



Motor Fleet Management



Garage, Repair Authorization and Motor Pool



Garage, Repair Authorization, Motor Pool

Garage

10 mechanics

4,000 vehicles repaired per year (*average*)

Ability to check used vehicles for reassignment is a big plus for the State.

Normal scheduled maintenance is completed within 24 hours or during the same business day (*last ten months*).

\$80,000 saved from salvaging parts from damaged State vehicles.



Garage, Repair Authorization, Motor Pool

Repair Authorization

Addresses the needs of state employees throughout the state, assisting drivers to find repair shops in their area that are willing to invoice the state for payment.

Assists drivers that may breakdown or have an accident and need a tow truck and/or rental.

Notifies drivers and supervisors of upcoming/past due maintenance and inspections.



Replacement Formula, Vehicle Purchase, & Funding Model



Replacement Model

Vehicle replacements are prioritized using the following criteria:

- Age - 10 Years or older
- Mileage - 125,000 miles or more
- Average miles driven by class of vehicle
- Cost of fuel by class of vehicle
- Condition - maintenance cost are > 50% of the acquisition price.
- Used value of vehicles (according to NADA, Kelly blue book)
- Used Motor Fleet Vehicle Value (vehicle sell price from State Surplus Property)
- Cost of current value of new vehicle



Vehicle Replacement Model

This is a sample of the information used to calculate replacement

Vehicle Age	1st year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year	8th Year	9th Year	10th Year	11th Year	12th Year	13th Year	14th Year	Instructions
Miles	5,159	8,144	9,039	9,676	9,182	8,703	8,512	7,506	7,230	6,208	6,254	5,249	6,521	2,179	1.) Input average miles driven by class, per year of service (model year), i.e. current year would be the "1st year", 2014 would be 2nd year, etc.
Maintenance Cost Per Year	\$372	\$701	\$944	\$1,261	\$1,367	\$1,354	\$1,429	\$1,108	\$1,454	\$1,639	\$1,621	\$2,101	\$1,562	\$458	2.) Input average maintenance costs by class, per year of service (model year)
Cost Per Mile	\$0.072	\$0.086	\$0.104	\$0.130	\$0.149	\$0.156	\$0.168	\$0.148	\$0.201	\$0.264	\$0.259	\$0.400	\$0.240	\$0.210	[Calculated]: (Maintenance cost per year) / (Miles Driven per year)
Decision	No	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No	3.) Choose "Yes" or "No" based on whether or not the vehicle year had typical usage (this will be used to calculate
% Increase		19.37%	21.33%	24.79%	14.24%	4.50%	7.91%								[Calculated]: % Increase in Cost per Mile
Avg. Increase - Normal Use	15.36%														[Calculated]: Average increase
Adjusted Cost Per Mile	\$0.072	\$0.086	\$0.104	\$0.130	\$0.149	\$0.156	\$0.168	\$0.194	\$0.223	\$0.258	\$0.297	\$0.343	\$0.396	\$0.456	[Calculated]: Later years adjusted for average increase
Average Miles	8,876														[Calculated]: Average miles driven per year (normal use)
Cost on Normal Utilization	\$640	\$764	\$927	\$1,157	\$1,321	\$1,381	\$1,490	\$1,310	\$1,785	\$2,343	\$2,301	\$3,553	\$2,126	\$1,866	[Calculated]: (Cost per mile) * (Avg miles driven per year)
Cost, normalized plus escalation	\$640	\$764	\$927	\$1,157	\$1,321	\$1,381	\$1,490	\$1,719	\$1,983	\$2,287	\$2,639	\$3,044	\$3,511	\$4,050	[Calculated]: (Adjusted cost per mile) * (Avg miles driven per year)
Cost of Fuel per Gallon	\$3.00														4.) Enter cost of fuel per gallon
Estimated Fuel Degradation (%)	2%														5.) Enter estimated fuel economy degradation assumption % (applies year 6 onwards)
Estimated Average MPG	20.00	20.00	20.00	20.00	20.00	19.60	19.21	18.82	18.45	18.08	17.72	17.36	17.02	16.67	6.) Enter average MPG [Calculated]: (Avg MPG) * (1 - Estimated % Degradation after year 5)
Cost of Fuel	\$1,331	\$1,331	\$1,331	\$1,331	\$1,331	\$1,359	\$1,386	\$1,415	\$1,443	\$1,473	\$1,503	\$1,534	\$1,565	\$1,597	[Calculated]: [(Avg Miles) / (Avg MPG Yrs 1 to 5)] * Fuel cost per gallon

Vehicle Replacement Model

This is a sample of the information used to calculate replacement

Age of Vehicle	Total Cost for # of Years	Cost per Year	Avg Fuel Cost Per year	Model Year	Model Year Average Mileage	Used Vehicle Values (Industry)	Used Vehicle Values (MFM)	New Unit Price	Average Annual Cost to Own (Industry)	Average Annual Cost to Own (MFM)
4	\$3,488	\$872	\$1,331	2011	35,504	\$11,150	\$1,108	\$18,843	\$4,127	\$6,637
5	\$4,809	\$962	\$1,331	2010	44,380	\$10,375	\$1,761	\$18,843	\$3,987	\$5,710
6	\$6,190	\$1,032	\$1,336	2009	53,256	\$9,275	\$1,979	\$18,843	\$3,962	\$5,178
7	\$7,680	\$1,097	\$1,343	2008	62,132	\$8,100	\$1,154	\$18,843	\$3,975	\$4,967
8	\$9,399	\$1,175	\$1,352	2007	71,008	\$6,700	\$939	\$18,843	\$4,045	\$4,765
10	\$13,669	\$1,367	\$1,373	2005	88,760	\$4,525	\$497	\$18,843	\$4,172	\$4,575
12	\$19,352	\$1,613	\$1,397	2003	106,512	\$2,150	\$287	\$18,843	\$4,401	\$4,556
14	\$26,913	\$1,922	\$1,424	2001	124,264	\$1,835	\$158	\$18,843	\$4,561	\$4,681

Field	Instructions
Age of Vehicle	7.) Enter in Age of Vehicle (years in service)
Total Cost for # of Years	[Calculated]: Sum of Normalized Cost over # of years.
Cost per Year	[Calculated]: (Total Cost for # of Years) / (Age of Vehicle)
Fuel Cost Per year:	[Calculated]: Cost of annual fuel based on normal utilization
Model Year	8.) Input Model Year
Model Year Average Mileage	[Calculated]: (Age of Vehicle) * (Average Miles)
Used Vehicle Values (Industry)	9.) Input used vehicle salvage values based on class and age (Public Auction, NADA, Kelly Blue Book, etc).
Used Vehicle Values (MFM)	10.) Input used vehicle salvage values based on MFM data (by class and age)
New Unit Price	11.) Input price for new vehicle (replacement)
Average Annual Cost to Own (Industry)	[Calculated]: TCO based on Industry salvage value of vehicles.
Average Annual Cost to Own (MFM)	[Calculated]: TCO based on MFM salvage value of vehicles.

Replacement model
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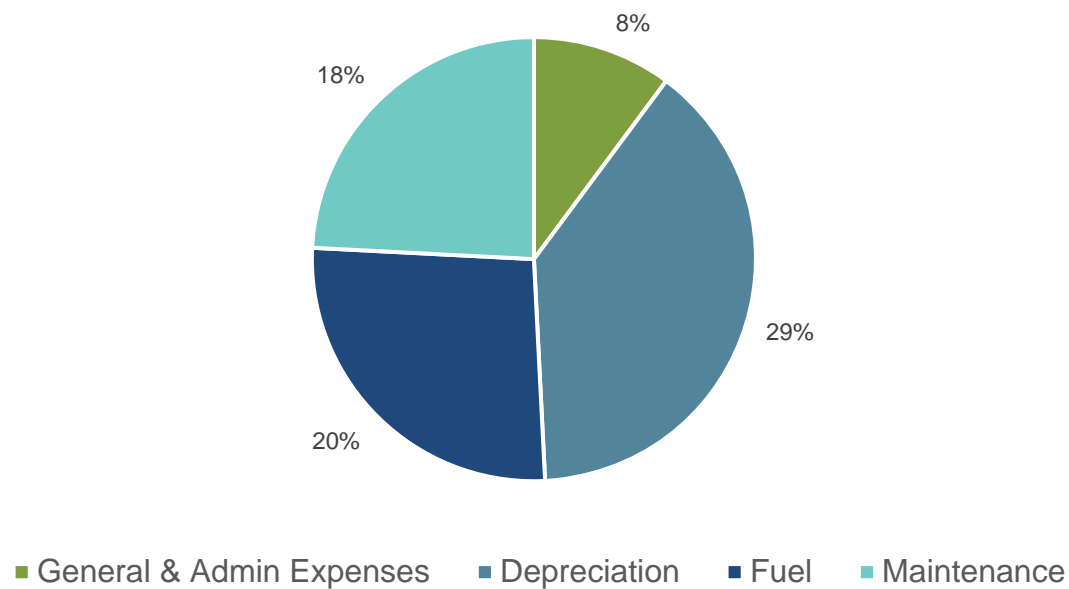


Funding Model



- Funding comes from two primary sources:
 - Per mile rates
 - \$35.00/month insurance fee per vehicle
- Per mile rates cover the maintenance, fuel, vehicle replacements, and general and administrative expenses.

Typical Vehicle Class Rate Breakdown



Current Rate Structure

Rev. 3/07/13

MOTOR FLEET MANAGEMENT DIVISION VEHICLE RATE CHART

MONTHLY CHARGE IS BASED ON MILEAGE PLUS \$35.00 INSURANCE FEE
MILEAGE REPORTED BASED ON FM-12 TRAVEL LOG

NEW RATES
EFFECTIVE January 1, 2012

CLASS	VEHICLE TYPE	RATE PER MILE	INSURANCE RESERVE FEE
CS4	Insight (Gas/Electric)	0.27	\$35.00
CO4	Escape (Hybrid) 4x4	0.36	\$35.00
CO6	Liberty 4x4	0.38	\$35.00
FS6	Impala, Intrepid, Taurus	0.36	\$35.00
FS8	Crown Victoria	0.39	\$35.00
FL6	Impala LE, Interceptor LE Sedan	0.38	\$35.00
FL8	Charger, Crown Victoria, Caprice	0.42	\$35.00
FC8	1/2 Ton Cargo Van	0.39	\$35.00
FO8	Tahoe 4x4, Durango 4x4	0.49	\$35.00
FT8	F-150 4X4, F-250 4x4, Pick-up, Silverado 4X4	0.46	\$35.00
MC6	Caravan Cargo Minivan, Uplander Cargo Minivan	0.33	\$35.00
MS4	Cirrus, Breeze, Fusion	0.29	\$35.00
MH4	Prius (Hybrid), Civic (Hybrid)	0.29	\$35.00
MS6	Avenger, Malibu, Stratus	0.30	\$35.00
MO4	Geo Tracker 4x4	0.36	\$35.00
MO6	Explorer 4x4, Trailblazer 4x4, Interceptor SUV	0.39	\$35.00
MO8	Explorer 4x4, Grand Cherokee 4x4	0.49	\$35.00
MW6	Taurus Station Wagon	0.33	\$35.00
MP6	Caravan, Uplander	0.33	\$35.00
MT6	Ranger 4 x 4	0.31	\$35.00
XC8	3/4 Ton or greater Cargo Van, Handicap Van	0.44	\$35.00
XL8	Tahoe LE 2 x 4	0.57	\$35.00
YO8	Suburban 4 x 4	0.54	\$35.00
XO8	Expedition 4 x 4	0.50	\$35.00
XP8	15-Passenger Van	0.54	\$35.00
XS8	Crown Victoria Executive	0.39	\$35.00
XT8	1 Ton or Larger Truck, Box Truck (Mail)	0.65	\$35.00

* Explanation of Class Codes:

First Column is the size of vehicle (vehicle make subject to change with each model year and availability:

C = Compact Size M = Mid Size F = Full Size

X = Larger than full size, specially equipped, executive

XX = Extra Larger than full size

Second Column is the type of vehicle:

S = Sedan

W = Station Wagon

C = Cargo Carrying

P = Passenger carrying

T = Truck

H = Hybrid

Third Column is the number of cylinders:

4 = 4 cylinders

6 = 6 cylinders

8 = 8 cylinders

THEREFORE AN MS4 IS A MID-SIZE SEDAN 4 CYLINDERS



Utilization of Vehicles & Accident Report

Accident Report Calendar Year 2015

AGENCY	Vehicles Assigned	% Involved in an Accident	NC Driver's Fault	Not NC Driver's Fault	No Fault Vandal	Total Accidents
General Assembly	3	0.00%	0	0	0	0
Admin Office Of Courts	20	0.00%	0	0	0	0
Governors Office	1	0.00%	0	0	0	0
Secretary Of State, Dept. of	11	18.18%	0	2	0	2
Auditor, Office of State	10	0.00%	0	0	0	0
Treasurer, Dept. of State	6	0.00%	0	0	0	0
Public Instruction, Dept of	130	6.15%	2	2	0	8
Justice, Dept. of	46	0.00%	0	0	0	0
Agriculture, Depart. of	198	6.06%	1	6	0	12
MISC-Bd Cosmetics	15	13.33%	0	1	0	2
Labor, Dept. of	123	4.88%	2	1	0	6
Insurance, Dept. of	73	5.48%	1	2	0	4
Administration, Dept. of	80	3.75%	0	2	0	3
DOT-Transportation	574	7.49%	13	18	0	43
Environmental Quality Dept. of	312	2.88%	2	5	1	9
Wildlife Resources Commission	93	6.45%	4	0	0	6
DHHS	834	3.72%	6	16	1	31
ITS - Gov. Office	11	0.00%	0	0	0	0
Commerce, Dept. of	60	8.33%	0	4	0	5
Commerce-Employment Security	10	0.00%	0	0	0	0
Revenue, Dept. of	33	15.15%	1	2	0	5
Cultural Res, Dept. of Natural and	99	2.02%	1	0	0	2
Univ- UNC Hospitals	15	0.00%	0	0	0	0
DCC-Community Colleges	15	0.00%	0	0	0	0
MISC-Bd Elections	5	20.00%	0	1	1	1
NC Education Lottery Comm	83	21.69%	3	12	0	18
Office of Administrative Hearings	1	0.00%	0	0	0	0
Univ- School Of Science & Math	3	0.00%	0	0	0	0
MISC-Bd Barber Exam	2	0.00%	0	0	0	0
Community Colleges	50	2.00%	0	1	0	1
UNC System	792	1.77%	1	6	2	14
Global Transpark Authority	1	0.00%	0	0	0	0
NC Ports Authority	17	5.88%	0	1	0	1
Public Safety, Dept. of	3250	6.03%	70	73	13	196
	6976**	5.29%	107	155	18	369

** does not include the temporary fleet

Totals change daily

