

Performance and Cost Data

FLEET MAINTENANCE

PERFORMANCE MEASURES FOR FLEET MAINTENANCE

SERVICE DEFINITION

Fleet maintenance represents the scheduled and unscheduled maintenance of rolling stock performed by the central garage and by contractual work assigned by the central garage. This includes preventive, predictive, corrective, and breakdown maintenance. Excluded from this definition are rolling stock not maintained by the central garage and the broader activities of fleet services such as rolling stock replacement and disposal, fuel station operation, and pool vehicle management.

NOTES ON PERFORMANCE MEASURES

1. Number of Vehicle Equivalent Units (VEUs) per Technician FTE

Vehicle Equivalent Units (VEUs) are a weighted measure of the maintenance effort associated with different classes of vehicles. A normal use car is considered equal to 1 VEU. Vehicles such as fire trucks or police cars have higher VEUs reflecting greater expected levels of maintenance effort. The number of VEUs in a municipality is determined by taking the number of rolling stock units in different classes of vehicles and multiplying them by a class weight for that category of vehicle. Vehicle categories include cars; light, medium, and heavy vehicles; trailed equipment; off-road/construction/tractor units; and buses. The number of full-time equivalent (FTE) positions for technicians is the number of employees directly involved in providing the maintenance services for the municipality's rolling stock as approved in the annual operating budget for the fiscal year.

2. Number of Preventive Maintenances Completed In-House per Technician FTE

The number of preventive maintenance jobs (PMs) completed in-house is the total number completed for the fiscal year ended June 30, which are done by the municipality's staff. The number of full-time equivalent (FTE) positions for technicians is the same as defined above.

3. Cost per Work Order

The cost represents the total cost of fleet maintenance and is calculated using the full cost accounting model that captures direct, indirect, and capital costs. Work orders include the total number of work orders produced, including those related to contractual work, for the fiscal year ended June 30.

4. Cost per Vehicle Equivalent Unit (VEU)

The cost represents the total cost of fleet maintenance and is calculated using the full cost accounting model that captures direct, indirect, and capital costs. Vehicle Equivalent Units (VEUs) are calculated as defined above for the fiscal year ended June 30.

5. Hours Billed as a Percentage of Total Hours

The total number of billable hours includes all hours for technicians available for work during the fiscal year. Billable hours are calculated by multiplying 2,080 (hours in a normal working year) by the number of full-time equivalent (FTE) positions for technicians as defined above. However, this number of FTEs is adjusted for vacancies. Hours billed represents actual hours billed during the fiscal year by the central garage to departments, divisions, and programs.

6. Preventive Maintenances (PMs) as a Percentage of All Work Orders

This measure is based on the total number of preventive maintenance jobs (PMs) (done in-house or by outside contractors) completed during the fiscal year divided by the total number of work orders (including contractual work) completed during the fiscal year for that jurisdiction.

7. Percentage of PMs Completed on Schedule

Based on the total number of PMs as defined above, this measure represents the percentage of PMs completed as scheduled as defined by the respective jurisdiction's standards.

8. Percentage of Work Orders Completed within Twenty-Four Hours

Based on the total number of work orders as defined above, this measure represents the percentage of work orders completed during the fiscal year within twenty-four hours of being received.

9. Percentage of Rolling Stock Available per Day

Based on the total number of rolling stock units as defined above, this measure represents the average percentage of rolling stock available for use per working day of the jurisdiction.

10. Percentage of Work Orders Requiring Repeat Repair within Thirty Days

Based on the total number of work orders as defined above, this measure represents the percentage of work orders (completed work on a unit of rolling stock) requiring repeat repair for the same problem within thirty days.



Fleet Maintenance

Summary of Key Dimensions of Service

City or Town	Number of Rolling Stock Maintained	Average Age of Rolling Stock (in Years)	Number of Work Orders	Number of Preventive Maintenances	Number of Work Bays	Authorized Technician FTEs	Labor Rate (per Hour)	Parts Inventory Turnover per Year	Fund Type
Asheville	783	9.0	4,998	1,529	16	9.0	\$50—Cars and Small Trucks \$60—Large Truck and Off-Road	1.8	General Fund
Burlington	467	10.0	3,945	2,571	19	10.0	\$55—Heavy Equipment \$45—Auto/Light Truck \$35—Small Engine/Mowers	0.8	General Fund
Cary	827	6.0	5,199	1,875	7	8.0	\$60.00	NA	Internal Service
Charlotte	4,664	6.3	42,876	19,069	111	73.8	\$50.55	4.2	General Fund
Concord	808	7.0	4,154	1,788	8	8.0	\$22.00	5.5	Internal Service
Durham	1,476	6.2	12,632	5,457	33	24.0	\$59—Heavy Equip \$47—Others	3.6	General Fund
Greensboro	1,961	5.6	12,823	6,242	33	31.0	\$52.00	3.6	Internal Service
Greenville	525	NA	5,002	2,245	13	12.0	\$42.83	6.8	General Fund
Hickory	527	9.8	6,331	1,329	14	6.5	\$44.50	4.0	Internal Service
High Point	931	8.4	5,220	2,109	18	13.0	\$60.00	4.0	Internal Service
Salisbury	533	8.9	4,500	1,247	14	9.0	NA	2.0	General Fund
Wilmington	730	6.5	4,249	1,533	20	9.0	\$68.00	4.8	Internal Service
Wilson	752	7.6	5,695	1,152	15	11.0	\$44.00	2.7	General Fund
Winston-Salem	1,778	7.9	10,633	5,042	31	18.0	\$50.00	3.0	General Fund

EXPLANATORY FACTORS

These are factors that the project found to affect fleet maintenance performance and cost in one or more of the municipalities:

- Number of vehicles maintained
- Types of vehicles maintained
- Fleet replacement plan
- Average age of vehicles by type
- Average miles driven for each type of vehicle
- Preventive maintenance classification system
- Preventive maintenance schedule

Asheville

Fleet Maintenance

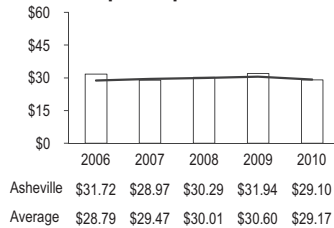
Key: Asheville ■

Benchmarking Average —

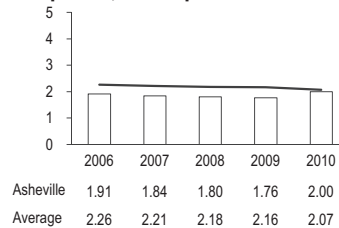
Fiscal Years 2006 through 2010

RESOURCE Measures

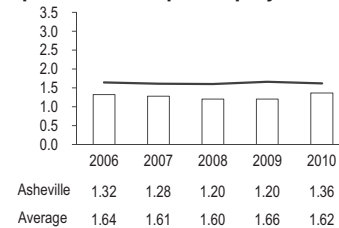
Fleet Maintenance Services Cost per Capita



Fleet Maintenance FTEs per 10,000 Population

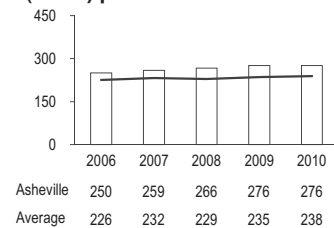


Fleet Maintenance FTEs per 100 Municipal Employees

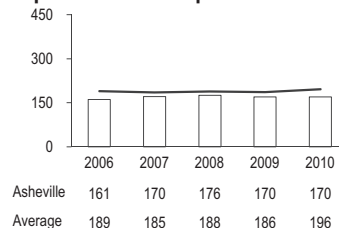


WORKLOAD Measures

Number of Vehicle Equivalent Units (VEUs) per Technician FTE

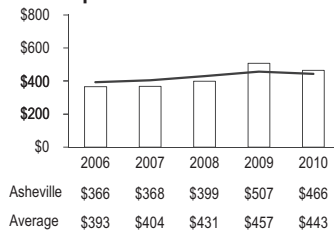


Preventive Maintenance (PMs) Completed In-House per Tech FTE

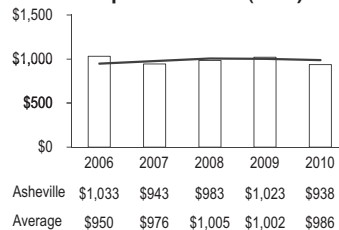


EFFICIENCY Measures

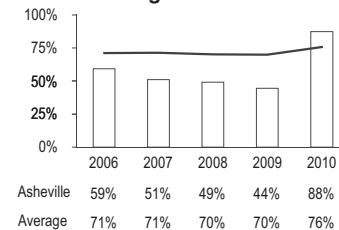
Fleet Maintenance Cost per Work Order



Fleet Maintenance Cost per Vehicle Equivalent Unit (VEU)

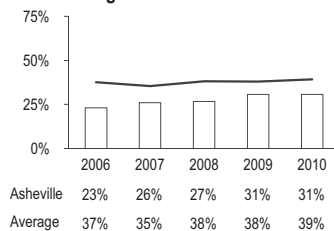


Hours Billed as a Percentage of Total Hours

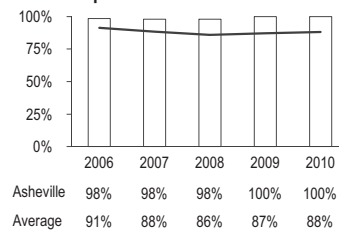


EFFECTIVENESS Measures

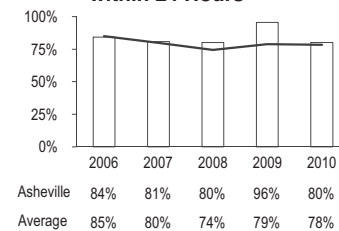
Preventive Maintenance (PMs) as a Percentage of All Work Orders



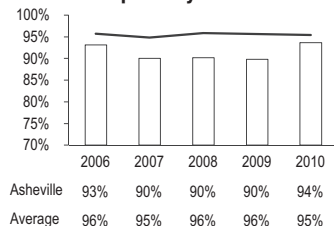
Percentage of Preventive Maintenance (PMs) Completed as Scheduled



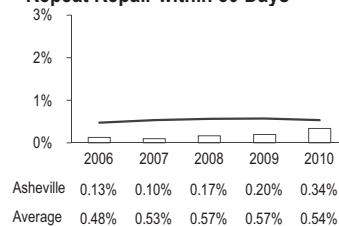
Percentage of Work Orders Completed within 24 Hours



Percentage of Rolling Stock Available per Day



Percentage of Work Orders Requiring Repeat Repair within 30 Days



Asheville

Fleet Maintenance

Fiscal Year 2009–10

MUNICIPAL PROFILE			EXPLANATORY INFORMATION
Population (OSBM 2009)	79,973		Service Level and Delivery Fleet management is a division of the Asheville Public Works Department, consisting of the fleet maintenance garage and a fueling station. The activities for this operation were accounted for in the general fund.
Land Area (Square Miles)	44.99		
Persons per Square Mile	1,778		
County	Buncombe		Charges for maintenance services included a \$50 an hour labor rate for passenger cars and light trucks up to one ton in weight and a \$60 an hour labor rate for vehicles over one ton in weight and off-road vehicles, a 30 percent markup on parts, and a 5 percent markup on sublet work. Parts inventory turned over 1.75 times during the fiscal year.
Topography	Hills, mountains		
Climate	Moderate; ice and snow		
Rolling Stock Maintained	No.	Average Age	The following services were contracted out during FY 2009–10: <ul style="list-style-type: none">• major automatic and manual transmission repairs• front-end alignments• major emergency generator repairs• aerial inspections• major engine repairs• paint and body repairs• tire repairs on trucks over one ton• major hydraulic cylinder repairs• refuse truck body packer repairs
Cars—Normal Usage	73	7.5 Years	
Cars—Severe Usage	129	5.1 Years	
Light Vehicles	276	9.2 Years	
Medium Vehicles	18	16.5 Years	
Heavy—Sanitation	16	6.1 Years	
Heavy—Sewer	2	3.0 Years	
Heavy—Fire Apparatus	31	11.8 Years	
Heavy—Other	43	7.5 Years	
Trailed Equipment	106	12.1 Years	
Off-Road/Construction/Tractors	85	10.2 Years	
Buses	4	23.1 Years	
TOTAL	783		
Vehicle Equivalent Units (VEUs)	2,480		Conditions Affecting Service, Performance, and Costs Vehicle Equivalent Units (VEUs) are a weighted measure of the maintenance effort associated with different classes of vehicles. A normal-use car is considered equal to one VEU. Vehicles such as fire trucks or police cars have higher VEUs, reflecting greater expected levels of maintenance. The measure "hours billed as a percentage of total hours" is based on a work year of 2,080 hours and only counts those positions that were filled. It should be noted that technicians have responsibilities that do not result in billable hours and they take normal vacation and sick leave. Therefore this percentage should not be expected to be near 100 percent. In Asheville the preventive maintenance completion standard for "percentage of PMs completed as scheduled" is within the same calendar month as the scheduled date. In addition to rolling stock, Asheville's fleet services has maintenance responsibilities for other pieces of equipment including snow plows, sand spreaders, emergency generators, water pumps, chain saws, a pressure washer, a curb builder, and other city equipment.
FULL COST PROFILE			
Cost Breakdown by Percentage			
Personal Services	31.9%		
Operating Costs	65.2%		
Capital Costs	2.9%		
TOTAL	100.0%		
Cost Breakdown in Dollars			
Personal Services	\$	741,562	
Operating Costs	\$	1,516,783	
Capital Costs	\$	68,471	
TOTAL	\$	2,326,816	
SERVICE PROFILE			
FTE Positions—Technician	9.0		
FTE Positions—Other	7.0		
Work Bays	16		
Average Rolling Stock Units Available per Day	733		
Hours Billed	14,560		
Work Orders	4,998		
Repeat Repairs within 30 Days	17		
Work Orders Completed within 24 hours	3,998		
Preventive Maintenance (PMs)	1,529		
PMs Completed as Scheduled	1,529		

Burlington

Fleet Maintenance

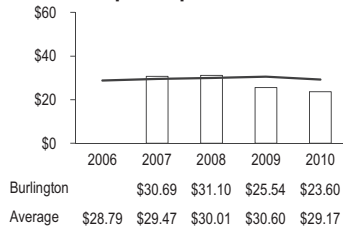
Key: Burlington ■

Benchmarking Average —

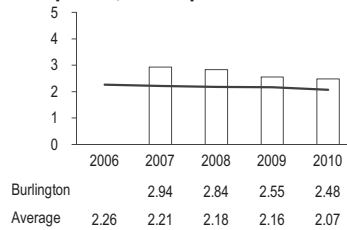
Fiscal Years 2006 through 2010

RESOURCE Measures

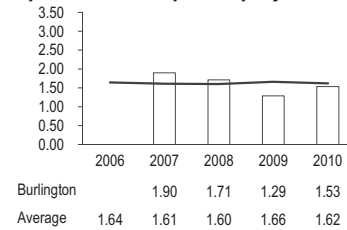
Fleet Maintenance Services Cost per Capita



Fleet Maintenance FTEs per 10,000 Population

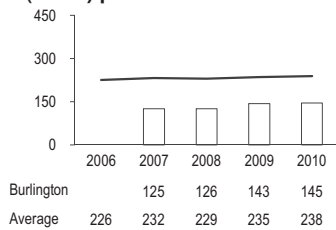


Fleet Maintenance FTEs per 100 Municipal Employees

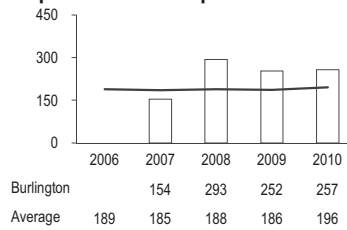


WORKLOAD Measures

Number of Vehicle Equivalent Units (VEUs) per Technician FTE

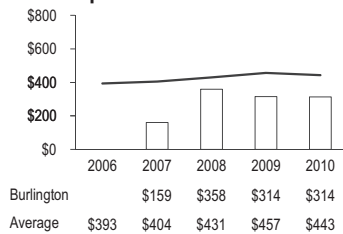


Preventive Maintenance (PMs) Completed In-House per Tech FTE

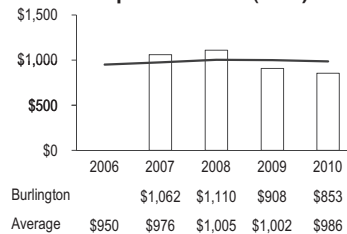


EFFICIENCY Measures

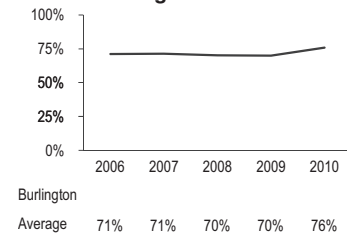
Fleet Maintenance Cost per Work Order



Fleet Maintenance Cost per Vehicle Equivalent Unit (VEU)

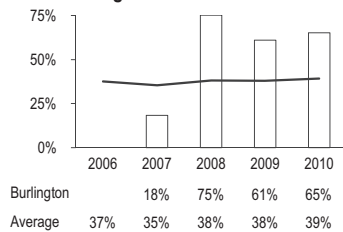


Hours Billed as a Percentage of Total Hours

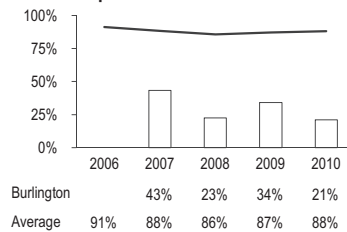


EFFECTIVENESS Measures

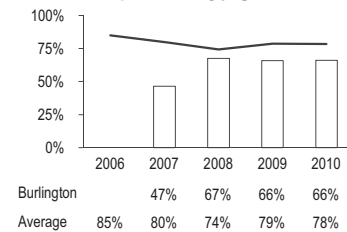
Preventive Maintenance (PMs) as a Percentage of All Work Orders



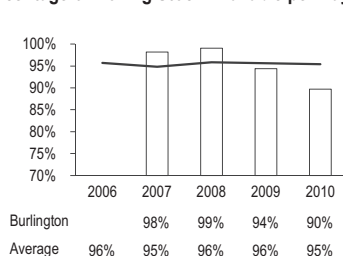
Percentage of Preventive Maintenance (PMs) Completed as Scheduled



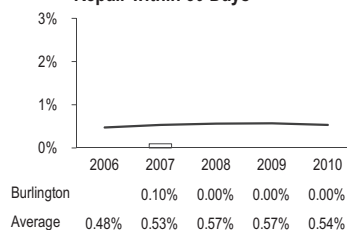
Percentage of Work Orders Completed within 24 Hours



Percentage of Rolling Stock Available per Day



Percentage of Work Orders Requiring Repeat Repair within 30 Days



Burlington

Fleet Maintenance

Fiscal Year 2009–10

MUNICIPAL PROFILE

Population (OSBM 2009)	52,457
Land Area (Square Miles)	25.14
Persons per Square Mile	2,087

County	Alamance
Topography	Flat; gently rolling

Climate	Temperate
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Rolling Stock Maintained	No.	Average Age
Cars—Normal Usage	46	5.4 Years
Cars—Severe Usage	91	4.9 Years
Light Vehicles	120	9.4 Years
Medium Vehicles	40	12.7 Years
Heavy—Sanitation	20	7.4 Years
Heavy—Sewer	3	20.9 Years
Heavy—Fire Apparatus	10	10.4 Years
Heavy—Other	3	10.0 Years
Trailed Equipment	86	15.6 Years
Off-Road/Construction/Tractors	46	13.6 Years
Buses	2	9.5 Years
TOTAL	467	

Vehicle Equivalent Units (VEUs)	1,451
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FULL COST PROFILE

Cost Breakdown by Percentage	
Personal Services	46.1%
Operating Costs	51.4%
Capital Costs	2.5%
TOTAL	100.0%

Cost Breakdown in Dollars	
Personal Services	\$ 570,433
Operating Costs	\$ 636,003
Capital Costs	\$ 31,429
TOTAL	\$ 1,237,865

SERVICE PROFILE

FTE Positions—Technician	10.0
FTE Positions—Other	3.0
Work Bays	19
Average Rolling Stock Units Available per Day	419
Hours Billed	9,391
Work Orders	3,945
Repeat Repairs within 30 Days	0
Work Orders Completed within 24 hours	2,613
Preventive Maintenance (PMs)	2,571
PMs Completed as Scheduled	540

EXPLANATORY INFORMATION

Service Level and Delivery

Burlington's fleet maintenance is performed by the Equipment Services Division of the Public Works Department. The activities for this operation were accounted for in the general fund.

There are no charges for hourly labor but a tracking fee is used for internal purposes. There is a five percent markup on parts but no markup on sublet work.

The following services were contracted out during FY 2009–10:

- Bodywork
- Alignments
- Major transmission repairs
- Machine work
- Windshield replacement
- Upholster work
- Aerial inspections
- Wrecker service
- Two-way radio work

In addition to rolling stock, Burlington's Equipment Services Division has maintenance responsibility for bush hogs, edgers, pavers, pressure washers, riding mowers, generators, chain saws, push mowers, grinders, paint machine, spreaders, aerator, directional sign, and other city equipment.

Conditions Affecting Service, Performance, and Costs

Vehicle Equivalent Units (VEUs) are a weighted measure of the maintenance effort associated with different classes of vehicles. A normal-use car is considered equal to one VEU. Vehicles such as fire trucks or police cars have higher VEUs reflecting greater expected levels of maintenance.

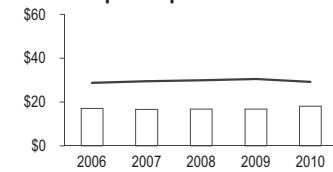
In Burlington the preventive maintenance completion standard for "percentage of PMs completed as scheduled" is based on mileage parameters. While most PMs are done within 24 hours of arrival at the fleet shop, not all vehicles are brought in by departments on time to allow completion on schedule.

The City of Burlington began participation in the benchmarking project in 2007 with its reporting data for FY 2006–07.

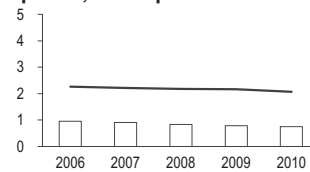
Key: Cary ■

Benchmarking Average —

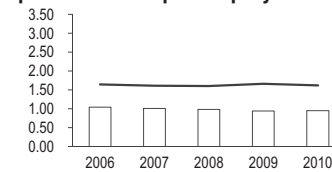
Fiscal Years 2006 through 2010

RESOURCE Measures**Fleet Maintenance Services Cost per Capita**

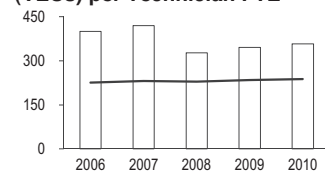
Cary	\$17.05	\$16.64	\$16.78	\$16.79	\$18.11
Average	\$28.79	\$29.47	\$30.01	\$30.60	\$29.17

Fleet Maintenance FTEs per 10,000 Population

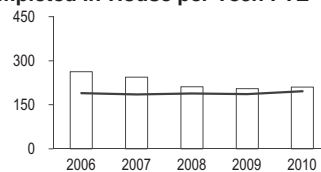
Cary	0.95	0.90	0.83	0.78	0.75
Average	2.26	2.21	2.18	2.16	2.07

Fleet Maintenance FTEs per 100 Municipal Employees

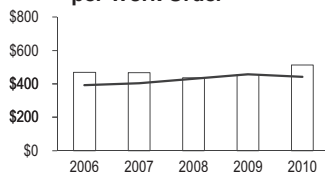
Cary	1.04	1.01	0.98	0.94	0.95
Average	1.64	1.61	1.60	1.66	1.62

WORKLOAD Measures**Number of Vehicle Equivalent Units (VEUs) per Technician FTE**

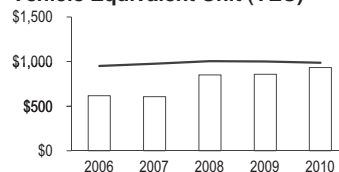
Cary	400	420	327	346	357
Average	226	232	229	235	238

Preventive Maintenance (PMs) Completed In-House per Tech FTE

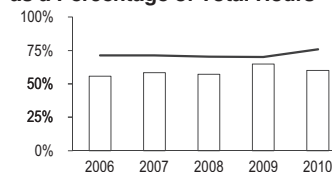
Cary	263	244	211	204	210
Average	189	185	188	186	196

EFFICIENCY Measures**Fleet Maintenance Cost per Work Order**

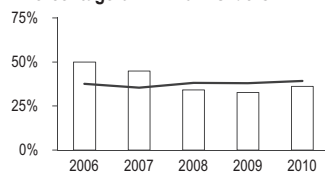
Cary	\$469	\$468	\$436	\$456	\$513
Average	\$393	\$404	\$431	\$457	\$443

Fleet Maintenance Cost per Vehicle Equivalent Unit (VEU)

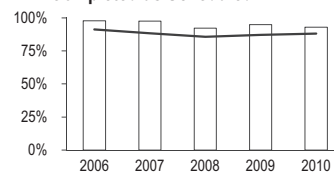
Cary	\$617	\$606	\$850	\$857	\$933
Average	\$950	\$976	\$1,005	\$1,002	\$986

Hours Billed as a Percentage of Total Hours

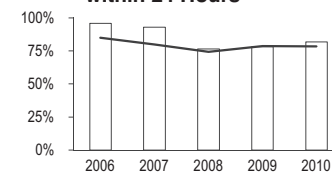
Cary	56%	58%	57%	65%	60%
Average	71%	71%	70%	70%	76%

EFFECTIVENESS Measures**Preventive Maintenance (PMs) as a Percentage of All Work Orders**

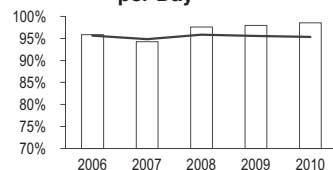
Cary	50%	45%	34%	33%	36%
Average	37%	35%	38%	38%	39%

Percentage of Preventive Maintenance (PMs) Completed as Scheduled

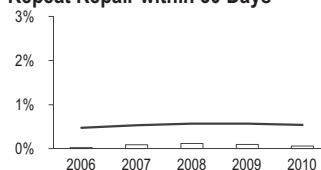
Cary	98%	98%	92%	95%	93%
Average	91%	88%	86%	87%	88%

Percentage of Work Orders Completed within 24 Hours

Cary	96%	93%	77%	78%	82%
Average	85%	80%	74%	79%	78%

Percentage of Rolling Stock Available per Day

Cary	96%	94%	98%	98%	99%
Average	96%	95%	96%	96%	95%

Percentage of Work Orders Requiring Repeat Repair within 30 Days

Cary	0.02%	0.09%	0.12%	0.10%	0.06%
Average	0.48%	0.53%	0.57%	0.57%	0.54%

Cary

Fleet Maintenance

Fiscal Year 2009–10

MUNICIPAL PROFILE			EXPLANATORY INFORMATION
Population (OSBM 2009)		147,282	Service Level and Delivery Cary's Fleet Division is located in the Public Works and Utilities Department. It operates as an internal service fund where departments are charged according to actual usage and all expenses and revenues are tracked separately from the general fund.
Land Area (Square Miles)		54.01	
Persons per Square Mile		2,727	
County		Wake	The division charges \$60 an hour for labor on all vehicle types and a 19 percent markup on parts sold. A flat fee of \$19 is charged on sublet work.
Topography		Flat; gently rolling	
Climate		Temperate	
Rolling Stock Maintained	No.	Average Age	Cary has a contract with NAPA where space is provided for a parts warehouse, but parts are only sold to Cary when used. Parts are stocked based on an annual review of parts used and maintenance requirements. NAPA does not charge a stocking/restocking fee.
Cars—Normal Usage	31	9.6 Years	
Cars—Severe Usage	118	4.4 Years	
Light Vehicles	279	5.7 Years	The following services were contracted out during FY 2009–10:
Medium Vehicles	61	6.0 Years	
Heavy—Sanitation	31	3.5 Years	
Heavy—Sewer	4	5.7 Years	<ul style="list-style-type: none"> body work tire replacement (tires over 16 inches) some major transmission work some engine overhaul striping/decals for law enforcement and fire vehicles only
Heavy—Fire Apparatus	19	7.8 Years	
Heavy—Other	13	6.3 Years	
Trailed Equipment	65	6.7 Years	Conditions Affecting Service, Performance, and Costs Vehicle Equivalent Units (VEUs) are a weighted measure of the maintenance effort associated with different classes of vehicles. A normal-use car is considered equal to one VEU. Vehicles such as fire trucks or police cars have higher VEUs reflecting greater expected levels of maintenance.
Off-Road/Construction/Tractors	206	6.8 Years	
Buses	0	NA	
TOTAL	827		The measure "hours billed as a percentage of total hours" is based on a work year of 2,080 hours and only counts those positions that were filled. It should be noted that technicians have responsibilities that do not result in billable hours and they take normal vacation and sick leave. Therefore this percentage should not be expected to be near 100 percent.
Vehicle Equivalent Units (VEUs)		2,860	
FULL COST PROFILE			In Cary the preventive maintenance completion standard for "percentage of PMs completed as scheduled" is within the same calendar month as the scheduled date or within mileage parameters.
Cost Breakdown by Percentage			
Personal Services		24.3%	
Operating Costs		70.7%	In addition to rolling stock, Cary's fleet services has maintenance responsibilities for riding mowers, weed wackers, rotor tillers, tamps, saws, chippers, rollers, excavators, loaders, salt spreaders, concrete mixers, seeders, aerators, generators, an asphalt heater and trench master, and other town equipment.
Capital Costs		4.9%	
TOTAL		100.0%	
Cost Breakdown in Dollars			
Personal Services	\$	648,647	
Operating Costs	\$	1,887,073	
Capital Costs	\$	131,681	
TOTAL	\$	2,667,401	
SERVICE PROFILE			
FTE Positions—Technician		8.0	
FTE Positions—Other		3.0	
Work Bays		7	
Average Rolling Stock Units Available per Day		815	
Hours Billed		9,993	
Work Orders		5,199	
Repeat Repairs within 30 Days		3	
Work Orders Completed within 24 hours		4,253	
Preventive Maintenance (PMs)		1,875	
PMs Completed as Scheduled		1,744	

Charlotte

Fleet Maintenance

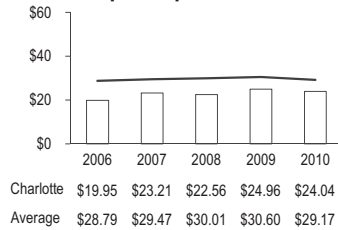
Key: Charlotte ■

Benchmarking Average —

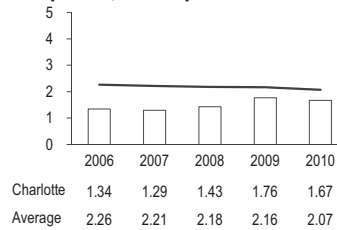
Fiscal Years 2006 through 2010

RESOURCE Measures

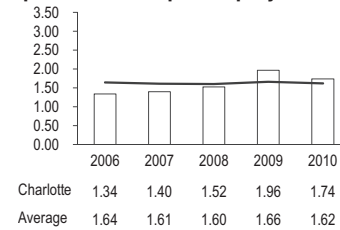
Fleet Maintenance Services Cost per Capita



Fleet Maintenance FTEs per 10,000 Population

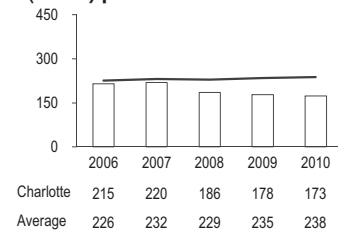


Fleet Maintenance FTEs per 100 Municipal Employees

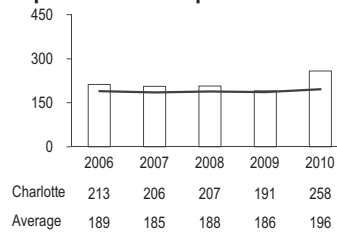


WORKLOAD Measures

Number of Vehicle Equivalent Units (VEUs) per Technician FTE

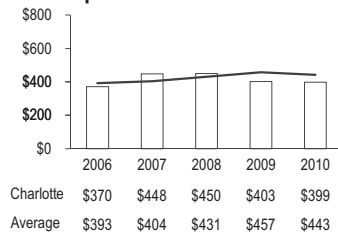


Preventive Maintenance (PMs) Completed In-House per Tech FTE

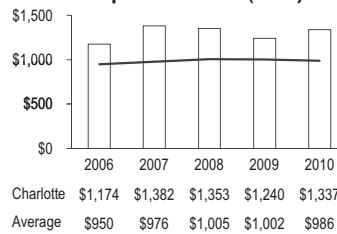


EFFICIENCY Measures

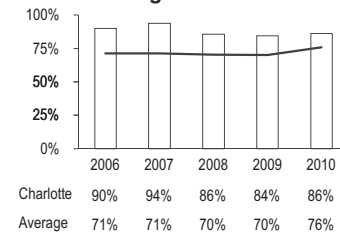
Fleet Maintenance Cost per Work Order



Fleet Maintenance Cost per Vehicle Equivalent Unit (VEU)

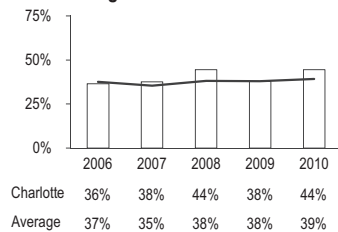


Hours Billed as a Percentage of Total Hours

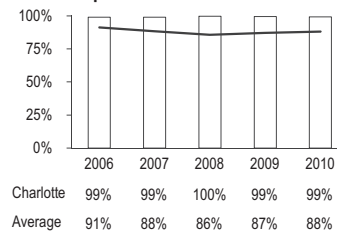


EFFECTIVENESS Measures

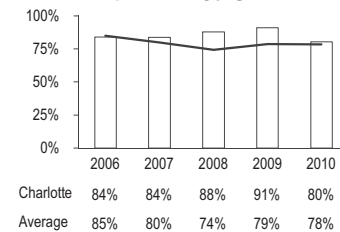
Preventive Maintenance (PMs) as a Percentage of All Work Orders



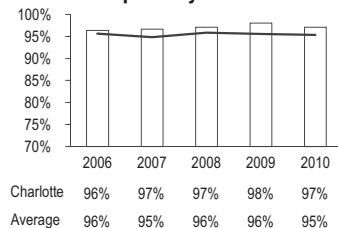
Percentage of Preventive Maintenance (PMs) Completed as Scheduled



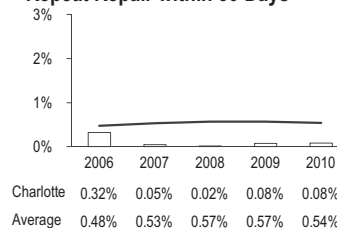
Percentage of Work Orders Completed within 24 Hours



Percentage of Rolling Stock Available per Day



Percentage of Work Orders Requiring Repeat Repair within 30 Days



Charlotte

Fleet Maintenance

Fiscal Year 2009–10

MUNICIPAL PROFILE		
Population (OSBM 2009)		711,349
Land Area (Square Miles)		299.0
Persons per Square Mile		2,379
County	Mecklenburg	
Topography	Flat, gently rolling	
Climate	Mild; some ice	
Rolling Stock Maintained	No.	Average Age
Cars—Normal Usage	1146	4.4 Years
Cars—Severe Usage	640	5.3 Years
Light Vehicles	1495	5.7 Years
Medium Vehicles	169	8.5 Years
Heavy—Sanitation	144	3.6 Years
Heavy—Sewer	27	5.0 Years
Heavy—Fire Apparatus	91	8.7 Years
Heavy—Other	142	7.6 Years
Trailed Equipment	527	10.2 Years
Off-Road/Construction/Tractors	261	11.0 Years
Buses	22	3.0 Years
TOTAL	4,664	
Vehicle Equivalent Units (VEUs)		12,794
FULL COST PROFILE		
Cost Breakdown by Percentage		
Personal Services		40.8%
Operating Costs		57.8%
Capital Costs		1.4%
TOTAL		100.0%
Cost Breakdown in Dollars		
Personal Services	\$	6,976,507
Operating Costs	\$	9,888,228
Capital Costs	\$	237,919
TOTAL	\$	17,102,654
SERVICE PROFILE		
FTE Positions—Technician		73.8
FTE Positions—Other		45.1
Work Bays		111
Average Rolling Stock Units Available per Day		4,529
Hours Billed		115,931
Work Orders		42,876
Repeat Repairs within 30 Days		35
Work Orders Completed within 24 hours		34,515
Preventive Maintenance (PMs)		19,069
PMs Completed as Scheduled		18,951

EXPLANATORY INFORMATION

Service Level and Delivery

The City of Charlotte and the County of Mecklenburg merged fleet maintenance services under a city operated program beginning July 1, 2009.

Charlotte's Equipment Management Division is part of Business Support Services, which provides internal services to other city departments. Fleet maintenance is one of four sections within the Equipment Management Division. All activities for this operation were accounted for in the general fund.

Charges for maintenance services included a \$50.55 per hour labor rate, a 22.27 percent markup charge on parts sold, and a 13.68 percent markup charge on sublet work. Part caps are negotiated individually based on very special and specific needs. All sublet transactions are subject to a \$500 cap.

The following services were contracted out during FY 2009–10: accident repair, body work, spring repairs, front-end alignment, glass replacement, fuel system repair, engine overhauls, transmission overhauls, towing, some tire service, police car preparation, heavy tire replacement and repair, some light-vehicle preventive maintenance, painting/graphic installation, and radio/computer installation or removal.

Conditions Affecting Service, Performance, and Costs

Vehicle Equivalent Units (VEUs) are a weighted measure of the maintenance effort associated with different classes of vehicles. A normal-use car is considered equal to one VEU. Vehicles such as fire trucks or police cars have higher VEUs reflecting greater expected levels of maintenance.

The measure "hours billed as a percentage of total hours" is based on a work year of 2,080 hours and only counts those positions that were filled. It should be noted that technicians have responsibilities that do not result in billable hours and they take normal vacation and sick leave. Therefore this percentage should not be expected to be near 100 percent. Charlotte indicated 64.73 technician FTEs were actually available for work during FY 2009–10 for this calculation.

In Charlotte the preventive maintenance completion standard for "percentage of PMs completed as scheduled" is within thirty days of the scheduled date and within mileage parameters.

In addition to rolling stock, Charlotte's fleet services had maintenance responsibilities for generators, mowers, weed wackers, compressors, saws, blowers, fans, asphalt-tar/kettles, edgers, snow plows, spreaders, tamps, mixers, chippers, posthole diggers, grinders, pressure washers, and other city equipment.

Concord

Fleet Maintenance

Key: Concord ■

Benchmarking Average —

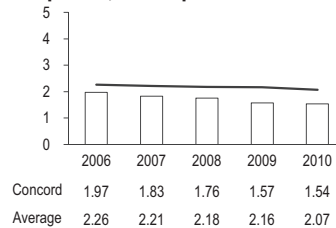
Fiscal Years 2006 through 2010

RESOURCE Measures

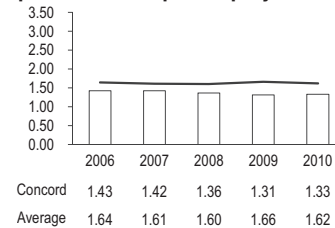
Fleet Maintenance Services Cost per Capita



Fleet Maintenance FTEs per 10,000 Population

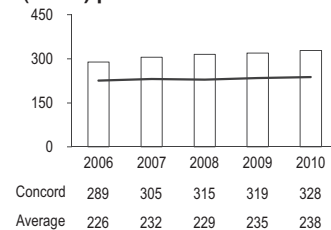


Fleet Maintenance FTEs per 100 Municipal Employees

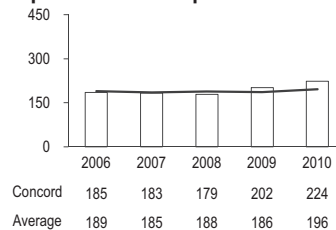


WORKLOAD Measures

Number of Vehicle Equivalent Units (VEUs) per Technician FTE

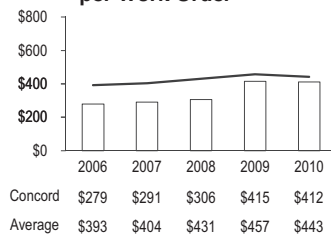


Preventive Maintenance (PMs) Completed In-House per Tech FTE

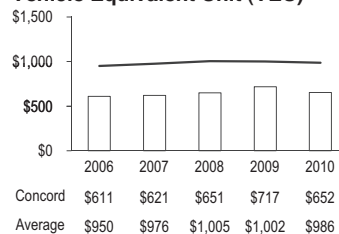


EFFICIENCY Measures

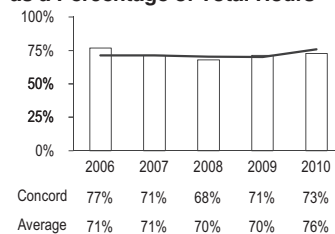
Fleet Maintenance Cost per Work Order



Fleet Maintenance Cost per Vehicle Equivalent Unit (VEU)

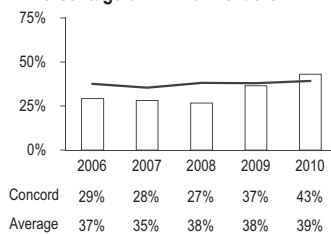


Hours Billed as a Percentage of Total Hours

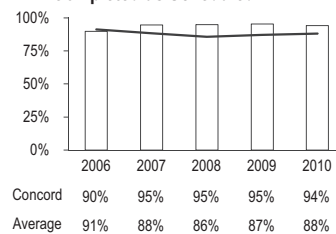


EFFECTIVENESS Measures

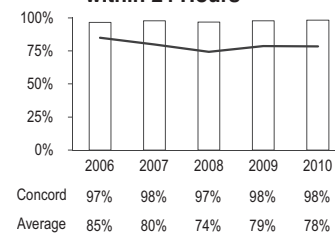
Preventive Maintenance (PMs) as a Percentage of All Work Orders



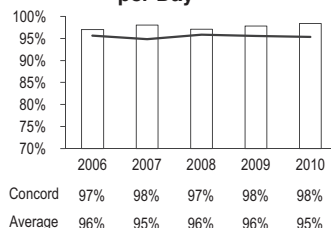
Percentage of Preventive Maintenance (PMs) Completed as Scheduled



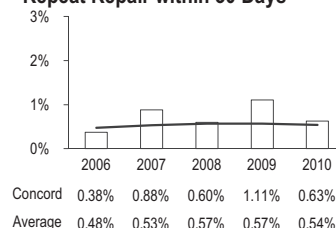
Percentage of Work Orders Completed within 24 Hours



Percentage of Rolling Stock Available per Day



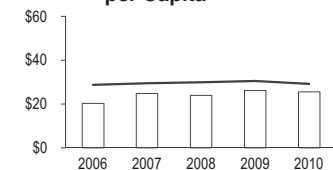
Percentage of Work Orders Requiring Repeat Repair within 30 Days



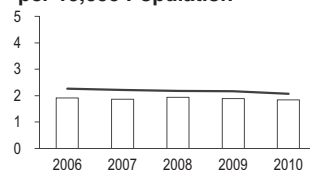
Concord

Fleet Maintenance Fiscal Year 2009–10

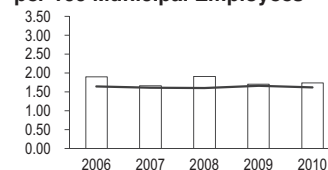
MUNICIPAL PROFILE			EXPLANATORY INFORMATION	
Population (OSBM 2009)		81,370	Service Level and Delivery Concord's Fleet Department operates as a separate city department through an internal service fund, charging other departments for services rendered.	
Land Area (Square Miles)		59.59		
Persons per Square Mile		1,365		
County		Cabarrus	A labor rate of \$22 per hour is charged for all maintenance services. There is no markup charge for parts or sublet work. Parts inventory turned over 5.51 times during the fiscal year.	
Topography		Flat; gently rolling		
Climate		Mild; some ice		
Rolling Stock Maintained	No.	Average Age	The following services were contracted out during FY 2009–10:	
Cars—Normal Usage	15	9.5 Years		
Cars—Severe Usage	151	4.9 Years		
Light Vehicles	232	7.0 Years	<ul style="list-style-type: none"> • body repairs • aerial device repairs • front-end alignments 	
Medium Vehicles	51	7.6 Years		
Heavy—Sanitation	13	5.2 Years		
Heavy—Sewer	3	7.0 Years	Conditions Affecting Service, Performance, and Costs Vehicle Equivalent Units (VEUs) are a weighted measure of the maintenance effort associated with different classes of vehicles. A normal-use car is considered equal to one VEU. Vehicles such as fire trucks or police cars have higher VEUs reflecting greater expected levels of maintenance.	
Heavy—Fire Apparatus	25	9.6 Years		
Heavy—Other	52	6.1 Years		
Trailed Equipment	154	9.0 Years	The measure "hours billed as a percentage of total hours" is based on a work year of 2,080 hours and only counts those positions that were filled. It should be noted that technicians have responsibilities that do not result in billable hours and they take normal vacation and sick leave. Therefore this percentage should not be expected to be near 100 percent. Concord indicated 7.40 technician FTEs were actually working during FY 2009–10 for this calculation.	
Off-Road/Construction/Tractors	97	6.9 Years		
Buses	15	6.4 Years		
TOTAL	808		In Concord the preventive maintenance completion standard for "percentage of PMs completed as scheduled" is within thirty days of the scheduled date.	
Vehicle Equivalent Units (VEUs)		2,624		
FULL COST PROFILE			In addition to rolling stock, Concord's fleet services has maintenance responsibilities for generators, mowers, weed-eaters, chainsaws, chop saws, leaf blowers, tamps, pumps, power washers, and other city equipment.	
Cost Breakdown by Percentage				
Personal Services		43.8%		
Operating Costs		52.8%	In addition to rolling stock, Concord's fleet services has maintenance responsibilities for generators, mowers, weed-eaters, chainsaws, chop saws, leaf blowers, tamps, pumps, power washers, and other city equipment.	
Capital Costs		3.5%		
TOTAL		100.0%		
Cost Breakdown in Dollars			In addition to rolling stock, Concord's fleet services has maintenance responsibilities for generators, mowers, weed-eaters, chainsaws, chop saws, leaf blowers, tamps, pumps, power washers, and other city equipment.	
Personal Services	\$	748,646		
Operating Costs	\$	903,026		
Capital Costs	\$	59,337	In addition to rolling stock, Concord's fleet services has maintenance responsibilities for generators, mowers, weed-eaters, chainsaws, chop saws, leaf blowers, tamps, pumps, power washers, and other city equipment.	
TOTAL	\$	1,711,009		
SERVICE PROFILE			In addition to rolling stock, Concord's fleet services has maintenance responsibilities for generators, mowers, weed-eaters, chainsaws, chop saws, leaf blowers, tamps, pumps, power washers, and other city equipment.	
FTE Positions—Technician		8.0		
FTE Positions—Other		4.5		
Work Bays		8	In addition to rolling stock, Concord's fleet services has maintenance responsibilities for generators, mowers, weed-eaters, chainsaws, chop saws, leaf blowers, tamps, pumps, power washers, and other city equipment.	
Average Rolling Stock Units Available per Day		795		
Hours Billed		11,210		
Work Orders		4,154	In addition to rolling stock, Concord's fleet services has maintenance responsibilities for generators, mowers, weed-eaters, chainsaws, chop saws, leaf blowers, tamps, pumps, power washers, and other city equipment.	
Repeat Repairs within 30 Days		26		
Work Orders Completed within 24 hours		4,088		
Preventive Maintenance (PMs)		1,788	In addition to rolling stock, Concord's fleet services has maintenance responsibilities for generators, mowers, weed-eaters, chainsaws, chop saws, leaf blowers, tamps, pumps, power washers, and other city equipment.	
PMs Completed as Scheduled		1,687		

RESOURCE Measures**Fleet Maintenance Services Cost per Capita**

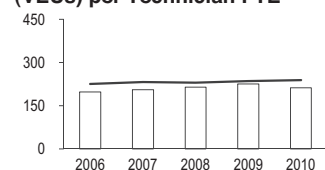
Durham	\$20.37	\$24.82	\$24.05	\$26.21	\$25.64
Average	\$28.79	\$29.47	\$30.01	\$30.60	\$29.17

Fleet Maintenance FTEs per 10,000 Population

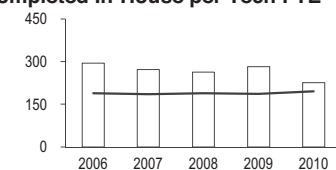
Durham	1.91	1.86	1.93	1.88	1.84
Average	2.26	2.21	2.18	2.16	2.07

Fleet Maintenance FTEs per 100 Municipal Employees

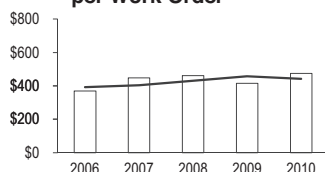
Durham	1.90	1.66	1.91	1.70	1.73
Average	1.64	1.61	1.60	1.66	1.62

WORKLOAD Measures**Number of Vehicle Equivalent Units (VEUs) per Technician FTE**

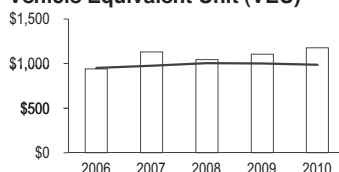
Durham	197	205	214	226	212
Average	226	232	229	235	238

Preventive Maintenance (PMs) Completed In-House per Tech FTE

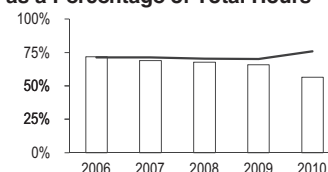
Durham	295	272	263	282	226
Average	189	185	188	186	196

EFFICIENCY Measures**Fleet Maintenance Cost per Work Order**

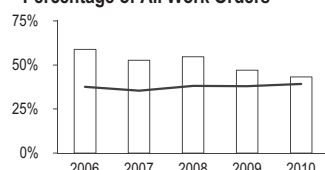
Durham	\$370	\$448	\$461	\$415	\$475
Average	\$393	\$404	\$431	\$457	\$443

Fleet Maintenance Cost per Vehicle Equivalent Unit (VEU)

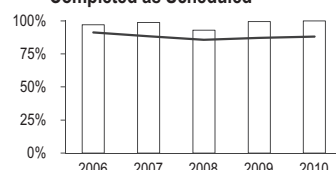
Durham	\$939	\$1,129	\$1,043	\$1,106	\$1,179
Average	\$950	\$976	\$1,005	\$1,002	\$986

Hours Billed as a Percentage of Total Hours

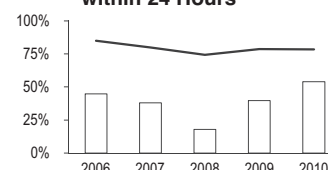
Durham	72%	69%	68%	66%	56%
Average	71%	71%	70%	70%	76%

EFFECTIVENESS Measures**Preventive Maintenance (PMs) as a Percentage of All Work Orders**

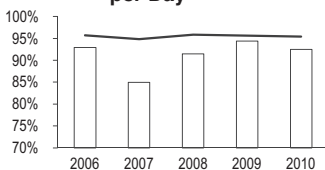
Durham	59%	53%	55%	47%	43%
Average	37%	35%	38%	38%	39%

Percentage of Preventive Maintenance (PMs) Completed as Scheduled

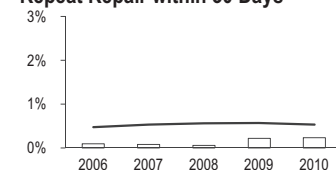
Durham	97%	99%	93%	100%	100%
Average	91%	88%	86%	87%	88%

Percentage of Work Orders Completed within 24 Hours

Durham	45%	38%	18%	40%	54%
Average	85%	80%	74%	79%	78%

Percentage of Rolling Stock Available per Day

Durham	93%	85%	91%	94%	92%
Average	96%	95%	96%	96%	95%

Percentage of Work Orders Requiring Repeat Repair within 30 Days

Durham	0.10%	0.08%	0.06%	0.22%	0.24%
Average	0.48%	0.53%	0.57%	0.57%	0.54%

Durham

Fleet Maintenance Fiscal Year 2009–10

MUNICIPAL PROFILE			EXPLANATORY INFORMATION	
Population (OSBM 2009)		234,140	Service Level and Delivery Fleet Maintenance is a division of Durham's General Services Department. All activities for this operation were accounted for through the general fund. No fees are charged for labor although the data is tracked. A 5 percent markup is added to all inside and outside parts issued to work orders to cover consummable items such as nuts, bolts, and light bulbs.	
Land Area (Square Miles)		105.59		
Persons per Square Mile		2,217		
County		Durham		
Topography		Flat; gently rolling		
Climate		Mild; some ice		
Rolling Stock Maintained	No.	Average Age	<p>The following services were contracted out during FY 2009–10:</p> <ul style="list-style-type: none"> • paint and body • transmission and engine overhauls • glass repairs • environmental cleanup and spills • towing • window tinting • welding <p>Conditions Affecting Service, Performance, and Costs Vehicle Equivalent Units (VEUs) are a weighted measure of the maintenance effort associated with different classes of vehicles. A normal-use car is considered equal to one VEU. Vehicles such as fire trucks or police cars have higher VEUs reflecting greater expected levels of maintenance.</p> <p>The measure "hours billed as a percentage of total hours" is based on a work year of 2,080 hours and only counts those positions that were filled. It should be noted that technicians have responsibilities that do not result in billable hours and they take normal vacation and sick leave. Therefore this percentage should not be expected to be near 100 percent.</p> <p>In Durham the preventive maintenance completion standard for "percentage of PMs completed as scheduled" is within the same calendar month and by mileage parameters.</p> <p>In addition to rolling stock, Durham's fleet services has maintenance responsibilities for tractors, mowers, generators, compressors, pumps, jack hammers, and other city equipment.</p>	
Cars—Normal Usage	97	7.1 Years		
Cars—Severe Usage	361	2.7 Years		
Light Vehicles	411	5.0 Years		
Medium Vehicles	64	4.9 Years		
Heavy—Sanitation	77	3.4 Years		
Heavy—Sewer	9	7.9 Years		
Heavy—Fire Apparatus	31	9.1 Years		
Heavy—Other	86	4.6 Years		
Trailed Equipment	209	14.4 Years		
Off-Road/Construction/Tractors	122	9.4 Years		
Buses	9	4.7 Years		
TOTAL	1,476			
Vehicle Equivalent Units (VEUs)		5,092		
FULL COST PROFILE				
Cost Breakdown by Percentage				
Personal Services		42.3%		
Operating Costs		53.9%		
Capital Costs		3.8%		
TOTAL		100.0%		
Cost Breakdown in Dollars				
Personal Services	\$	2,540,660		
Operating Costs	\$	3,233,097		
Capital Costs	\$	229,959		
TOTAL	\$	6,003,716		
SERVICE PROFILE				
FTE Positions—Technician		24.0		
FTE Positions—Other		19.0		
Work Bays		33		
Average Rolling Stock Units Available per Day		1,365		
Hours Billed		28,156		
Work Orders		12,632		
Repeat Repairs within 30 Days		30		
Work Orders Completed within 24 hours		6,811		
Preventive Maintenance (PMs)		5,457		
PMs Completed as Scheduled		5,457		

Greensboro

Fleet Maintenance

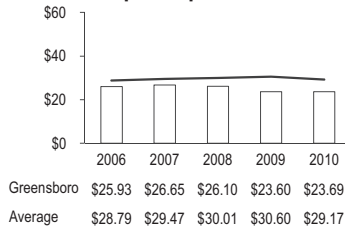
Key: Greensboro ■

Benchmarking Average —

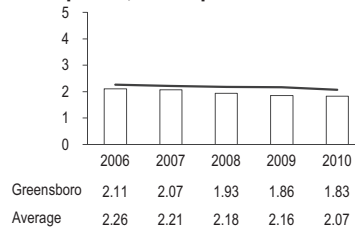
Fiscal Years 2006 through 2010

RESOURCE Measures

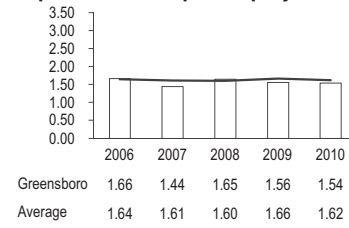
Fleet Maintenance Services Cost per Capita



Fleet Maintenance FTEs per 10,000 Population

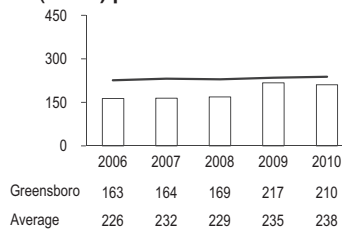


Fleet Maintenance FTEs per 100 Municipal Employees

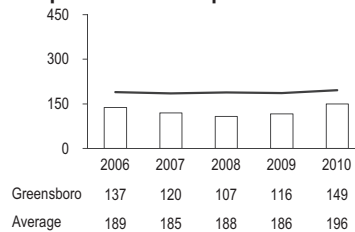


WORKLOAD Measures

Number of Vehicle Equivalent Units (VEUs) per Technician FTE

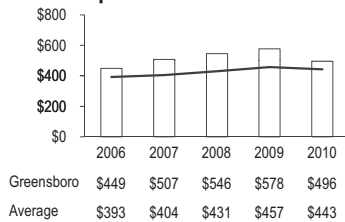


Preventive Maintenance (PMs) Completed In-House per Tech FTE

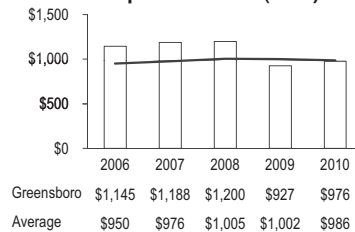


EFFICIENCY Measures

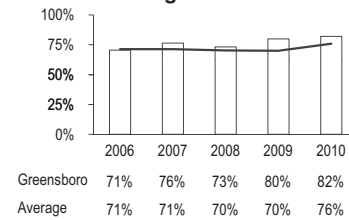
Fleet Maintenance Cost per Work Order



Fleet Maintenance Cost per Vehicle Equivalent Unit (VEU)

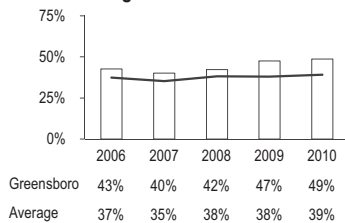


Hours Billed as a Percentage of Total Hours

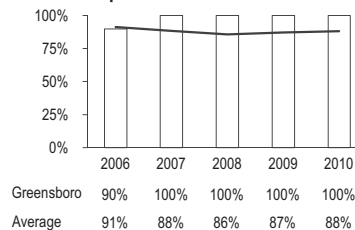


EFFECTIVENESS Measures

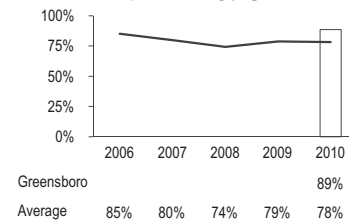
Preventive Maintenance (PMs) as a Percentage of All Work Orders



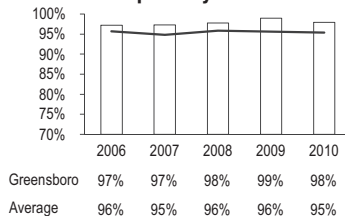
Percentage of Preventive Maintenance (PMs) Completed as Scheduled



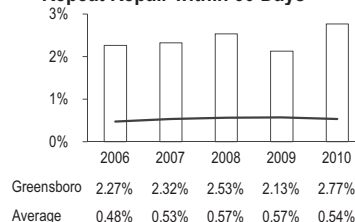
Percentage of Work Orders Completed within 24 Hours



Percentage of Rolling Stock Available per Day



Percentage of Work Orders Requiring Repeat Repair within 30 Days



Greensboro

Fleet Maintenance

Fiscal Year 2009–10

MUNICIPAL PROFILE			EXPLANATORY INFORMATION
Population (OSBM 2009)		268,283	Service Level and Delivery Greensboro's fleet maintenance operation is housed within the Equipment Services Division of the Finance Department. The Division consists of four sections: administration, services, parts, and tires. All activities for this operation were accounted for in an internal service fund with other departments and programs charged for its maintenance services on a cost recovery basis.
Land Area (Square Miles)		127.75	
Persons per Square Mile		2,100	
County		Guilford	
Topography		Flat; gently rolling	The labor rate for FY 2009–10 was \$52 an hour. Charges included a 25 percent markup for parts sold and a 5 percent markup for sublet work.
Climate		Temperate	
Rolling Stock Maintained	No.	Average Age	
Cars—Normal Usage	181	5.0 Years	
Cars—Severe Usage	309	3.0 Years	The following services were contracted out during FY 2009–10: <ul style="list-style-type: none">• body work• glass repair• upholstery repair• most automotive and light duty oil changes• other repairs when workload exceeded in-house capacity
Light Vehicles	416	6.0 Years	
Medium Vehicles	193	5.0 Years	
Heavy—Sanitation	91	3.0 Years	
Heavy—Sewer	7	4.0 Years	
Heavy—Fire Apparatus	0	NA	
Heavy—Other	43	6.0 Years	
Trailed Equipment	187	7.0 Years	
Off-Road/Construction/Tractors	534	7.0 Years	
Buses	0	NA	
TOTAL	1,961		Conditions Affecting Service, Performance, and Costs Vehicle Equivalent Units (VEUs) are a weighted measure of the maintenance effort associated with different classes of vehicles. A normal-use car is considered equal to one VEU. Vehicles such as fire trucks or police cars have higher VEUs reflecting greater expected levels of maintenance.
Vehicle Equivalent Units (VEUs)		6,513	
FULL COST PROFILE			
Cost Breakdown by Percentage			
Personal Services		48.5%	
Operating Costs		51.5%	
Capital Costs		0.0%	
TOTAL		100.0%	
Cost Breakdown in Dollars			The measure "hours billed as a percentage of total hours" is based on a work year of 2,080 hours and only counts those positions that were filled. It should be noted that technicians have responsibilities that do not result in billable hours and they take normal vacation and sick leave. Therefore this percentage should not be expected to be near 100 percent. Greensboro indicated 31 technician FTE positions were actually filled during FY 2009–10 for this calculation.
Personal Services	\$	3,080,529	
Operating Costs	\$	3,274,703	
Capital Costs	\$	-	
TOTAL	\$	6,355,232	In Greensboro the preventive maintenance completion standard for "percentage of PMs completed as scheduled" uses mileage parameters and scheduled dates within the calendar month or within thirty days of schedule.
SERVICE PROFILE			
FTE Positions—Technician		31.0	
FTE Positions—Other		18.0	
Work Bays		33	In addition to rolling stock, Greensboro's fleet services has maintenance responsibilities for generators, saws, blowers, various police equipment, asphalt pavers, sprayers, hydraulic hammers, a motor mixer, pumps, snow plows, spreaders, and other equipment.
Average Rolling Stock Units Available per Day		1,920	
Hours Billed		52,961	
Work Orders		12,823	
Repeat Repairs within 30 Days		355	The increase in rolling stock reflects vehicles maintained by the city and not just city owned equipment.
Work Orders Completed within 24 hours		11,366	
Preventive Maintenance (PMs)		6,242	
PMs Completed as Scheduled		6,242	

Greenville

Fleet Maintenance

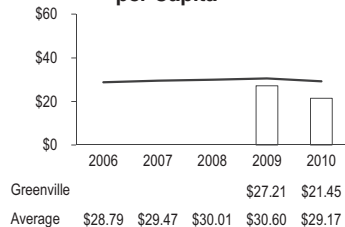
Key: Greenville ■

Benchmarking Average —

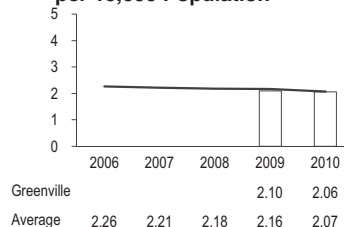
Fiscal Years 2006 through 2010

RESOURCE Measures

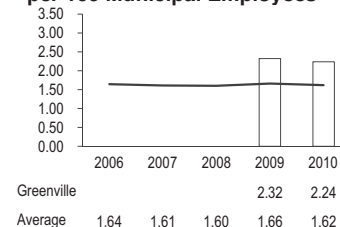
Fleet Maintenance Services Cost per Capita



Fleet Maintenance FTEs per 10,000 Population

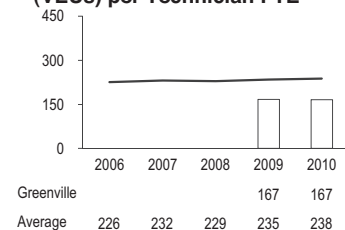


Fleet Maintenance FTEs per 100 Municipal Employees

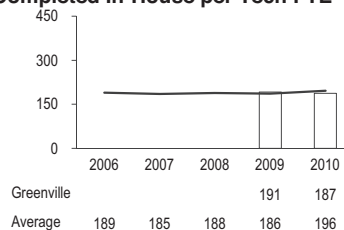


WORKLOAD Measures

Number of Vehicle Equivalent Units (VEUs) per Technician FTE

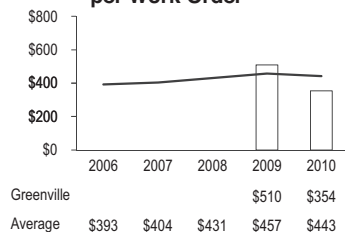


Preventive Maintenance (PMs) Completed In-House per Tech FTE

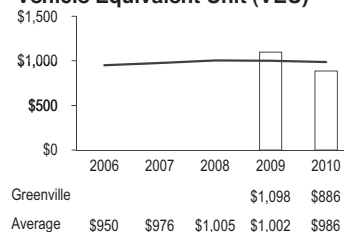


EFFICIENCY Measures

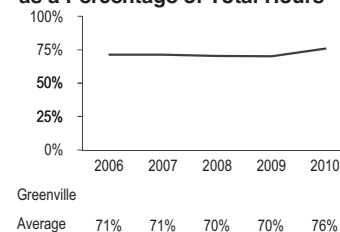
Fleet Maintenance Cost per Work Order



Fleet Maintenance Cost per Vehicle Equivalent Unit (VEU)

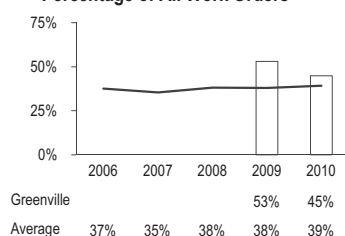


Hours Billed as a Percentage of Total Hours

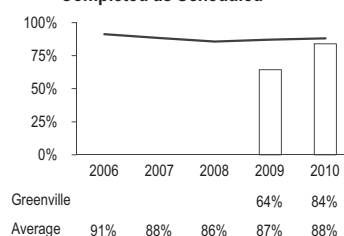


EFFECTIVENESS Measures

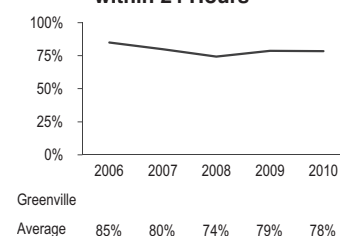
Preventive Maintenance (PMs) as a Percentage of All Work Orders



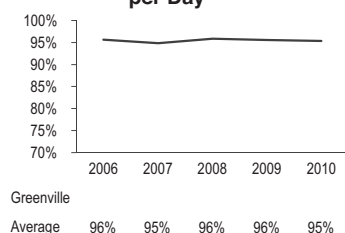
Percentage of Preventive Maintenance (PMs) Completed as Scheduled



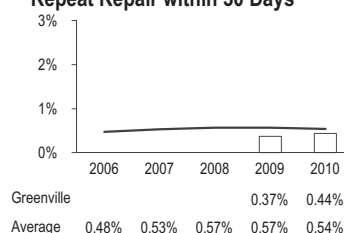
Percentage of Work Orders Completed within 24 Hours



Percentage of Rolling Stock Available per Day



Percentage of Work Orders Requiring Repeat Repair within 30 Days



Greenville

Fleet Maintenance

Fiscal Year 2009–10

MUNICIPAL PROFILE			EXPLANATORY INFORMATION	
Population (OSBM 2009)		82,571	Service Level and Delivery The Fleet Division is a part of Greenville's Public Works Department. All activities for this operation were accounted for as part of the city's general fund.	
Land Area (Square Miles)		35.01		
Persons per Square Mile		2,358		
County		Pitt	The division charges the Transit and Sanitation Departments a \$42.83 per hour labor rate for maintenance services and has no markup on parts or sublet work.	
Topography		Flat		
Climate		Mild		
Rolling Stock Maintained	No.	Average Age	The following services were contracted out for FY 2009–10: <ul style="list-style-type: none">• alignments• major body and paint repair• two-way radio installs• emergency light installs• exhaust repair• glass repair or replacement• transmission overhaul• major engine repair• warranty repairs• towing	
Cars—Normal Usage	92	NA		
Cars—Severe Usage	90	NA		
Light Vehicles	130	NA		
Medium Vehicles	23	6.3 Years		
Heavy—Sanitation	40	7.3 Years		
Heavy—Sewer	1	9.0 Years		
Heavy—Fire Apparatus	13	11.0 Years		
Heavy—Other	25	NA		
Trailed Equipment	43	NA		
Off-Road/Construction/Tractors	57	NA		
Buses	11	5.2 Years		
TOTAL	525			
Vehicle Equivalent Units (VEUs)		1,998	Conditions Affecting Service, Performance, and Costs Greenville joined the project with the first year of reporting for FY 2008–09. Vehicle Equivalent Units (VEUs) are a weighted measure of the maintenance effort associated with different classes of vehicles. A normal-use car is considered equal to one VEU. Vehicles such as fire trucks or police cars have higher VEUs reflecting greater expected levels of maintenance. In Greenville the preventive maintenance completion standard for "percentage of PMs completed as scheduled" is within thirty days of the scheduled date or mileage parameters. In addition to rolling stock, Greenville's fleet division has maintenance responsibilities for generators, lawn mowers, blowers, weed-eaters, light towers, tampers, chainsaws, golf carts, utility carts, bush hogs, sprayers, fog machines, tractors, salt spreaders, leaf vacuums, concrete saws, an asphalt melter, rollers, a stump grinder, trail mowers, and other equipment.	
FULL COST PROFILE				
Cost Breakdown by Percentage				
Personal Services		57.8%		
Operating Costs		40.0%		
Capital Costs		2.2%		
TOTAL		100.0%		
Cost Breakdown in Dollars				
Personal Services	\$	1,023,937		
Operating Costs	\$	708,821		
Capital Costs	\$	38,346		
TOTAL	\$	1,771,104		
SERVICE PROFILE				
FTE Positions—Technician		12.0		
FTE Positions—Other		5.0		
Work Bays		13		
Average Rolling Stock Units Available per Day		NA		
Hours Billed		NA		
Work Orders		5,002		
Repeat Repairs within 30 Days		22		
Work Orders Completed within 24 hours		NA		
Preventive Maintenance (PMs)		2,245		
PMs Completed as Scheduled		1,886		

Hickory

Fleet Maintenance

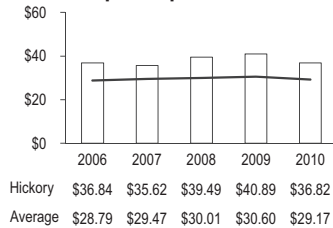
Key: Hickory ■

Benchmarking Average —

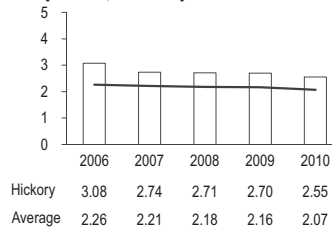
Fiscal Years 2006 through 2010

RESOURCE Measures

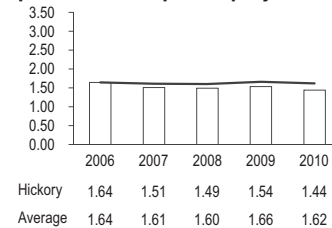
Fleet Maintenance Services Cost per Capita



Fleet Maintenance FTEs per 10,000 Population

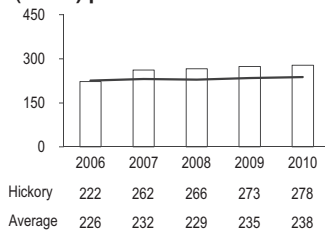


Fleet Maintenance FTEs per 100 Municipal Employees

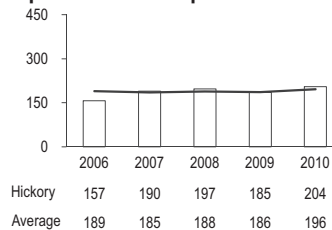


WORKLOAD Measures

Number of Vehicle Equivalent Units (VEUs) per Technician FTE

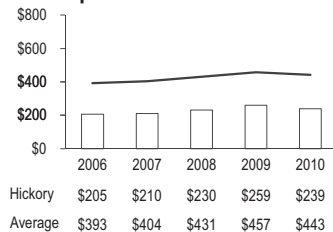


Preventive Maintenance (PMs) Completed In-House per Tech FTE

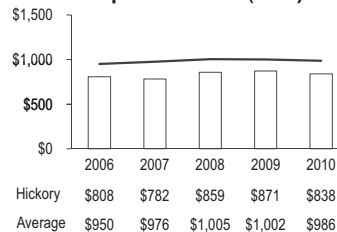


EFFICIENCY Measures

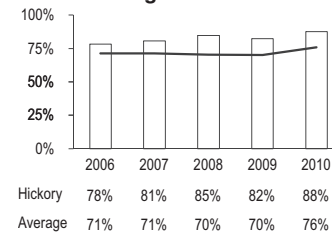
Fleet Maintenance Cost per Work Order



Fleet Maintenance Cost per Vehicle Equivalent Unit (VEU)

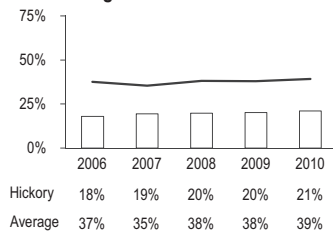


Hours Billed as a Percentage of Total Hours

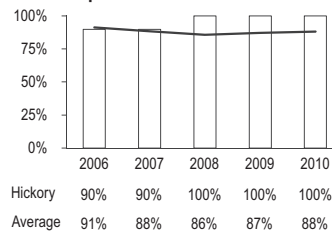


EFFECTIVENESS Measures

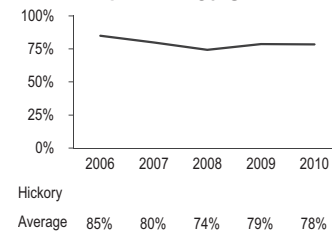
Preventive Maintenance (PMs) as a Percentage of All Work Orders



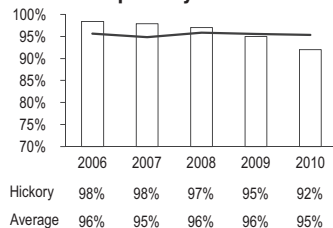
Percentage of Preventive Maintenance (PMs) Completed as Scheduled



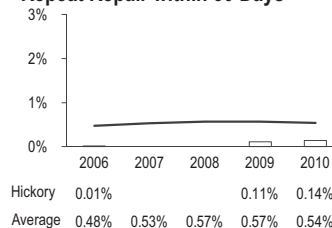
Percentage of Work Orders Completed within 24 Hours



Percentage of Rolling Stock Available per Day



Percentage of Work Orders Requiring Repeat Repair within 30 Days



Hickory

Fleet Maintenance

Fiscal Year 2009–10

MUNICIPAL PROFILE			EXPLANATORY INFORMATION
Population (OSBM 2009)	41,151		Service Level and Delivery Fleet Maintenance is a division of Hickory's Public Services Department and consists of a garage office, a parts warehouse, a welding shop, a maintenance shop, fleet wash, a fuel station, and a compressed natural gas station. All activities for this operation were accounted for in an internal service fund.
Land Area (Square Miles)	29.28		
Persons per Square Mile	1,405		
County	Catawba		The division charges a \$44.50 per hour labor rate for maintenance services and a 25 percent markup charge on parts sold. There is no markup charge for sublet work.
Topography	Gently rolling		
Climate	Moderate		The following services were contracted out for FY 2009–10: <ul style="list-style-type: none">• alignments• body work• large wrecker service• special machine work• starter/alternator repair• glass repair or replacement• transmission repairs
Rolling Stock Maintained	No.	Average Age	
Cars—Normal Usage	25	7.9 Years	
Cars—Severe Usage	143	5.7 Years	
Light Vehicles	105	7.8 Years	
Medium Vehicles	29	15.1 Years	
Heavy—Sanitation	26	8.9 Years	
Heavy—Sewer	5	9.8 Years	
Heavy—Fire Apparatus	0	NA	
Heavy—Other	23	11.8 Years	
Trailed Equipment	49	12.3 Years	
Off-Road/Construction/Tractors	122	14.3 Years	
Buses	0	NA	
TOTAL	527		
Vehicle Equivalent Units (VEUs)	1,808		Conditions Affecting Service, Performance, and Costs Vehicle Equivalent Units (VEUs) are a weighted measure of the maintenance effort associated with different classes of vehicles. A normal-use car is considered equal to one VEU. Vehicles such as fire trucks or police cars have higher VEUs reflecting greater expected levels of maintenance.
FULL COST PROFILE			The measure "hours billed as a percentage of total hours" is based on a work year of 2,080 hours and only counts those positions that were filled. It should be noted that technicians have responsibilities that do not result in billable hours and they take normal vacation and sick leave. Therefore this percentage should not be expected to be near 100 percent.
Cost Breakdown by Percentage			
Personal Services	42.0%		
Operating Costs	53.4%		
Capital Costs	4.5%		
TOTAL	100.0%		
Cost Breakdown in Dollars			In Hickory the preventive maintenance completion standard for "percentage of PMs completed as scheduled" is within thirty days of the scheduled date.
Personal Services	\$	636,879	
Operating Costs	\$	809,727	
Capital Costs	\$	68,490	
TOTAL	\$	1,515,096	In addition to rolling stock, Hickory's fleet services has maintenance responsibilities for electronic signs, saws, weed-eaters, sewer machines, hole piercing tools, boring machines, pumps, mowers, edgers, a sand blaster, pressure washers, blowers, mules, spreaders, generators, tamps, vacuums, airport equipment, grinders, a fleet wash station, a CNG fuel station, a gasoline and diesel fuel station, and other equipment.
SERVICE PROFILE			
FTE Positions—Technician	6.5		
FTE Positions—Other	4.0		
Work Bays	14		
Average Rolling Stock Units Available per Day	485		
Hours Billed	11,832		
Work Orders	6,331		
Repeat Repairs within 30 Days	9		
Work Orders Completed within 24 hours	NA		
Preventive Maintenance (PMs)	1,329		
PMs Completed as Scheduled	1,329		

High Point

Fleet Maintenance

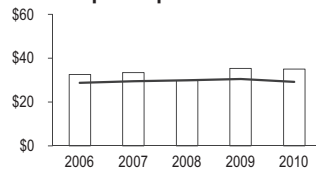
Key: High Point ■

Benchmarking Average —

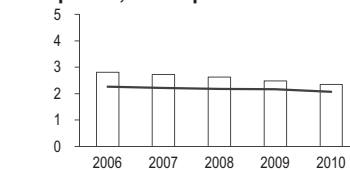
Fiscal Years 2006 through 2010

RESOURCE Measures

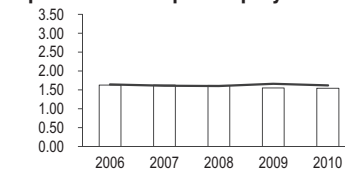
Fleet Maintenance Services Cost per Capita



Fleet Maintenance FTEs per 10,000 Population

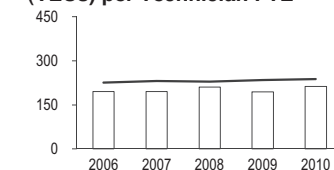


Fleet Maintenance FTEs per 100 Municipal Employees

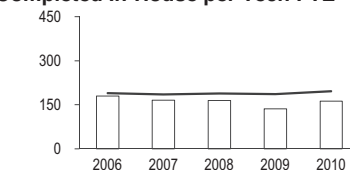


WORKLOAD Measures

Number of Vehicle Equivalent Units (VEUs) per Technician FTE

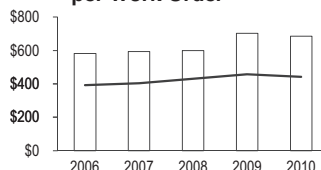


Preventive Maintenance (PMs) Completed In-House per Tech FTE

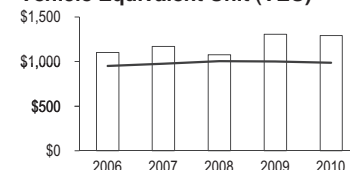


EFFICIENCY Measures

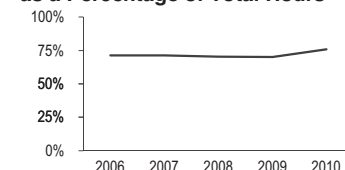
Fleet Maintenance Cost per Work Order



Fleet Maintenance Cost per Vehicle Equivalent Unit (VEU)

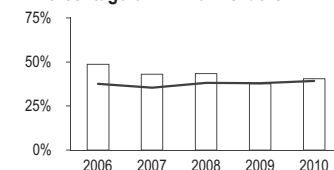


Hours Billed as a Percentage of Total Hours

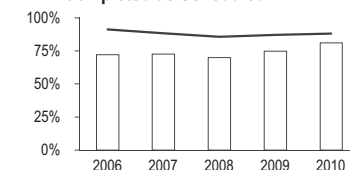


EFFECTIVENESS Measures

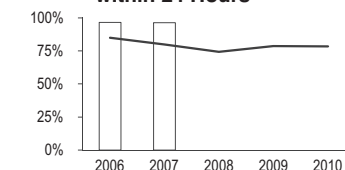
Preventive Maintenance (PMs) as a Percentage of All Work Orders



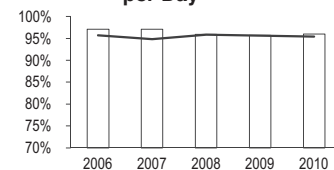
Percentage of Preventive Maintenance (PMs) Completed as Scheduled



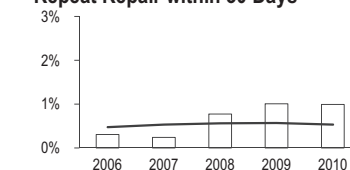
Percentage of Work Orders Completed within 24 Hours



Percentage of Rolling Stock Available per Day



Percentage of Work Orders Requiring Repeat Repair within 30 Days



High Point

Fleet Maintenance Fiscal Year 2009–10

MUNICIPAL PROFILE			EXPLANATORY INFORMATION
Population (OSBM 2009)	102,216		Service Level and Delivery High Point's Fleet Maintenance Department is a separate entity, consisting of a director, administrative staff, support, and technicians. All activities in this operation are accounted for in an internal service fund, where costs are recovered through maintenance and service charges to other city departments.
Land Area (Square Miles)	54.05		
Persons per Square Mile	1,891		
County	Guilford		There is no markup charge on parts sold or sublet work. Parts inventory turned four times during the fiscal year.
Topography	Flat; gently rolling		
Climate	Temperate		The following services were contracted out during FY 2009–10: <ul style="list-style-type: none">• body work• windshield/glass replacements• front-end alignment• mufflers/exhaust systems• after-hours towing• car washes• refurbishing special equipment• upholstery repairs• hydraulic cylinder and pump rebuilds• 50 percent of engine and transmission overhauls• tire repairs for heavy equipment• maintenance and repairs covered under manufacturer warranty
Rolling Stock Maintained	No.	Average Age	
Cars—Normal Usage	78	8.0 Years	
Cars—Severe Usage	191	6.0 Years	
Light Vehicles	235	8.0 Years	
Medium Vehicles	61	10.0 Years	
Heavy—Sanitation	27	8.0 Years	
Heavy—Sewer	4	7.0 Years	
Heavy—Fire Apparatus	0	NA	
Heavy—Other	45	10.0 Years	
Trailed Equipment	119	10.0 Years	
Off-Road/Construction/Tractors	171	10.0 Years	
Buses	0	NA	
TOTAL	931		
Vehicle Equivalent Units (VEUs)	2,770		
FULL COST PROFILE			
Cost Breakdown by Percentage			
Personal Services	41.0%		
Operating Costs	55.7%		
Capital Costs	3.3%		
TOTAL	100.0%		
Cost Breakdown in Dollars			
Personal Services	\$	1,466,139	
Operating Costs	\$	1,993,256	
Capital Costs	\$	119,785	
TOTAL	\$	3,579,180	
SERVICE PROFILE			
FTE Positions—Technician	13.0		
FTE Positions—Other	11.0		
Work Bays	18		
Average Rolling Stock Units Available per Day	894		
Hours Billed	18,720		
Work Orders	5,220		
Repeat Repairs within 30 Days	52		
Work Orders Completed within 24 hours	NA		
Preventive Maintenance (PMs)	2,109		
PMs Completed as Scheduled	1,709		

Salisbury

Fleet Maintenance

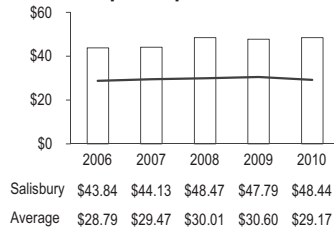
Key: Salisbury ■

Benchmarking Average —

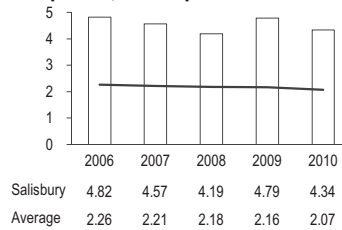
Fiscal Years 2006 through 2010

RESOURCE Measures

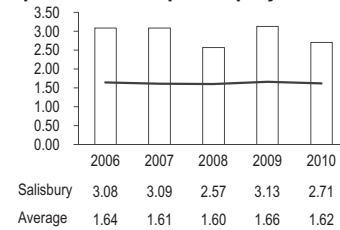
Fleet Maintenance Services Cost per Capita



Fleet Maintenance FTEs per 10,000 Population

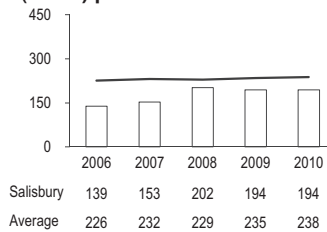


Fleet Maintenance FTEs per 100 Municipal Employees

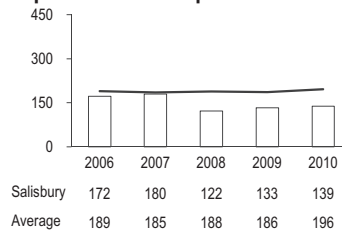


WORKLOAD Measures

Number of Vehicle Equivalent Units (VEUs) per Technician FTE

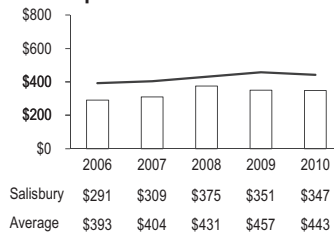


Preventive Maintenance (PMs) Completed In-House per Tech FTE

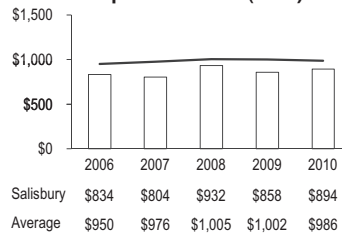


EFFICIENCY Measures

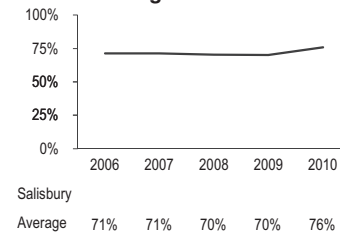
Fleet Maintenance Cost per Work Order



Fleet Maintenance Cost per Vehicle Equivalent Unit (VEU)

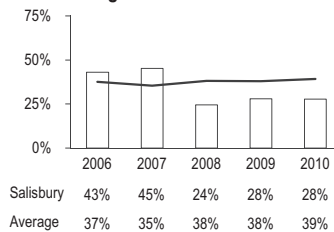


Hours Billed as a Percentage of Total Hours

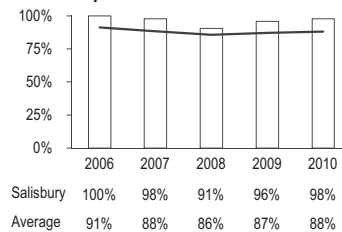


EFFECTIVENESS Measures

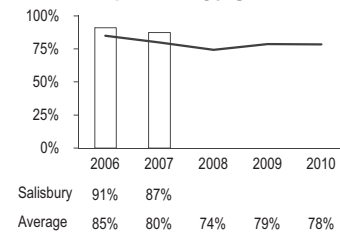
Preventive Maintenance (PMs) as a Percentage of All Work Orders



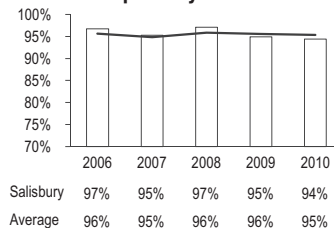
Percentage of Preventive Maintenance (PMs) Completed as Scheduled



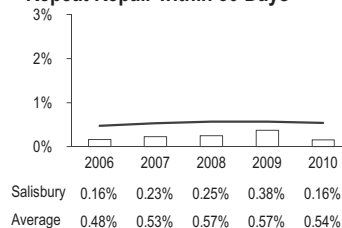
Percentage of Work Orders Completed within 24 Hours



Percentage of Rolling Stock Available per Day



Percentage of Work Orders Requiring Repeat Repair within 30 Days



Salisbury

Fleet Maintenance

Fiscal Year 2009–10

MUNICIPAL PROFILE			EXPLANATORY INFORMATION	
Population (OSBM 2009)	32,263		Service Level and Delivery Fleet Maintenance is a division of the Public Services Department and operates the fleet and transit shops. All activities in this operation were accounted for in Salisbury's general fund.	
Land Area (Square Miles)	21.93			
Persons per Square Mile	1,471			
County	Rowan		There is no markup on any parts sold or sublet work performed on city vehicles. However for work done on vehicles owned by other local governments such as the county, the city charges for labor and includes a markup on parts and sublet work.	
Topography	Gently rolling			
Climate	Moderate		The following services were contracted out during FY 2009–10: <ul style="list-style-type: none">• body work• exhaust system repairs• towing	
Rolling Stock Maintained				
	No.	Average Age	In addition to maintenance responsibilities for the city's rolling stock, the fleet maintenance division also maintains vehicles for Rowan County and two trolleys for downtown Salisbury. The division also has responsibility for equipment including generators, water pumps, hydraulic power units, mowers, tamps, weed-wackers, jack hammers, rescue equipment, air compressors, sidewalk sweepers, thermo plastic equipment, hydraulic hammers, pavement saws, chain saws, and other city equipment.	
Cars—Normal Usage	6	9.7 Years		
Cars—Severe Usage	95	4.3 Years		
Light Vehicles	166	7.2 Years		
Medium Vehicles	25	7.1 Years		
Heavy—Sanitation	11	6.6 Years		
Heavy—Sewer	3	6.3 Years		
Heavy—Fire Apparatus	14	17.5 Years		
Heavy—Other	28	11.1 Years		
Trailed Equipment	88	13.5 Years		
Off-Road/Construction/Tractors	87	10.7 Years		
Buses	10	12.0 Years		
TOTAL	533			
Vehicle Equivalent Units (VEUs)	1,748		Conditions Affecting Service, Performance, and Costs Vehicle Equivalent Units (VEUs) are a weighted measure of the maintenance effort associated with different classes of vehicles. A normal-use car is considered equal to one VEU. Vehicles such as fire trucks or police cars have higher VEUs reflecting greater expected levels of maintenance.	
FULL COST PROFILE			In Salisbury the preventive maintenance completion standard for "percentage of PMs completed as scheduled" is within thirty days of scheduled maintenance or within defined mileage parameters.	
Cost Breakdown by Percentage				
Personal Services	45.9%			
Operating Costs	50.2%			
Capital Costs	3.9%			
TOTAL	100.0%			
Cost Breakdown in Dollars				
Personal Services	\$	716,981		
Operating Costs	\$	784,939		
Capital Costs	\$	60,857		
TOTAL	\$	1,562,777		
SERVICE PROFILE				
FTE Positions—Technician	9.0			
FTE Positions—Other	5.0			
Work Bays	14			
Average Rolling Stock Units Available per Day	503			
Hours Billed	NA			
Work Orders	4,500			
Repeat Repairs within 30 Days	7			
Work Orders Completed within 24 hours	NA			
Preventive Maintenance (PMs)	1,247			
PMs Completed as Scheduled	1,221			

Wilmington

Fleet Maintenance

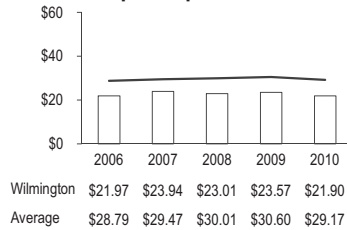
Key: Wilmington ■

Benchmarking Average —

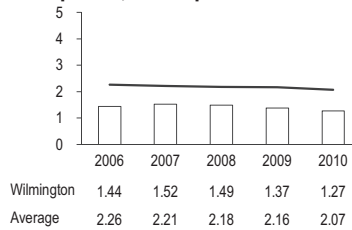
Fiscal Years 2006 through 2010

RESOURCE Measures

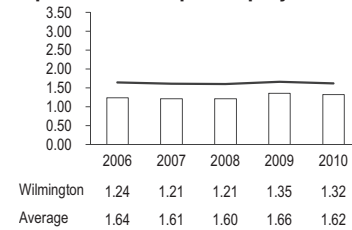
Fleet Maintenance Services Cost per Capita



Fleet Maintenance FTEs per 10,000 Population

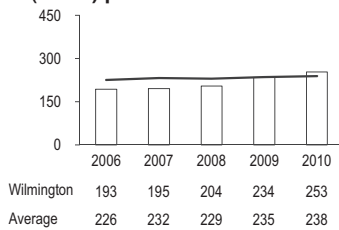


Fleet Maintenance FTEs per 100 Municipal Employees

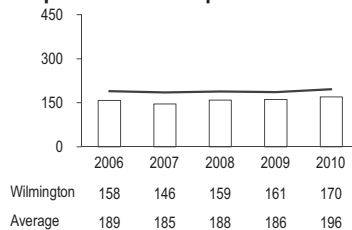


WORKLOAD Measures

Number of Vehicle Equivalent Units (VEUs) per Technician FTE

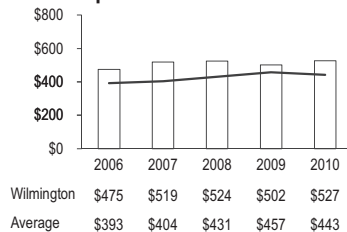


Preventive Maintenance (PMs) Completed In-House per Tech FTE

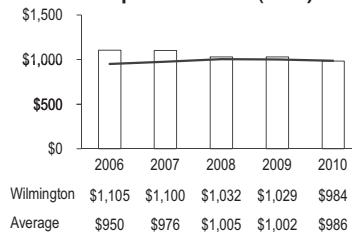


EFFICIENCY Measures

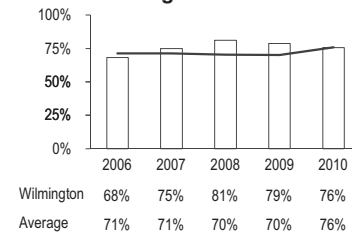
Fleet Maintenance Cost per Work Order



Fleet Maintenance Cost per Vehicle Equivalent Unit (VEU)

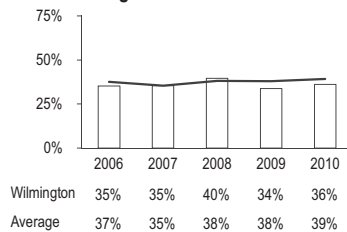


Hours Billed as a Percentage of Total Hours

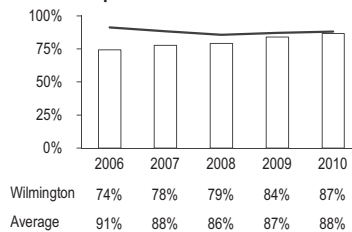


EFFECTIVENESS Measures

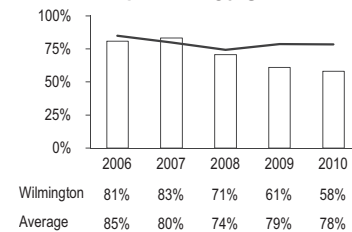
Preventive Maintenance (PMs) as a Percentage of All Work Orders



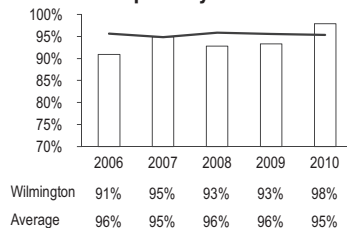
Percentage of Preventive Maintenance (PMs) Completed as Scheduled



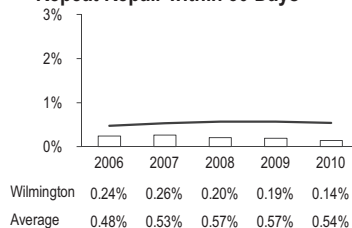
Percentage of Work Orders Completed within 24 Hours



Percentage of Rolling Stock Available per Day



Percentage of Work Orders Requiring Repeat Repair within 30 Days



Wilmington

Fleet Maintenance

Fiscal Year 2009–10

MUNICIPAL PROFILE

Population (OSBM 2009)	102,207
Land Area (Square Miles)	51.55
Persons per Square Mile	1,983

County	New Hanover
Topography	Flat; coastal plain

Climate	Mild
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Rolling Stock Maintained	No.	Average Age
Cars—Normal Usage	119	5.5 Years
Cars—Severe Usage	175	3.7 Years
Light Vehicles	214	7.7 Years
Medium Vehicles	60	9.5 Years
Heavy—Sanitation	34	6.4 Years
Heavy—Sewer	9	5.1 Years
Heavy—Fire Apparatus	0	NA
Heavy—Other	22	6.4 Years
Trailed Equipment	27	9.2 Years
Off-Road/Construction/Tractors	68	8.0 Years
Buses	2	3.3 Years
TOTAL	730	

Vehicle Equivalent Units (VEUs)	2,274
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FULL COST PROFILE

Cost Breakdown by Percentage	
Personal Services	33.1%
Operating Costs	62.8%
Capital Costs	4.0%
TOTAL	100.0%

Cost Breakdown in Dollars	
Personal Services	\$ 740,938
Operating Costs	\$ 1,406,640
Capital Costs	\$ 90,554
TOTAL	\$ 2,238,132

SERVICE PROFILE

FTE Positions—Technician	9.0
FTE Positions—Other	4.0
Work Bays	20
Average Rolling Stock Units Available per Day	715
Hours Billed	14,158
Work Orders	4,249
Repeat Repairs within 30 Days	6
Work Orders Completed within 24 hours	2,471
Preventive Maintenance (PMs)	1,533
PMs Completed as Scheduled	1,329

EXPLANATORY INFORMATION

Service Level and Delivery

The Fleet Management Division is a part of the Finance Department. All activities in this operation are accounted for in an internal service fund, where costs are recovered through maintenance and service charges to other city departments. Fleet Management leases city owned vehicles to the other city departments for an annual fee that covers all preventive maintenance, insurance, and replacement fund contributions. Repairs that are required because of misuse and abuse are not covered and are billed back to departments. The city also contracts with Cape Fear Public Utility Authority to provide maintenance on many of their vehicles and equipment.

The division charged a \$68 per hour labor rate for all services. There was a ten percent markup for special order parts sold but no markup for other parts or sublet work.

The following services were contracted out during FY 2009–10:

- wrecker service
- body repairs
- transmission repairs
- engine overhauls
- exhaust repairs
- front-end alignments on medium and heavy trucks
- some tire repairs
- some hydraulic repairs
- vehicle washes
- other miscellaneous work when workload is too heavy

In addition to maintenance responsibilities for rolling stock, the Fleet Management Division in Wilmington maintains some non-rolling pieces of equipment and does some fabrication and welding as needed. Equipment maintained includes small portable generators, pumps, saws, mowers, and other city equipment.

Conditions Affecting Service, Performance, and Costs

Vehicle Equivalent Units (VEUs) are a weighted measure of the maintenance effort associated with different classes of vehicles. A normal-use car is considered equal to one VEU. Vehicles such as fire trucks or police cars have higher VEUs reflecting greater expected levels of maintenance.

The measure "hours billed as a percentage of total hours" is based on a work year of 2,080 hours and only counts those positions that were filled. It should be noted that technicians have responsibilities that do not result in billable hours and they normal vacation and sick leave. Therefore this percentage should not be expected to be near 100 percent. Wilmington indicated nine technician FTEs were actually available working during FY 2009–10 for this calculation.

In Wilmington the preventive maintenance completion standard for "percentage of PMs completed as scheduled" is within thirty calendar days of scheduled date or within mileage parameters.

The Wilmington Fleet Management Division maintained over 200 pieces of rolling stock for the Cape Fear Public Utility Authority under a service contract with the utility in FY 2009–10.

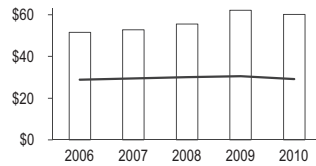
Key: Wilson ■

Benchmarking Average —

Fiscal Years 2006 through 2010

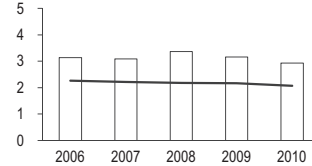
RESOURCE Measures

Fleet Maintenance Services Cost per Capita



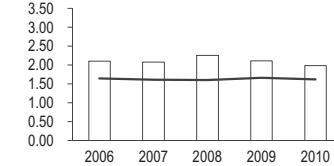
Wilson	\$51.55	\$52.74	\$55.50	\$62.10	\$60.19
Average	\$28.79	\$29.47	\$30.01	\$30.60	\$29.17

Fleet Maintenance FTEs per 10,000 Population



Wilson	3.14	3.09	3.36	3.16	2.93
Average	2.26	2.21	2.18	2.16	2.07

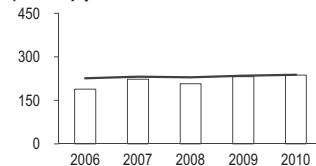
Fleet Maintenance FTEs per 100 Municipal Employees



Wilson	2.10	2.07	2.26	2.11	1.98
Average	1.64	1.61	1.60	1.66	1.62

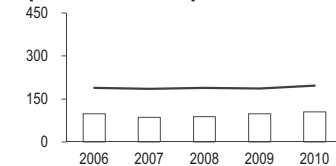
WORKLOAD Measures

Number of Vehicle Equivalent Units (VEUs) per Technician FTE



Wilson	189	223	207	231	236
Average	226	232	229	235	238

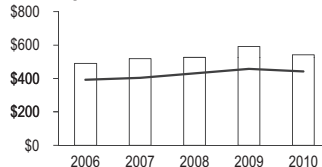
Preventive Maintenance (PMs) Completed In-House per Tech FTE



Wilson	98	86	88	98	105
Average	189	185	188	186	196

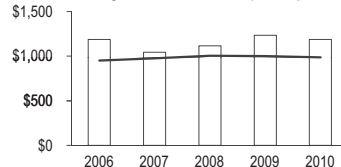
EFFICIENCY Measures

Fleet Maintenance Cost per Work Order



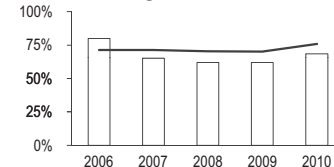
Wilson	\$491	\$520	\$527	\$592	\$542
Average	\$393	\$404	\$431	\$457	\$443

Fleet Maintenance Cost per Vehicle Equivalent Unit (VEU)



Wilson	\$1,187	\$1,044	\$1,117	\$1,236	\$1,187
Average	\$950	\$976	\$1,005	\$1,002	\$986

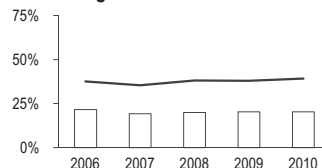
Hours Billed as a Percentage of Total Hours



Wilson	80%	65%	62%	62%	68%
Average	71%	71%	70%	70%	76%

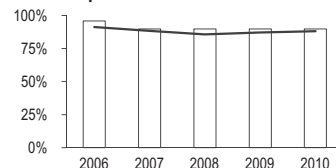
EFFECTIVENESS Measures

Preventive Maintenance (PMs) as a Percentage of All Work Orders



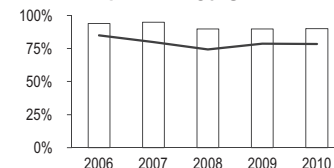
Wilson	21%	19%	20%	20%	20%
Average	37%	35%	38%	38%	39%

Percentage of Preventive Maintenance (PMs) Completed as Scheduled



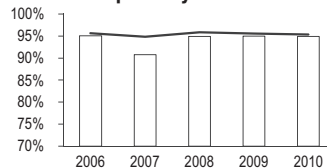
Wilson	96%	90%	90%	90%	90%
Average	91%	88%	86%	87%	88%

Percentage of Work Orders Completed within 24 Hours



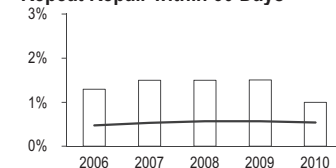
Wilson	94%	95%	90%	90%	90%
Average	85%	80%	74%	79%	78%

Percentage of Rolling Stock Available per Day



Wilson	95%	91%	95%	95%	95%
Average	96%	95%	96%	96%	95%

Percentage of Work Orders Requiring Repeat Repair within 30 Days



Wilson	1.29%	1.50%	1.50%	1.50%	1.00%
Average	0.48%	0.53%	0.57%	0.57%	0.54%

Wilson

Fleet Maintenance

Fiscal Year 2009–10

MUNICIPAL PROFILE			EXPLANATORY INFORMATION
Population (OSBM 2009)		51,274	Service Level and Delivery Fleet maintenance is a division housed within the Department of Public Services. All activities in this operation were accounted for in the general fund.
Land Area (Square Miles)		29.02	
Persons per Square Mile		1,767	
County		Wilson	Charges for maintenance services included a \$44 per hour labor rate, a 25 percent markup charge on parts sold, and a 5 percent markup charge on sublet work.
Topography		Flat	
Climate		Mild	
Rolling Stock Maintained	No.	Average Age	The following services were contracted out during FY 2009–10:
Cars—Normal Usage	31	8.6 Years	
Cars—Severe Usage	114	6.0 Years	
Light Vehicles	171	6.8 Years	<ul style="list-style-type: none"> • body repairs • paint work • wrecker service • radiator repairs • alignment • muffler repairs
Medium Vehicles	36	8.4 Years	
Heavy—Sanitation	31	6.0 Years	
Heavy—Sewer	6	14.2 Years	In addition to rolling stock, Wilson's fleet services has maintenance responsibilities for generators, mowers, tamps, leaf machines, water pumps, and other city equipment.
Heavy—Fire Apparatus	10	11.6 Years	
Heavy—Other	62	9.5 Years	
Trailed Equipment	137	8.0 Years	Conditions Affecting Service, Performance, and Costs Vehicle Equivalent Units (VEUs) are a weighted measure of the maintenance effort associated with different classes of vehicles. A normal-use car is considered equal to one VEU. Vehicles such as fire trucks or police cars have higher VEUs reflecting greater expected levels of maintenance.
Off-Road/Construction/Tractors	147	8.2 Years	
Buses	7	5.2 Years	
TOTAL	752		The measure "hours billed as a percentage of total hours" is based on a work year of 2,080 hours and only counts those positions that were filled. It should be noted that technicians have responsibilities that do not result in billable hours and they take normal vacation and sick leave. Therefore this percentage should not be expected to be near 100 percent.
Vehicle Equivalent Units (VEUs)		2,601	
FULL COST PROFILE			In Wilson the preventive maintenance completion standard for "percentage of PMs completed as scheduled" varies, including both calendar and mileage standards.
Cost Breakdown by Percentage			
Personal Services		33.0%	
Operating Costs		62.2%	
Capital Costs		4.7%	
TOTAL		100.0%	
Cost Breakdown in Dollars			
Personal Services	\$	1,019,962	
Operating Costs	\$	1,919,839	
Capital Costs	\$	146,590	
TOTAL	\$	3,086,391	
SERVICE PROFILE			
FTE Positions—Technician		11.0	
FTE Positions—Other		4.0	
Work Bays		15	
Average Rolling Stock Units Available per Day		714	
Hours Billed		15,653	
Work Orders		5,695	
Repeat Repairs within 30 Days		57	
Work Orders Completed within 24 hours		5,126	
Preventive Maintenance (PMs)		1,152	
PMs Completed as Scheduled		1,036	

Winston-Salem

Fleet Maintenance

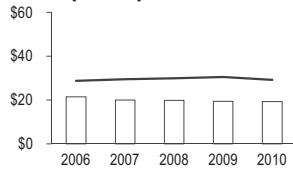
Key: Winston-Salem ■

Benchmarking Average —

Fiscal Years 2006 through 2010

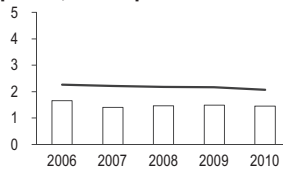
RESOURCE Measures

Fleet Maintenance Services Cost per Capita



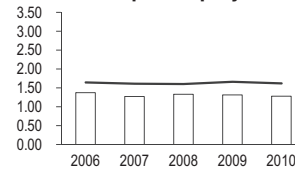
Winston-Salem	\$21.43	\$20.02	\$19.89	\$19.50	\$19.37
Average	\$28.79	\$29.47	\$30.01	\$30.60	\$29.17

Fleet Maintenance FTEs per 10,000 Population



Winston-Salem	1.66	1.40	1.47	1.49	1.45
Average	2.26	2.21	2.18	2.16	2.07

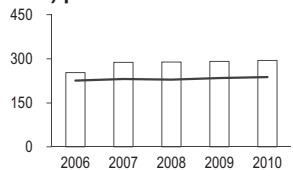
Fleet Maintenance FTEs per 100 Municipal Employees



Winston-Salem	1.37	1.27	1.33	1.31	1.28
Average	1.64	1.61	1.60	1.66	1.62

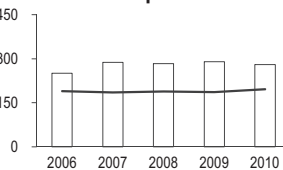
WORKLOAD Measures

Number of Vehicle Equivalent Units (VEUs) per Technician FTE



Winston-Salem	253	288	289	291	294
Average	226	232	229	235	238

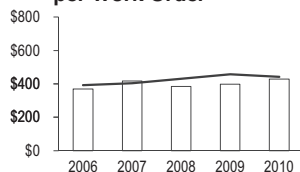
Preventive Maintenance (PMs) Completed In-House per Tech FTE



Winston-Salem	251	287	283	290	280
Average	189	185	188	186	196

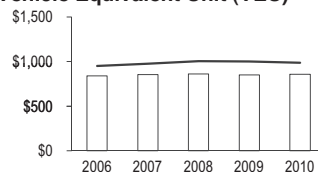
EFFICIENCY Measures

Fleet Maintenance Cost per Work Order



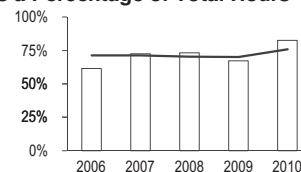
Winston-Salem	\$370	\$418	\$385	\$397	\$428
Average	\$393	\$404	\$431	\$457	\$443

Fleet Maintenance Cost per Vehicle Equivalent Unit (VEU)



Winston-Salem	\$840	\$854	\$861	\$849	\$859
Average	\$950	\$976	\$1,005	\$1,002	\$986

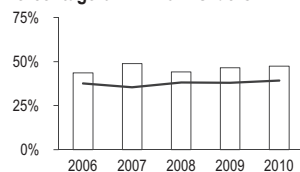
Hours Billed as a Percentage of Total Hours



Winston-Salem	62%	73%	73%	67%	82%
Average	71%	71%	70%	70%	76%

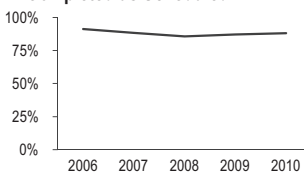
EFFECTIVENESS Measures

Preventive Maintenance (PMs) as a Percentage of All Work Orders



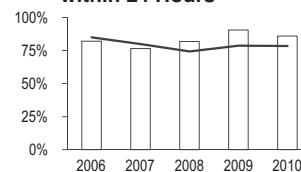
Winston-Salem	44%	49%	44%	47%	47%
Average	37%	35%	38%	38%	39%

Percentage of Preventive Maintenance (PMs) Completed as Scheduled



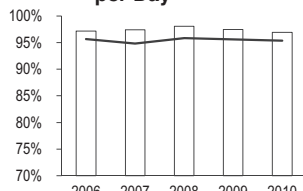
Winston-Salem	91%	88%	86%	87%	88%
Average	91%	88%	86%	87%	88%

Percentage of Work Orders Completed within 24 Hours



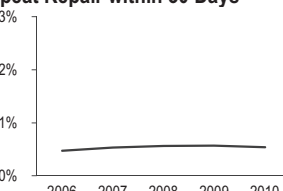
Winston-Salem	82%	77%	82%	91%	86%
Average	85%	80%	74%	79%	78%

Percentage of Rolling Stock Available per Day



Winston-Salem	97%	97%	98%	97%	97%
Average	96%	95%	96%	96%	95%

Percentage of Work Orders Requiring Repeat Repair within 30 Days



Winston-Salem	0.48%	0.53%	0.57%	0.57%	0.54%
Average	0.48%	0.53%	0.57%	0.57%	0.54%

Winston-Salem

Fleet Maintenance

Fiscal Year 2009–10

MUNICIPAL PROFILE

Population (OSBM 2009)	235,075
Land Area (Square Miles)	133.19
Persons per Square Mile	1,765

County	Forsyth
Topography	Gently rolling

Climate	Moderate
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Rolling Stock Maintained	No.	Average Age
Cars—Normal Usage	260	6.6 Years
Cars—Severe Usage	436	5.3 Years
Light Vehicles	430	6.9 Years
Medium Vehicles	123	9.3 Years
Heavy—Sanitation	66	8.3 Years
Heavy—Sewer	7	10.3 Years
Heavy—Fire Apparatus	0	NA
Heavy—Other	53	7.0 Years
Trailed Equipment	133	14.6 Years
Off-Road/Construction/Tractors	270	11.1 Years
Buses	0	NA
TOTAL	1,778	

Vehicle Equivalent Units (VEUs)	5,300
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FULL COST PROFILE

Cost Breakdown by Percentage		
Personal Services		34.5%
Operating Costs		63.1%
Capital Costs		2.4%
TOTAL		100.0%

Cost Breakdown in Dollars		
Personal Services	\$	1,568,979
Operating Costs	\$	2,872,729
Capital Costs	\$	110,534
TOTAL	\$	4,552,242

SERVICE PROFILE

FTE Positions—Technician	18.0
FTE Positions—Other	16.0

Work Bays	31
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Average Rolling Stock Units Available per Day	1,724
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Hours Billed	25,734
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Work Orders	10,633
Repeat Repairs within 30 Days	NA
Work Orders Completed within 24 hours	9,144

Preventive Maintenance (PMs)	5,042
PMs Completed as Scheduled	NA

EXPLANATORY INFORMATION

Service Level and Delivery

Fleet Services is a division of the General Services Department, consisting of eight units: vehicle maintenance administration, contract monitoring administration, heavy equipment, service station, vehicle leasing, parts, light equipment, and tire shop. All activities in this operation were accounted for in the general fund.

Charges for maintenance services included a \$50 per hour labor rate, a 26 percent markup charge for parts sold, and a 13 percent markup charge for sublet work.

The following services were contracted out during FY 2009–10:

- body work
- welding
- hydraulic cylinder and pump repair
- glass repair
- towing
- transmission repair

In addition to rolling stock, Winston-Salem's Fleet Services has maintenance responsibilities for mowers, weed-eaters, water pumps, chain saws, wacker tamps, pavement stripers, tractor implements, leaf blowers, power trimmers, salt spreaders, snow plows, and other city equipment.

Conditions Affecting Service, Performance, and Costs

Vehicle Equivalent Units (VEUs) are a weighted measure of the maintenance effort associated with different classes of vehicles. A normal-use car is considered equal to one VEU. Vehicles such as fire trucks or police cars have higher VEUs reflecting greater expected levels of maintenance.

The measure "hours billed as a percentage of total hours" is based on a work year of 2,080 hours and only counts those positions that were filled. It should be noted that technicians have responsibilities that do not result in billable hours and they take normal vacation and sick leave. Therefore this percentage should not be expected to be near 100 percent.

The "percentage of PMs completed as scheduled" and "percentage of work orders requiring repeat repairs within 30 days" were not available.

