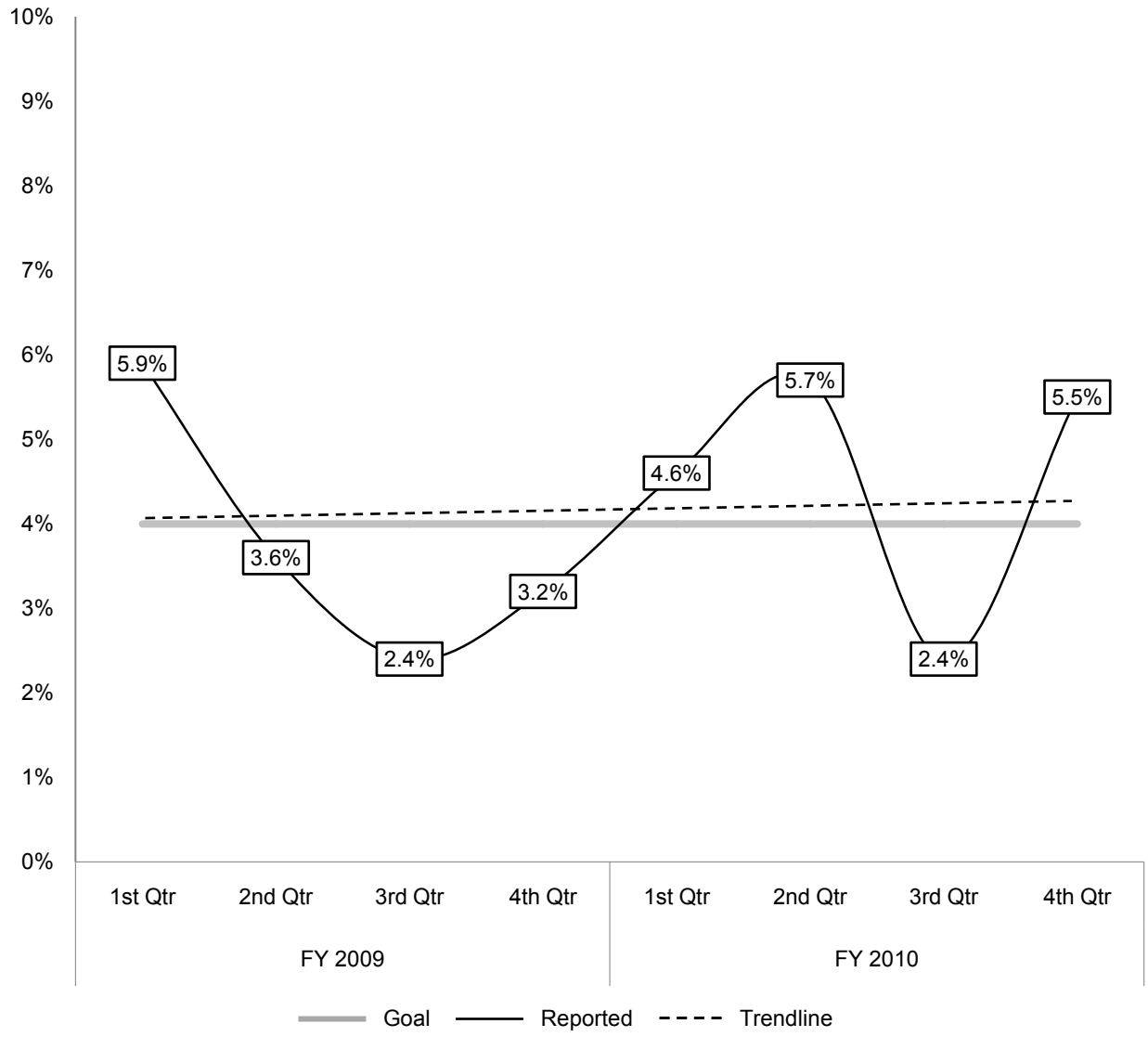
A3 Load Factors



Percentage of Runs Exceeding 125% Load During AM Peak Period (Audit Period)

Different Muni routes are checked for overcrowding every quarter, making quarter-to-quarter comparisons difficult. More telling might be a list of routes on which over 25% of AM peak trips were observed with load factors over 125% during at least one check: in FY 2009, the K Ingleside/T Third, 5 Fulton, 9 San Bruno, 9AX San Bruno 'A' Express, 30 Stockton, 43 Masonic, 44 O'Shaughnessy, 45 Union-Stockton; and in FY 2010, the K/T and 44. (Note that unlike most service standards, the goal for Load Factors is *below* a target level – 4% – rather than above it.)

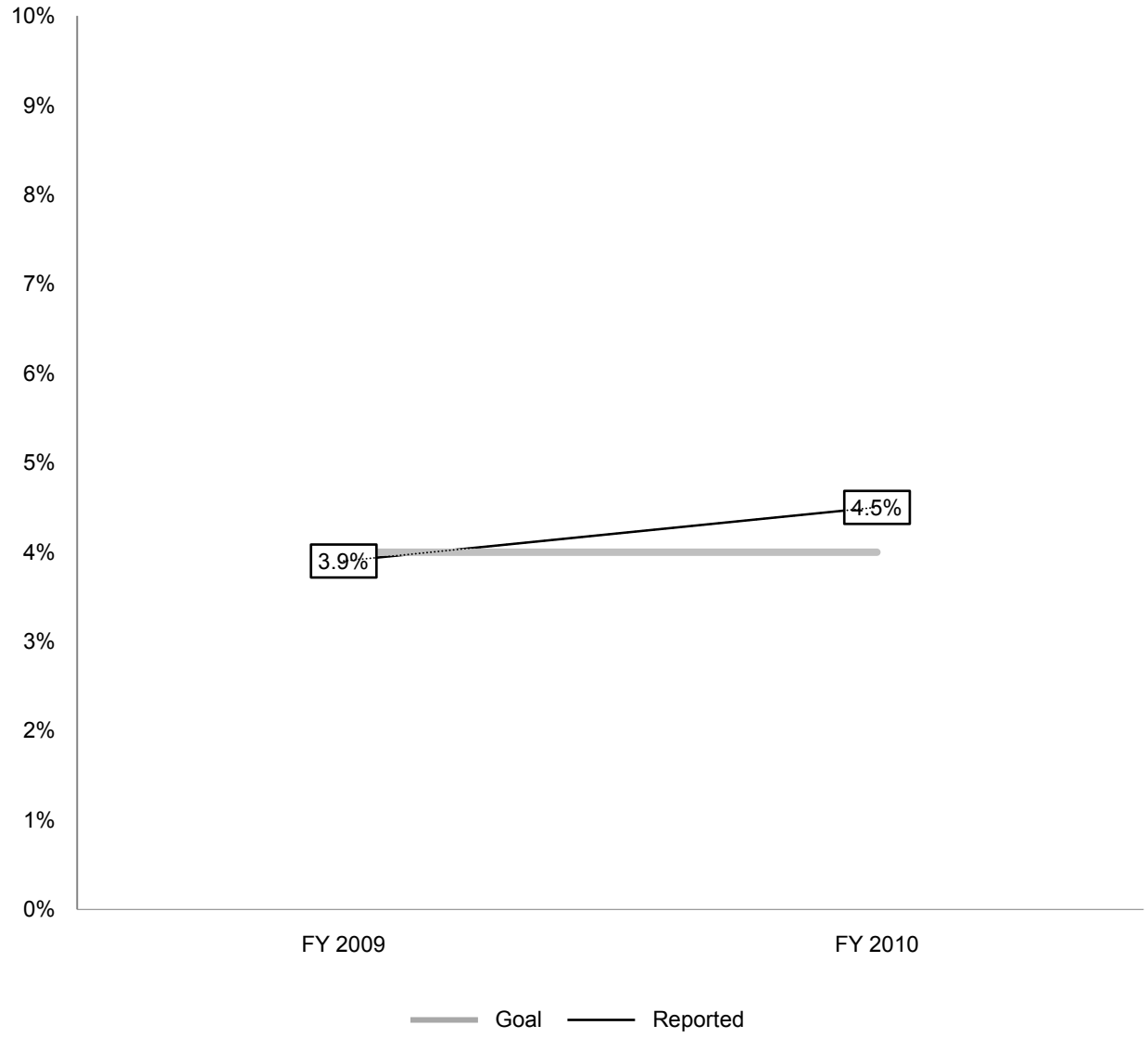
A3 Load Factors



Percentage of Runs Exceeding 125% Load During PM Peak Period (Audit Period)

Different Muni routes are checked for overcrowding every quarter, making quarter-to-quarter comparisons difficult. More telling might be a list of routes on which over 25% of PM peak trips were observed with load factors over 125% during at least one check: in FY 2009, the 28 19th Avenue, 28L 19th Avenue Limited, 44 O'Shaughnessy, and 48 Quintara 24th Street; and in FY 2010, the 9L San Bruno Limited, 44 O'Shaughnessy, and 45 Union Stockton.

A3 Load Factors

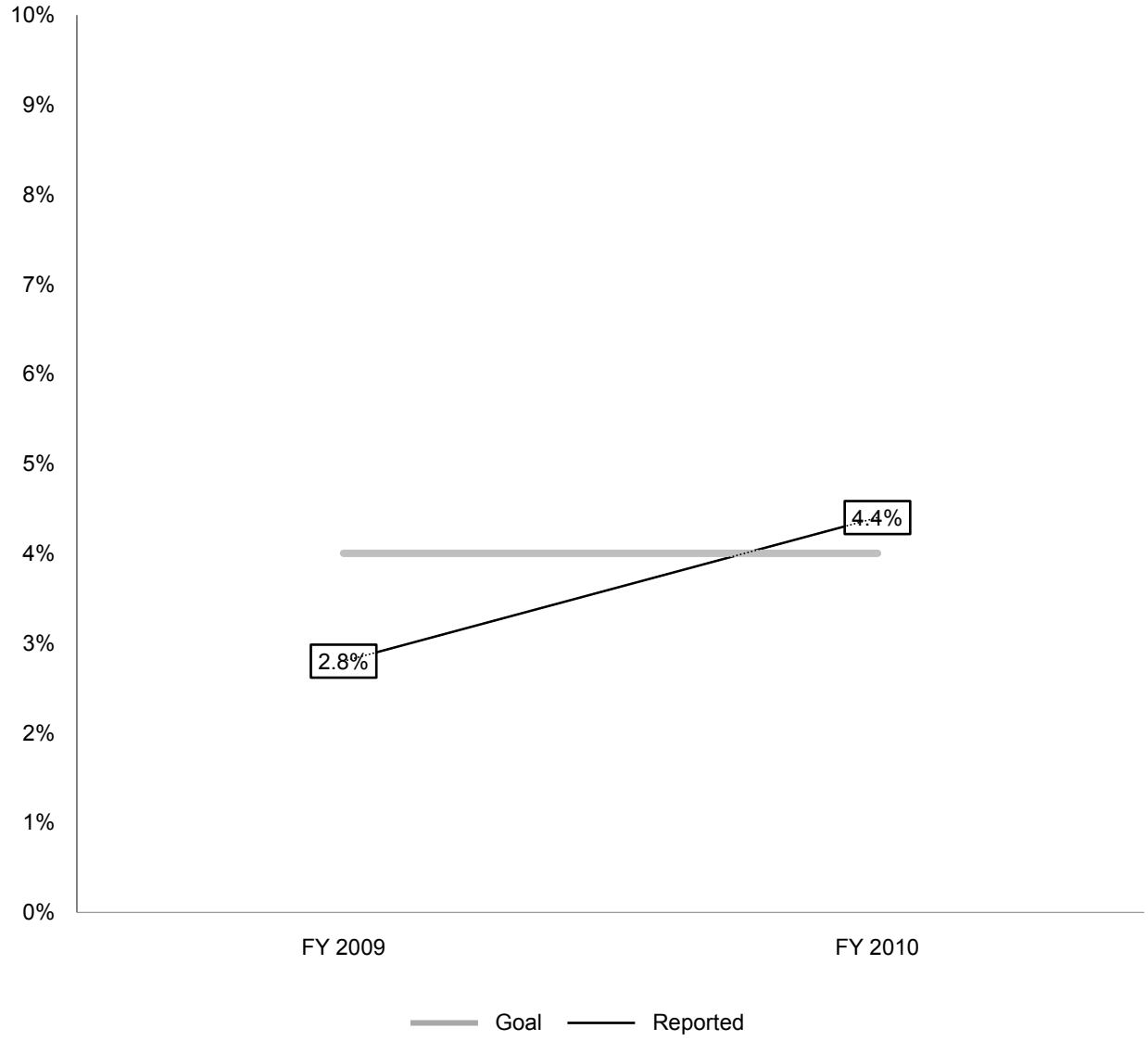


Percentage of Trips Exceeding 125% Load During AM Peak Period (Historical)

In FY 2009, Muni introduced a new, more meaningful standard for measurement of overcrowding: the percentage of AM and PM peak period trips with loads over 125% of seated and standing capacity*. In FY 2009, Muni met its goal of operating fewer than 4% of AM peak trips with more than 125% of the load factor. However, in FY 2010, 4.5% of AM trips were above the standard.

(capacities are: LRV, 119; historic streetcar, 60; cable car, 63; 60' bus, 94; 40' bus, 63; 30' bus, 45)*

A3 Load Factors



Percentage of Trips Exceeding 125% Load During PM Peak Period (Historical)

Just as with AM trips, PM trips achieved the load factor goal in FY 2009, but not in FY 2010.

A3 Load Factors

	FY 2010	FY 2011			
Category	4th Qtr	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr
AM	3.9%	0.0%	2.7%	12.9%	5.0%
PM	5.5%	11.5%	8.1%	0.8%	12.6%

Percentage of Trips Exceeding 125% Load During Peak Periods (Since the Audit Period)

For methodological reasons, quarter-over-quarter performance in this category should not necessarily be viewed as representative. That said, a much higher percentage of trips failed to achieve the standard during the PM peak period in the 1st and 4th Quarters of FY 2011, and during the AM Peak Period in the 3rd Quarter of FY 2011, than in any previous quarter.

A3 Load Factors

By Line (During and Since the Audit Period)

The tables on the following pages list load factors by line for the most recent quarter during which each was observed. Lines are organized by service category. FY 2009 and FY 2010 load factors for each line can be found in the quarterly reports at *http://www.sfmta.com/cms/rstd/sstdindx.htm.* In FY 2009, Muni introduced a new, more meaningful standard for measurement of overcrowding: the percentage of AM and PM peak period trips with loads over 125% of seated and standing capacity.

Rapid Network							
Line	Quarter Observed	% of AM Peak Trips > 125%	% of PM Peak Trips > 125%	Line	Quarter Observed	% of AM Peak Trips > 125%	% of PM Peak Trips > 125%
F Market & Wharves	FY11 Q4	3.0%	32.60%	14L Mission Limited	FY10 Q1	0.0%	0.0%
J Church	FY11 Q4	10.0%	0.00%	22 Fillmore	FY10 Q4	4.3%	9.3%
K Ingleside/T Third Street	FY11 Q4	17.2%	0.00%	28L 19th Avenue Limited	FY10 Q4	0.0%	0.0%
L Taraval	FY11 Q3	11.5%	0.00%	30 Stockton	FY10 Q2	13.5%	NA
M Ocean View	FY11 Q3	8.2%	6.70%	38L Geary Limited	FY10 Q1	5.6%	18.2%
N Judah	FY11 Q3	20.10%	0.00%	47 Van Ness	FY10 Q1	4.0%	3.9%
1 California	FY10 Q2	11.30%	NA	49 Van Ness/Mission	FY10 Q4	0.0%	0.0%
5 Fulton	FY10 Q4	5.3%	3.10%	71/71L Haight/Noriega & Limited	FY10 Q4	0.0%	0.0%
9 San Bruno	FY10 Q2	5.6%	NA				

A3 Load Factors

By Line (During and Since the Audit Period)

Local Network							
Line	Quarter Observed	% of AM Peak Trips > 125%	% of PM Peak Trips > 125%	Line	Quarter Observed	% of AM Peak Trips > 125%	% of PM Peak Trips > 125%
California Cable Car	FY11 Q4	0.0%	0.0%	24 Divisadero	FY10 Q1	8.0%	4.3%
Powell-Hyde Cable Car	FY11 Q4	0.0%	0.0%	27 Bryant	FY10 Q1	0.0%	9.1%
Powell-Mason Cable Car	FY11 Q3	0.0%	0.0%	28 19th Avenue	FY10 Q1	0.0%	10.7%
2 Clement	FY10 Q4	0.0%	0.0%	29 Sunset	FY10 Q2	0.0%	NA
3 Jackson	FY10 Q2	0.0%	NA	31 Balboa	FY10 Q1	3.0%	3.0%
6 Parnassus	FY10 Q1	0.0%	0.0%	33 Stanyan	FY10 Q4	0.0%	0.0%
10 Townsend	FY10 Q1	0.0%	0.0%	38 Geary	FY10 Q1	0.0%	2.7%
12 Folsom	FY10 Q1	0.0%	5.0%	43 Masonic	FY10 Q1	4.3%	0.0%
14 Mission	FY10 Q2	0.0%	NA	44 O'Shaughnessy	FY10 Q4	37.9%	27.3%
18 46th Avenue	FY09 Q3	0.0%	0.0%	45 Union/Stockton	FY10 Q4	0.0%	33.3%
19 Polk	FY10 Q4	0.0%	0.0%	48 Quintara/24th Street	FY10 Q4	0.0%	9.1%
21 Hayes	FY10 Q2	7.7%	NA	54 Felton	FY10 Q4	0.0%	0.0%
23 Monterey	FY10 Q2	0.0%	NA	108 Treasure Island	FY10 Q4	0.0%	0.0%

A3 Load Factors

By Line (During and Since the Audit Period)

Community Connectors							
Line	Quarter Observed	% of AM Peak Trips > 125%	% of PM Peak Trips > 125%	Line	Quarter Observed	% of AM Peak Trips > 125%	% of PM Peak Trips > 125%
17 Parkmerced	FY10 Q2	0.0%	NA	52 Excelsior	FY10 Q4	0.0%	0.0%
35 Eureka	FY10 Q4	0.0%	0.0%	56 Rutland	FY10 Q2	0.0%	NA
36 Teresita	FY10 Q2	0.0%	NA	66 Quintara	FY10 Q1	0.0%	0.0%
37 Corbett	FY10 Q4	0.0%	5.0%	67 Bernal Heights	FY10 Q2	0.0%	NA
39 Coit	FY10 Q1	0.0%	0.0%				

A3 Load Factors

By Line (During and Since the Audit Period)

Specialized Services							
Line	Quarter Observed	% of AM Peak Trips > 125%	% of PM Peak Trips > 125%	Line	Quarter Observed	% of AM Peak Trips > 125%	% of PM Peak Trips > 125%
1AX California "A" Express	FY10 Q2	0.0%	NA	31AX Balboa "A" Express	FY10 Q4	5.3%	0.0%
1BX California "B" Express	FY10 Q4	3.6%	0.0%	31BX Balboa "B" Express	FY10 Q4	0.0%	0.0%
8AX San Bruno Express	FY10 Q4	8.3%	0.0%	38AX Geary "A" Express	FY10 Q2	0.0%	NA
8BX San Bruno Express	NA	NA	NA	38BX Geary "B" Express	FY10 Q4	0.0%	0.0%
8X San Bruno Express	NA	NA	NA	41 Union	FY10 Q4	3.3%	0.0%
9L San Bruno Limited	FY10 Q4	0.0%	33.3%	80X Gateway Express	FY10 Q4	0.0%	0.0%
16X Noriega Express	FY10 Q4	4.3%	0.0%	81X Caltrain Express	FY10 Q2	0.0%	NA
9BX San Bruno "B" Express	FY10 Q2	0.0%	NA	82X Presidio & Wharves Express	FY10 Q1	0.0%	0.0%
14X Mission Express	FY10 Q2	12.0%	NA	88 BART Shuttle	FY10 Q4	0.0%	0.0%
30X Marina Express	FY10 Q1	20.0%	4.0%				

A4 Unscheduled Absences

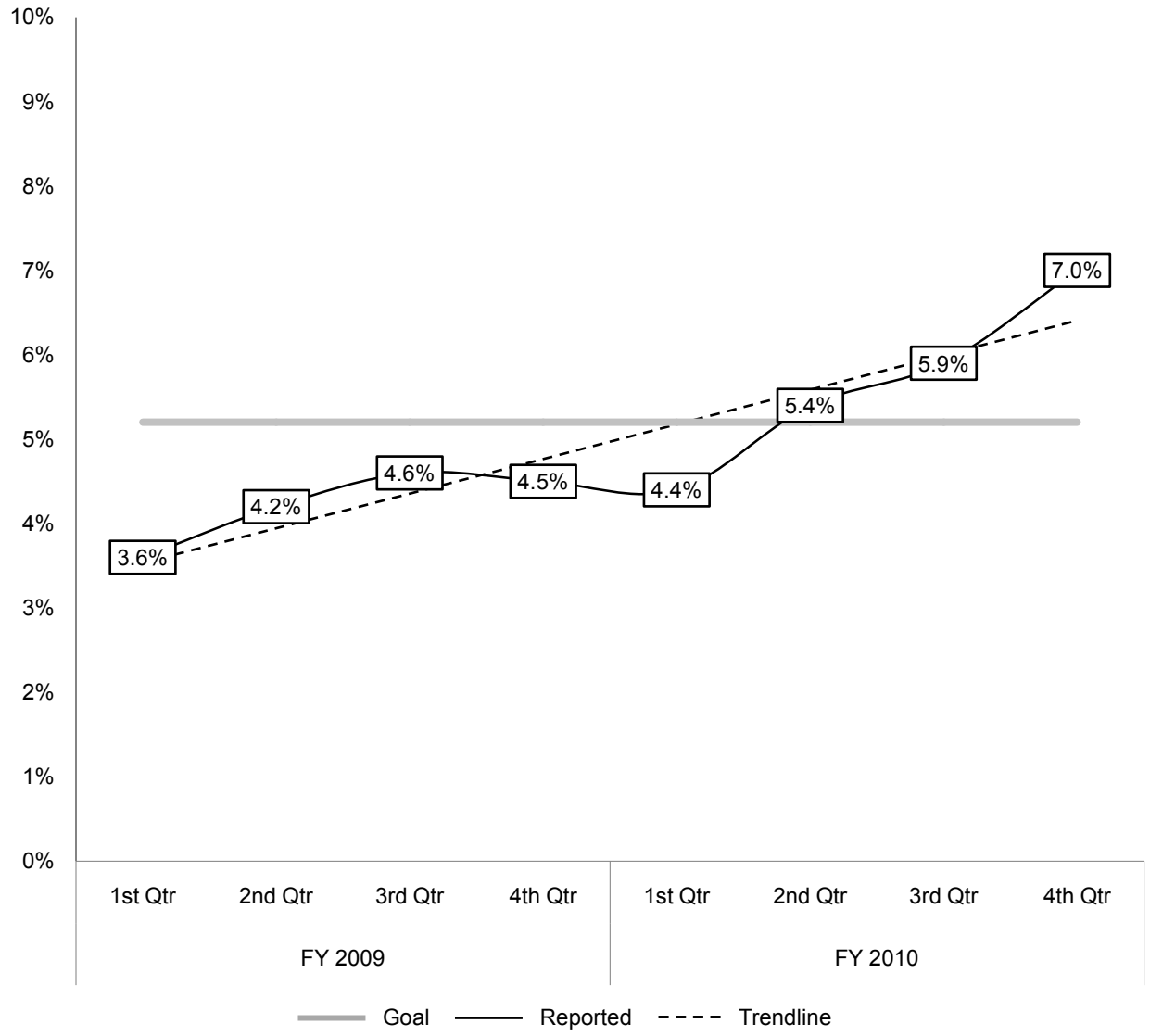
Goal	*Varies by category and from year to year (see following pages)*	**FY09-10 Performance**	▼ *Goal Not Achieved*	**Trend**	▼ *Negative*

Purpose To measure unscheduled absences.

Definition Results include sick pay/leave, long term leave, AWOL, and assault pay. FY09 results for operators also include jury duty, loans to unions, suspenstions and “working miss outs” (late arrivals to work).

Method TESS and the Attendance Tracking System currently provide the data as a calculation of scheduled hours available against unscheduled hours for Municipal Railway employees.

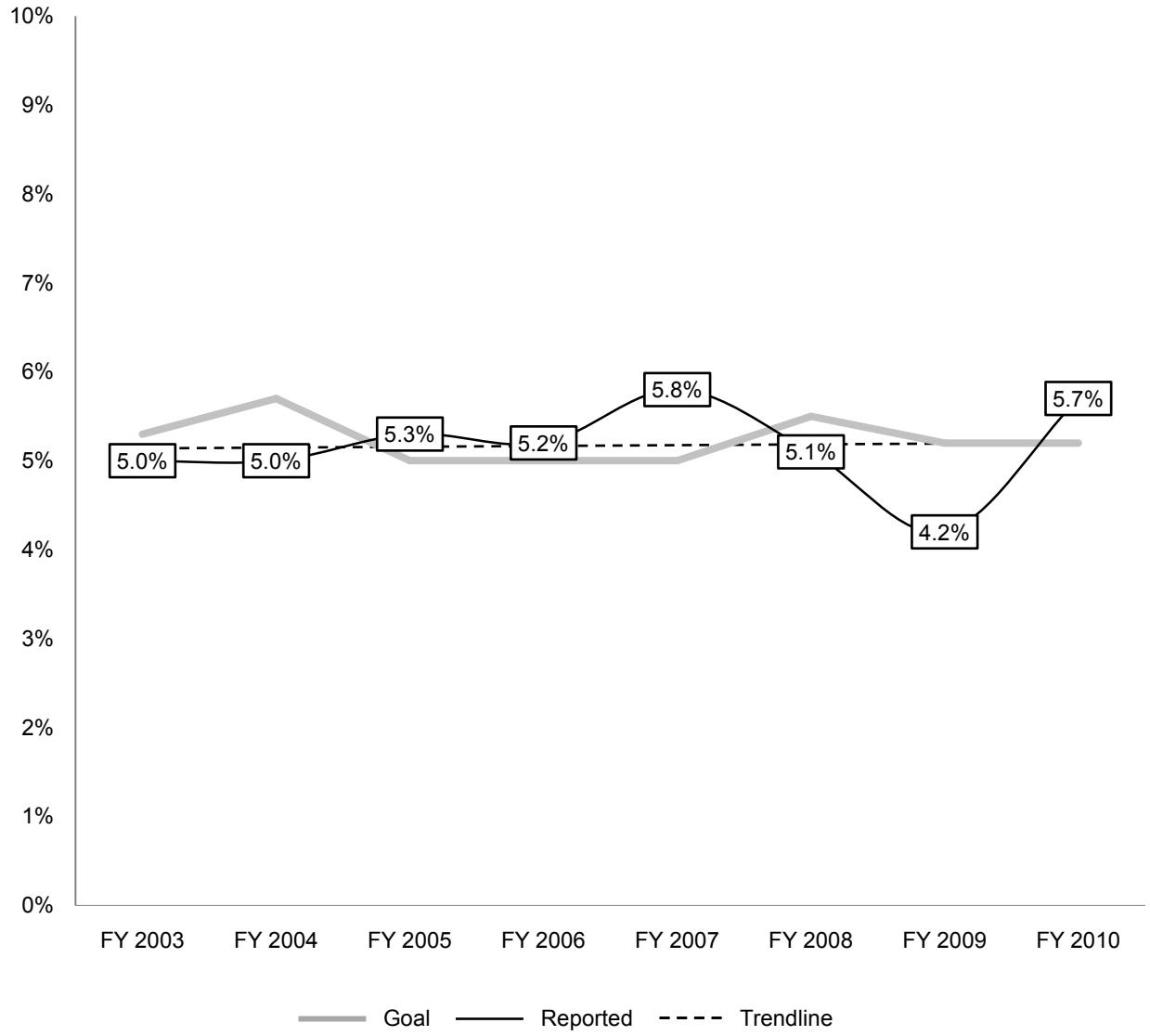
A4 Unscheduled Absences



Administration (Audit Period)

The annual goal for Unscheduled Absences in Administration is a 5% reduction over the previous year or 5%, whichever is higher. Like other departments, Administration achieved its Unscheduled Absences goal in FY 2009, but did not achieve its goal in FY 2010. (Note that unlike most service standards, the goal for Unscheduled Absences is *below* a target level rather than above it.)

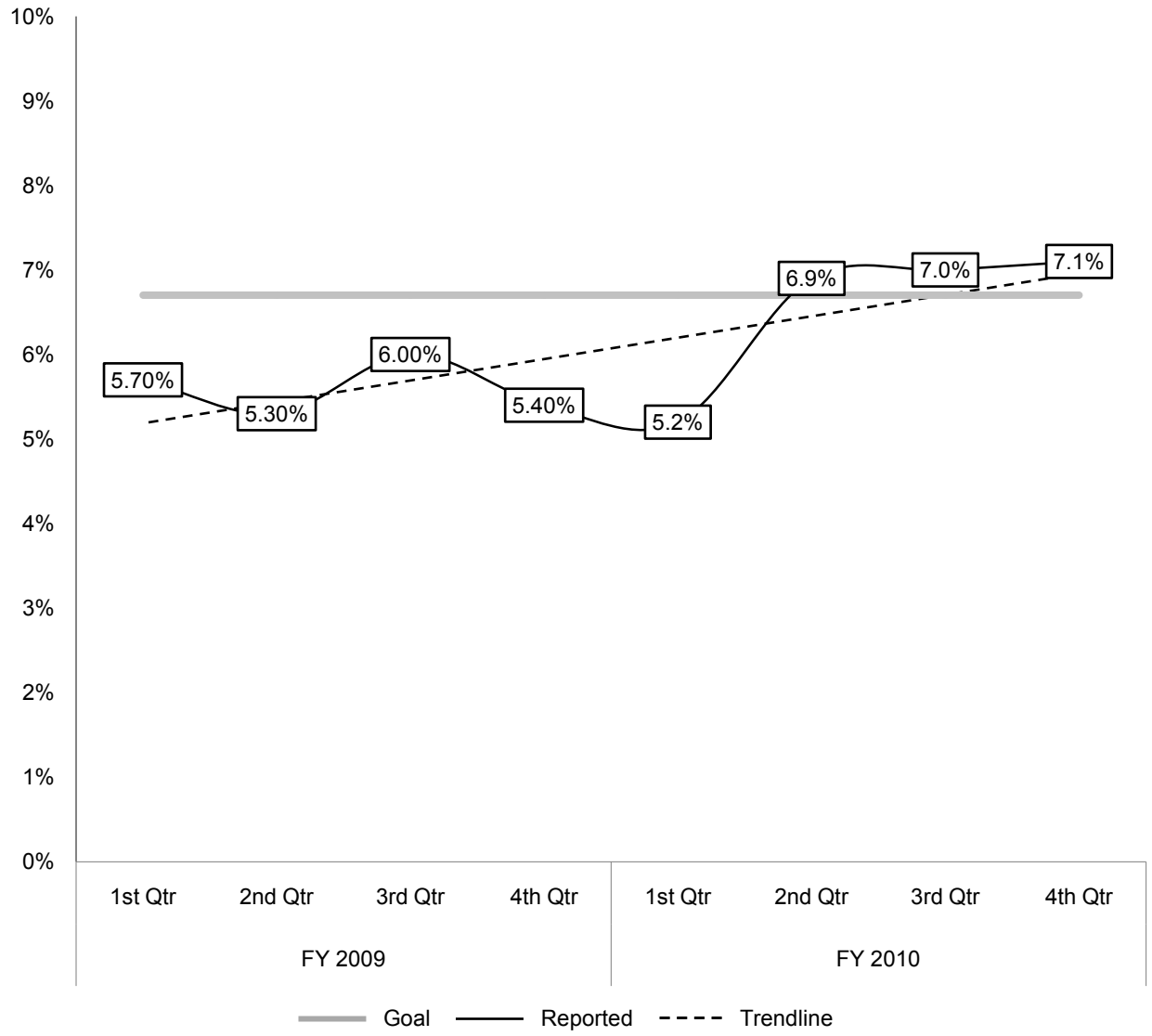
A4 Unscheduled Absences



Administration (Historic)

After reaching a historic low absence rate in FY 2009, performance by Administration staff returned to previous levels in FY 2010. It should be noted that the goals for Administration have historically been lower – and thus harder to achieve – than the goals for other departments.

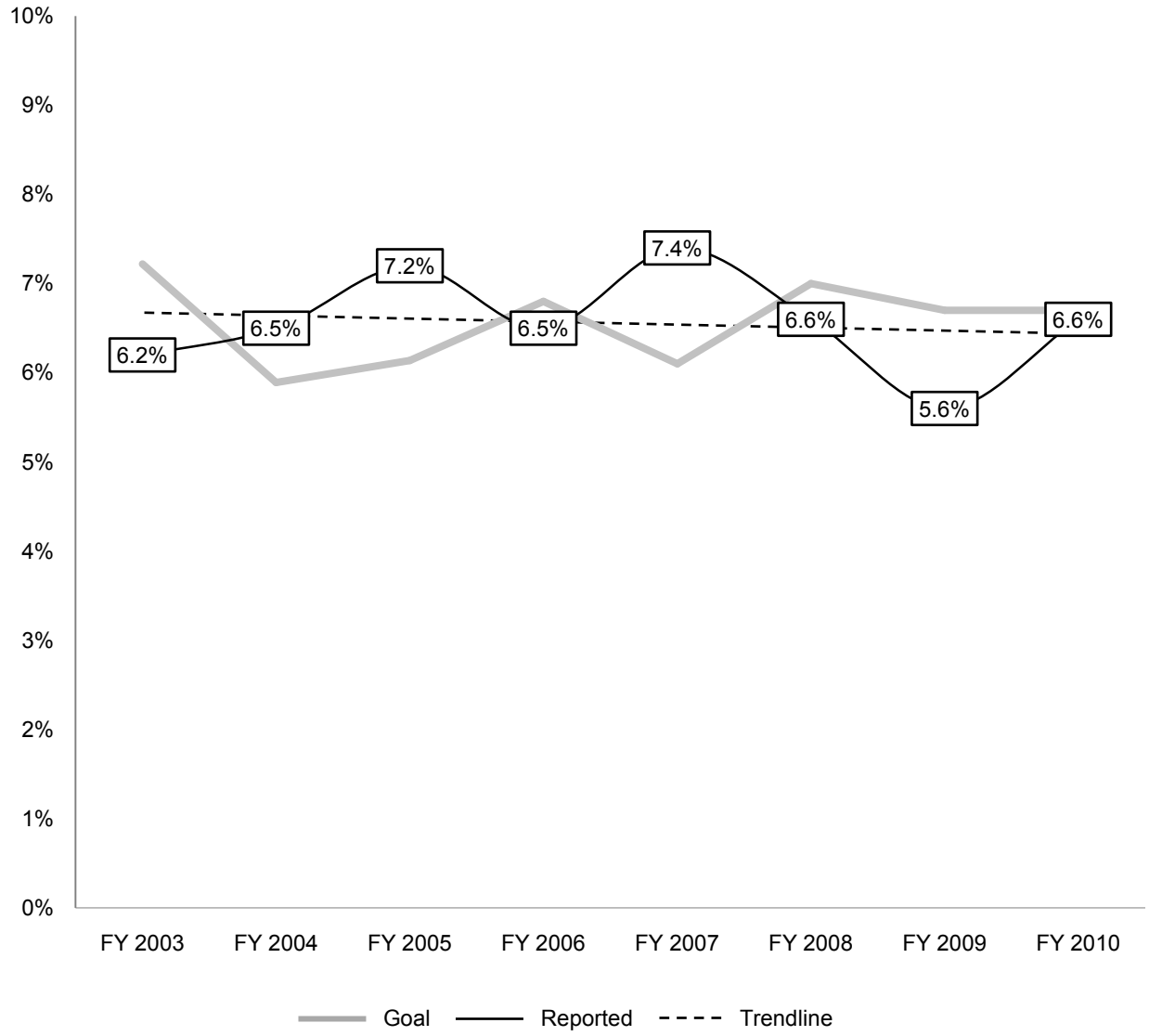
A4 Unscheduled Absences



Maintenance (Audit Period)

The annual goal for Unscheduled Absences in Maintenance is a 5% reduction over the previous year or 5%, whichever is higher. Although the absence rate increased significantly starting in the 2nd Quarter of FY 2010, Maintenance achieved its Unscheduled Absences goal in both years.

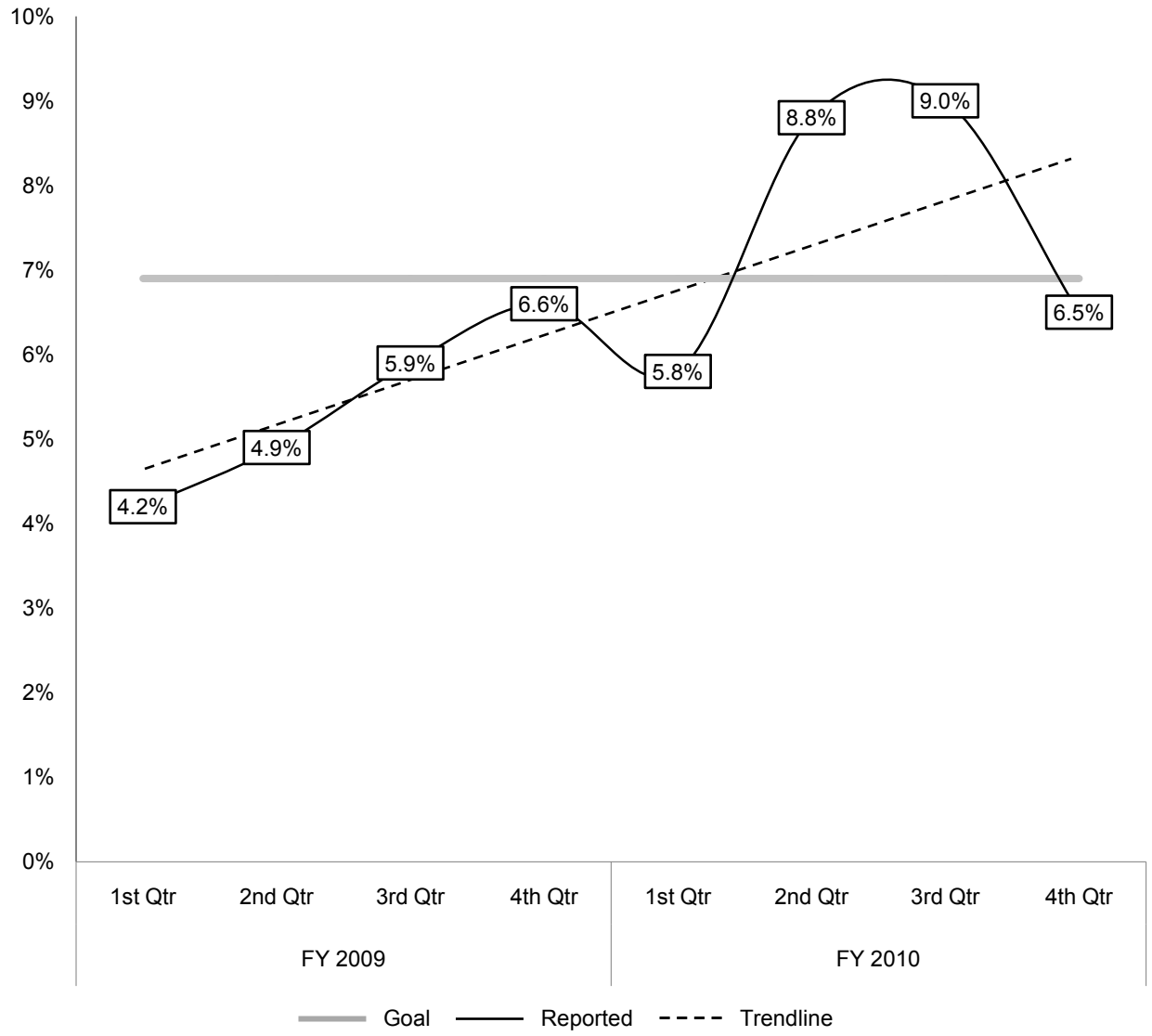
A4 Unscheduled Absences



Maintenance (Historic)

Annual averages for Unscheduled Absences in Maintenance have fluctuated over time, but have remained relatively constant.

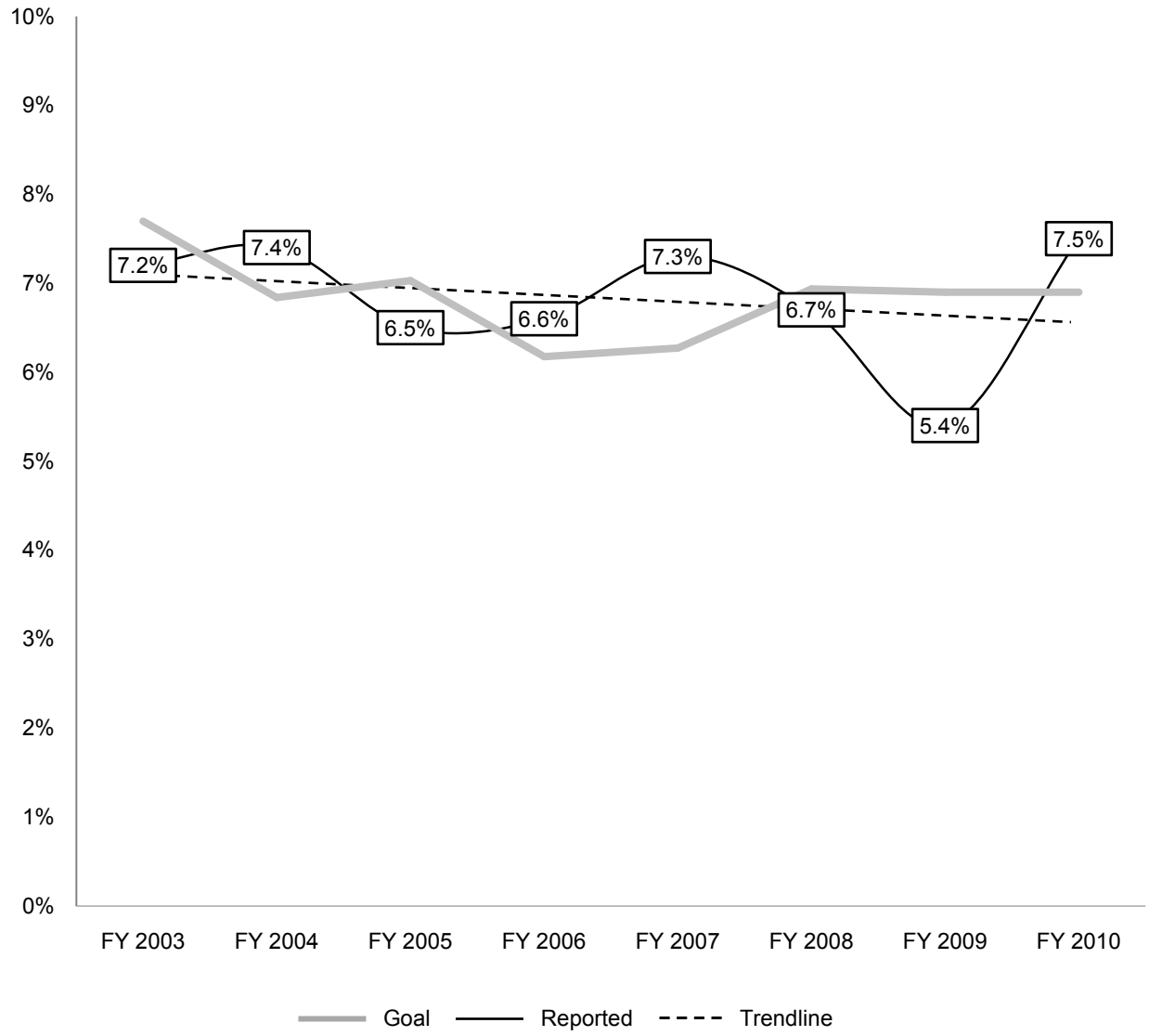
A4 Unscheduled Absences



Operations (Audit Period)

The annual goal for Unscheduled Absences in Operations is a 5% reduction over the previous year or 5%, whichever is higher. Like other departments, Operations achieved its Unscheduled Absences goal in FY 2009 but did not achieve its goal in FY 2010 (despite a significant reduction in absenteeism in the 4th Quarter).

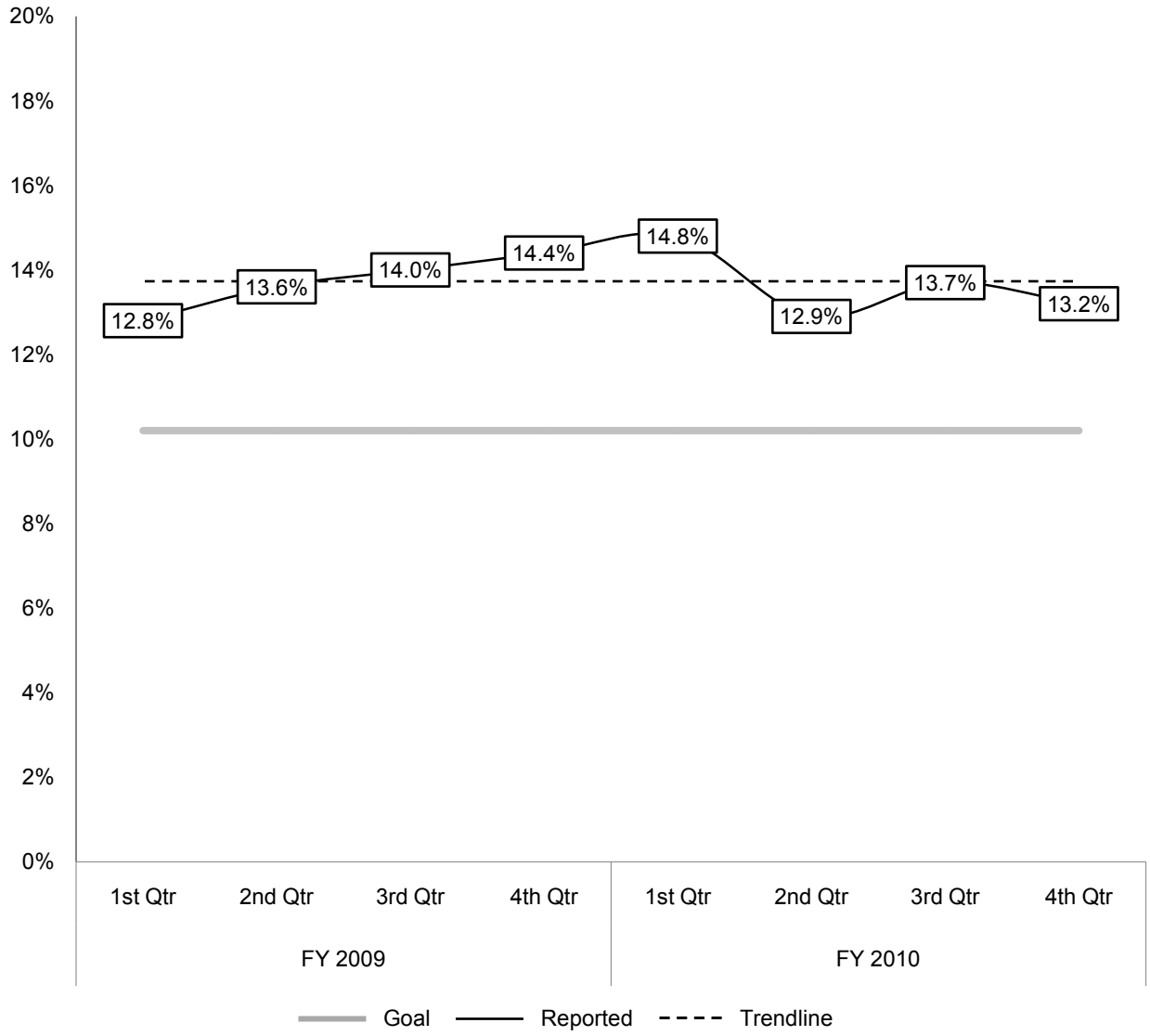
A4 Unscheduled Absences



Operations (Historic)

After reaching a historic low absence rate in FY 2009, performance by Operations staff returned to previous levels in FY 2010.

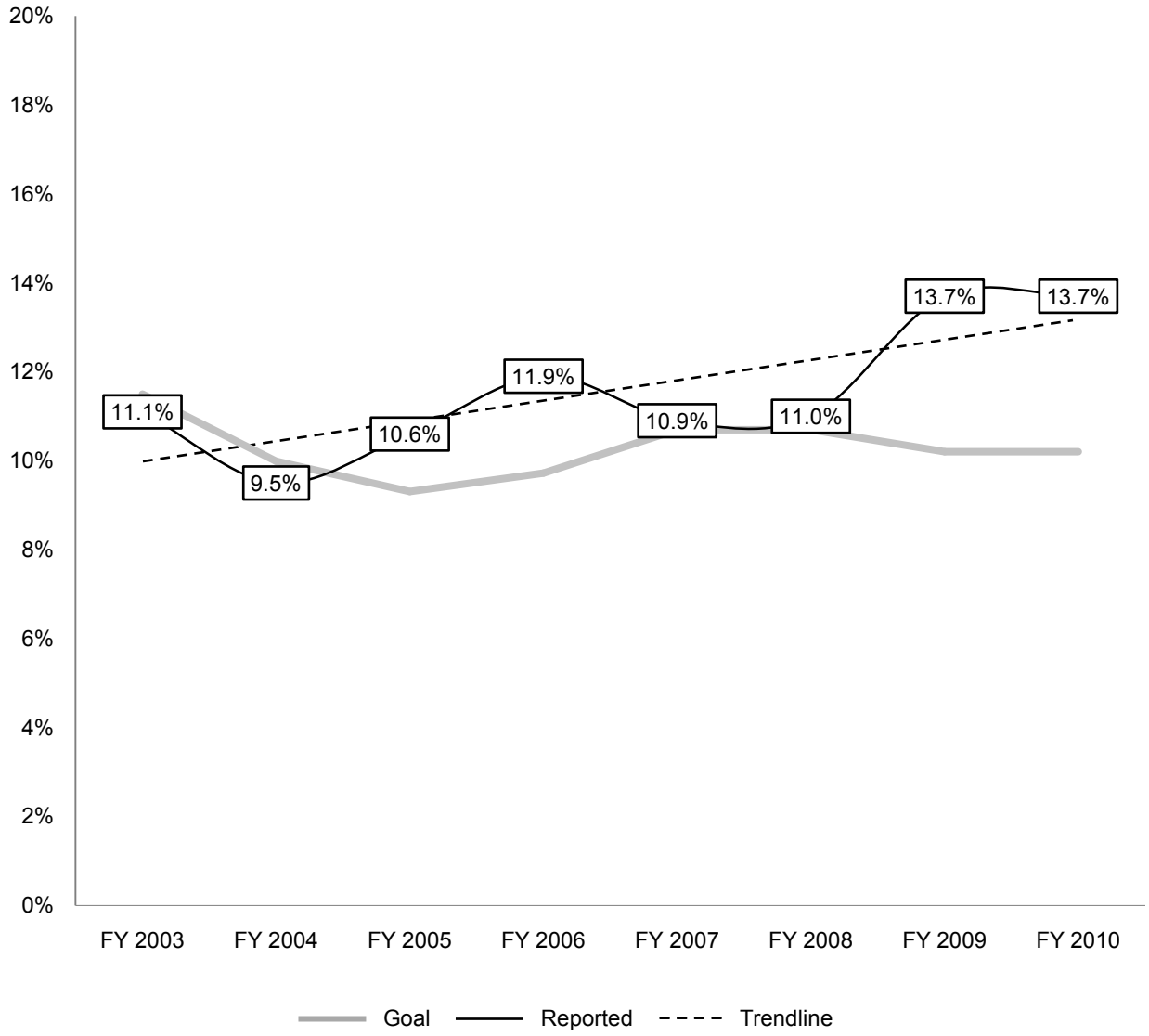
A4 Unscheduled Absences



Transit Operators (Audit Period)

Unscheduled Absence rates for transit operators have always been markedly higher than for other departments. However, the definition of an "unscheduled" absence was broadened in FY 2009 to include a number of additional categories, causing the rate – roughly 11% in previous years – to increase to around 13%. (Additionally, absenteeism rates were derived from a new source, Trapeze Software, rather than a legacy Public Utilities Commission application.)

A4 Unscheduled Absences



Transit Operators (Historic)

While unscheduled absenteeism among operators has always been higher than for other departments, much of the increase during this audit period can be attributed to a new, stricter definition.

A4 Unscheduled Absences

	FY 2010		FY 2011			
Category	**4th Qtr**	***FY11 Goal***	**1st Qtr**	**2nd Qtr**	**3rd Qtr**	**4th Qtr**
Administration	7.0%	*3.5%*	5.2%	7.4%	7.7%	6.4%
Maintenance	7.1%	*6.0%*	6.1%	7.6%	8.1%	7.7%
Operations	6.5%	*6.0%*	6.4%	5.9%	5.6%	6.6%
Transit Operators	13.2%	*10.5%*	12.7%	13.7%	12.3%	12.8%

Since the Audit Period

FY 2011 goals are included at left because the goals for this service standard have changed. In FY 2011, performance improved across the board in the 1st Quarter before returning to previous levels in the 2nd Quarter. Unscheduled Absences among transit operators were generally lower in FY 2011 than in previous years.

A5 Mean Distance Between Failure

Goal *Varies by division*

FY09-10 Performance 

Goal Not Achieved

Trend 

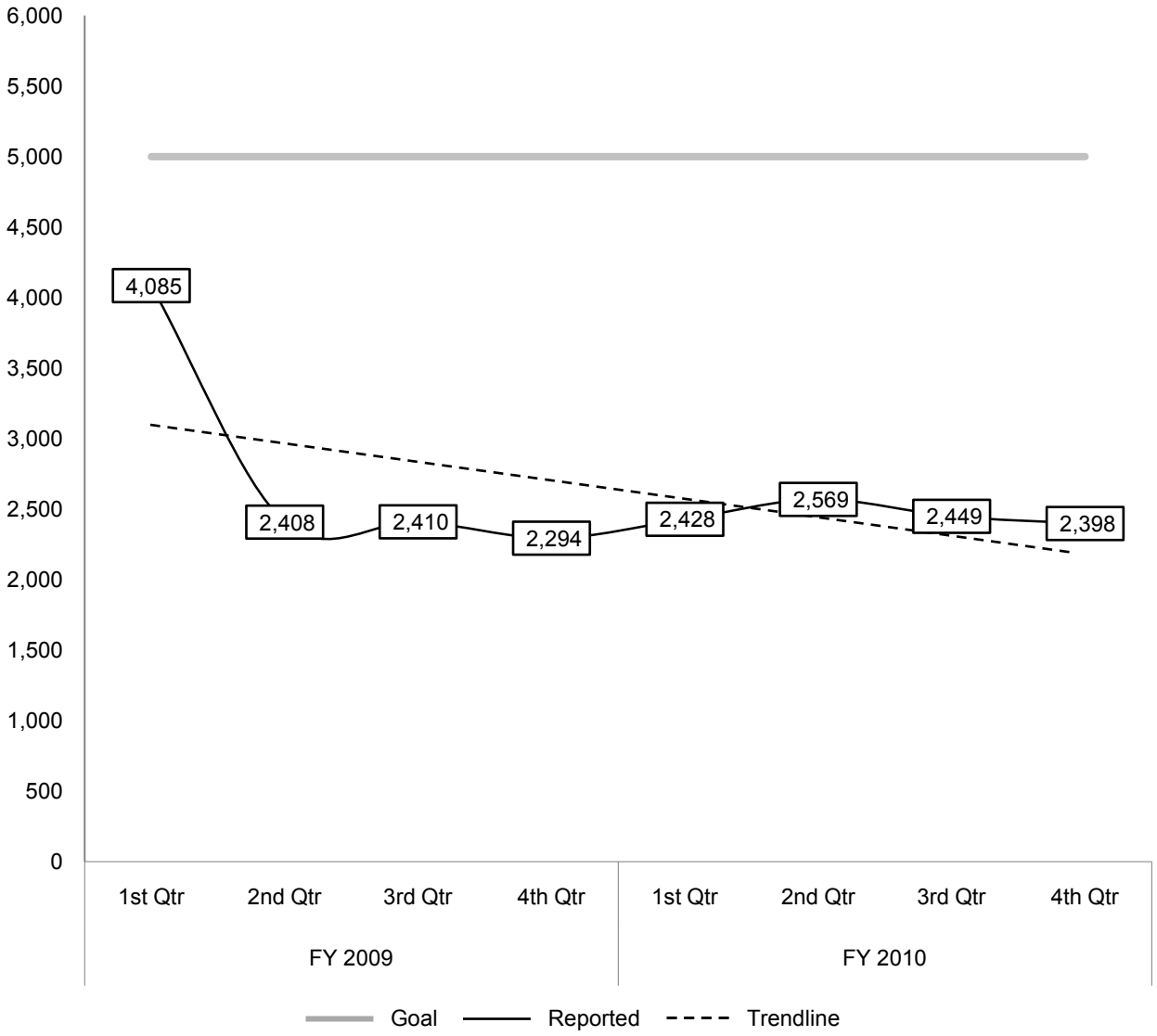
Negative

Purpose To measure reliability through the miles a vehicle travels between failures.

Definition Monthly measurement is currently dictated by the Federal Transit Administration as follows: Failures are classified as either a major or minor failure of an element of the vehicle's mechanical system. For each incident of a major or minor failure, report whether the vehicle completes the trip or the vehicle does not complete the trip. If the failure occurs during deadhead or layover, include this in revenue vehicle system failures.

Method Data is collected from the Central Control Log and the online SHOPS system. All verifiable major and minor mechanical defects are included as part of the mean distance between failure figure. Areas that do not result in a chargeable road call to the maintenance shops include accidents, sick passengers, vandalism, body damage and broken windows.

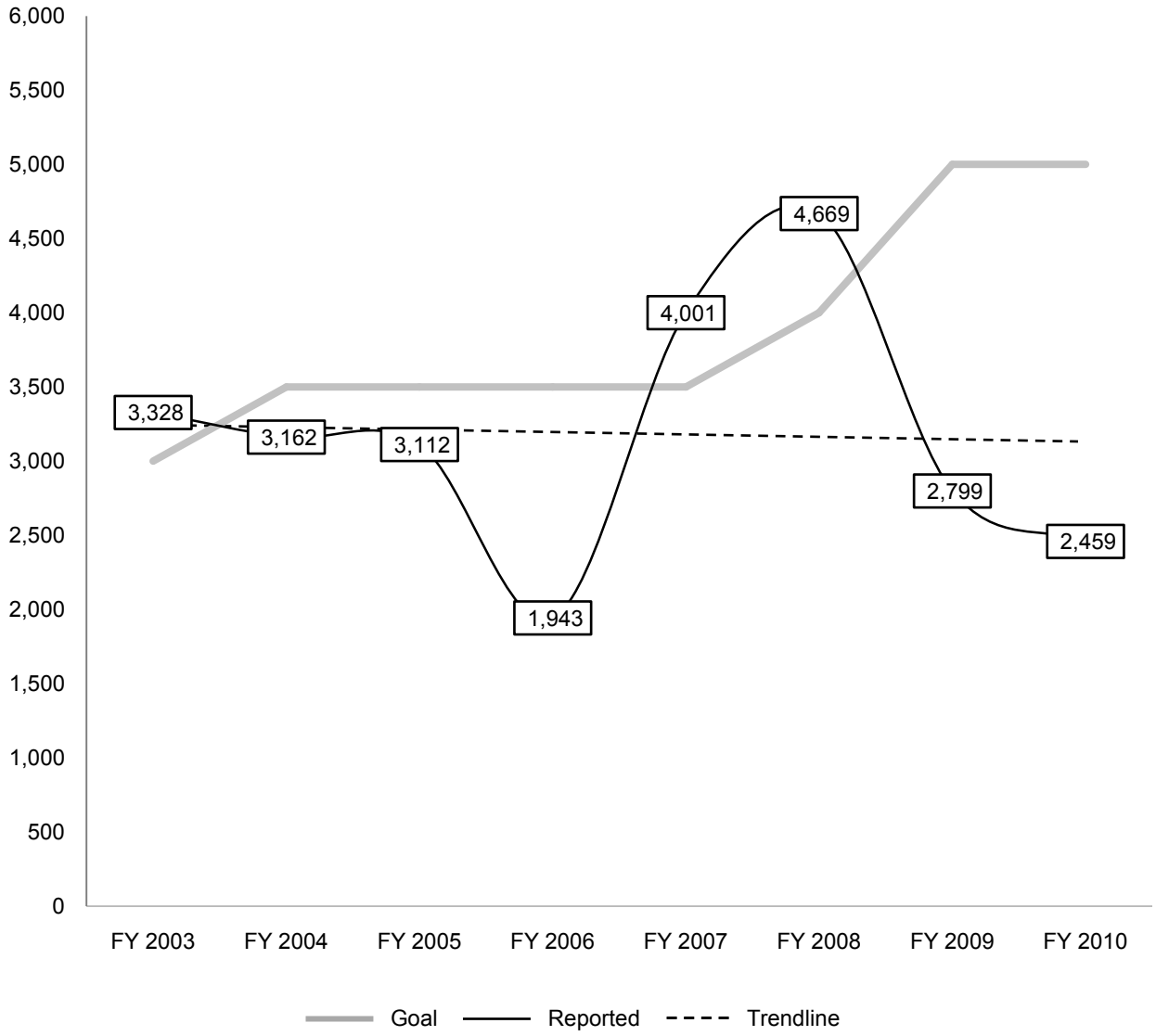
A5 Mean Distance Between Failure (Rail)



Green Breda LRV (Audit Period)

MDBF, also known as miles between roadcalls, is a measure of how far vehicles travel between mechanical failures that cause them to go out of service. Rail incidents resolved within five minutes of a report to Central Control are not included. Starting in the 2nd Quarter of FY 2009, Muni Metro light rail vehicles appeared to be significantly less reliable. This may be partly explained by a new, broader definition of "failure" including more types of incidents. However, vacancy rates among maintenance staff also increased dramatically during the audit period (see A6, Vacancy Rate for Service Critical Positions).

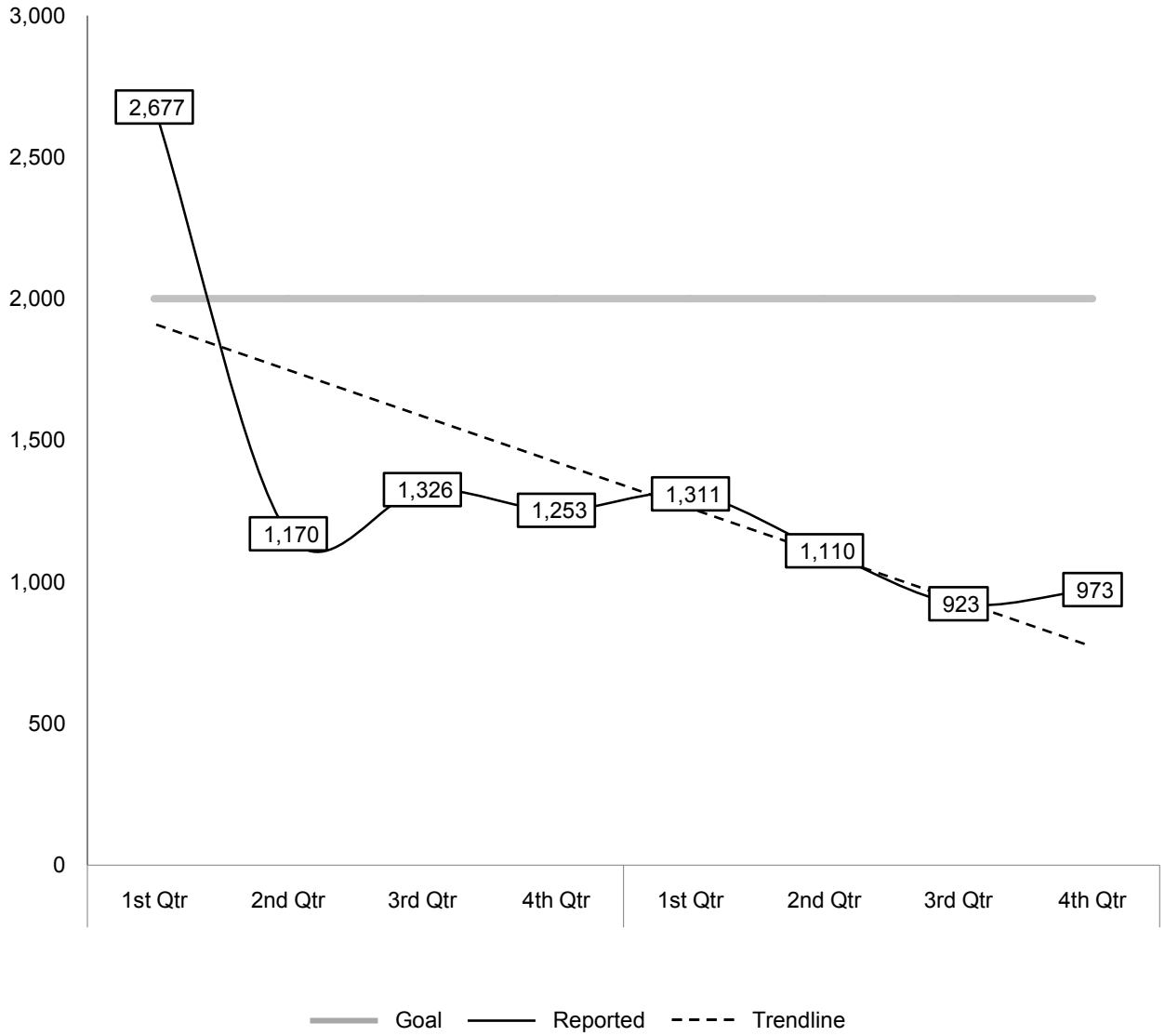
A5 Mean Distance Between Failure (Rail)



Green Breda LRV (Historic)

In FY 2009 and FY 2010, Muni Metro light rail vehicles appeared to be significantly less reliable than in previous years, although this can be explained at least in part by a broader definition of mechanical "failure," and MDBF remained above the low point of FY 2006.

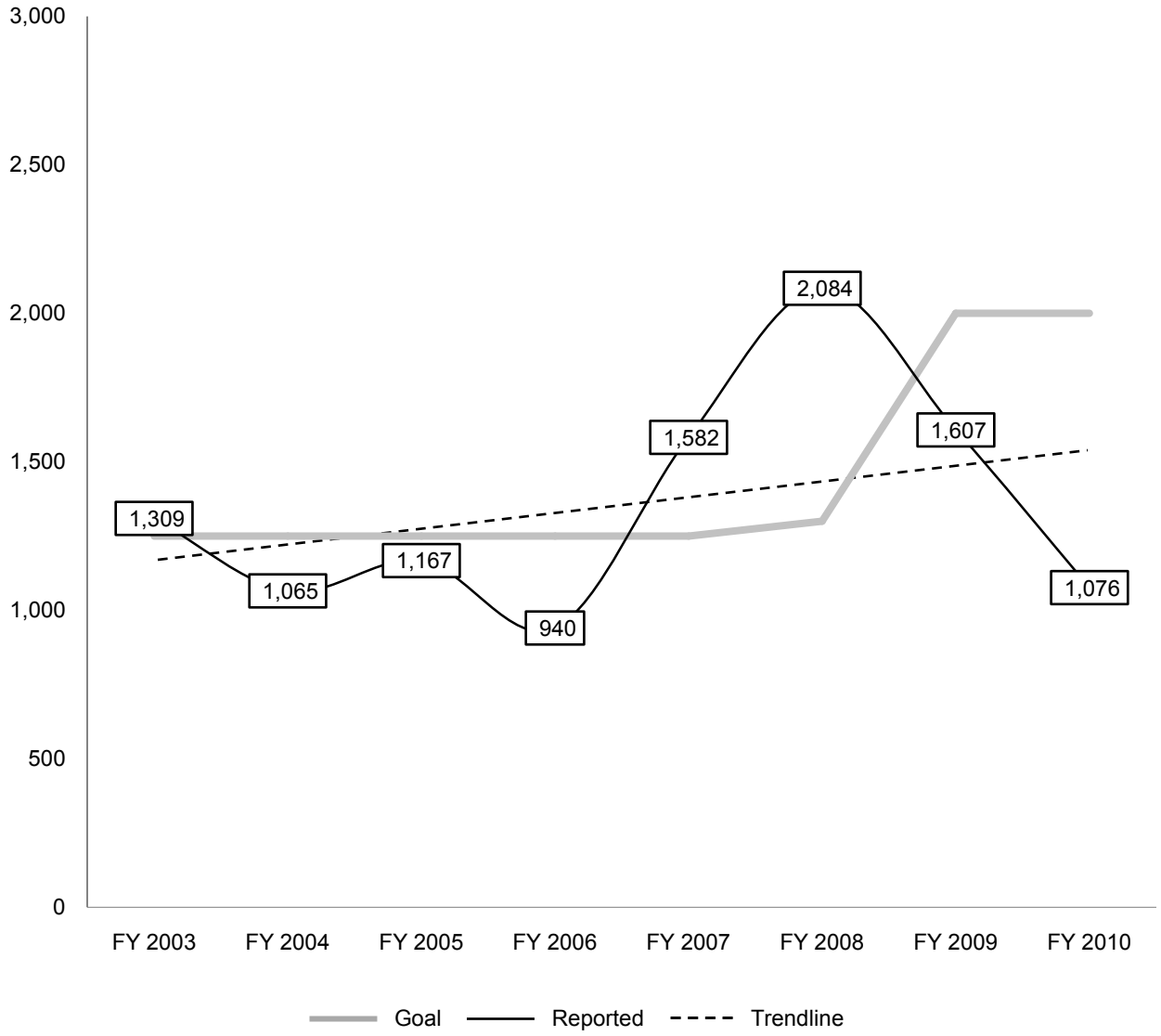
A5 Mean Distance Between Failure (Rail)



Green F-Line (Audit Period)

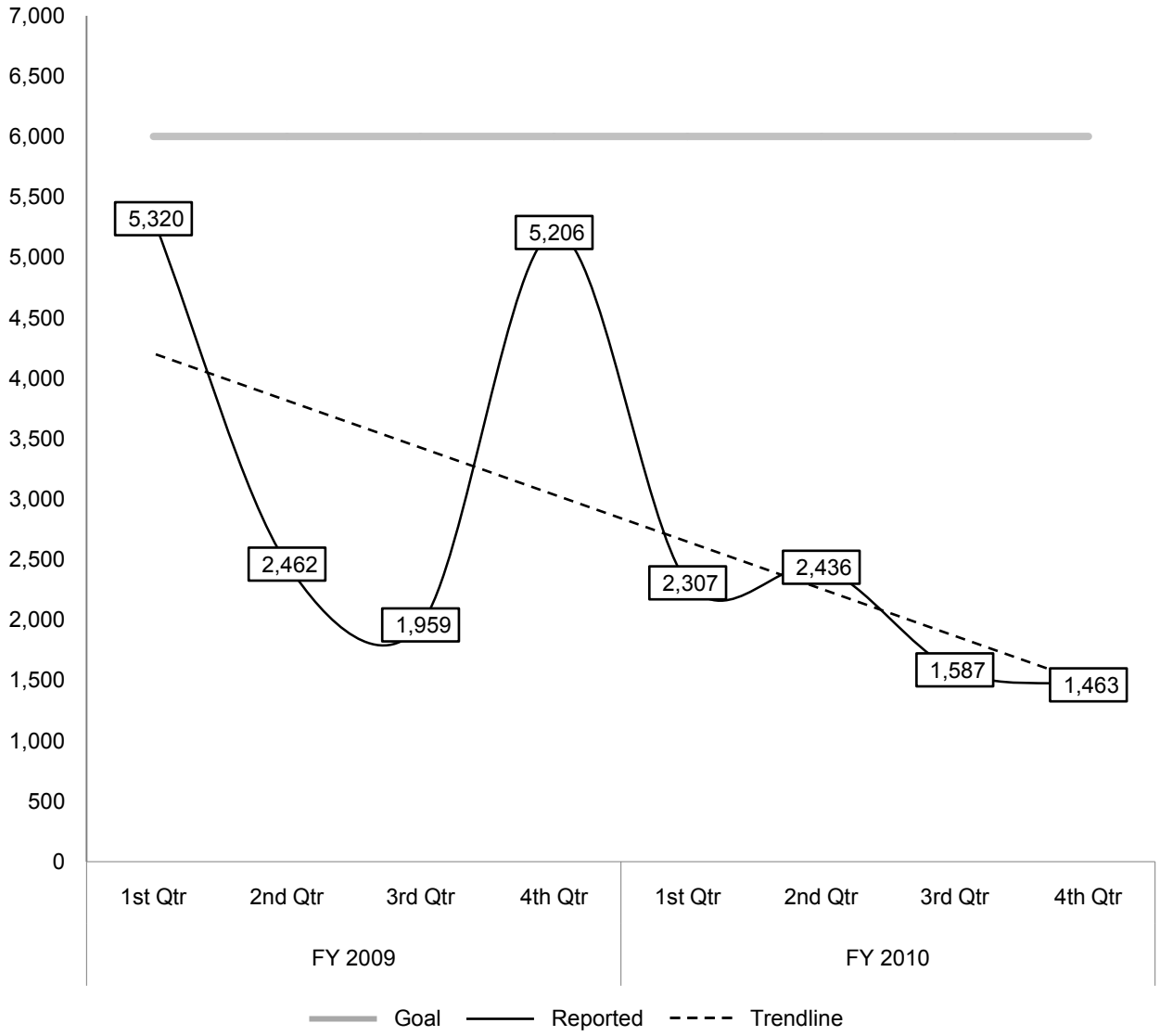
F-Market & Wharves PCCs and Milan trams are historic vehicles, so their more problematic reliability record is perhaps unsurprising. Like Breda LRVs, they experienced a significant decline in reliability starting in the 2nd Quarter of FY 2009, though this can be at least partly explained by a broader definition of "failure."

A5 Mean Distance Between Failure (Rail)



Green F-Line (Historic)
In FY 2007 and FY 2008 historic streetcars were significantly more reliable than in previous years. However, by FY 2010 performance had returned to previous levels.

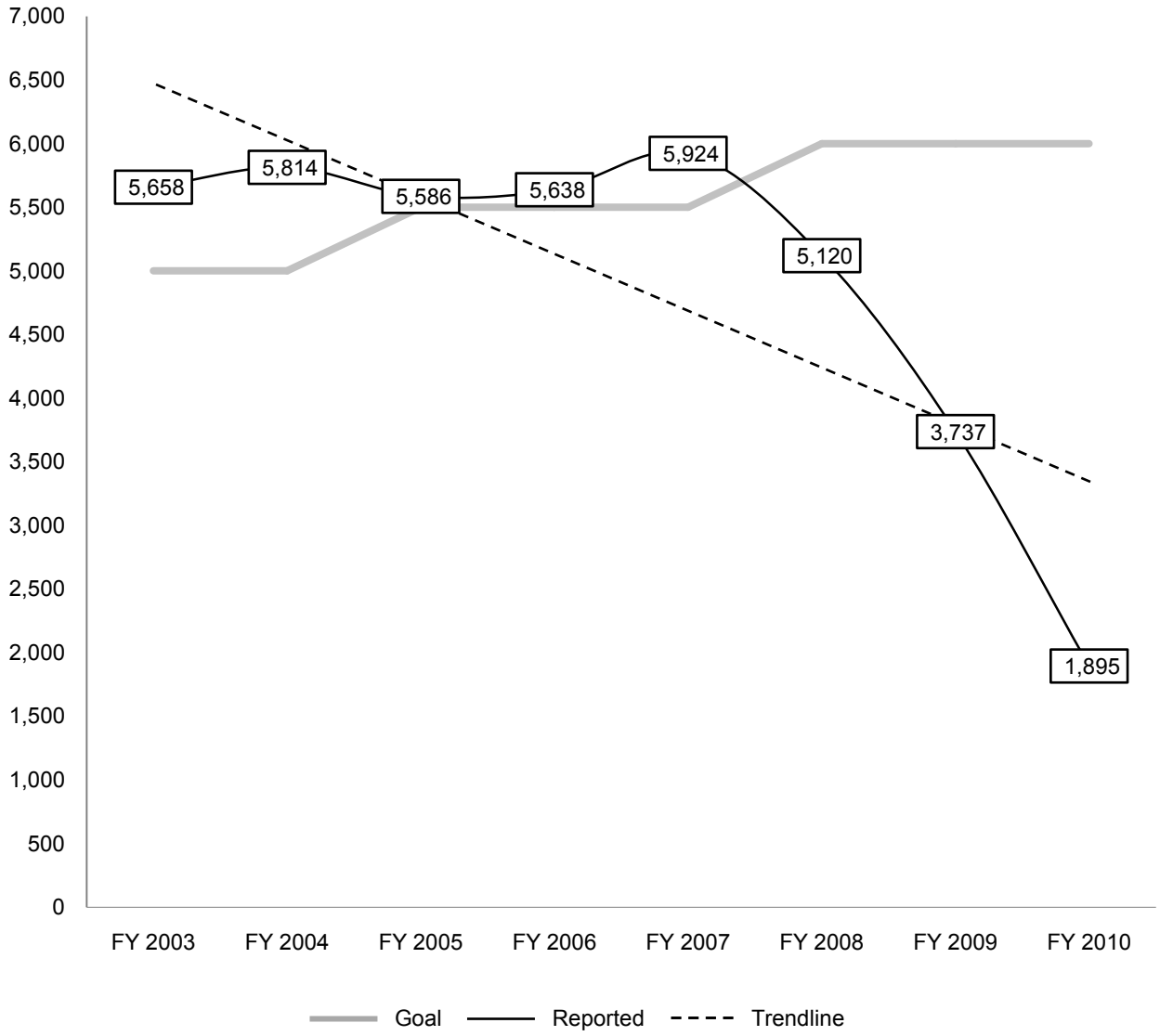
A5 Mean Distance Between Failure (Cable Car)



Cable Car (Audit Period)

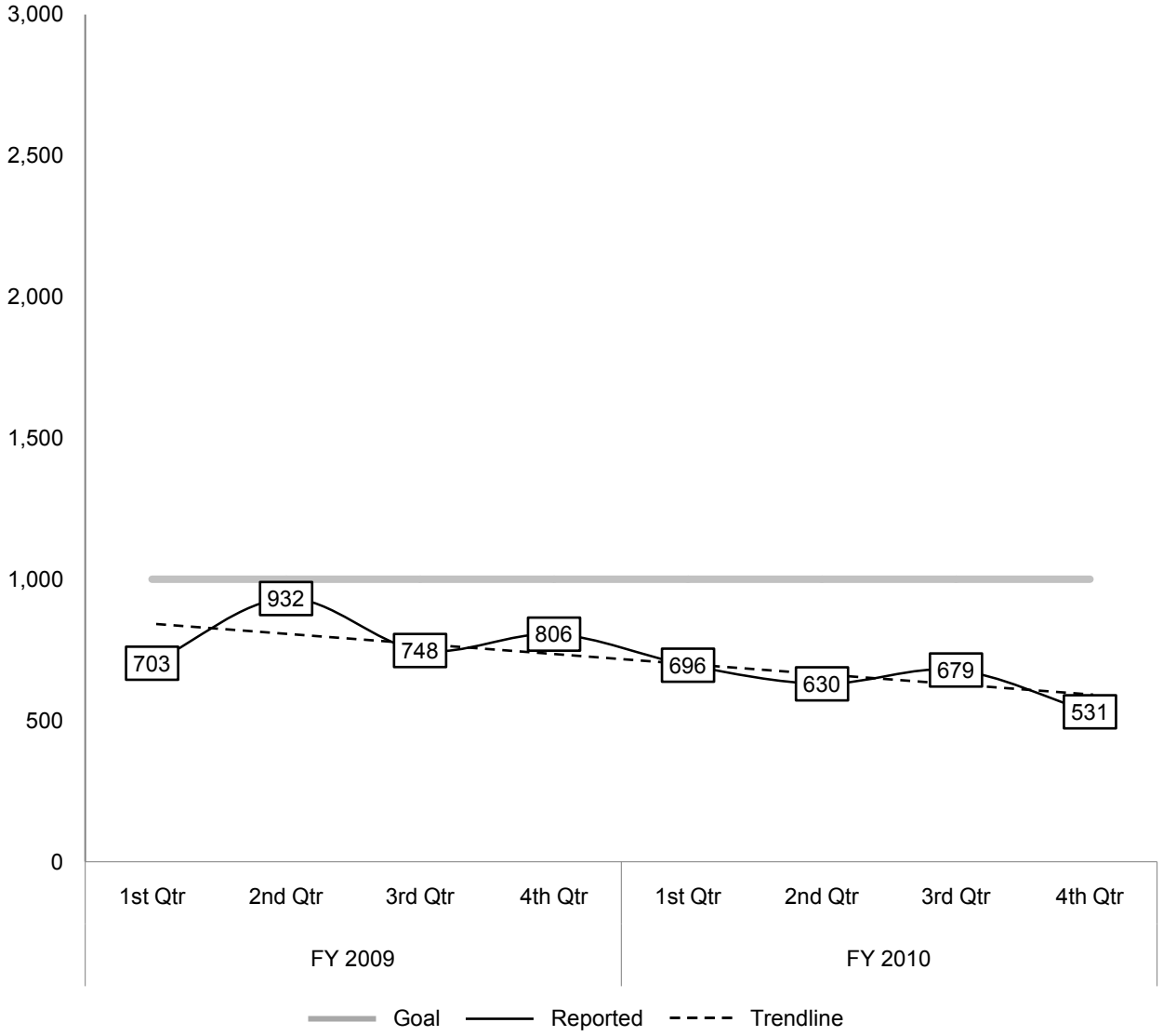
Cable cars, while also historic vehicles, have historically been Muni's most reliable vehicles. Like other rail modes, they appeared to experience a dramatic decline in performance in the 2nd Quarter of FY 2009. Unlike for Breda LRVs and the F-Line, however, the definition of a mechanical "failure" did not change for cable cars.

A5 Mean Distance Between Failure (Rail)



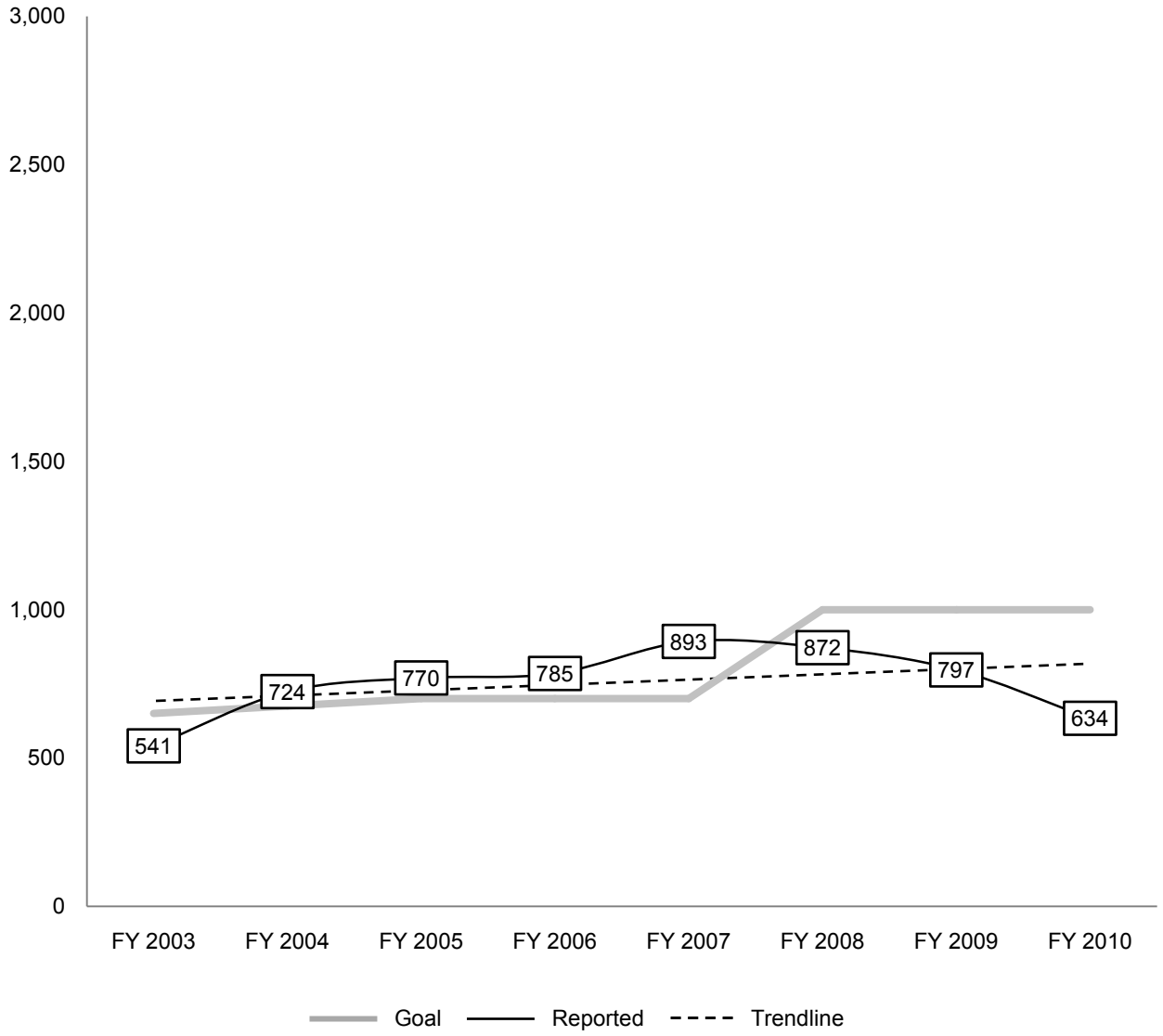
Cable Car (Historic)
Cable car reliability experienced a historic decline in FY 2009 and FY 2010.

A5 Mean Distance Between Failure (Trolley Coach)



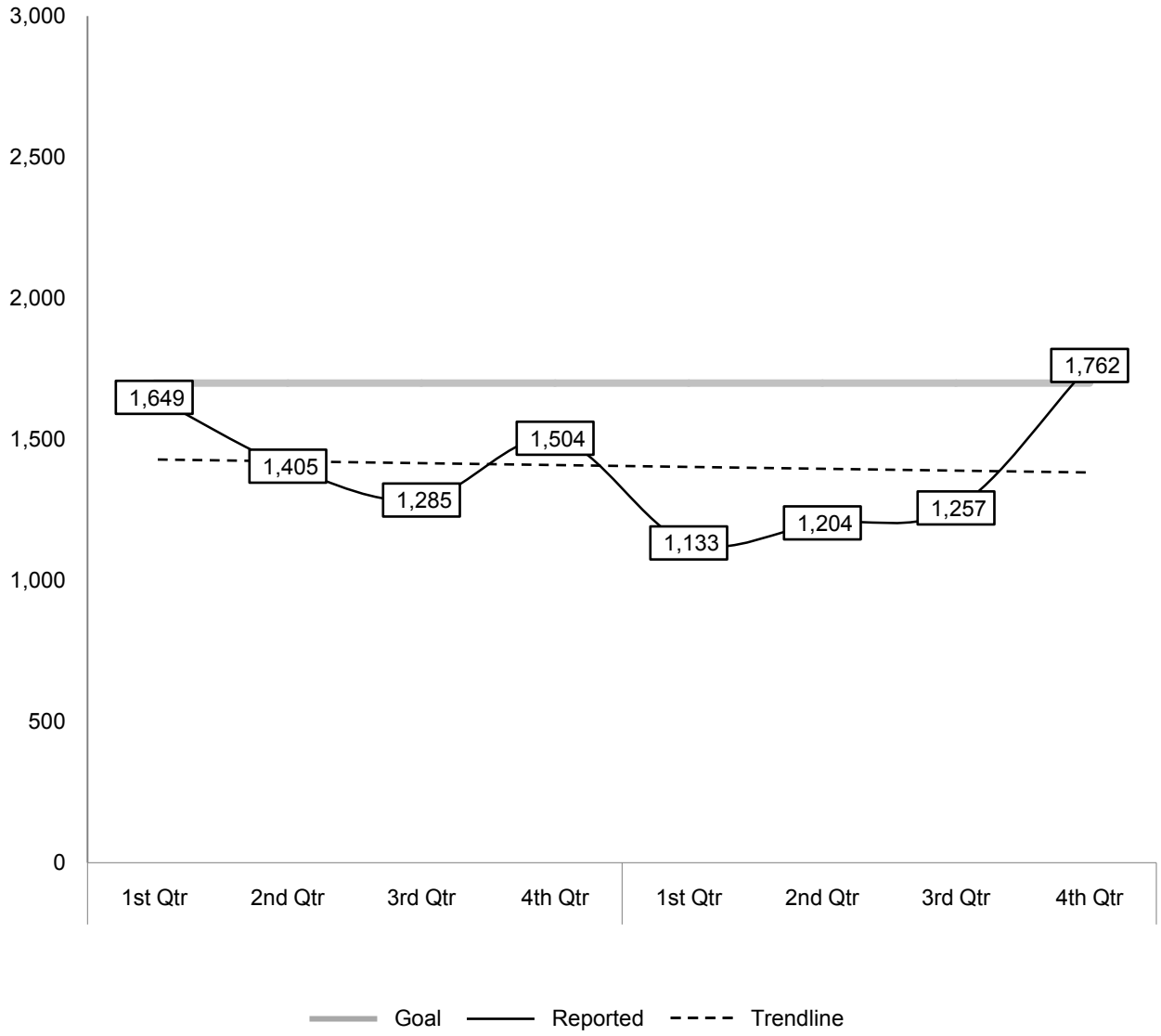
Potrero Articulated (Audit Period)
Historically, articulated (60-foot) electric trolleys operating out of the Potrero Division have been Muni's least reliable vehicles. This trend continued through the audit period.

A5 Mean Distance Between Failure (Trolley Coach)



Potrero Articulated (Historic)
Historically, articulated (60-foot) electric trolleys operating out of the Potrero Division have been Muni's least reliable vehicles. This trend continued through the audit period.

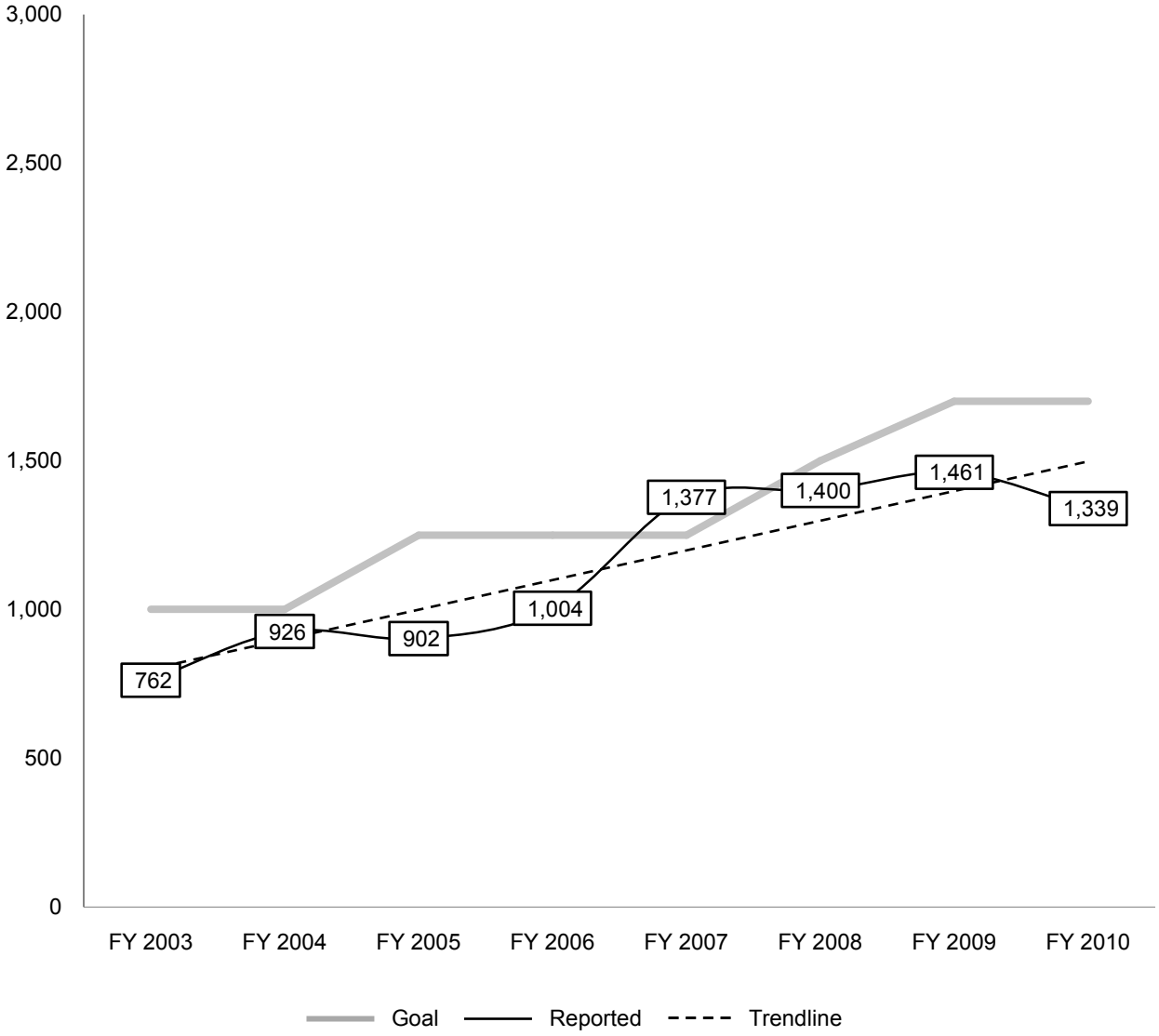
A5 Mean Distance Between Failure (Trolley Coach)



Potrero Standard (Audit Period)

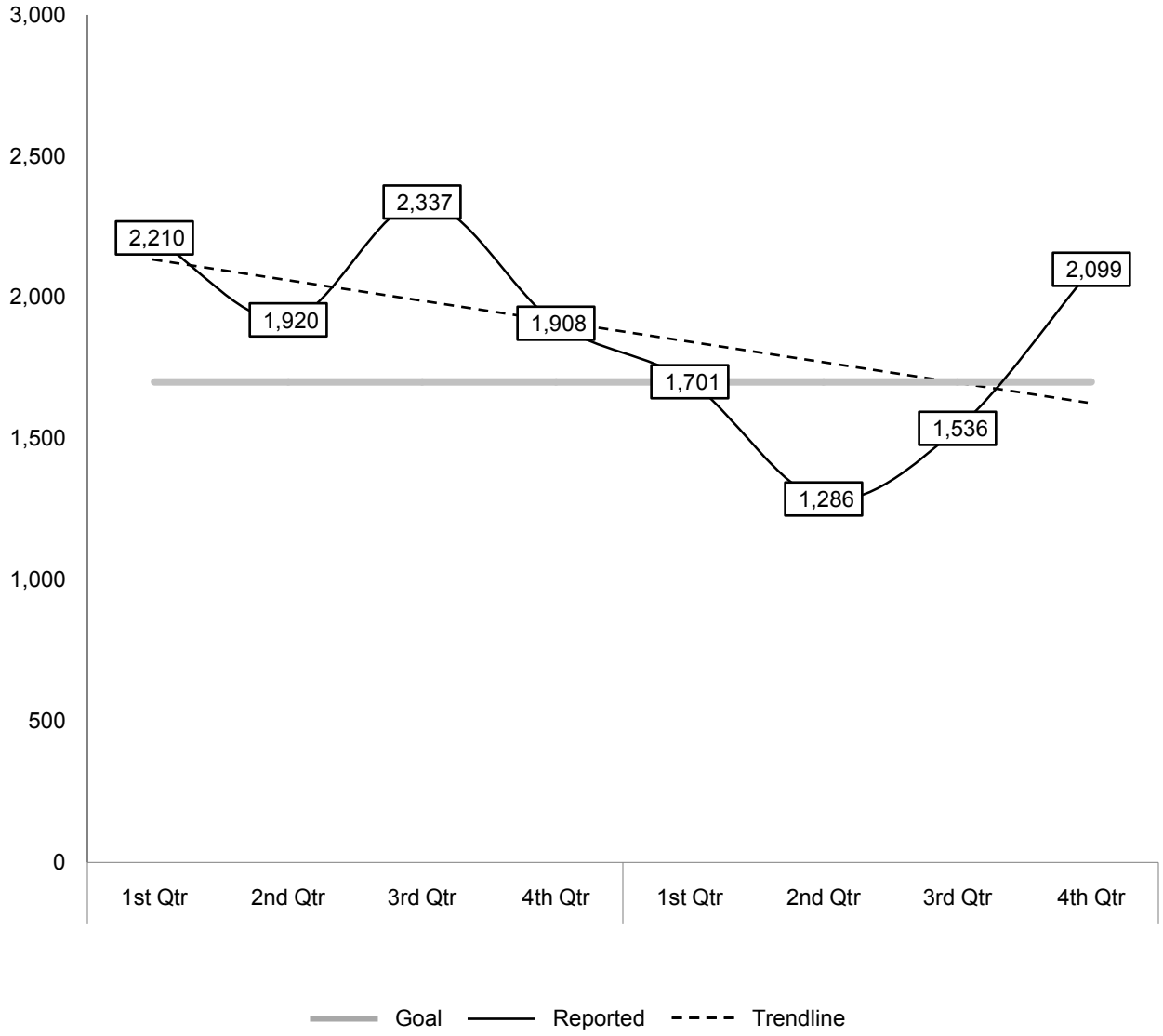
In FY 2009 and FY 2010, reliability of 40-foot trolleys operating out of the Potrero Division varied, but in the final quarter of the audit period the division goal was achieved. (Goals for this standard vary by mode and in some cases by division, due to the differences in reliability between different models of vehicles operating out of different yards.)

A5 Mean Distance Between Failure (Trolley Coach)



Potrero Standard (Historic)
In FY 2009 and FY 2010, 40-foot trolleys operating out of the Potrero Division were about as reliable as in previous years.

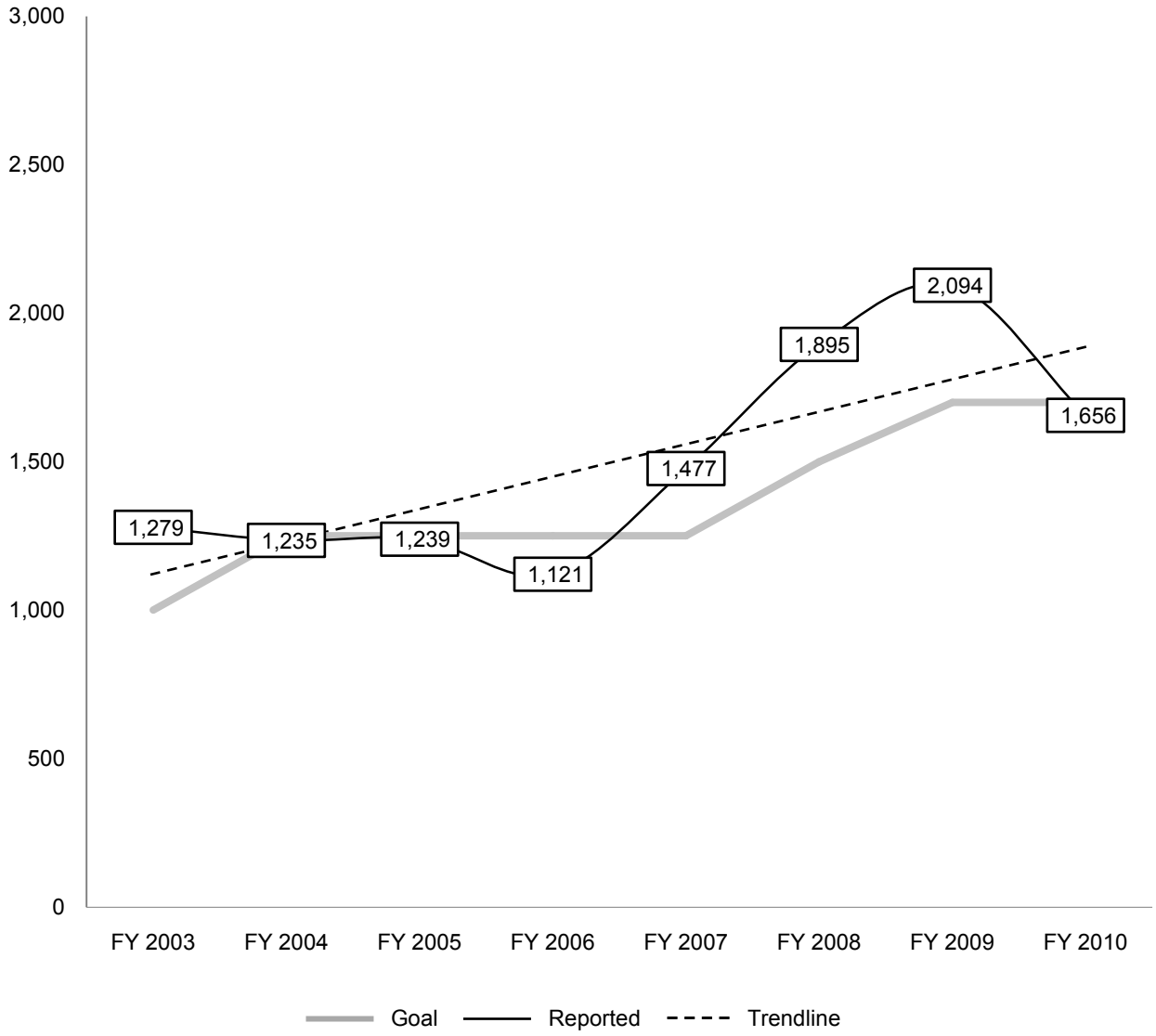
A5 Mean Distance Between Failure (Trolley Coach)



Presidio Standard (Audit Period)

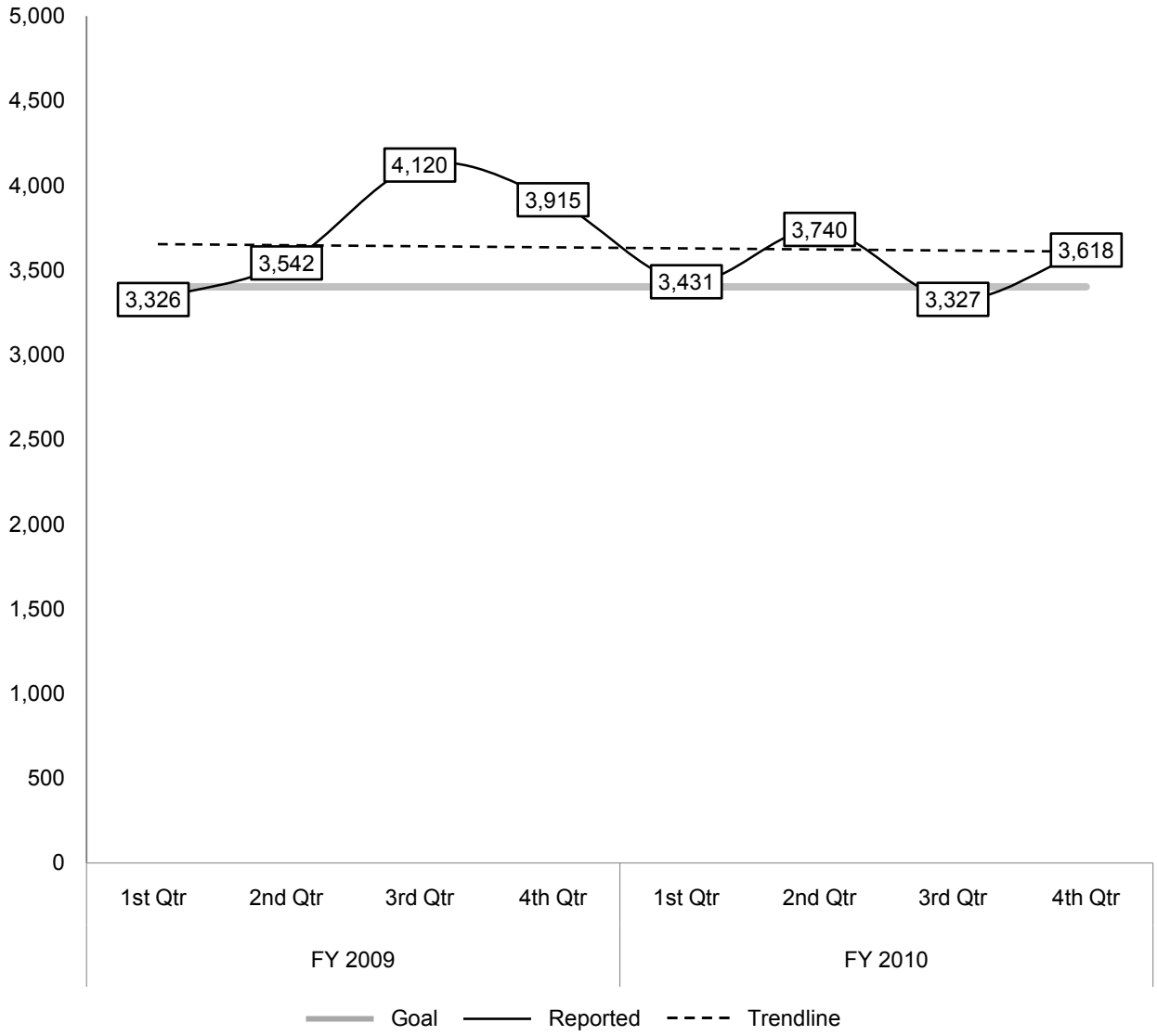
In FY 2009 and FY 2010, the reliability of 40-foot trolleys operating out of the Presidio Division fluctuated, but the division goal was achieved in six out of eight quarters.

A5 Mean Distance Between Failure (Trolley Coach)



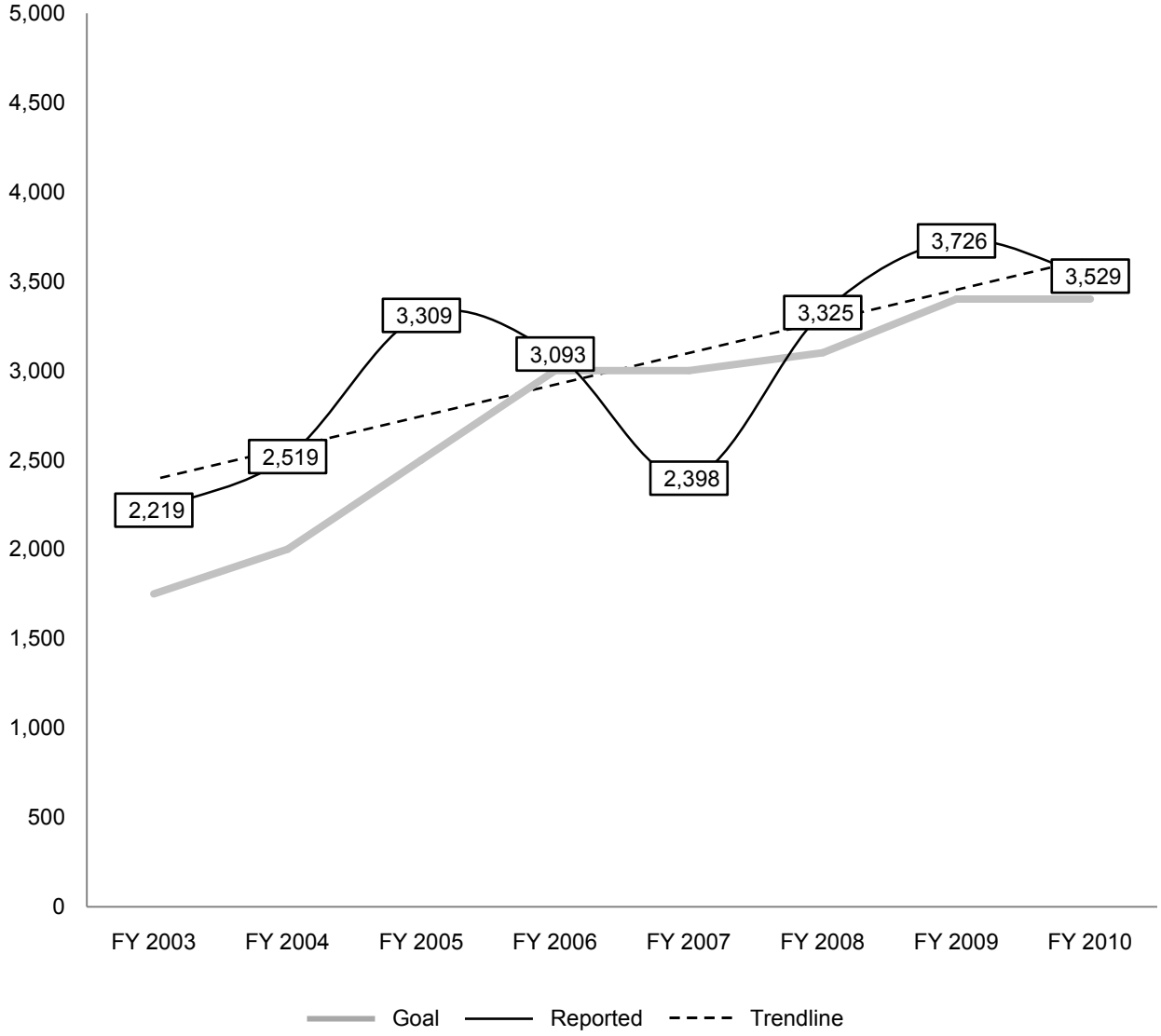
Presidio Standard (Historic)
In FY 2009, 40-foot trolleys operating out of the Presidio Division were significantly more reliable than in previous years, but reliability declined in FY 2010.

A5 Mean Distance Between Failure (Motor Coach)



Flynn Articulated (Audit Period)
60-foot diesel buses operating out of the Flynn Division generally met reliability goals in FY 2009 and FY 2010.

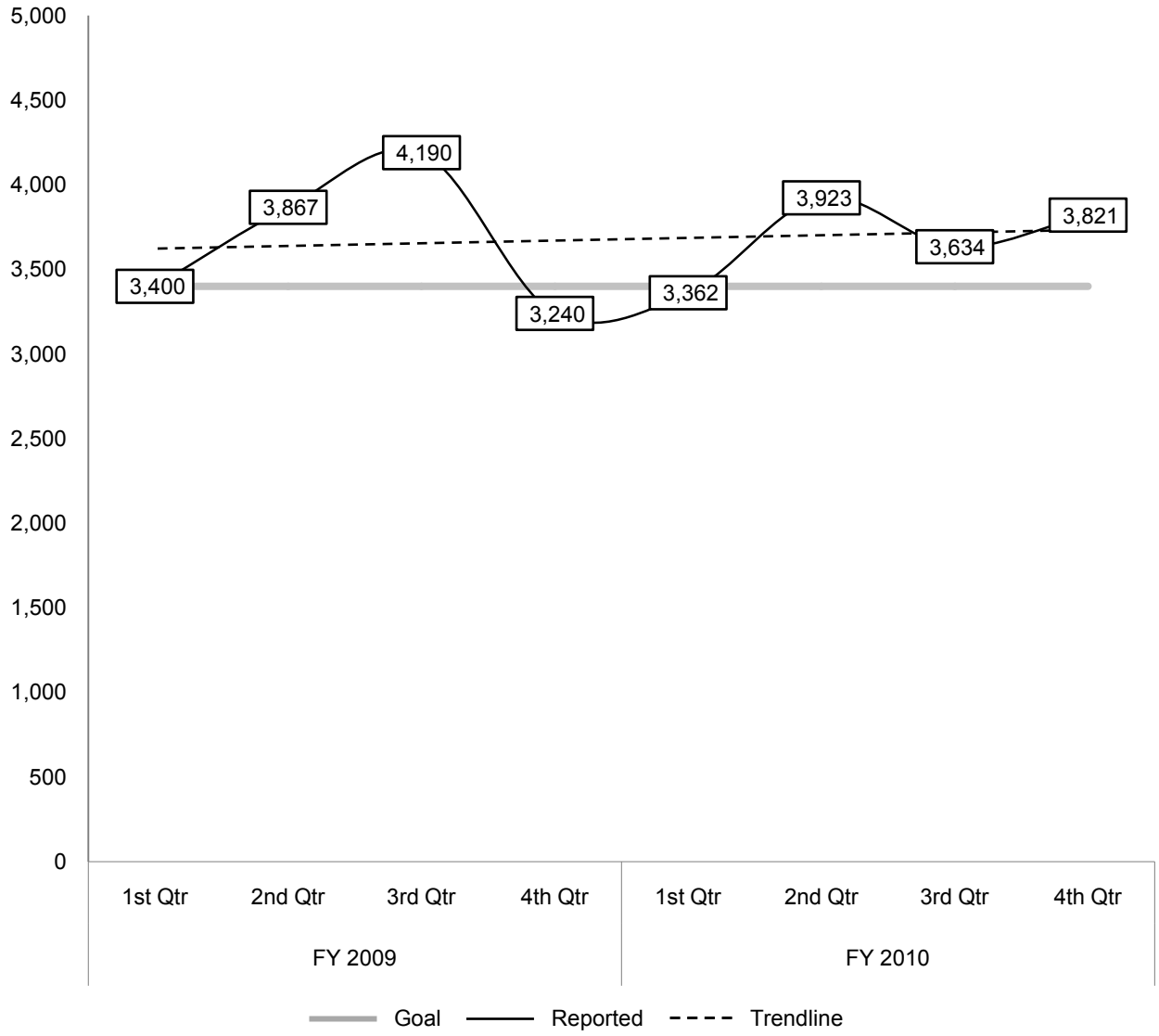
A5 Mean Distance Between Failure (Motor Coach)



Flynn Articulated (Historic)

Despite a significant decline in FY 2007, the long-term trend in reliability for 60-foot diesel buses operating out of the Flynn Division has generally been positive, a slight decline in FY 2010 notwithstanding.

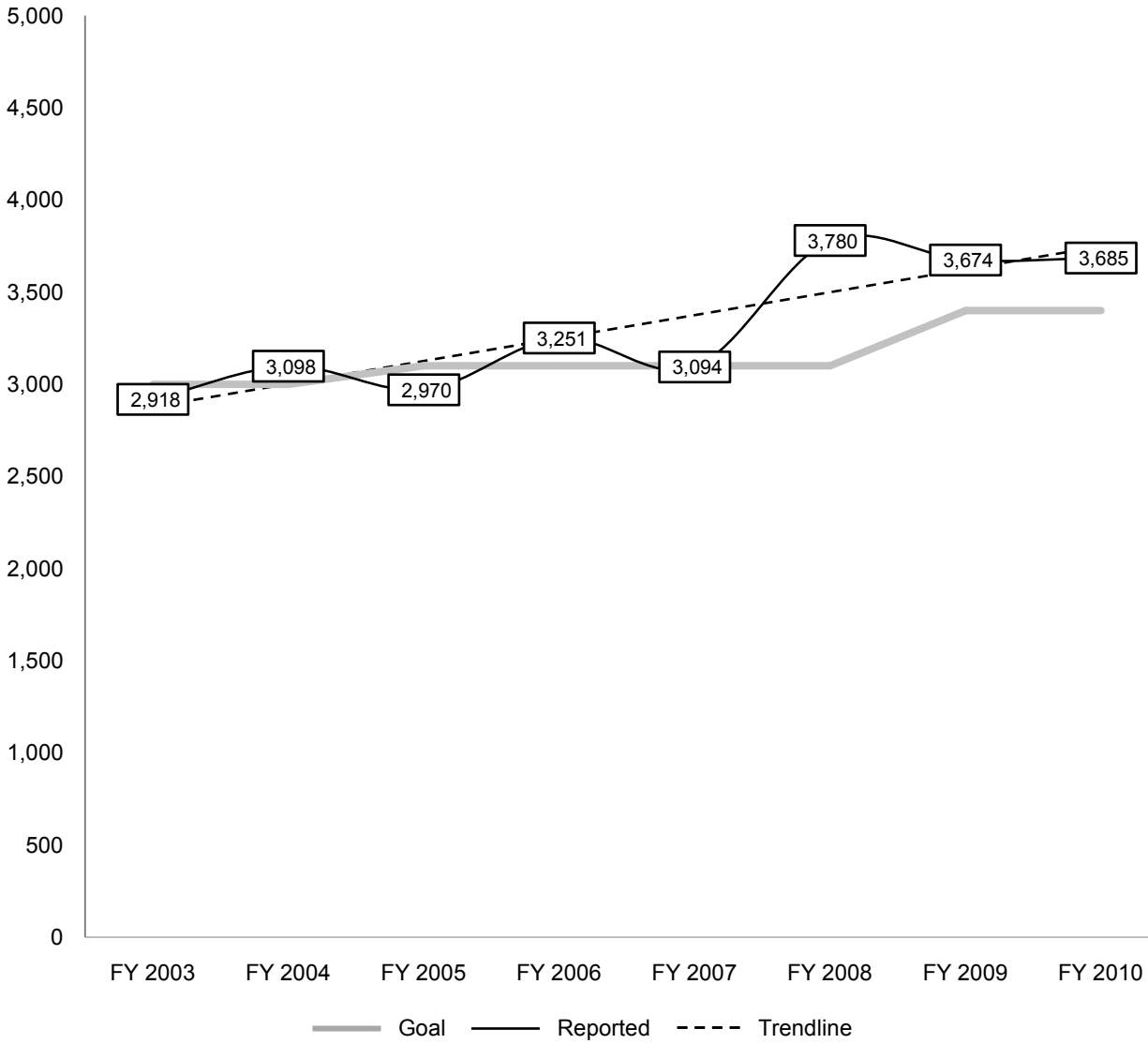
A5 Mean Distance Between Failure (Motor Coach)



Kirkland Standard (Audit Period)

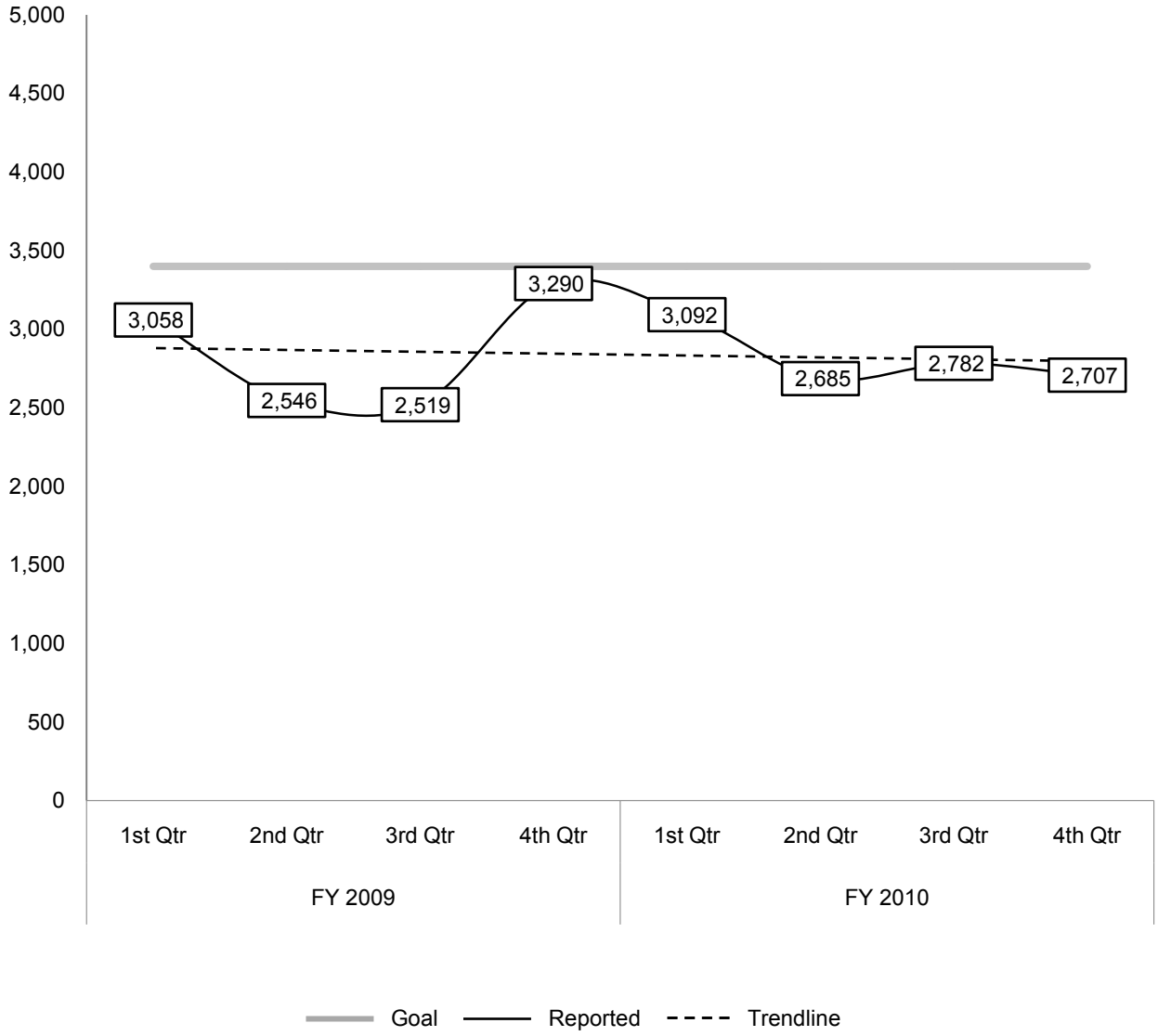
Forty-foot diesel buses operating out of the Kirkland Division generally achieved reliability goals during the audit period.

A5 Mean Distance Between Failure (Motor Coach)



Kirkland Standard (Historic)
Reliability of 40-foot diesel buses operating out of the Kirkland Division improved significantly in FY 2008 before declining slightly in FY 2009.

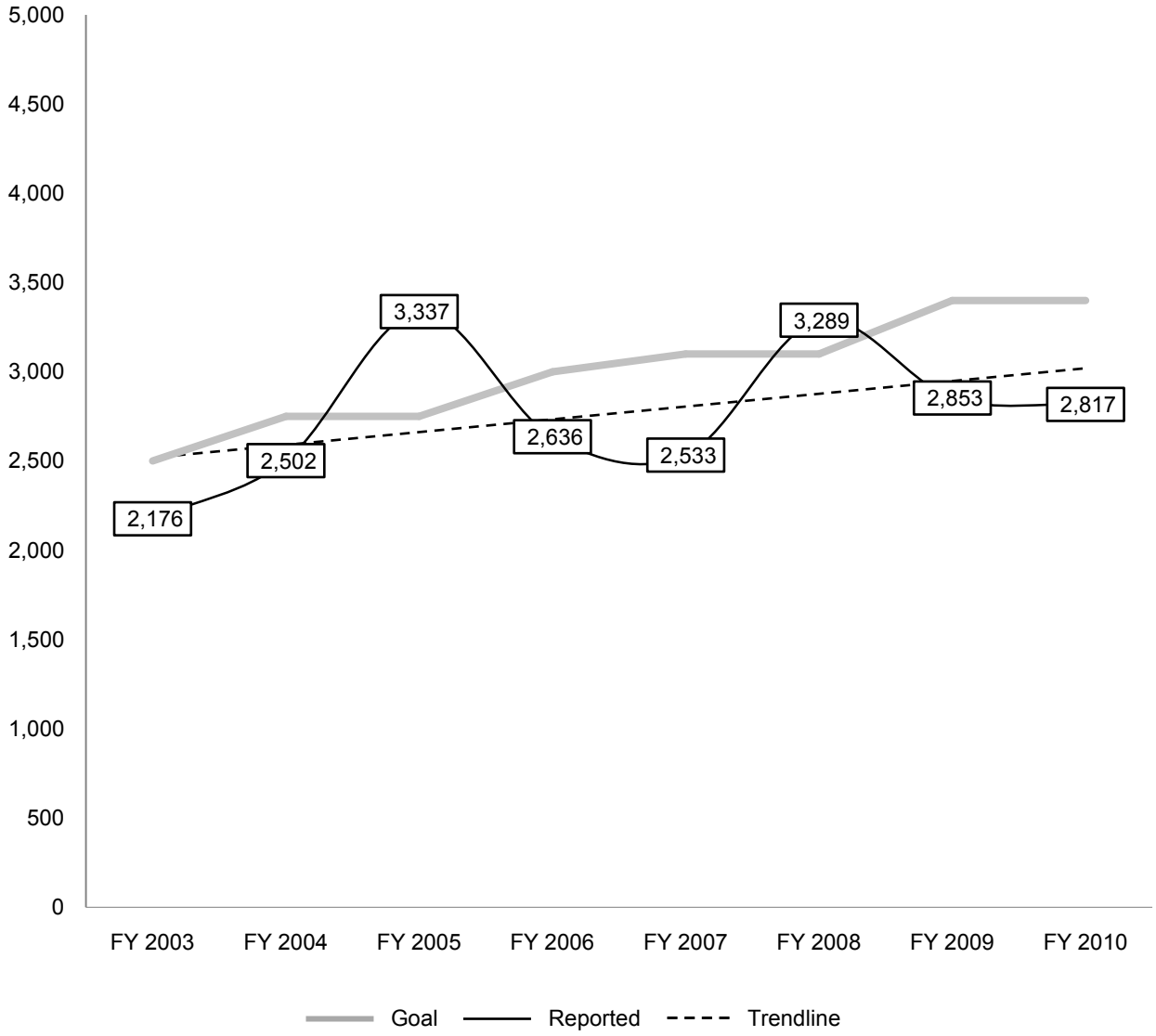
A5 Mean Distance Between Failure (Motor Coach)



Woods Standard (Audit Period)

40-foot diesel buses operating out of the Woods Division did not achieve reliability goals in any quarter during FY 2009 and FY 2010.

A5 Mean Distance Between Failure (Motor Coach)



Woods Standard (Historic)

After showing significant improvement in FY 2008, reliability of 40-foot diesel buses operating out of the Woods Division declined in FY 2009.

A5 Mean Distance Between Failure

	FY 2010		FY 2011			
Category	**4th Qtr**	***FY11 Goal***	**1st Qtr**	**2nd Qtr**	**3rd Qtr**	**4th Qtr**
Rail	**2,012**	***3,456***	**1,845**	**1,897**	**1,792**	**2,251**
Green Breda LRV	2,398	*3,500*	2,103	2,225	2,086	2,619
Green F-Line	973	*1,500*	1,020	1,154	1,274	1,451
Cable Car	1,463	*5,000*	1,595	1,310	1,138	1,563
Bus	**2,604**	***2,669***	**2,663**	**2,670**	**3,103**	**3,163**
Potrero Articulated	531	*1,000*	586	616	1,128	1,000
Potrero Standard	1,762	*1,700*	1,918	1,614	1,851	2,132
Presidio Standard	2,099	*1,700*	1,996	1,900	2,003	2,023
Flynn Articulated	3,618	*3,500*	3,505	3,578	4,226	4,383
Kirkland Standard	3,821	*3,500*	3,830	4,133	5,021	4,892
Woods Standard	2,707	*3,500*	3,037	2,947	3,195	3,389

Since the Audit Period

FY 2011 goals are included at left because the goals for this service standard have changed. Rail performance generally remained poor in FY 2011, although there were signs of improvement in the 4th Quarter.

A5 Mean Distance Between Failure

Recommendation

Report rates of "pull-ins."

In our last Quality Review, we described a pilot program in which crews of mechanics – one a specialist in repair of diesel motor coaches and the other a specialist in trolley coach repair – were stationed at locations around the City based on analysis of the most common locations for mechanical failures. The objectives of the program were twofold: to enable qualified mechanics to respond to failures more quickly, but also to increase the likelihood that a vehicle might be repaired on-site and put back into service immediately, as it is often easier to diagnose problems when a vehicle is still relatively "hot." We described this program in the context of a recommendation that Muni report rates of disabled vehicles removed from the street within 30 minutes of mechanical failures. However, Muni internally tracks a separate metric that might be more meaningful: rates of "pull-ins" or failed vehicles that must be removed from the street and taken into the shop for repair. According to staff, the pilot program helped to reduce pull-in rates from approximately 75% to 25%. However, the program has since been discontinued for a variety of reasons and pull-in rates have returned to approximately 60%. However it is achieved, a reduction in pull-in rates is an important goal for Muni mechanical personnel and we believe that public reporting of pull-in rates might, along with continued reporting of Mean Distance Between Failures, help to illustrate or "shine a light on" the problems faced by Muni maintenance staff. (Note that we are not recommending a goal at this time, only that rates be publicly reported).

Additionally, we are again recommending that a maintenance controller be hired at the last remaining division without one, Potrero. As we noted in the last Quality Review, maintenance controllers report to the individual responsible for reporting MDBF, helping to ensure agency-wide consistency in data collection and reporting.

A6 Vacancy Rate for Service Critical Positions

Goal *< 5%*

FY09-10 Performance 

Goal Not Achieved

Trend 

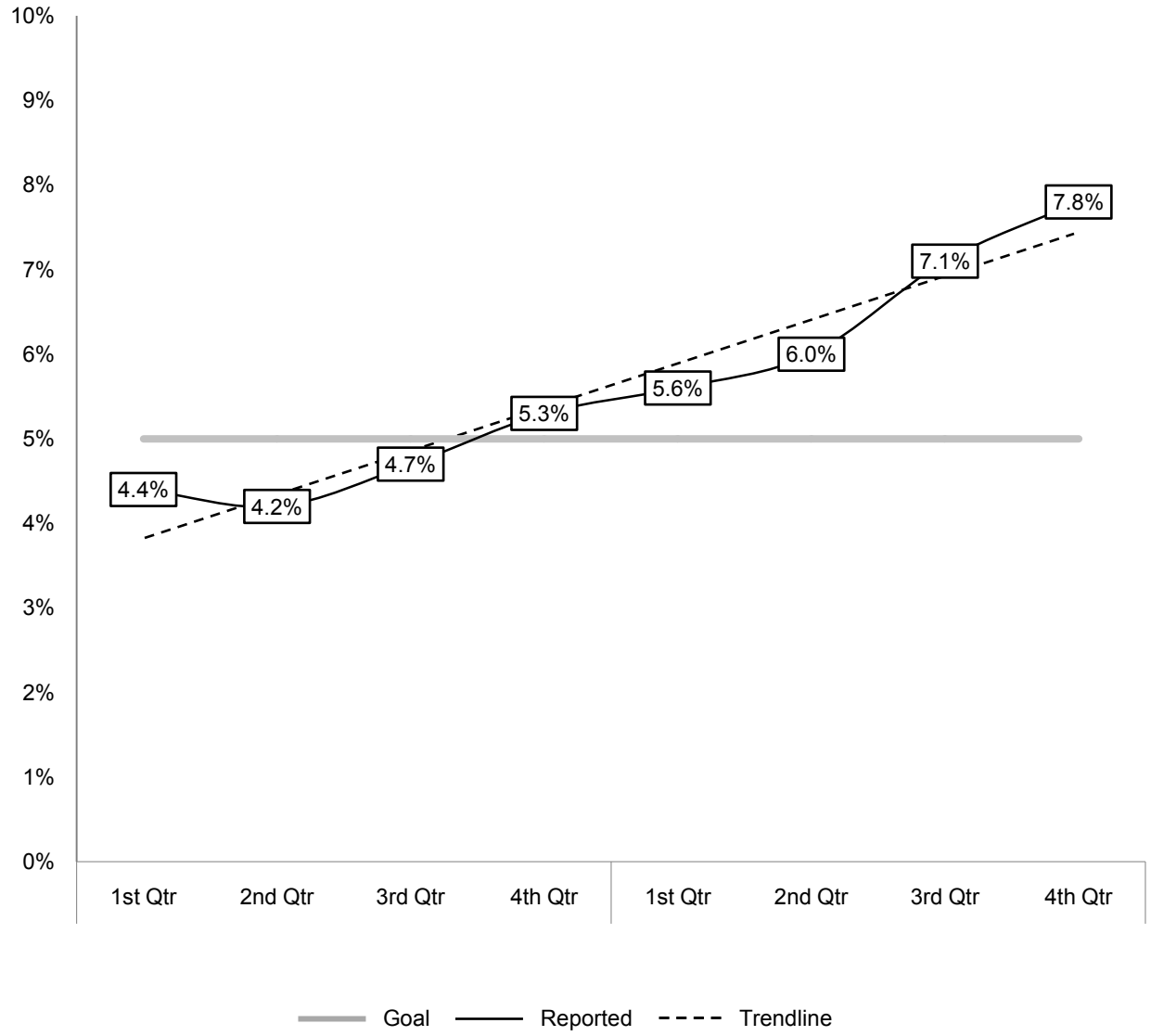
Negative

Purpose Monthly measurement of net vacancies against budgeted positions for Operations personnel.

Definition Monthly measurement of net vacancies against budgeted positions for Operations personnel. Calculated based on vacancies remaining once promotions and new hires have been deducted from retirees or resignations.

Method Monthly measurement of net vacancies against budgeted positions for Operations personnel. Calculated based on vacancies remaining once promotions and new hires have been deducted from retirees or resignations.

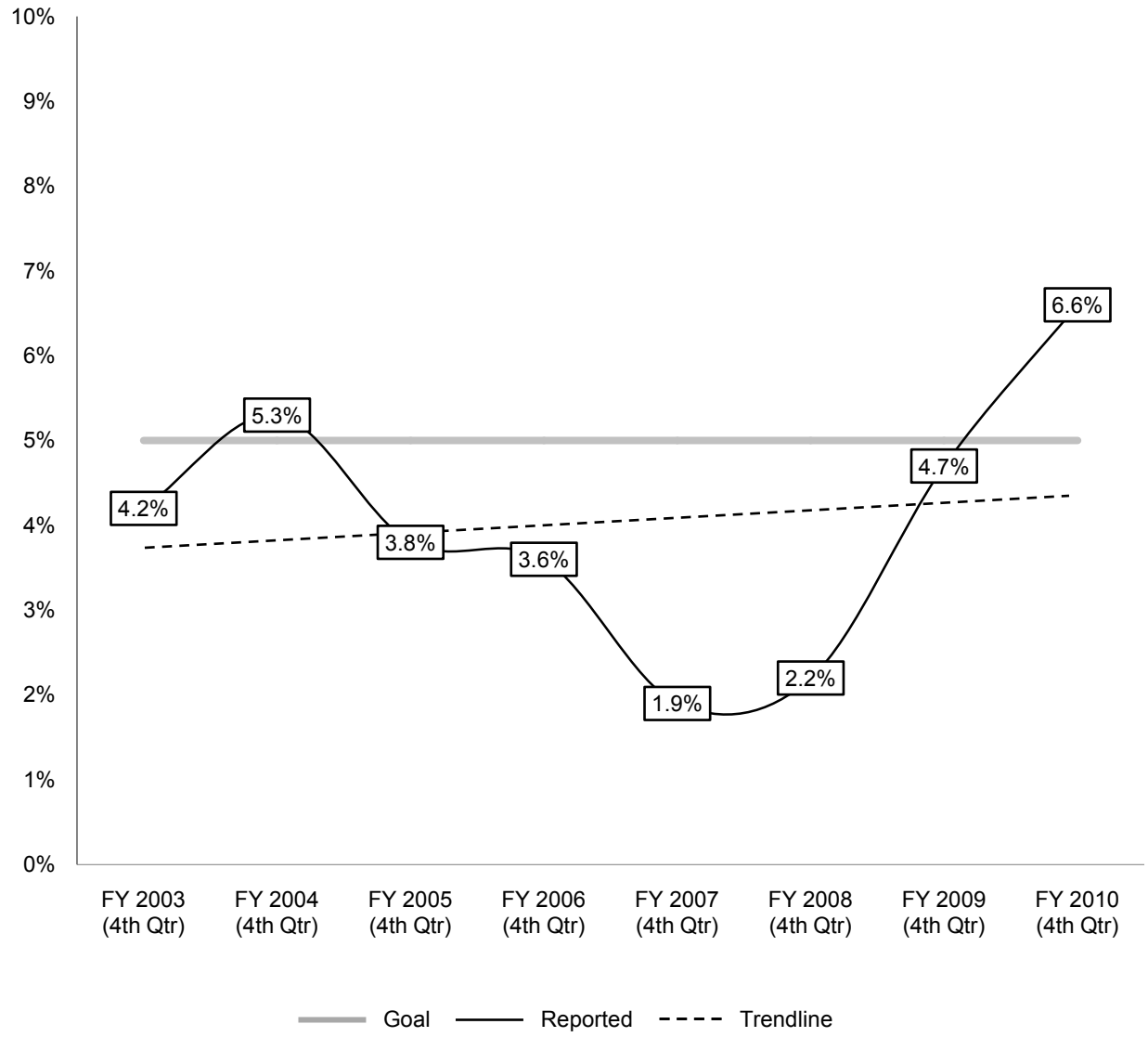
A6 Vacancy Rate for Service Critical Positions



Operations (Audit Period)

Over the audit period, Muni's vacancy rate in Operations (including operators, maintenance, and crafts staff) increased. However, the figures include transit operators, who historically and over the course of the audit period had official (including those unavailable for driving duty) vacancy rates of 0%. Starting in FY 2011 and acting upon a previous Quality Review recommendation, Muni is no longer reporting vacancy rates for or including operators. (Note that unlike most service standards, the goal for Vacancy Rate for Service Critical Positions is *below* a target level – 5% – rather than above it.)

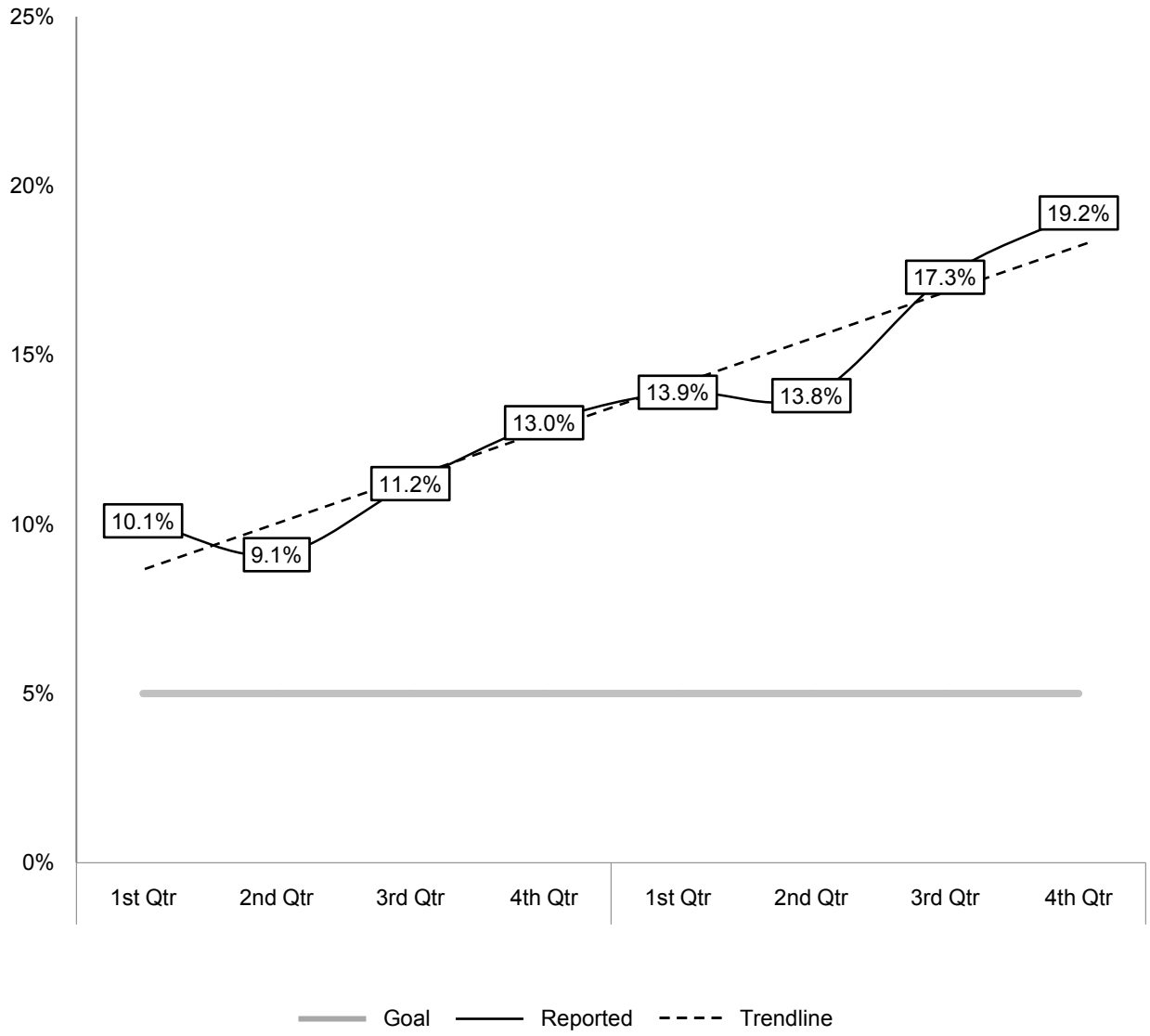
A6 Vacancy Rate for Service Critical Positions



Operations (Historic)

In the 4th Quarters of FY 2009 and FY 2010, Muni's vacancy rate for Operations was well above the rate in 4th Quarters of previous years.

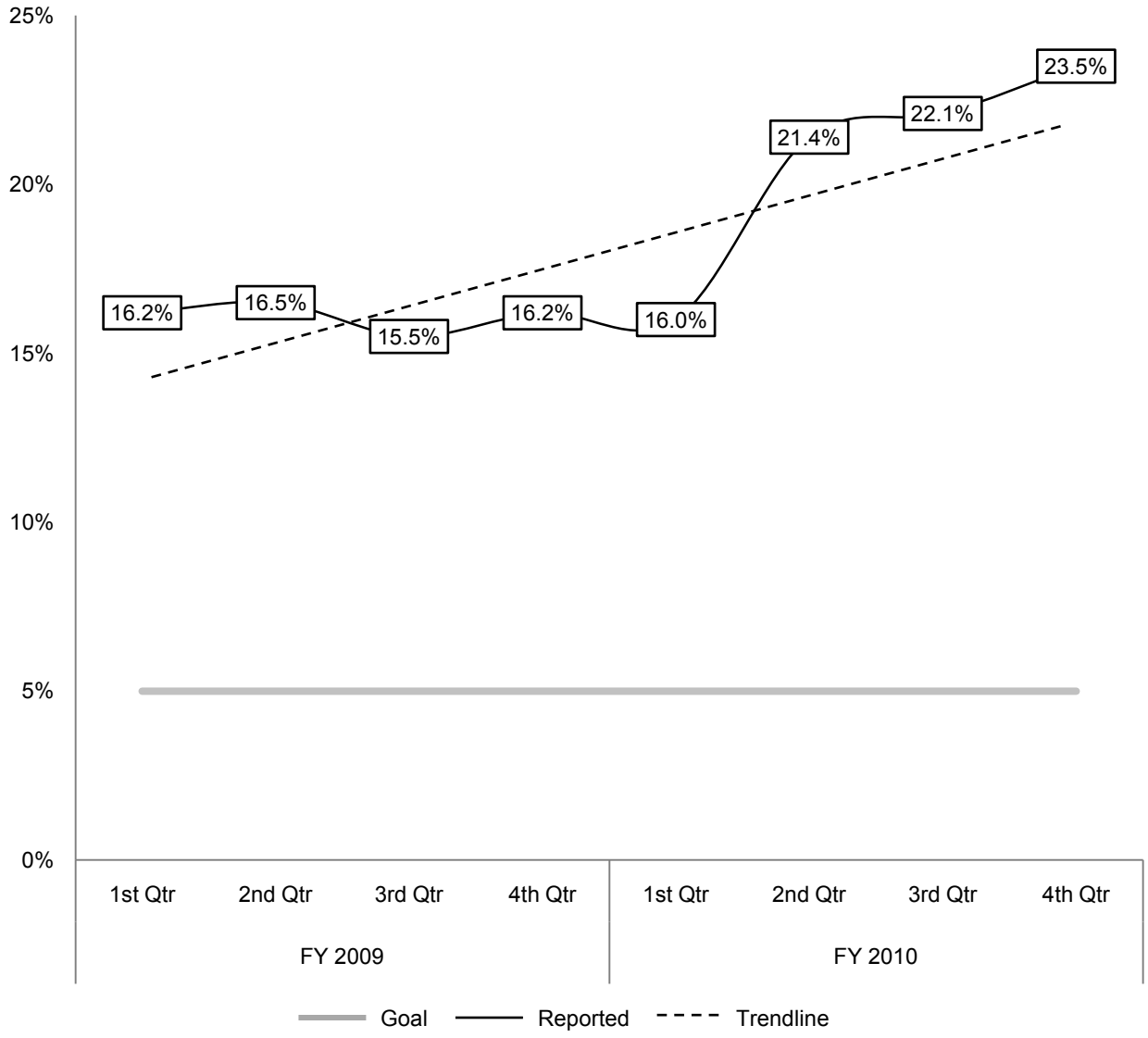
A6 Vacancy Rate for Service Critical Positions



Crafts
(Audit Period)

Muni's vacancy rate for crafts staff steadily increased over the audit period. By the end of FY 2010, the vacancy rate for crafts positions was almost 20%.

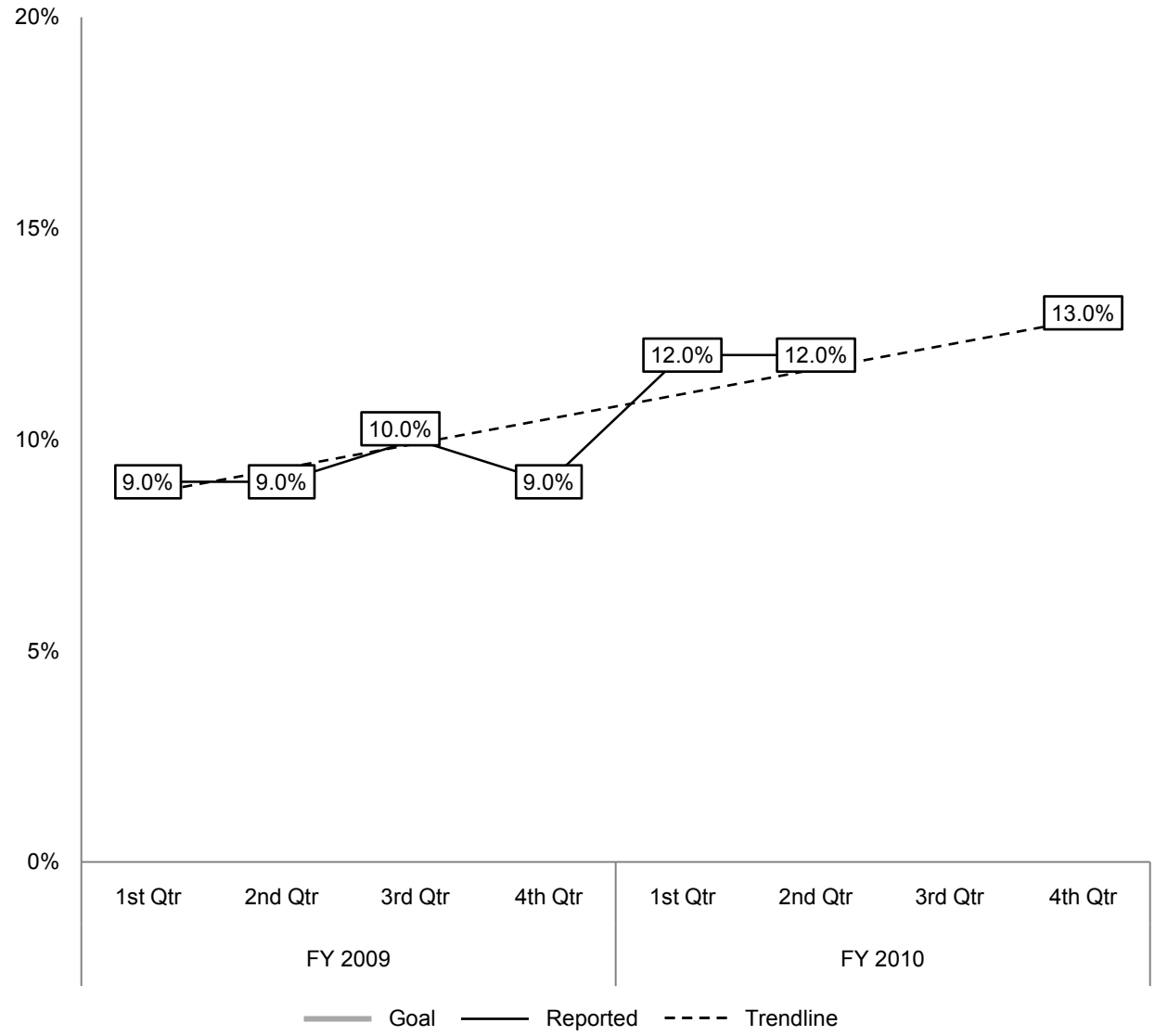
A6 Vacancy Rate for Service Critical Positions



Maintenance (Audit Period)

Similarly, Muni's vacancy rate for maintenance staff increased steadily throughout the audit period, peaking at 23.5% in the last quarter of FY 2010.

A6 Vacancy Rate for Service Critical Positions



Effective Systemwide % of Extra Board Operators (Audit Period)

Beginning in FY 2009, Muni began reporting "extra board" operators available for duty as a percentage of scheduled operators. In FY 2010, this figure increased substantially from 9% to 13%. (Data were not reported for the third quarter of FY 2010).

A6 Vacancy Rate for Service Critical Positions

	FY 2010		FY 2011			
Category	**4th Qtr**	***FY11 Goal***	**1st Qtr**	**2nd Qtr**	**3rd Qtr**	**4th Qtr**
Maintenance	23.5%	*15%*	18.7%	19.4%	19.8%	19.1%
Crafts	19.2%	*15%*	15.9%	16.1%	16.3%	17.1%

Since the Audit Period

In FY 2011, Muni stopped reporting transit operator vacancy rates and adjusted the vacancy rate goal for all other service critical positions goal to 15% (See Service Standard A5). Since the audit period, there has been modest improvement in the maintenance and crafts vacancy rates.

A6 Vacancy Rate for Service Critical Positions

Recommendation

Restore the goal of no more than a 5% vacancy rate for crafts and maintenance positions.

While the change was made outside of the period covered by this Quality Review, we feel compelled to comment on the goals for this measure, adopted for Fiscal Years 2011 and 2012, of no more than a 15% (in 2011) and 10% (in 2012) vacancy rate for positions in the Crafts and Maintenance divisions. Previously, the goal had been 5 percent, however, the standard was changed to "reflect anticipated hiring constraints in the two fiscal years to come," as the change was described in the SFMTA's FY 2011 Service Standards and Milestones document. While such a change is certainly understandable given the SFMTA's budgetary constraints and may fairly be described as a mere acknowledgment of reality, we do not believe that goals should necessarily be realigned to make them more achievable. Indeed, Muni has never achieved its Proposition E-mandated on-time performance goal of 85% – yet the goal was enshrined in the City Charter precisely because it represents the level at which the proposition's authors felt Muni service might be considered reasonably reliable. If the goal had been redefined to, say, 70%, then Muni would have "achieved" its on-time performance target in recent years – and yet few would describe 70% schedule adherence as "reliable." By the same token, a 15% vacancy rate in essential positions, while perhaps necessary, should never be construed as somehow acceptable.

A13 Productivity

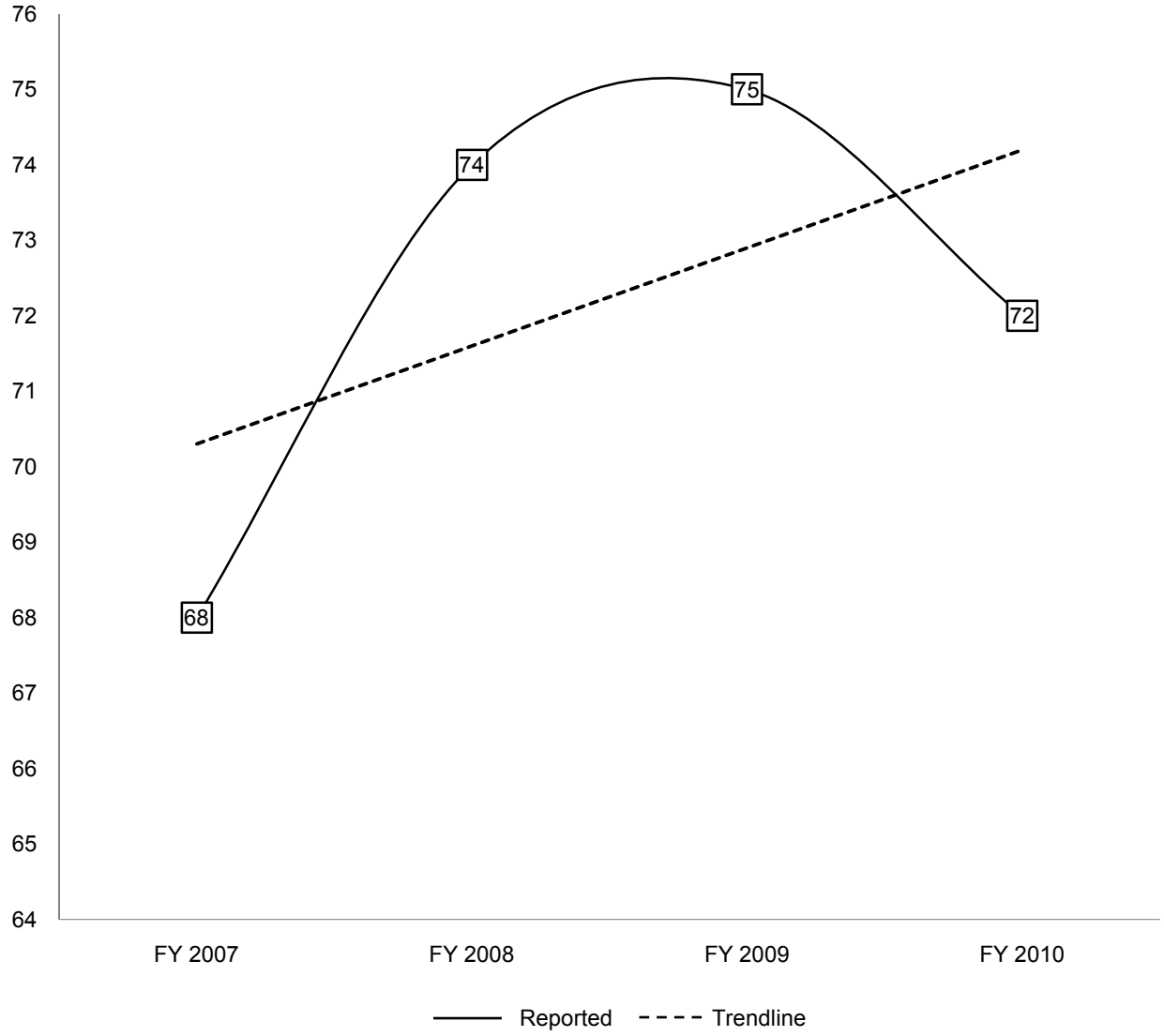
Goal	*N/A*	**FY09-10 Performance**	*No Goal For This Standard*	**Trend**	 *Negative*

Purpose To measure the productivity of Muni services.

Definition Average number of boardings per service hour.

Method Passenger boardings are divided by service hours delivered.

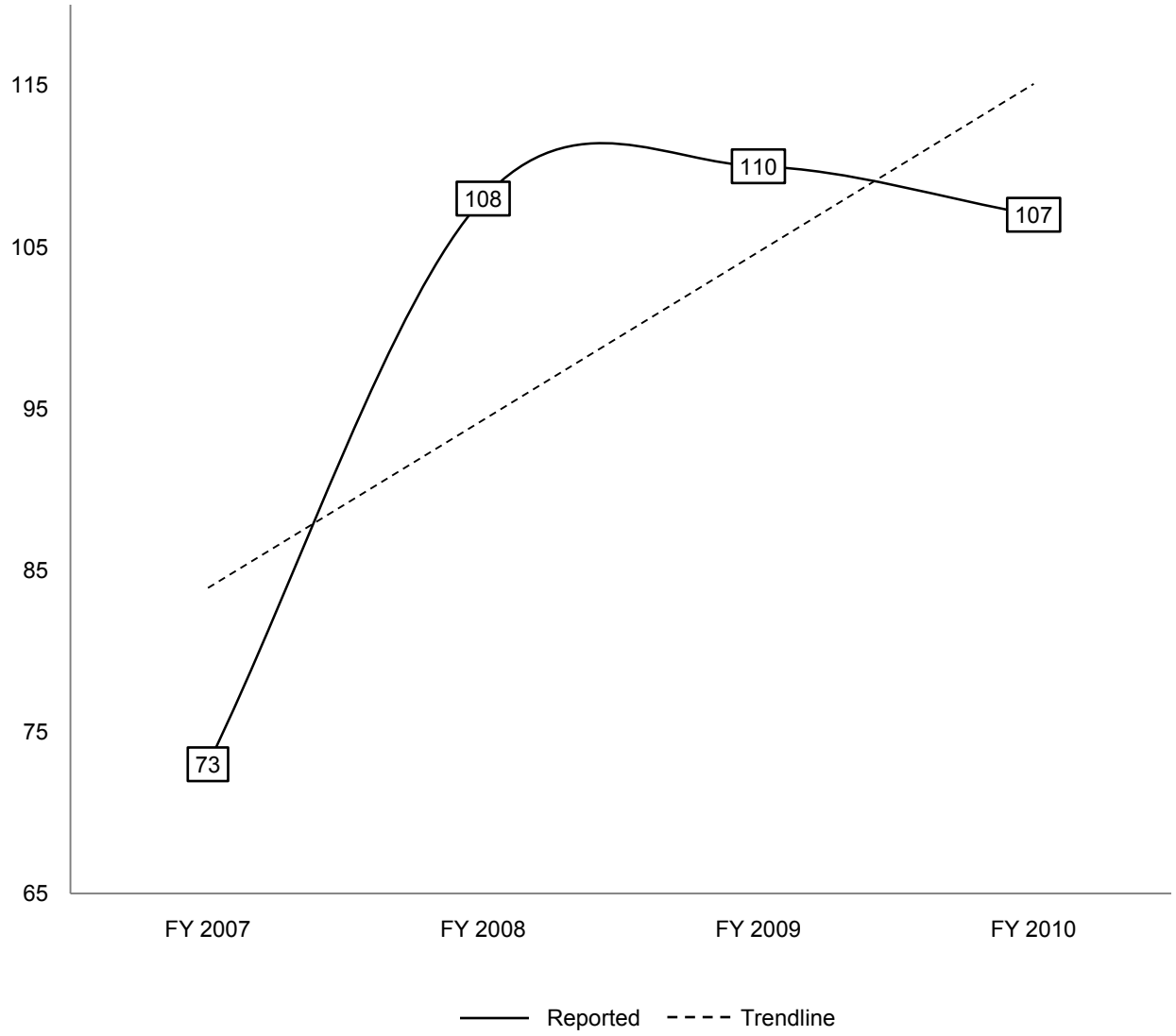
A13 Productivity



Systemwide Average Number of Boardings per Service Hour (Audit Period & Historic)

Boardings per revenue service hour is an industry standard measure, reported by transit operators to the Federal Transit Administration, which Muni began reporting in Service Standards reports in FY 2007. FY 2010 figures have not yet been audited by the FTA. Despite a slight decrease in FY 2010, Muni productivity remained above FY 2007 levels.

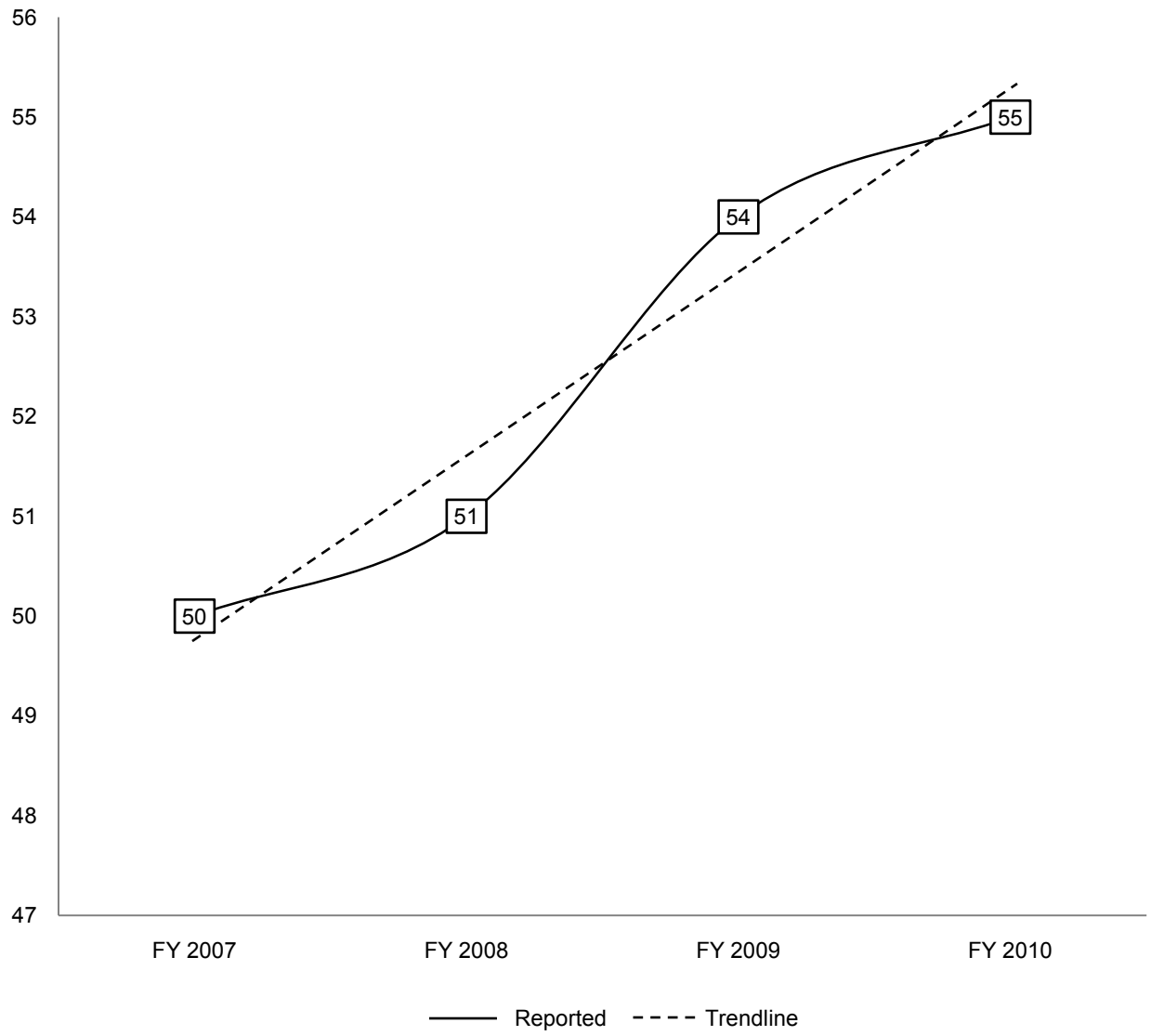
A13 Productivity



Light Rail Average Number of Boardings per Service Hour (Audit Period & Historic)

The methodology for reporting light rail hours was changed in FY 2008 to a more meaningful standard (individual “car hours" rather than “train hours"), making comparison with years prior to 2008 difficult. However, over the last three years light rail productivity trends have mimicked systemwide trends.

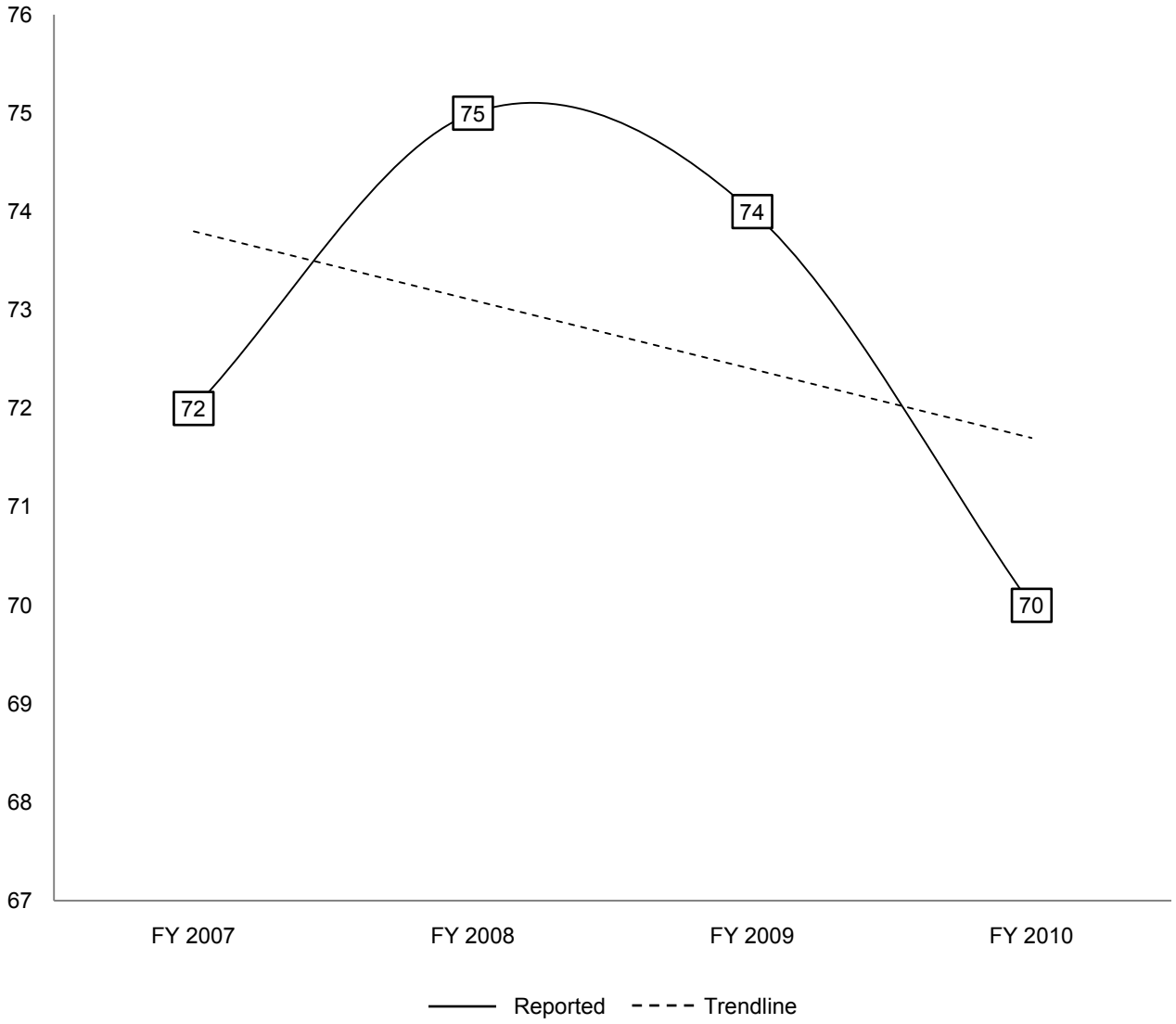
A13 Productivity



Cable Car Average Number of Boardings per Service Hour (Audit Period & Historic)

Unlike other modes, cable cars showed a slight increase in productivity in FY 2010.

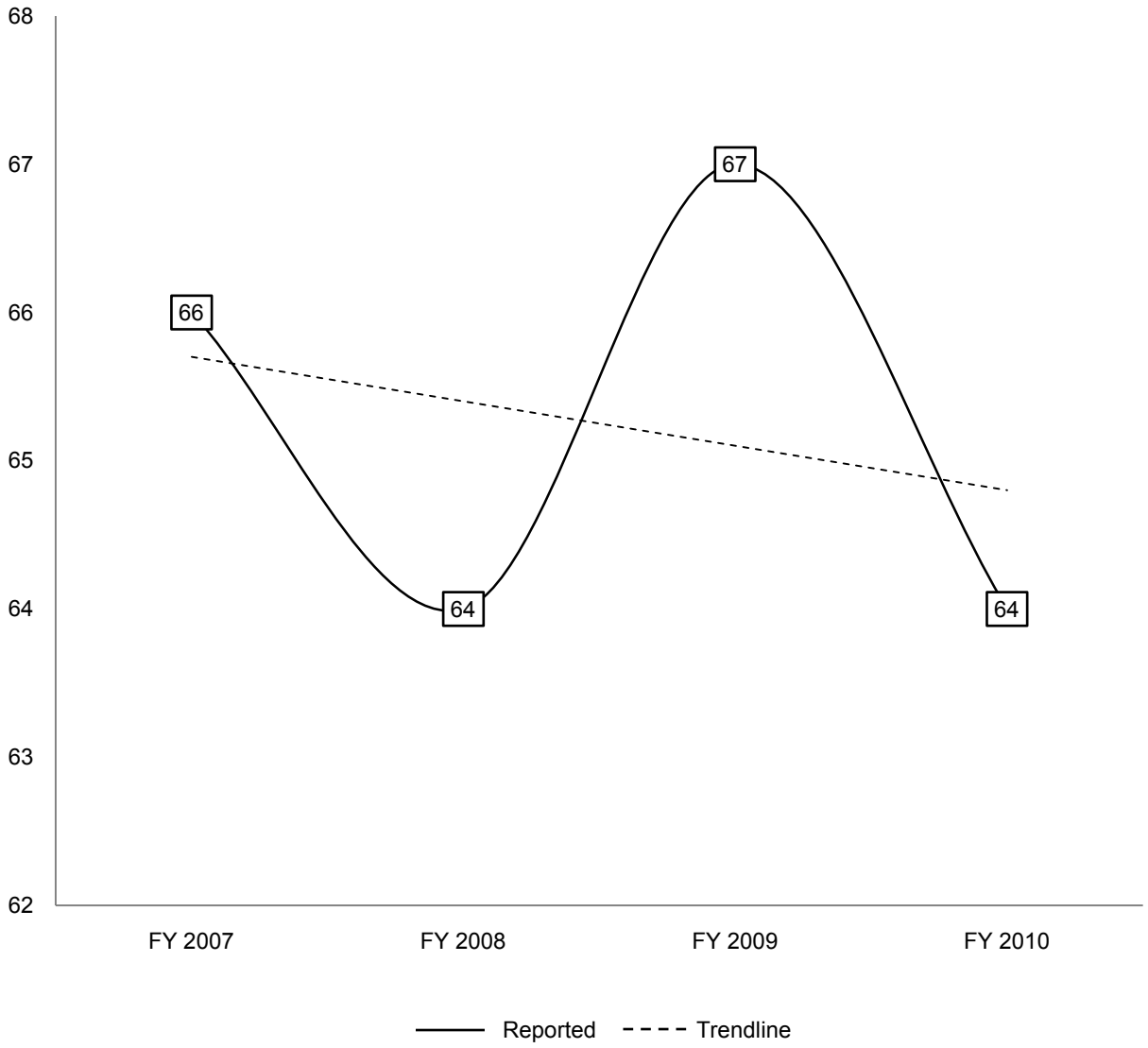
A13 Productivity



Trolley Coach Average Number of Boardings per Service Hour (Audit Period & Historic)

Unlike other modes, trolley coach productivity decreased steadily between FY 2008 and FY 2010.

A13 Productivity



Motor Coach Average Number of Boardings per Service Hour (Audit Period & Historic)

Productivity on diesel bus lines increased in FY 2009 before returning to FY 2008 productivity levels in FY 2010.

A17 Sustainability

Goal	*N/A*	**FY09-10 Performance**	*No Goal For This Standard*	**Trend**	*N/A (New Standard)*

Purpose To measure the City's progress toward promotion of travel by more sustainable modes. (*Note: For FY 2011, a goal was set of 68%, one percentage point higher than the figure for FY 2009.)*

Definition Percent of trips conducted by bicyclists, pedestrians, and transit users.

Method Results are collected a minimum of every other year in conjunction with the City Survey.

A17 Sustainability

% of Trips by More Sustainable Modes

This is a new service standard, added in FY 2009. The figures below are for commute trips only, and are taken from the most recent City Survey conducted by the Office of the Controller in 2009. Recipients were asked "What is your primary mode of transportation to work?" While only about four out of ten respondents regularly commute by Muni, nine out of ten respondents indicated that they rode Muni at least once a month.

As of January 1, 2009						
Transit	Drive Alone	Walk	Carpool	Work at Home	Bicycle	Other
41%	33%	9%	7%	5%	4%	1%

B Financial Stability

Service standards in this category are measures of Muni revenue and costs, including revenue relative to ridership (B3 Farebox Performance) and costs relative to both service provided (B4 Cost Efficiency) and ridership (B5 Cost Effectiveness). During the audit period, ridership reached a high point in Fiscal Year 2009 before declining in FY 2010. Fare revenue, however, increased substantially in FY 2010 due to a large fare increase (from $1.50 to $2 for cash fares, among other changes). Operator costs per hour and per boarding have continued to increase.

Following are brief summaries of Muni's FY 2009-2010 performance for each of the Financial Stability service standards, including arrows indicating general trends (up for "positive," facing right for "neutral," and turned down for "negative") in terms of both historic patterns and performance over the course of the audit period. More detailed information about each service standard can be found on the following pages, including historic trends and data from recent quarters since the end of the audit period. Recommendations and issues identified in the data collection and reporting processes can be found at the end of the sections for some service standards.

Note that data in this category may be revised following annual Federal Transit Administration (FTA) audits. FY 2010 data shown here are audited data from FY 2011 reports.

B1 Ridership

In FY 2009, Muni ridership reached its highest level since 2001, before falling to 216 million boardings in FY 2010. Only cable cars gained ridership during the audit period.

B2 Revenue

Despite decreased ridership in FY 2010, revenue increased precipitously due to increases in fares.

B3 Farebox Performance

While costs per hour increased, revenue increased at a faster rate. As a result, over the audit period Muni experienced an increase in farebox performance.

B4 Cost per Hour

Muni's operating cost per hour of revenue service increased by 3% in FY 2009 and by an additional 6% in FY 2010.

B5 Cost per Boarding

In FY 2009 and 2010, Muni's operating costs grew at a faster pace than ridership, resulting in an increase in costs per boarding across modes.

B1 Ridership

Goal *+ 1.5% / yr.*

FY09-10 Performance 

Near Goal

Trend 

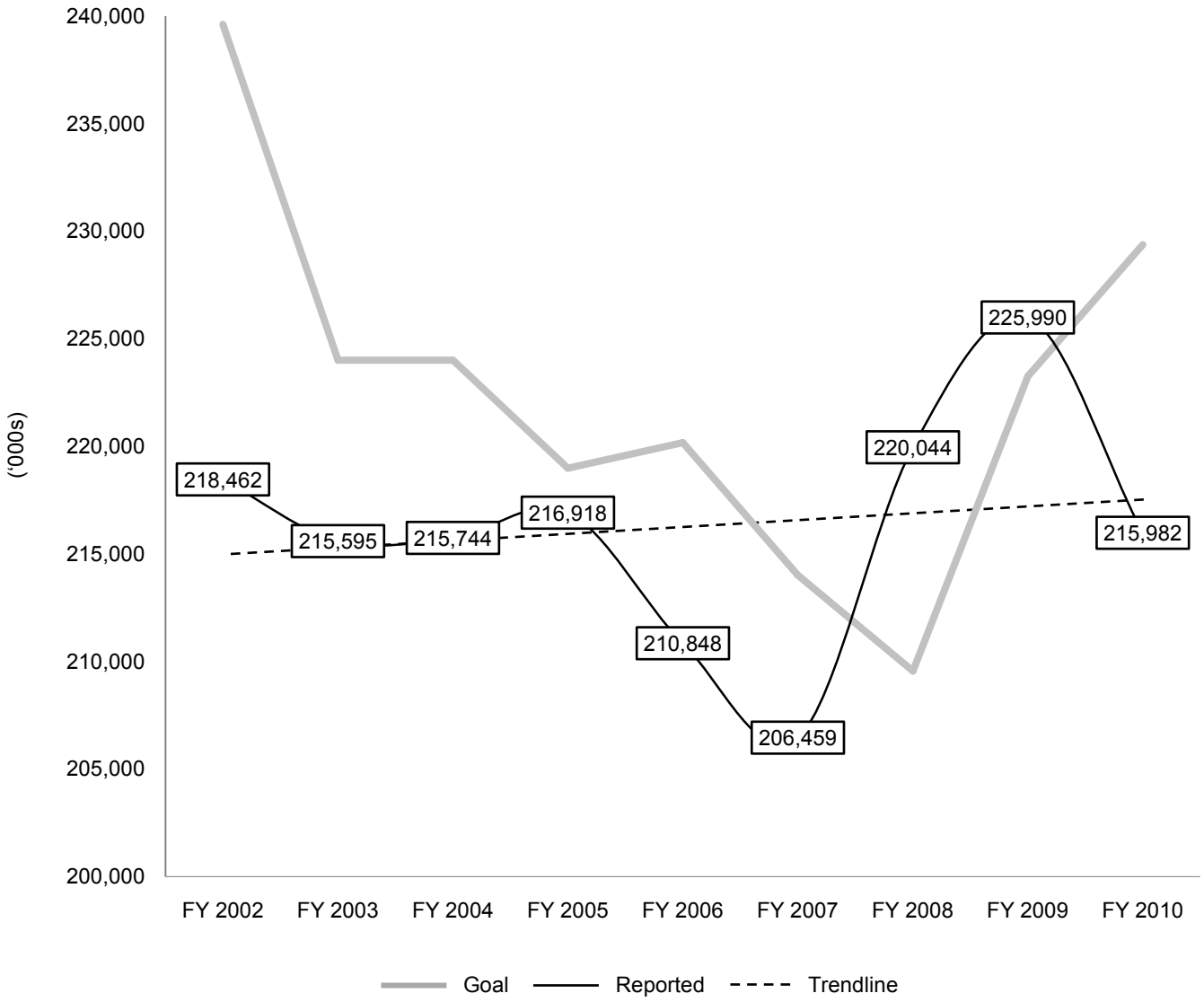
Neutral

Purpose To measure ridership.

Definition Annual measurement of the number of passengers who board the Municipal Railway's revenue vehicles. A passenger is counted each time they board a vehicle, even though they may be on the same journey from origin to destination.

Method Ride checkers count passenger boardings.

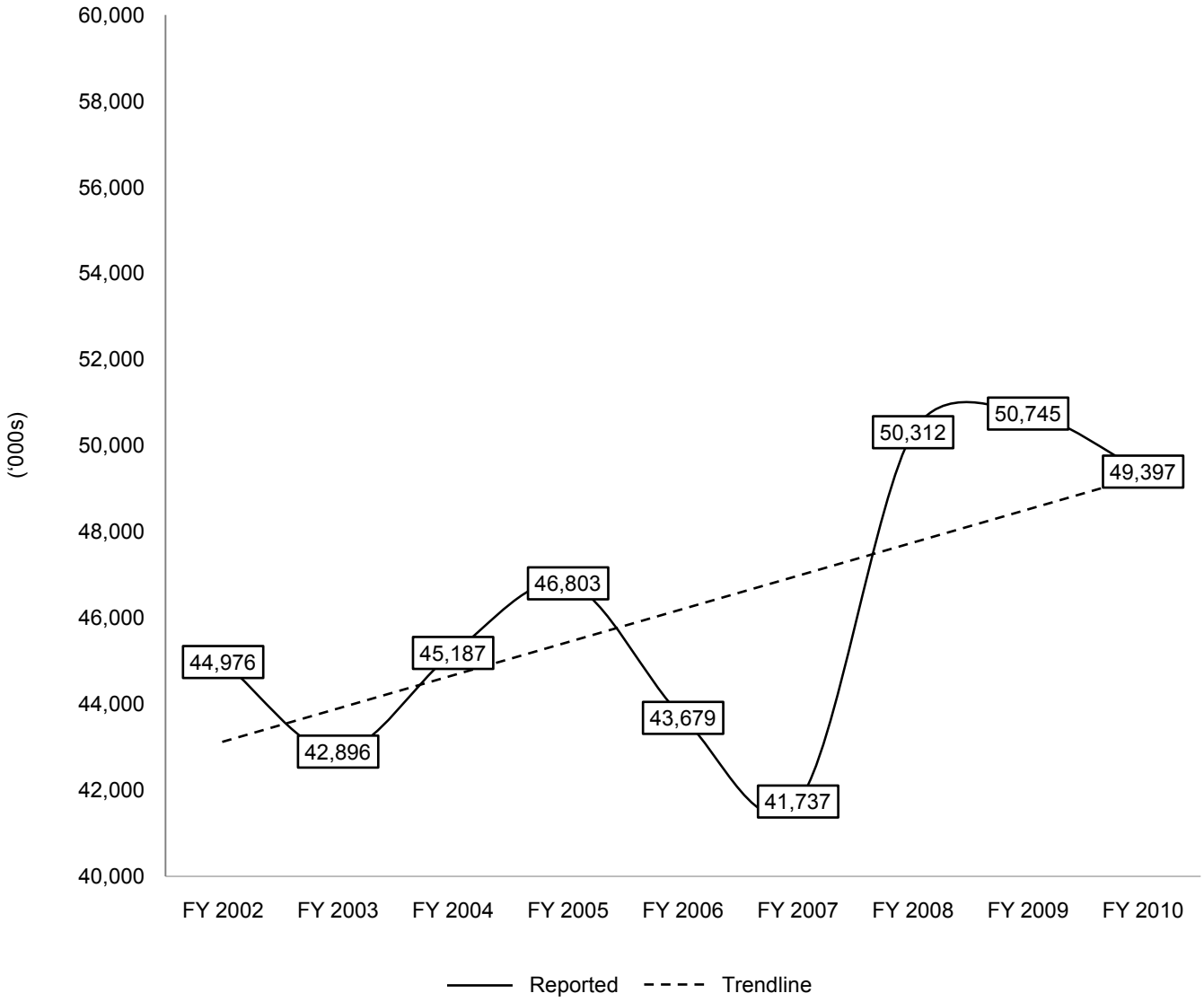
B1 Ridership



Systemwide (Audit Period & Historic)

After declining in FY 2006 and FY 2007, Muni ridership increased in FY 2008 and FY 2009 to its highest level since performance reporting began in FY 2001. In FY 2010, however, ridership returned to 2002-2005 levels. (Note: The goal for systemwide ridership has changed over time. It became a 1.5% annual increase starting in FY 2005.)

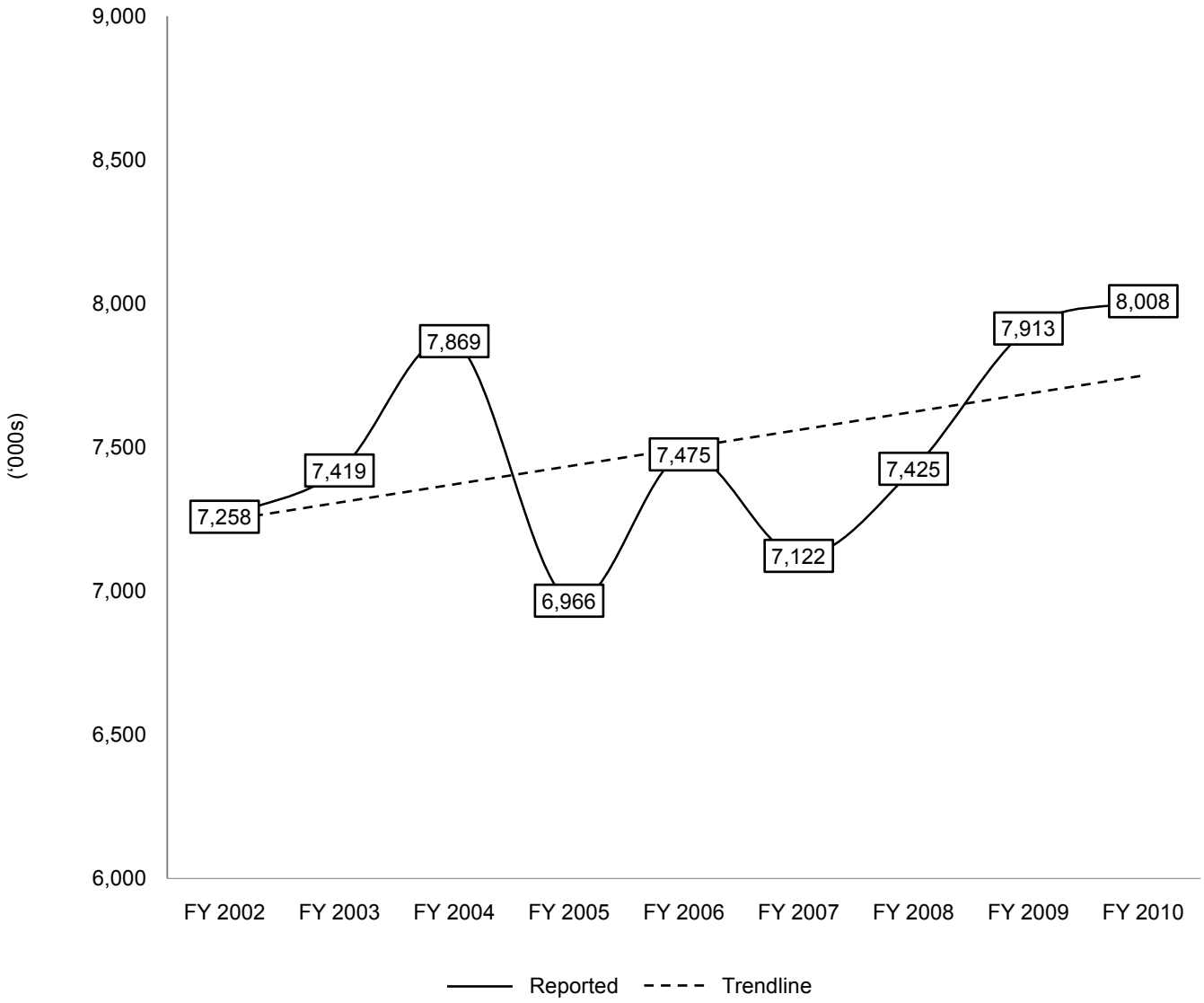
B1 Ridership



Light Rail (Audit Period & Historic)

Muni Metro ridership increased in FY 2008 largely due to the introduction of a new line, the T Third Street. Since then, ridership has remained relatively constant.

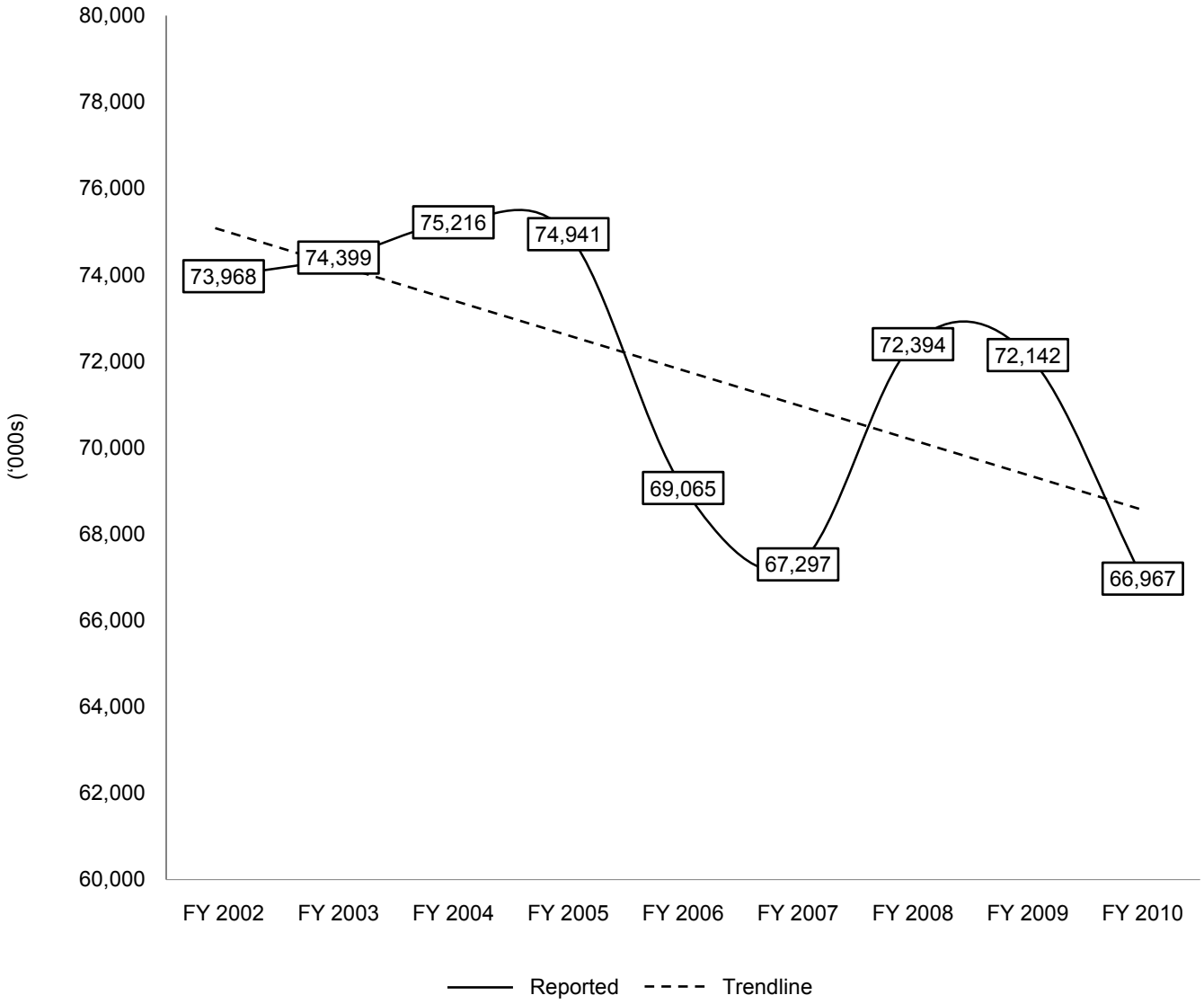
B1 Ridership



Cable Car (Audit Period & Historic)

Bucking the systemwide trend, cable car ridership increased slightly in FY 2010.

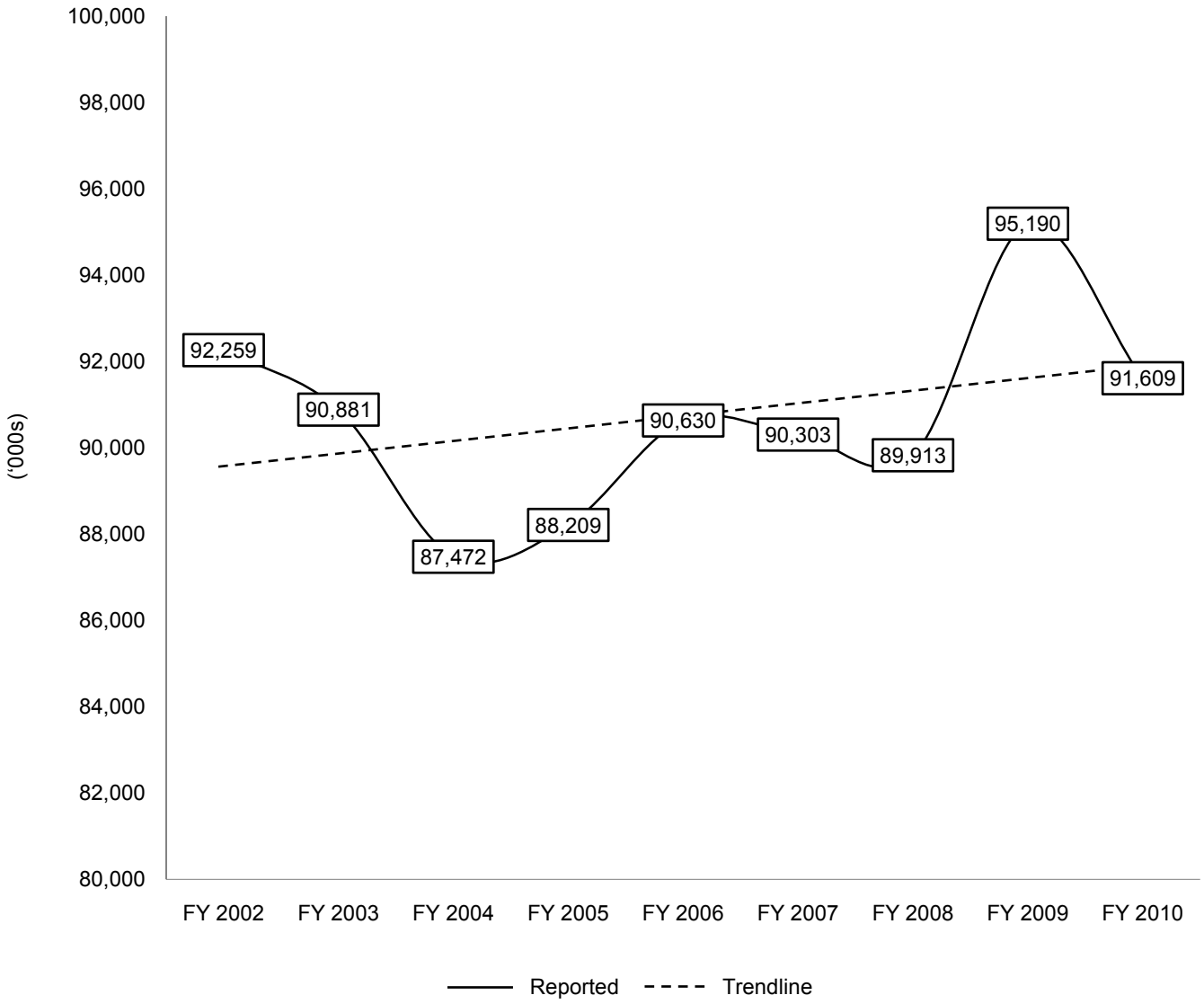
B1 Ridership



Trolley Coach (Audit Period & Historic)

Ridership on electric trolley lines declined significantly in FY 2010 – about 7%. (Trolley lines include the 1 California, 3 Jackson, 4 Sutter, 5 Fulton, 6 Parnassus, 7 Haight, 14 Mission, 21 Hayes, 22 Fillmore, 24 Divisadero, 30 Stockton, 31 Balboa, 33 Stanyan, 41 Union, 45 Union/Stockton and 49 Van Ness/Mission.)

B1 Ridership



Motor Coach (Audit Period & Historic)

Ridership on diesel bus lines reflected systemwide trends over the course of the audit period.

B2 Revenue

Goal *+ 1.5% / yr. (fare revenue only)*

FY09-10 Performance 

Achieved Goal

Trend 

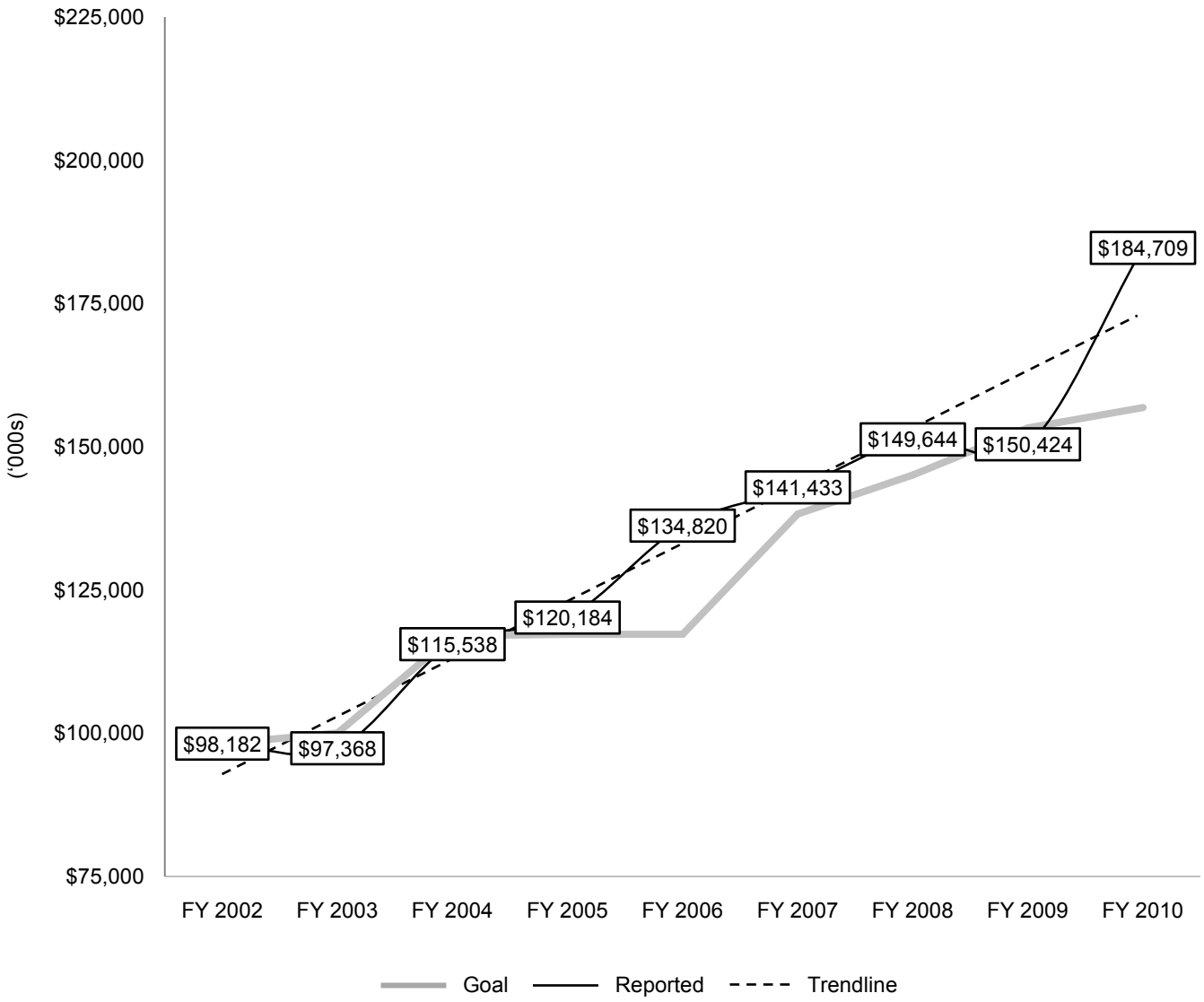
Positive

Purpose To measure fare revenue by average fare by passenger, mode, and general Fast Pass sales.

Definition Fare revenue collection on board revenue vehicles; Monthly/Weekly Fast Pass sales; individual ticket sales at POP stations; 1, 3 and 7 day pass sales; Cable Car Souvenir Tickets, Bart Plus, Tokens' Adult/Youth/Senior Passes; Ballpark and Special Event Passes; Regional Passes, etc. The goal is not applicable in years when a fare increase occurs.

Method Cash fares are collected electronically on board all revenue vehicles (with the exception of Cable Car), utilizing the Cubic Farebox system. In Cable Cars, a manual fare collection system along with sale of special passes is utilized. POP stations sell tickets on the platform.

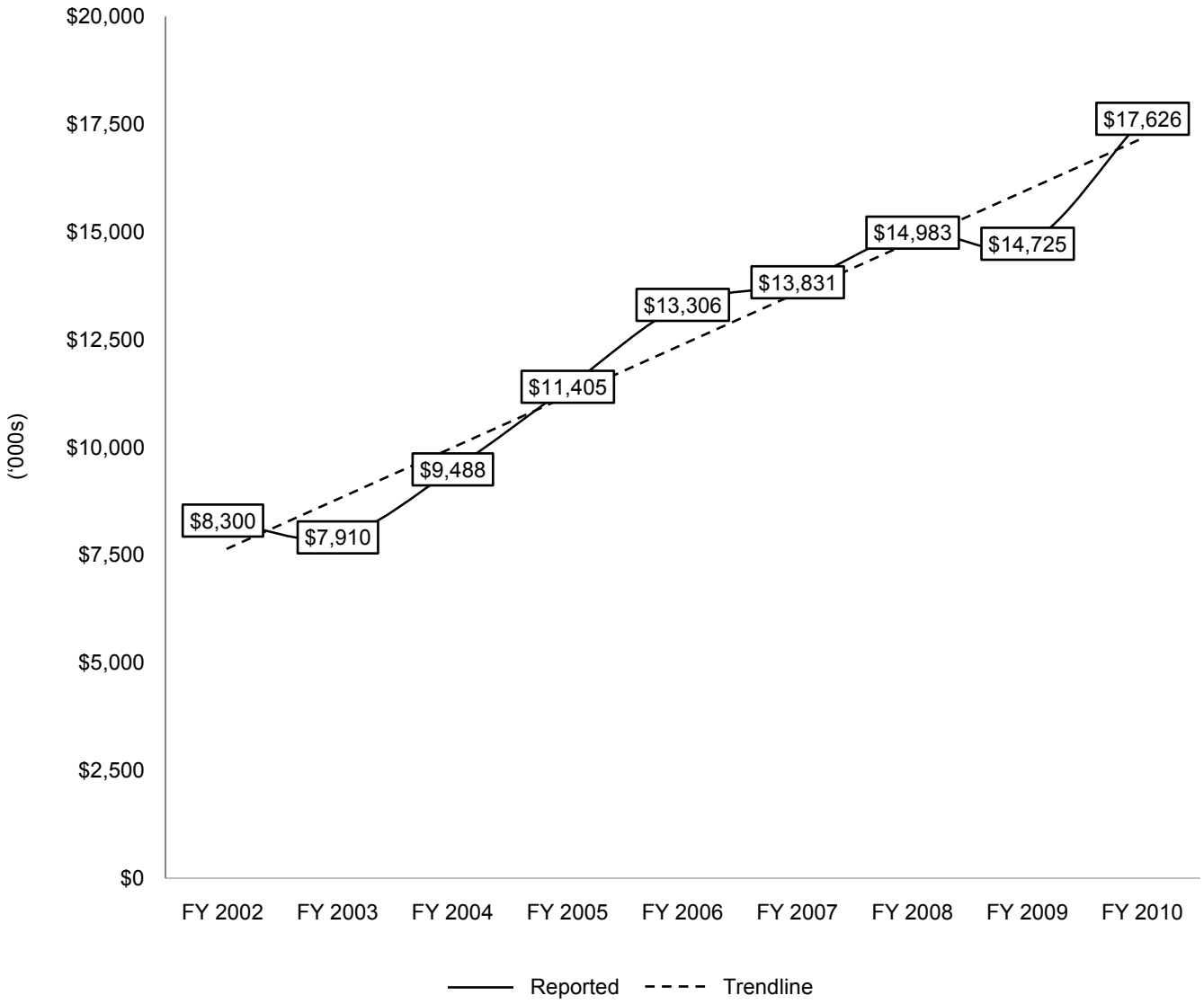
B2 Revenue



Systemwide Fare Revenue (Audit Period & Historic)

Charts in this and the following sections, addressing revenue and costs, have not been adjusted for inflation. Muni revenues from fares increased 88% between FY 2003 and FY 2010, due in large part to fare increases in FY 2004, FY 2006, and FY 2010. Between FY 2009 and FY 2010, fare revenues increased by nearly $35 million. (Note: The goal for systemwide revenue has changed over time. It became a 1.5% annual increase starting FY 2005. Also, the goal is not applicable during years in which fares are increased.)

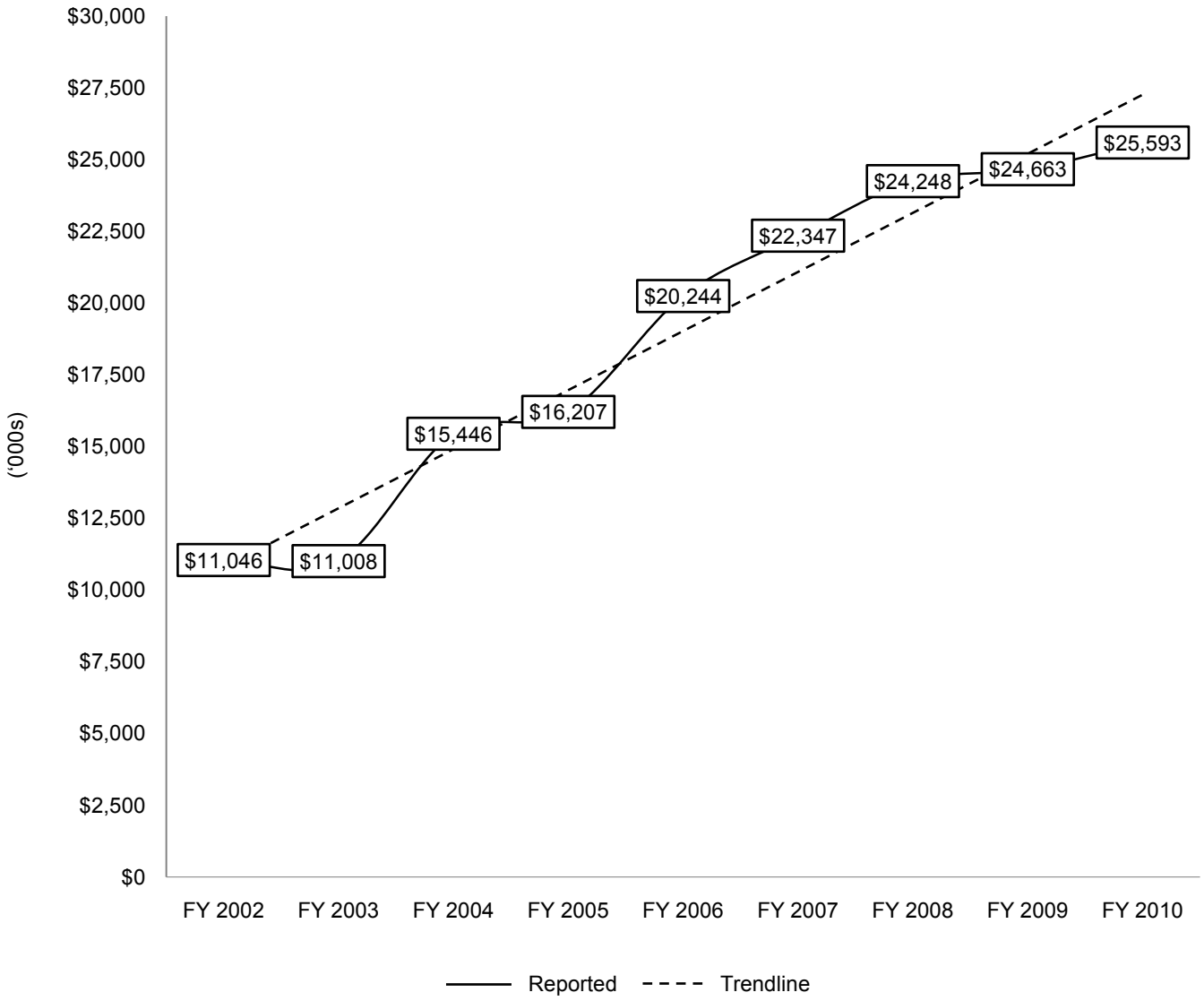
B2 Revenue



Light Rail Fare Revenue (Audit Period & Historic)

Fare revenue charts for each mode do not include revenue from passes. In FY 2010 fare revenue from all modes, including light rail, increased significantly.

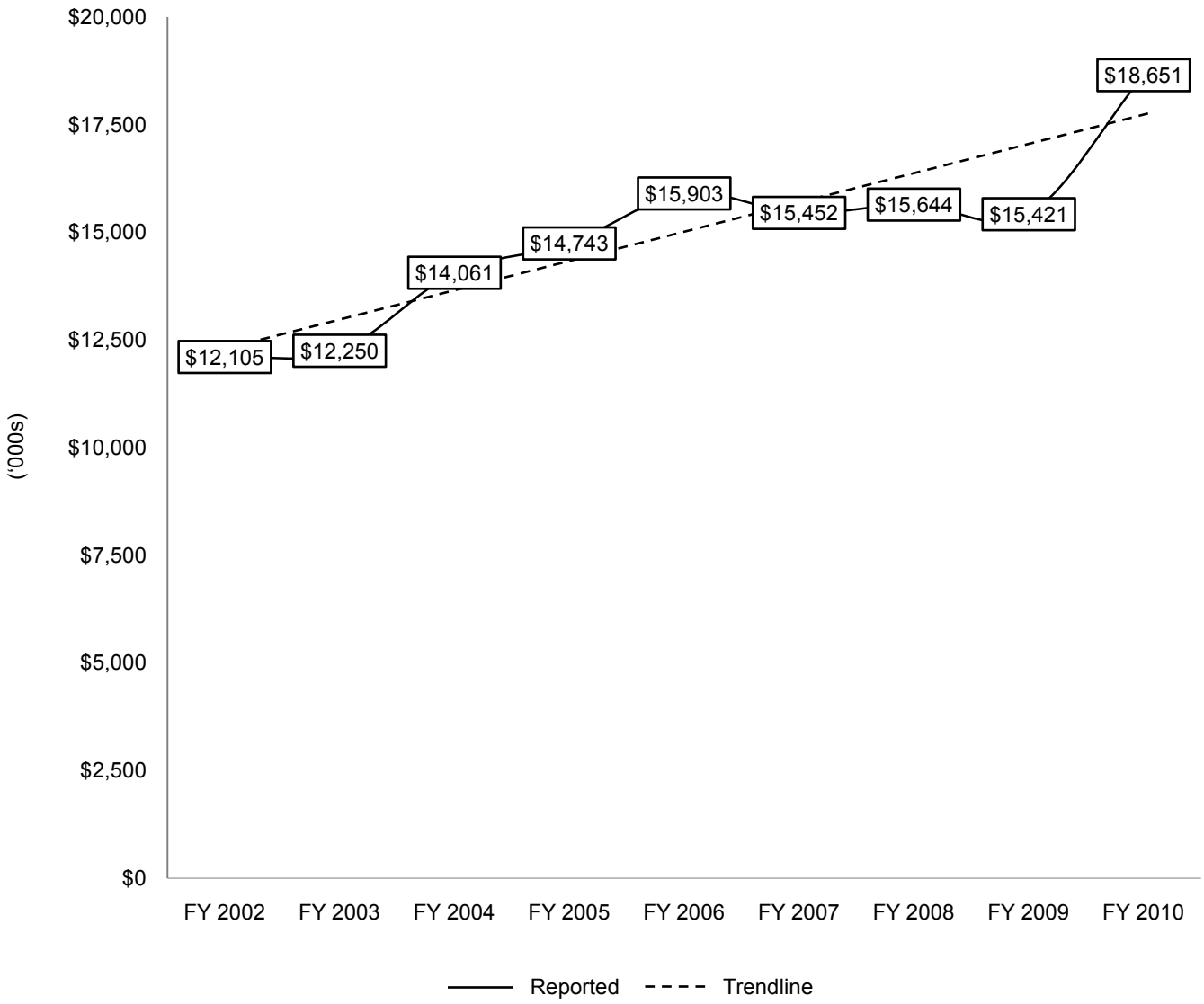
B2 Revenue



Cable Car Fare Revenue (Audit Period & Historic)

During the audit period, adult cash fares on cable cars were $5, compared to just $1.50 (in FY 2009) and $2 (in FY 2010) for other services. Perhaps unsurprisingly, then, cable cars accounted for 14% of all fare revenue in FY 2010 despite accounting for less than 4% of Muni ridership.

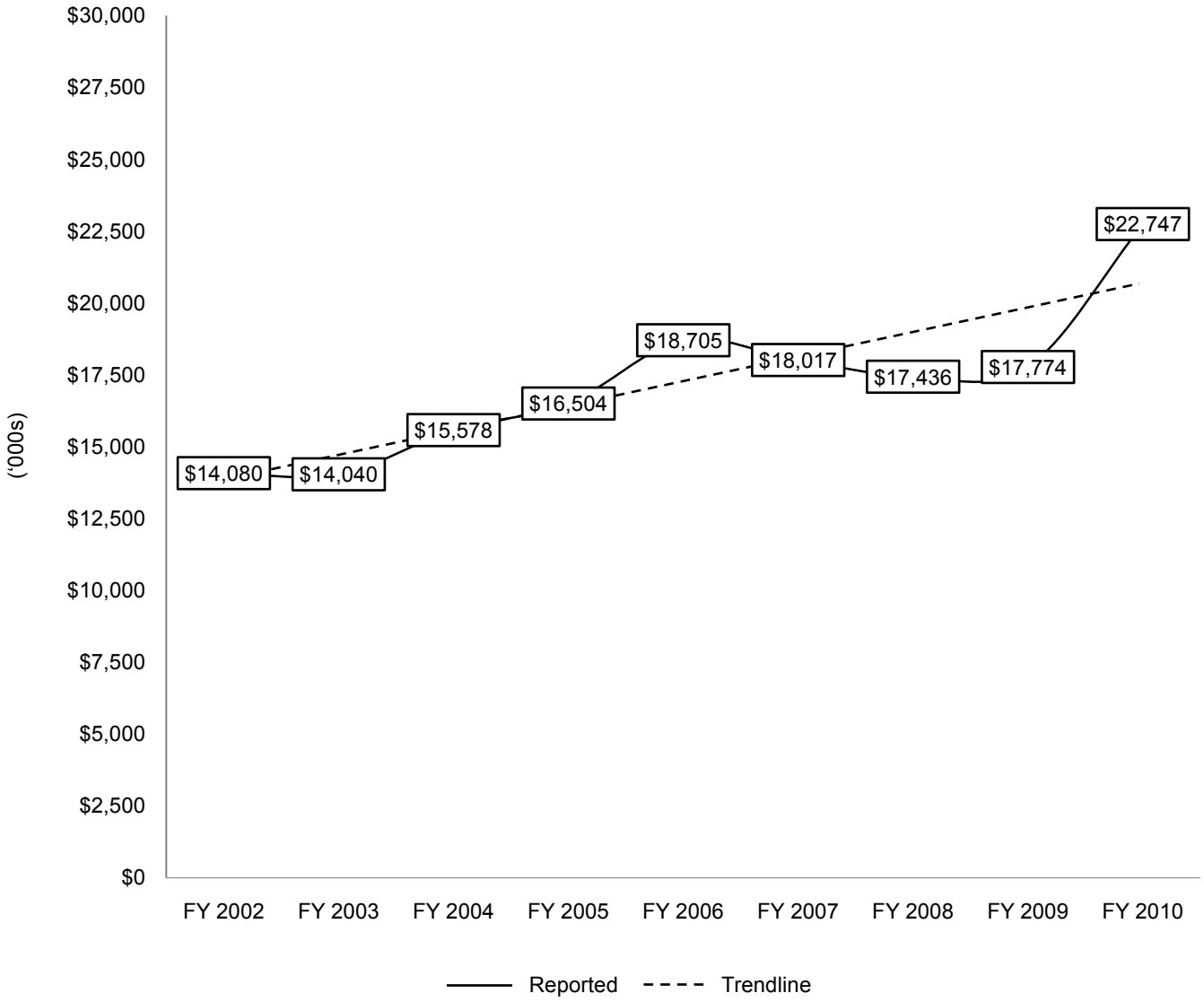
B2 Revenue



Trolley Coach Fare Revenue (Audit Period & Historic)

As with other modes, fare revenue from electric trolleys increased by over 20% between FY 2009 and FY 2010.

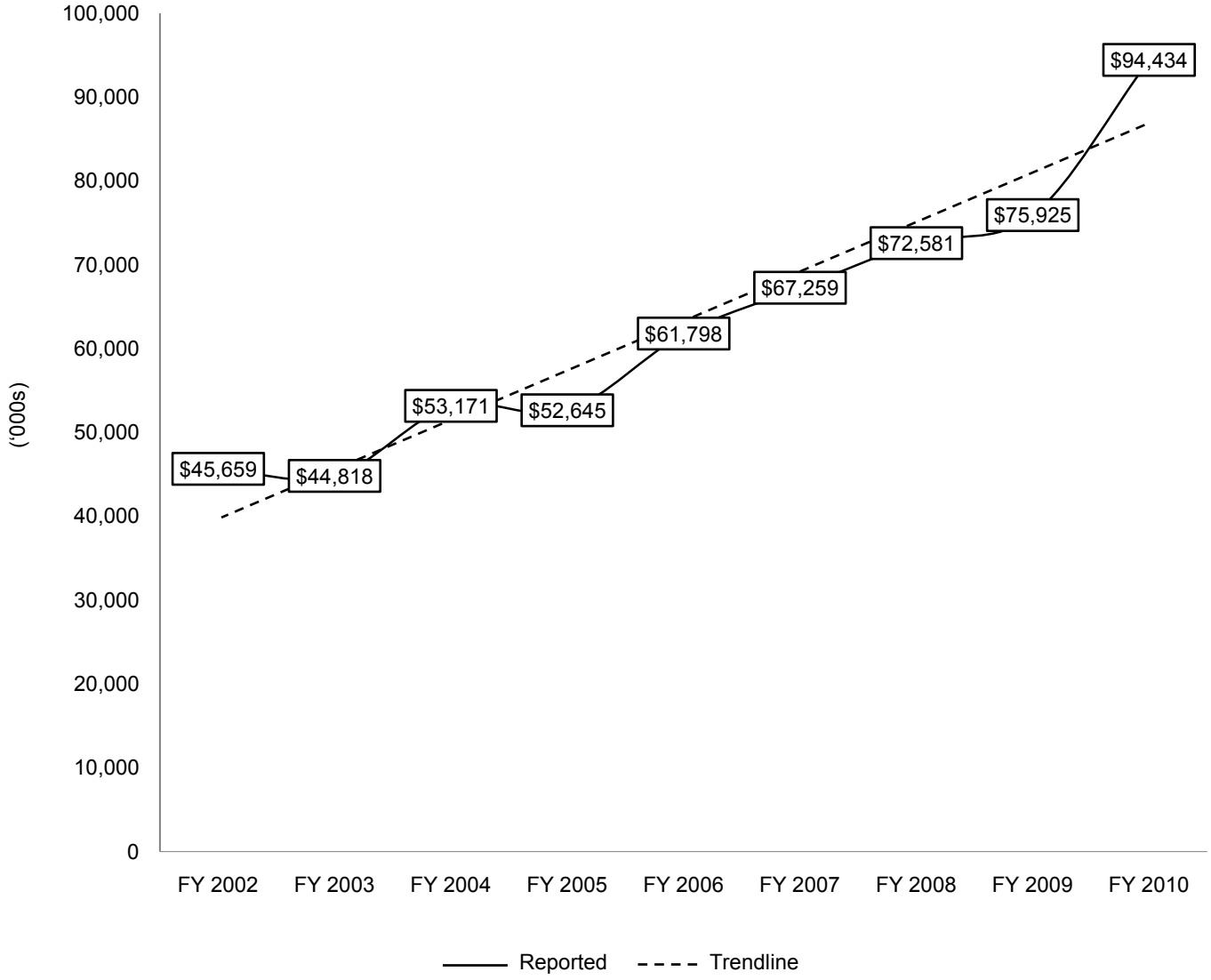
B2 Revenue



Motor Coach Fare Revenue (Audit Period & Historic)

Fare revenue from motor coaches increased by almost $5 million between FY 2009 and FY 2010.

B2 Revenue



Fast Passes Fare Revenue (Audit Period & Historic)

In FY 2010, revenue from monthly passes increased at a rate similar to revenue from cash fares.

B3 Farebox Performance

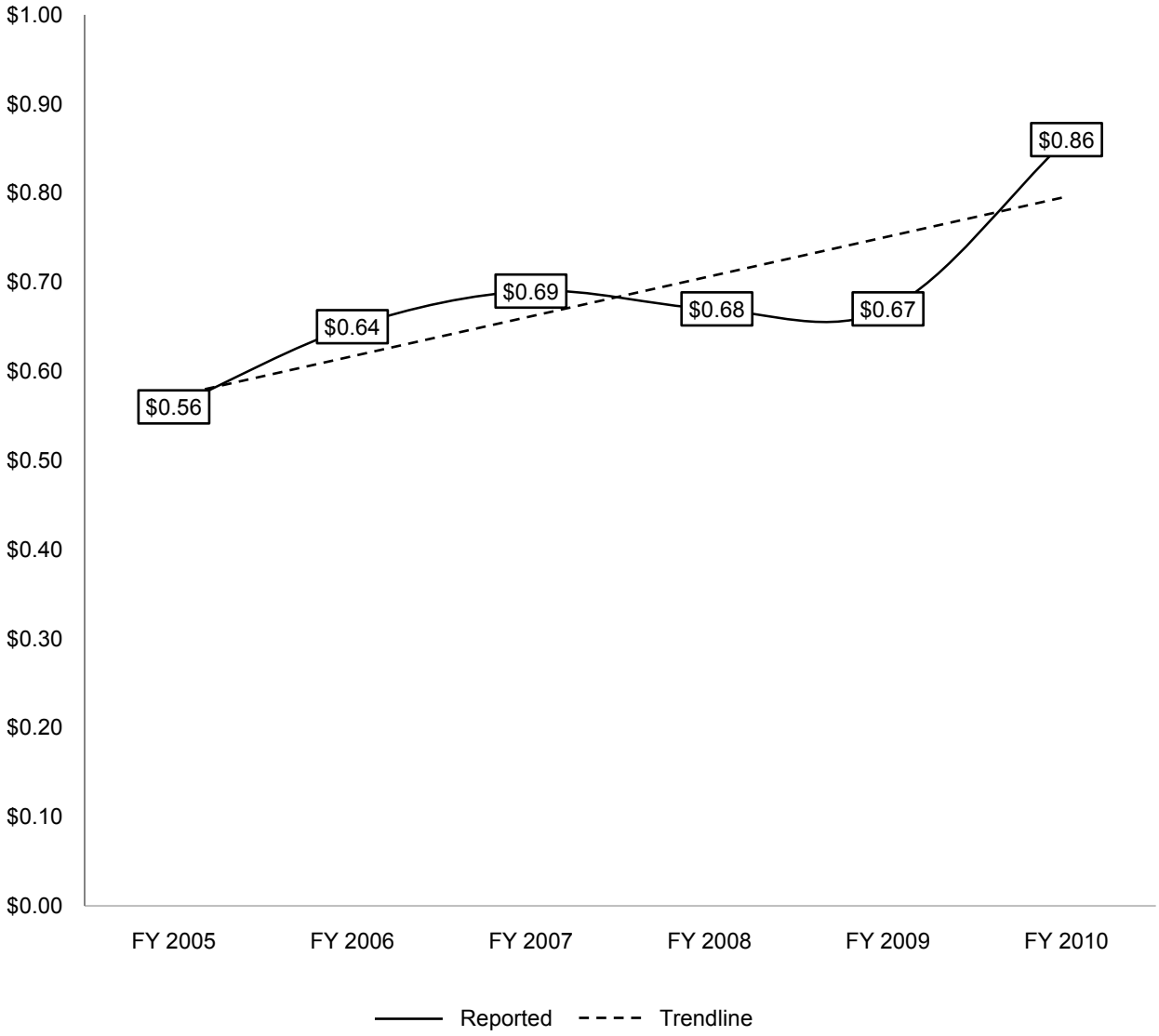
Goal	*N/A*	**FY09-10 Performance**	*No Goal For This Standard*	**Trend**	 *Positive*

Purpose To measure farebox performance.

Definition Average fare per passenger based on unlinked passenger trips.

Method Revenues are divided by number of unlinked trips.

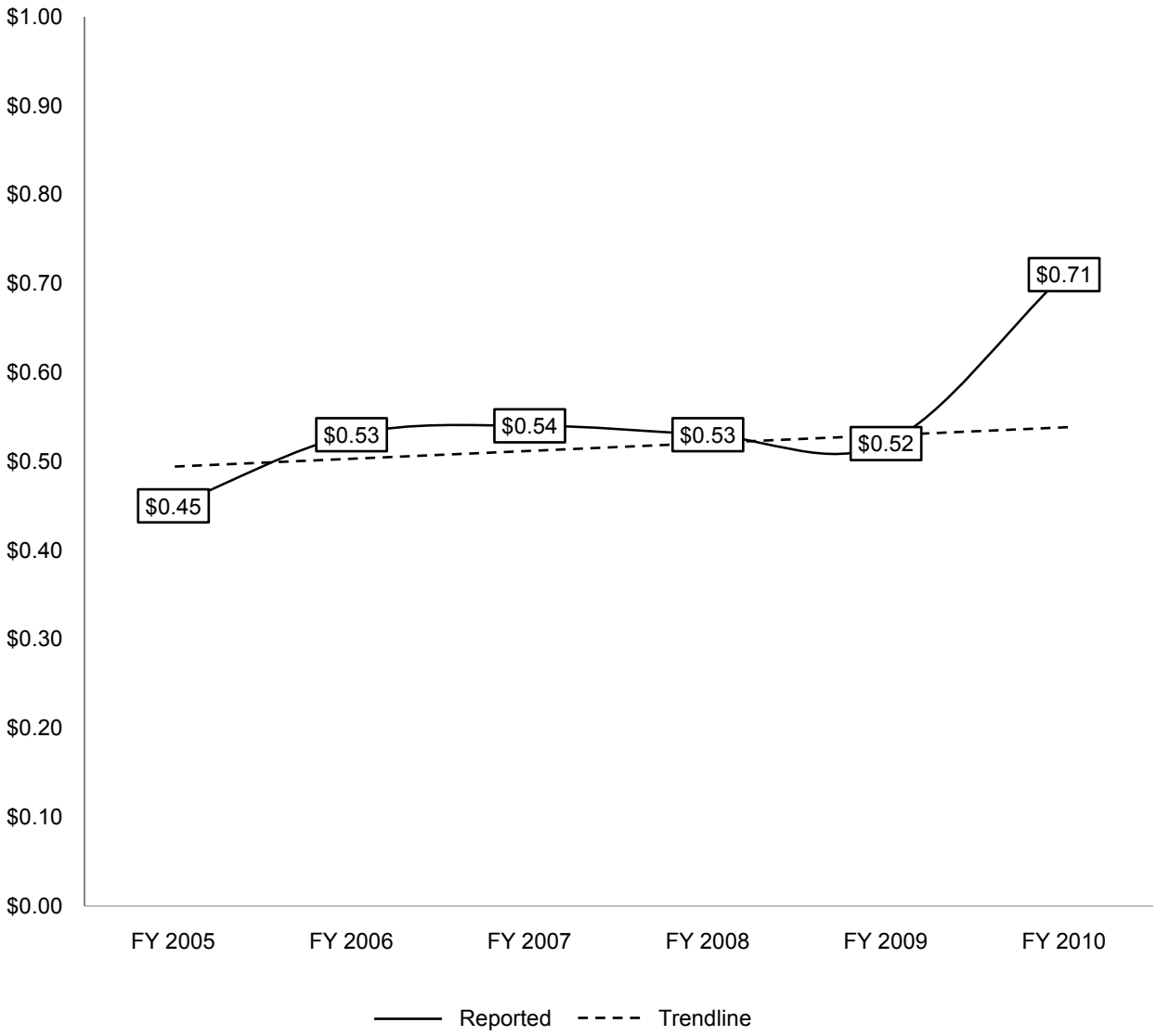
B3 Farebox Performance



Systemwide Average Fare (Audit Period & Historic)

In FY 2010, Muni's base fare increased 33%, the cost of a monthly adult pass increased 22%, and its average fare per boarding increased 28%.

B3 Farebox Performance



Average Fare Excluding Cable Cars and Fast Pass Payments to BART (Audit Period & Historic)

Cable car fares are significantly higher than for other modes, and Muni pays BART every time a rider uses an "A" Fast Pass on BART. The average fare paid on light rail and buses, then, is lower than the systemwide average, and significantly lower than the average fare at transit agencies nationwide of $1.17 (as of calendar year 2009).

B3 Farebox Performance

Recommendation

Report farebox recovery ratios.

Farebox recovery ratio, or the percentage of operating costs covered by fares, is an important measure because it relates fare collection to operating costs and is not simply a function of ridership and fare levels. Muni should continue to report average fares and total revenues, but supplement this information with farebox recovery ratios, both systemwide and by mode. Additionally, it should set annual goals, perhaps a goal of maintaining existing levels over time. (Note: This recommendation was made in several previous Quality Reviews. We repeat it here because we continue to believe strongly in its potential value, as both a tool for management and a measure of Muni performance meaningful to the general public.)

B4 Cost per Hour

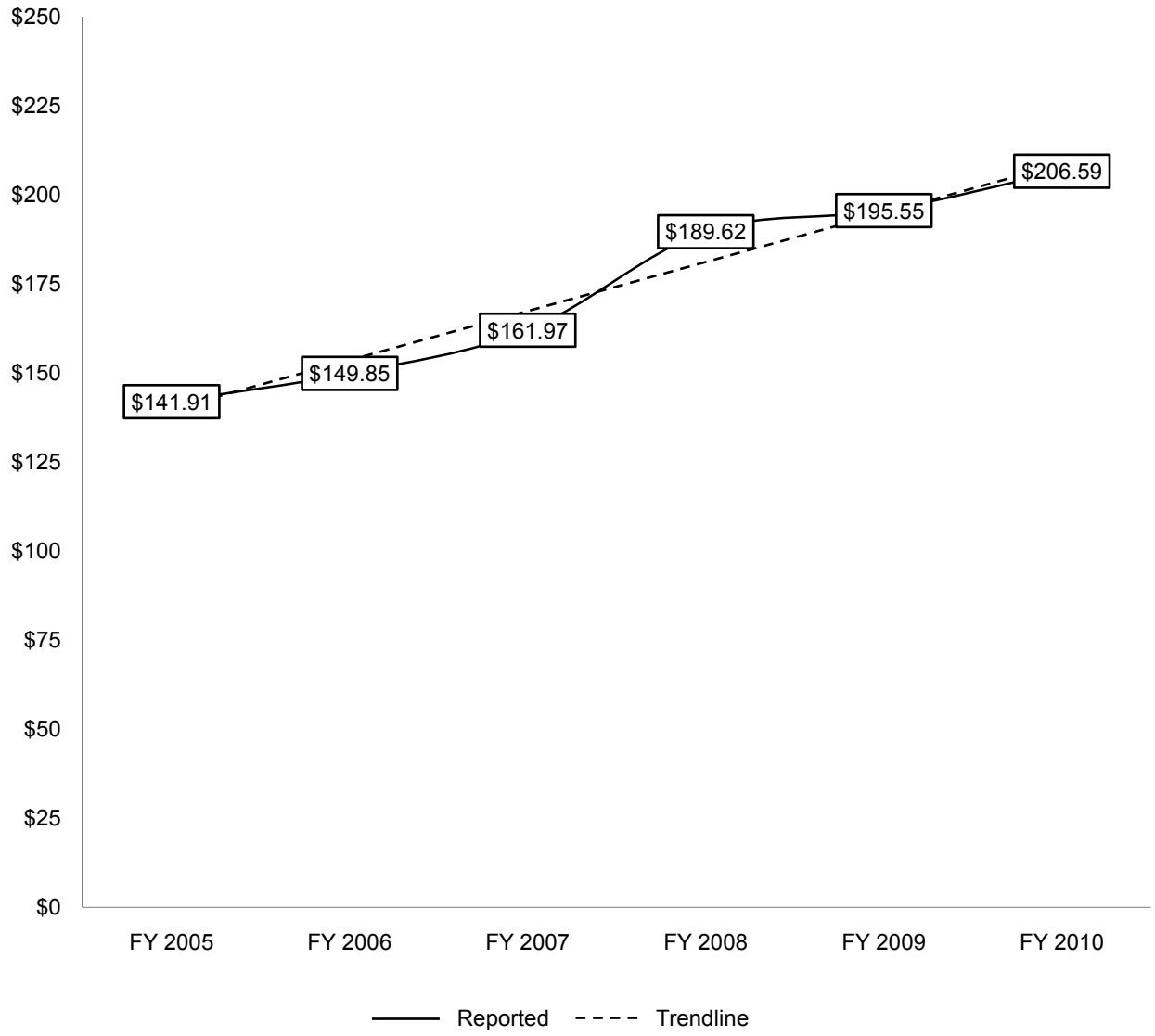
Goal	*N/A*	**FY09-10 Performance**	*No Goal For This Standard*	**Trend**	 *Negative*

Purpose To measure the cost of producing revenue service by fully allocated costs per hour of service by passenger mile and mode.

Definition Fully allocated cost of service per hour and per mile.

Method Data are reported to the Board on an annual basis based on fully allocated costs per hour of service by mode.

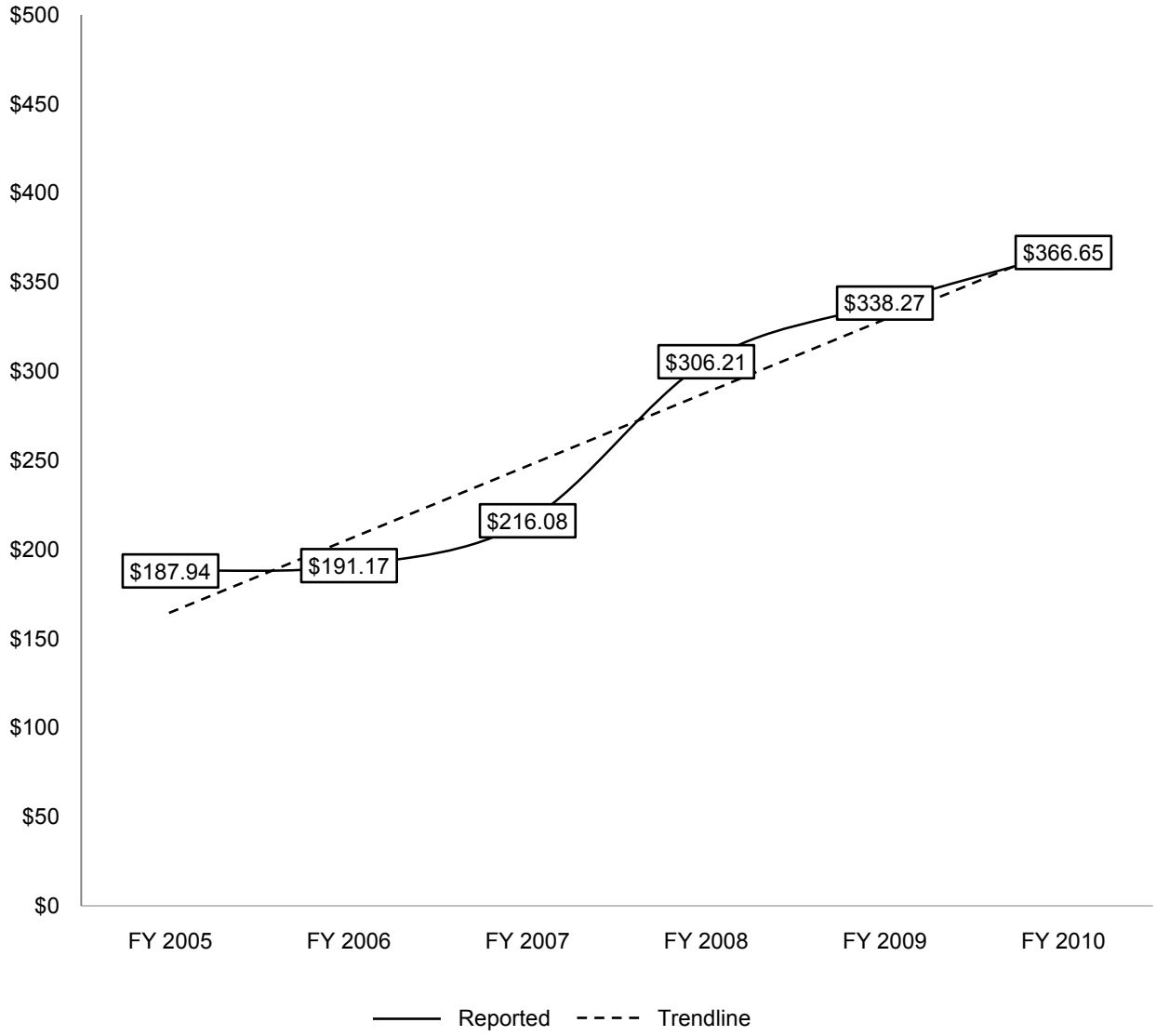
B4 Cost per Hour



Systemwide Fully Allocated Service Cost by Mode (Audit Period & Historic)

Muni's operating cost per hour of revenue service appeared to have increased significantly in FY 2008; however, this was largely due to a change in the methodology for reporting light rail hours of service in FY 2008 (see next page).

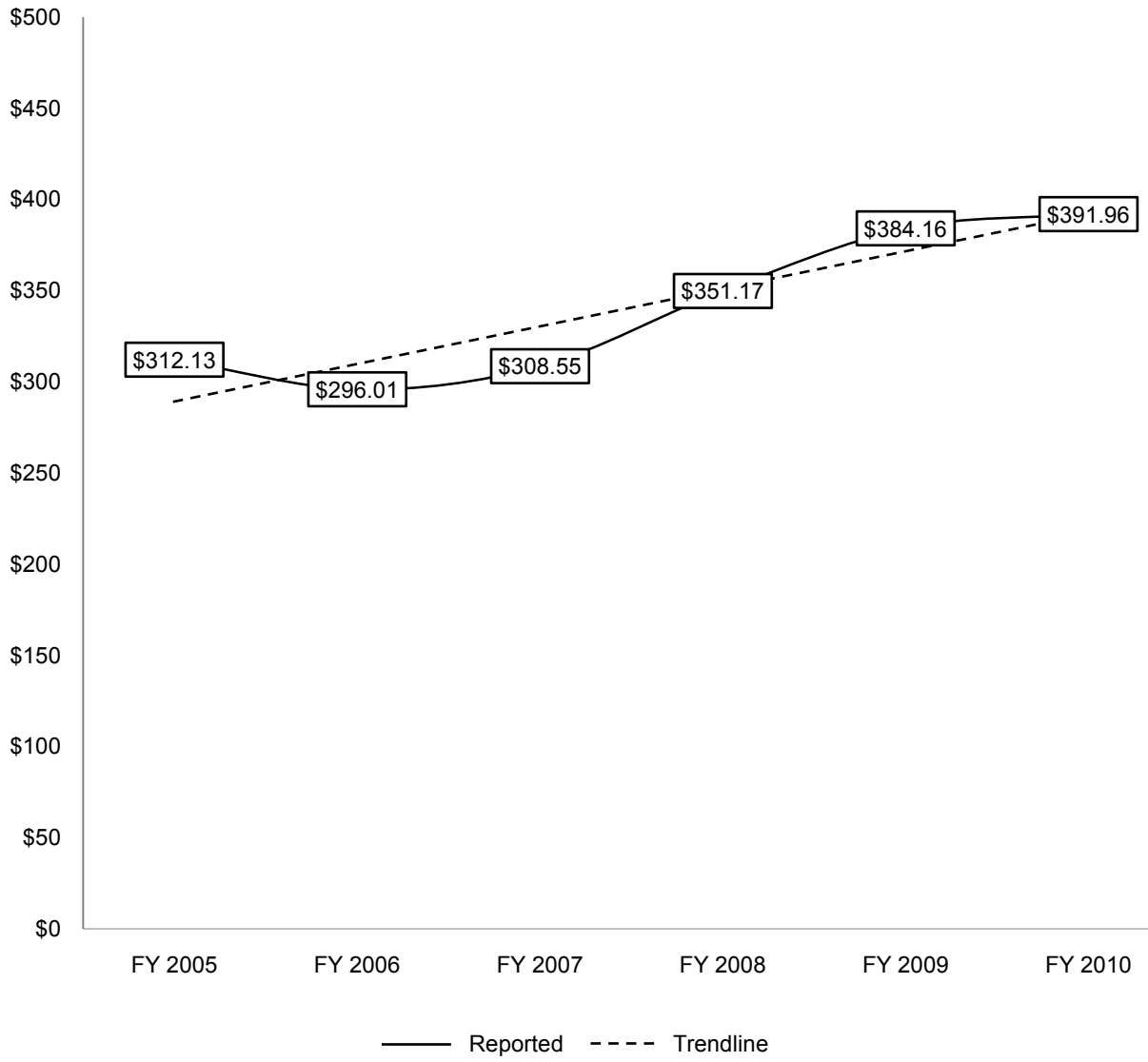
B4 Cost per Hour



Light Rail Fully Allocated Service Cost by Mode (Audit Period & Historic)

Due to a change in the methodology for reporting light rail hours of service (from "car hours" to "train hours," reducing the overall number of hours and thus increasing costs per hour), costs per hour appear to have increased much faster in FY 2008 than they actually did (about 1%, when the same methodology is applied).
Nonetheless, costs per hour have increased steadily over
time, including significant increases during the audit period.

B4 Cost per Hour

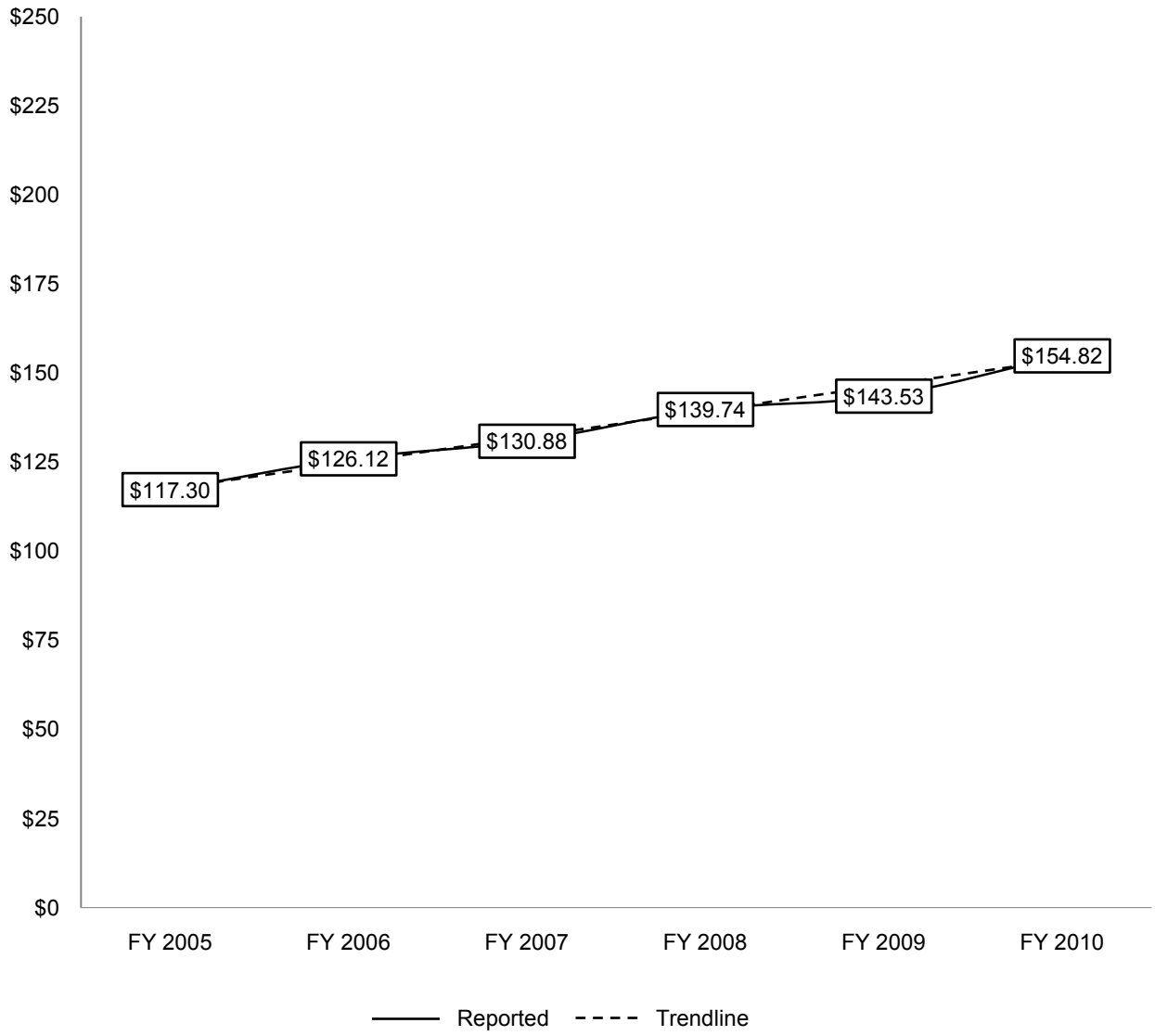


Cable Car Fully Allocated Service Cost by Mode (Audit Period & Historic)

Unlike costs for other modes, cable car costs per hour of service increased only slightly in FY 2010.

Nonetheless, cable cars are the most expensive mode to operate (a reality that is offset by the higher fares charged on cable cars).

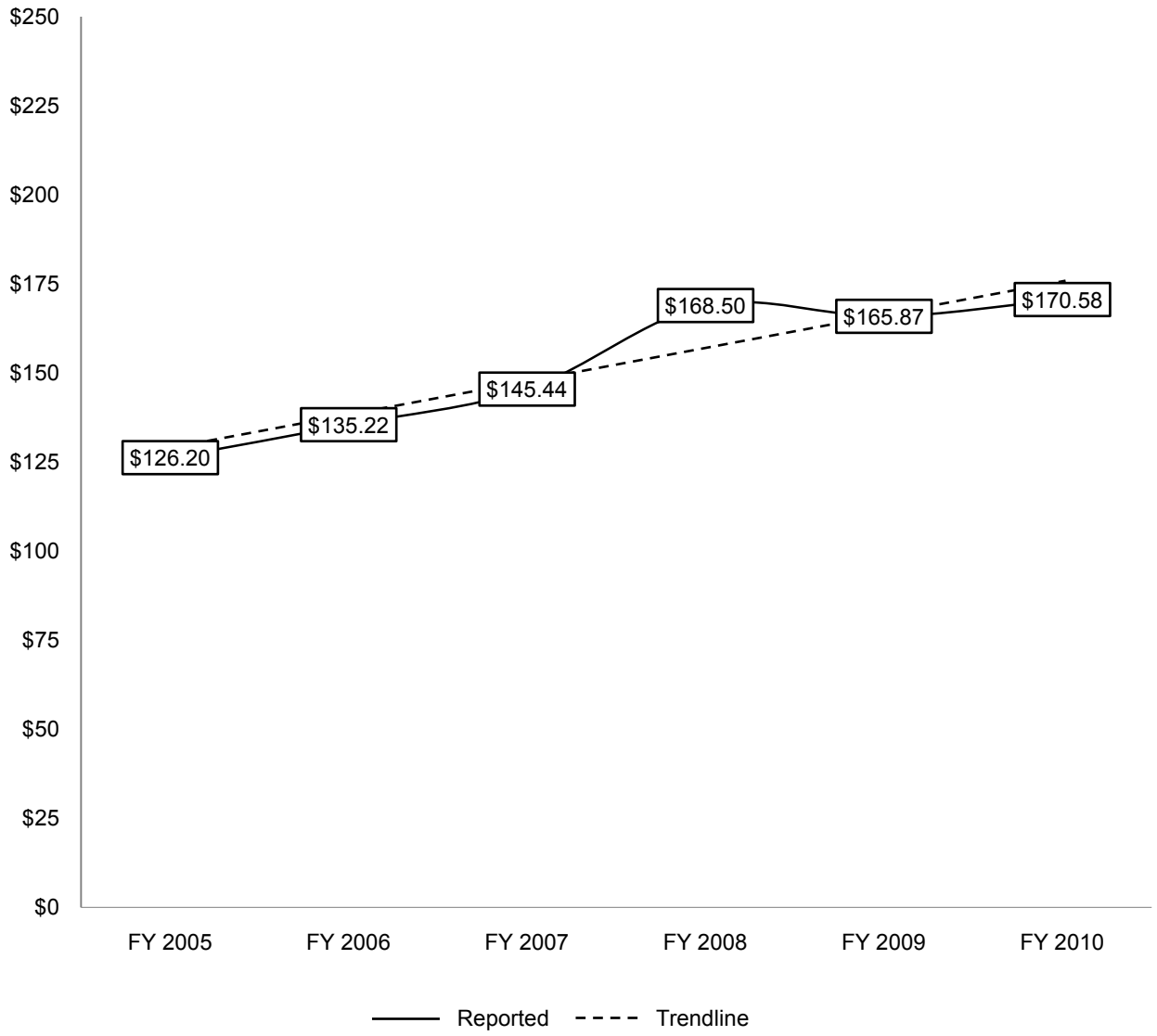
B4 Cost per Hour



Trolley Coach Fully Allocated Service Cost by Mode (Audit Period & Historic)

In FY 2009 and FY 2010, electric trolley costs continued a trend of modest year-over-year increases.

B4 Cost per Hour



Motor Coach Fully Allocated Service Cost by Mode (Audit Period & Historic)

Following a significant increase in FY 2008, diesel bus operating costs have remained relatively stable (actually declining in inflation-adjusted terms).

B5 Cost per Boarding

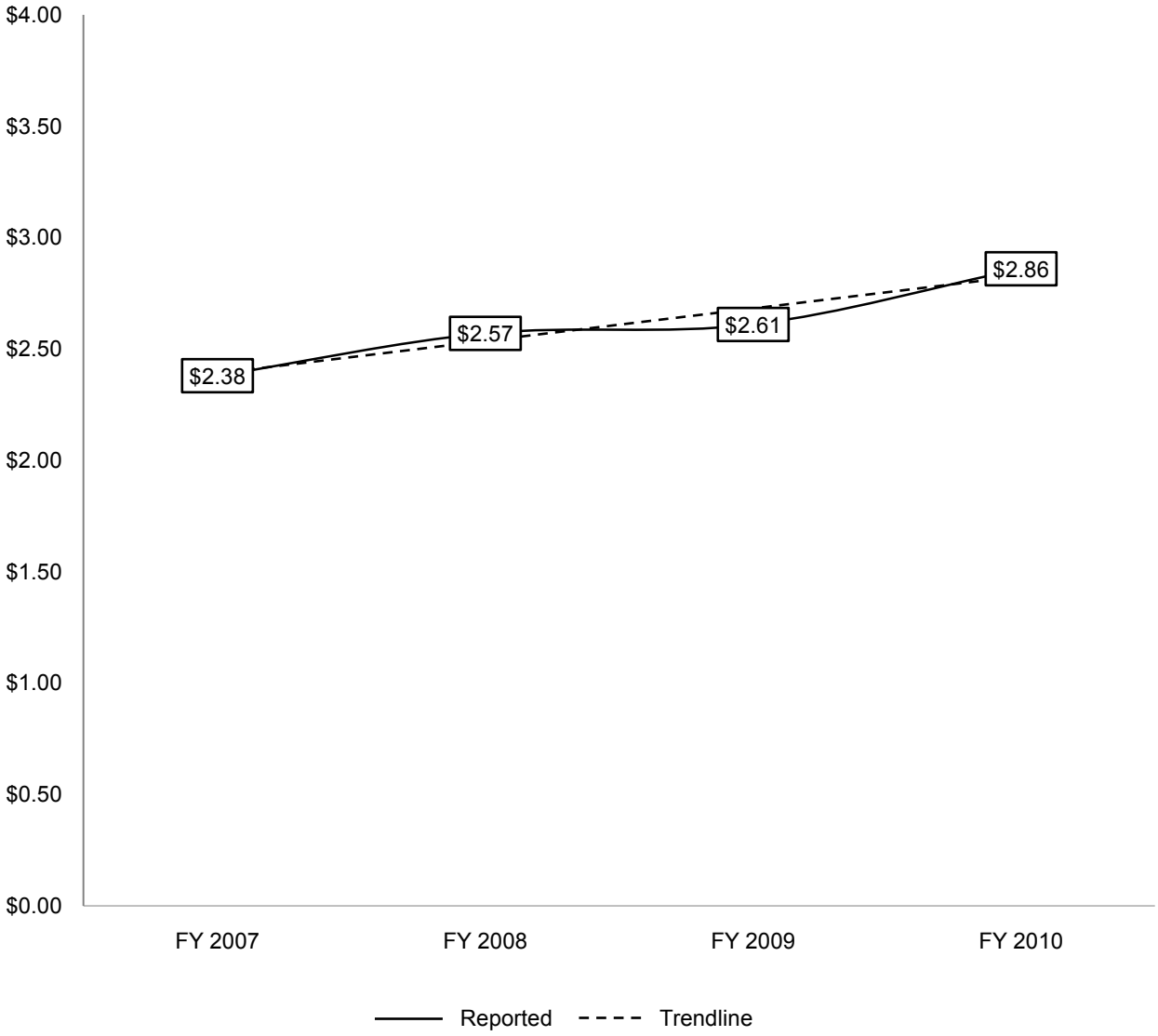
Goal	*N/A*	**FY09-10 Performance**	*No Goal For This Standard*	**Trend**	 *Negative*

Purpose To measure cost effectiveness.

Definition Operating expense per boarding is calculated for each mode.

Method Operating expenses are divided by the number of passenger boardings.

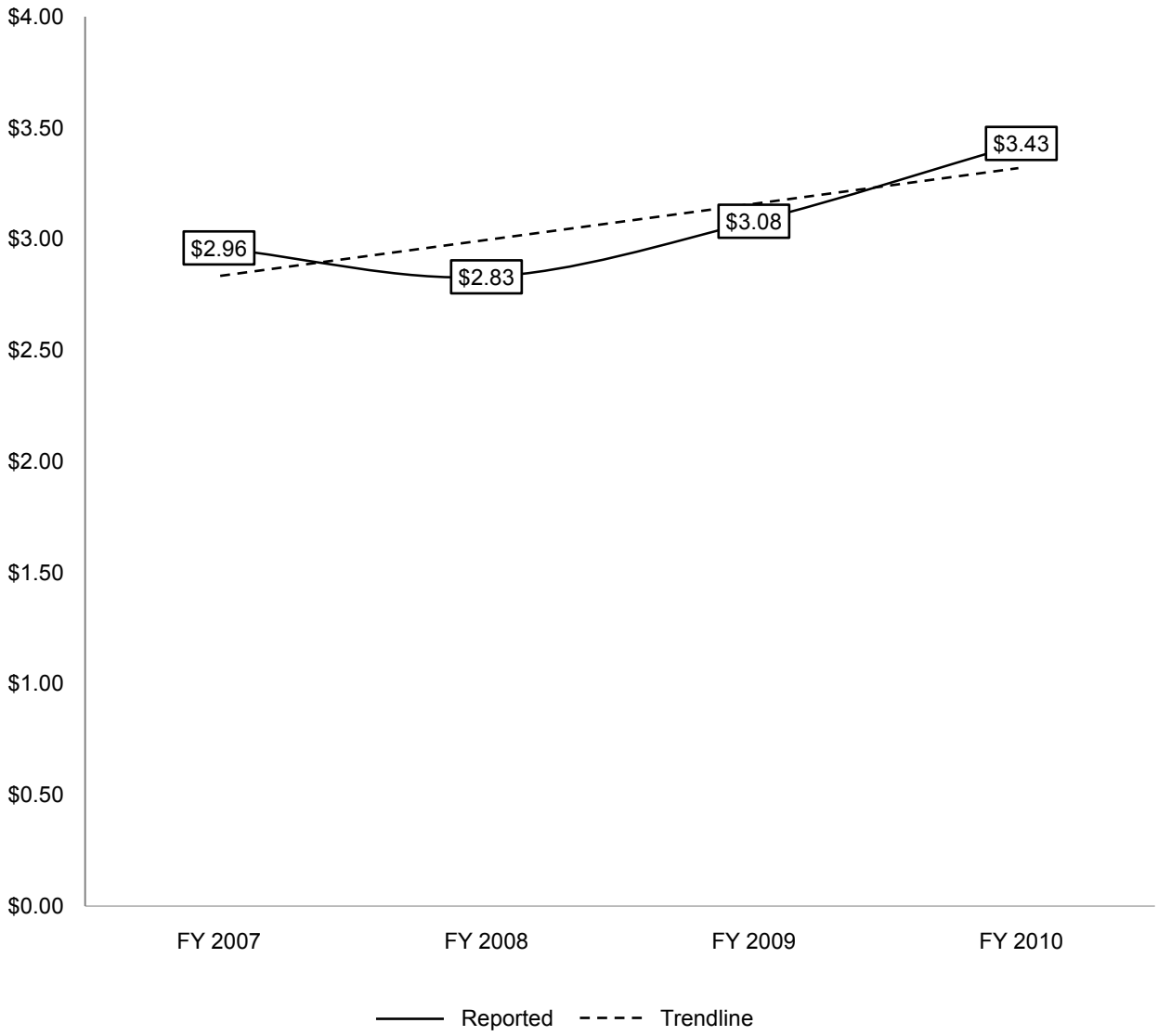
B5 Cost per Boarding



Systemwide Operating Expense per Boarding (Audit Period & Historic)

Operating cost per boarding is an industry standard measure, reported by transit operators to the Federal Transit Administration, that Muni began reporting in Service Standards reports in FY 2008. Over the last four years, systemwide costs per passenger boarding increased by 20%, including a 10% increase in FY 2010, when the number of boardings decreased approximately 4%.

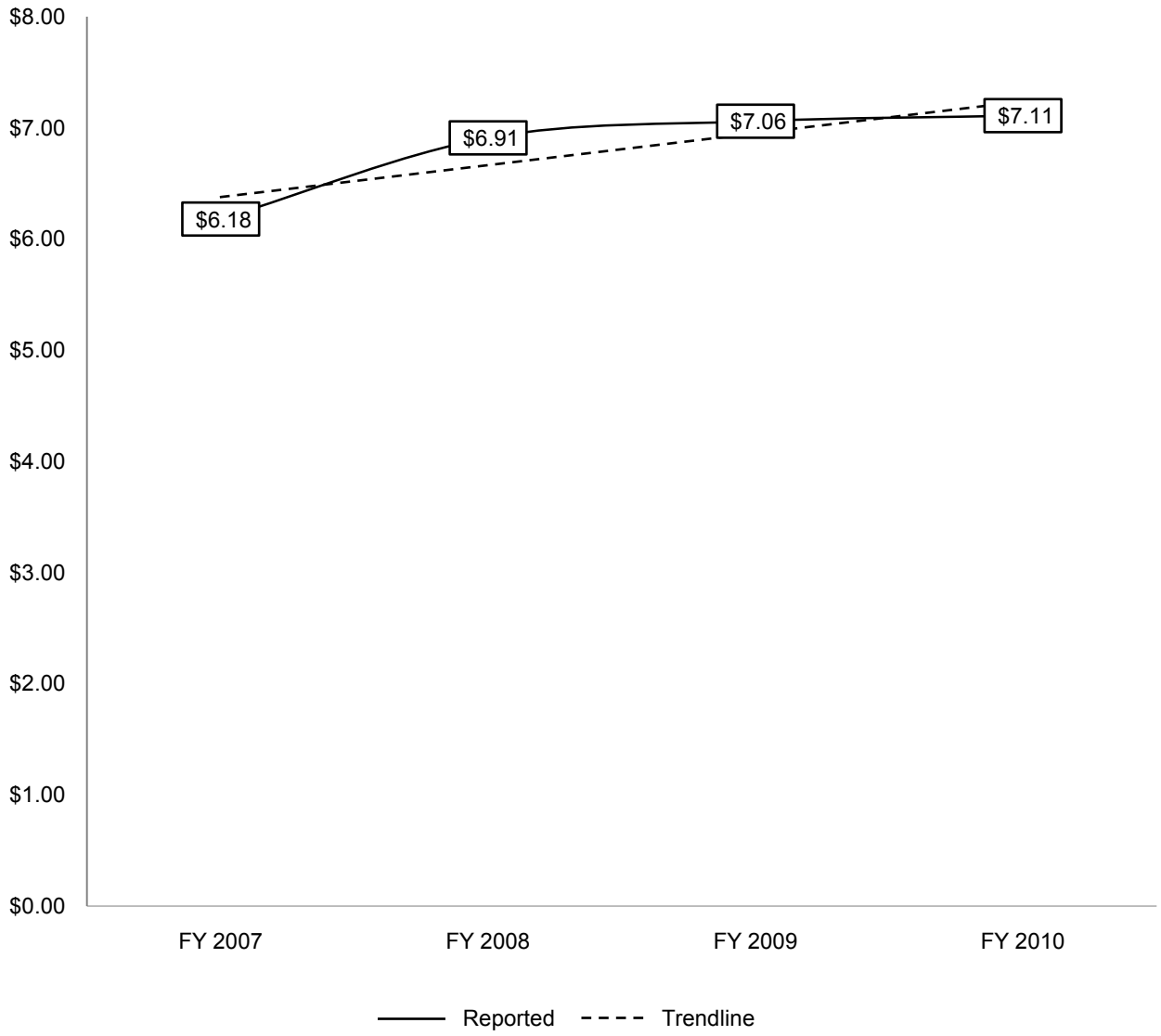
B5 Cost per Boarding



Light Rail Operating Expense per Boarding (Audit Period & Historic)

Following an improvement in cost-effectiveness in FY 2008, light rail costs per boarding increased in FY 2009 and FY 2010.

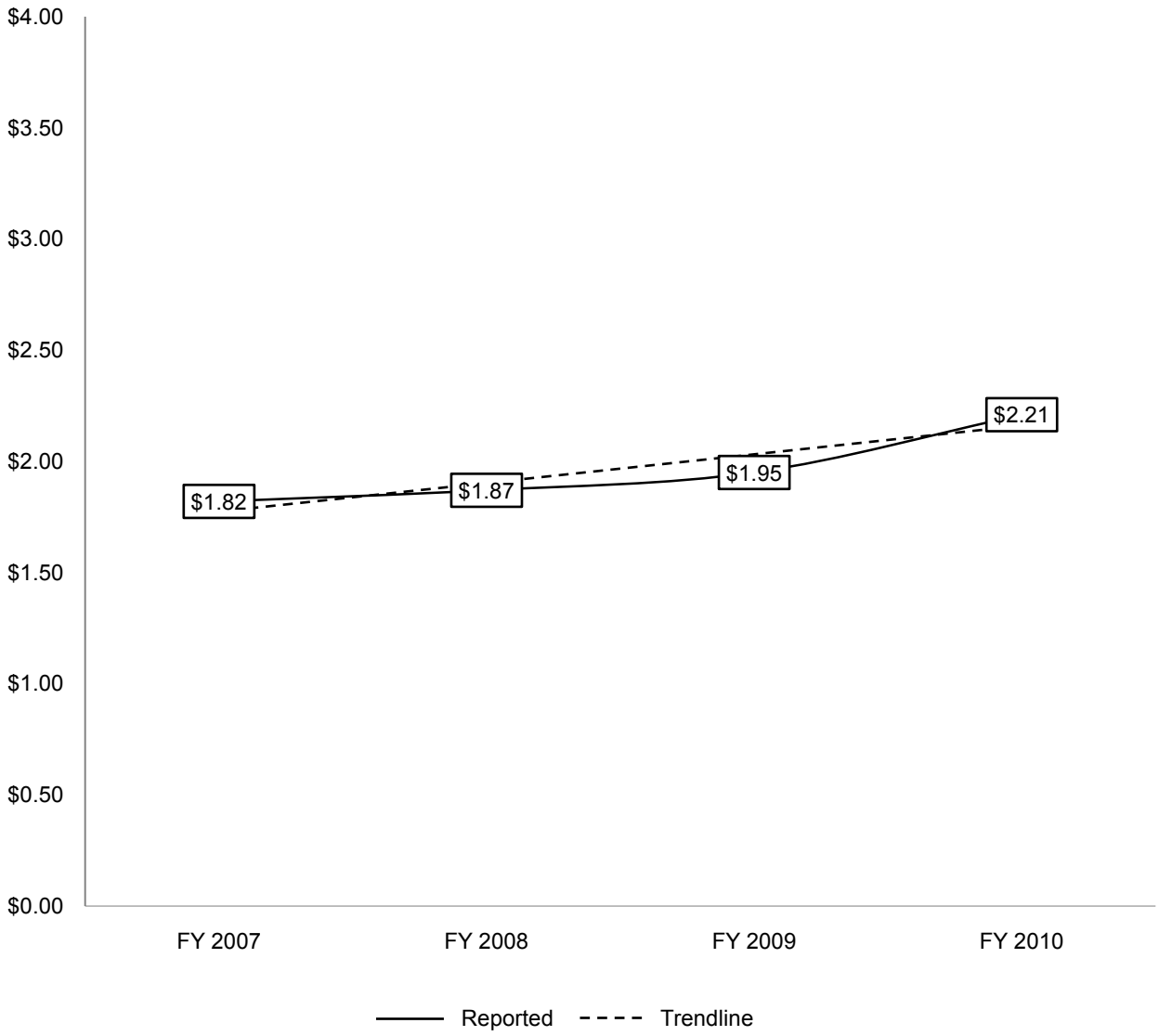
B5 Cost per Boarding



Cable Car Operating Expense per Boarding (Audit Period & Historic)

After a steep increase between FY 2007 and FY 2008, the rate of increase slowed in FY 2009 and FY 2010.

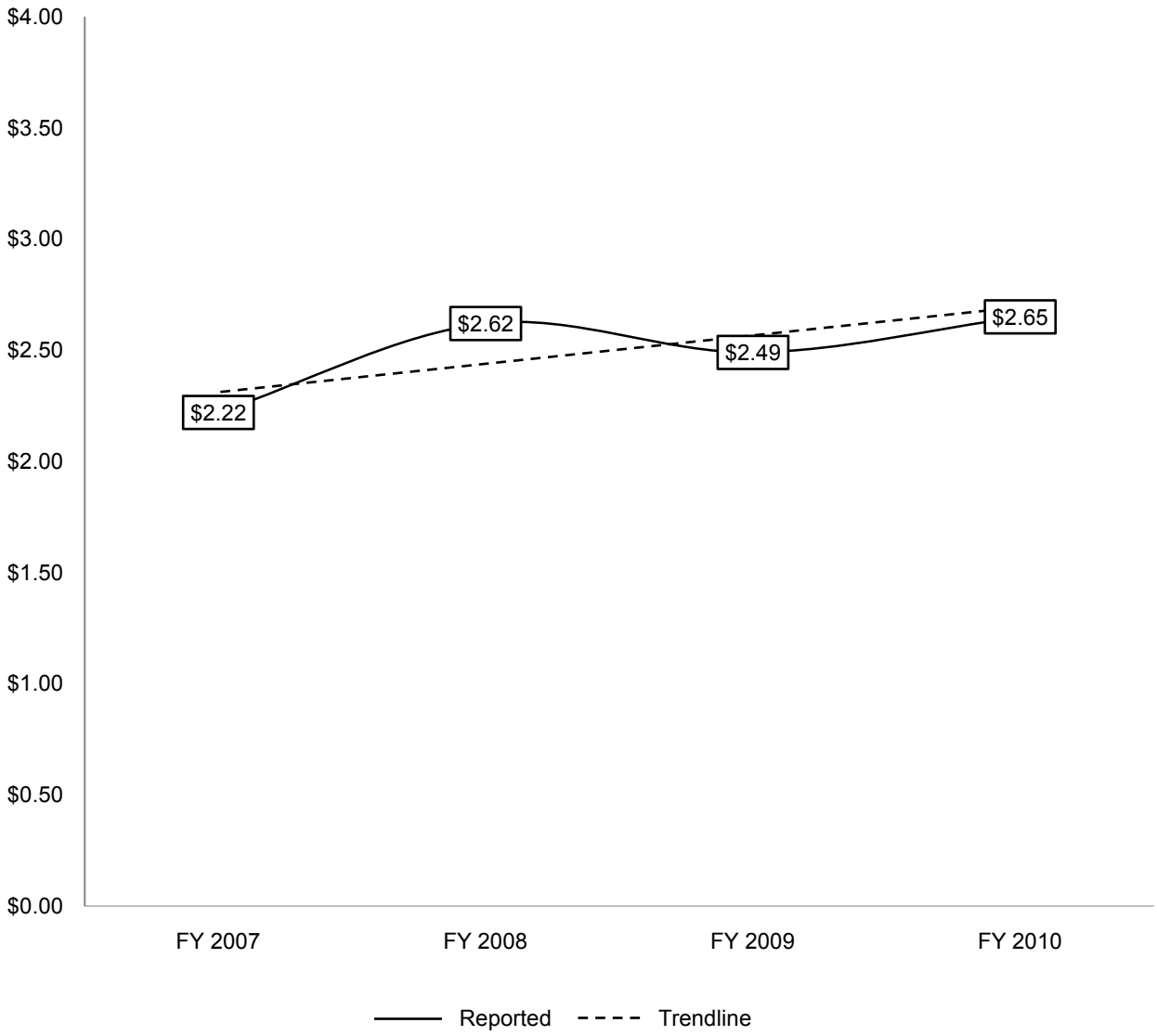
B5 Cost per Boarding



Trolley Coach Operating Expense per Boarding (Audit Period & Historic)

Mimicking trends in other modes, electric trolley costs per boarding increased somewhat between FY 2009 and FY 2010, in line with decreasing ridership.

B5 Cost per Boarding



Motor Coach Operating Expense per Boarding (Audit Period & Historic)

Diesel bus costs per boarding decreased from FY 2008 to FY 2009 before increasing slightly in FY 2010.

C Customer Focus

Service standards in this category measure, both directly and indirectly, the Muni passenger experience. Muni customer service includes responsiveness to perceived problems (C2 Passenger Service Report Resolution Rate) as well as the ability to protect customers from accidents (C4 Safety) and criminal activity (C6 Security Incidents). Over the course of the audit period, Muni also started reporting the performance of its proof-of-payment program (C7). After the close of the audit period, the agency stopped reporting Operator Training.

Following are brief summaries of Muni's FY 2009-2010 performance for each of the Customer Focus service standards, including arrows indicating general trends (up for "positive," facing right for "neutral," and turned down for "negative") in terms of both historic patterns and performance over the course of the audit period. More detailed information about each service standard can be found on the following pages, including historic trends and data from recent quarters since the end of the audit period. Recommendations and issues identified in the data collection and reporting processes can be found at the end of the sections for some service standards.

C1 Customer Perceptions

In FY 2010, overall satisfaction (in terms of those rating service “good” or “excellent”) in Muni’s customer service survey was just above 50%, roughly the same as in 2006 and 2007, the last years in which it was conducted.

N/A C2 Customer Feedback Recived

In FY 2008, the number of Passenger Service Reports (PSRs) submitted to Muni increased significantly, apparently due to implementation of 24-hour 311 customer service. The number of PSRs declined in FY 2009, but increased again in FY 2010.

C2 Operator Complaint Resolution Rate

During the audit period, complaint resolution rates were near goals in all categories, although significant methodological changes make historical comparison impractical.

C Customer Focus

C3 Training

During the audit period, Muni continued to achieve its goal of 50,000 hours of annual training.

C4 Safety (Collisions per 100,000 Miles)

In FY 2009 numbers of collisions declined notably, before increasingly slightly in FY 2010.

C4 Safety (Falls on Board per 100,000 Miles)

Rates of Falls on Board increased significantly in FY 2010.

C6 Security Incidents

Numbers of security incidents reported to Muni by SFPD and tracked internally by Muni increased somewhat over the course of the audit period.

N/A C7 Proof-of-Payment Program

In the last three quarters of FY 2010, Muni began reporting fare evasion in terms of both numbers of citations and warnings issued as well as rates (based on numbers of contacts with riders). During this period, rates of fare evasion increased; however, in the 4th Quarter fewer citations and more warnings were issued. (No evaluation is made of trend here, as three quarters provides too limited of a basis for assessment.)

C1 Customer Perceptions

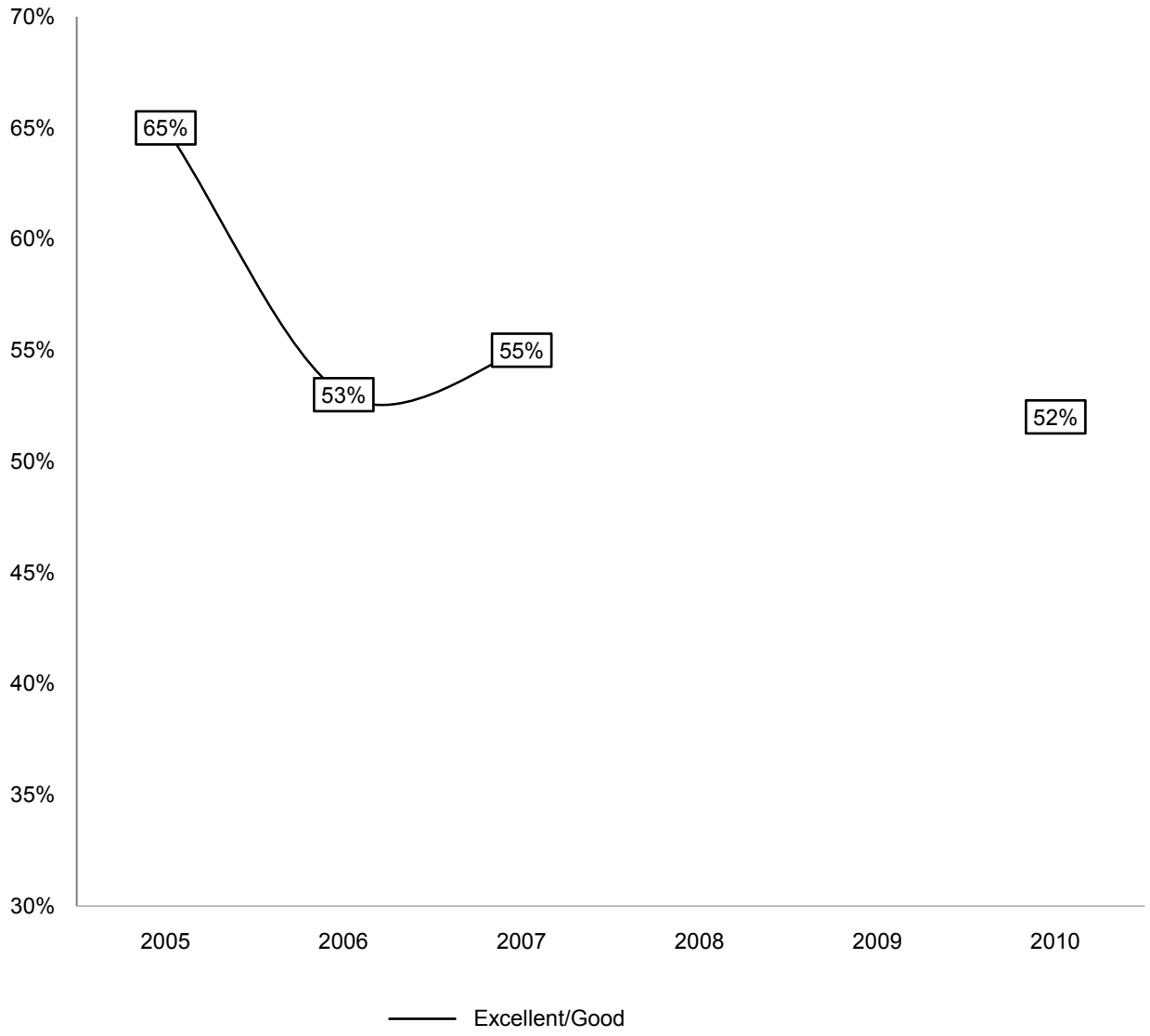
Goal	*+ 5% / yr.*	**FY09-10 Performance**	*N/A (see explanation below)*	**Trend**	 *Neutral*

Purpose Measure the level of satisfaction of both transit riders and employees. Use the results of the survey to implement improvements.

Definition Muni will conduct an annual survey of riders to determine riders' sentiments and concerns. Surveys will include an Employee Survey along with a Rider Survey.

Method Successful completion of the surveys prior to the end of FY 2007 and present findings of surveys to Board and Citizens Advisory Committee. *(Note: Muni did not conduct passenger surveys in 2008 and 2009, and in 2010 began to rely upon the City Survey conducted by the Office of the Controller.)*

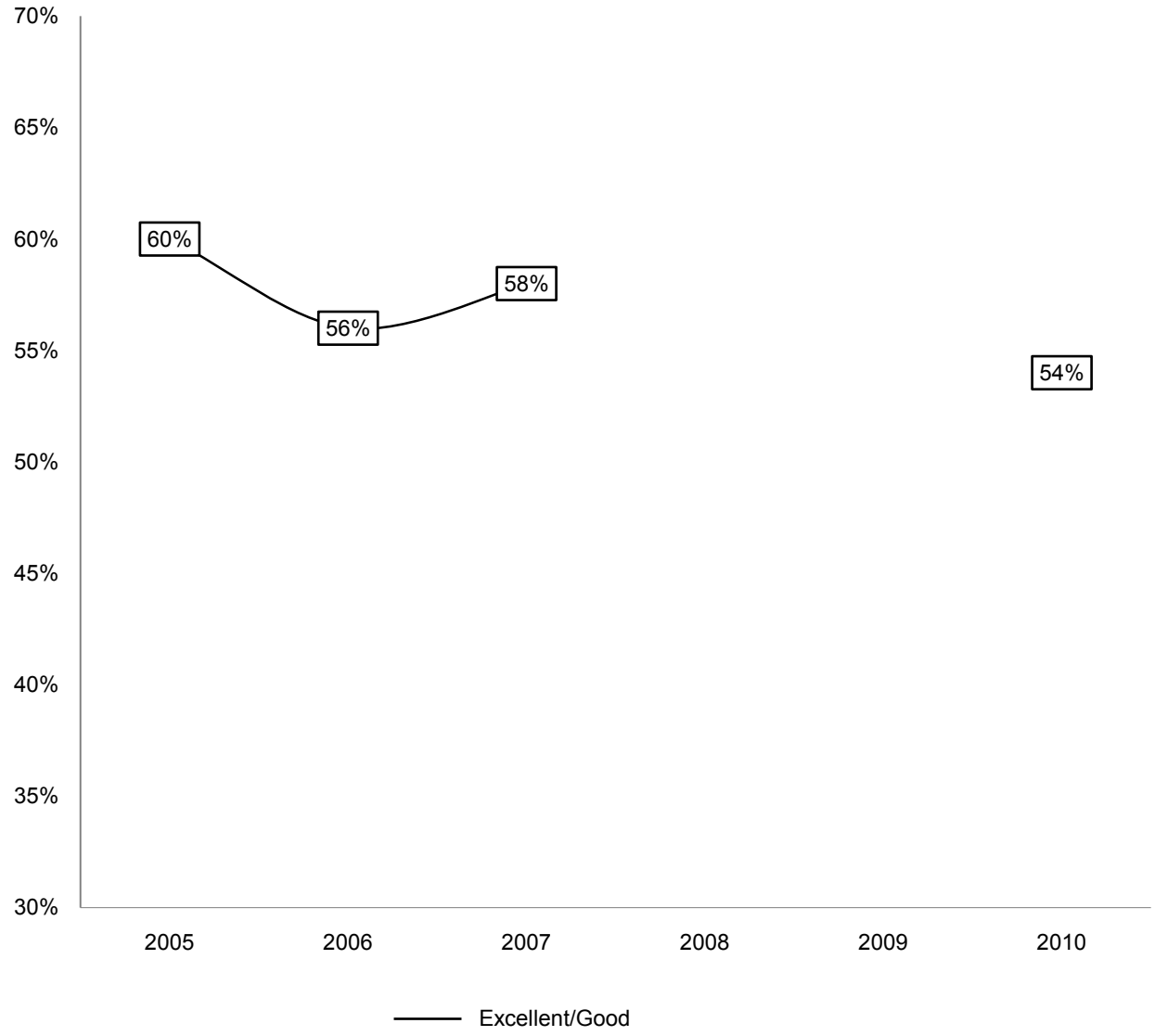
C1 Customer Perceptions



Overall Customer Satisfaction (Audit Period & Historic)

In 2010, a slight majority of Muni customers described their satisfaction with the agency as "excellent" or "good," about the same as in the last customer service surveys conducted by Muni, in 2006 and 2007. (In 2009, Muni reported data from the biennial City Survey conducted by the Controller's Office. On a five-point scale, Muni-related ratings were: Convenience of Routes, 3.63; Fares, 3.58; Safety, 3.24; Courtesy of Drivers, 3.14; Communication to Passengers, 3.00; Timeliness/Reliability, 2.9 8; Cleanliness 2.98.)

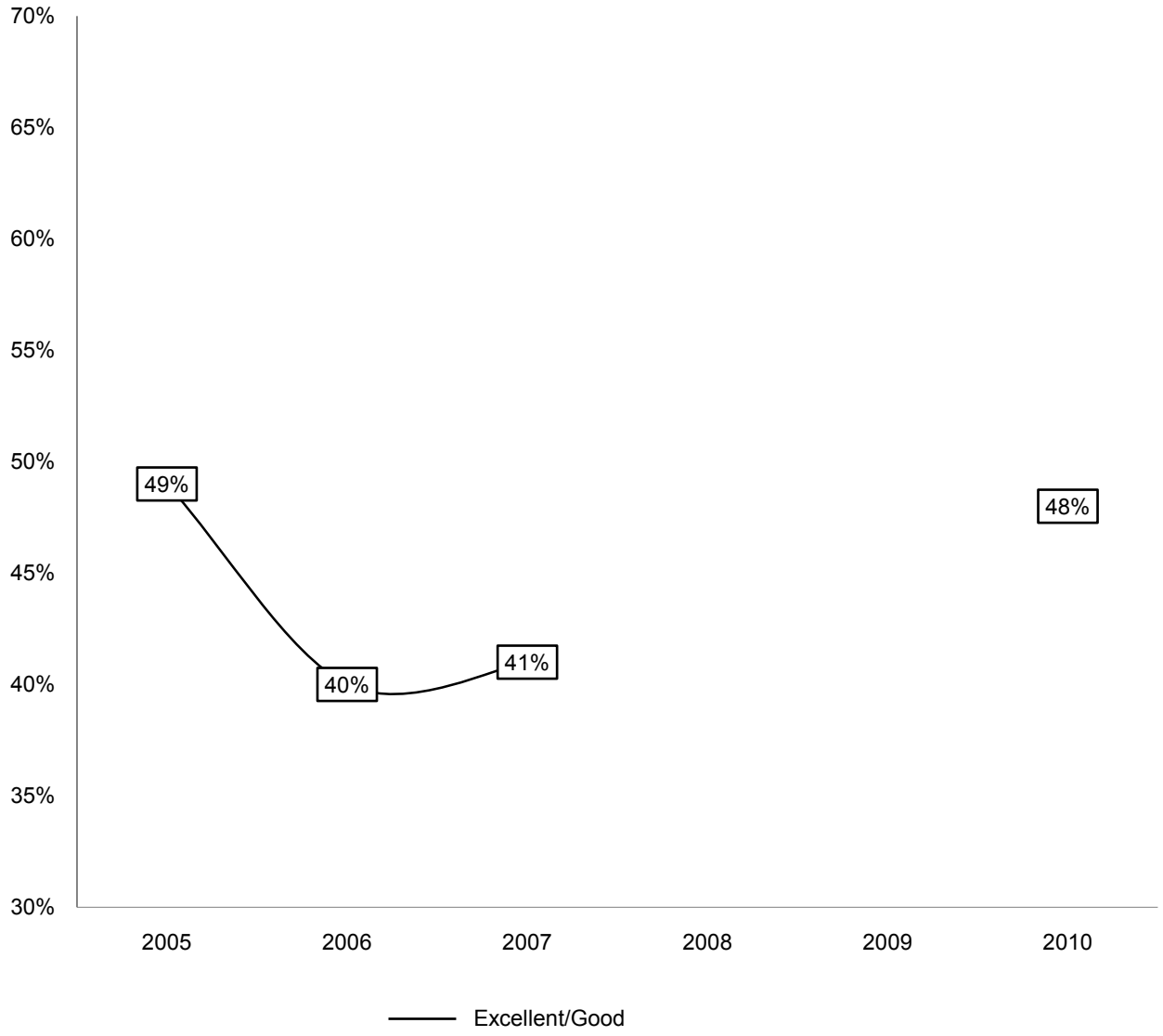
C1 Customer Perceptions



Operator Helpfulness (Audit Period & Historic)

In 2010, a majority of Muni customers also rated operator helpfulness as "excellent" or "good."

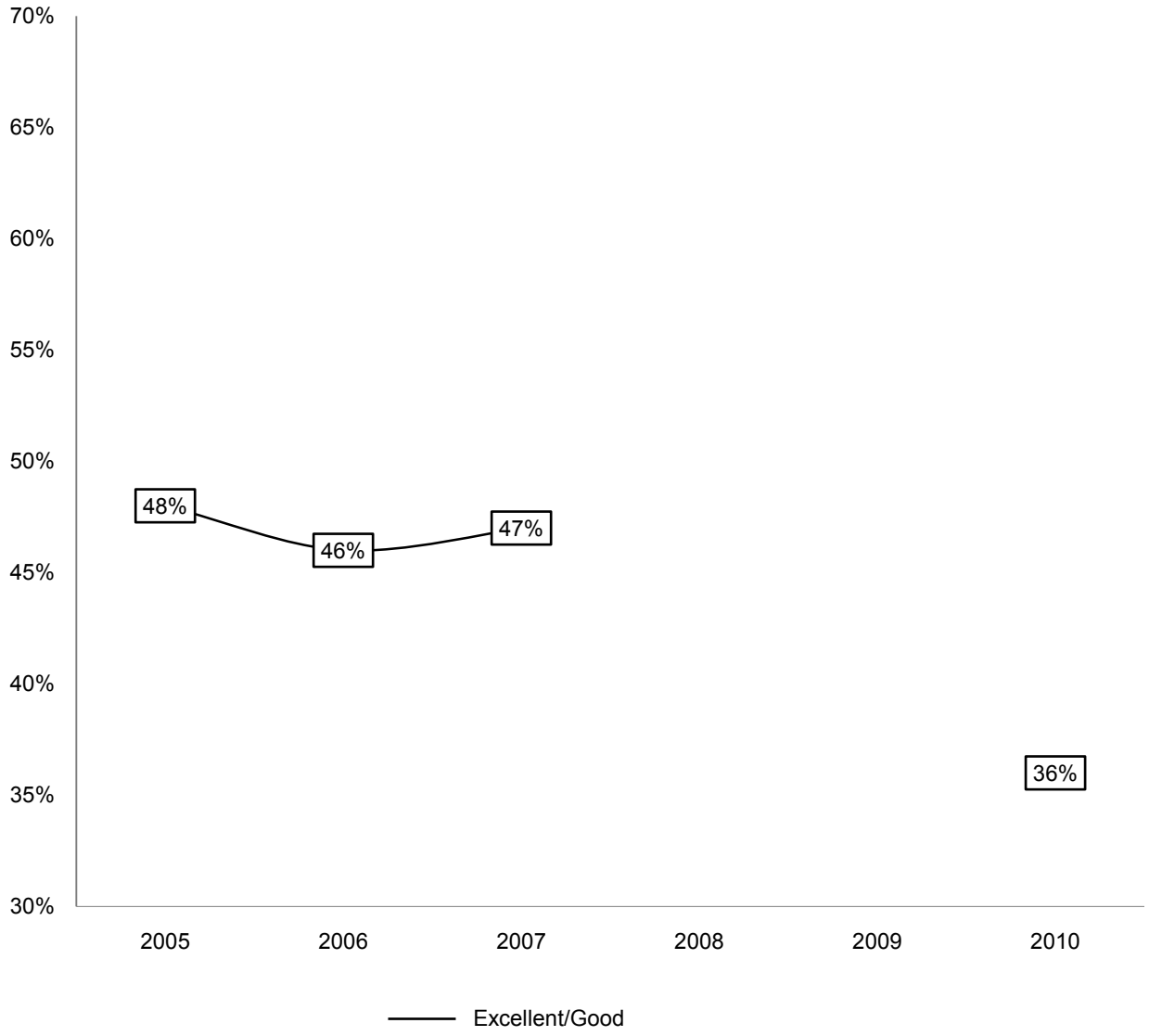
C1 Customer Perceptions



Communication with Riders (Audit Period & Historic)

By contrast, a slight majority of Muni customers considered the agency's communications with riders to be "fair" or "poor." Unlike performance in other categories, performance in this area improved in 2010 (over 2006 and 2007).

C1 Customer Perceptions



Vehicle Cleanliness (Audit Period & Historic)

Customer perceptions of vehicle cleanliness declined noticeably from previous surveys: 64% of Muni riders rated vehicle cleanliness "fair" or "poor".

C1 Customer Perceptions

Recommendation

Make reporting more timely.

For budgetary reasons, SFMTA did not conduct a customer service survey in 2008 or 2009. In 2009, acting upon a recommendation in the previous Quality Review, Muni-related results from the biennial City Survey conducted by the Controller's Office were reported instead. However, in 2010 Muni once again conducted its own passenger survey.

We recommended in the last Quality Review that Muni discontinue its survey not because the agency shouldn't regularly poll public opinion or seek to provide the best possible customer service, but rather because we viewed the agency's efforts as duplicative and unnecessary. However, following conversations with staff, we are recommending in this Quality Review that the agency *increase* its survey efforts. Specifically, we are recommending that the agency conduct monthly high-level surveys in addition to more detailed annual or biannual surveys. The expense associated with this effort would not be significant in terms of the overall agency budget and more frequent surveys would provide management with more timely information regarding customer satisfaction in various areas. This, in turn, might allow the agency to be more responsive to customer needs.

In the previous Review, we added that if Muni were to continue to conduct its own survey, it should make a number of changes. These changes were recommended by former Muni staff, and include:

- conduct the survey in multiple languages, not just English;
- broaden its scope beyond customer satisfaction to include questions about customer preferences;
- target not just transit users, but all those impacted by transit, including cyclists and drivers; and
- if possible, supplement telephone surveys with intercept surveys.

We further recommend that questions about vehicle cleanliness be expanded to incorporate stop and station cleanliness.

C2 Customer Feedback Received

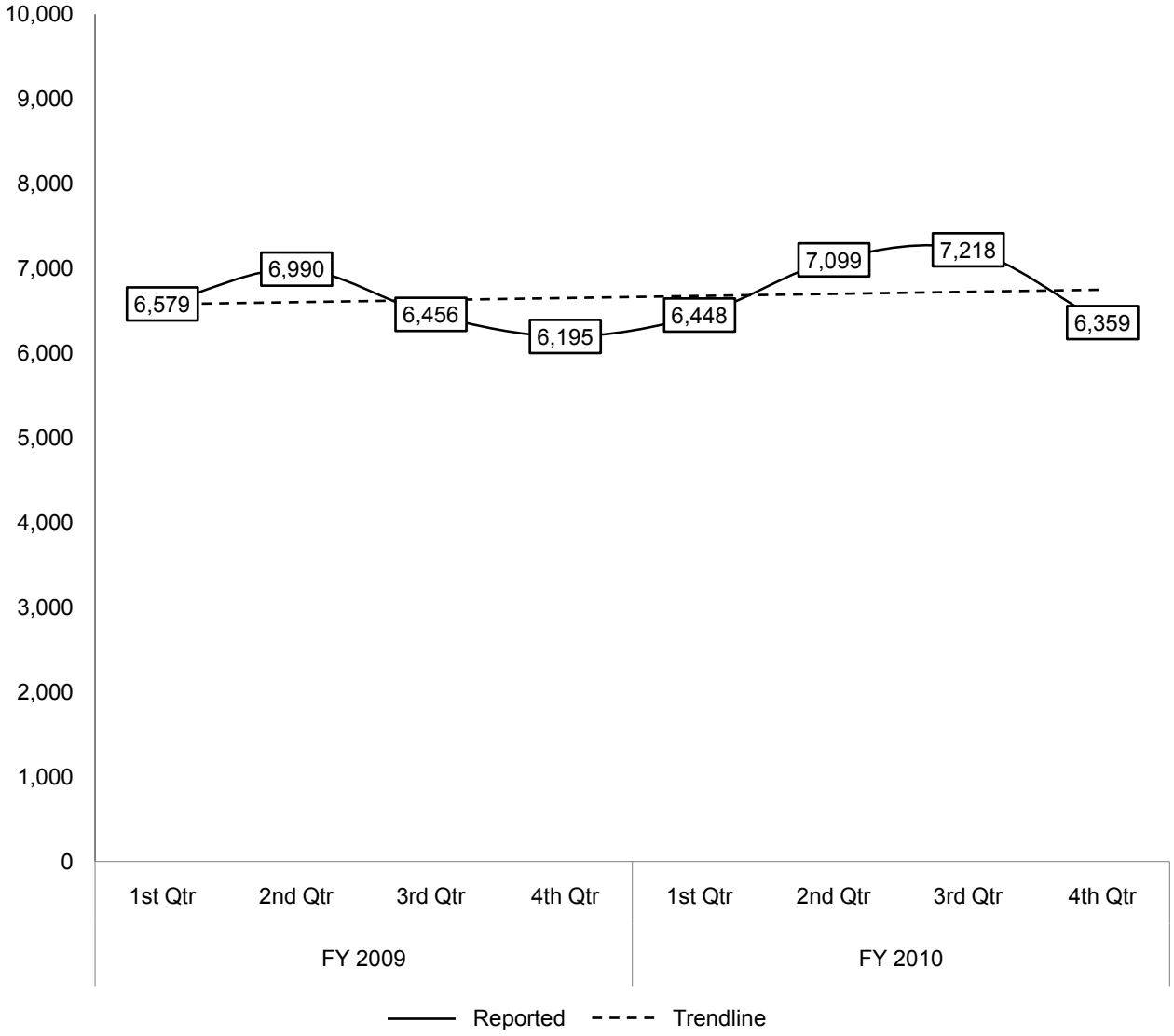
Goal	*N/A*	**FY09-10 Performance**	*No Goal For This Standard*	**Trend**	*N/A (see explanation below)*

Purpose To identify the key types of feedback received by Muni customers.

Definition Consists of employee conduct and products/services complaints. *(Note: According to staff, a recent increase in the numbers of PSRs received corresponded with the 2007 implementation of 24-hour availability of 311 phone line customer service operators, who can log Muni complaints.)*

Method Customer feedback statistics are extracted from the Trapeze COM system and categorized by feedback type.

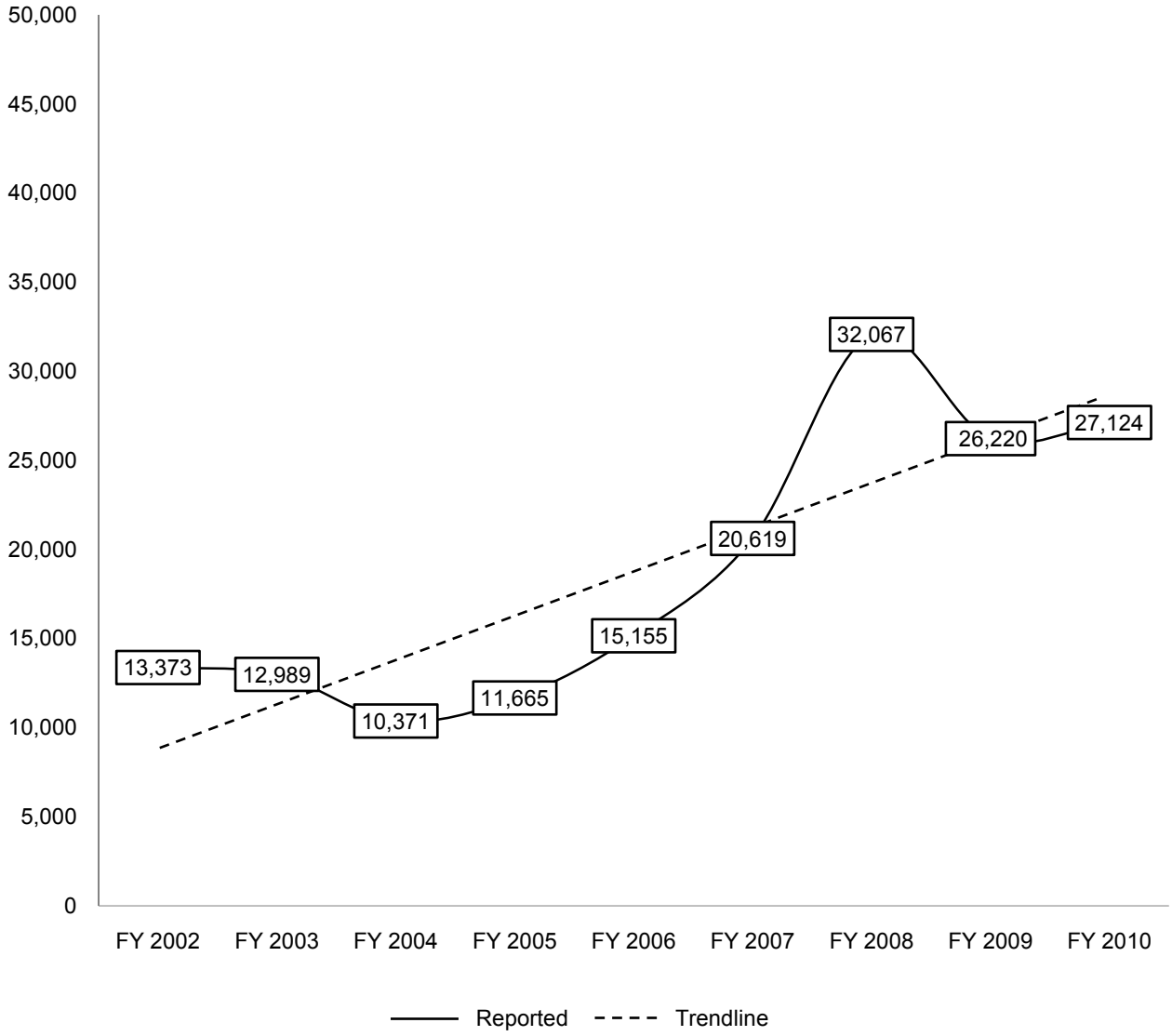
C2 Customer Feedback Received



Passenger Service Reports (Audit Period)

Muni complaints are known as Passenger Service Reports, or PSRs. The total numbers of PSRs submitted per quarter fluctuated over the audit period, but remained relatively constant.

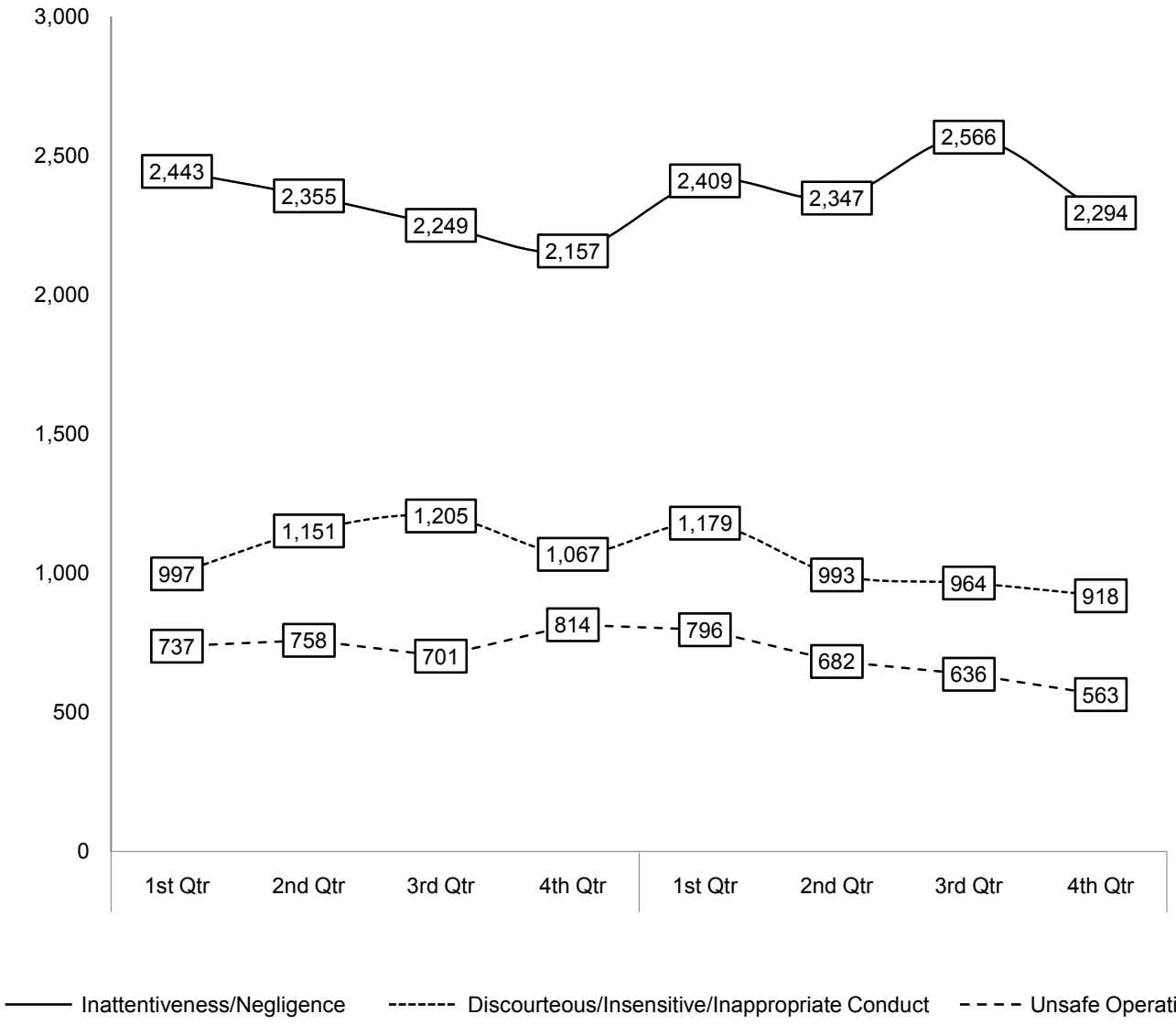
C2 Customer Feedback Received



Passenger Service Reports (Historic)

After a sharp increase in customer complaints in FY 2007 and FY 2008, figures fell in FY 2009. According to staff, much of the long-term upward trend can be explained by the increased ease of filing complaints using the city's 311 customer service hotline: starting in 2007, operators were available 24 hours.

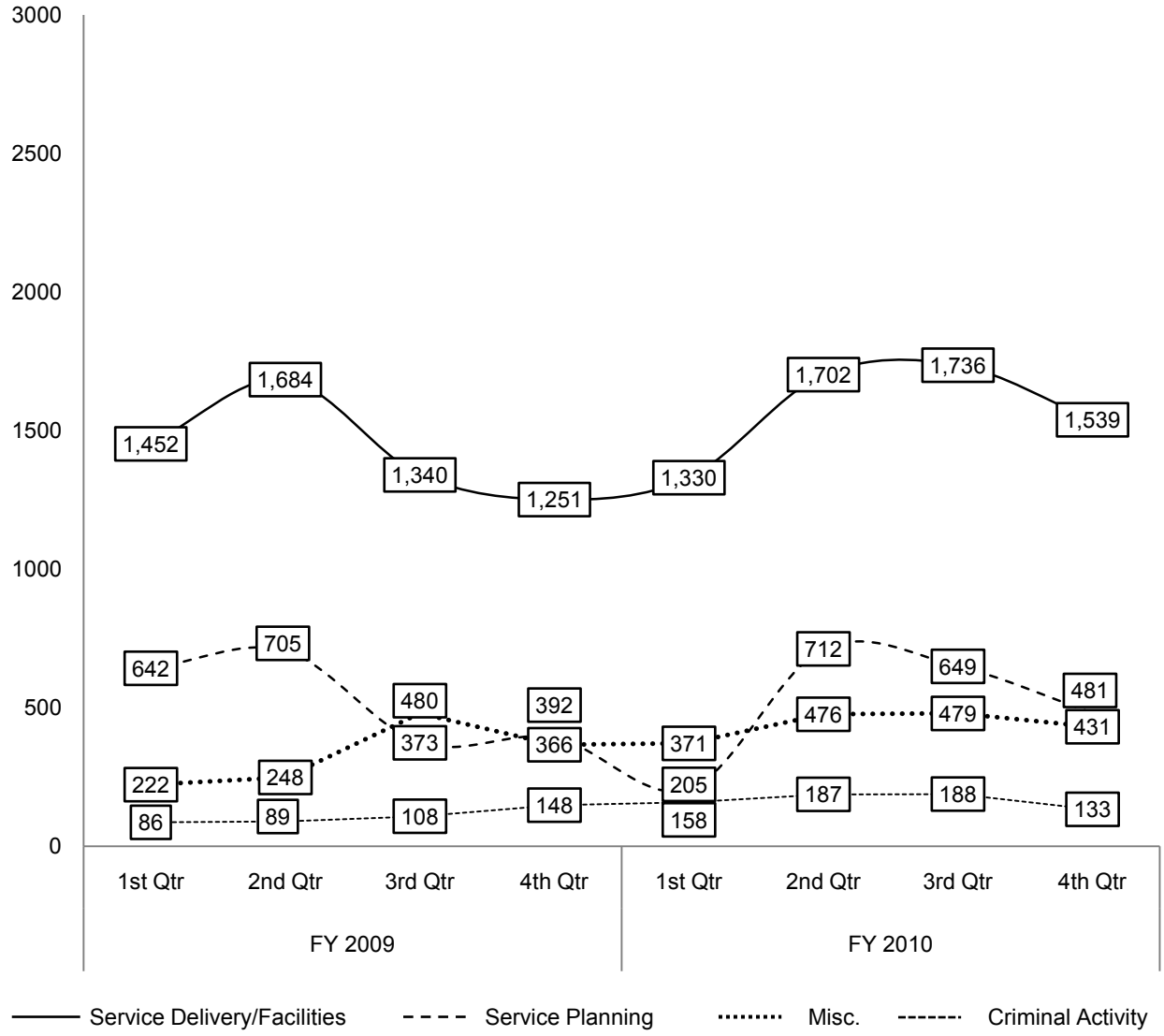
C2 Customer Feedback Received



Passenger Service Reports: Employee Conduct (Audit Period)

In FY 2009, Muni reorganized its reporting of PSRs to include the categories at left. The most common employee conduct PSR involved inattentive or negligent drivers. The least common employee conduct-related PSR was unsafe operation. In all three categories, employee conduct PSRs declined slightly over the course of the audit period. (In previous years, Muni reported the number of employee conduct PSRs requiring follow-up measures, instead of the type of employee conduct-related PSRs.)

C2 Customer Feedback Received



Passenger Service Reports: Products and Services (Audit Period)

In FY 2009, Muni reorganized its reporting of PSRs to include the categories at left. The most common product and service PSR involved facilities and service delivery; least common was criminal activity.

C2 Customer Feedback Received

	FY 2010	FY 2011			
Category	**4th Qtr**	**1st Qtr**	**2nd Qtr**	**3rd Qtr**	**4th Qtr**
Employee Conduct	**3,775**	**3,258**	**2,600**	**3,058**	**2,814**
Unsafe Operation	563	532	401	510	518
Inattentiveness/Negligence	2,294	1,953	1,470	1,731	1,628
Discourteous/Insensitive/Inappropriate Conduct	918	773	729	817	668
Products and Services	**2,584**	**2,720**	**2,273**	**1,987**	**2,215**
Criminal Activity	133	122	119	104	106
Service Delivery/Facilities	1,539	1,622	1,373	1,215	1,430
Service Planning	481	412	263	234	242
Miscellaneous	431	564	518	434	437

Since the Audit Period

Since the audit period, employee conduct PSRs have declined noticeably, especially complaints of inattentiveness and negligence, and of discourteous, insensitive, or inappropriate conduct. Products and service PSRs increased in the 1st Quarter of FY 2011 before declining, with service planning complaints declining significantly.

C2 Complaint Resolution Rate

Goal *> 85% within 14 days (non-ADA)*
>85% within 45 days (ADA violations)

FY09-10 Performance 
Near Goal

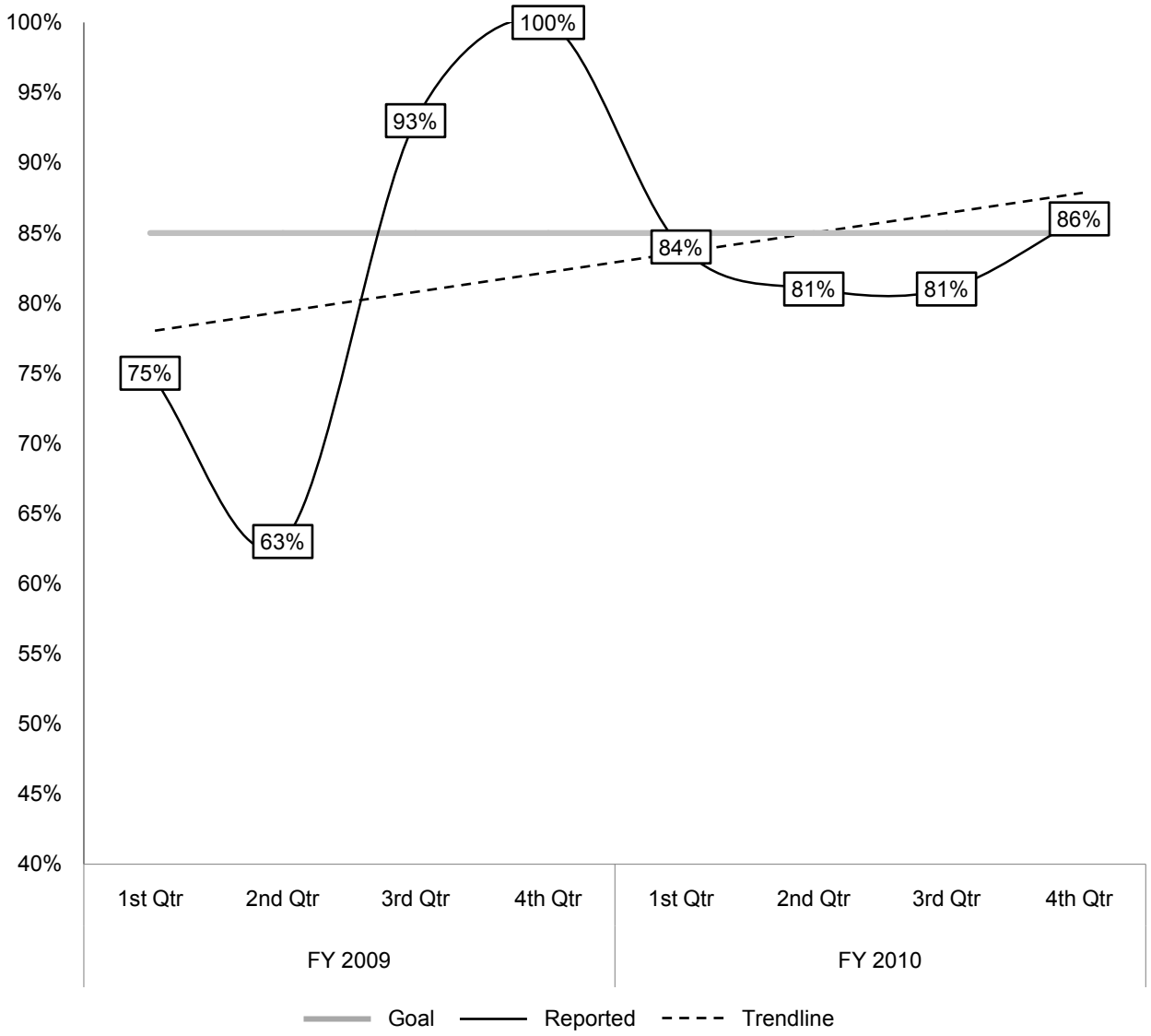
Trend 
Neutral

Purpose To measure customer satisfaction with the Municipal Railway and the effectiveness of internal processes to address the complaints.

Definition SFMTA summarizes complaints received, resolved, and outstanding on a quarterly basis.

Method Data provided by the Muni Customer Services Unit and will be reported to the Board on a quarterly basis.

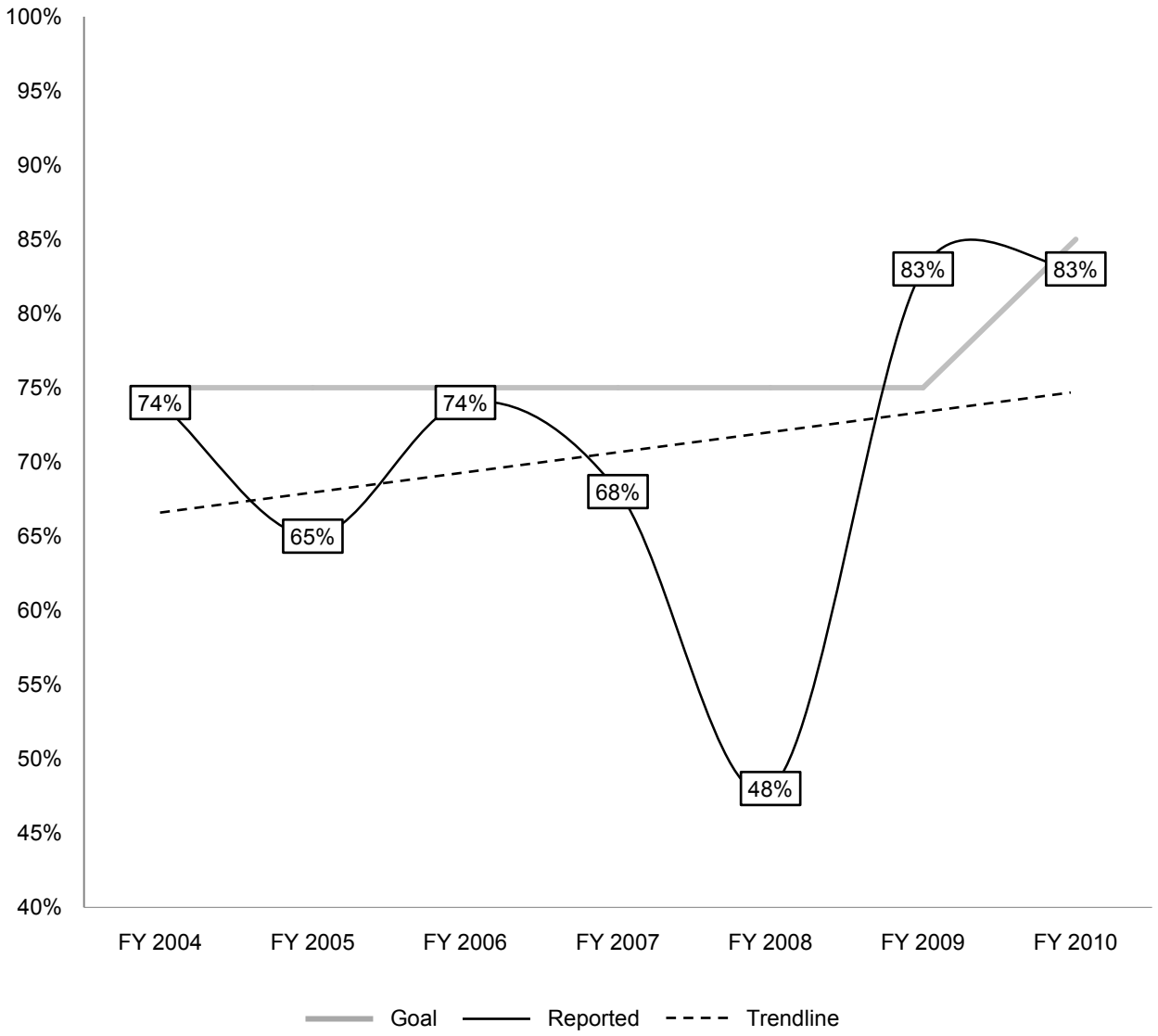
C2 Complaint Resolution Rate



Percentage Resolved Within 45 Days: ADA Violations (Audit Period)

After relatively poor performance in the first half of FY 2009, Americans with Disabilities Act-related complaint resolution rates improved and in FY 2010 hovered near the goal of resolution of 85% of complaints within 45 days. Part of the disparity between FY 2009 and FY 2010 is the result of a methodology change. In FY 2009, the resolution rate was reported as complaints resolved within 30 days. In FY 2010, the agency began reporting complaints resolved within 45 days.

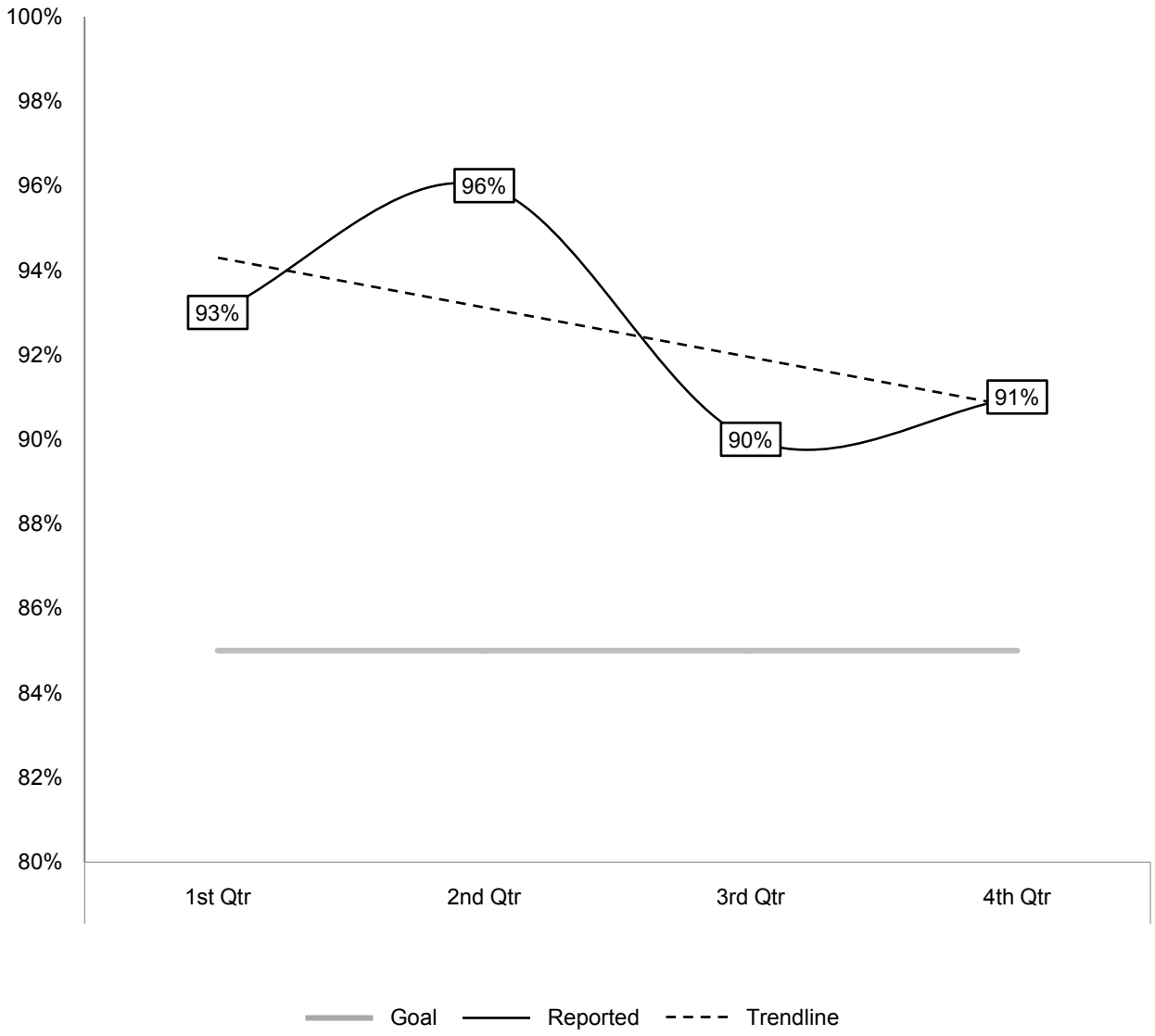
C2 Complaint Resolution Rate



Percentage Resolved Within 45 Days: ADA Violations (Historic)

After a substantial decline in FY 2008, resolution rates for Americans with Disabilities Act-related complaints rebounded in FY 2009 and FY 2009. It's important to note, however, that the service standard changed in 2010 from resolution within 30 days to resolution within 45 days.

C2 Complaint Resolution Rate



Percentage Resolved Within 14 Days: Operator Complaints (Audit Period)

Historically, only resolution rates for Americans with Disabilities Act-related complaints have been reported, so no historical data is available. In FY 2010, the SFMTA exceeded the goal of resolution of 85% of non-ADA complaints within 14 days.

C2 Complaint Resolution Rate

Recommendation

Change the timeline for resolution of Americans with Disabilities Act-related Passenger Service Reports to 60 days.

In our last Quality Review, we recommended that the timeline for resolution (meaning that a complaint has been dismissed or has been found to be potentially actionable) of ADA-related customer service complaints be set at 60 days. Instead, the previous standard of resolution of 75% of complaints within 30 days was changed to 85% within 45 days. This was a significant improvement; however, ADA complaint processes include three steps that can, by right, take up to 49 days to complete: 14 days for division managers to determine whether a complaint is viable, 21 days for complainants to respond to letters from customer service staff, and another 14 days for operators to respond to notices. In other words, staff might potentially resolve a customer service complaint as promptly as possible, but still fail to achieve the standard. The standard of 85% resolution takes this into account to some extent, however, we continue to agree with staff that 60 days would be a more reasonable timeline.

C3 Training

Goal *> 50,000 hrs./yr.*

FY09-10 Performance

Achieved Goal

Trend

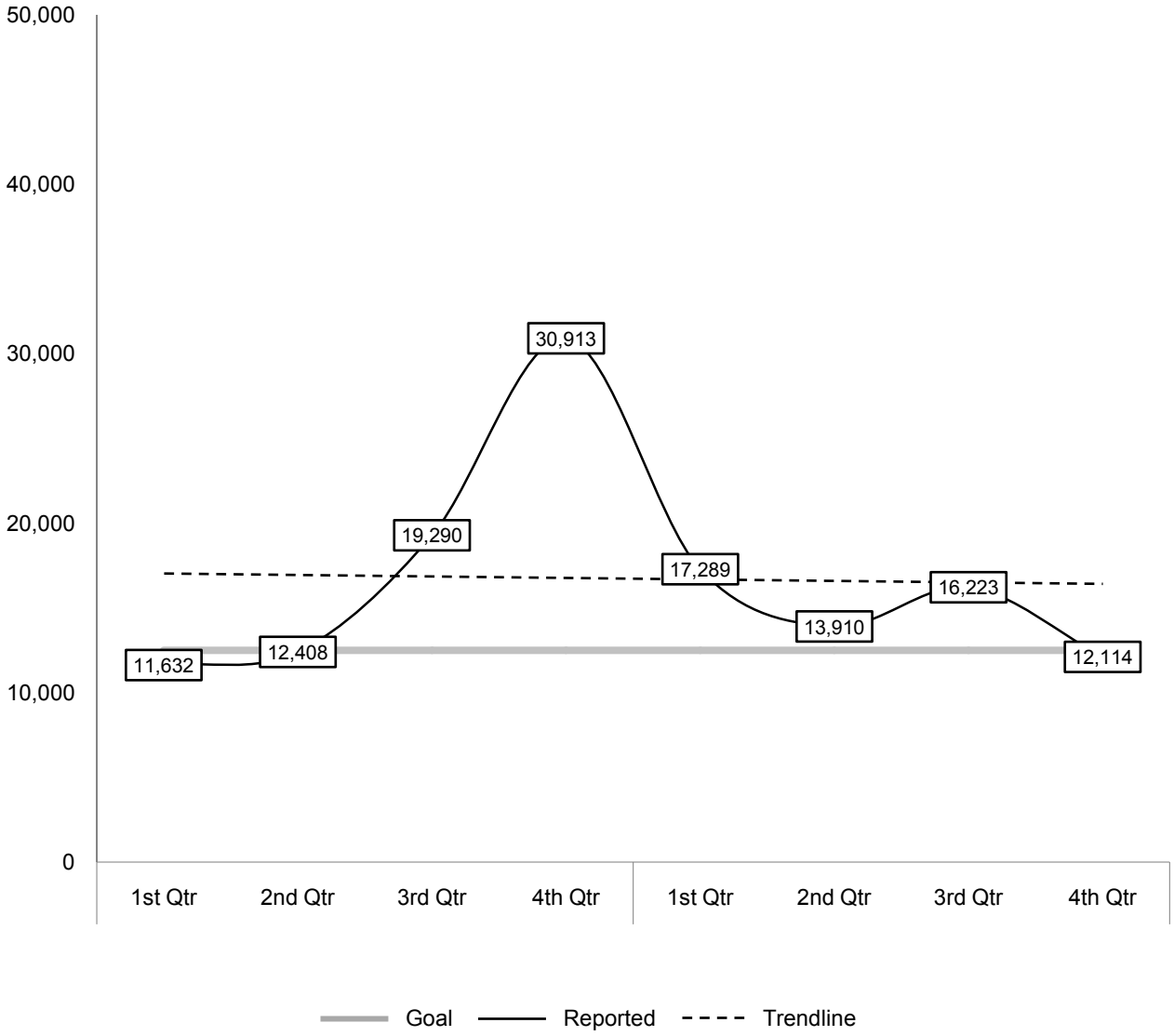
Neutral

Purpose To reduce accidents through effective operator training programs as well as effective accident follow-up training.

Definition Monthly measurement of the number of training hours by type of class. Training hours are tracked for the following areas: New Operator Training, Immediate Follow-up Rides, One/Two Day Accident Retraining, Verification of Transit Training, Operator Refresher, and Passenger Relations/Conflict Training.

Method Number of reportable accidents and training hours. Data are reported to the Board on a quarterly basis. *(Note: The methodology for this Service Standard was changed in FY 2008, when new employee training for supervisors and operators was removed from totals. This performance category was discontinued in FY 2011.)*

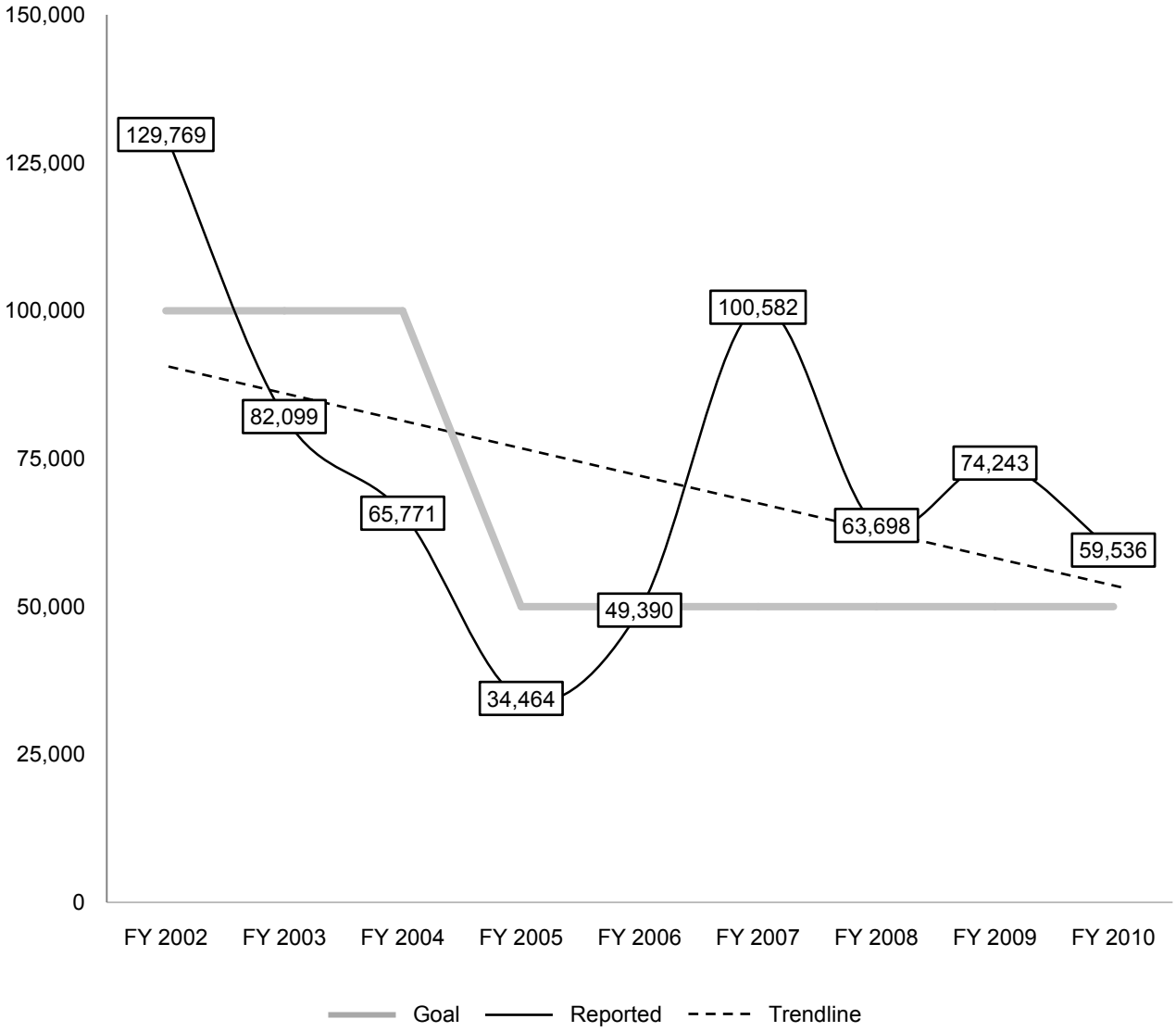
C3 Training



Number of Operator/ Maintenance Training Hours (Audit Period)

Starting in FY 2011, Muni is no longer reporting this measure because "(o)utcomes of training are measured in customer satisfaction, safety, and maintenance metrics."

C3 Training



Number of Operator/ Maintenance Training Hours (Historic)

The methodology for this Service Standard was changed in FY 2008, when new employee training for supervisors and operators was removed from totals, and again in FY 2009, when training for maintenance staff was added.

C3 Training

Recommendation

Restore measure.

This service standard had been revised repeatedly in recent years (training hours for new operators were removed from totals in FY 2008 and hours for maintenance staff were added in FY 2009) before it was finally discontinued at the end of this audit period. There had been plans to expand it: in FY 2009, a secondary measure, "Percent of Operators Receiving Revised Customer Service Training," was proposed to be introduced, but the program was not implemented for budgetary reasons. The measure was ultimately eliminated because "(o)utcomes of training are measured in customer satisfaction, safety, and maintenance metrics." While this may be true, it is equally true of other measures that have been retained. For example, outcomes of A6 Vacancy Rates for Service Critical Positions," are measured in mechanical reliability and other metrics. If mechanical reliability is in decline, one might wish to know whether vacancy rates among mechanics have been increasing. By the same token, if rates of accidents are increasing, whether safety training has been reduced is a potentially valuable piece of information. For this reason, we are recommending that the measure be reinstated, with a focus on recurring safety and customer service training.

C4 Safety (Collisions per 100,000 Miles)

Goal *- 5% / yr.*

FY09-10 Performance 

Near Goal

Trend 

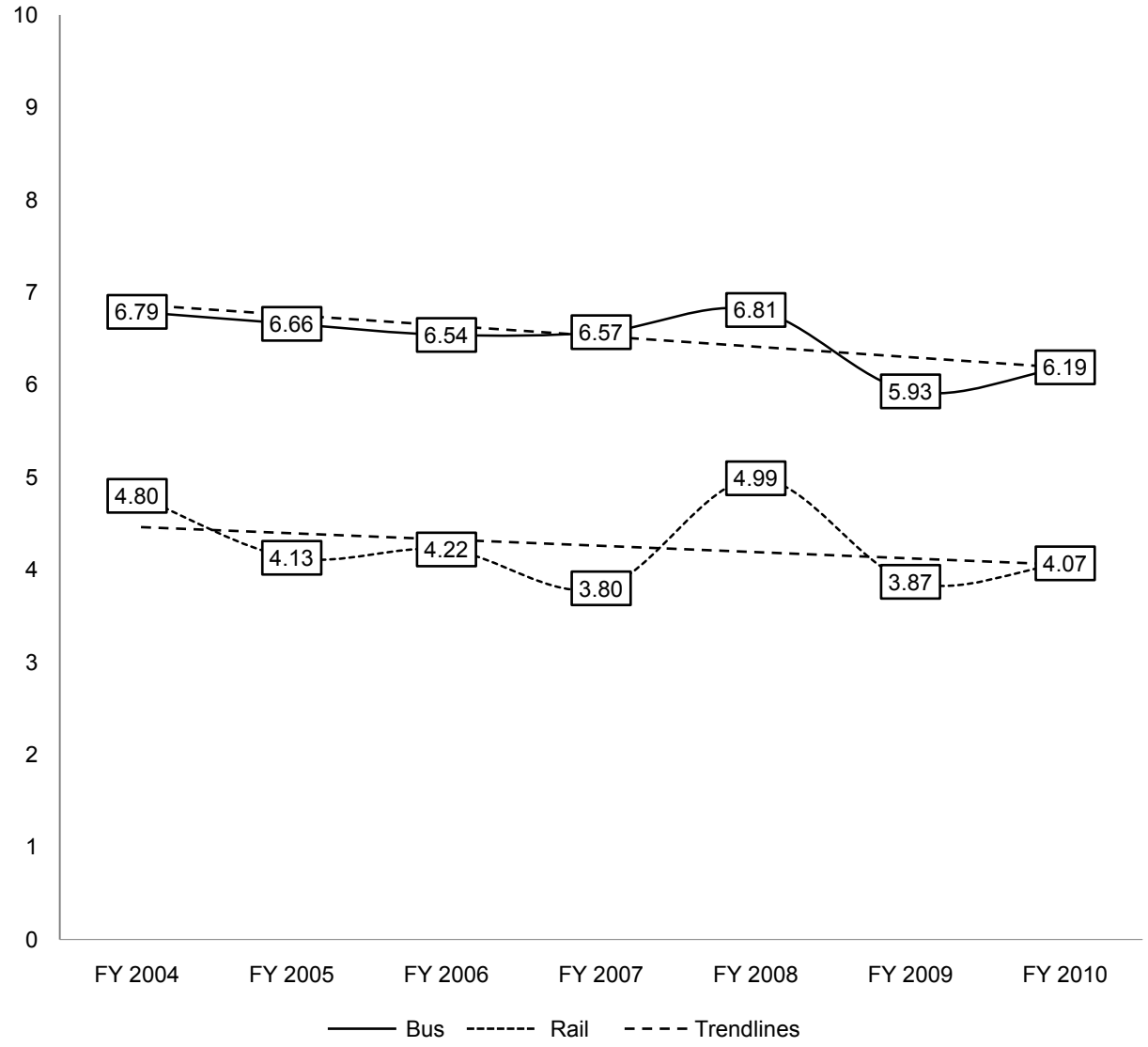
Neutral

Purpose To reduce accidents through effective operator training programs as well as effective accident follow-up training.

Definition Track reduction in accidents as a result of more effective operator training and accident retraining.

Method Number of reportable revenue service accidents. Data will be reported to the Board on a quarterly basis.

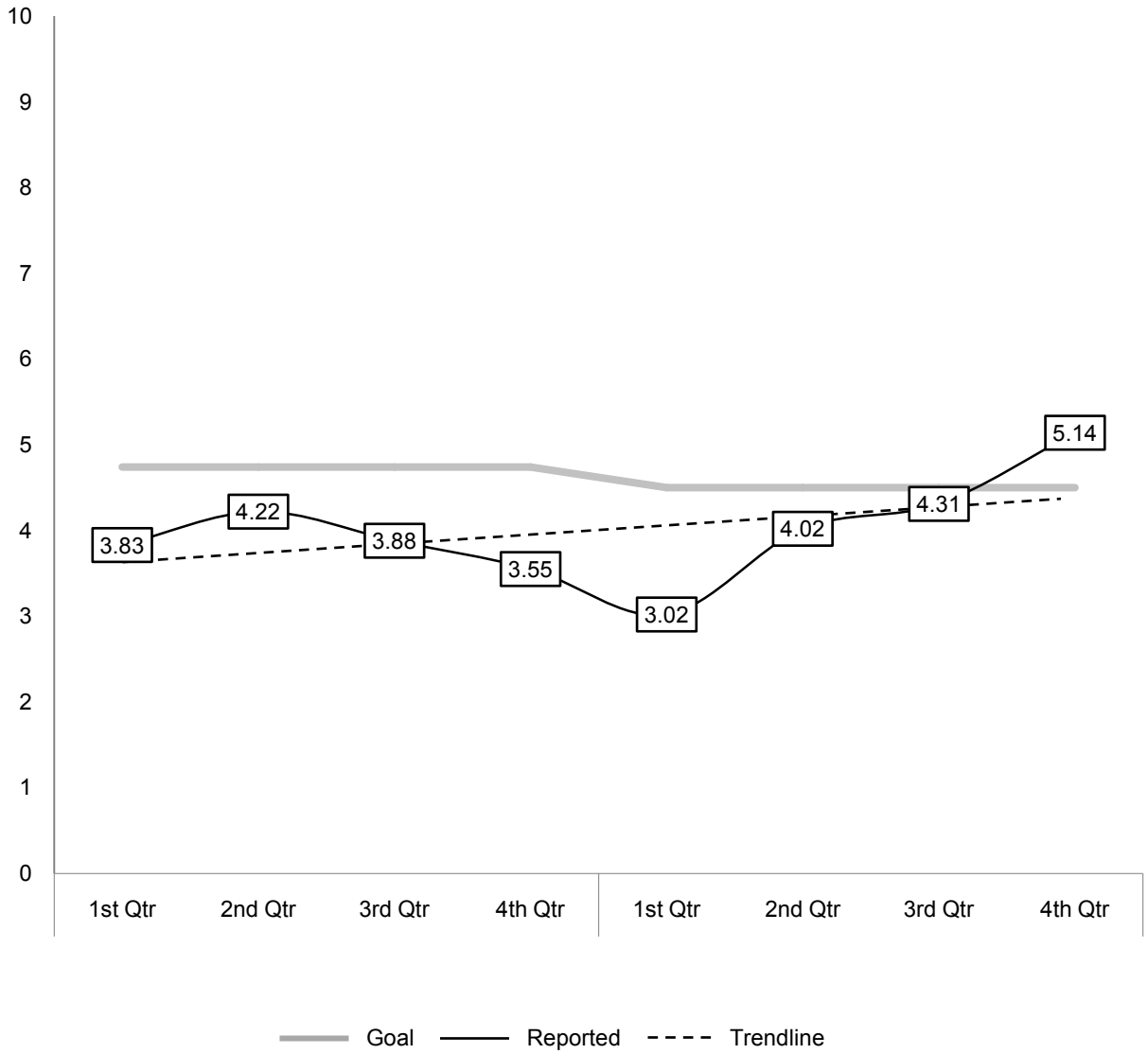
C4 Safety (Collisions per 100,000 Miles)



Systemwide (Audit Period & Historic)

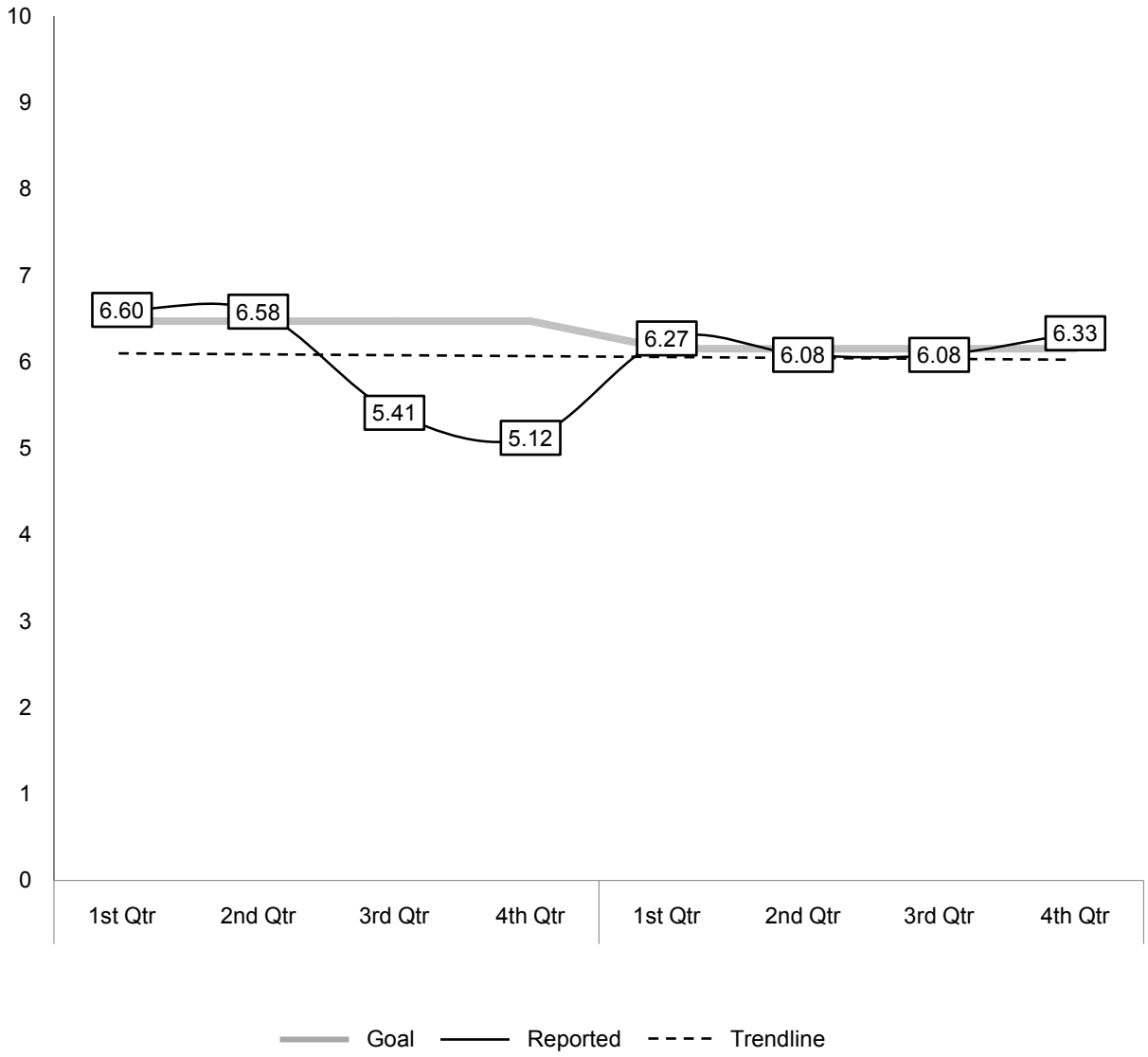
As explained in the first chapter of this report, reported figures for this measure are slightly low due to a discrepancy between the types of incidents included (only those in revenue service) and the mileage totals used to calculate rates (non-revenue miles are included). However, the difference between revenue and total mileage is slight, so the reported figures shown here should be considered relatively accurate. Following a noticeable increase in collisions in FY 2008, safety improved markedly in FY 2009, while the long-term trend has been downward.

C4 Safety (Collisions per 100,000 Miles)



Rail (Audit Period)
For most of the audit period, rail collisions per 100,000 miles remained below the target ceiling, although there was a noticeable increase in the 4th Quarter of FY 2010. (Note that unlike most service standards, the goal for Safety is *below* a target level rather than above it.)

C4 Safety (Collisions per 100,000 Miles)



Bus (Audit Period)
Historically and during the audit period, rates of bus collisions per 100,000 miles have been higher than for rail. After declining in the 3rd and 4th Quarters of FY 2009 (notably, training hours were significantly higher in the 3rd Quarter than in other quarters), bus collision rates returned to previous levels in FY 2010.

C4 Safety (Falls on Board per 100,000 Miles)

Goal *- 5% / yr.*

FY09-10 Performance ▼ *Did Not Achieve Goal*

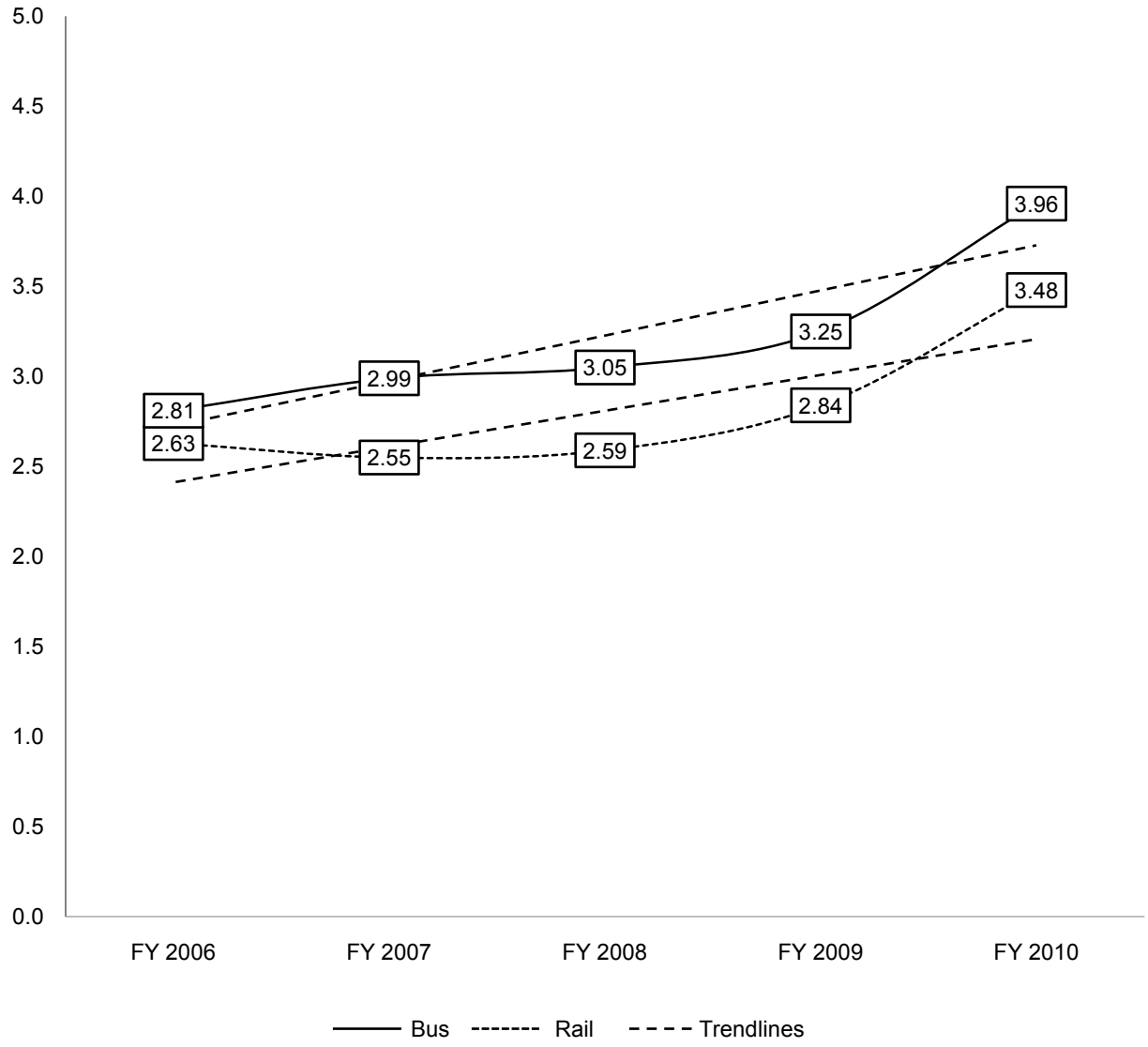
Trend ▼ *Negative*

Purpose To reduce accidents through effective operator training programs as well as effective accident follow-up training.

Definition Track reduction in accidents as a result of more effective operator training and accident retraining.

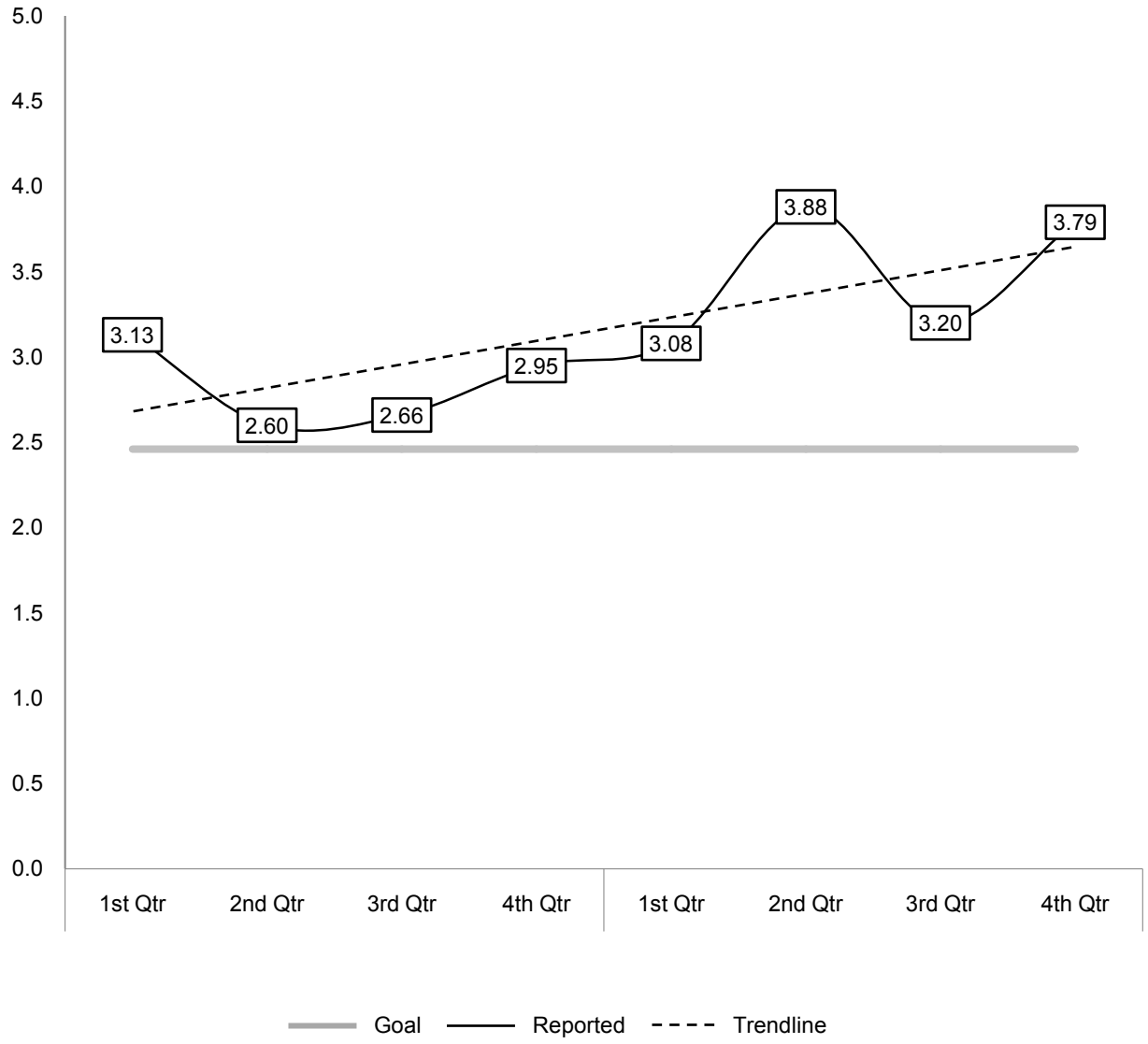
Method Number of reportable revenue service accidents. Data will be reported to the Board on a quarterly basis.

C4 Safety (Falls on Board per 100,000 Miles)



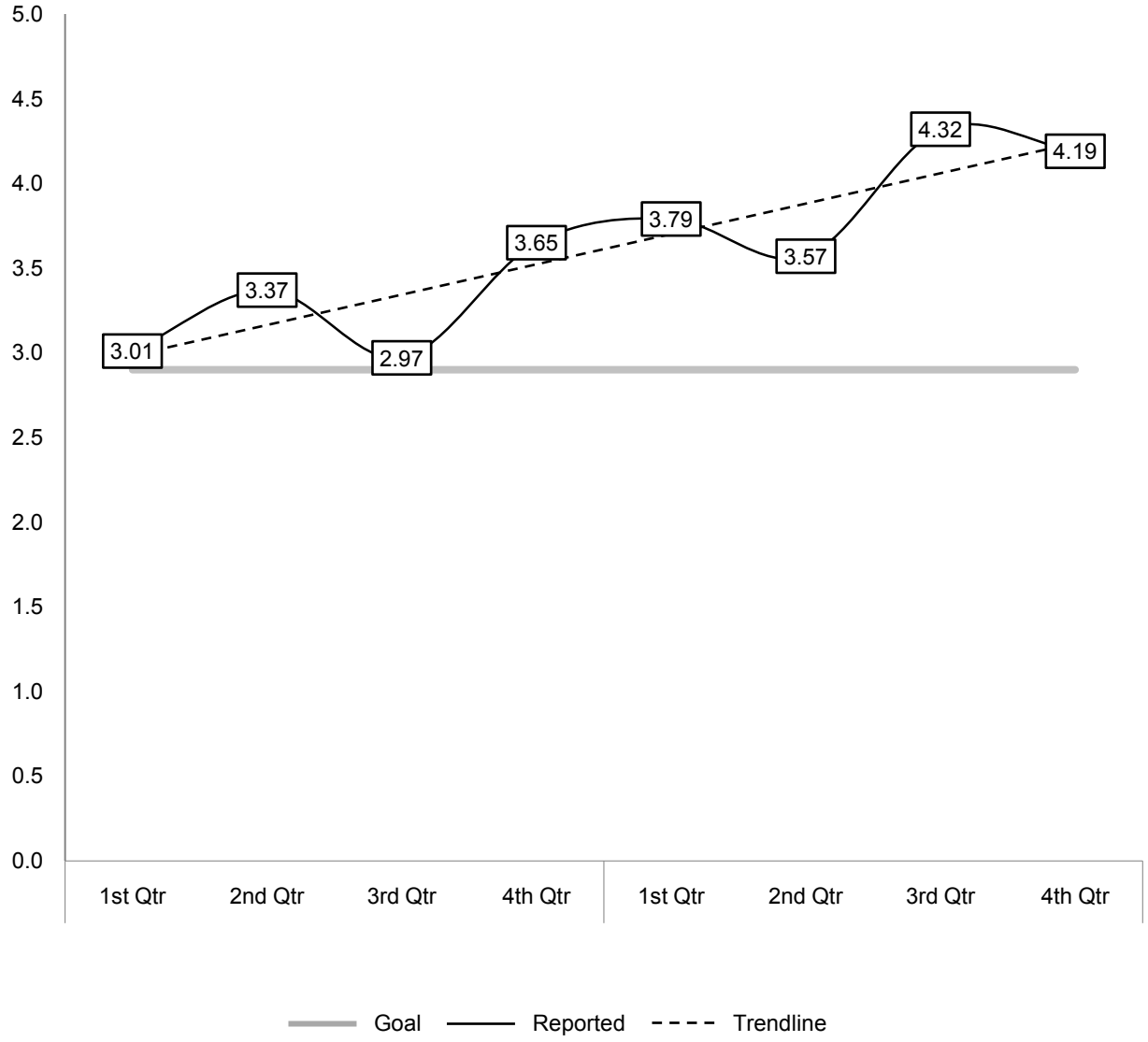
Systemwide (Audit Period & Historic)
Since FY 2006, when falls on board data were first reported, rates have trended upward, most notably in FY 2010.

C4 Safety (Falls on Board per 100,000 Miles)



Rail (Audit Period)
The rate of falls on board for rail was relatively steady through FY 2009 but trended upward in FY 2010.

C4 Safety (Falls on Board per 100,000 Miles)



Bus (Audit Period)
The rate of falls on board for buses fluctuated throughout the audit period but generally trended upward.

C6 Security Incidents

Goal *- 5% / yr.*

FY09-10 Performance ▼ *Did Not Achieve Goal*

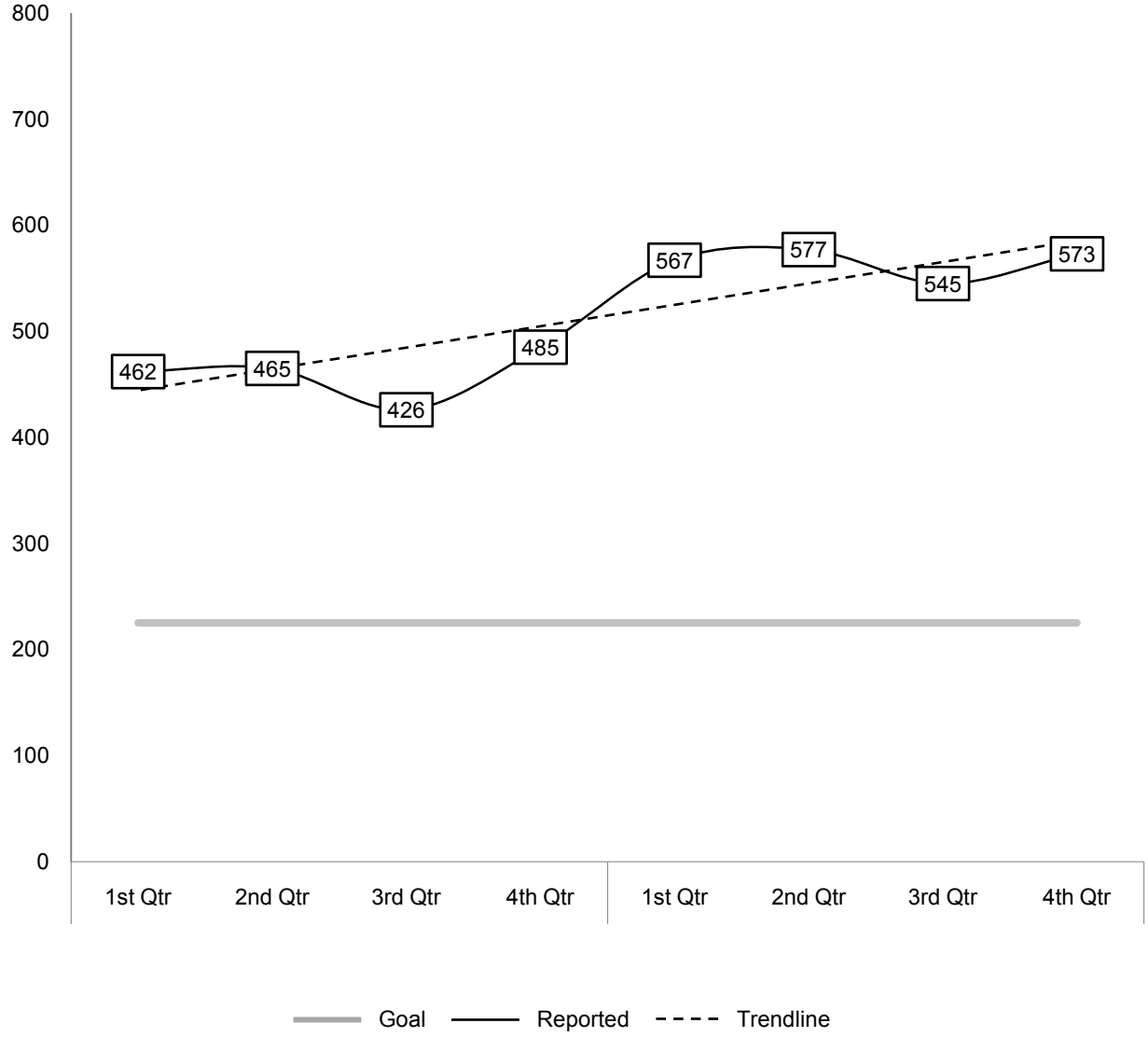
Trend ▼ *Negative*

Purpose To measure security incidents on transit vehicles and in facilities.

Definition All categories of crime incidents are reported by category on a quarterly basis.

Method Data is collected daily by Security and Enforcement. Data will be reported to the Board on a quarterly basis.

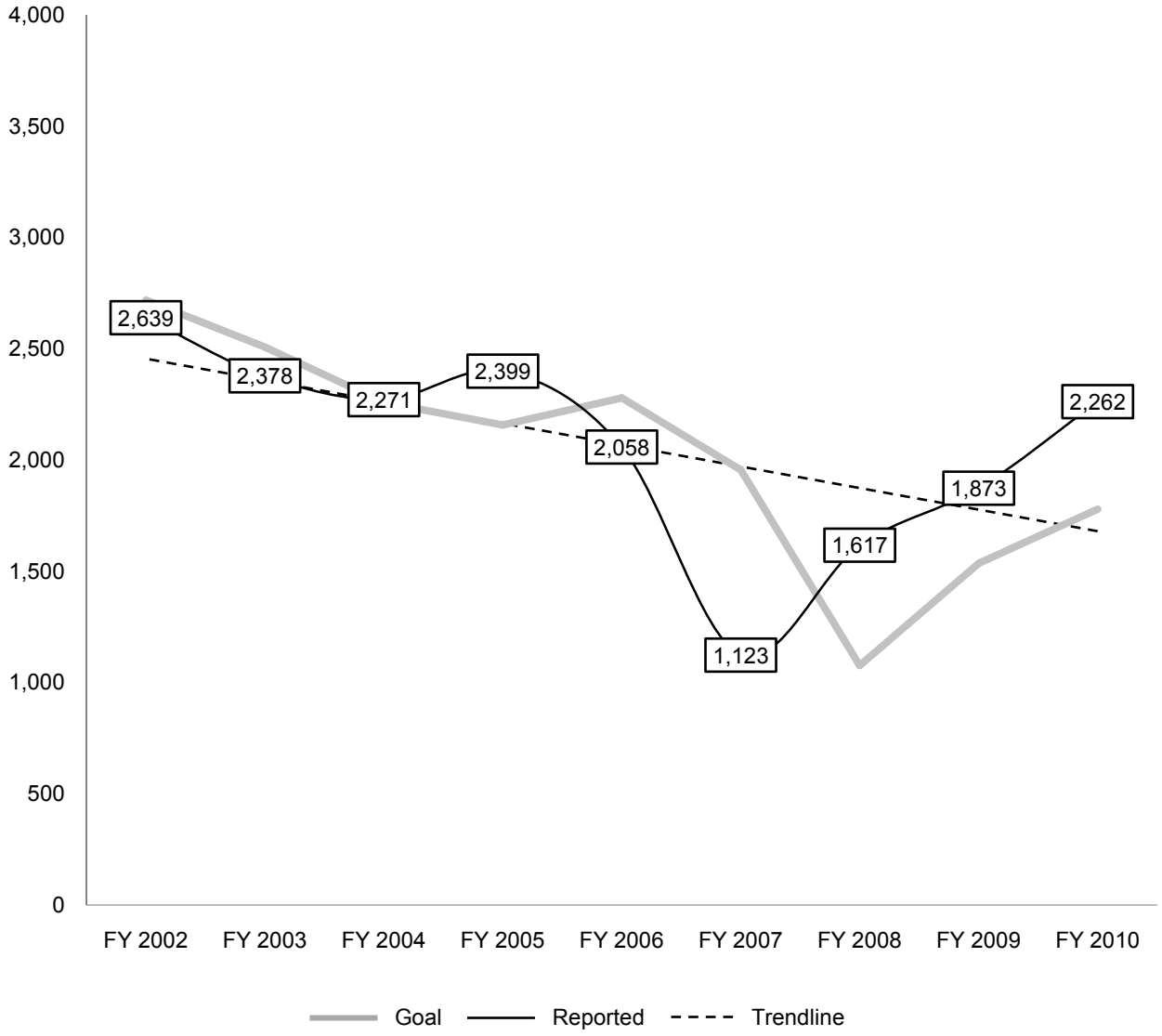
C6 Security Incidents



SFPD Reported Crimes & Other Incidents (Audit Period)

SFMTA-reported security incidents include both crime on Muni property reported by SFPD to the SFMTA, as well as security incidents tracked internally by SFMTA that do not result in a police report. In FY 2010, the total number of security incidents (excluding fare evasion) increased.

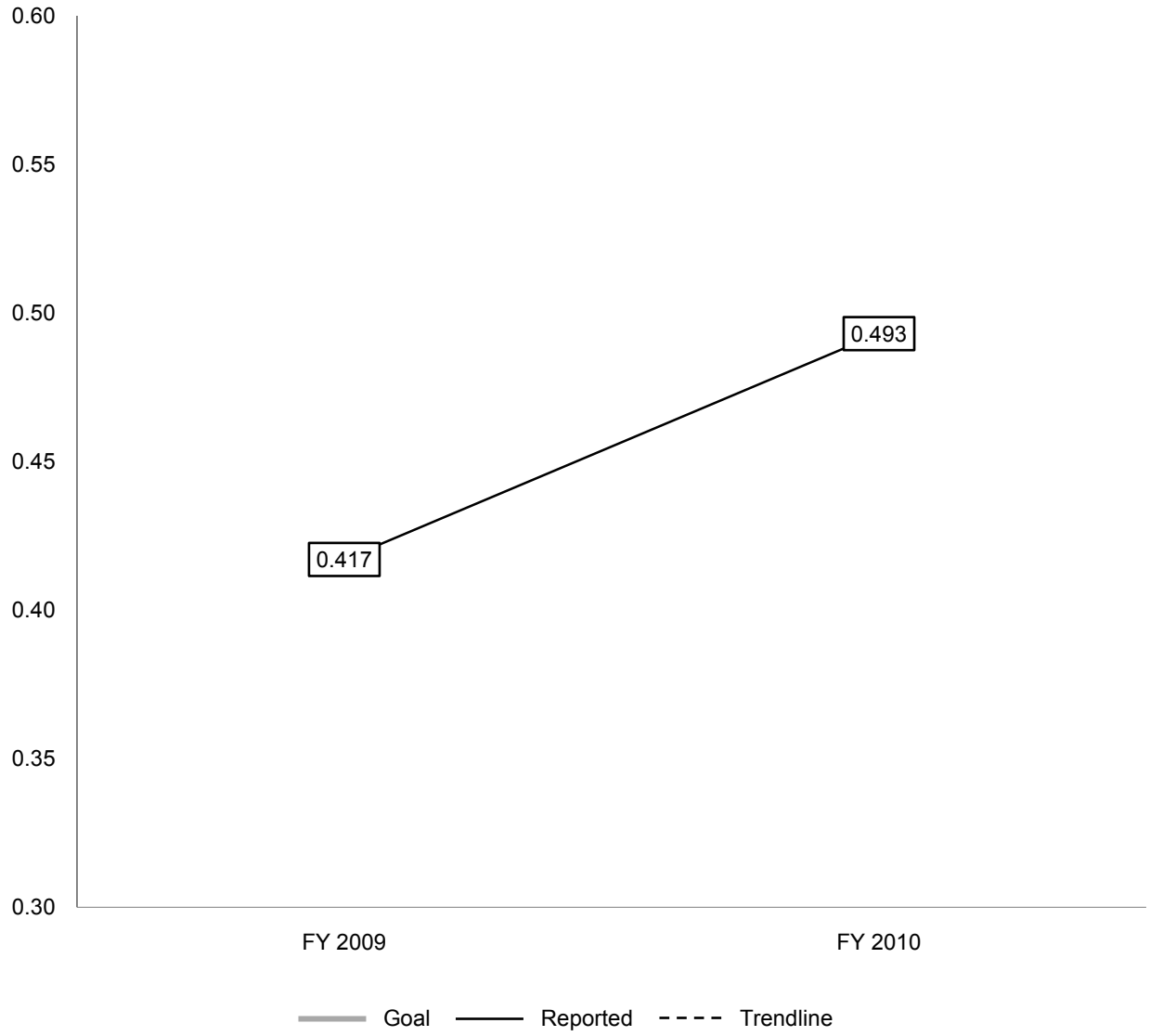
C6 Security Incidents



SFPD Reported Crimes & Other Incidents (Historic)

A staff transition at Muni during FY 2007 resulted in crime reporting for which reliability could not be confirmed (this issue was addressed in the previous Quality Review). Then, in FY 2008, Muni's methodology for reporting security incidents was changed significantly. As a result, recent data should not necessarily be compared to previous years' figures.

C6 Security Incidents



SFPD Reported Crimes & Other Incidents per 100,000 Boardings (Historic)

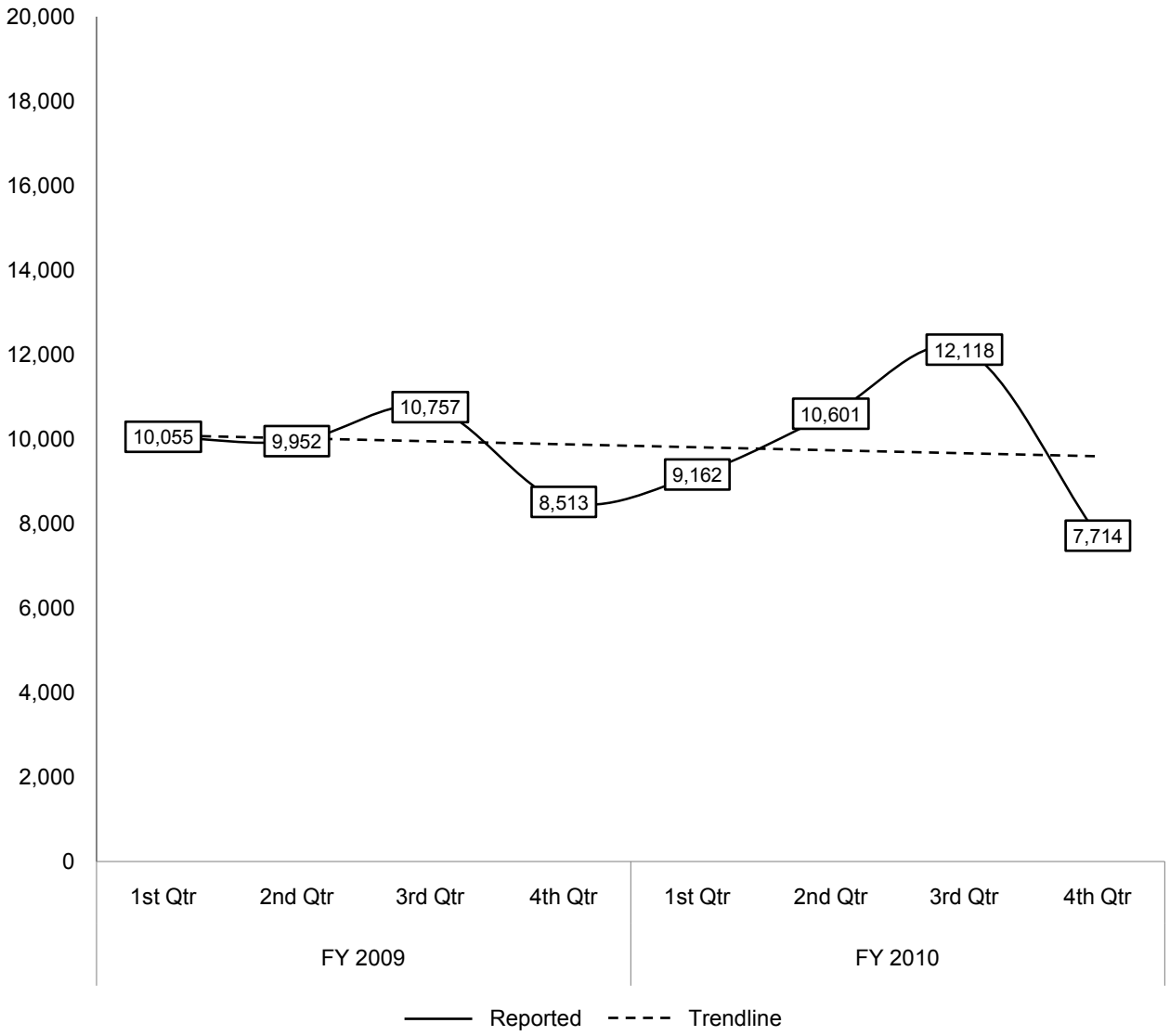
In FY 2009, Muni began reporting rates of crimes per 100,000 boardings.

C7 Proof-of-Payment Program

Goal	*N/A*	**FY09-10 Performance**	*No Goal For This Standard*	**Trend**	*N/A (see explanation below)*

Purpose To measure the incidence and rate of fare evasion on transit vehicles.

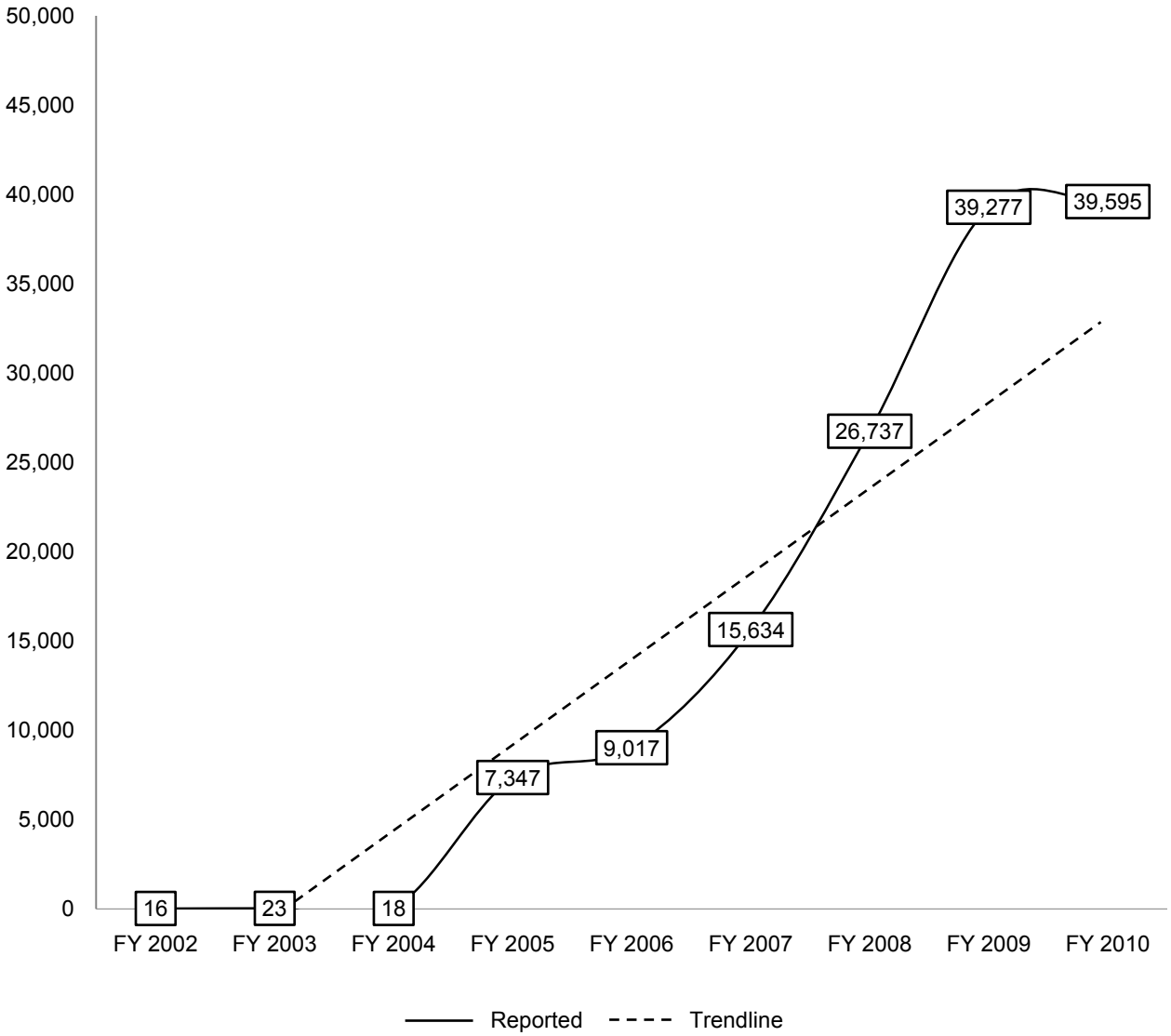
C7 Proof-of-Payment Program



Fare Evasion Citations (Audit Period)

Starting in the 4th Quarter of FY 2010, fewer citations for fare evasion were issued than in previous quarters. According to staff, this was partly because of increased use of Clipper cards (which must be scanned by a reader, meaning that fewer "contacts" or checks can be made), and partly due to a policy decision to move away from "saturation" checks using large teams of officers, which had raised equity concerns.

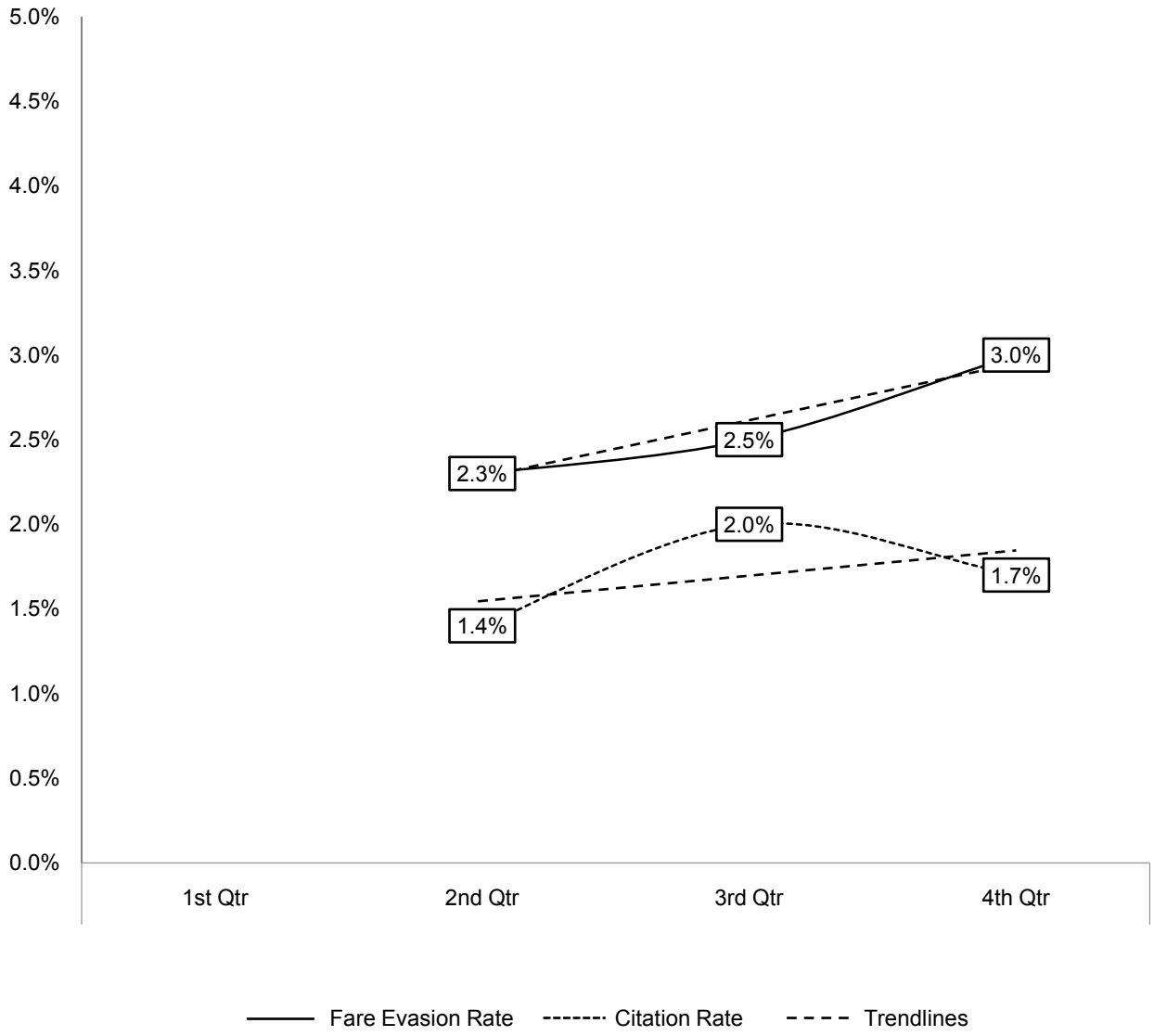
C7 Proof-of-Payment Program



Fare Evasion Citations (Historic)

Between FY 2004 and FY 2009, Muni's fare enforcement program was steadily expanded. However, in FY 2009 and FY 2010 the number of citations issued plateaued, and starting in the 4th Quarter of FY 2010 the agency began issuing fewer citations (see previous page for explanation).

C7 Proof-of-Payment Program



Fare Evasion Citation and Warning Rates (Audit Period)

In FY 2010, acting on a Quality Review recommendation, the SFMTA began tracking fare evasion rates (based on number of "contacts," or checks made), as well as citation rates. In the 4th Quarter, as Muni moved away from "saturation" checks, the evasion rate showed an increase.

C7 Proof-of-Payment Program

	FY 2010	FY 2011			
Category	**4th Qtr**	**1st Qtr**	**2nd Qtr**	**3rd Qtr**	**4th Qtr**
Fare Evasion Rate	3.0%	4.9%	4.8%	3.5%	4.8%
Citation Rate	1.7%	1.0%	1.0%	1.9%	1.2%
Warning Rate	1.3%	3.9%	3.8%	1.6%	3.6%

Since the Audit Period

The fare evasion rate increased significantly in the 1st Quarter of FY 2011, to nearly 5%, and with the exception of a temporary decline in the 3rd Quarter remained near 5% through FY 2011. The higher rate tracked with higher rates of warnings issued, as rates of citations issued remained below 2%.

Interestingly, when the evasion rate was lower, in the 3rd Quarter, rates of citations were higher and warnings lower than in other quarters.

C7 Proof-of-Payment Program

Recommendation

Report fare evasion rates, numbers of citations issued, and "contacts" by mode.

Following the last Quality Review, the SFMTA adopted our recommendation that rates of fare evasion (citations plus warnings divided by total numbers of "contacts" between fare enforcement officers and passengers) be reported in addition to the total numbers of citations issued. In this Quality Review, we are building on that recommendation by recommending that the agency report evasion rates, citations, and "contacts" by mode.

As Muni moves toward a systemwide "proof-of-payment" policy allowing passengers to board through any door, but requiring them to carry loaded Clipper Cards, passes, or transfers, the agency's fare enforcement efforts will have to be expanded beyond their current focus on Muni Metro to include regular enforcement on F Line streetcars, cable cars, and buses. There are logistical challenges associated with this – while on Muni Metro, officers can intercept passengers near fare gates or move about on more spacious light rail vehicles, enforcement on crowded buses, with their narrow aisles, is physically challenging. When Muni has conducted fare enforcement on bus routes, it has done so at stops. However, this has raised community concerns and in the 4th quarter of FY 2010 the agency reduced its fare enforcement efforts in response.

Reporting evasion rates, citations, and contacts by mode would be one way to help ensure that the agency has successfully been able to expand its efforts beyond Muni Metro. Further, it would provide management with a tool that might prove useful in developing deployment strategies. Ultimately, fare evasion might be reported at the individual line level, further increasing the measure's usefulness.

D Employee Satisfaction

Service standards in this category measure, both directly and indirectly, the morale of Muni workers – an essential factor in the organization's health and ultimate success.

Following are brief summaries of Muni's FY 2009-2010 performance for each of the Employee Satisfaction service standards, including arrows indicating general trends (up for "positive," facing right for "neutral," and turned down for "negative") in terms of both historic patterns and performance over the course of the audit period. More detailed information about each service standard can be found on the following pages, including historic trends and data from recent quarters since the end of the audit period. Recommendations and issues identified in the data collection and reporting processes can be found at the end of the sections for some service standards.

D1 Grievances

The number of grievances filed by operators and other employees rose significantly in the 3rd and 4th Quarters of FY 2010. An explanation from staff for this trend can be found in the following pages.

D2 Grievance Resolution Rate

The timeline for resolution of grievances has been extended from 30 to 90 days, and the target rate of resolution from 75% to 90%. Throughout the audit period, this goal was rarely met, despite having been easily met in previous years.

N/A D4 Employee Satisfaction

In 2009, the SFMTA did not conduct an employee satisfaction survey. In 2010, high-level results from a reconstituted survey were reported: most SFMTA employees strongly agreed with the statement, "At work, I have the opportunity to do what I do best every day."

D1 Grievances

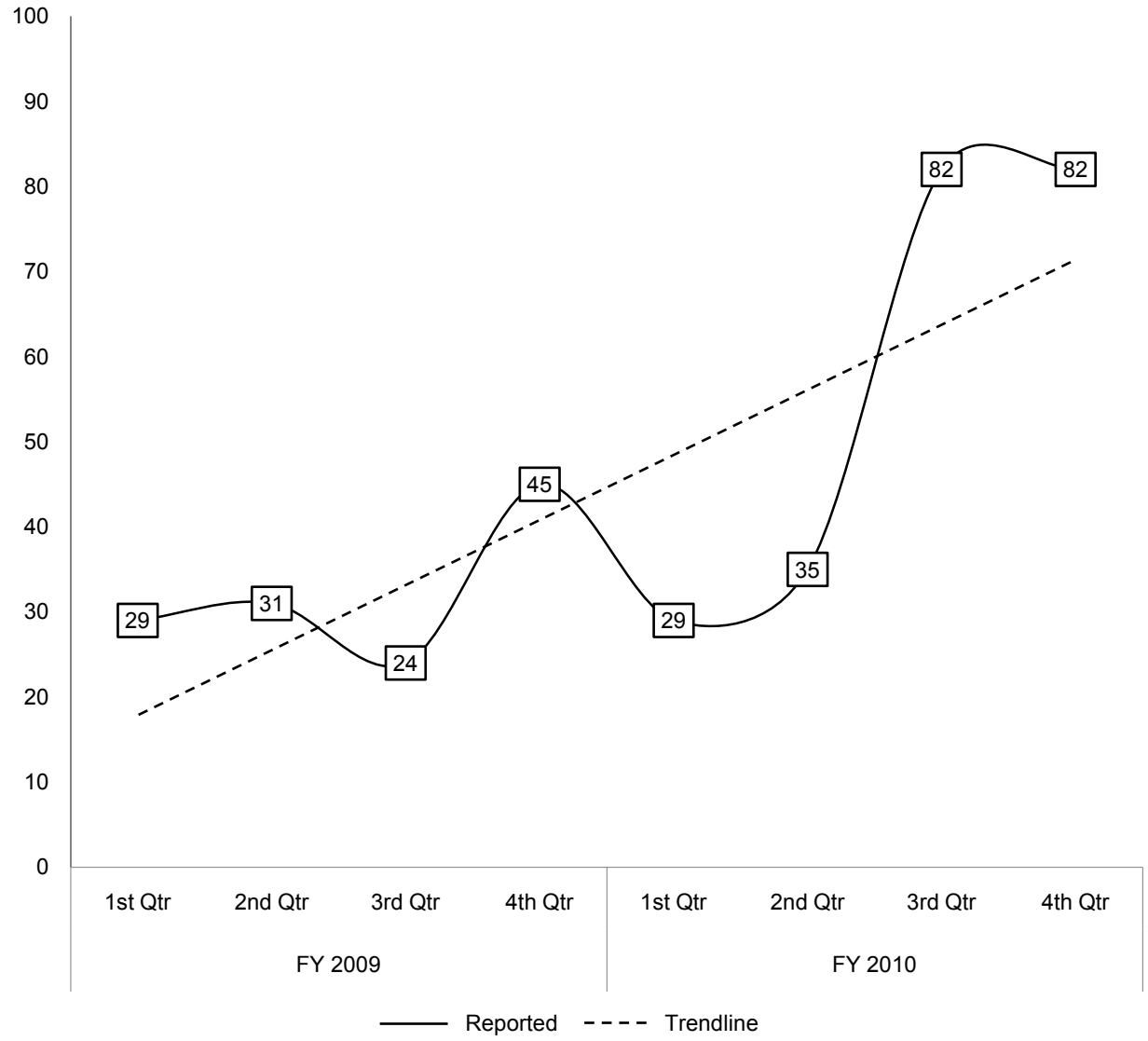
Goal	*N/A*	**FY09-10 Performance**	*No Goal For This Standard*	**Trend**	 *Negative*

Purpose To record and monitor the status of all grievances.

Definition Quarterly reports include the number of new grievances (filed, resolved, and active).

Method An internal tracking system is used to provide data for the Board on a quarterly basis.

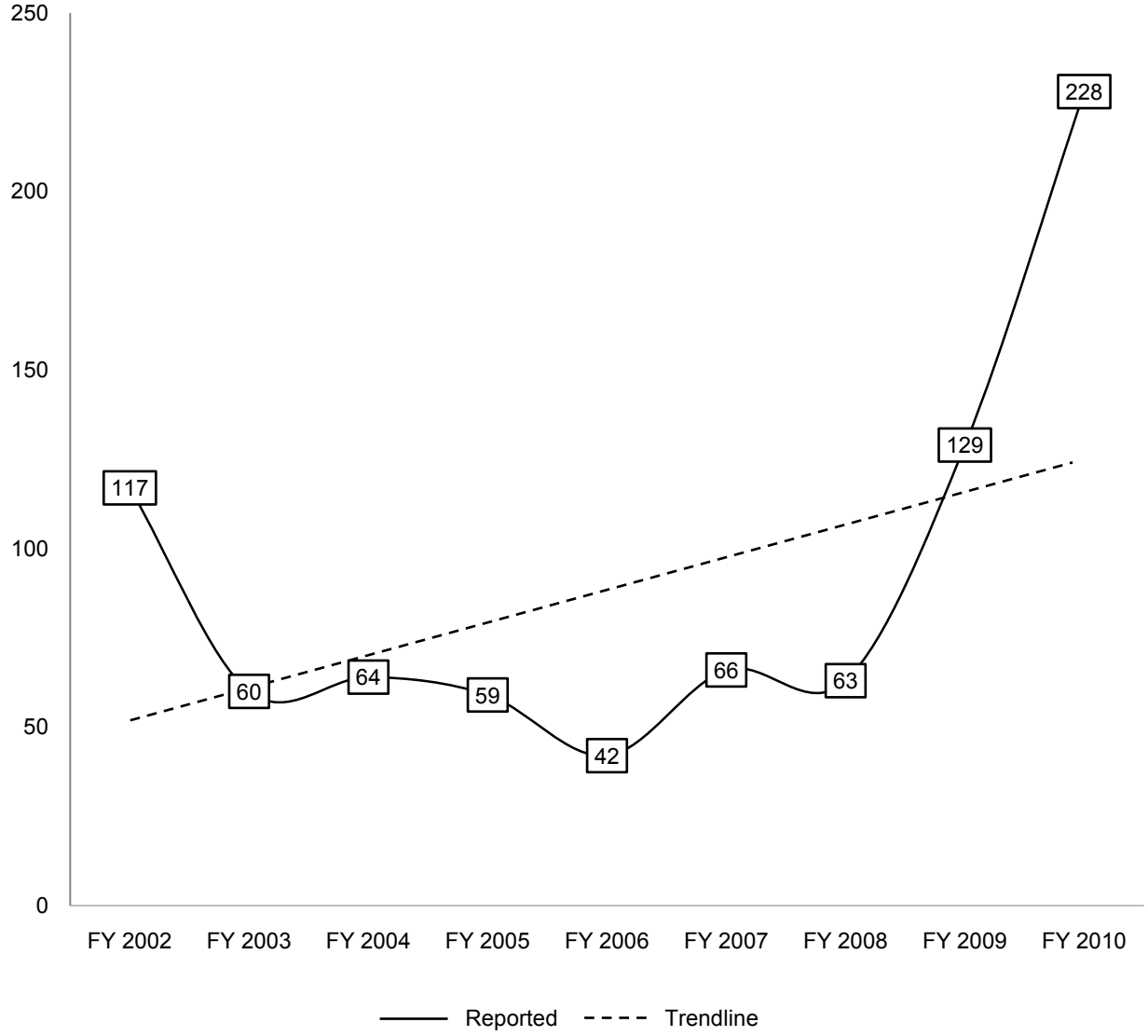
D1 Grievances



Number of Operator Grievances (Audit Period)

In the 3rd and 4th Quarters of FY 2010, the number of grievances filed by transit operators was more than twice as high as in previous quarters. Staff attribute much of this increase to the introduction of a monitoring system called DriveCam, which records operator violations, including rolling stops, that were previously hard to detect. In the first six months of the system, two-thirds of all disciplinary grievances were DriveCam-related.

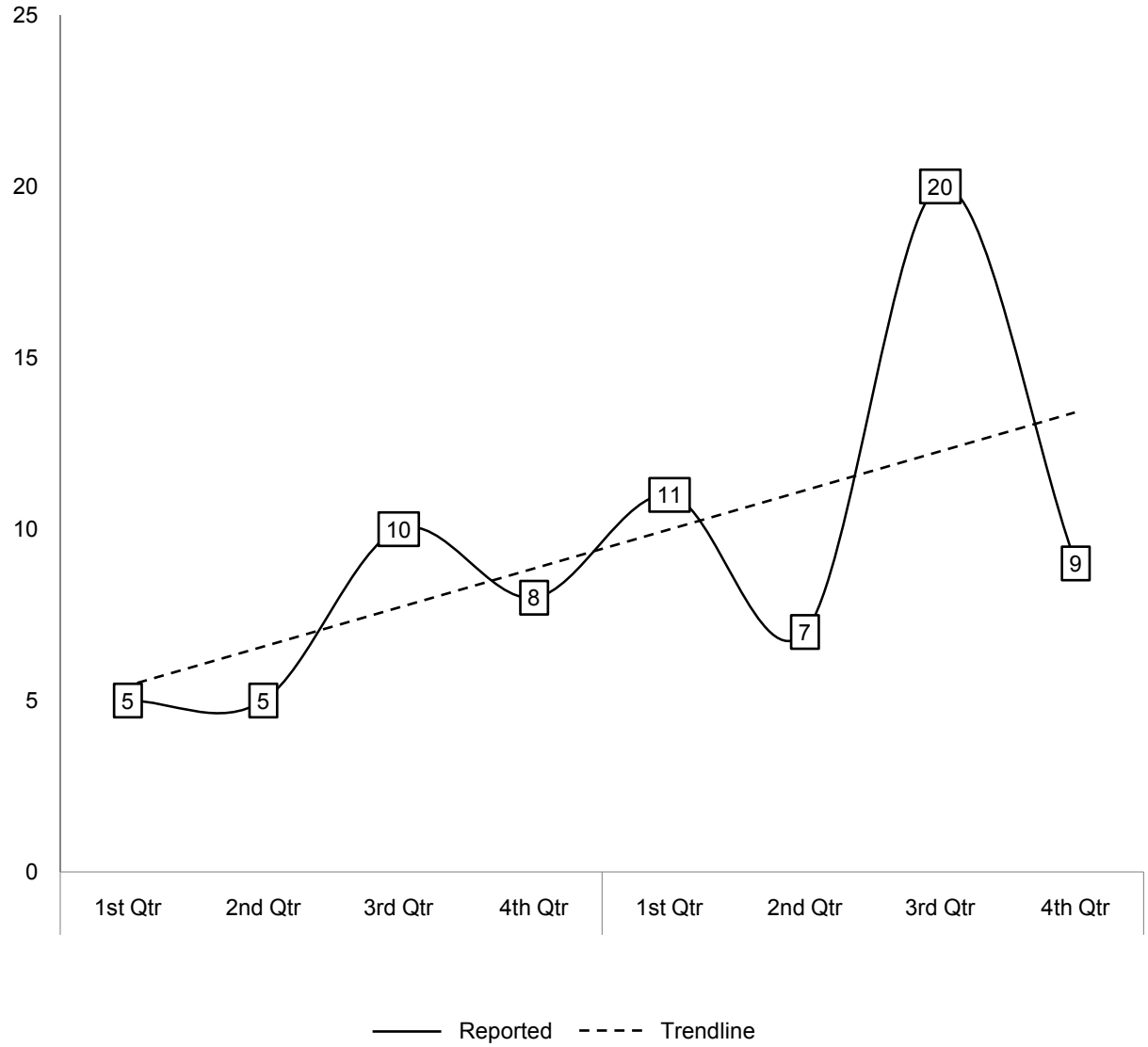
D1 Grievances



Number of Operator Grievances (Historic)

The number of transit operator grievances filed in FY 2010 was nearly twice as high as in any previous year.

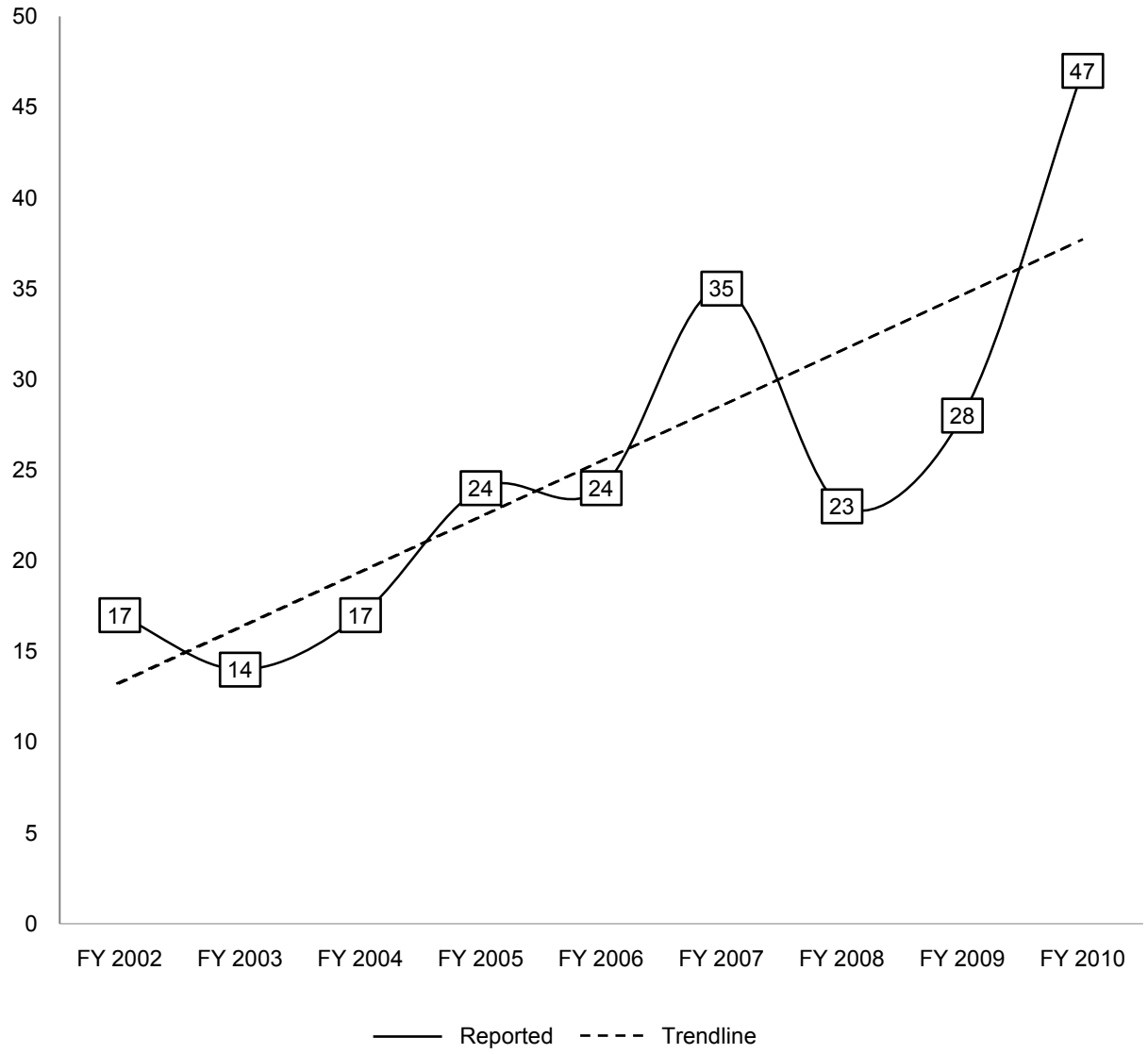
D1 Grievances



Number of Maintenance/ Miscellaneous Employee Grievances (Audit Period)

The number of grievances filed by employees other than operators reached a high point in the 3rd Quarter of FY 2010, but remaining quarters were more typical.

D1 Grievances



Number of Maintenance/ Miscellaneous Employee Grievances (Historic)

As with transit operator complaints, the number of grievances filed by employees other than operators was higher than in FY 2010 than in previous years.

D1 Grievances

Recommendation

Report by division.

In previous Quality Reviews, we have recommended that grievances be reported not just for operators and miscellaneous employees, but by operating division (e.g., Green and Potrero). This could help to make superintendents more accountable for the prevention and resolution of grievances.

D2 Grievance Resolution Rate

Goal *> 90% within 90 days*

FY09-10 Performance 

Goal Not Achieved

Trend 

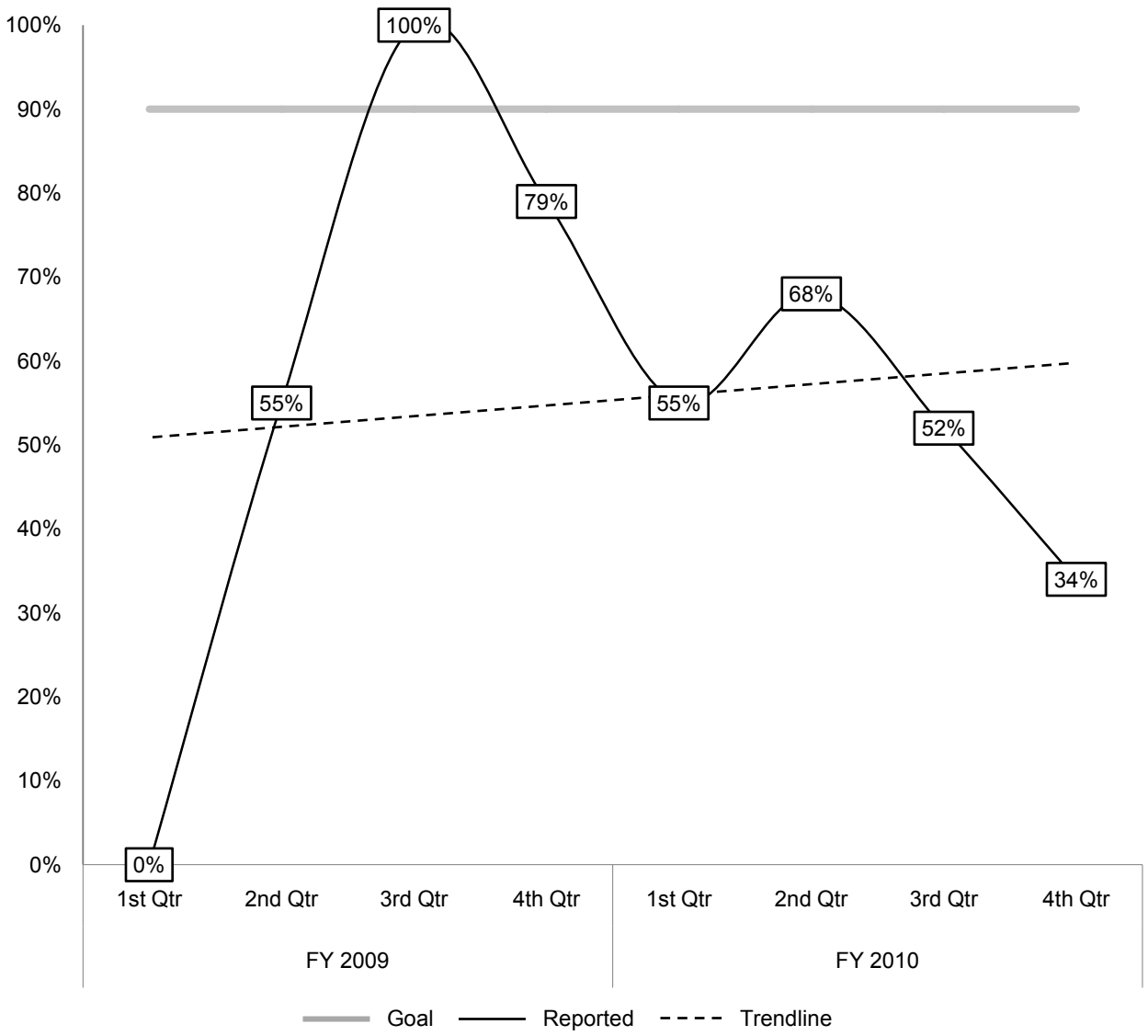
Negative

Purpose To measure the effectiveness of the Labor Relations in the resolution of grievances.

Definition An internal tracking system is used to provide data for the Board on a quarterly basis. Based on resolution rate for grievances resolved during the period.

Method An internal tracking system is used to provide data for the Board on a quarterly basis. Based on resolution rate for grievances resolved during the period.

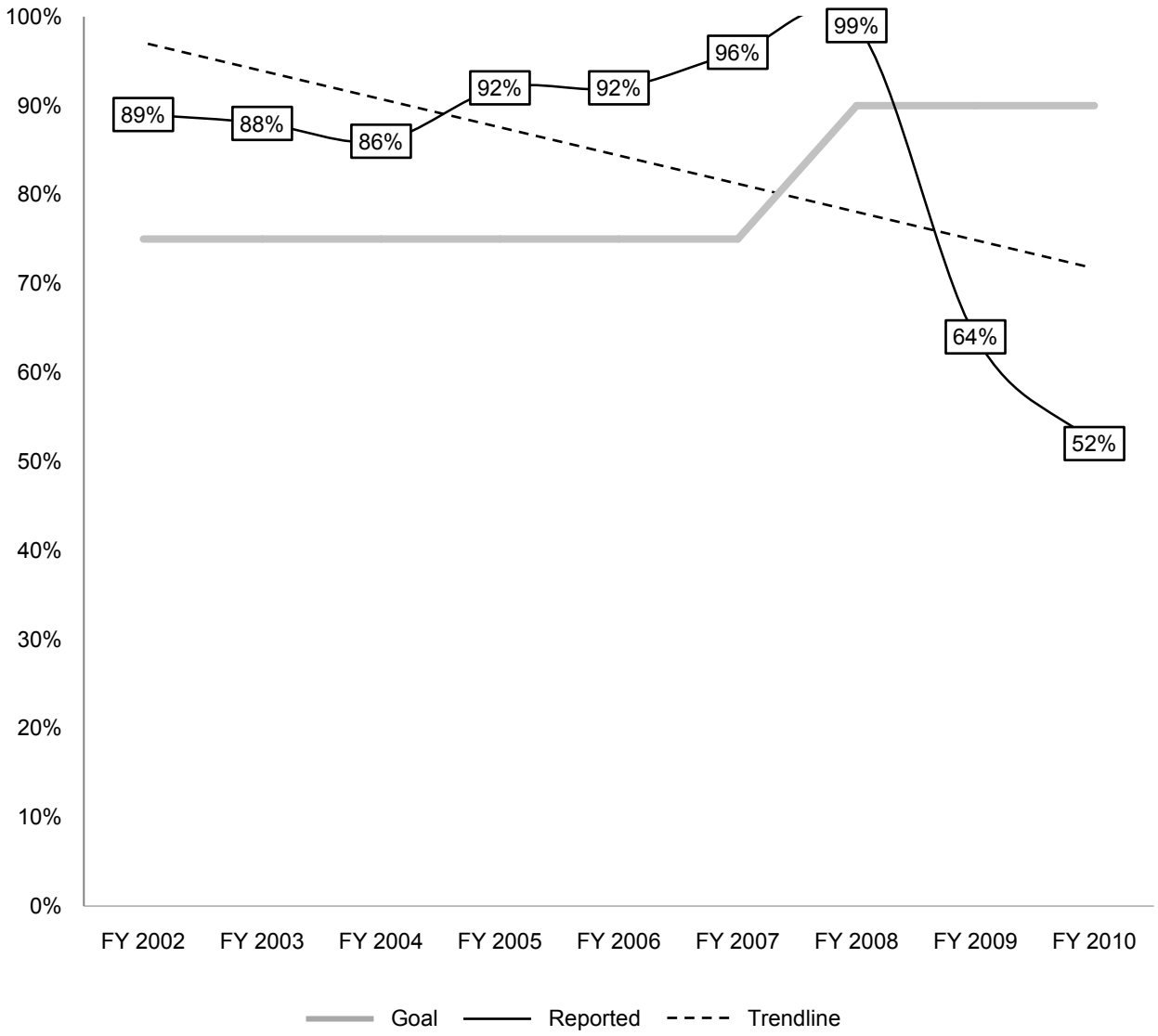
D2 Grievance Resolution Rate



Percentage of Operator Grievances Resolved Within 90 Days (Audit Period)

Resolution rates for operator grievances were lower in FY 2009 and 2010 than in prevous years. In part, this can be attributed to a personnel transition in FY 2009 and a sharp increase in the number of grievances filed in FY 2010.

D2 Grievance Resolution Rate



Percentage of Operator Grievances Resolved Within 90 Days (Historic)

Because the timeframe for the resolution of operator grievances was changed from 30 to 45 days in 2007, then to 90 days in 2008, it is difficult to place the audit period in the context of historic trends. However, in FY 2008, before the staff transition and an increase in the number of grievances filed, 99% of grievances were resolved within 90 days.

D2 Grievance Resolution Rate

FY 2010	FY 2011			
4th Qtr	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr
34%	80%	52%	39%	68%

Since the Audit Period

The grievance resolution rates continued to fluctuate in FY 2011, rebounding from 34% to 80% in the 1st Quarter, before declining to 52% in the 2nd Quarter and 39% in the 3rd Quarter.

D4 Employee Satisfaction

In 2009, SFMTA did not conduct an employee satisfaction survey. In 2010, high-levels result sfrom a reconstituted survey were reported: 55.4% of SFMTA employees strongly agreed and 32.9% agreed with the statement, "At work, I have the opportunity to do what I do best every day.“.