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, Total Quality Management (TQM), and the Balanced Scorecard are popular examples of proven management techniques in the private sector. In government, 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. 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 their 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.

The City of Baltimore developed CitiStat. CitiStat brought its 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, Atlanta, San Francisco, and Washington State. 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.
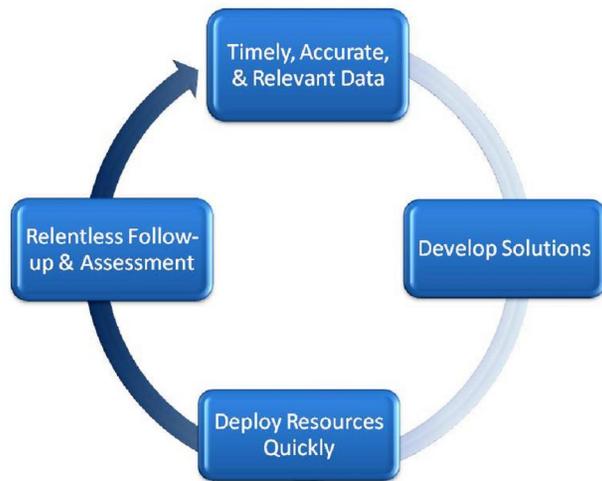
The Administrative TransitStat leadership team includes:
- TransitStat Panel (above)
- DGM . Finance & Administration
- DGM . Engineering & Project Development
- DGM . Legal Affairs
- Director of Marketing & Communications

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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:
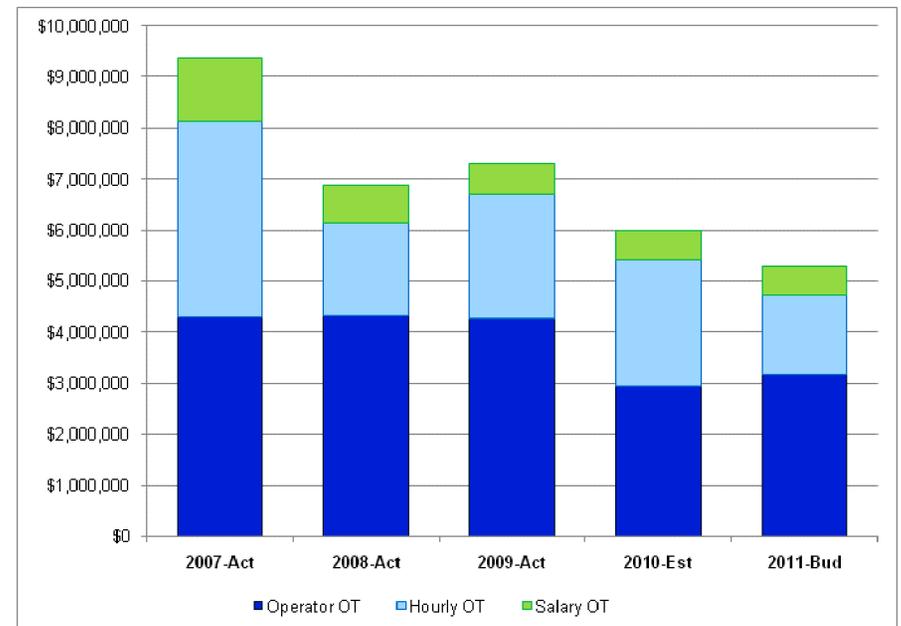
Operations TransitStat:

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

Administrative TransitStat:

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/Back to Work Program
8. Collision Reduction
9. Strategic Healthcare Plan
10. Electricity Audit
11. Healthcare Audit
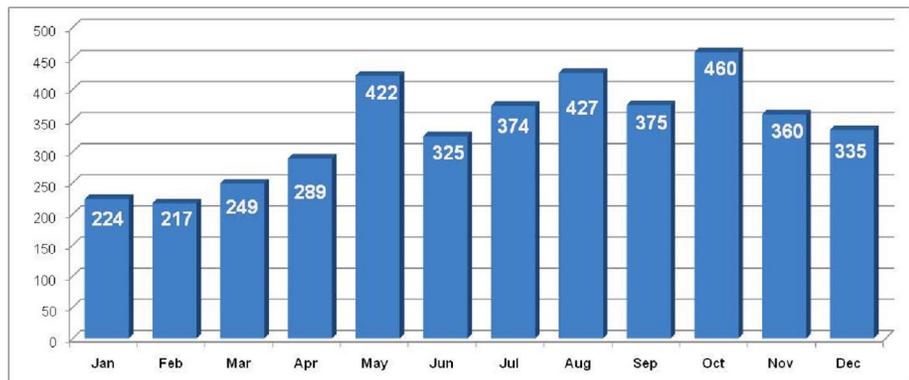12. Energy Price Risk Management

Successes

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 and 2010 were maintained at the new levels and 2011 is projected to be slightly lower.
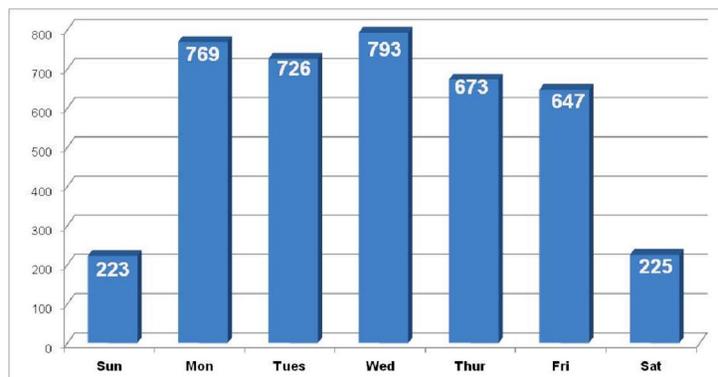
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The Transit Police Department has reviewed the fare evasion on the Red Line and the HealthLine based on citations given.
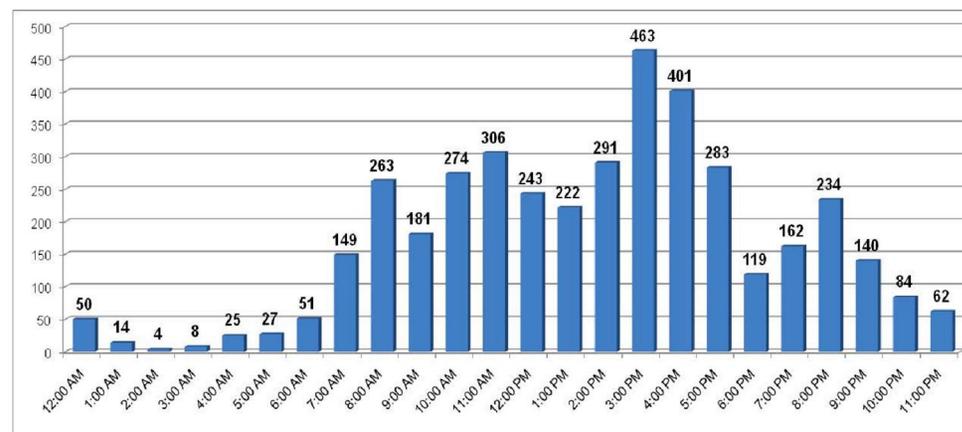

The number of citations per month, as seen in the graph above, has gradually increased since the beginning of the year, with a slight dip in June, November, and December. Only 0.055% of all riders along the Health Line and Red Line were issued citations for fare evasion. This equals to 1 out of every 1,820 passengers.

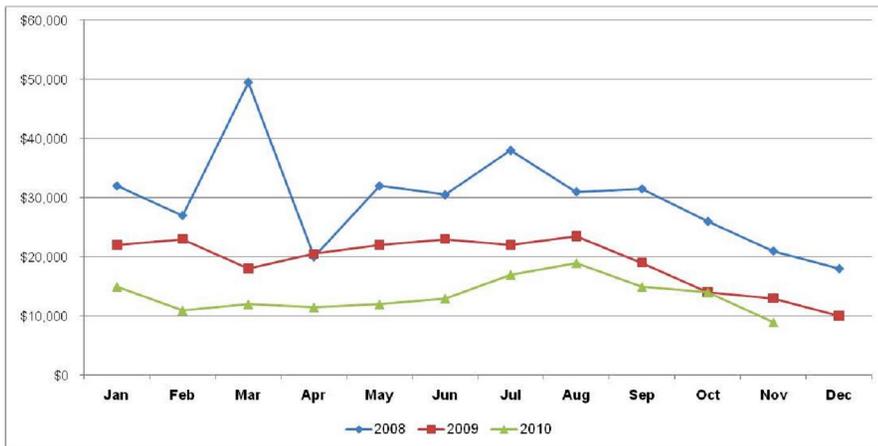Transit Police also reviewed the citations issued by weekday.

There was a fairly even distribution of citations issued during the weekdays; however, the weekends had a large drop. Saturday and Sunday both produced only 5.5% of the total citations issued.

Transit Police noticed that there were spikes in citations during the times when students attend school. Between 3:00pm and 6:00pm, 28% of all citations were issued, which is also the time when students are out of school for the day. When Transit Police analyzed the data for juveniles, 39% of the fare evaders between 3:00pm and 5:00pm were in fact juveniles. They found that a majority of these students received fare cards from their schools. Transit Police, the Cleveland City School District, and the City of Cleveland have created a plan to reduce juvenile fare violations, which will be in effect February 2011.
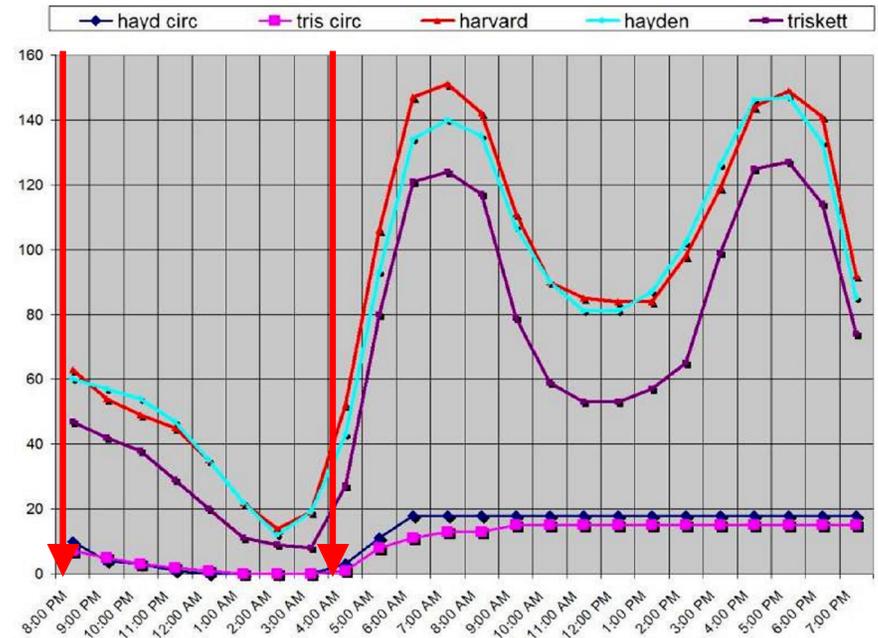
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Vehicle Reliability was added to the TransitStat program in July 2008. The Central Bus Maintenance (CBM) District monitors the number, cost, and reasons for revenue vehicles to be towed. Since the onset of this program, towing charges have reduced over 31% each year. The total towing charges for 2010 are reduced nearly 56%, compared to the total charges for 2008.
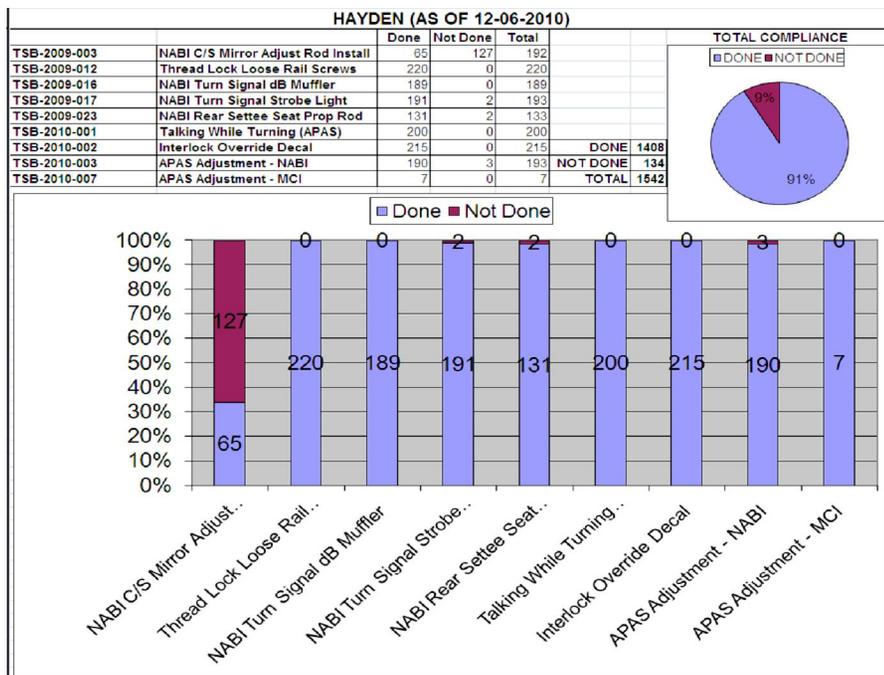
The graph below displays the number of buses per District that are on the road at a given time. Between 8:00pm and 4:00am is the time when the least number of buses are in revenue service and the greatest number of buses are in the garages. This time span is when the most mechanics are needed to schedule, repair, and maintain the vehicles.

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.

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 (7:30pm to 4:00am). This ensures that the mechanics and supervisors who maintain the buses are working at the Districts when the buses are available. These new shifts were implemented mid to late 2009 among all the bus districts.

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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 Hayden District.

The Safety Department has developed a Stat-format in their Executive Safety Committee (ESC) meetings. They updated 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.
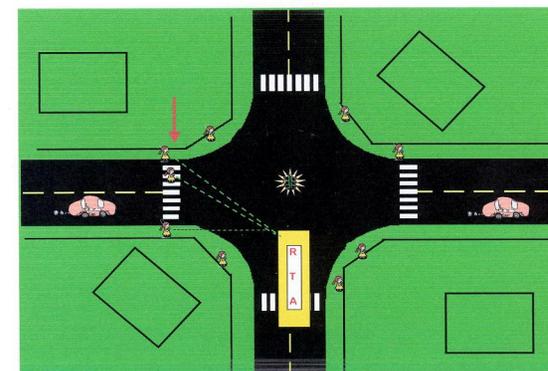
They concluded that 98% of Operators scanned the road curb to curb before making a left-hand turn; 99% of operators correctly identified the number of customers on the right-hand corner; 85% of Operators correctly identified the number of customers on the left-hand corner; and 94% of Operators waited 2 seconds before making the left-hand turn.

HAYDEN (AS OF 12-06-2010)

		Done	Not Done	Total
TSB-2009-003	NABI C/S Mirror Adjust Rod Install	65	127	192
TSB-2009-012	Thread Lock Loose Rail Screws	220	0	220
TSB-2009-016	NABI Turn Signal dB Muffler	189	0	189
TSB-2009-017	NABI Turn Signal Strobe Light	191	2	193
TSB-2009-023	NABI Rear Settee Seat Prop Rod	131	2	133
TSB-2010-001	Talking While Turning (APAS)	200	0	200
TSB-2010-002	Interlock Override Decal	215	0	215
TSB-2010-003	APAS Adjustment - NABI	190	3	193
TSB-2010-007	APAS Adjustment - MCI	7	0	7

TOTAL COMPLIANCE

DONE 1408
NOT DONE 134
TOTAL 1542

9%
91%

The Safety Department and Training & Employee Development Department, with assistance from other Operations Departments, created a training program for left-hand turns.

OPERATOR ALERT!
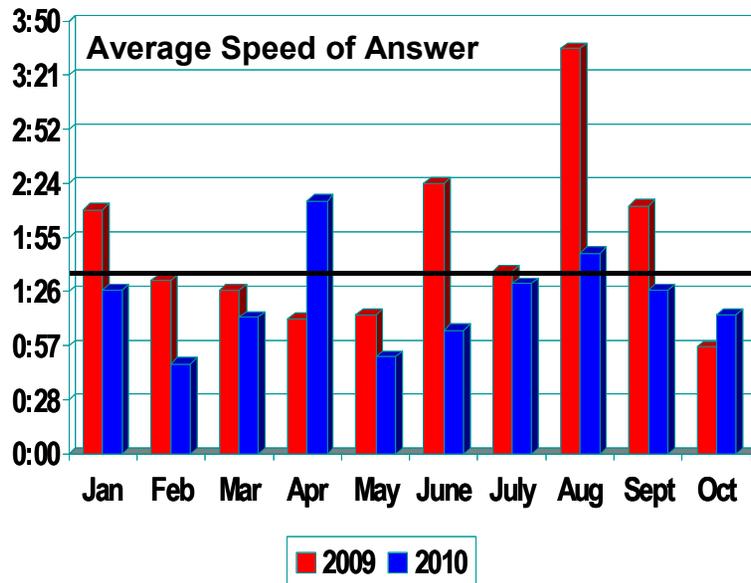
2nd Chance
2nd Glance

Watch for Pedestrians

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

Approaching the Crosswalk When Making a Left Hand Turn

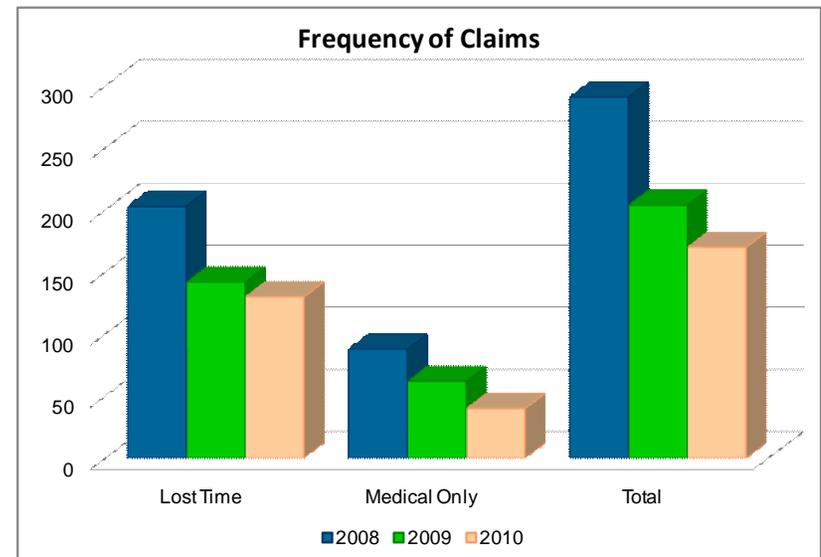Scan Early and Scan Often While Turning

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The Telephone Information Center is a section under the Marketing and Communications Department. Since 2008, the Telephone Information Center has been monitoring their performance. They have significantly decreased their Average Speed of Answer from a high of 5 minutes in 2008 to just over 1 minute average in 2010. Their goal was to answer every call within 1.5 minutes and they have surpassed their goal.

The Telephone Information Center operators have increased the number of calls answered in 2010 to nearly 500,000; over a 20% increase from 2009 and over 30% increase compared to 2008. One operator increased the number of calls answered by 42% compared to 2009 and four additional operators increased the number of calls answered from 21% to 34%, compared to 2009.

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. Additional information about this program is on PM-8.

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TransitStat Moving Forward

In 2011, TransitStat will continue performance monitoring of the Administrative and Operations divisions. The Stat programs will be used to focus on critical initiatives that can better position GCRTA to address impending economic threats. TransitStat is the scorecard that GCRTA will continue to use to achieve breakthrough performance.

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 and 2010 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. This meets our objective of stabilizing budgeted costs and then goes on to significantly reduce overall costs. All of 2011 and most of 2012 fuel requirements have been hedged and net costs are projected at $10.9 million and $12.4 million, respectively.