

Performance Management

TransitStat

Over the past two decades, many organizations have embraced the use of data, statistics, and metrics as their means to exceed customer expectations, as well as achieve operational excellence. Six Sigma (6^σ), Total Quality Management (TQM), and the Balanced Scorecard are popular examples of proven management techniques embraced by the private sector. In the government sector, Performance Stat programs have proven to be effective tools.

Performance Stat programs are structured continuous management events, which entail the frequent gathering, reviewing, and analyzing of day-to-day government performance. CompStat and CitiStat are credited as the first government STAT programs. Created by Commissioner William Bratton and Deputy Commissioner Jack Maple, CompStat's goals were to infuse timely information and accountability into the NYPD's management and culture. The program used computer mapping and statistical data to capture crime trends at their highest levels, how many officers were on duty, and where the officers were located during those times. By placing officers at the high crime areas, this technique was widely credited with contributing to the dramatic reduction in New York City's crime levels.

Through the leadership of Mayor Martin O'Malley, the City of Baltimore developed CitiStat. CitiStat brought STAT tenets and strategies to general government by tracking performance in waste collection, road repairs, housing enforcement, etc. The city holds bi-weekly meetings lead by the mayor's executive team to review performance, understand trends, and make necessary adjustments to ensure that immediate and long-term goals are met. Since then, other cities and states have adopted Performance Stat programs, including Maryland (StateStat), Atlanta (ATL Stat), San Francisco (SF Stat), and Washington State (Office of Financial Management . OFM). These governments have reported immediate success with their Stat programs.

In December 2007, GCRTA adapted the Performance Stat model to the transit environment and titled our program TransitStat, characterized with bi-weekly performance monitoring forums. It is a critical link to achieving high-level performance directed towards the Authority's three most critical objectives:

- 1. Maintain Financial Health**
- 2. Improve Customer Service**
- 3. Enhance the Image of RTA**

The TransitStat leadership team (panel) includes:

- Chief Executive Officer (CEO)
- Deputy General Manager (DGM) . Operations
- DGM . Human Resources
- Director of Procurement
- Executive Director . Internal Audit
- Executive Director . Office of Management & Budget (OMB)

In 2009, Administrative TransitStat was incorporated to the already running TransitStat program. Administrative TransitStat focuses on the performance monitoring of all Administrative Departments.

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The Administrative TransitStat leadership team includes:

- TransitStat Panel (above)
- DGM . Finance & Administration
- DGM . Engineering & Project Development
- DGM . Legal Affairs
- Director of Marketing & Communications

The meetings are coordinated and directed by OMB. Other members with information pertaining to the topic of interest are also invited. The forum ensures that the people needed to address issues are at the table, therefore expediting action and eliminating excuses.

Performance Stat programs center on four principles:

1. Provide timely, accurate, and relevant data.

Begin with available data; data that is already being collected for other administrative purposes. What data is needed to determine whether the agency is or is not improving?

2. Analyze data and develop effective solutions that respond to emerging issues.

A performance program requires performance data. Use the data to discuss, examine, and analyze the agency's recent performance.

3. Deploy resources quickly to address issues.

The staff assigned to the Panel can affect change, foster improvement in performance, and make critical decisions.

4. Relentless follow-up and assessment.

Continuous follow-up on assignments and commitments must be done in order to improve agency operations.



In 2008, RTA implemented TransitStat in the Authority's Operations Division and identified four target areas: overtime (non-operator), inventory management, service reliability, and District scorecards. In 2009, Administrative TransitStat was added. Both programs focused on the FAST approach (a strategic development process):

❑ **F – Focus** - What will the Authority look like in 1-10 years?

❑ **A – Accelerate** - Identify 2-3 operating initiatives which would accelerate the movement toward the preferred future.

❑ **S – Strengthen** - What major organizational objectives might prevent the Authority from moving forward to achieve the goals?

❑ **T – Tie it all together** - Integrate the preceding activities and refine them.

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Hot Target Areas for both the Operations and Administrative Stat programs were identified in 2009, 2010, and 2011:

Operations TransitStat	Administrative TransitStat
<ol style="list-style-type: none"> 1. Paratransit Part-Time Operators 2. Inventory EOQ . Top 50 FAD items 3. Utilities/Energy Management & Conservation 4. Brand Management 5. Training Initiatives 6. Shift Changes 7. Vehicle Reliability 8. Fare Evasion 9. District/Department Scorecards 10. On-Time Performance 11. MIDAS Upgrade 12. CITME Upgrade 13. Heavy Rail Vehicle (HRV) Overhaul 14. Light Rail Vehicle (LRV) Doors 15. Vehicle/Facility Cleaning 16. Bus Stop Maintenance 17. Maintenance PMs 	<ol style="list-style-type: none"> 1. Capital Plan Execution 2. Stimulus Package Execution 3. Customer Service Performance 4. Revenue/Vaulting Procedures 5. Ridership Reporting 6. Purchasing Card Enhancements 7. Employee Injuries/Return to Work Program 8. Collision Reduction 9. Strategic Healthcare Plan 10. Electricity Audit 11. Healthcare Audit 12. Energy Price Risk Management 13. Sustainability 14. Safety Enhancements

In 2011, fifteen employees went through the Six Sigma (6) Green Belt training and graduated in December of the same year. The graduates of this program will lead several of the TransitStat projects and assist other employees in gathering, analyzing, and interpreting data and creating improvement plans based on that data. One employee in the Fleet Management District has her Black Belt; another employee in the Rail District will be training for his in 2013.

An RTA Public Transit Management Academy was also created, in coordination with the Cleveland State University (CSU) Department of Management Development in the Levin College of Urban Affairs. The program consists of three cohorts, the first ran from January 2012 through December 2012; the second began May 2012 and runs through June 2013; and the third began June 2012 and runs through July 2013. Each cohort will encompass approximately 12 months and will review all aspects of management, including labor negotiation, crisis management, and financial management. Within each cohort, the members will divide into groups and each group will identify a project to work on.

For 2013, the focus for the Authority is providing service that is Clean, On-Time, and Safe. The TransitStat meetings are centered on these objectives throughout the year.

CLEAN	ON-TIME	SAFE
Bus Detailing & Cleaning Products Train Cleaning Improvement Mobile Clean Teams HealthLine Exterior HRV Interior & Exterior	On-Time Performance & Scheduling Enhancements Vehicle Reliability & Mechanic Shift Change Not-In-Stock Parts Bus Stops UltraMain	Fare Enforcement Crime & Security Strategies Customer Complaints & Commendations Farebox Defects

Specific meetings, outside of the TransitStat arena, or through task forces, will monitor the remainder of the presentations from 2012 and before. In May and September, these groups will update the TransitStat Panel on the progress, challenges, and outcomes of the projects.

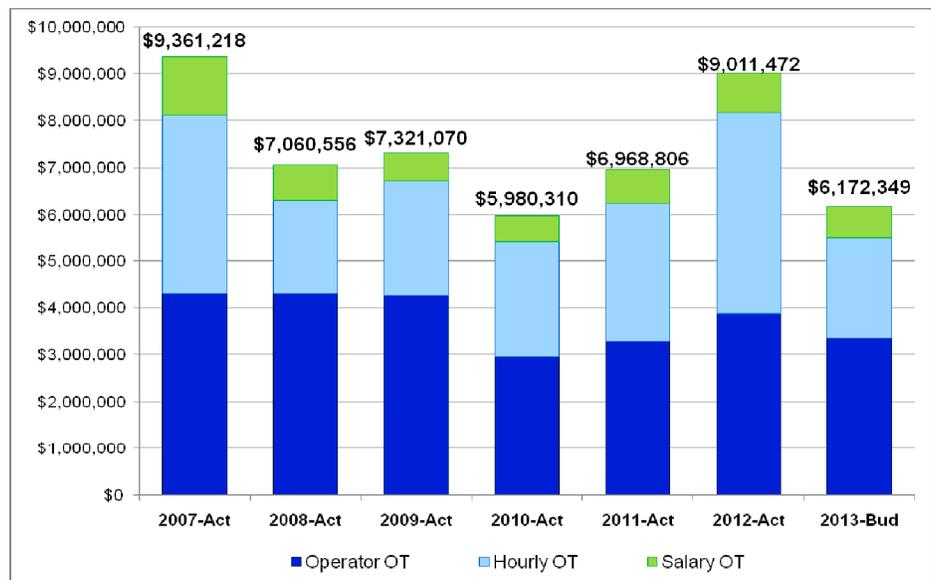
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Successes

The true success of the TransitStat program can be seen in the savings over the past five years. The chart below shows the quantifiable savings by cost driver. Additional explanations of some of these cost drivers are presented in the following pages as well as some of the qualitative savings. Over the past 5 years through the TransitStat program, the Authority has been able to save over \$48 Million. As Dr. Flounsay Caver states, "That's real money!"

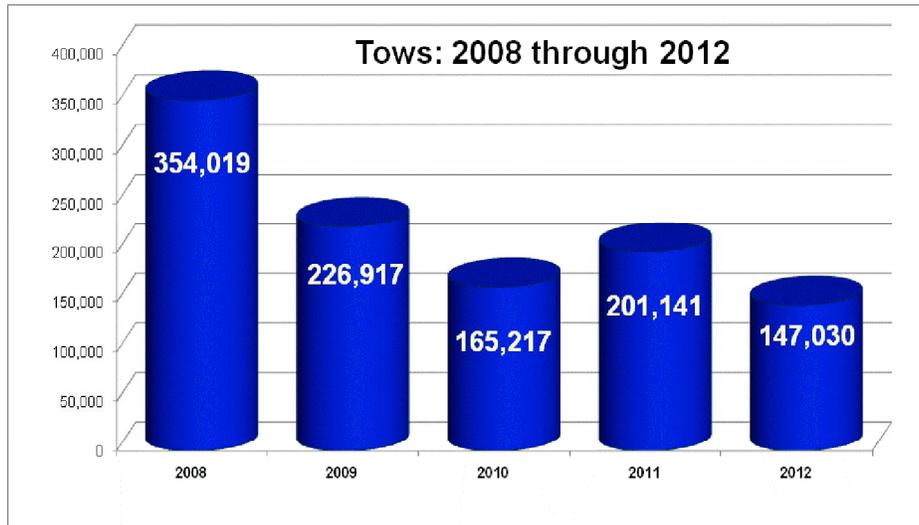
5-Year TransitStat Savings											
Year	Overtime	Inventory	Tows	Propulsion Power	Fuel Hedging	W/C Claims, Liabilities, Lawsuits	Utilities	Engineering Retrofits	P-Card	Safety Blitzes/ Initiatives	Total per Year
2008	\$ 2,300,661	\$ 433,890									\$ 2,734,551
2009	\$ 2,040,147	\$ 1,189,555	\$127,102								\$ 3,356,804
2010	\$ 3,380,906	\$ 2,478,111	\$188,802	\$1,027,820	\$ 9,894,237	\$ 145,444				\$1,532,000	\$ 18,647,320
2011	\$ 2,392,412	\$ 1,998,846	\$152,878	\$1,383,316	\$ 3,691,998	\$ 136,579	\$1,117,359	\$ 716,000	\$238,620	\$1,513,000	\$ 13,341,008
2012	\$ 349,746	\$ 102,417	\$206,989	\$2,144,723	\$ 2,108,072	\$1,007,388	\$2,258,017	\$ 316,499	\$132,675	\$1,613,071	\$ 10,239,597
Total	\$ 10,463,872	\$ 6,202,819	\$675,771	\$ 4,555,859	\$15,694,307	\$ 1,289,411	\$ 3,375,376	\$ 1,032,499	\$371,295	\$ 4,658,071	\$ 48,319,280

In non-operator overtime, the Authority saved \$2.3 million in 2008, compared to 2007. This was achieved through detailed analysis of overtime cost drivers, developing more effective ways to dispense overtime, effectively managing and monitoring the times to complete tasks, and maximizing use of the UltraMain maintenance and material system. Overtime for 2009 through 2011 were maintained at the new levels. Hourly overtime increased in 2012 due to the completion of some maintenance projects along the rail lines, yet continued to be monitored throughout the year. With the completion of these projects, overtime for 2013 is expected to return to prior year levels.



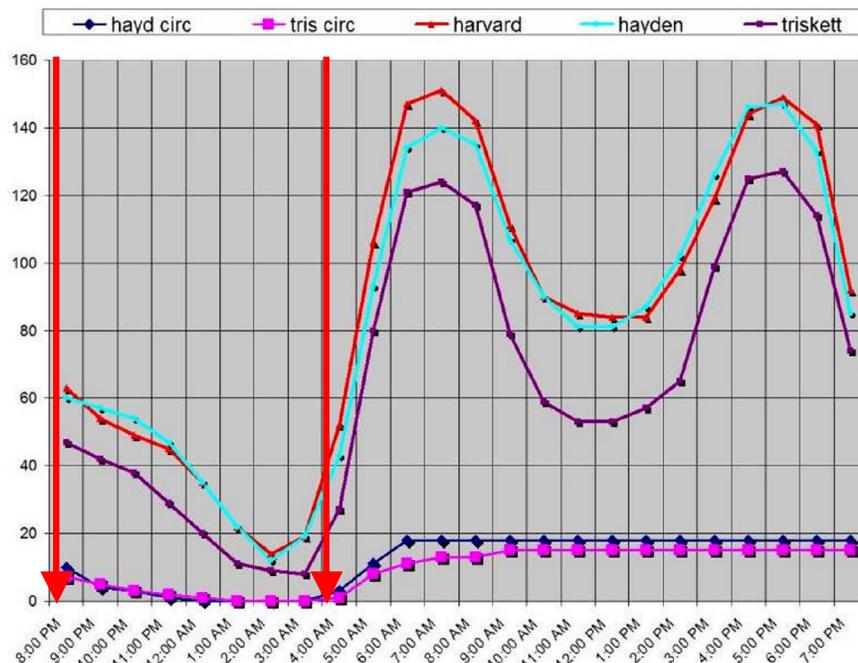
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Vehicle Reliability was added to the TransitStat program in July 2008. The Central Bus Maintenance (CBM) District monitors the number, cost, and reasons for revenue vehicles to be towed. Since the onset of this program, towing charges have reduced over 31% each year. Towing charges for 2010 were reduced nearly 56%, compared to the total charges for 2008. In 2011, towing charges were reduced 43.2% from 2008 levels. The towing charges for 2012 continue to drop as seen in the graph.



Since the onset of this program, towing charges have reduced over 31% each year. Towing charges for 2010 were reduced nearly 56%, compared to the total charges for 2008. In 2011, towing charges were reduced 43.2% from 2008 levels. The towing charges for 2012 continue to drop as seen in the graph.

Starting in July 2008, the Maintenance Planners conducted a comprehensive analysis on maintenance, productivity, and performance of the bus equipment maintenance sections. They compared the labor scheduled with the availability of the buses. They also analyzed failure modes, labor productivity, shift productivity, maintenance effectiveness, and reevaluated the work processes and shift schedules. What they found was that most of the bus maintainers and supervisors were scheduled during the first shift however, most of the buses were available during the third shift.



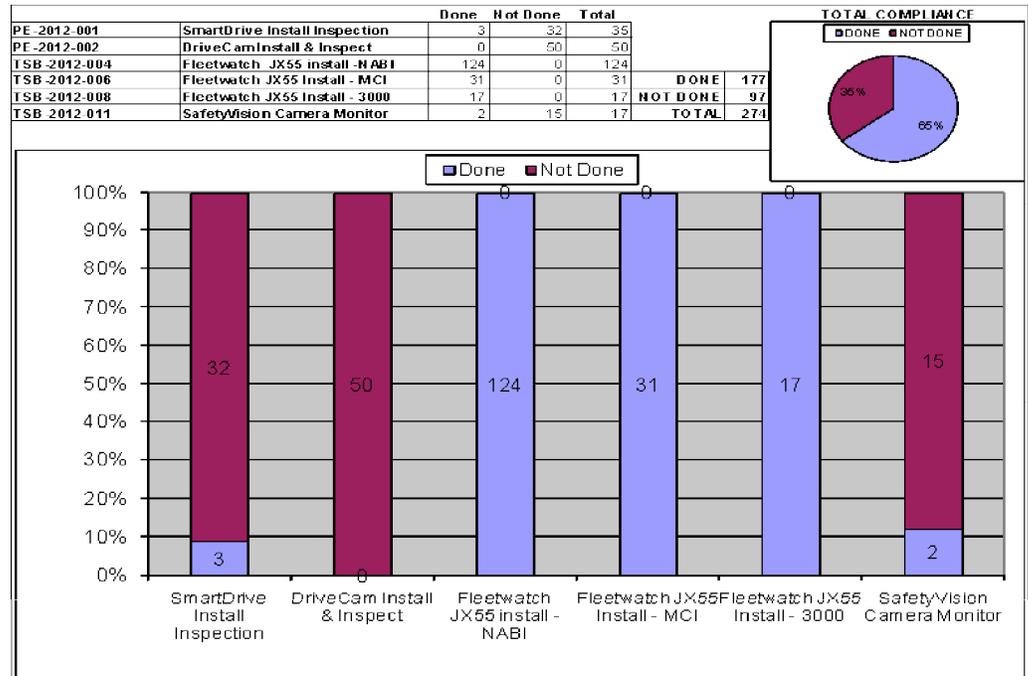
The graph below displays the number of buses per District that are on the road at a given time. Between 8:00pm and 4:00am is the time when the least number of buses are in revenue service and the greatest number of buses are in the garages. This time span is when the most mechanics are needed to schedule, repair, and maintain the vehicles.

In order to increase wrench time and optimize the performance standards, the shift times need to be changed with most of the bus maintainers and supervisors working the third shift. This ensures that the mechanics and supervisors who maintain the buses are working at the Districts when the buses are available.

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These new shifts were implemented mid to late 2009 among all the bus districts. In mid-2012, the mechanics entered into a 6-month pilot program for the shift change. Performance metrics will be monitored throughout the program. At the end of the 6-month pilot, the program may be extended upon agreement with the ATU.

CBM (Central Bus Maintenance) has been monitoring the progress of their safety campaigns by District. The chart below displays one of the Safety Campaigns for the Triskett District.



The Safety Department has developed a Stat-format in their Executive Safety Committee (ESC) meetings. They utilized TransitStat on one of their safety campaigns, Left Hand Turn Safety. The Safety Department analyzed the number of left-hand turn accidents, the procedures for making a left-hand turn, and Operators' knowledge of these procedures.

They concluded that 98% of Operators scanned the road curb to curb before making a left-hand turn; 99% of operators correctly identified the number of customers on the right-hand corner; 85% of Operators correctly identified the number of customers on the left-hand corner; and 94% of Operators waited 2 seconds before making the left-hand turn.

The Safety Department and Training & Employee Development Department, with assistance from other Operations Departments, created a training program for left-hand turns. CBM installed safety alerts (aka talking buses) on all the buses, warning the public that a bus is turning and alerting the operator to scan the area.



2nd Chance

2nd Glance

Watch for Pedestrians



Search and Count Pedestrians... the Street Corner and in the Crosswalk

Approaching the Crosswalk When Making a Left Hand Turn

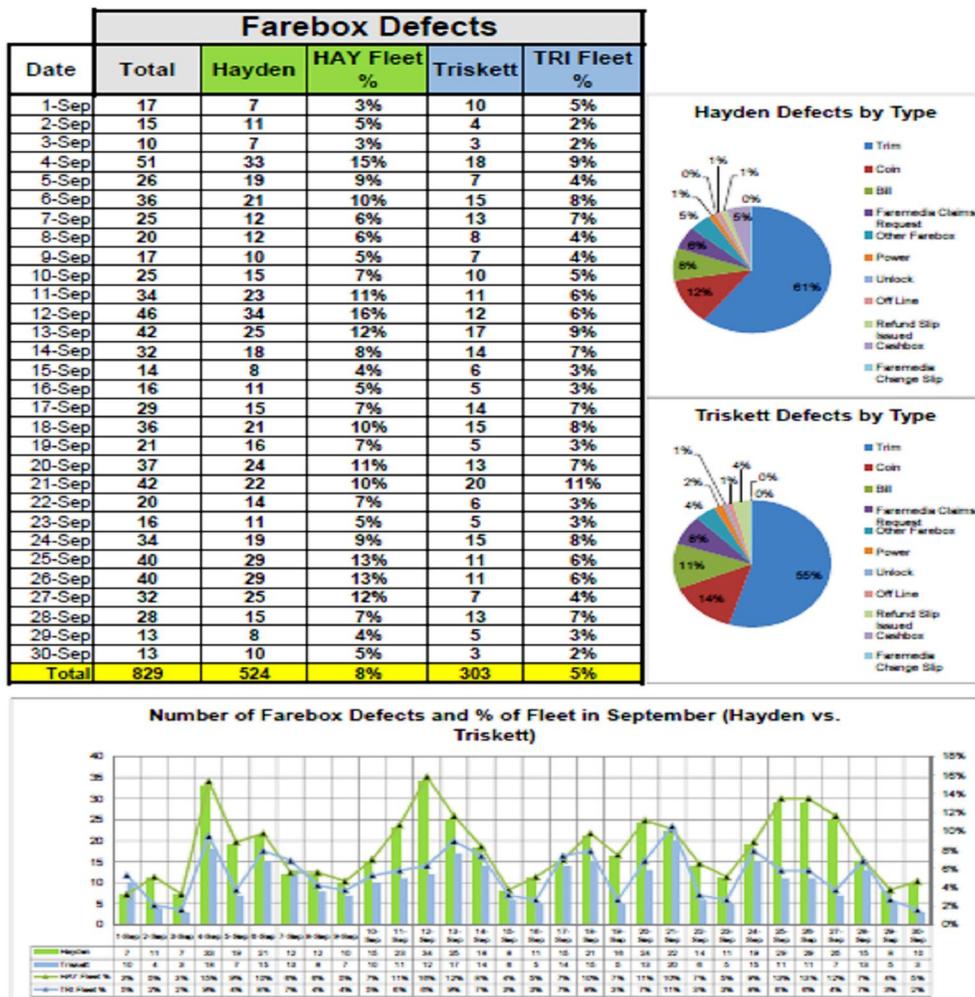
Scan Early and Scan Often While Turning

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Other Safety Initiatives that were implemented in 2011 include a non-punitive hazard reporting policy. This policy states that every employee is responsible for reporting any information that may affect the integrity of the Authority. The Authority, in turn, will not take any disciplinary action against any employee who discloses a hazard, incident, or occurrence involving safety. Since the implementation of the Non-Punitive Job Hazard Policy, several safety issues have been reported and resolved quickly.

In December 2011, the Safety and Training and Employee Development Departments developed two Root Cause Analysis Trainings. The first was a two-day overview and the second involved more in-depth analysis, which lasted five days. These trainings were open to all employees and focused on data gathering, job hazard analysis, and accident and injury investigations and analysis. In January 2012, two additional training courses were conducted, the first on Safety Leadership and the second on Supervisory and Management Safety Accountability.

In 2012, the Service Quality Department started monitoring farebox defects by month and day, type of defect and the percentage of the fleets at each District with farebox problems. Below is an example of the dashboard reports that Service Quality emails daily to management.

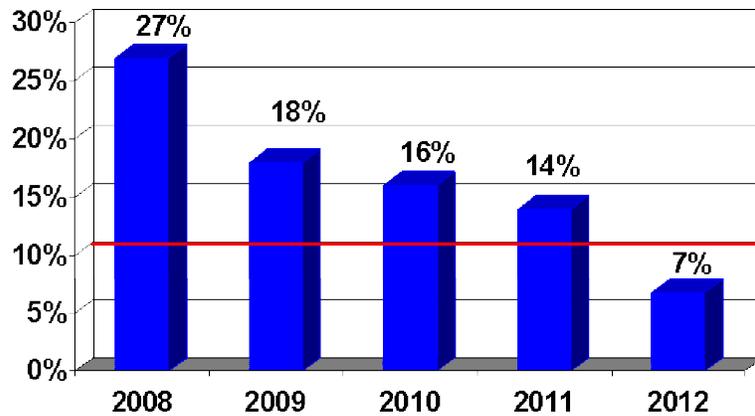


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The Telephone Information Center (TIC) is a section within the Marketing and Communications Department and has been reporting performance at TransitStat since 2009.

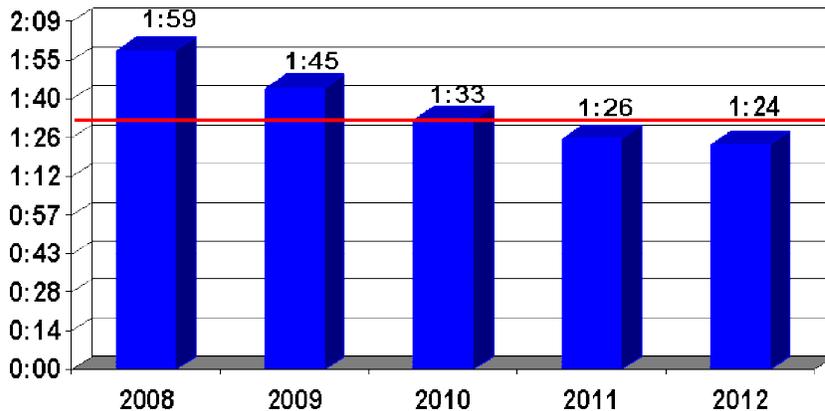
The TIC improved and maintained their performance beyond their goals, thus eliminating the problem. Performance will now be monitored within the Department rather than through the TransitStat forum.

Lost Calls

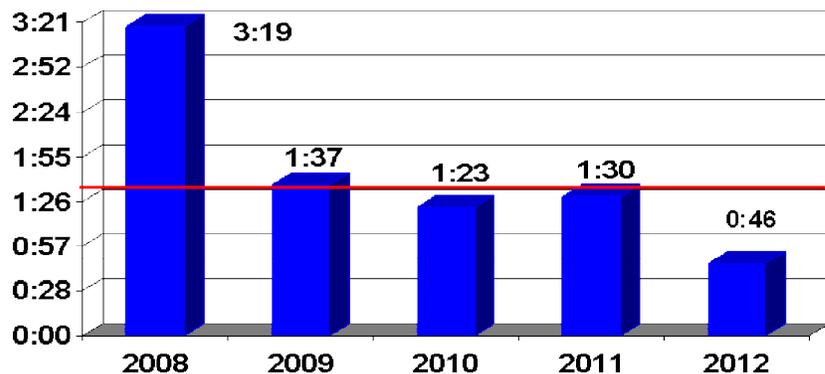


The graphs improvement TIC has made over the years.

Average Talk Time

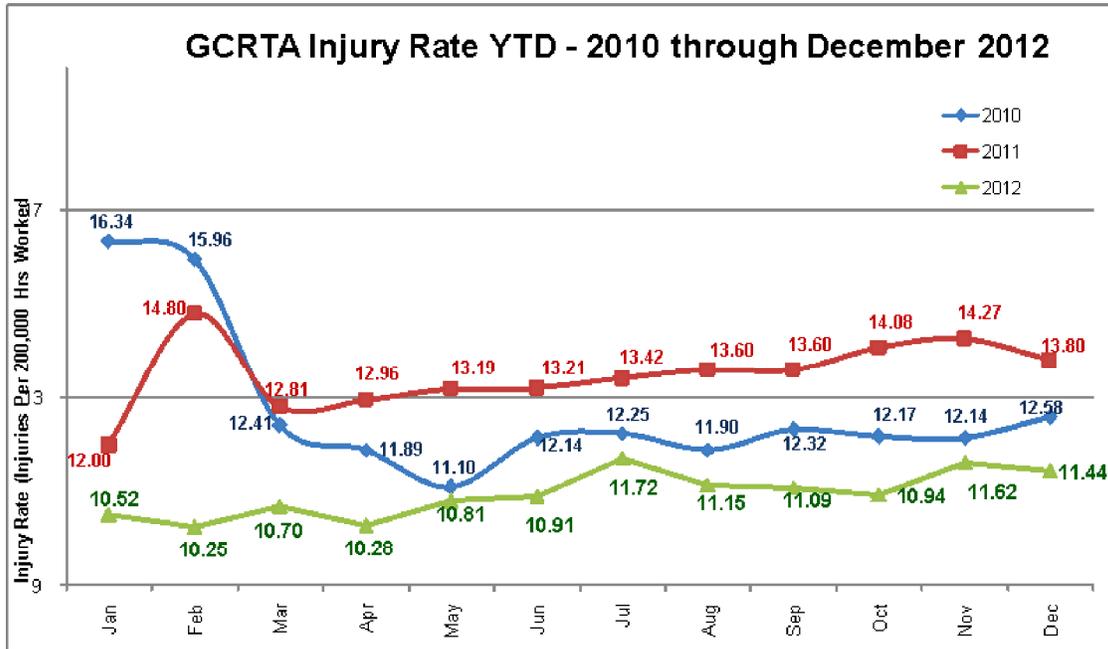


Average Speed of Answer



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Risk Management has been monitoring the number of On-the-Job Injury (OJI) claims submitted each month, the reason for the claims, and the type of claims. GCRTA encourages a stay-at-work culture, which has helped to decrease the lost time and medical only claims.



Due to high costs of diesel fuel in 2008, GCRTA positioned itself to mitigate the risk of the volatility through an Energy Price Risk Management Program. This program enabled GCRTA to reduce its diesel fuel costs from \$17.4M, in 2009, to \$8.0M in 2010, to \$9.9M, in 2011 and \$12.6M in 2012.

Additional information about this program is on PM-10.

TransitStat Moving Forward

In 2013, performance monitoring of the Administrative and Operations divisions will continue through Task Forces. These groups will present updates in May and September. The employees who graduated the Green-Belt Six Sigma class will be leading the projects and helping others analyze data and problems.

The CEO identified three HOT topics for the year: Clean, On-Time, and Safe. The Stat programs will be used to focus on critical initiatives that can better position GCRTA to address impending economic threats.

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Energy Price Risk Management

In 2008, RTA experienced record highs in fuel cost as well as extreme volatility. The cost per gallon for diesel fuel ranged from \$2.54 to \$4.18. As a result of the high costs, our total diesel fuel expense increased by nearly \$7.4 million, compared to 2007. This amount was \$3.6 million above RTA's 2008 budget. With this as the new reality for fuel, the Authority sought to use tools to ensure better performance in the management of its fuel costs, which resulted in the creation of an energy price risk management program (Fuel Hedging program).

The Fuel Hedging program's strategy uses a process that:

1. Addresses market opportunities and market risk.
2. Holds the risk of exceeding budget at or below an acceptable level.
3. Uses historical pricing ranges as pricing parameters.
4. Is continuous.
5. Uses a dollar cost averaging tool.
6. Mitigates transaction-timing risk by making numerous smaller volume transactions (i.e. 42,000 gallons per transaction).

The strategy was accomplished with an Advisor, who is responsible for daily execution of the program, including the execution of transactions, generating reports on the program's status and results, and monitoring the program and energy markets. The hedging instruments include purchases of home heating oil futures (the diesel fuel correlate) traded on the Exchange, as well as, purchases of derivatives with financial institutions that are certified by the International Swaps and Derivatives Association (ISDA). RTA's policy dictates that the maximum hedge ration will not be more than 90 percent of the forecasted consumption and that hedges can only extend 36 months in advance.

The Authority began positioning itself in the first quarter of 2009. By April, the Authority had nearly 3.9 million gallons of the 5 million gallon usage, purchased for 2010. The performance objective was to establish a 2010 fuel cost at or below \$2.20 per gallon. Regular reports and tracking are included in the 2009 through 2012 budget execution. The overall objective of the program is to decrease energy volatility, increase the certainty of future fuel costs, stabilize and control the budget and finally to lower overall long-term energy costs.

In 2008, fuel costs were \$19.4 million. Using a firm fixed price contract for 2009, those costs were reduced to \$17.4 million. For 2010, the budgeted cost for fuel was \$9.39 million. Factoring in the shares of home heating oil that was sold, net cost of diesel fuel was \$8.0 million. Total diesel fuel costs in 2011 were budgeted at \$11.0 million and ended the year at \$9.9 million. This meets our objective of stabilizing budgeted costs and then goes on to significantly reduce overall costs. The fuel costs for 2012 were budgeted at \$12.8 million and ended the year at \$12.6 million. Fuel has been hedged for 88% of 2013 and 55% of 2014. Fuel will be hedged for 2015 at the next opportunity the market presents. Fuel is projected at \$13.8 million for 2013.