FINAL REPORT

FLEET MANAGEMENT BUSINESS CASE

FOR THE

STATE OF FLORIDA

DECEMBER 2013

PRESENTED BY

MERCURY ASSOCIATES, INC.

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EXECUTIVE SUMMARY

This report presents the results of Mercury Associates' strategic review of fleet management activities in the State of Florida. Our recommendations for improving the performance and cost effectiveness of fleet operations are documented in the business case analysis report that follows this Executive Summary. Note that in many cases the context of the recommendation is important and cannot be fully explained in this brief overview. Accordingly, the report narrative that supports each recommendation must be read to gain a full understanding of why the recommendation was made and the impacts that implementation will have on the State.

Florida owns a very large fleet of nearly 25,000 assets – **one of largest public sector fleets in the nation**. We estimate that the **cost for the State to own and operate its large and diverse fleet exceeds $214 million each year**.[1] The replacement value of these assets is approximately $869 million. While these are not the largest numbers on the State's balance sheet, they are significant nonetheless. Moreover, it is no exaggeration to say that the business of state government in Florida could not be accomplished without its fleet of vehicles and other motorized equipment. Consequently, while cost savings are important they cannot be pursued without a full appreciation of how cost saving initiatives would impact the productivity of State employees who rely on vehicles to do their jobs.

Our focus in conducting this study for the State of Florida, therefore, was on identifying ways to improve management of fleet assets in order to move employees around the State in the most efficient manner possible, to enhance the quality of fleet services by leveraging economies of scale, to reduce redundancies, and to save money.

Achieving consensus among stakeholders on issues such as more or less centralization, more or less outsourcing, changes in funding levels, and size of the fleet is always a difficult task and particularly so where decision-making authority has traditionally been diffused and decentralized. While our study approach was inclusive by design, we focused on providing the State with the perspectives of an unbiased and independent third-party expert rather than on achieving consensus. Therefore, our recommendations for improving fleet management operations in Florida are based on the best possible technical analysis.

In the following sections of this Executive Summary we highlight the most important findings and recommendations that resulted from our study, with a focus on strategic issues that will have the greatest impact on the cost and quality of fleet services in the State.

[1] Inclusive of asset depreciation, replacement of fleet assets, maintenance and repair, fuel, personnel costs, and overhead costs.

Strategic Improvement Opportunities

- ✓ ***Better collaboration and coordination would improve fleet performance:*** From a strategic perspective, one of the most pressing issues facing the State of Florida in the area of fleet operations is a lack of centralized, coordinated, and consistent management. Although a centralized fleet management program exists; i.e. the Department of Management Services' (hereafter DMS) Bureau of Fleet Management & Federal Property Assistance; the State's fleet is in practice managed and maintained by dozens of separate agencies which, for the most part, exercise near-autonomous discretion over fleet activities and decisions. **While DMS does provide some policy oversight, the scope of its operations is more limited than most of the thirty-four other states we have worked with.**

  Florida's decentralized approach to fleet management has led to pronounced inconsistencies in operating procedures, duplication of effort, and with few exceptions, a distinct lack of coordination among many agencies. These conditions have resulted in sub-optimal management of fleet assets, cost millions in unnecessary fleet expenditures, and encouraged line agencies to devote countless hours and resources to fleet support issues rather than core functions.

  These issues can only be addressed through a fundamental shift in the organization of fleet management activities in Florida. A centralized approach to fleet administration is a clear best practice in the industry for both commercial and government organizations. **DMS should assume the primary role for managing fleet related activities across the enterprise** such as planning, coordination, analysis and reporting, and establishment of programs that make it easier for fleet users to operate their fleets (such as enterprise-wide systems, tools, contracts, etc.).

  Some changes in State statutes will be required to support a more active and centralized approach to fleet management (particularly the definition of "motor vehicle" in Chapter 287, Part II, Means of Transport, as being restricted to a car or light truck). DMS will also require additional resources (staff and/or contractor support) to fulfill an expanded role. However, our analysis shows that better management of the State's fleet will produce an early return on this investment. Please see the narrative under Fleet Administration in Section A (page 18), Section B (page 39), and Section C (page 121).

- ✓ ***Acquire a Statewide Fleet Management Information System:*** The State's in-house developed fleet management information system (FMIS) does not provide the depth and breadth of functions required to support effective fact-based management of fleet operations. In fact, this system (known as **FLEET) is the least capable system we have encountered in any of the 34 states we have worked with**. As a consequence, much of the detailed data we required to conduct this study was either not available or was only available at a summary level.

The old adage that "if you can't measure it, you can't manage it" applies to Florida's fleet operations. If the State can't track and report on detailed cost and performance data, it can't properly manage its fleet. Therefore, **acquisition of a robust commercial fleet management information system must be a near-term strategic initiative for the State**. Please see the narrative under Fleet Management Information System in Section A (page 22), Section B (page 49), and Section C (page 124).

- ✓ ***Improve Planning and Funding Levels for Fleet Replacement:*** Large segments of the State's fleet are old and exceed standard industry replacement criteria by a great margin. This has led to high operating costs, excessive vehicle downtime, lost employee productivity, and "fleet creep" as agencies have accumulated spare vehicles to compensate for unreliable front-line units.

  In addition to spending more money on replacing fleet assets, the State should also centralize fleet replacement planning in DMS, develop a multiple-year recurring spending plan to smooth out inherent peaks and valleys in funding requirements, and explore alternative financing approaches (including leasing) to spread capital costs over the useful lives of fleet assets. Please see the narrative under Fleet Replacement in Section A (page 26), Section B (page 68), and Section C (page 127).

- ✓ ***Right-size the Fleet:*** Florida would be well served by taking steps to own a newer, smaller fleet. Adoption of an optimized fleet replacement planning and funding strategy in concert with a thorough study of the need for lower use vehicles will enable the State to reduce[2] the size of its fleet by 5-percent to 10-percent (1,250 to 2,500 units). Additional reductions in future years may be available as the need for most spare vehicles is eliminated and the State implements our recommendations for development of cost charge-back systems in all agencies and for an on-going utilization management program. Please see the narrative under Fleet Size and Utilization in Section A (page 28), Section B (page 86), and Section C (page 131).

- ✓ ***Improve Fleet Maintenance:*** A more coordinated and rational approach is required to ensure the State's vehicles are properly maintained at the lowest possible cost.
  - All State-owned shops should be open to all agencies,
  - Shops located in close proximity to each other should be consolidated,
  - Operation of the largest shops should be outsourced to on-site contractors,
  - Smaller State-run shops should continue to be operated only if they meet rigorous standards for facility condition and management practices,
  - A single contractor (e.g. the current contract Automotive Resources International, commonly known as ARI) should be used to manage all ad hoc vendor

[2] Note that in some situations it may be more cost-effective to provide a State-owned vehicle where rental or mileage reimbursement costs are high.

maintenance, and,

- All maintenance and repair activities should be coordinated under DMS' oversight through a new highly capable FMIS.

Please see the narrative under Fleet Maintenance and Repair in Section A (page 35), Section B (page 97), and Section C (page 139).

Savings Opportunities

Significant opportunities to achieve cost-savings are available to the State through implementation of the recommendations contained in this report. Projected savings over five years are summarized in the following table:

Exhibit 1: Five Year Costs and Benefits

Expense Category	Current Baseline TOTAL Cost	Estimated Savings (Cost)	Year 1	Year 2	Year 3	Year 4	Year 5	5 Year Cumulative Total
DMS Fleet Management	$ 655,462	$ (1,117,000)	$ (1,117,000)	$ (1,117,000)	$ (1,117,000)	$ (1,117,000)	$ (1,117,000)	$ (5,585,000)
Fleet IT System	$ 278,486	$ (1,425,680)	$ (1,069,260)	$ (356,420)	$ (3,798)	$ (3,798)	$ (3,798)	$ (1,437,074)
Department Fleet Management	$ 11,131,036	$ 2,782,759		$ 1,391,380	$ 2,782,759	$ 2,782,759	$ 2,782,759	$ 9,739,657
Bulk Fuel	$ 22,608,758	$ 355,883			$ 177,942	$ 355,883	$ 355,883	$ 889,708
Maintenance and Repair	$ 59,657,395	$ 6,102,240		$ 610,224	$ 1,830,672	$ 4,576,680	$ 6,102,240	$ 13,119,816
Personal Vehicle Reimbursement	$ 13,116,826	$ 491,881		$ 491,881	$ 491,881	$ 491,881	$ 491,881	$ 1,967,524
Rental Vehicles	$ 972,662							$ -
Net Resale Return	$ (2,836,627)	$ 275,200			$ 275,200	$ 275,200	$ 275,200	$ 825,600
Operating Total	$ 105,583,999	$ 7,465,283	$ (2,186,260)	$ 1,020,064	$ 4,437,655	$ 7,361,605	$ 8,887,165	$ 19,520,230
Right Sizing Total		$ 3,500,000		$ 2,500,000	$ 1,600,000	$ 1,600,000	$ 1,600,000	$ 7,300,000
Grand Total			**$ (2,186,260)**	**$ 3,520,064**	**$ 6,037,655**	**$ 8,961,605**	**$ 10,487,165**	**$ 26,820,230**

It is important to emphasize that additional investments are required in order to optimize the State's fleet management program and, in some cases, to secure the projected savings. These investments include acquisition of a state-wide fleet management information system and additional resources for DMS. However, as shown in the Exhibit above **savings far exceed the costs of required improvements and thus the return to the State for making these investments will be nearly immediate and long lasting**.

It is also important to note that the savings we have calculated derive mostly from better management of the State's fleet and so are from the operating side of ledger. Some capital cost savings have been projected from rightsizing the fleet; however, no savings are included from fleet renewal. This is because a replacement planning and alternative financing analysis is required to detail the cost benefit of replacing aged vehicles. **While we have not included savings from fleet renewal in our base cost/benefit analysis, based on our experience with other clients we believe these savings will be significant and total an additional $304 million over five-years.** The Exhibit below provides a projection of estimated savings from renewing the fleet through lease financing. Details about assumptions used to in this project can be found in Section D (page 148) of this report.

Exhibit 2: Projected Five Year Fleet Renewal Plan [3]

Financing Method	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Ad Hoc Cash	$ 100.19	$ 100.94	$ 100.94	$ 100.94	$ 100.94	$ 503.95
Lease	$ 13.38	$ 27.63	$ 40.79	$ 53.47	$ 64.79	$ 200.06
Lease v Cash Savings (Cost)	**$ 86.81**	**$ 73.31**	**$ 60.15**	**$ 47.47**	**$ 36.15**	**$ 303.89**
Average Age (10.1 Years Start)	**9.6**	**8.9**	**8.2**	**7.2**	**6.4**	

All $ shown in Millions.

[3] Estimate covers all asset types including law enforcement vehicles.

INTRODUCTION

BACKGROUND AND SCOPE

The State of Florida Department of Management Services contracted with Mercury Associates, Inc. in July of 2013 to identify the best options for managing the State's fleet and to document recommendations in a formal business case. This project is an outcome of the work of an interagency project team and a Fleet Study Steering Committee comprised of representatives from 12 state agencies[4] whose objectives included maximizing fleet operational efficiencies. The project team identified the following current issues in State fleet management:

- ✓ Decentralized fleet management
- ✓ Inconsistent approach to fleet management
- ✓ Procurement of vehicles based on purchase price only
- ✓ Each agency responsible for fleet related funding requests
- ✓ Inconsistent approach to use of privately owned vehicles and rental cars
- ✓ Lack of performance measures for fleet utilization, private vehicles and rental car use.

The Enterprise Efficiencies Initiative fleet management project was created to transform fleet management services for the State of Florida. The goal of this project is to maximize fleet operational efficiencies and reduce duplication of efforts among multiple agencies.

As part of the initial phase of this project, the State sought a qualified vendor to support and assist the project team with the prerequisite data collection, analysis and development of a business case to support the best option for the management of the State of Florida's fleet services. The intent of this report is to define the most effective fleet solution for the State of Florida. In doing so we understand it is essential that potential and viable options, including outsourcing, be assessed and that recommended options be supported.

Mercury Associates is the largest and most experienced fleet management consulting firm in the country and has assisted hundreds of public agencies and private companies in optimizing their fleet management programs. Current and past clients served by members of the firm include a dozen Federal agencies, 34 of the 50 states, all ten of the largest cities in the country, and dozens of Fortune 500 companies.

[4] The Fleet Study Steering Committee included the following 12 agencies: Department of Transportation, Department of Agriculture & Consumer Services, Department of Corrections, Department of Highway Safety & Motor Vehicles, Fish & Wildlife Conservation Commission, Department of Environmental Protection, Department of Law Enforcement, Judicial Administrative Commission (State Attorney and Public Defender Offices), Department of Juvenile Justice, Department of Financial Services, Department of Children & Families, and Department of Business & Professional Regulation.

APPROACH AND METHODOLOGY

Our approach to working with the State of Florida was, as it is with all of our clients, highly *interactive*. We recognize that there are several different *stakeholders* who have an interest in the outcome of this project, including DMS and other agency staff involved with fleet services, the customer organizations that actually use vehicles and equipment, and stewards of taxpayer funds such as executive management and legislators. Consequently, we were mindful of the importance of interacting with all major groups in conducting this project. Based on our experience we have found that if all stakeholders do not feel that they have had ample opportunity to participate in the study process and give appropriate input, then the project will not be a complete success.

Guiding Principals

In assisting the State in identifying opportunities to reduce costs and improve service through the potential privatization of all or some fleet activities, our project team was guided by four key principles that we have found to be critical to managing and operating a fleet of any size and composition effectively and efficiently. Each of these is discussed briefly below.

Quality Matters. Low-quality fleet assets and services directly affect the cost *and* quality of services that state agencies provide to the citizens and taxpayers of Florida. The quality of the services provided by fleet management organizations is of paramount importance because without vehicle and equipment users, there would be no need for such organizations. Thus, the most important indicators of its performance pertain to the results or *outputs* of its fleet management efforts, namely, the safety, availability, suitability, reliability, efficiency, and environmental soundness of the vehicles, equipment, and related goods and services state agencies use to perform *their* missions. We recognize the potential risk of emphasizing the importance of service quality in a fleet study project focused primarily on achieving cost savings, but the single-minded pursuit of cost savings absent a full understanding of the impact of cost reductions on fleet quality would not only ignore the fundamental purpose of a fleet management program, but run the risk of *actually* increasing overall State costs.

Costs Must be Controlled. Any organization can provide high-quality services if cost control is no object. Unfortunately, few have the luxury of working for organizations – whether in the public or private sectors – in which this is the case. Managing the costs of the vehicles and services provided by an organization is important for two reasons. First, all public-sector organizations have a fundamental fiduciary responsibility to use taxpayers' money wisely, regardless of whether they deliver a high-profile, "front-line" service such as law enforcement, or a behind-the-scenes, "support" service such as fleet management and maintenance. Second, in contrast to a lot of the jobs performed by State employees, many fleet management activities are capable of being outsourced to the private sector if they cannot be performed cost effectively in house. Consequently, the need to provide services that are competitive in cost as well as

quality with those offered by contractors and vendors is an inescapable reality of public-sector fleet management in the 21st century.

Fleet Management is Tactically Demanding. Fleet services organizations have always had to perform many different vehicle-related activities every day: scheduling vehicles for maintenance and repair services, assigning work orders to mechanics, farming out certain jobs to vendors, ordering parts, submitting warranty claims, supervising mechanics, processing vendor payments, preparing management reports, and so forth. Moreover, technological, regulatory, and other developments over the last decade or so have significantly increased the attention fleet organizations must devote to organizational management activities. High-performance fleet organizations today must be multi-faceted and multi-talented, handling demands encompassing everything from contract negotiation and vendor performance control to risk management and human resources management; and from information technology to cost accounting and financial reporting. Under these circumstances, it is common for such organizations to get caught up in the demands of performing some tactical activities – trying to ensure that customer's bills are accurate and that the fleet internal service fund remains solvent, for instance – while neglecting others. Such neglect, however, can have serious consequences, such as when an improperly trained, supervised, and/or equipped mechanic injures himself on the shop floor, or performs a vehicle repair incorrectly, resulting in an accident. Managing a fleet operation well requires mastery of a very large number of disciplines and processes, many of which have nothing to do with "turning wrenches" per se.

A Strategic Approach is Essential to Success. A strategic approach to fleet management is one in which the interrelationships among, and between, the many *vehicle* management and *business* management functions that the State of Florida must perform to optimize fleet performance and costs is both understood and managed. For example, optimizing vehicle performance requires effective acquisition, operation, maintenance, and replacement processes. Deficiencies in any one of these areas can undermine fleet performance no matter how good an organization's practices are in the other three. Moreover, effective performance in each of these areas requires collaboration or, at a minimum, coordination with non-fleet management organizations. It is difficult to maximize mechanic efficiency and productivity, for instance, if a fleet maintenance organization is hamstrung by employee classification, compensation, evaluation, and other policies and procedures that create disincentives for employees to improve their performance. Similarly, it is difficult to ensure a high degree of vehicle reliability or availability, no matter how vigilant mechanics and operators are, if budget and finance organizations cannot ensure that there is sufficient funding to replace all vehicles in a timely manner. A strategic perspective is critical for tying together the myriad, interdisciplinary and inter-agency responsibilities, authority, policies, and procedures that collectively determine the efficiency and effectiveness of a fleet operation.

Study Methodology

The methodology that we employed in this project included the following elements:

- **Analysis of Quantitative Data.** An information request was forwarded to all state agencies requesting documents and data pertaining to all of the functional areas of fleet management examined in this report. Where data was not available or only provided at a summary level, we used our experience working with other states and large government fleets to extrapolate results for Florida. Analysis of this information provided the basis for many key findings, conclusions, and recommendations.

- **Review of Documentary Materials.** We reviewed numerous documentary materials related to the conduct of the fleet management functions discussed herein, including statutes, policy and procedure statements, process flow maps, bid specifications, contracts, invoices, and management reports.

- **Interviews.** We conducted a number of face-to-face interviews and meetings with DMS staff, agency personnel, other State officials, the Fleet Study Steering Committee, various other states, fleet management company representatives, and other industry suppliers.

- **Site Visits.** No amount of second-hand information can substitute for first-hand inspection of facilities and vehicles, and observation of day-to-day work activities. Simply walking through maintenance facilities and yards and observing the number, condition, and appearance of vehicles waiting for service and/or waiting to be picked up by customers; the layout, age, condition, orderliness, and cleanliness of the facility; and the general level of employee activity all provide clues about the performance of a fleet management organization that give direction to our interviews, process mapping, and data analysis efforts. In this project we toured 10 shops selected by the State as representative of maintenance operations.

- **Performance Measurement and Benchmarking.** We employed quantitative performance measurement techniques in this project interpreting the resulting performance statistics using suitable internal and industry benchmarks. These techniques included activity based costing, cost per vehicle equivalent analysis, performance measurement, fleet use analysis, etc. In addition to serving as a valuable diagnostic tool that helps us home in on potential problem areas and avoid devoting unnecessary scrutiny to areas in which current practices are strong, performance measurement adds objectivity and consistency to our evaluation, and hence, credibility to our findings and conclusions. Note that the absence of granular data limited our ability to use these techniques to their full potential.

- **Business Process Mapping and Gap Analysis.** The other key method we use to evaluate fleet management practices and identify opportunities to improve quality and lower costs is process mapping and gap analysis. This involves ascertaining 1) if and how specific management and operating processes are formally *defined*; 2) the soundness of their *design* – e.g., their logic, thoroughness, compliance with applicable regulations, responsibility and authority for execution, and so forth; 3) their *consistency* with industry best practices; and 4) the nature of their actual *execution*, which is a function of how they are communicated (e.g., through a policy and procedure manual) and how employees are held accountable for using them.

Philosophical Underpinnings

A major focus of this project was investigating the feasibility of centralizing and/or outsourcing fleet management functions as a means of lowering costs and improving fleet program performance. In considering this question, it is important to remember these two basic precepts; 1) fleet maintenance is a *service* activity whose foremost goal is to meet the needs of fleet users and 2) strategies such as centralization and outsourcing, which are aimed at lowering the costs of providing services, should never lose sight of the impact they may have on service quality. If anything, an organization should be prepared to sacrifice gains in cost efficiency in the interest of preserving an adequate degree of service effectiveness.

This is not to say that cost efficiency and effectiveness are mutually exclusive goals, one of which cannot be advanced except at the expense of the other. On the contrary, the economies of scale which centralization makes possible often provide agencies with access to service-enhancing resources and tools; modern maintenance facilities; management information systems; technical training and support; etc. which they otherwise would not be able to afford, thereby providing a higher level of service and lower costs. Similarly, outsourcing can also provide savings through economies of scale and the nimbleness and expertise of the private sector. Nevertheless, cost efficiency and effectiveness can be potentially conflicting goals which must be balanced against one another.

Another realization is that property (such as vehicles) assigned to a particular agency is not the private property of that organization. Rather, the property is ultimately the property of the State and what is the best value and approach from the State's perspective should outweigh the wishes of individual agencies as long as service delivery is not sacrificed.

The "philosophical" foundation, then, on which this review was based, is the belief that centralization and outsourcing are not ends in themselves, but means to an end. Accordingly, the goal of this report was not to set out to recommend *how* State fleet management activities should be consolidated or outsourced. Rather, the objective was to determine *whether, and if so, how* such activities should be consolidated or outsourced to improve fleet performance. The distinction is important because there is

a significant difference between the theoretical benefits of centralization and the existence of real centralization opportunities in the State of Florida.

Centralization and outsourcing recommendations which make sense are those that will lead to real cost savings and/or real service improvements relative to actual, current service delivery approaches. The State is not starting with a clean slate on which it can design a new fleet management program from scratch. Rather, centralization and outsourcing must be woven into the reality of the current situation where dozens of agencies employ hundreds of employees doing fleet related work (often part-time as only one of many duties) at already existing offices, maintenance facilities, and fuel sites which were built decades ago. Consequently, Florida will never achieve all of the potential savings that are available. It must be content with an incremental approach to fleet maintenance management improvements which, while perhaps disappointing relative to the *theoretical* benefits of consolidated and/or outsourced fleet activities, nevertheless offers some significant cost saving and service improvement opportunities.

Types of Centralization and Outsourcing

In the area of fleet management, the type of centralization or outsourcing which often first comes to mind is the *physical* integration of people, facilities, vehicles and equipment from disparate locations into a single location. This is the most dramatic form of centralization and/or outsourcing in that it typically involves considerable modification to established work routines, not only as a result of the physical relocation of fleet activities, but as a result of the organizational, managerial, and administrative changes, which necessarily accompany such relocation. The prospect of such disruption along with fear of losing control over integral resources, are the primary causes of resistance to the idea of fleet centralization or outsourcing.

Another type of centralization is organizational centralization. Under this approach, a single agency would be responsible for a given fleet function for any number of agencies. For example, if FDOT took over a DOC fleet shop, the maintenance facility would most likely remain operational at the facility. However, the employees would become employees of FDOT and have direct reporting relationships to FDOT managers. This is also the case, of course, if a fleet service activity such as maintenance is outsourced to a third-party service provider.

Additionally, there is managerial centralization of fleet activities. Under this approach, a single agency (i.e., DMS) would have authority to develop fleet policies and regulations, centralize management reporting, establish fleet performance benchmarks, require agencies to use a common fleet management information system, etc., but the employees and maintenance facilities would not necessarily become those of the managing agency. In essence, agencies would outsource certain fleet management activities to DMS or, for certain activities, to a fleet management company.

Potential Benefits of Centralization and Outsourcing

The recommendations presented in this report were largely developed on the basis of assessments of the potential benefits of consolidating and/or outsourcing fleet maintenance/management activities. While better management of fleet operations through adoption of industry best practices is also important, these "organic" improvements often take longer than those gained by eliminating duplication of effort, capturing economies of scale, and leveraging the expertise of the private sector. Below we discuss the underpinnings of our approach to assessing the potential costs and benefits of centralizing and/or outsourcing fleet management activities.

Cost Savings. Perhaps the most widely anticipated benefit of centralization or outsourcing is the realization of cost savings as a result of eliminating redundant fleet maintenance resources and activities. For example, the fact that in some areas of the State several agencies have vehicle maintenance facilities within a few miles of each other suggests that there is duplication of fleet maintenance capabilities and activities. Some level of cost savings could be achieved by consolidating the maintenance operations of these agencies.

Eliminating redundant automotive technicians (to the extent that there are any) is irrelevant because staffing levels can always be streamlined without consolidating maintenance operations. The costs which can be reduced through centralization are primarily those indirect costs associated with land acquisition, facilities construction, acquisition of major equipment, and provision of support activities. The theory is that centralization lowers the cost of providing maintenance and repair services by enabling these fixed costs to be spread over larger numbers of billable units of service produced – labor hours, parts costs, contracted repairs, etc. That is, centralization improves the utilization of indirect maintenance resources.

It is important to recognize, however, that indirect costs and "sunk" capital costs are not always avoidable. Consequently, the potential for the centralization of redundant maintenance programs to produce real cost savings tends to be exaggerated. For example, unless one of the shops from our example above, was significantly underutilized and could accommodate large numbers of additional vehicles, the State would have to build a new single facility that had the capacity to handle all of the units currently serviced at separate locations in order to avoid incurring the redundant fleet maintenance costs of having several shops within a few miles of each other. Since most of these costs are *sunk* and were incurred several years ago, eliminating them would not yield sufficient cash savings to justify the costs of new facility construction.

This type of physical centralization would produce meaningful costs savings only if the State was in a position to avoid prospective, as opposed to *sunk* costs of redundant facilities. Another is when the existing properties occupied by a maintenance operation can be sold for sufficient money to build a more cost effective maintenance complex elsewhere. A third is when the property can be put to some other use by the State,

thereby making funds which would otherwise be spent on land acquisition and construction available, again, to build a better fleet maintenance complex elsewhere.

Even in instances of centralization that are much less extreme than the physical integration of maintenance operations, it must be recognized that redundant fleet service costs cannot always be avoided. For instance, many of the smaller fleet maintenance programs across the State are managed and administered by individuals whose positions would not be abolished if responsibility for the fleet maintenance activities they oversee were transferred to another agency or contractor. This is because fleet maintenance oversight represents only a portion of their responsibilities and that an "agency representative" is usually required to coordinate vehicle replacement, maintenance, etc. even if another agency or a contractor managed their fleet.

Except to the extent that time currently devoted to such oversight can be used productively for other purposes, the costs these agencies incur in overseeing fleet activities would not necessarily be eliminated through centralization or outsourcing. That is, they are not avoidable costs. There may be good reasons to consolidate or outsource these types of operations, but direct cost savings associated with reducing duplication of effort often is not one of them. In fact, many agencies act under the belief that their in-house decentralized fleet programs are significantly less costly than if they were to procure services from another agency or from a contractor. This belief stems, in our view, from a pervasive erroneous application of cost allocation principles. In short, agencies in Florida significantly understate the real cost of operating an in-house fleet management program and, therefore, draw invalid conclusions about outsourcing, centralization, and vehicle replacement timing. The number of agencies that report "fully burdened" shop labor rates of under $40 per hour (about one-half the prevailing market rate in Florida) is proof of this situation.

Management Improvements. Fleet management is not the primary mission of any agency within the State with the exception of DMS. Many of these other organizations find it difficult to invest in the development of sound maintenance management systems and controls. It is impractical to assign a professional, full-time fleet manager to a small fleet of a dozen or so vehicles. Therefore, management of these small fleets tends to fall on an employee as a cursory duty. These employees typically do not have the technical training or experience to actively manage a fleet of vehicles.

This was evident during this study when many of the agencies (even some of the larger agencies) had difficulty in providing very basic inventory, utilization, and cost data about their fleets.

The move toward centralization can be traced to the increasing complexity and cost of fleet management endeavors over the last 20 years or so and to a simultaneous increase in emphasis on governmental efficiency – particularly in the face of competition from contract providers of fleet management services. During this period, developments in such areas as information technology, human resources management

and professional development, risk management, regulation of environmental protection and occupational safety and health, and automotive technology have essentially changed the definition of "effective" fleet management, making it prohibitively expensive for many small, independent fleet management organizations to keep up. In short, the complexity of fleet management today produces significant economies of scale which often can be captured only through collective effort.

Centralized fleet ownership and management provides consistent management of all fleet assets and provides greater opportunities to pool and share vehicles. This is especially true of general purpose administrative sedans and construction type equipment which is very costly but may not necessarily be used daily by a single operating agency.

The benefits associated with centralized ownership of vehicles/equipment are often not as easy to recognize for most fleet users. Agency managers do not like to give up “ownership” of their fleet of vehicles and equipment for fear of decreased flexibility and increased bureaucracy. This, however, is not the case. We know this from observations made at several hundred municipalities - our clients across the nation. Responsibility for arranging preventive maintenance inspections, performing repairs, planning replacement, maintaining a right-sized fleet, monitoring utilization, and standardizing the fleet are all management issues that can usually best be attended to when the fleet is centrally managed.

Service Improvements. Consolidating the maintenance and repair activities of a fleet under a single agency often leads to improvements in service delivery to the end user. Centralization has the potential to significantly improve the management of maintenance and other fleet activities by providing smaller agencies with access to tools, systems, and management capabilities which they otherwise would be unable to afford. This is true for both the case where smaller agencies receive centralized services from another state agency or from a contractor.

It is entirely understandable for fleet users to want to exert direct control over the care and upkeep of their vehicles and equipment. Indeed, this desire usually is a sign of the seriousness with which an agency views its service delivery responsibilities and its appreciation of the importance of controlling the resources on which effective service delivery depends. Effective service level agreements, contract administration programs, and performance monitoring and reporting can go a long way in satisfying fleet user concerns and mitigating risks.

Potential Costs of Centralization and Outsourcing

Whereas there is a potential to reduce costs and improve service delivery under a consolidated fleet management approach, there is also a potential of increased costs. If the hosting agency (i.e., DMS) had the existing capacity to absorb the management of other agencies’ fleets without adding administrative or maintenance staff, or developing and implementing (or extending) data capture and financial management

procedures/systems, then the potential costs of centralization would be minimal and would consist of staff time to develop the centralization strategy and implement the actual centralization. If, however, DMS, in this example, did not have the capacity and had to add administrative costs to provide a higher level of oversight and services, then these costs would have to be identified. Based on our review of DMS operations, it requires additional resources just to fulfill its current limited mission and would definitely need increased resources to go along with an increased role and managing contractors.

* * *

In summary, centralization and outsourcing can affect fleet users in a myriad of ways - the benefits which some people ascribe to centralization and outsourcing are not always readily attainable. On the other hand, those who vigorously oppose the loss of direct control over fleet maintenance activities often gloss over the very significant limitations of, and even risks posed by, marginal, under-managed fleet programs. The question is then not whether centralization and/or outsourcing is good or bad. Rather, the issue is will centralization or outsourcing result in net improvements in fleet program activities to the State as a whole in the form of improved cost-recognition, lower overall costs, improved service, and better management of the State's fleet assets.

SECTION A: BACKGROUND INFORMATION

As indicated in the introduction above, fleet management activities are decentralized with 30 agencies involved in fleet policy, practice and operations. Although State law grants DMS a wide range of fleet management authority over some vehicles, due to limited resources DMS currently engages in a very limited range of fleet management functions most of which are tactical in nature, such as some policy oversight, processing vehicle orders and disposals, and providing a state-wide fleet information system. While agencies utilize statewide contracts to purchase some vehicles and some services, there are various processes and approaches to securing, maintaining, operating and disposing of vehicles.

Mercury gathered data and information on current State fleet operations through an on-line survey and written materials from 30 state agencies. In addition detailed discussions with the largest 12 fleet agencies were conducted. Specifics about the State's current policy and practices in key fleet management functions are outlined below.

Fleet Administration

Enabling Legislation

Chapter 287, Part II of the Florida Statutes is the primary fleet-related law that applies to all state agencies, officers and employees of the executive and judicial branches of State government. In the statute, the following key fleet management powers and duties are assigned to DMS:

1. To ensure the most effective and efficient use of vehicles for state purposes.

2. To ensure control and establish and operate central facilities for the regulation, acquisition, disposal, operation, maintenance, repair, storage, and supervision of all state-owned vehicles.
3. To require transfer of ownership of vehicles from all state agencies except law enforcement, fire marshal and fire control.
4. To ensure assignment of vehicles to agencies based on need.
5. To charge fees to agencies that have vehicles assigned based on any reasonable criteria.
6. To adopt and enforce rules and regulations for efficient and safe use and operation of the State's fleet.
7. To contract for maintenance services.
8. To delegate to heads of state agencies the duty of enforcing DMS rules.
9. To establish determination of the mode of transportation to be used by employees when traveling on state business.
10. To provide a biennial calculation of break-even mileage for vehicle assignment.

The statute requires executive branch agencies to secure prior approval from DMS for purchase or continuous lease of any motor vehicle, watercraft, or aircraft. In addition, with DMS approval, special authorization is given to certain agencies to secure vehicles for use at institutions, residential facilities and County Health Departments under their respective jurisdictions.

"Motor vehicle" is defined in statute as any automobile or light truck, but no specific definition of the latter is provided. The law requires automobiles to be in the subcompact class, with exceptions for law enforcement, towing, transportation for 3+ adults or of bulk material, and vehicles operated frequently on unpaved roads.

Purchase or continuous lease of vehicles is prohibited unless the legislature has specifically appropriated funds for this purpose. Vehicles for which replacement funds have been appropriated may not be retained in service unless an emergency need exists. Any vehicle retained for this purpose must be reported to the legislature.

Use of State-owned vehicles is limited to travel necessary to carry out State assignments, official State business, and security and emergency activity. Home-to-office commuting is prohibited unless DMS authorizes commuting as a perquisite; or the vehicle is required after hours to perform position duties; or an employee's home is his or her workstation.

The statute requires a minimum of 10,000 annual miles for assignment of a vehicle to an individual, with priority for vehicle assignment given to utilization in excess of 15,000

miles. Annual utilization reports and a biennial calculation of a break-even mileage for vehicle assignment are required.

The statute grants specific authorization for "casual" (i.e., short-term) lease of motor vehicles; DMS approval is not required. The law also provides for use of deferred payment contracts with interest, but only if approved by the Governor's office in consultation with the legislature.

Chapter 286.29 of the statutes (client-friendly public business) outlines the maintenance, classification and energy efficiency requirements for state vehicles. It also requires the use of ethanol and biodiesel blended fuels when available.

Fleet Management Policy

DMS policy for the management, operation, and use and disposal of State motor vehicles is detailed in Chapters 60B-1 and 60B-3 of the Florida Administrative Code. It includes policy relating to the following areas: acquisition, classification, specifications, use, assignment, maintenance, reports and records, safety, fuel and disposal. In addition, Chapter 60B-2 delegates the function and duties of DMS to the State University System upon the adoption of any necessary rules as required in the statutes.

The policy stipulates that prior approval must be obtained from DMS to purchase, lease or otherwise acquire any motor vehicle, except for acquisitions by law enforcement agencies through judicial proceedings and acquisitions for 30 days or less (short term leasing). The latter is authorized if it is more economical, funds are not available for vehicle purchase, federal or grant funds prohibit purchase, or investigative identity requires vehicle rotation. DMS may grant individual exceptions.

Agencies are required to purchase the smallest class of vehicle capable of safely and economically performing job requirements. Classes of assignments are defined as:

- Class A – Pool Assignment: This class is defined as vehicles that are centrally controlled and available for trip use by all employees in an area/unit. Class A vehicles are authorized for home to office travel only if the home is enroute to or from an assignment.

- Class B – Limited Use Assignment: This class comprises passenger carrying and non-passenger carrying vehicles assigned to an employee who requires full-time use of a vehicle during the work day, but the vehicle remains parked at the office at night. Class B vehicles are authorized for home to office travel only if the home is enroute to or from an assignment and for use during non-work hours when on an official trip and use of other means of transportation is impractical.

- Class C – Special Assignment: This class includes vehicles that are 1) officially authorized as a perquisite by DMS, 2) required to perform official duties after hours, including law enforcement emergency and non-law enforcement emergency, and 3) assigned to employees whose home is their workstation.

Class C vehicles are authorized for home to office travel only if the home is enroute to or from an assignment.

Vehicle use is authorized for official State purposes only, and agency heads are responsible for assignment, proper use, and DMS policy enforcement. The latter includes ensuring that drivers have a valid license and requires express permission for non-state employees to operate State vehicles. Each incidence of improper use of a vehicle is to be acted upon by the respective agency head in accordance with disciplinary policy and must be reported to the state comptroller.

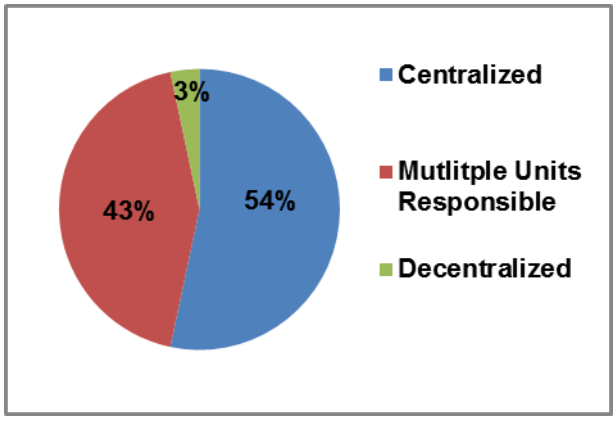
Agencies are assured that DMS will develop, maintain, and operate an equipment management information system that meets the needs of and provides monthly reports to agencies. State agencies are charged with accurate and timely data input into the system.

The policy offers the opportunity for major user agencies to have one person to serve in an advisory capacity on technical specifications and pledges that DMS will arrange for periodic meetings with representatives to review topics such as performance, quality, and anticipated manufacture changes.

In general, the DMS policy restates the law and focuses on vehicle acquisition, assignment, use, records and disposal. As it is currently structured and resourced, DMS is only able to provide limited management or services beyond the areas of acquisition, disposal and fleet records and reports.

In light of DMS' limited resources, the day to day management of the State's fleet assets has been delegated to dozens of separate agencies that, for the most part, exercise near-autonomous discretion over how fleet operations function and how funds are expended. Each state agency is responsible for day-to-day management and operation of its fleet, subject to the law and current State policy. As the figure below depicts, varying degrees of management centralization exist between the agencies.

Exhibit 1: Agency Fleet Management



The policies that various agencies have formally documented and distributed to staff also differ. Of the 30 agencies reviewed, the number that has formal written policies in key fleet related areas is depicted in the Exhibit below.

Exhibit 2: Agencies with Fleet Policies

Policy	# Agencies (of 30 total)
· Accident Reporting	29
· After Hours Use	15
· Billing/Cost of Operations	4
· Breakdowns and Towing	18
· Defect Reporting	7
· Disciplinary Guidelines for Policy Violations	22
· Fueling	27
· Load Management	1
· Personally Owned Vehicle Use and Reimbursement	22
· Pool Rental/Reservation Procedures	13
· Pre-Trip Inspections	6
· Preventive & Regular Maintenance	22
· Vehicle Assignment Requirements	14
· Home to Office Use	17

Fleet Management Information System

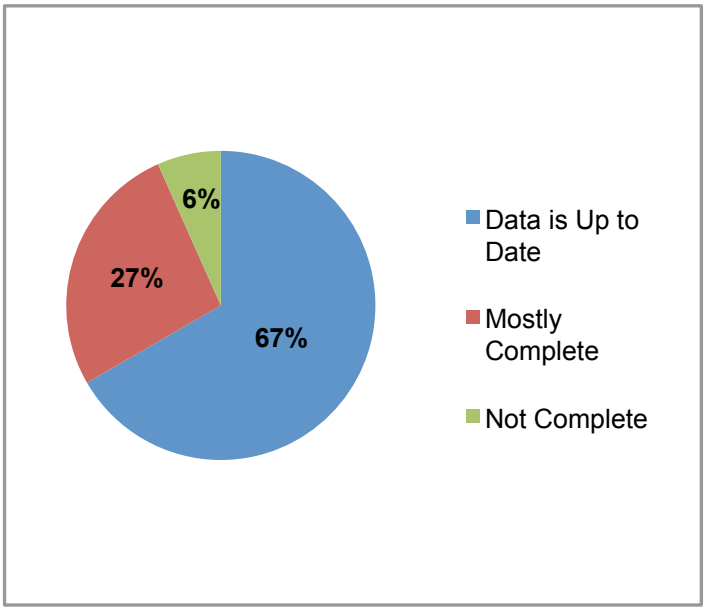
DMS is charged with development, maintenance and operation of an equipment management information system that meets the needs of, and provides monthly reports to agencies. The current statewide web based system (FLEET) was developed internally to track inventory, maintenance expense, fuel expense, and garage production hours. It has been in use for approximately 2 years. It was developed in 2011 followed by production testing in December 2011. Historical data from the prior legacy system (EMIS), which was also developed internally, was transferred into FLEET.

The system is centrally hosted in a State managed data center in Tallahassee and includes development, test and production environments. There are currently 30 agencies utilizing the FLEET system.

FLEET is an open source application developed using Ruby on Rails development tools and utilizing a free-ware database management system - MySQL. DMS expenditure data listed a total of $459,792 expended during fiscal years 2011-12 and 2012-13 to develop the system. Annual support costs for system operation totaled approximately $40,000 in FY 2012-13. The previous system EMIS cost $323,000 for support in FY2010-11.

State agencies are charged with accurate and timely data input into the system for specific types of vehicles intended to mirror the legislative mandate of “automobile or light truck” that are under the purview of DMS. Individual agencies are charged a fee for system access and support. Charges for maintenance and operation of the system

are levied on a per unit basis, currently $1.75 per vehicle per month. Agencies are required to enter data on vehicles DMS has authority for (passenger vehicles and light trucks). Agencies may voluntarily enter data into the system on medium and heavy trucks and other fleet related mobile equipment. These "voluntary" additions do not pay the monthly fee.



The method of data capture for the system is largely a transaction based, labor intensive, manual entry process. For example, only one agency indicated they were capturing mileage from a fuel system output file. In all other cases mileage is maintained and entered manually in the system. In our discussion with agencies, most indicated this was true for fuel and repair as well.

67-percent of the agencies report that they believe their data in FLEET is complete and up to date. However, it appears that only applies to some of the vehicles in the system. Agencies are mandated to provide data only on required vehicles; entry of data (other than miles annually) on the remaining vehicles is optional. Not all agencies are meeting requirements even for required vehicles.

As we will discuss further in Section B (page 39) below, these data issues, combined with the fact that most of the data entry is manual at the vehicle level, result in poor data integrity in terms of completeness and accuracy. For example, in an attempt to provide us annual fleet statistics from the FLEET system, DMS indicated that only about 71-percent of the vehicles in inventory for the largest 12 fleets had mileage data that appeared complete and accurate. Further discussions with agency fleet representatives revealed that, even when they believe the information entered into the system is complete and accurate, many had concerns about the accuracy of the data output in some reports. As a result, agencies engage in many labor intensive processes and/or operate additional tracking systems in an effort to meet their data and information needs.

Fleet Analysis and Reporting

Currently, FLEET is capable of producing only five standard reports.

1. Inventory Report – List of assets tracked by the system.

2. Missing Log Report – Identifies when a monthly mileage and fuel report has not been provided from the assigned agency.

3. Cost & Utilization Report – Fuel and maintenance costs per period with utilization (e.g., cost per mile, etc.) calculations.

4. Delinquent PM[5] Report – List of vehicles with PMs that are past due.

5. Scheduled or Due PM Report – List of PMs that are due, or scheduled.

There are no ad-hoc reporting capabilities and reports can be filtered only by location. In actuality, the FLEET system is not considered a reporting engine and does not provide formatting, analysis or management reporting capabilities but is instead a list of specific data that can then be further manipulated or analyzed using external tools, e.g. Microsoft Excel, etc.

Most agencies indicate they use few of these reports each month, generally for identifying delinquent PM and missing mileage logs. Five agencies indicated they utilize an agency level system and/or spread sheet application(s) to supplement the data and reporting from FLEET.

The inability to generate the type of reports needed coupled with questionable data quality and completeness result in severe limitations on the State's ability to engage in data driven fleet analysis. In fact, when agencies were asked what their primary fleet management challenges were, fleet data and information was the issue cited most frequently.

Based on the responses to our request for information, it is clear that most agencies do not have detailed fleet related expenditure or operational statistics at their fingertips. We requested information in four basic areas:

1. Fleet Operating and Capital Expenditure Data
2. Fleet Management and Operations Personnel Listing
3. Fleet Statistics and Performance Indicators
4. Fleet Inventory

The only data that agencies were readily able to report was fleet inventory. However, even this data, which was taken from the FLEET system, had to be reviewed and updated by each agency prior to sending to us. In contrast, our request for key fleet statistics and performance data in areas such as fuel, repairs, utilization, etc. brought almost no response. Moreover, as detailed in our background on operating expenditures below, many agencies struggled to obtain cost data and in some cases, fleet cost data could not be separated from other agency spending.

[5] PM = Preventative Maintenance

Fleet Operating Expenditures

In order to develop a business case for making any changes to the management and processes associated with the fleet, it is necessary to calculate and document the current cost of providing fleet maintenance services in a form that will provide a fair, "apples-to-apples" basis for comparison between the current methods to alternatives. Our objective in this task was to develop cost data for each major fleet expense. Then, subject to the quality of available data, benchmark these costs to viable alternatives.

As we indicated in our proposal, our ability to develop the necessary comparisons was dependent on the accuracy, completeness and depth of the data provided to us. Mercury submitted a data request that included items such as total expenditures for the last two fiscal years on all fleet related functions, a listing of personnel involved in fleet functions and their associated salary and benefit costs, and transaction based data in areas such as repair and fuel. **The submission of data by state agencies revealed major weaknesses in access to key fleet cost and activity data.** Some agencies indicated key data elements were simply not available and others reported data that clearly was not accurate (based on our knowledge of industry costs and other benchmarks). It was apparent that agencies lacked access to cost and performance data that represented all vehicles in the fleet and covered all activities. This was significantly more apparent in the larger agencies, particularly if garage operations were involved.

As an example, for some expenses, such as repair parts, data in the state's accounting system was not coded to allow for fleet expenses to be separated from other expenditures, leaving labor intensive manual processes as the only option to try to secure the data we requested. The State determined that the time and cost associated with this would not be feasible given the tight timeline for this project. It was agreed that where complete costs were essential for comparison purposes Mercury would use estimates based on available data provided and our experience working with other states and large governmental fleets.

The graph below is a summary of the data collected. In an effort to prepare the data for analysis and comparison, we segmented the data into several key fleet management functional activities. This included allocation of staff costs to these activities. It was outside the scope of this project to work directly with each agency to develop detailed time allocations for each employee. Therefore, we had to accept the information on employee activity as it was presented by the agencies. The impact of data issues and analysis of the costs is detailed in the evaluation section (page 39) of the report. What appears below is an Exhibit of the costs we were able to capture from agency data submissions and vendor reports from Wright Express (WEX) and ARI**. Approximately $114.6 million dollars in direct operating expense was identified.** It is important to note that these are direct costs only; indirect costs associated with agency and state level support activities and facilities expense are not included.

Exhibit 3: FY 2012-13 Fleet Expenditures

Agency	# Vehicles	Total FTE	Fleet Expenditures Reported [1]	Fleet Asset Mgt/ Adminis/ Support	Liability Insurance	Fuel CC Chgs	Bulk Fuel	Contract M&R	Garage Parts	Vender Operated Garage Costs	In House Garage Expense
DOT[2]	5,362	133.2	$ 25,607,209	$ 2,119,165	$ -	$ 1,203,048	$ 8,775,045	$ 1,354,864	$ 4,152,839	$ 899,842	$ 7,102,405
ACS	4,290	66.2	$ 16,604,303	$ 443,501	$ -	$ 5,179,195	$929,512	$ 2,824,192	$ 3,740,145	$ -	$ 3,487,759
DOC[3]	3,147	77.6	$ 14,505,779	$ 1,236,681	$ -	$ 829,172	$ 7,887,525	$ 781,280	$ 669,431	$ -	$ 3,101,691
HSMV	2,925	17.8	$ 21,703,678	$ 477,242	$ 1,075,450	12,026,421	121,167	$ 7,352,761	$ 21,811	$ -	$ 628,827
FWC[4]	2,779	45.4	$ 14,966,381	$ 1,192,961	$ -	$ 8,472,900	Incl in CC Chgs	$ 3,890,403	Not Provided	$ -	$ 1,410,117
DEP	1,628	2.4	$ 4,096,254	$ 116,782	$ -	$ 2,507,838	$ 119,283	$ 1,352,351	$ -	$ -	$ -
FDLE	654	1.3	$ 2,473,400	$ 574,171	$ -	$ 1,121,310	$ 172,726	$ 605,193	$ -	$ -	$ -
JAC	570	8.1	$ 1,970,031	$ 388,844	$ 27,540	$ 973,836	$ -	$ 579,812	$ -	$ -	$ -
DFS	569	6.5	$ 1,953,032	$ 412,130	$ -	1,095,927	$ -	$ 444,975	$ -	$ -	$ -
DCF	552	4.1	$ 1,169,246	$ 398,096	$ -	$ 419,365	$ -	$ 351,785	$ -	$ -	$ -
DJJ	551	5.5	$ 1,729,462	$ 910,601	$ -	766,906	$ -	$ 51,955	$ -	$ -	$ -
BPR	485	0.59	$ 1,505,301	$ 29,758	$ -	$ 915,911	$ -	$ 559,632	$ -	$ -	$ -
Big 12	**23,512**	**368.7**	**$ 108,284,077**	**$ 8,299,933**	**$ 1,102,990**	**$35,511,828**	**$ 18,005,258**	**$ 20,149,203**	**$ 8,584,225**	**$ 899,842**	**$ 15,730,799**
DOH	417	9.7	$ 1,732,878	$ 290,238	$ -	$ 504,552	$ -	$ 938,088	$ -	$ -	$ -
APD	331	7.7	$ 1,043,741	$ 171,037	$ -	$ 330,266	$ 343,715	$ 148,285	Not Provided	$ -	$ 50,438
DOL	190	1	$ 1,018,929	$ 52,828	$ -	$ 554,340	$ -	$ 411,761	$ -	$ -	$ -
OAG	126	0	$ 231,858	$ 2,386	$ -	$ 148,610	$ -	$ 80,862	$ -	$ -	$ -
DMS	103	0.3	$ 170,823	$ 14,955	$ -	$ 99,537	$ -	$ 56,331	$ -	$ -	$ -
DMA	100	6.2	$ 614,945	$ 97,172	$ -	$ 74,008	$ 270,828	$ 8,596	Not Provided	$ -	$ 164,341
DOE	45	0.8	$ 131,586	$ 30,953	$ -	$ 71,841	$ -	$ 28,792	$ -	$ -	$ -
SDB	43	4	$ 686,098	$ 210,171	$ -	$ 32,421	$ 220,831	$ -	$ -	$ -	$ 222,675
DOS	27	0	$ 33,940	$ -	$ 2,114	$ 21,235	$ -	$ 10,591	$ -	$ -	$ -
PSC	26	0.3	$ 79,988	$ 12,314	$ -	$ 42,076	$ -	$ 24,861	$ 737	$ -	$ -
EOG	24	1	$ 103,852	$ 30,437	$ -	$ 69,839	$ -	$ 3,576	$ -	$ -	$ -
DVA	19	0	$ 78,568	$ -	$ -	$ 39,704	$ -	$ 38,864	$ -	$ -	$ -
DOR	17	0.7	$ 64,292	$ 37,753	$ -	$ 26,539	$ -	Not Provided	$ -	$ -	$ -
DEO	6	0.2	$ 54,983	$ 20,485	$ -	$ 14,148	$ -	$ 20,350	$ -	$ -	$ -
AHCA	2	0.144	$ 5,854	$ 4,293	$ -	$ 1,561	$ -	Not Provided	$ -	$ -	$ -
FPC	2	0	$ 3,486	$ -	$ -	$ 2,940	$ -	$ 546	$ -	$ -	$ -
CIT	1	0.02	$ 7,017	$ 909	$ -	$ 3,131	$ -	$ 2,978	$ -	$ -	$ -
All Other	**1,479**	**32**	**$ 6,062,838**	**$ 975,931**	**$ 2,114**	**$ 2,036,748**	**$ 835,374**	**$ 1,774,480**	**$ 737**	**$ -**	**$ 437,454**
TOTAL	**24,991**	**401**	**$ 114,346,916**	**$ 9,275,864**	**$ 1,105,104**	**$37,548,576**	**$ 18,840,632**	**$ 21,923,683**	**$ 8,584,962**	**$ 899,842**	**$ 16,168,253**

"Number of Vehicles" as of 5/31/2013.

Notes from Exhibit:

[1] Data from direct fleet expenditures reported. Indirect/overhead and facilities cost NOT included.

[2] DOT: Employee assignments not provided, bulk fuel est. based on dispensed costs; Asset Mgt allocation based on FTE percentages from 2007 study; garage parts includes commercial parts, could not be separated.

[3] DOC: FTE and cost for 114 inmates not included; parts cost significantly understated as cost of used/salvage parts not accounted for.

[4] FWC: Cost of internal parts not available

Fleet Replacement and Financing

DMS has established minimum equipment replacement criteria for vehicles under their purview. Cars and trucks up to 1-ton must calculate a Replacement Eligibility Factor (REF) and all classes of vehicles use a miles/hours and age standard. The REF factor assigns points for age, miles/hours, condition, down days, and maintenance costs with a score of at least 300 required before a vehicle can be replaced prior to the "drop dead" standard (which for passenger vehicles is 12 years/120,000 miles). Most other vehicle classes have replacement standards of 10 to 12 years with miles varying depending on type of equipment. No prioritization or earmarking of vehicles from the

State perspective occurs. Requests are reviewed one unit at a time to ensure they align with replacement standards.

The REF process is a quantifying method to allow replacement of vehicles in poor condition that are at or close to the standard and to extend cycles for vehicles that have only incurred high amounts of maintenance. However, as we will discuss in the next section, the REF methodology does not meet the key requirements of a life cycle cost review, which is the best practice method for determining replacement cycles.

State agencies have individual responsibility for determining replacement priorities. Agencies' standards may vary as long as they meet or exceed the DMS minimums. Only 18 of the 30 agencies surveyed indicated they had written replacement cycle guidelines. Most of these policies use age, mileage and vehicle condition as primary determination factors.

The issue of replacement standards is moot, however, because most agencies are unable to secure funds to replace vehicles that meet the current standards. Funds to purchase vehicles are secured via the annual capital budget appropriations process. State agencies individually make budget requests, and as the average age of the vehicles in the 12 largest fleets reveals, some agencies have been more successful than others in securing replacement dollars.

Exhibit 4: Average Age of the Fleet

Agency	No. of Units	Average Age
Department of Transportation	5362	10.9
Department of Agriculture & Consumer Services	4290	13.9
Department of Corrections	3147	14.8
Department of Highway Safety & Motor Vehicles	2925	5.7
Fish & Wildlife Conservation Commission	2779	8.8
Department of Environmental Protection	1628	11.5
Department of Law Enforcement	654	6.4
Judicial Administrative Commission	570	5.7
Department of Financial Services	569	7.5
Department of Children & Families	552	13.7
Department of Juvenile Justice	551	10.6
Business & Professional Regulation	485	6.6
Big 12 Subtotal	**23,512**	**10.8**

"Number of Units" as of 5/31/2013.

The average age of the current fleet (all agencies included) is 10.7 years which equates to an average replacement cycle of 21.4 years. By any standard, Florida is operating an old fleet.

Looking at replacement activity in recent years, the age of the fleet is increasing. Using the model year inventory to represent replacements for the past four years, as the Exhibit below illustrates, agency ability to secure funding to replace vehicles has been dismal. **At the State's recent average replacement rate of about 3.6-percent a year, turning the fleet over would take 27 years, a time span that is exceedingly long in our experience.**

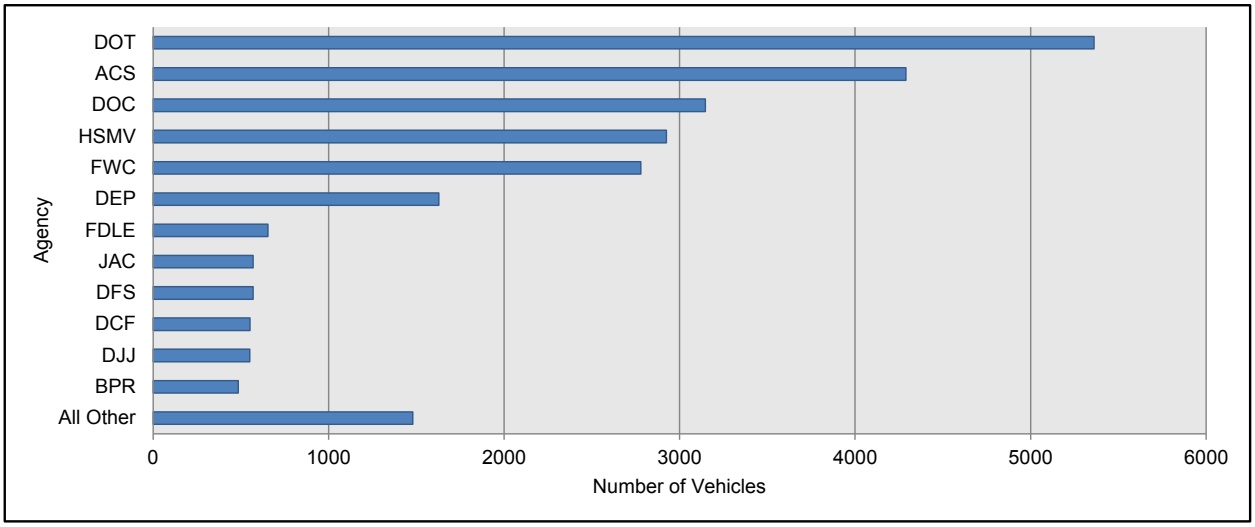
Exhibit 5: Historic Feet Replacement Funding

Model Year	No. of Units	% of Fleet	Acquisition Cost
2009	1089	4.4%	$ 30,427,216
2010	802	3.2%	$ 23,336,824
2011	705	2.8%	$ 20,758,943
2012	1012	4.0%	$ 25,613,990
Average	**902**	**3.6%**	**$ 25,034,243**

Fleet Size and Utilization

The State operates a fleet of approximately 24,991 units that includes 19,668 on road vehicles, 2,720 off road vehicles and 2,603 non self-propelled/miscellaneous pieces of equipment. As depicted in the figure below, the majority of the vehicles (81-percent) are operated by six agencies (Transportation, Agriculture, Corrections, Highway Safety, Fish & Wildlife and Environmental Protection). Most agencies have realized a decline in fleet size over the past several years. For some agencies, the decrease was planned and for others, a result of inability to secure funds to replace vehicles no longer operable.

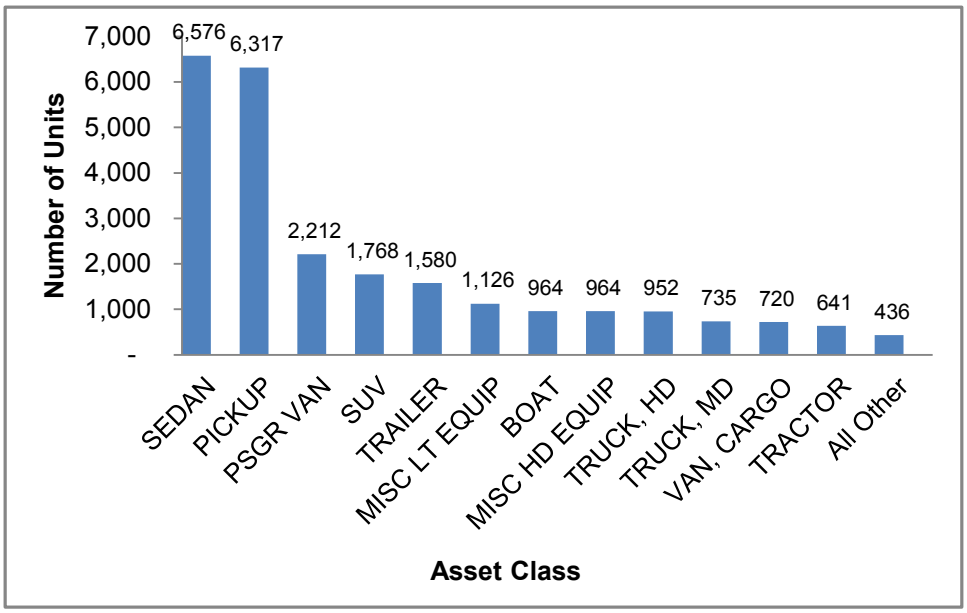
Exhibit 6: Fleet Assets by Agency



"Number of Vehicles" as of 5/31/2013.

There is a wide variety of equipment and vehicle types in the fleet, reflective of the wide variety of missions and business requirements across the state agencies. Sedans and pickup trucks represent just over 50-percent of the vehicles in the fleet.

Exhibit 7: Fleet Assets by Asset Class



"Number of Units" as of 5/31/2013.

Current law requires a minimum of 10,000 annual miles for assignment of a vehicle to a state officer or employee, an annual review of utilization and a breakeven analysis[6]. DMS develops the breakeven analysis required by statute to determine the annual mileage point where assignment of a State vehicle is more cost-effective than reimbursement for a driver's use of his or her personal vehicle for State business purposes. A breakeven analysis model is an appropriate fleet tool for comparing alternate means of transportation. However, it appears that key cost components, such as maintenance, are not currently included in the DMS breakeven model.

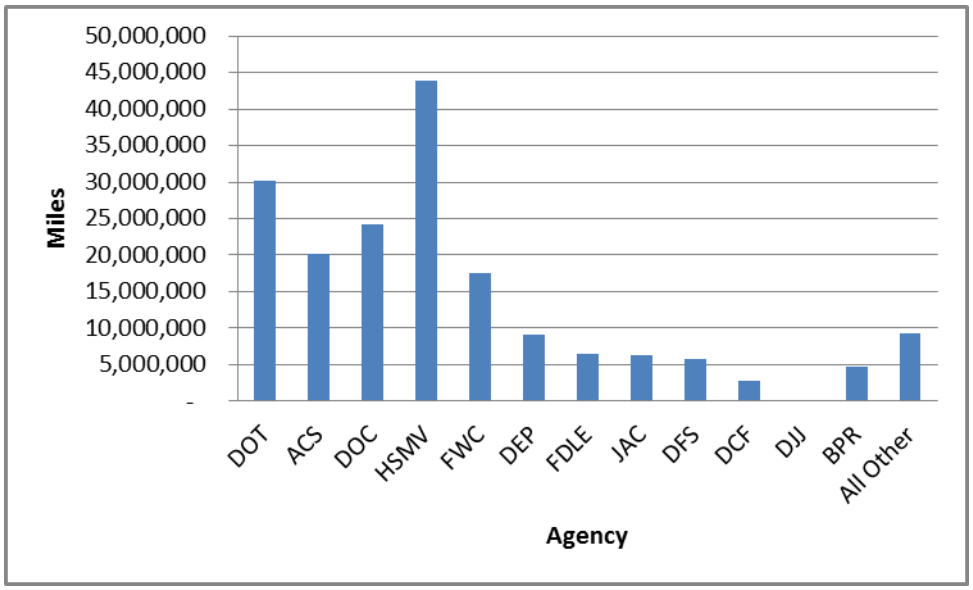
There is no policy requiring agencies to regularly review utilization nor does DMS engage in any oversight of utilization or breakeven compliance. Similarly **there is no formal statewide physical inventory process or analysis of fleet size and composition**.

At the agency level, there are a wide variety of approaches regarding fleet utilization and size. 63-percent of the agencies report that they have a formal process in place to regularly review fleet utilization. This seems unlikely, however, as information on mileage in the fleet system is incomplete. In an attempt to provide data on miles and fuel from the FLEET system, DMS indicated they had complete statistics for only 71-

[6] (F.S. 287.17(4)(a))

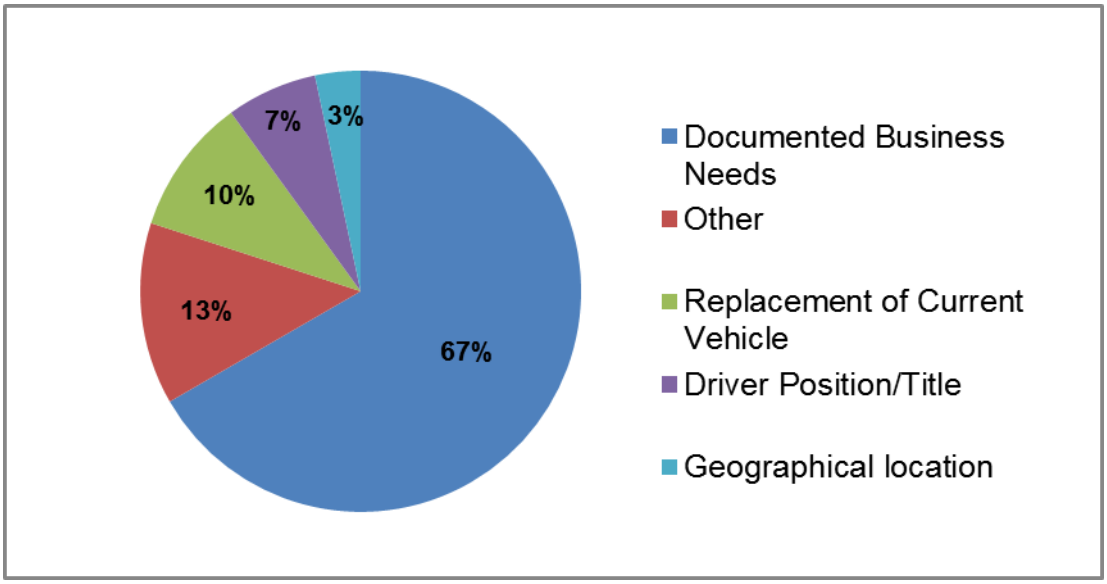
percent of the vehicles in the fleet. The miles driven for this portion of the fleet in 2012-13 totaled just over 181 million. A summary by agency appears in the chart below.

Exhibit 8: Partial Miles by Agency



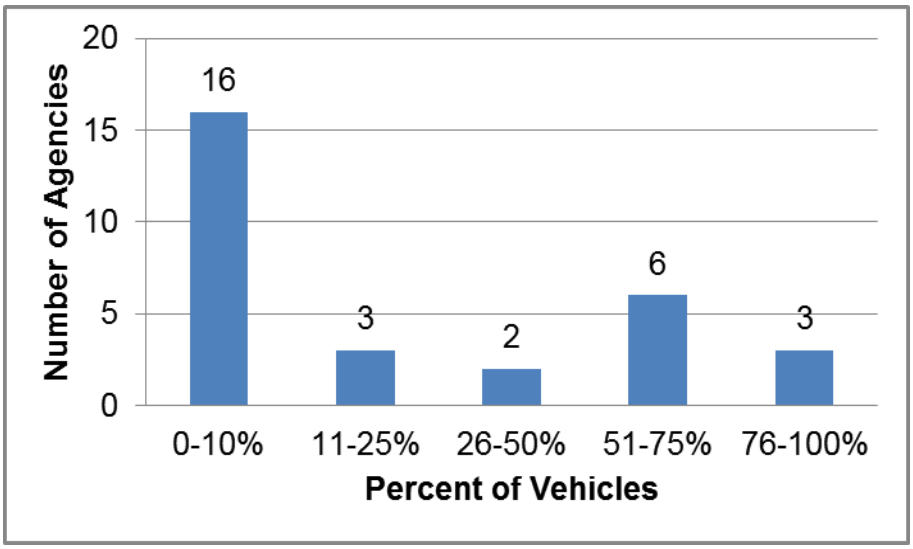
As the graph below depicts, the vast majority of agencies indicate that the primary basis for assignment of a passenger vehicle is documented business need. Only a small percentage of agencies indicated that position or title was the primary basis for assignment.

Exhibit 9: Basis for Vehicle Assignment



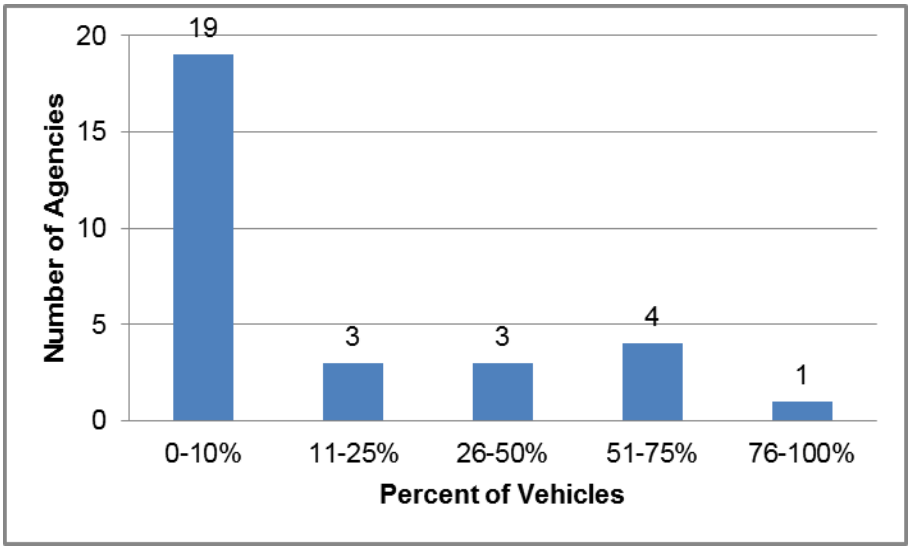
Most agencies report that less than 10-percent of their vehicles are assigned to a specific driver, indicating that the majority of the vehicles and equipment are shared by workers in a given location. At the other end of the spectrum Lottery, Department of Law Enforcement, and Highway Safety & Motor Vehicles indicate that more than 75-percent of their vehicles are assigned to an individual driver.

Exhibit 10: Vehicles Assigned to Single Driver



According to the survey responses, for 19 of the 30 reporting agencies, less than 10-percent of their vehicles are authorized for regular use between home and office. Only the Florida Lottery indicated that more than 75-percent of their vehicles are authorized for home to office use.

Exhibit 11: Home to Office Vehicle Authorizations



Rental and Personally Owned Vehicle Utilization

To obtain a complete picture of vehicle related travel expenditures for the state, our data collection effort included securing cost information on rental and personal vehicles. A total of $12 million was spent on rentals and mileage reimbursement in 2012-13.

Exhibit 12: FY 2012-13 POV and Rental Expenditures

Fiscal 2012-13 Rental and Personal Vehicles			
Agency	**Rental Vehicle Charges**	**Personal Vehicle Reimbursement**	**Personal Vehicle Miles**
DOT[1]	$ 3,678	$ 30,283	68,052
ACS	$ 52,597	$ 874,526	1,965,227
DOC	$ 5,271	$ 5,271	11,845
HSMV	$ 2,620	$ 19,113	42,951
FWC	$ 275,835	$ 224,002	503,375
DEP	$ 13,073	$ 22,632	50,858
FDLE	$ 82,150	$ 62,460	140,360
JAC	$ 12,940	$ 374,528	841,635
DFS	$ 88,731	$ 386,400	868,314
DCF[2]	$ 251,039	$ 6,156,676	11,295,413
DJJ	$ 27,763	$ 361,289	811,885
BPR	None Reported	$ 441,366	991,834
Big 12	$ 815,697	$ 8,958,545	17,591,748
All Other	$ 275,961	$ 1,972,143	4,431,783
TOTAL	**$ 1,091,658**	**$ 10,930,689**	**22,023,532**

Fleet Acquisition

The DMS Fleet group, in cooperation with DMS purchasing, develops specifications for bid purposes. Specifications are developed based on different classes of vehicles which agencies have commonly used (mostly light-duty cars, pickups, vans, etc.). There is no apparent formal annual specification review process that involves agencies. DMS is responsible for EPACT (Energy Policy Act) requirements and, through the specification and ordering process, they ensure that Florida is in compliance.

The bid process for vehicles occurs annually and awards are made by vehicle purchase price only. Specifically, as indicated in the purchase solicitation, a single award is made statewide to the responsive and responsible bidder with the lowest evaluated price for each Base Vehicle Representative Model, including, if applicable, OEM (Original Equipment Manufacturer) options and aftermarket options. A mathematical formula consisting of the base vehicle representative model price, OEM options, discount from

the manufacturer's suggested retail price, and if applicable any required aftermarket option price is used for evaluation purposes.

In 2012, the initial term of the contract was for one (1) year and began on November 1 or on the last date in which it is signed by all parties, whichever is later. Upon mutual written agreement, the agency and the contractor may renew the contract in whole or in part, for renewal terms up to 12 months at the renewal pricing specified in the bid.

Once contracts for vehicles have been issued, agencies may begin placing orders. All procurement requests for vehicles must be approved by DMS Fleet. DMS Fleet has developed a specific form for this process, which is reviewed and authorized online in the My Florida Marketplace purchasing system. In discussions with agencies they indicated that DMS turnaround and responsiveness in the order process has been acceptable. However, agencies did report an occasional problem with vendors advising that they did not have, nor would they get, the required vehicles. While we were unable to ascertain the specifics of these situations, we note that the contract requires that the Contractor notify DMS purchasing of the manufacturer's last order date in writing. Agencies indicating this as a problem were not aware of receiving notice of such dates.

For the 14 agencies that require aftermarket equipment on some vehicles, 11 indicate the vehicle is delivered to the agency and then brought to the upfitter. The other three have state garages where the upfitting is completed.

Fleet Disposal

DMS policy for disposal of motor vehicles is detailed in Florida Administrative Code Rule 60B-3. Most vehicles and watercraft are disposed at either a public live auction or public on-line auction. DMS has established contracts with an auction company and a vehicle transport company to deliver disposal services. Live auctions are held in a single location, Tampa. Since 2005, Tampa Machinery Auction has been the vendor providing auction services. The current contract is valid through February 2015. The transport services contract was awarded to a single vendor that is responsible for statewide transport and is scheduled to expire in March 2014. DMS Fleet plans to advertise for a new contract which will call for multiple vendors and regional pricing.

Live auctions are held monthly in Tampa and political subdivisions are given opportunity to review and purchase items prior to the public auctions. Results of the sales for last year are detailed below.

Exhibit 13: Live Auction Results

Live Auction Sales July 2012-June 2013			
	Amount	Percent	Per Unit
Vehicles Sold	1,140		
Gross Sale	$ 2,945,584	100%	$ 2,584
Commission	$ 244,922	8.30%	$ 215
DMS %	$ 88,368	3.00%	$ 78
Freight	$ 376,988	12.80%	$ 331
Keys/Decals	$ 1,904	0.10%	$ 2
Title Fees	$ 956	0.00%	$ 1
NET	**$ 2,232,448**	**76%**	**$ 1,958**

In July of 2011, DMS also began using on-line auctions via GovDeals.com. Auctions generally occur twice per month with DMS assigning vehicles to the next appropriate on-line auction. A single contract employee is responsible for all the tasks associated with getting the vehicles prepared and listed for sale on-line. Once the auction closes and the vehicles are sold, a DMS Fleet employee handles the collection of the payments, sign over and delivery of the title, pickup arrangements, turnover of the keys and signature of the Bill of Sale. As part of their efforts to decrease transport costs, DMS tries to sell all vehicles located in west Florida and the Florida Keys online. Results from the past years on-line auctions are detailed below.

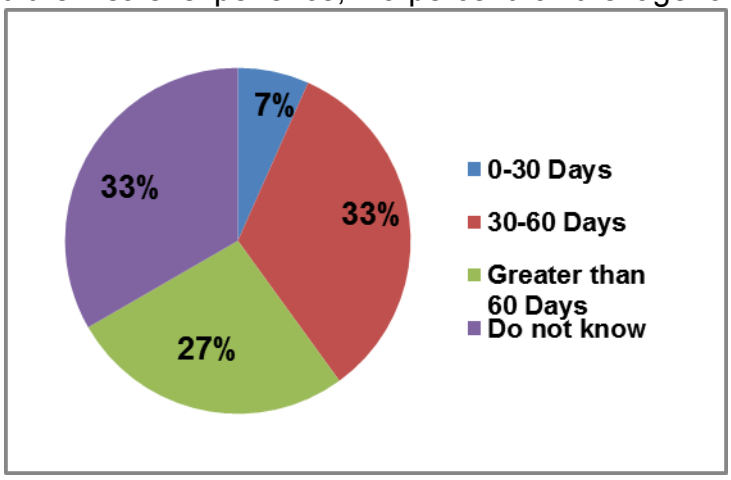
Exhibit 14: On-line Auction Results

Internet Sales July 2012-June 2013			
	Amount	Percent	Per Unit
Vehicles Sold	236		
Gross Sale	$ 687,304	100.00%	$ 2,912
Commission	$ 51,547	7.50%	$ 218
DMS %	$ 20,619	3.00%	$ 87
Freight	$ 7,783	1.14%	$ 33
Cleaning	$ 2,780	0.40%	$ 12
Fed Ex	$ 396	0.06%	$ 2
NET	**$ 604,179**	**87.90%**	**$ 2,560**

Agencies are responsible for determining whether a vehicle is in appropriate condition to go to auction or to sell as salvage. In practice, agencies send most vehicles to auction because of the ease of administration associated with that option (one form, one phone call). When agencies are ready to terminate a vehicle, they complete a form and

submit it to DMS for review and approval. The information on the form is reviewed for compliance with replacement criteria. Once sale is approved, the transport orders are issued to move the vehicle to the public auction site. The transport company must receive orders at least 30 days before the sale date. Vehicles are available for pickup immediately when move orders are issued. DMS has a hands-on process for managing the sales contract and an intricate audit process.

When asked in the survey about their sale experience, 40-percent of the agencies indicated that the average days between termination and sale was less than 60 days. 27-percent indicated there were more than 60 days between termination and sale. The remaining 33-percent did not know. The vast majority of the agencies, 92-percent, indicated that they did not know if the proceeds received from sale were consistent with industry averages.



Proceeds from the sale are distributed back to each agency, but they do not necessarily go back to the fleet budget. Application of the returned proceeds within the agency budget is determined in the budget process.

Fleet Maintenance and Repair

Currently Florida utilizes a variety of methods to secure repairs for fleet vehicles. These include:

- Operation of State owned, operated, and staffed maintenance facilities.
- Outsourcing the operation and staffing of State owned maintenance facilities.
- Outsourcing directly to commercial maintenance facilities.
- Outsourcing through a fuel or maintenance management company (WEX or ARI).

The state operates 87 maintenance facilities and two up-fitting facilities as summarized in the Exhibit below. There are 260.8 full time equivalent employee positions and 124 inmates directly involved with the delivery of maintenance services. (Reference Appendix 1 for detailed listing of maintenance facility locations). The management and operation of one of the DOT shops is outsourced to a private vendor (G4). None of the agencies that operate facilities were able to provide detailed data on shop operations and production indicators typically utilized in the management of such facilities.

Exhibit 15: State Operated Maintenance and Repair Facilities

Agency	No. Facilities	Shop FTE Positions	Inmate FTE Positions
DOT	33	103.4	
ACS	27	59.1	
DOC	20	57.3	114
HSMV	1	12.0	10
FWC	1	29.0	
APD	2		
DCF	3		
DMA	1		
SDB	1		
	89	**260.8**	**124.0**

A closer look at the maintenance expenditures for fiscal year 2012-13 reveals a total of $47.5 million dollars was expended on vehicle repair and maintenance. Just less than half ($21.9 million) of the state's expenditures are spent at private vendors across the state, with the remaining amount expended on repairs in state owned facilities. Given that the state shop expenditures listed do not include overhead and facilities costs and are missing some parts expenses, the actual split is likely closer to 40/60.

Exhibit 16: FY 2012-13 M&R Costs

Agency	Contract M&R	Garage Parts	Vender Operated Garage Costs	In House Garage Expense	Total
DOT[1]	$ 1,354,864	$ 4,152,839	$ 899,842	$ 7,102,405	**$ 13,509,950**
ACS	$ 2,824,192	$ 3,740,145		$ 3,487,759	**$ 10,052,095**
DOC[2]	$ 781,280	$ 669,431		$ 3,101,691	**$ 4,552,402**
HSMV[3]	$ 7,352,761	$ 21,811		$ 628,827	**$ 8,003,399**
FWC[4]	$ 3,890,403	Not Provided		$ 1,410,117	**$ 5,300,520**
DEP	$ 1,352,351				**$ 1,352,351**
FDLE	$ 605,193				**$ 605,193**
JAC	$ 579,812				**$ 579,812**
DFS	$ 444,975				**$ 444,975**
DCF	$ 351,785				**$ 351,785**
DJJ[5]	$ 51,955				**$ 51,955**
BPR[6]	$ 559,632				**$ 559,632**
Big 12	**$ 20,149,203**	**$ 8,584,225**	**$ 899,842**	**$ 15,730,799**	**$ 45,364,069**
All Other	**$ 1,774,480**	**$ 737**	**$ -**	**$ 437,454**	**$ 2,212,672**
TOTAL	**$ 21,923,683**	**$ 8,584,962**	**$ 899,842**	**$ 16,168,253**	**$ 47,576,741**

1 DOT: Garage Parts includes sublet parts, could not be separated.

2 DOC: FTE and cost for 114 inmates not included; parts cost significantly understated as cost of used/salvage parts not included

3 HMSV: Cost of misc. parts only; upfit parts capitalized

4 FWC: Cost of internal parts not available

5 DJJ: WEX M&R only

6 BPR: WEX M&R Only

Data on the actual number of private sector vendors that the state secures services from was not available. However, 8-percent of the expenditures were paid through a maintenance management service company (ARI). 43-percent of the expenditures were charged to the state's fuel card (WEX). The remaining 51.6-percent of the expenditures were paid directly to individual maintenance and repair shops across the state. Discussion and analysis of both the state and commercial expenditures is detailed in our Section B (page 39) of this report below.

Fleet Fueling

Florida utilizes two basic approaches to secure fuel for fleet vehicles. These include:

- Operation of state owned fueling sites.
- Purchasing fuel from privately owned fuel stations through a single fuel management company.

FDOT and DOC operate 86 of the 111 state fueling sites. All agencies may secure fuel from DOT sites, although there was a period during a change of state fuel card vendors that DOT sites could not be utilized due to system issues. DOT has a fuel system, Fuel Master Plus, which tracks and reports fuel dispensed and provides cost data for billing. Most of the DOC sites are not open to other state agencies, though there are seven locations where some non DOC fueling is authorized. The tanks operated by the remaining state agencies are smaller tanks that service vehicles and equipment at more remote locations. (A list of fuel sites by location is provided in the Appendix). None of the agencies had prepared reports that summarized fuel transactions and cost and the data reported did not all appear reasonable. The bulk fuel cost per gallon that resulted from the total gallons and fuel reported was $3.72. Given that this is only the cost of fuel and does *not* include the State's cost to operate these fuel sites, it is very high. While we worked with the agencies to secure the best detail data possible, there is an apparent underreporting of gallons dispensed, especially from agencies that do not have an automated fuel system.

Exhibit 17: Bulk Fuel Summary Data

Agency	Number of Sites	Total Number of Tanks	Combined Tank Capacity	Gallons Dispensed	Number of Transactions
DOT	42	96	882,000	2,634,847	Not Provided
ACS	3	8	11,600	165,382	7,782
DOC	46	81	373,906	2,247,480	202,999
FWC	17	27	14,750	21,121	1,396
DEP	3	3	2,550	15,213	1,796
Total	**111**	**215**	**1,284,806**	**5,084,043**	**213,973**

Fuel from the private sector is secured primarily through a fuel card provided by a fuel services vendor (WEX). In fiscal year 2012-13, 10.3 million gallons of fuel was purchased using the WEX card at a cost of $37.5 million – an average of $3.35 per gallon. A few agencies, most notably FDLE and JAC, have agreements with counties or specific private sector stations to secure fuel. These amounts are not material in terms of the overall state total.

The total amount expended on fuel in 2012-13 is estimated at $56.4 million dollars.

Exhibit 18: FY 2012-13 Fuel Expenditures

Agency	Commercial Fuel (Fuel Card)	Bulk Fuel	Total Fuel
DOT	$ 1,203,048	$ 8,775,045	$ 9,978,093
ACS	$ 5,179,195	$ 929,512	$ 6,108,707
DOC	$ 829,172	$ 7,887,525	$ 8,716,696
HSMV	$ 12,026,421	$ 121,167	$ 12,147,588
FWC	$ 8,472,900	Incl in CC Chgs	$ 8,472,900
DEP	$ 2,507,838	$ 119,283	$ 2,627,121
FDLE	$ 1,121,310	$ 172,726	$ 1,294,036
JAC	$ 973,836	None reported	$ 973,836
DFS	$ 1,095,927	None reported	$ 1,095,927
DCF	$ 419,365	None reported	$ 419,365
DJJ	$ 766,906	None reported	$ 766,906
BPR	$ 915,911	None reported	$ 915,911
Big 12	$ 35,511,828	$ 18,005,258	$ 53,517,086
All Other	$ 2,036,748	$ 835,374	$ 2,872,122
TOTAL	$ 37,548,576	$ 18,840,632	$ 56,389,208

SECTION B: EVALUATION OF OPTIONS

This section identifies and analyzes options for providing a centralized fleet management service and the associated advantages and disadvantages of each option. In keeping with the State's instructions the analysis includes maintaining or modifying the current in-house method of service provision; outsourcing fleet management to a third party service provider, and whether any agencies or vehicles should be exempt from the program. This section will also include the analysis of responsibilities such as the purchase, maintenance, tracking, and disposal of vehicles. We organized our assessment by primary fleet function, as detailed below.

FLEET ADMINISTRATION

Introduction and Industry Best Practices

Florida owns one of the largest fleets of vehicles and equipment in the United States. **The assets in the State's fleet are worth nearly $900 million dollars**. The key to preserving the value of these assets and minimizing annual operating costs is active management based on established industry best practices. Fleet administration encompasses activities aimed at creating an optimal foundation for successful fleet management including establishing an appropriate governance model (e.g. enabling

statutes and/or policies, fleet user steering committee, service level agreements); designing programs to support fleet users to acquire, fuel, and maintain vehicles in an efficient and cost effective manner; and having the resources required to monitor and report on the efficiency of fleet activities so changes to the governance or service model can be made as required.

In this section of our report we describe the best practices fleet administration framework and identify fits and gaps between this framework and current practices in Florida.

Vehicle and equipment fleets must be actively managed to ensure optimal cost control and program performance. A centralized approach to fleet administration is a clear best practice in the industry for both commercial and government organizations. For a large organization like the State of Florida, providing a diverse array of services across a large geographical footprint, centralized fleet administration is essential. This centralized approach mostly focuses on "steering" rather than "rowing" activities across the enterprise such as planning, coordination, analysis and reporting, and establishment of programs that make it easier for fleet users to operate their fleets (such as enterprise-wide systems, tools, contracts, etc.). Fleet Administrators must take care to not adopt a command and control approach that isolates fleet users from important fleet related decisions. Rather, the goal is to form partnerships with fleet users to maximize service levels and minimize costs.

In addition to providing an appropriate governance structure, an effective fleet administration program delivers coordination and oversight of the following activities:

- Fleet information management and reporting
- Replacement planning
- Acquisition
- Disposal
- Fleet size and utilization
- POV (Privately Owned Vehicles) and rental costs
- Fuel
- Maintenance

A good fleet administration organization also should provide consultative services to client organizations including cost analysis, technical specifications for the acquisition of new vehicles, and acquire vs. rent vs. reimburse analysis.

Analysis and Findings

The governance model for Florida's fleet management program is not as robust as in most other large states. While a central fleet management organization exists (i.e. DMS), a combination of factors has led DMS to adopt a mostly passive approach to fleet management. These factors are discussed below:

Statutes and Policies

As previously noted, the primary statute governing Florida's fleet management program is Chapter 287, Part II, Means of Transport. The statute gives DMS wide latitude to apply fleet and business knowledge and technical skill to manage the State's fleet. It does, however, have a few limitations. For example, the definition of "motor vehicle" as an automobile or light truck limits DMS authority to control all State-owned vehicles. Additionally, because "light truck" is not defined, the practical definition is left open for debate. Ideally, authority for all vehicles used in State business, whether owned, leased or personally provided, would be granted to a single entity. That entity would develop policy to ensure effective fleet management and services, delegating authority and activity as appropriate.

Several other issues related to the statute language are worthy of mention:

- The threshold for vehicle assignment to a state officer or employee is set by law as 10,000 miles annually. This seems in conflict with the requirement to prepare a breakeven analysis to identify the mileage at which vehicles should be purchased. Because the latter practice depends on a number of factors that are subject to change, specifying a precise number in the statute is inconsistent with best practice.
- The 10,000 mile threshold applies to assignment of vehicles to employees. This threshold should also apply to assignment of vehicles to agencies to force review of low use vehicles on a periodic basis.
- The commuting language in the statute is very permissive, allowing both perquisite and broad after hours reasons for such use. Without greater definition or limitation, considerable room exists for abuse and the opportunity for challenges to any DMS policy to limit such use. Our experience with permissive commuting language is that it leads to excessive use of vehicles for commuting. A more rational policy that requires strict adherence to standards for approving home garaging of vehicles and completing associated reports reduces commuting miles thus lowering fuel and other costs.
- The statute fails to mandate that DMS collaborate with user agencies in exercising its regulatory responsibilities. Maximizing customer agency involvement is essential to successful fleet management.

Additional laws and regulations that impact fleet operations include:

- Chapter 286, Climate Friendly Public Business, (requires that State vehicles be well maintained and that vehicles with the greatest fuel efficiency be purchased in most instances). While well intentioned, this law could significantly increase vehicle costs as the highest-mileage vehicles are normally hybrid-electric models that often cost much more than conventional vehicles (in the case of work trucks this incremental cost can be 300-percent or more).
- Chapter 24.105 (13) (allows the Department of Lottery to bypass DMS and manage their own fleet). This law weakens a centralized approach to fleet administration and is unnecessary assuming the state-wide fleet program is based on industry best practices that drive optimal levels of performance at the lowest possible costs.
- Chapter 590.02 (allows the Florida Forest Service to bypass DMS and dispose of wild land firefighting equipment according to their own processes). This rule weakens a centralized approach to fleet administration and is unnecessary assuming the state-wide fleet program is based on industry best practices that drive optimal levels of performance at the lowest possible costs.
- Administrative Code 60B-1 (provides language to implement Chapter 287).
- Administrative Code 60B-2 (allows the State University System to bypass DMS and manage their own fleet). This law weakens a centralized approach to fleet administration and is unnecessary assuming the state-wide fleet program is based on industry best practices that drive optimal levels of performance at the lowest possible costs.
- Administrative Code 60B-3 (related to disposal of vehicles).

The Legislature also inserted proviso language into the Fiscal Year 2013-14 Budget that stipulates extended vehicle replacement cycles of 150,000 miles for four agencies and 175,000 miles for three agencies. No rationale or economic analysis was provided in the provisos. As discussed in another section of this report, the State's fleet is old and accelerating replacement of older vehicles will produce a number of important benefits including lower overall costs, reduced exhaust emissions, and increased safety. Consequently, any rules extending replacement cycles for portions of the fleet are counter-productive.

DMS Role

Due to limited staffing and other resources, DMS has historically adopted a less active approach and role to managing Florida's fleet program than other states we have worked with. This appears to be partly a result of a culture in the State that has favored a decentralized organizational model for most activities. With these restrictions DMS has been placed in the position of relying on agency heads for meeting the requirements of current law and best fleet management practices. Although DMS has internal controls governing the procurement and disposal processes to monitor that requirements are being met, for all other areas of fleet activity DMS has not had sufficient resources to ensure that state agencies are effectively managing their fleets.

Additionally, there is little or no review of policy compliance in areas such as vehicle use, adherence with standards of maintenance, accuracy of data provided, etc. Without follow-up, such as audits of various activities, DMS cannot demonstrate policy adherence. Even in areas where DMS demonstrates awareness that policy is not being followed, such as accuracy and timeliness of data entered into the FLEET system, little action is taken to bring agencies into compliance. As we noted in our previous report on DMS activities in 2009, management mechanisms are available to nudge agencies to adhere to policy. For example, one can publish scorecards on policy compliance, a public approach that tends to motivate greater compliance. Another approach is to team with a State organization such as the Office of Program Policy Analysis and Governmental Accountability to develop methods of assessing policy compliance.

DMS primarily engages in three fleet-related activities:

- **Purchase of new vehicles.** DMS provides oversight for purchase of motor vehicles, medium and heavy-duty trucks, construction equipment, watercraft, aircraft and other equipment designated by state commodity code in MyFloridaMarketPlace (MFMP). DMS reviews all purchases for compliance with established replacement criteria. DMS also develops technical specifications for annual and multi-year state term contracts for the purchase of cars and light-trucks, medium and heavy trucks and construction equipment. Each agency develops and submits proposed ITB (Invitation to Bid) specifications for specialized vehicles and equipment that are not on state term contract to DMS for review and approval prior to issuing agency ITB solicitation.
- **Disposal of Vehicles.** DMS provides both oversight and direct services in remarketing and disposing of used vehicles and equipment.
- **Fleet System.** DMS provides a fleet management information system for use by agencies to track vehicles and equipment. As previously noted, use of this system is optional for all assets that are not classified as “vehicles”.

The primary role of any fleet management organization is to work towards increased fleet performance and lower fleet related costs. For large entities like the State of Florida, this involves a combination of regulatory oversight, direct delivery of fleet services where economies of scale from collective activities are evident, and data analysis and management reporting to drive fact based fleet program decisions. DMS currently provides limited and/or suboptimal levels of service in all of these areas.

To optimize Florida’s fleet program, DMS should provide:

Services

- State-of-the-art commercial off the shelf fleet management information system used by all state agencies and universities;
- Development of term contracts for all commonly purchased motorized vehicles and equipment (note that DMS currently does this);

- Development of purchase specifications for specialized vehicles and equipment; (note that DMS currently does this on a limited basis);
- Development of contracts for maintenance and repair services and managing these contracts
- Provision of fleet remarketing services
- Development of contracts for fuel services and managing these contracts

Analysis and Reporting

- Development of a graphical dashboard to track progress against key measures of fleet program performance
- Development of standard monthly reports commonly needed by all agencies
- Development of standard monthly reports unique to each agency
- On-demand custom report and analysis services to respond to the unique information needs of the Governor, Legislature, and agencies
- Development of an annual fleet report covering key cost and performance statistics for all state organizations

Oversight

- Administration of fleet laws and regulations
- Development of new regulations to respond to changes in the fleet industry and agency requirements
- Provide resources to respond to agency requests for interpretation of laws and regulations
- Development of a consolidated statewide fleet replacement plan including validation that agency requests conform to established standards

DMS Fleet Staff Resources

DMS Fleet has six permanent staff and one contract position. Some positions support both fleet and the federal surplus property assistance program. The Exhibit below shows the FTE (full-time equivalent) status of each fleet related position based on the percentage of time each position spends on fleet related issues. Position names describe functional roles rather than official payroll titles.

Exhibit 19: Current DMS Fleet Organization

Position	Role	FTE
• Bureau Chief (70% fleet)	• Manages fleet and federal property	0.7
• Administrative Assistant (70% fleet)	• Provides admin and budget support	0.7
• Fleet Engineering Specialist	• Responsible for reviewing and approving all vehicle acquisition requests submitted by the various agencies (75%), and for working with DMS State Purchasing for developing the state-term contracts for Vehicles and Medium & Heavy Trucks (25%)	1.0
• FLEET System Administrator	• Responsible for management of the FLEET system, primary liaison between the agency fleet managers and the DMS development team (95%). Other duties as assigned by the Bureau Chief (5%)	1.0
• FLEET System Help Desk	• Responsible for assisting FLEET users with training and using the FLEET system, and FLEET invoicing (85%). Responsible for on-line auction post-sale activities (e.g., collecting payments, vehicle title documentation, arranging vehicle pickups, etc.) (15%)	1.0
• Fleet Disposal Analyst[7]	• Support for live and on-line auctions including communicating with agencies that are disposing of vehicles, determination of best sales approach, coordinating with vendors, scheduling and listing vehicles for sale via GovDeals.com, answering questions from bidders, conducting vehicle inspection period, etc.)	1.8
Total		**6.2**

DMS does not have the staff and other resources required to support the size and complexity of the State's fleet. With the current compliment of full-time and contract staff, DMS struggles to provide even the limited services described above. By way of comparison, the California Office of Fleet and Asset Management (OFAM) has 36 staff providing services and oversight for a fleet of 44,000 vehicles (the largest state fleet in the country). This works out to a ratio of staff to vehicles of 1 to 1,200. The equivalent

[7] One position is a contractor and supports on-line auctions. This position is 0.8 of an FTE with a not-to-exceed annual cost of $25,000.

ratio for DMS is 1 to 4,000 – nearly four times less than California[8]. As is the case with Florida, state agencies in California are actively involved in fleet management and many operate vehicle repair shops. However, OFAM is much more actively involved in providing services (such as a central fuel site and motor pool in Sacramento), coordination (including replacement planning and purchasing), and oversight than is DMS. With one of the largest state fleets in the country, we believe Florida should more closely follow California's model. With an expanded role DMS will be able to save the State money by securing lower prices for maintenance and fuel, driving lower asset life-cycle costs through optimized state-wide replacement planning and acquisition processes, and providing actionable management information that enables agencies to develop cost-effective balanced transportation options between state-provided vehicles, rentals, and mileage reimbursement. The exact amount of savings available to the State will depend on the thoroughness and timing of the implementation of our recommendations. However, **our experience with other fleet operations indicates that lowering overall fleet costs in Florida by 10-percent is not an unreasonable goal.**

The expanded role we recommend will clearly require additional resources. The organization we are recommending is shown in the Exhibit below. Note that most of the additional positions could be either state employees or contractors.

Exhibit 20: Proposed DMS Fleet Organization

Position	Role	FTE
• Administration		
○ Bureau Director	• Full-time fleet manager.	1.0
○ Administrative Assistant	• Full-time admin and budget support.	1.0
• Fleet Asset Management Division		
○ Fleet Engineer	• Supervise division, writes technical specifications for complex equipment, assist agencies with unique equipment needs, review all specifications before any fleet equipment is purchased, develop annual fleet replacement plan, assess success of remarketing approaches.	1.0
○ Fleet Specialist (acquisitions)	• Review acquisition requests for compliance with State policies, write specifications for standard equipment such as cars and light trucks, assist Engineer as required.	2.0
○ Fleet Specialist (remarketing)	• Remarketing strategists, support for live and on-line auctions, transportation coordination, liaison with vendors, post auction	2.0

[8] Most other states we have worked with have even higher ratios of staff to vehicles (partly because they operate fewer vehicles but also because they have adopted a more active approach to centralized fleet management than has Florida.

	administration.	
• Fleet System and Analytics Division		
○ System Administrator	• Supervise division, liaison between software provider and technical staff, expert on system business rules and functions, develops and maintains key performance dashboard, develops annual fleet report.	1.0
○ Fleet Analyst	• Help desk support for agencies and universities, audit data for completeness and assist assigned agencies with training, run reports and analyze data.	3.0
• Fleet Operations Division		
○ Operations Coordinator	• Supervise division, lead analyst for operations functions.	1.0
○ Maintenance Analyst/Contract Administrator	• Administers contracts with maintenance management companies and on-site contractors. Analyzes costs and recommends best value approaches to agencies. Monitors compliance with PM schedules and standards of maintenance. Conducts audits of State and contractor operated shops.	2.0
○ Fuel Analyst/Contract Administrator	• Administers contracts with fuel management company and bulk fuel providers. Analyzes costs and exception reports to ensure compliance with state policies.	1.0
○ Rental Coordinator	• Establishes and administers contracts with equipment rental companies as part of a strategy to ensure the size of the fleet is optimal and to ensure the lowest possible costs.	1.0
○ Motor Pool Coordinator	• Operates a motor pool in Tallahassee as part of a strategy to ensure the size of the fleet is optimal.	2.0
○ POV Analyst	• Analyzes mileage reimbursement program to ensure compliance with state policies and cost-effectiveness.	1.0
Total		**19**

Recommendations

1. *Strengthen Chapter 287, Part II, Means of Transport by obtaining the following changes:*

    a. *Expand definition of "motor vehicle" to include all motor vehicles used for State business. Consider using a more typical definition such as every ground-based asset that has a license plate, and/or has wheels and an engine with 20 horsepower or more, and/or has a purchase cost of $10,000 or more, and/or or requires tracking of periodic maintenance.*

    b. *Broaden DMS authority to encompass all motor-vehicle operations in support of State business, including vehicular travel in State owned, employee owned, daily rental, or leased vehicles.*

    c. *Eliminate the number of miles listed in statute for vehicle assignment. It can be replaced with language indicating that DMS is to determine the mileage assignment point using a break-even analysis.*

    d. *Tighten the language relative to commuting, limiting it to specific conditions and occasional enroute use where it is essential to the delivery of State services. Require DMS to define conditions in fleet policy.*

    e. *Mandate DMS collaboration with user agencies by establishing a State Fleet Council through appropriate modes of communication (e.g., service level agreements meetings, satisfaction surveys).*

2. *Revise other statutes and codes that grant some organizations independent fleet management authority (Chapter 24.105, Chapter 590.02, and Administrative Code 60B-2). At minimum, DMS should be required to include all organizations in its oversight and reporting responsibilities and all organizations should be mandated to use a new commercial-off-the-shelf fleet management information system to standardize data collection and ease reporting.*

3. *Revise Chapter 286, Climate Friendly Public Business, to provide that DMS should include greenhouse gas emissions as one of the factors it uses in determining which vehicles to purchase each year based on a life-cycle cost analysis rather than highest MPG as currently stated.*

4. *Expand DMS' role in providing oversight, analysis, and services to manage the State's fleet.*

5. *Increase DMS' fleet staff resources from the current 6.2 FTEs to 19 so the organization can assume its expanded role.*

FLEET MANAGEMENT INFORMATION SYSTEM

Introduction and Industry Best Practices

In all fleet organizations, a tremendous amount of information is recorded and compiled in the normal course of procuring, operating, and maintaining the vehicles and equipment used in the operation. Prior to 1980, fleet information was kept primarily in a hard-copy format, on documents that were manually recorded, compiled, and filed.

Modern fleet management information systems (FMIS) can extract key data elements by equipment type, user agency, or functional area, and can easily track performance and cost in a number of ways. Key data elements can be instantly compiled, sorted, and summarized to produce information on activities and performance that simply was not available in the past. Real-time access to vehicle repair histories and inventory records enables fleet management organizations to plan, direct, and control service delivery activities with a degree of precision and efficiency never before possible. At the same time, increased levels of accountability and benchmarking against other organizations have all increased pressure on fleet management organizations to develop and use management information to facilitate improvements and demonstrate proficiency in all areas of performance. Information systems that are *specifically designed for fleet management* have become one of the most important tools for delivering fleet management and maintenance services cost effectively. Some of the advantages of implementing such a solution include the following:

- ✓ Dispersed fleet operations work with standardized data definitions, data input fields, and data reports
- ✓ Information can be communicated using industry standard fleet terminology, data fields, performance measures, reports, etc.
- ✓ Statistical history enables comparisons over time (longitudinal statistical reports), and across organizational divisions
- ✓ Managers and supervisors can more speedily identify problems and unearth answers to management questions
- ✓ Query programs enable flexibility for selecting and extracting data and reporting in different formats and from different statistical perspectives

One of the leading trends in the industry is that fleet management organizations are providing their customers with information stored in their information systems through read-only reports that are accessed through secure Internet and Intranet web pages. This reporting capability allows fleet customers to manage their own vehicles and equipment by looking at reports that show utilization, fuel consumption, billing records, and inventory details. Such reports also improve customer relations by providing transparency and a feeling on the part of customers that the fleet organization is ready and willing to provide complete information on fleet operations.

In today's data intense environment it is critical to consolidate vehicle fleet data and have the ability to track and report this information. Utilizing an information system that is designed specifically for fleet management makes this task much easier for fleet managers.

DMS currently uses an internally developed web-based application - the Florida Equipment Electronic Tracking (FLEET) system - to track state fleet inventory information and maintenance activities. This system replaced an older legacy system known as Equipment Management Information System (EMIS) that was also developed in-house.

It is unusual in our experience for a large government to develop a custom fleet management application in-house. In-house development of a fleet system places tremendous pressure on an organization's information technology and fleet business staff to fully understand the fleet industry and then translate this knowledge into a robust fully-functional fleet management information system (FMIS).

While we understand the State had little time and budget to replace EMIS, and was attempting to be financially prudent, we believe the long-term opportunity costs of having limited system functionality, questionable data quality, and limited management tools far exceeds any short-term financial benefit that may have been realized by not procuring a commercially available robust FMIS. Furthermore, we were told that to date, development costs for FLEET are approaching $459,792. This is more than most other states have spent implementing a commercial system and, therefore, it is likely the State has not saved money from its custom-built system approach. A high-level cost comparison will provide context to the internal development costs and is provided later in this section of the report.

In-house development of specialty applications in place of commercially available industry leading solutions does not generally produce the most effective, efficient or cost-effective management solution. While in-house and legacy systems can provide effective data warehousing and reporting platforms, they lack daily work management features and functions needed to properly manage and maintain a complicated fleet operation. In our experience, custom-built in-house software solutions are burdened with hidden support and development costs and require a substantial amount of continual development to keep up with the demands for information that constantly evolve.

The State cannot optimize the cost and performance of its fleet operations without ready access to actionable management information. As demonstrated in the discussion below, it is clear that the FLEET system does not meet Florida's needs in this regard. Moreover, while it is theoretically possible to enhance FLEET so it matches the functionality of commercial systems, it would cost millions of dollars and take years of effort to reach this goal. Consequently, replacing FLEET with a robust purpose built commercial FMIS such as used by other states needs to be one of Florida's key strategic initiatives.

Below we provide a detailed assessment of the FLEET system, provide information on commercial systems, explore related costs, and provide recommendations for the best options for Florida.

Analysis and Findings

As previously noted DMS is responsible for the development, maintenance and operation of an equipment management information system for use by state agencies. State agencies are responsible for accurate and timely data input into the FLEET system. The current system has been in use for approximately 18 months. It was developed in 2011 based on then-current functionality of the legacy mainframe EMIS system, which had also been developed in-house. EMIS was no longer supportable due to its outdated technology and was slated for retirement. Ten years of historical data from EMIS was brought into FLEET during the transition. It was reported that the validity of some data imported from EMIS is questionable. Fuel data and other fleet related costs are also stored in a variety of localized systems and locations.

FLEET is an open source application developed using Ruby on Rails development tools and utilizing a low-cost database management system - MySQL. The FLEET system is centrally hosted in a State managed data center in Tallahassee and includes development, test and production environments. Individual agencies are charged a monthly or quarterly fee for access and support. There are currently 30 agencies utilizing the FLEET system.

There are currently 318 agency level administrators that can add/edit information for their agency including equipment, roles, assign roles, add locations, add organizational codes, etc.; 840 agency data-entry users that can add monthly logs, work orders and PMs for their respective agencies; and there are 81 read only users. Allowing many users to make code changes throughout the organization affects the consistency and quality of the data being collected downstream, and minimizes the effectiveness of any reporting or analysis that can be done at a centralized management level. Furthermore, the system cannot manage operational processes when each agency can dictate what or how data is collected and maintained.

At a minimum, a centralized system administration team must be created to oversee the configuration and data consistency of the enterprise application. FMIS applications are complex systems when they are implemented on the scale required to manage a fleet the size of Florida's. Operations can benefit from support staff that understands critical fleet performance indicators, data structure, and data storage schemas. DMS should establish FMIS System Administrator/Fleet Data Analyst positions responsible for data analysis and extraction, development of management reports and business intelligence to measure performance, and who possess communications skills to present those findings. Furthermore, the System Administrator should provide system users with information, assistance, and training, and serve as the liaison between fleet users; the DMS technical support group, and the FMIS application vendor's support team.

The following types of state owned and leased equipment are required to be tracked in the FLEET system. Agencies are assessed a service charge for each of the required assets (currently $1.75 per item per month).

- Automobiles (e.g., Coupes, Sedans, Hatchbacks, Station Wagons)
- Light Trucks (e.g., Pickups, Chassis-Cabs, Vans, Sport Utility Vehicles)
- Small Vehicle or Equipment, only if:
    - Designed Primarily for Transporting Persons, and,
    - Legal to Operate on Public Roads (i.e., with license plate)
        - (e.g., Motorcycle)
- Large Vehicle (> 1 ton) or Equipment, only if:
    - Designed Primarily for Transporting Persons, and,
    - Legal to Operate on Public Roads (i.e., with license plate)
        - (e.g., Bus, Mini-Bus)
- Watercraft (e.g., Boats over 12 feet in length, Airboats, Personal Watercraft)
- Aircraft (e.g., Airplanes, Helicopters)

The following types of state owned and leased equipment are optional for tracking in the FLEET system. Agencies are not charged for these optional items.[9]

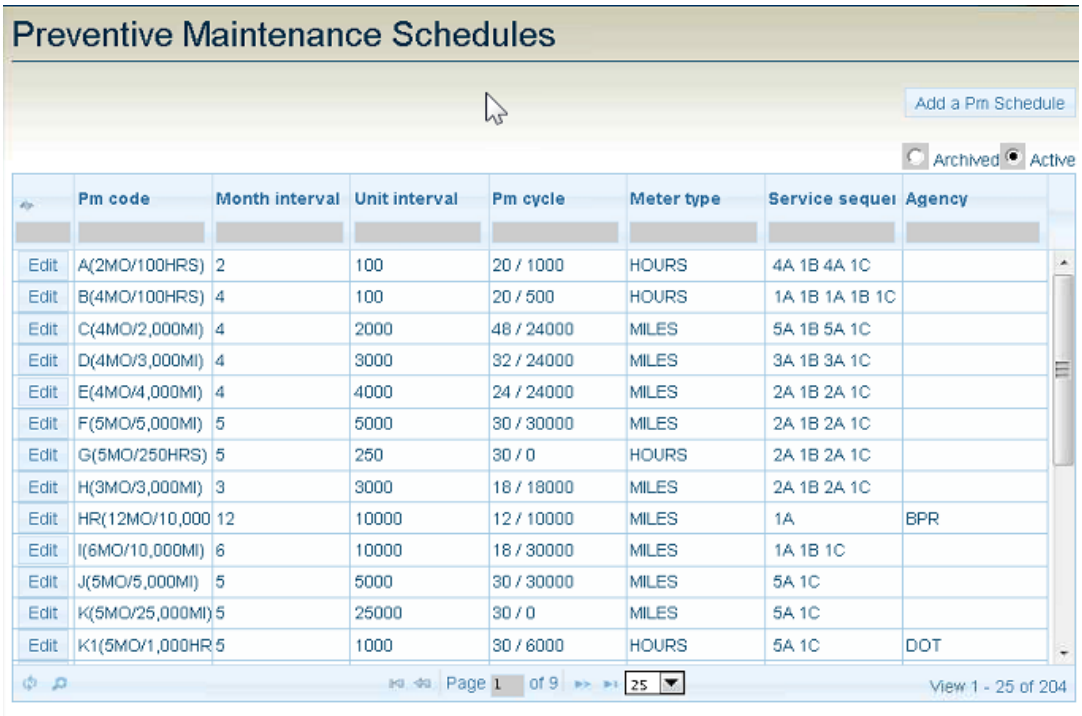
- Medium and Heavy Trucks
- Small Vehicle or Equipment (except as described above)
- Large Vehicle (> 1 ton) or Equipment (except as described above)
- Tractors (to include wheel and track types)
- Heavy Equipment (e.g., Backhoes, Crawlers, Excavators, Loaders, Scrapers)
- Trailers (e.g., Boat, Utility, Cargo, Lowboy, Transport)
- Forklifts
- Other Types of Mobile Equipment (e.g., Plows, Mowers, Message Boards, Generators, Chippers, etc.)
- Marine Engines

Preventative maintenance (PM) and scheduled services can be tracked in FLEET using either accumulated meter (miles/hours) or elapsed time (weeks, months, years etc.) Each agency determines their own PM programs by identifying PM type, PM cycle, PM cycle length, and PM sequence. Individual PMs are assigned an alphanumeric reference. The tasks included in each echelon of PM are the responsibility of the agency to identify and maintain. The system does not include any hierarchical logic to track nested PMs.

[9] Logs must be completed at least yearly for all optional items tracked in FLEET.

Examples of current existing PM structures are listed in the following Figure:

Exhibit 21: FLEET PM Scheduling Module



Preventive Maintenance Schedules

Add a Pm Schedule

Archived Active

	Pm code	Month interval	Unit interval	Pm cycle	Meter type	Service sequei	Agency
Edit	A(2MO/100HRS)	2	100	20 / 1000	HOURS	4A 1B 4A 1C	
Edit	B(4MO/100HRS)	4	100	20 / 500	HOURS	1A 1B 1A 1B 1C	
Edit	C(4MO/2,000MI)	4	2000	48 / 24000	MILES	5A 1B 5A 1C	
Edit	D(4MO/3,000MI)	4	3000	32 / 24000	MILES	3A 1B 3A 1C	
Edit	E(4MO/4,000MI)	4	4000	24 / 24000	MILES	2A 1B 2A 1C	
Edit	F(5MO/5,000MI)	5	5000	30 / 30000	MILES	2A 1B 2A 1C	
Edit	G(5MO/250HRS)	5	250	30 / 0	HOURS	2A 1B 2A 1C	
Edit	H(3MO/3,000MI)	3	3000	18 / 18000	MILES	2A 1B 2A 1C	
Edit	HR(12MO/10,000	12	10000	12 / 10000	MILES	1A	BPR
Edit	I(6MO/10,000MI)	6	10000	18 / 30000	MILES	1A 1B 1C	
Edit	J(5MO/5,000MI)	5	5000	30 / 30000	MILES	5A 1C	
Edit	K(5MO/25,000MI)	5	25000	30 / 0	MILES	5A 1C	
Edit	K1(5MO/1,000HR	5	1000	30 / 6000	HOURS	5A 1C	DOT

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We found the PM parameters and schedules to be overly complex in deployment and daily application, but lacking in basic maintenance management scheduling and reporting capabilities. Furthermore, the system identifies the specific PM due on a vehicle, based on the cycle and cycle length calculated on the previous logged PM Service. However, most times the maintenance organizations rely on the technician or vendor to determine the level of PM that should be completed and ignore results generated from the system.

The system is not capable of capturing the specific PM that was completed and just logs that a PM Service was performed. While agencies can add the PM service in the comments section of the work order, this approach is sub-optimal. For agencies that have shops such as FDOT, the system is capable of capturing specific PM information. However, the logic driving the layers of service (i.e. echelons) that define where a lower level service is nested within a higher level on (e.g. a B service by definition includes an A service) reportedly do not update service intervals properly.

FMIS applications should support multi-tiered (hierarchical) and progressive PM programs to ensure compliance with manufacturer or industry recommendations. The system should allow PMs to be scheduled using the most applicable cycle and cycle length for the vehicle class and deployment and can be based on combinations of accumulated meter, elapsed time, fuel consumption etc. PM Service due dates should be monitored and a forecast automatically published and distributed at least 30 days in

advance. The FMIS should provide capabilities to facilitate automated shop scheduling and loading, and include detailed task checklists and parts required lists.
Vehicle/Driver assignments – Currently the system does not have a driver module that would allow agencies to track vehicle assignments to drivers and the drivers certifications, licenses etc. and the expiration or retesting requirements of each.

Fuel transaction tracking – The system does interface with several fuel systems (WEX, ARI, P-Card) through batch process to provide fuel cost and quantity tracking and calculate a utilization cost for fuel. Most agencies however, manually enter individual fuel details, utilization entries and vendor invoices into the FLEET application.

Work Order system and tracking capabilities – there are generally two types of work orders used to support the maintenance and repair operation in the FLEET system. A "general" work order is used for unscheduled maintenance and repairs. A PM work order is used for costs associated with maintenance activities performed because of the vehicle being taken in for scheduled service based on its PM schedule (i.e. 5 months/5,000 miles, etc.).

A robust work management system incorporates various elements (shop managers portal, shop floor or technicians tools, industry accepted repair coding schemas, etc.), to provide a comprehensive tool for scheduling, assigning and tracking in house and vendor provided labor and parts transactions and is capable of providing detailed reports and analysis by vehicle, agency, class etc. Furthermore, since many agencies employ technicians and service workers, a suitable system must be capable of capturing actual labor hours, job standards and maintaining an industry acceptable maintenance and repair coding structure (ATA/VMRS). The current system does not provide support for these functions.

Other deficiencies noted during review of the FLEET system include:

- No vehicle replacement module
- No depreciation calculation or tracking
- No accident management
- No motor pool management
- Manufacturers or extended warranties not linked to work orders. (no automated notification)

Another important major module absent from FLEET is a parts management and warehousing function. **Currently the State has no effective method for managing automotive replacement and repair parts warehoused at State-owned maintenance facilities**. This frequently results in over stocked parts rooms, missing parts due to lack of accurate tracking, and inability to document the total cost of the parts inventory. Parts are added to work orders in an attempt to capture costs, but there

is little or no historical reporting available to track the frequency of use, warranty coverage, predicative failure rates, or quality of parts used.

Currently, FLEET is capable of producing five standard reports.

- Inventory report by agency.
- Missing Log Report – Identifies when a monthly mileage and fuel report has not been provided from the assigned agency.
- Cost & Utilization Report – Fuel and maintenance costs per period with utilization (e.g., cost per mile, etc.) analysis.
- Delinquent PM Report – List of PMs that are past due.
- Scheduled or Due PM Report – List of PMs that are due or scheduled.

There are no ad-hoc reporting capabilities and the existing reports cannot be modified. The reports (lists) can be filtered only by location and are then exported to MS Excel. This is not considered a reporting engine and does not provide formatting, analysis or management reporting capabilities but is in actuality a list of specific data that can then be further manipulated or analyzed using external tools (MS Excel, etc.)

There is no dashboard functionality, management trend analysis or performance indicator comparisons available in the current system.

Commercial Off-the-Shelf (COTS) Systems.

COTS solutions are commercially available FMIS applications developed to manage a wide variety of fleet operations from small fleets of several hundred units to large, diverse operations with tens of thousands of fleet assets. These systems can include specialized stand-alone management tools, such as motor pool dispatch and reservation software modules, telematics, and GPS-based systems, fuel management systems (FMS) as well as fully integrated enterprise-level software programs.

Typical strengths and features of desirable FMIS, (including nearly all of the “fleet-specific” applications), include these attributes:

- Web-based technology resulting in lower support costs with wider user accessibility.
- Complete life cycle management for vehicles, equipment, parts, and work orders.
- Comprehensive transactional details captured in sensible business driven processes.
- Ease of integration and interfacing with third party applications.
- Intuitive graphical user interface and consistent user experience throughout.
- Modern database and operating system compatibility increases security and data integrity.

- Code-based data capture provides consistent, reportable information and efficient grouping of details for reporting and analysis.
- Industry standard reports and ad hoc reporting engines allow effective data analysis for a wide user audience.
- Easy distribution of management information to enterprise customers through standard reports and dashboard tools.
- Efficient maintenance and shop operation management modules.
- Fully capable integrated parts management capabilities.
- Tight integration with fuel management, motor pool, telematics, and other third-party fleet specialty management modules.
- Flexibility and scalability to accommodate future technology and business process evolution and growth.

FMIS applications range from solutions that feature near-turnkey functionality, to robust fully configurable systems that feature moderate to fully customizable database, screens, and functional elements and objects. These systems generally fall into two broad categories – customizable (requires a level of screen design, function development and configuration) and out-of-the-box (OOB; characterized by a more rigid user interface and includes user-defined business rules built into the core application).

System configuration, design, and follow-on administration is typically more complex for the customizable systems involving process definition and screen design compatibility, functional specifications and development, user security and permissions and integration of components within the application. OOB systems generally involve setting up pre-defined switches and options, code tables and user roles and security, since these systems often already include predefined processes and procedural functions. The leading systems accommodate nearly all information management needs, are aligned with best practice processes, include standard reports and analysis tools, all wrapped in fully integrated applications. The Exhibit below shows several differences between the OOB turnkey systems and the customizable systems.

Exhibit 22: OOB Turnkey Systems VS Customizable Systems

OOB	Customizable
• Application business rules are built in to dictate how data is managed, processed, and validated. • Standard designed screens, modules, and functions allow best practice fleet processes to occur. • Include a set number of common asset schemas and data attribute listings. • Generally more rigid in data capture and work flow processing management.	• Business rules must be incorporated into the system customization or configuration. • Generally require a higher level of systems knowledge to configure and develop screens, functions and processes. • Typically allows flexible data capture and nearly unlimited attribute tracking. • Allow options to accommodate non-standard business processes or alternate procedures.

There are several considerations for COTS Applications that must be kept in mind, as listed below:

- **Initial Cost** – Systems are available as hosted software-as-a-service (SAAS) and as internally hosted applications. Costs are typically based on a per-unit or per-asset fee.
- **Ongoing Cost** – Continuing costs for systems includes software and hardware maintenance and support, which is usually calculated at twenty percent of total software licensing and any provided customization.
- **Ability to Meet Requirements** – COTS systems are fully capable of providing comprehensive fleet management functionality meeting all current needs and requirements for asset, maintenance, and inventory stock management.
- **Ease of Acquisition** – Usually a competitive Request for Proposal (RFP) and selection process would be required to define and procure these systems. Selection and implementation processes could take two years or more and the system could be introduced to the organization in phases.
- **Training and Support** – On-site, process-based classroom training is typical and is usually provided in several stages. Fleet management and administrator training, key users, users, and go-live sessions are common. Complete user guides and on-line help are available.
- **Other** – Systems generally keep pace with industry best practice and typically develop features and functions based on user request. Because there is a relatively large and educated user base for most of these systems, the software continues to evolve to meet those needs.

Management Analysis and Reporting

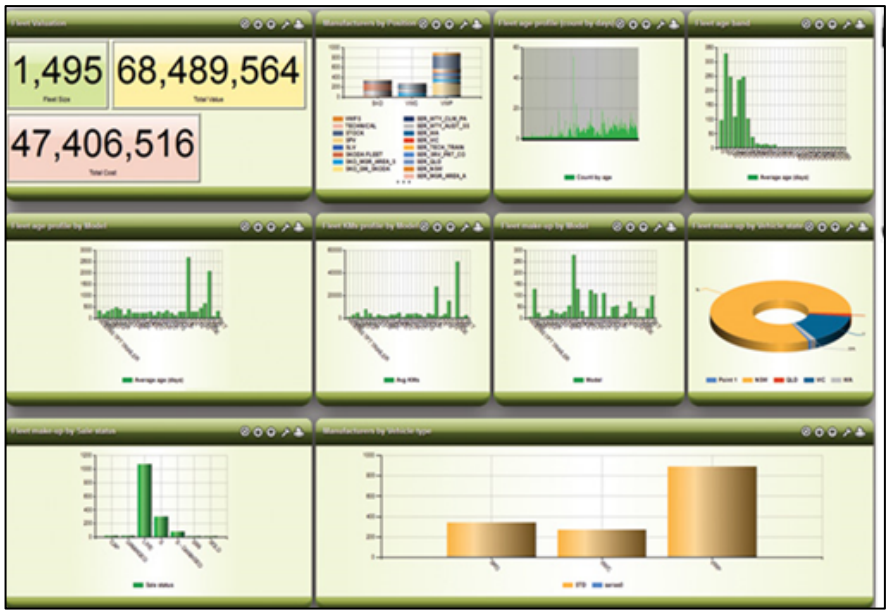
The best fleet system available is, of course, of limited use unless it supports analysis of data and production of management reports. Ready access to these features should be at the top of the list when a fleet organization is contemplating purchasing a FMIS. Data collected through daily operations is used to analyze the effectiveness and efficiency of the organization and provides a snapshot of trends and real-time activities used to make management decisions based on actual operational information.

It is also important that the FMIS provide read-only reports that are accessed through secure Internet and Intranet web pages. This allows fleet customers to participate in managing their vehicles by looking at reports that show utilization, fuel consumption, billing records, and inventory details. Such reports also improve customer relations by providing transparency and a feeling on the part of customers that the fleet organization is ready and willing to provide complete information on fleet operations.

Making reports and key performance indicators available online to demonstrate service level statistics and performance ratings is an efficient method of 'advertising' the fleet's benefits to its customers. Additionally, providing a current snapshot of operations (e.g., work in progress, vehicle history, and completed work) allows customers to monitor the readiness of their vehicles without having to contact the fleet agency for a status.

Leading FMIS systems typically include dashboards including key performance indicator meters, charts and graphs and user defined lists and tables to display a snapshot of operations and statuses. These are usually deployed based on user roles, user accounts, or other groupings. The dashboard can provide a snapshot of current operational activities and indicators allowing ease of localized and centralized review.

Exhibit 23: Example FMIS Dashboard



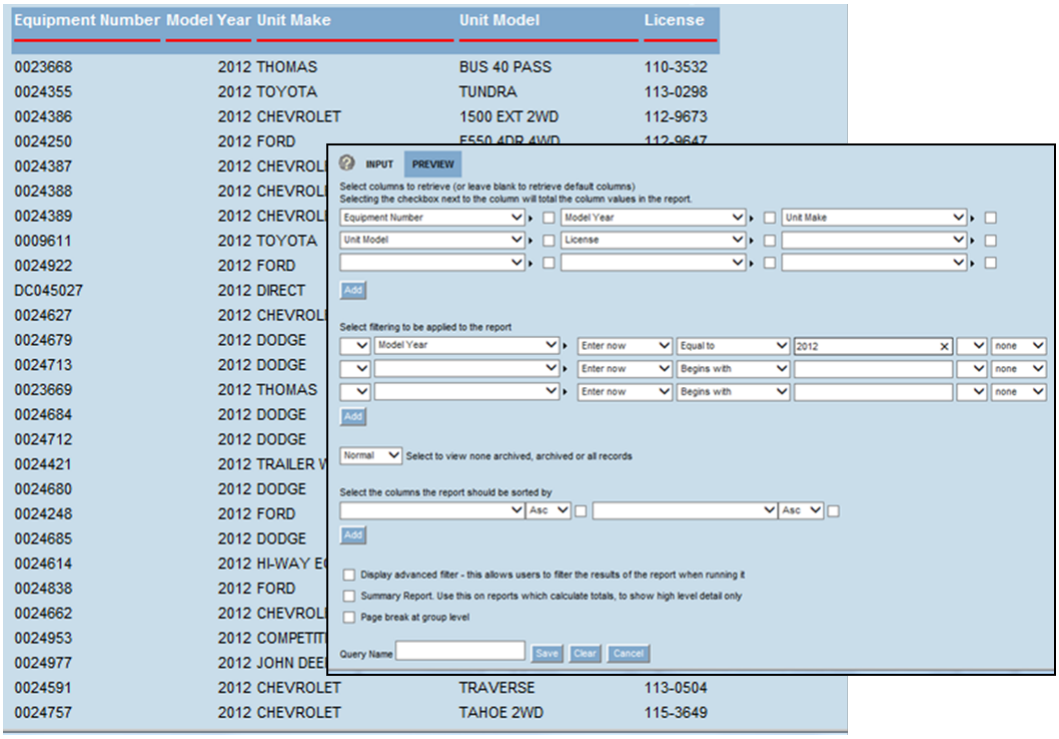
Key Performance Indicators (KPIs) are used to evaluate, measure, and assess the operational effectiveness of the organization. Trending tools made available to non-FMIS users and customers enable them to review operating cost, vehicle status, mission readiness and other key fleet information. Some typical management metrics routinely evaluated in effective fleet operations are illustrated in the Exhibit below.

Exhibit 24: Fleet Performance Indicators and Metrics

Performance Measure	Description	Target
Fleet Availability Rate	The degree to which the fleet service provider is able to ensure the regular availability of fleet units to their user agencies. Availability rates should be highest for mission critical fleet units.	95%
PM Program Compliance	Measures the number of PM's performed on the date scheduled. A low compliance rate indicates that PM's are not being performed regularly. A high PM compliance rate is a basic building block for an effective maintenance and repair program.	95% on-time
Scheduled Repair Rate	Measures the portion of all repairs identified and conducted in a controlled, planned manner. The combined purpose of the PM program, operator inspections, and service writing is to identify and take care of problems in a planned, scheduled manner so they do not result in unscheduled and costly breakdowns.	50 to 66%
Road Call/Tow Rate	Measures the percentage of all repairs conducted on broken-down or towed vehicles that cannot be driven to the shop. In combination with scheduled service rate, it provides an indication of PM program effectiveness.	2%
Comeback Rate	Measures the percentage of time a customer returns a vehicle or piece of equipment back to the shop for the same problem within a specified period of time. It is a measure of service quality that reflects the accuracy of service writing and diagnostic activities as well as repair quality.	1%

FMIS applications also feature comprehensive, integrated reporting functionality allowing users to easily access, sort, query and report on data element captured within the system. Using the integrated query tools, or report builders, users can easily create and save complex queries or reports against any table using simple and intuitive tools. Individual queries are usually saved against a user's profile and can be opened and modified later. Furthermore, queries or KPIs centrally created and deployed to remote system users usually presents only the data that the user is authorized to view.

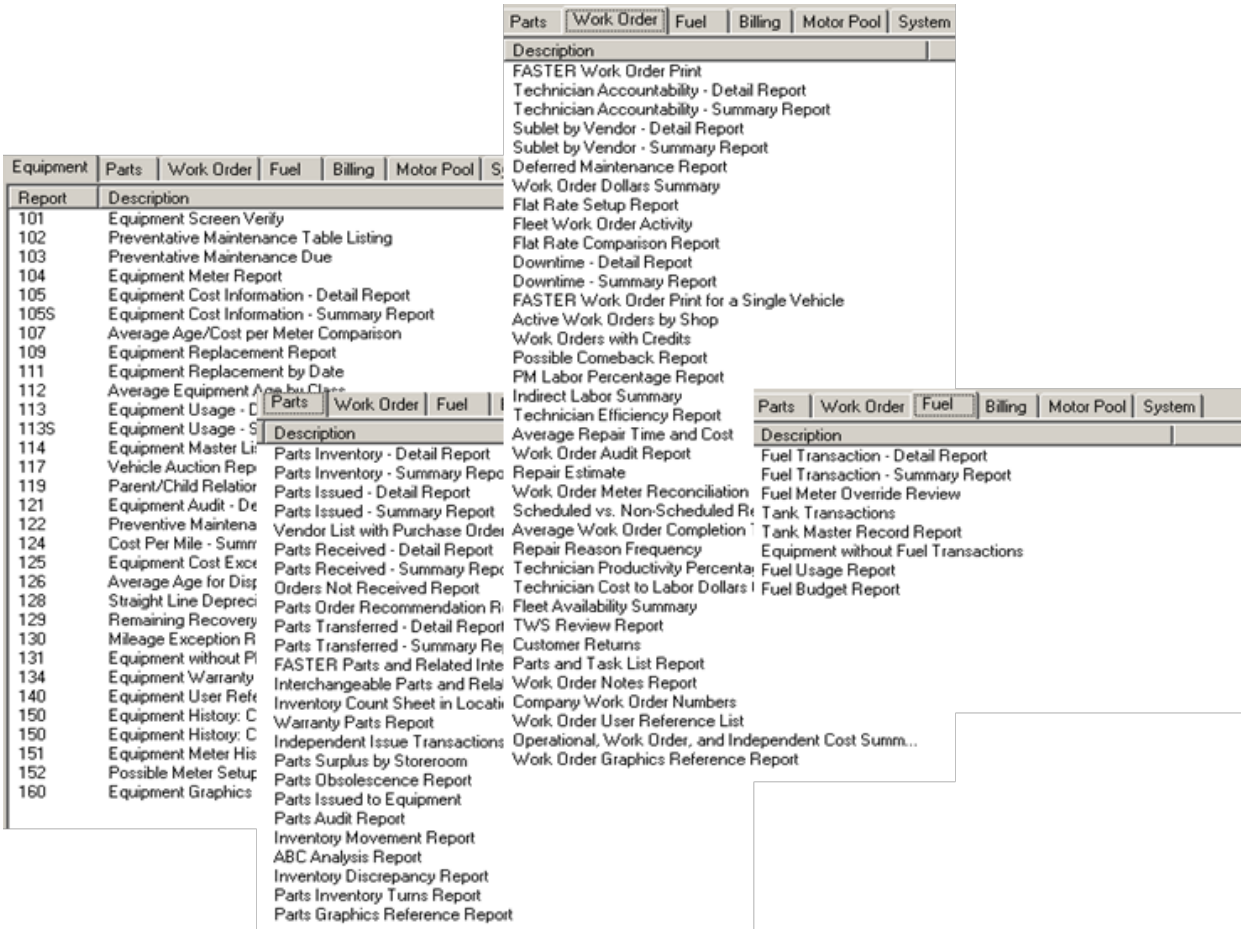
Exhibit 25: Ad Hoc Query Tool and Sample Report



Robust sets of standard management reports are provided as part of the core FMIS applications. These reports are useful to provide the background details for the KPIs discussed above, supply additional performance analysis, present business intelligence findings and supply the basis for management decisions.

Reporting engines used are typically based on Crystal Reports, SQL Server Reporting Services, or internally developed reporting solutions that include tools to provide ad hoc, on demand and web-distributed reporting solutions. The reporting tools generally allow easy modification and customizing of the standard provided reports and enables creation and distribution of new user-developed reports.

Exhibit 26: Examples of Management Reports Included in COTS FMIS



Costs

The software industry has traditionally based its license fees on two metrics:

1. The number of system users.
2. The number of active assets in the system inventory.

With the advent of Web-based applications, vendor pricing for software licensing has shifted more towards solely using the metric of active asset count. This is largely attributable to their customers (i.e., fleet management organizations) wanting to provide access to parts of the system to their customers (i.e., drivers and internal agencies and divisions) to participate in the management of fleet assets.

Project implementation services are critical to the success of the FMIS project and to securing a positive return on investment. Unfortunately, implementation considerations are often based on the scope of work defined by the organization purchasing the software, which is typically very weak. In fact, in many cases the organization will leave it up to the software vendor to determine an appropriate level of implementation services and budget to implement their software. Many times, the software vendor may propose a minimal level of implementation services – again to keep the total project price competitive.

We have provided representative pricing for licensing, implementation services and software maintenance and support fees for an internally hosted solution below. There are also estimates for annual application hosting fees in addition to the licensing and implementation services, should DMS determine that a hosted solution is more advantageous to procure. The hosting fees do not include FMIS licensing amortization, but do include system and database administration, backup, and support.

The examples are based on COTS systems licensed for managing up to a 28,000-unit fleet with multiple maintenance repair facilities, motor pool operations and includes vendor pricing for software license fees and basic implementation services. The costs in the following Exhibit are provided as budgetary planning numbers only and should not be considered actual price quotations or proposed solutions when selecting a FMIS provider. Implementation services includes asset and historical data conversion and migration; system installation, setup and configuration; administrator, key user and train-the- trainer user training.

Exhibit 27: Sample FMIS Costs

System	Implementation Services	Software License	Annual Support	Ongoing Subscription [10]	Hosting Contract
System 1 – Semi Customizable (OOB)	$902,490	$523,190	$109,870		$126,000[11]
System 2 – Fully Customizable	$279,000	$280,000	$56,000		$134,000
Current FLEET System	UNK	$727,500[12]	$138,000[13]	$378,000	$42,000[14]

The following cost estimate is for server hardware, SQL Server and Windows Server operating system software, data storage and load distribution appliances for DMS to internally host an enterprise Web-based FMIS. The single source infrastructure estimates include database and application servers with internal RAID configured hard disk storage for both data and application server protection. The redundant infrastructure includes clustered database servers, mirrored application servers, internal RAID configured hard disk storage for O/S and control redundancy, external SAN device storage with fiber channel connectivity for data management and hardware controlled load balancing and failover protection.

[10] Accumulated annualized per-vehicle charges invoiced to individual agencies.
[11] Annual hosting fee includes all server hardware, operating system and SQL server licensing, hosting center network and DBA support for unlimited users.
[12] Estimated software development costs to date.
[13] 1.5 FTE support technicians.
[14] Database hosting and DBA support paid to Southwood Shared Resource Center (SSRC)

Exhibit 28: Infrastructure Cost Estimates

Type	Component	Description	Unit Price	REDUNDANT INFRASTRUCTURE		SINGLE SOURCE STAND-ALONE ENVIRONMENT	
				Quantity	Ext Price	Quantity	Ext Price
Software	Database Server	Microsoft SQL Server 2012 Enter. Core License (2)	$ 12,997	4	$ 51,988	2	$ 25,994
Hardware	Database Server	Dell PowerEdge R620, 2 x Intel Xeon E5-5690 (8 cores), 768 Gb RAM, 6x146 HD	$ 33,312	2	$ 66,624	-	
Hardware	Database Server	Dell PowerEdge R620, 2 x Intel Xeon E5-5690 (8 cores), 768 Gb RAM, 12x146 HD	$ 43,312	-		1	$ 43,312
Software	OS	Microsoft Windows Server 2012 Standard Edition (2 CPU)	$ 790	4	$ 3,161	2	$ 1,580
Network	Fiber Switch	Cisco MDS 9148 Multilayer Fiber Switch 16 x 8GB per channel	$ 6,195	1	$ 6,195	-	
Network	Fiber Cables	SFP+ to SFP+, 10GbE, Copper Twinax Direct Attach Cable	$ 120	10	$ 1,200	-	
Hardware	Application Server	Dell PowerEdge R320, 2 x Intel Xeon E5-2470 (8 Cores), 192 Gb RAM, 4 x 300 GB HD	$ 11,931	2	$ 23,863	1	$ 11,931
Hardware	SAN	Dell PowerVault MD3600f SAN, 8G Fibre Ch, 2U-12 drive, Dual 4G Cache Controller, 12 x 600GB 15K RPM Self-Enc SAS 6Gbps 3.5in Hot-plug HD,FIPS140-2	$ 31,214	1	$ 31,214	-	
Hardware	Load Balancer	Barracuda Load Balancer 340	$ 3,632	1	$ 3,632	-	
					$ 187,877		$ 82,818

Hosted Versus Internal Deployments[15]

In addition to application choices, deployment methods or system architecture can also affect user access and information disbursement. The primary system architectures are client/server, web based, and hosted applications[16]. Overall, Web-based and hosted solutions benefit deployments with remote or satellite locations, operations with high user counts and mobile or remotely connected users. Web based and hosted applications typically require less administration and management of the application and updates and patches are easily applied since the application resides on single or clustered web servers. In addition to basic application access, some hosting solutions provide a reduced cost over purchasing licensing, offer additional system administration or data analysis services. Most all current client/server architecture systems include web-enabled modules that allow on-line work requests, work order status reviews and other limited functionality typically for access by non-fleet customers.

Hosted systems include the data processing platform on which software applications run and provide associated support services on a subscription basis. Hosted solutions allow organizations to use limited resources to produce and use information without having to maintain systems, thus increasing the return on investment on information technology expenditures.

Organizations select hosted solutions to:

- Take advantage of state-of-the art management information systems that they otherwise might not be able to afford.
- Avoid large up-front hardware and software costs.
- Obtain better service.
- Leverage core competencies and focus on their core mission.
- Maintain autonomy.
- Improve access to and the distribution of management information.

[15] Monthly application hosting fees range from $.75 to $4.00+ per asset per month depending on the number of users, amortization options and technical requirements.

[16] Hosted applications can be client/server or Web based applications.

The following illustrates some of the benefits of acquiring a hosted solution:

Affordability

- No local server platform required
- Minimal IT agency assistance required
- Minimal workstation infrastructure required
- No software license fees
- Simpler implementation process
- Predictable FMIS costs

Speed

- Platform already in place
- No waiting for server hardware or software to be purchased, installed, configured, or tested
- Software modifications, bug fixes, new releases installed immediately and seamlessly
- System response time exceeds that of many local platforms

Accessibility

- Hosted solutions are available anywhere, everywhere and anytime an Internet connection is available
- At work, at home, on the road
- Via PC
- Via Winterm
- Via Tablet PC

Security

- Multiple layers of data encryption
- Complete database backup and disaster recovery procedures
- Anti-virus protection
- Closed-loop broadband connections available
- VLAN available

Support

- All OS, DB, and application software updates
- Security patches
- Anti-virus definition updates
- Network performance tuning and troubleshooting
- Help desk and on-line tools

- Dedicated fleet management support professionals

Cost, while an important consideration, should not be the primary factor in determining the optimal solution to correct the current lack of management information. The long-term costs to the organization in not having the data to properly manage the fleet will far outweigh the initial software and implementation costs. Additionally, a poorly configured system will inflict a much higher resource cost to capture, retrieve and analyze data than a properly developed integrated solution. Furthermore, procurement and implementation of a COTS solution provides support assistance from fleet industry professionals versed in supporting both FMIS application and fleet management organization daily operations.

Because of the current organizational structure of the DMS Fleet operation, the FMIS application must be capable of providing combined access but separately secure environments. Management should be able to access consolidated details about the entire statewide fleet while providing layers of security to allow segregation of operational functions that are specific to individual groups. Examples of this consolidated but separate configuration would include:

- Capability to view utilization trends for the entire fleet
- Maintenance shops prevented from creating or adding to work orders against vehicles assigned to other maintenance locations
- Ability for storekeepers to view and request stock available in other state storerooms without the ability to issue stock from other locations.

Conclusion

The State suffers from a lack of useable management information on fleet operations. In the current environment important decisions regarding fleet size, cost of services, outsourcing, performance levels, etc. cannot be made based on analyses of key data and metrics. This situation hamstrings the State's efforts to manage its fleet and unquestionably costs the State millions of dollars each year – both in real terms as the State overpays for goods and services that cannot currently be monitored effectively and in opportunity costs for functions that could be better managed.

The FLEET system is an inadequate tool that does not support effective fleet management. The State needs to replace its current system with a robust COTS system. Several COTS systems are available that will meet the State's needs. Furthermore, systems contain optional features, add-ons, and interface possibilities to increase the future flexibility of the applications and the likelihood of satisfying future process growth within DMS.

The general native functions and management capabilities of the Tier 1 FMIS applications are quite similar, and most feature a robust level of fully integrated management tools. The differentiating factors between the available applications usually follow optional functionality or available add-on modules, availability of customization, and user defined capabilities of the applications.

Regardless of pricing level, any considered FMIS solution should offer fully integrated fleet management capabilities with the same basic data capture flexibility, real time information access, ad hoc reporting capabilities, key performance indicators, work management and scheduling, notification functions, trend and cost analysis, and also feature distributable information.

Even though an automated, integrated system is crucial to proper fleet management, a system should not 'drive' the operational practices of an organization. Capturing data just for the sake of data capture is generally a time consuming and futile effort with resources that could be allocated more effectively. Capturing the right data with the proper processes to provide meaningful and accurate information is the key to effectively utilizing a fully functioned FMIS.

Defining needs and system requirements, followed by selection and subsequent configuration of a new system should be determined through a review and identification of system capabilities to meet optimized business processes. An example of a functionality matrix that should be used to ensure system compatibility is shown below.

Exhibit 29: FMIS Functional Matrix Example

Functional Features	Yes	Add On	Under Dev.	Mod	Custom	No
GENERAL APPLICATION ATTRIBUTES						
System supports maintenance activities on a variety of equipment including: fleet equipment, specialty items including specialty maintenance and other medium use equipment and non-rolling stock, auxiliary engines, electronic and communications devices, facilities and plant equipment.						
System provides key functional management of equipment, long term leasing, reservation and dispatch for short term rentals, in house and external parts, comprehensive charge calculation with intra and inter agency billing, vendor invoice processing and payment validation						
Auxiliary items, such as compressors, generators, or aerial equipment, can be tracked by vehicle, facility, or agency.						
Basic system design conforms to the ATA/VMRS standards.						
System minimizes the use of paper data collection forms.						
System provides for bar code input for vehicle inspections						

and receiving, labor and parts issues, returns and receipts. Labor collection is coded with a user defined system/component/part coding schema that follows the ATA/VMRS schema (American Trucking Association - Vehicle Maintenance Reporting Standards). System is oriented to providing pertinent information, when needed, upon direct request of user, rather than relying on large regular output reports that must then be organized and kept for later reference. Information can be organized and defined to easily support information retrieval and reporting. System supports the provision of maintenance service for a variety of customers. System accumulates costs, generates invoices and provides detailed and summary billing information for a variety of customers and multi functioned billing scenarios. Application allows system administrators to alter menus, screen appearance (define and highlight required fields in color, re-label and re-purpose fields) and edit field- and tab-level security on-screen. **MAINTENANCE WORKFLOW MANAGEMENT** System allows user to update an open work order at any time. System assigns work order numbers during work order creation. When the Unit Number is entered, the System displays, Projected Unit replacement year and month, next PM due and date due, Emission inspection and License due dates, Deferred Maintenance indicator, Warranty available System allows initial work order data to be described, entered and scheduled directly without need for using paper forms. System allows user to directly create, and then print a work order. System allows work orders to be cloned in order to ease data entry of similar multiple work orders. System allows user to create a work order with multiple						

sequential work steps. System provides parts, tasks, instructions and estimated repair costs on a work order. When user is adding parts required on work order, system allows user to see parts availability and to reserve parts from inventory. System allows user to quickly display unit's current work order status using user defined status codes. System allows user to identify and view all work orders with a given status.						

Interfacing and integration strategies should be an important consideration during the requirements definition phase and should include a functional review of interface requirements to the finance and purchasing system, bulk and retail fuel imports, GPS or other technology integrations.

Recommendations

6. *Replace the existing FLEET application with a more robust, fully featured and user friendly, intuitive COTS application that allows easy distribution of information to all fleet users, customers and management in a real-time environment.*
7. *Conduct a needs and requirements assessment leading to the procurement of an integrated COTS FMIS solution.*
8. *Perform a benefits analysis comparing in-house VS hosted solutions for the COTS FMIS application.*
9. *Create an FMIS system administration/fleet data analyst team to provide application support and training, conduct performance, trend analysis and business intelligence reporting.*
10. *Develop management reporting requirements and ensure business processes and data capture procedures directly support the reporting model.*

FLEET REPLACEMENT AND FINANCING

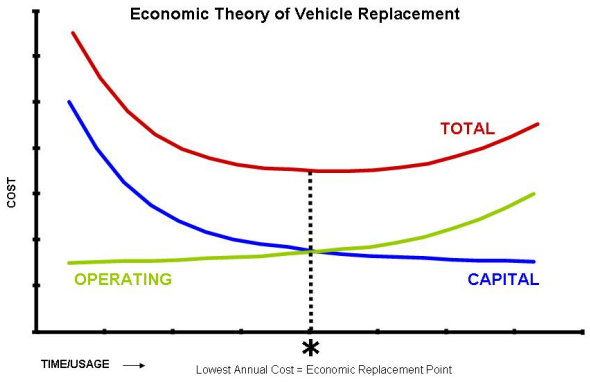
Introduction and Industry Best Practices

In this section of the report we provide our analysis and recommendations relative to the State's fleet replacement program. In our view, the advanced age of the State's fleet and the absence of a consistent approach to planning for the replacement of vehicles is the most pressing fleet management related problem facing Florida.

This section begins with a conceptual discussion of the major elements of an effective fleet replacement program. This discussion lays out the "philosophical" framework our project team used in approaching the review and evaluation of the current fleet replacement program.

An effective fleet replacement program has five key components:

1. Empirically validated vehicle *replacement cycle guidelines* that identify when specific types of fleet assets generally should be replaced so as to minimize their life cycle costs (i.e., total cost of ownership).
2. A long-term fleet *replacement plan* that pinpoints anticipated replacement dates and costs of individual assets based on the application of recommended replacement cycles and quantifies year-to-year, fleet-wide replacement costs and future variations therein.
3. A *capital financing* approach that facilitates securing sufficient funds each year to acquire replacement vehicles in accordance with the established and continuously updated replacement plan by making such funding requirements smooth, predictable, and, to the fullest extent possible, invulnerable to competition from other capital funding requests.
4. A short-term *replacement prioritization and earmarking process* for designating specific vehicles and pieces of equipment to be replaced in the coming fiscal year.
5. A *budgeting and funding* process that enables fleet user organizations to secure the amount of funds needed each year to execute the replacement plan based on the selected financing approach.



In component 1 above (replacement cycle guidelines), the empirical validation used by best practice organizations is based on the economic theory of vehicle replacement illustrated graphically in figure at left. As a vehicle ages, its capital cost diminishes and its operating costs increase. The combination of these two costs produces a U-shaped total cost curve. Ideally, a vehicle or piece of equipment should be replaced around the time the rise in annual operating costs begin to outweigh the decline in annual capital costs – that is, when the two cost curves intersect and the total cost curve begins to turn upward.

The total cost curve is different for every type of vehicle and, indeed, for every individual vehicle of a given type. This variability is caused by differences in the design and engineering of different types of vehicles, in operating environments, in the quality of care vehicles receive, and a variety of other factors. In recognition of this fact, most

organizations develop *recommended* replacement cycles for a class or type of vehicles, which will approximate the optimal replacement cycle for most of the units in that particular class. Historically this was most often accomplished in an informal manner based on discussions with mechanics and drivers, and a comparison of replacement cycles with peer organizations.

Best practice fleet organizations identify these cycles empirically using life cycle cost analysis (LCA) techniques. This approach involves modeling the stream of costs associated with acquiring, operating, and disposing of a particular type of vehicle or piece of equipment over various life cycles (i.e., possible replacement cycles) so as to identify the cycle that will result in the lowest total cost of ownership.

To determine the minimum cost cycle, the equivalent annual cost (EAC) of each cycle is computed and compared. The EAC of a vehicle is a uniform dollar amount the sum of whose payments for a given period of time is equivalent to the net present value costs of that asset over the same period of time. It is a useful metric for comparing the costs of alternative replacement cycles (i.e., streams of future costs of different durations) for an asset in order to determine which cycle results in the lowest cost.

The Exhibit below depicts the results of an LCA for a pickup truck in a government fleet. The results indicate that the optimal replacement cycle is 6 years.

Exhibit 30: Example Optimal Replacement Cycle Analysis Results

Years	1	2	3	4	5	6	7	8	14
Odometer at Replacement	8,595	17,190	25,785	34,380	42,975	51,570	60,165	68,760	120,330
CAPITAL COST									
Residual Value	$10,200	$ 8,306	$6,849	$ 5,683	$ 4,663	$ 3,789	$ 3,060	$ 2,477	$ 437
Annual Depreciation	$ 4,371	$ 1,894	$1,457	$ 1,166	$ 1,020	$ 874	$ 729	$ 583	$ 146
OPERATING COSTS									
Annual M&R Cost	$ 152	$ 326	$ 516	$ 720	$ 939	$ 1,172	$ 1,421	$ 1,686	$ 3,636
Annual Fuel Cost	$ 651	$ 678	$ 705	$ 733	$ 763	$ 794	$ 826	$ 859	$ 1,089
Total Ann Operating Cost	$ 803	$ 1,004	$ 1,220	$1,453	$ 1,701	$ 1,966	$ 2,247	$ 2,544	$ 4,725
TOTAL COSTS									
Total Annual Capital and Operating Cost	$ 5,175	$ 2,898	$ 2,678	$ 2,619	$ 2,721	$ 2,840	$ 2,975	$ 3,127	$ 4,871
Cumulative Total Cost	$ 5,175	$ 8,073	$10,750	$13,369	$16,091	$18,931	$21,906	$25,033	$ 49,626
NPV of Cum. Total Cost	$ 4,882	$ 7,616	$10,142	$12,612	$15,180	$17,859	$20,666	$23,616	$ 46,817
EQUIVALENT ANNUAL COST									
	$ 5,028	$ 3,980	$ 3,585	$ 3,393	$ 3,315	**$ 3,297**	$ 3,317	$ 3,364	$ 4,145

What is most important about an LCA approach is that is moves replacement cycle decision making to an objective, data-centered model. In our experience even the best-educated or well-intentioned individuals in an organization may believe cost savings or avoidance opportunities exist where they do not, in fact, exist. Further bias against a particular approach may lead a decision maker to recommend a more costly one. For example, vehicle maintenance supervisors are aware of the impact replacement cycles have on their garage staff. Changing cycles in a way that would significantly decrease the amount of maintenance work required may color the way they view such options. In

the absence of hard data, it is not difficult to make almost any approach *sound* more cost effective. However the answer to the question "Are there objective data that support the replacement cycles used?" is most often no.

Life cycle cost analyses such as the one shown above are valuable for examining the "hard" capital and operating costs associated with alternative replacement cycles for a given type of vehicle. It is important to note, however, that there often are other costs, some more easily measured than others, which are also impacted by an organization's replacement cycle decisions. These include items such as:

- Increasing vehicle downtime and its impact on fleet size
- Service disruptions
- Reduced employee productivity
- Reduced employee safety
- Reduced public safety
- Increased greenhouse gas emissions

Decision makers who assume that cutting replacement purchases is a good way to help balance the budget need to understand that such cuts may not only *transfer* fleet costs from the capital to the operating side of the general ledger, but may also actually increase the total cost of the fleet. Regardless of its net effect on current fleet costs, the deferral of replacement purchases on a regular basis unquestionably leads to an older fleet with significant downtime at best, and at worst the inability to provide services due to unreliable transportation. **Delaying replacement increases future replacement spending needs, often resulting in growing and increasingly unmanageable fleet replacement backlogs.**

Component 2 from the above list of effective fleet replacement program components calls for a long-term fleet *replacement plan* that projects future vehicle replacement dates and purchase costs associated with the use of a stated set of replacement cycles. It quantifies year-to-year, fleet-wide replacement costs and future variations therein, allowing for effective long-term planning and budgeting.

A key benefit of a long-term replacement plan is its ability to help fleet managers educate decision makers as to the magnitude of fleet replacement costs and the inherent lumpiness (i.e. annual variations from peaks to valleys) of such costs over time. It specifically helps fleet management organizations and their customers address two misconceptions held by many nonprofessionals that often are major factors behind an organization's failure to devote enough funds to fleet replacement, which is the primary impediment to, in turn, replacing vehicles and equipment in a timely manner.

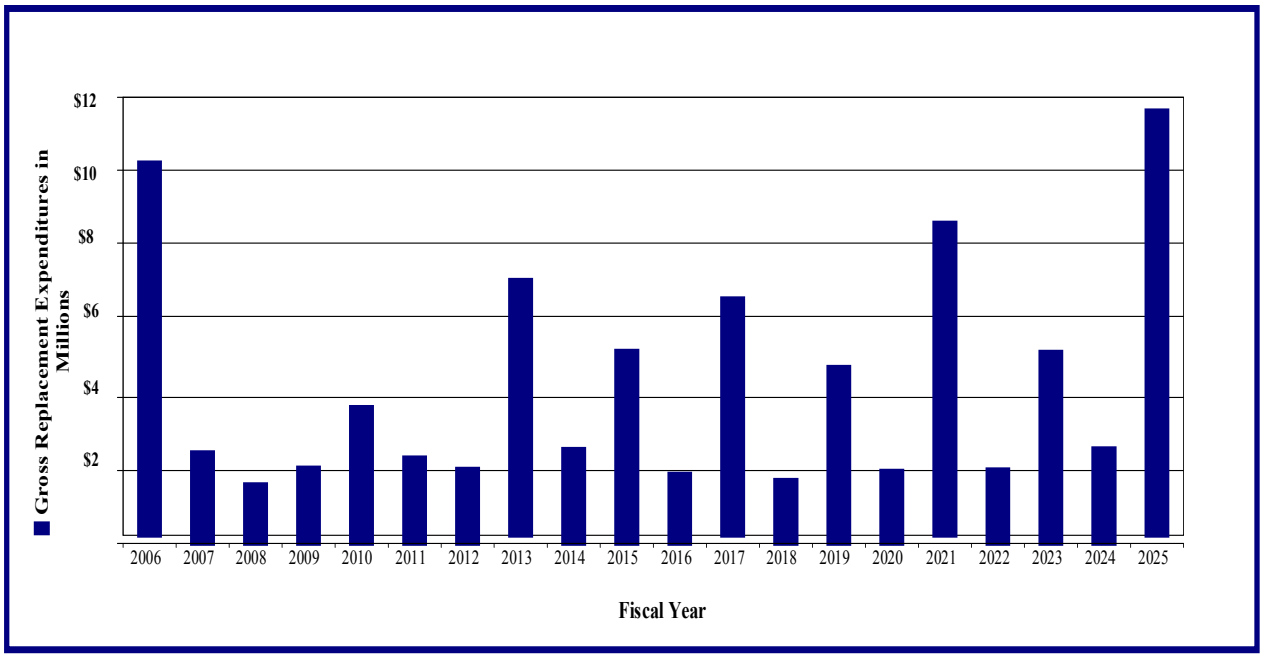
One of these misconceptions is the belief that fleet replacement costs are quasi discretionary and that there is no compelling reason to fill 100 percent of the requests for fleet replacement funds that line organizations make each year. The other is the

belief that it is not necessary to vary to any significant degree the amount of funds devoted to fleet replacement spending from year to year.

A good fleet replacement planning process not only quantifies the costs of replacing the fleet over the long term so that management and budget decision makers can see that this is a significant, recurring cost of doing business. It also illustrates the consequences of underfunding replacement expenditures by translating spending shortfalls into future spikes in, and backlogs of, replacement spending needs.

Components 3 and 5 on our list of essential elements of an effective replacement program pertain to the manner in which an organization finances fleet replacement (i.e., vehicle and equipment acquisition) costs. The best fleet replacement plans are of no value without the annual funding required to implement them. As an example, the exhibit below shows the annual replacement costs over a period of 20 years of a government fleet of about 600 vehicles and pieces of equipment.

Exhibit 31: Sample Fleet Annual Replacement Plan Acquisition Costs



As can be seen, year-to-year fleet replacement spending requirements are quite volatile with peaks and valleys of varying magnitude occurring routinely throughout the 20-year period. The first year is very high, reflecting a backlog of vehicles requiring replacement. Note that projected replacement costs in 2013 are over three times more than those in 2008. This unevenness is common in virtually all mixed-vocational fleets.

Component 4 from the list of effective fleet replacement program requirements indicates the need for a short-term *replacement prioritization and earmarking process* for designating specific vehicles and pieces of equipment to be replaced in the coming

fiscal year. This process takes us from the data-driven model of a long-term fleet replacement plan, to the real-world review of vehicles proposed to be replaced in a given year.

These candidates should be scrutinized using criteria that are not limited to age and life-to-date miles or hours of use. A replacement prioritization process includes reviewing a vehicle's application and use to determine if it will be required long term. It also reviews the application and condition of the vehicle, identifies the type of replacement unit required and prioritizes vehicles on the replacement list for use in order/delivery cycling. Best practice organizations use a scoring system to set priorities. The system incorporates values for factors or attributes that are unique to each vehicle, including current utilization level; front-line or backup assignment status; recent repair history and pending repair/refurbishment costs; perceived reliability, suitability, and safety; and ease of replacement.

As we indicated above most public sector organizations do not have a good mechanism for accommodating year-to-year changes in spending requirements when the source of funds for such expenditures is relatively static. The solution to this problem lies in pursuing one of two courses of action: eliminating the volatility in fleet replacement *spending* requirements, or eliminating the volatility in replacement *funding* requirements. While annual volatility in the replacement cost of a fleet (i.e., spending requirements) can be managed to a certain extent over the short term – say three to five years – it cannot be completely eliminated in a fleet comprised of many different types of vehicles. The year-over-year volatility of replacement funding requirements, on the other hand, can be managed quite well, depending on the method used to finance fleet replacement costs. There are essentially three ways to finance fleet capital costs: cash, savings, and debt. While there are advantages and disadvantages of each, our experience is that the debt financing approach results in the most consistent, and therefore effective, method of financing. An overview of each of these financing methods is detailed below.

Outright Cash Purchase

Using annual, ad hoc appropriations of cash, such as those used to finance the capital costs of the State's agency-owned fleets is a "pay *before* you go" approach. By this, we mean that the entire capital cost of each asset in the fleet is paid at the beginning of the asset's service life.

The advantages and disadvantages of the cash financing approach can be summarized as follows.

Advantages

- This is an approach that is widely used in the public sector; therefore it is generally accepted in all branches of government and by the public. Moving to an alternative that has never been used, such as debt financing, would require a change to the

current method. Since change, even when beneficial, is seldom easy to achieve, the advantage here is that actions to implement a change are not required.

- There is no out-of-pocket interest expense. This is really only a perceived advantage; in fact, we would argue that not recognizing that there is a cost of money associated with using this financing approach is a disadvantage. Specifically, unless an organization has cash in excess of its needs, using cash to pay the full purchase prices of vehicles before they are used is not "free." The cost of using cash in such a manner involves the opportunity that is lost to apply the cash to other organizational priorities that might yield a higher "return" or, at a bare minimum, to earn interest on the cash by investing it.

Disadvantages

- It is difficult – usually impossible – to accommodate the annual fluctuations in replacement funding requirements that are typical of almost all fleets because the amount of money available for fleet replacement is relatively constant.
- The use of this financing approach almost always leads to sub-optimal replacement decision making. This results from the inherent conflict, described earlier, between short-term budget making and vehicle total cost of ownership minimization, which requires a long-term perspective. If the marginal cost of replacing a vehicle is the full purchase price of a new vehicle, repairing an old vehicle will always appear to be cheaper than replacing it.
- Continually deferring the replacement of vehicles results in an old fleet whose direct total cost of ownership is higher than necessary and whose deteriorating safety, availability, and reliability affect the cost, productivity and safety of operations supported by the fleet. Where this occurs, the size of the fleet is larger than necessary due to a lack of vehicle dependability and large amounts of downtime.
- Continually deferring the replacement of vehicles results in large replacement cost backlogs that become increasingly difficult to overcome.
- In the absence of a cost charge-back system, which is typical of entities that finance vehicle purchases using cash from direct, ad hoc appropriations, the ongoing cost of having a vehicle at the disposal of an organization is not apparent to vehicle users, leading to the inefficient deployment and utilization of fleet resources. Fleet users experience little economic benefit in disposing of underutilized or unneeded vehicles whose original purchase price they view as a sunk cost.
- Ownership requires accounting for depreciation and a corresponding GAAP acceptable method for distributing this cost to programs *if* federal fund reimbursement for the capital costs of vehicles used in federal grant programs is to be secured.

In summary, organizations that utilize a cash financing approach often have difficulty dealing with fluctuations in fleet replacement spending needs because the amount of funds they can devote to the purchase of vehicles and equipment each year generally

does *not* fluctuate. Further the competition for the limited supply of funds often results in other program priorities taking precedent over fleet needs, resulting in a failure to purchase needed vehicles.

It is our experience that the cash option is the least effective method for financing the replacement of fleet assets over the long term. There are government jurisdictions across the US operating with very old fleets, placing them on the verge of experiencing significant service impacts. In almost every case, the source of the problem was a lack of willingness to appropriate sufficient funds to replace vehicles in accordance with reasonable replacement cycle guidelines.

Sinking Fund

Although replacement *spending* requirements under a sinking fund approach are identical to those required if cash financing is used, replacement *funding* requirements are different. This is because using a sinking fund permits vehicles' capital costs to be paid for incrementally (after a vehicle is first added to the fleet; the first-time purchase of a vehicle must be paid up front under this financing approach). That is, each year users are charged for a portion of the vehicle's replacement cost (i.e. depreciation plus a replacement surcharge) and this is put into "savings" to pay for the replacement vehicle when the time comes.

One of the challenges of managing a sinking fund properly is calculating charge-back rates so that the fund balance does not get too big or too small. Many government jurisdictions with which we have worked in this area have either depleted their fund balance or built up unnecessarily large fund balances due to improper rate setting.

Another challenge of using this financing approach is that some jurisdictions find it difficult to restrain themselves from raiding the fleet replacement fund "piggy bank" when budget dollars get tight. The fleet user agencies that diligently pay internal fleet replacement charges month after month and year after year sometimes discover that their vehicles and equipment cannot be replaced on time after all.

A final challenge is to use the sinking fund as intended, which can be made difficult as result of general political pressures or general fiscal pressures that have no bearing on the sinking fund per se. The advantages and disadvantages of the sinking fund "savings" approach are summarized as follows:

Advantages

- Funding requirements do not fluctuate significantly from year to year because using a sinking fund permits the capital costs of vehicles to be paid for incrementally. Smooth, predictable funding requirements increase the likelihood that sufficient funds will be made available to replace all vehicles in a timely manner because the annual budget process is never "blindsided" by unexpectedly large appropriation requests.

- Sinking funds are often less of an annual target for decision makers who sometimes equate requests for capital appropriations with discretionary or quasi-discretionary spending needs.
- Payment of regular charges for the use of each vehicle in the fleet encourages fleet user organizations to pay attention to the vehicle type and utilization levels. (In contrast to the cash financing approach where this cost is "hidden" for end users).

Disadvantages

- Requires rigorous and administratively complex fund management procedures, including proper development and execution of charge-back rates, to ensure reserve fund inflows and balances are sufficient to meet replacement spending outflows. Failure to do so leads to depleting the fund balance or building up unnecessarily large fund balances due to improper rate setting.
- The cash in the sinking fund to purchase replacement vehicles is subject to being "raided" (or simply not used, usually out of an overabundance of caution) when budget dollars get tight.
- The size of fund balance is limited by OMB Circulars A-87 and A-21, and federal cognizant agencies are notorious for scrutinizing and attempting to limit the size of these fund balances, even if they are large as a result of an impending and temporary upswing in fleet replacement spending requirements.
- Sinking funds are prohibitively expensive to establish where no fleet currently exists or if there already is a large backlog of fleet replacement needs. This is because a large amount of cash must be deposited in the fund up-front, or internal lease rates must be set artificially high to generate the working capital needed by the fund to start paying for the purchase of replacement vehicles. Fleet growth (additions to meet service demands) may also produce similar needs for up-front capital.

Despite the negatives cited above, sinking funds are superior to the cash approach in terms of sustaining replacement programs in the public sector and they work well for many government jurisdictions.

Debt

Like a sinking fund, debt financing allows organizations to spread the capital costs of fleet replacement purchases over the service lives of the vehicles in the fleet. However, rather than accumulating cash in a sinking fund to pay for replacement vehicle purchases, this approach involves borrowing money from the capital markets and repaying it after vehicles have been placed in service.

This *pay-as-you-go* approach frees up cash to meet other needs and eliminates the need to develop a fleet-replacement reserve fund. While spending requirements may vary, debt financing makes year-to-year funding requirements predictable by spreading the capital cost of each asset in the fleet over its useful life. It also eliminates most of the year-to-year volatility in replacement funding requirements. As a result, the

likelihood that fleet replacement spending will be subordinated to other priorities and needs, particularly during lean budget years, is dramatically reduced.

Debt financing instruments take many forms, including certificates of participation and other bond programs in which a government jurisdiction issues its own securities for sale to investors; master lease agreements, revolving lines of credit, and fixed-term loans available through banks and other commercial finance companies; and operating leases offered by fleet management companies. For example entities such as Bank of America offer appropriation-based loan contracts that are considered annual obligations and such agreements have been used by public sector jurisdictions, such as the State of South Carolina.

Operating (open-end) lease contracts offered by mainstream fleet management companies are another option for provide capital financing. The open-end lease mechanism is widely used by corporate fleets in the US to finance vehicle acquisitions and has used by at least one State (Michigan) for almost 20 years. In these contracts lease payments are scheduled over a specified period of time which usually corresponds to a vehicle's service life. Twelve-month minimum terms are readily accepted as are non-appropriation clauses. However, these terms must be connected to a gain/loss clause. Specifically, the lessee can choose to terminate the lease any time after 12 months. The proceeds from the sale of the vehicle are applied to its book value. If the proceeds of the sale exceed this value, the lessee receives the excess. If proceeds are less than the book value, however, the lessee must pay the lessor the shortfall.

Under the loan and lease approaches, the purchase of every vehicle and piece of equipment in the fleet would be financed over a given period of years (typically equal to the replacement cycle.)

One of the perceived drawbacks of debt financing is the cost of borrowing money; i.e., real or imputed interest charges. There is a perception among many people that it is fiscally irresponsible to use debt to finance the purchase of fixed assets, such as vehicles, that are "used up" relatively quickly. There is no question that interest charges increase the total cash outlay for vehicles. However, though seldom discussed or quantified, there is a cost to using an organization's dollars to purchase vehicles as well. In economic terms, it is the opportunity cost of not using the cash spent to purchase vehicles to pay for, or invest in, something else.

Beyond the economic argument, to the extent that debt financing enables an organization to replace vehicles that it otherwise would keep in service for excessive periods of time due to its inability to accommodate all fleet replacement funding requests each year, interest payments may actually result in ***lower*** vehicle life-cycle costs. In other words, interest expenses may be more than offset by higher vehicle residual values and lower vehicle operating costs resulting from more affordable (i.e., budgetary manageable) and, thus, more timely vehicle replacements.

The advantages and disadvantages of the debt approach are summarized as follows:

Advantages

- As with a sinking fund, debt allows organizations to spread out the capital costs of fleet replacement purchases over the service lives of the vehicles in the fleet. This eliminates most of the year-to-year volatility in replacement funding requirements, and reduces the likelihood that fleet replacement spending will be subordinated to other priorities and needs, particularly during lean budget years.
- Allows the cost of money (i.e., interest charges) to be passed on appropriately to all programs, including those federally funded.
- If loan or lease payments are made by fleet user agencies directly or via an internal cost charge-back system, greater attention to vehicle selection and utilization will occur. This results in fleet size and composition that is better attuned to actual fleet user agency operating needs and, hence, lower overall fleet costs.
- Provides flexibility to respond to programs' needs for additional vehicles without requirement of up front capital.

Additional Advantages for Non Jurisdictional Debt Financing:

- Moves the financing of fleet vehicles into the business arena and out of the political arena where fleet replacement must compete with other priorities for capital funds.
- Eliminates the use of internal resources required to secure bond or other financing. Also eliminates the use of statutorily or politically constrained borrowing cap, if applicable, for financing vehicle acquisitions.
- Fleet leasing offers additional advantages when financing is bundled with other services offered to organizations that operate fleets (e.g. purchasing, resale, gas, repairs, fleet information systems etc.). Fleet leasing companies have economies of scale in providing both services and expertise that are not available to a single fleet user organization or even an entire state government jurisdiction. It moves the management of the fleet into the business arena, where expertise and competition can enhance fleet management and cost control.
- Historically operating leases have typically qualified for off-balance sheet treatment, eliminating the need for fixed asset accounting. At the present time the International Accounting Standards Board (IASB) and Federal Accounting Standards Board (FASB) are conducting a joint project to rewrite lease accounting standards (IAS 17 and FAS 13 respectively). While currently all rental payments are booked as operating expense in the current period, it is expected that in the future management fees will be booked as operating expense, interest booked separately as interest expense and amortization (writing down the asset value) as amortization/depreciation expense. Since operating lease billings are able to provide this level of detail, the change will not have a significant impact on processing requirements for the lessee.

Disadvantages

- As indicated above, using general obligation bond financing creates competition for the use of statutorily (and often politically) limited borrowing with capital improvement project funding needs that usually enjoy stronger political support than does the routine replacement of State employees' vehicles.
- One of the *perceived* drawbacks of debt financing is the cost of borrowing money; i.e., real or imputed interest charges. As stated above, to the extent that debt financing enables an organization to replace vehicles in a timely manner, interest payments actually result in lower vehicle life-cycle costs.
- Another perceived drawback involves ownership of the vehicle. With some debt instruments, clear title to the vehicle does not occur until the loan has been paid off. In others, such as an operating lease, the vehicle is titled to the lessor, not the lessee. In practice and application, there is no disadvantage to this, as holding the title does not provide any operational advantage. Options that allow a fleet user organization to continue to use vehicles once the loan or lease payments are completed are readily available.
- While there is a smooth budget cycle and loan/lease mechanisms that do not require committing funds beyond one year, there is a balance that must occur between the resale value of the asset and any remaining loan or lease balance at time of sale. In a properly managed fleet, there is no significant risk of unknown expenses created by out-of-balance situations. Even when decisions are made to reduce the size of the fleet, the reductions can generally be made without realizing more loan/lease expense than planned in a given year.
- Management of vehicles by the lessor may also be perceived as a disadvantage resulting from some loss of control over maintenance and replacement decision. However, in reality there is often an advantage in having a leasing company providing vehicle management and financing services under a single contract, complete with measurable and enforceable service level and performance standards, over having multiple organizations attempting to manage vehicles they own independently of one another – and without benefit of the economies of scale or fleet expertise enjoyed by a large leasing company.
- It may be difficult to change back to cash or sinking fund based replacement approach once an organization has committed to debt financing.

Used by private-sector fleet organizations for over 30 years, debt financing is attractive to many organizations for the reasons cited in *Advantages* subsection above and because making the switch from cash financing or a reserve fund to debt financing can produce very large budget savings in the near term.

Debt financing is starting to appear more and more in the public sector and offers a promising alternative for jurisdictions that have the ability to incur long term debt for this purpose. Given the current economic climate and the value of timely vehicle

replacement, we believe that for many public-sector jurisdictions debt financing is the preferred mechanism to finance vehicle replacement.

Analysis and Findings

In the first section (page 26) of this report, we described the replacement process, parameters and funding in use by the State. In our best practice survey results, the area of vehicle specification, acquisition, disposal, and replacement scored only 34 out of a possible 100 points, basically a failing grade. As we review Florida's current methods against the five elements of effective fleet replacement program, the gaps, listed in red below, are clear:

1. Empirically validated vehicle *replacement cycle guidelines* that identify when specific types of fleet assets generally should be replaced so as to minimize their life cycle costs (i.e., total cost of ownership). Guidelines are not validated
2. A long-term fleet *replacement plan*: Does not exist
3. A *capital financing* approach that facilitates securing sufficient funds by making such funding requirements smooth, predictable, and, to the fullest extent possible, invulnerable to competition from other capital funding requests: Does not exist
4. A short-term *replacement prioritization and earmarking process* for designating specific vehicles and pieces of equipment to be replaced in the coming fiscal year. Process in place does not meet best practice standards
5. A *budgeting and funding* process that enables fleet user organizations to secure the amount of funds needed each year to execute the replacement plan based on the selected financing approach. Required funding not available

As indicated in the first section (page 27) of this report, the average age of Florida's fleet 10.7 years which equates to an average replacement cycle of 21.4 years. By any standard, Florida is operating with an old fleet. This is a direct result of the absence of an effective replacement program. On its current path there is little doubt that Florida's fleet will continue to increase in age, resulting in downtime and operating costs continuing to rise.

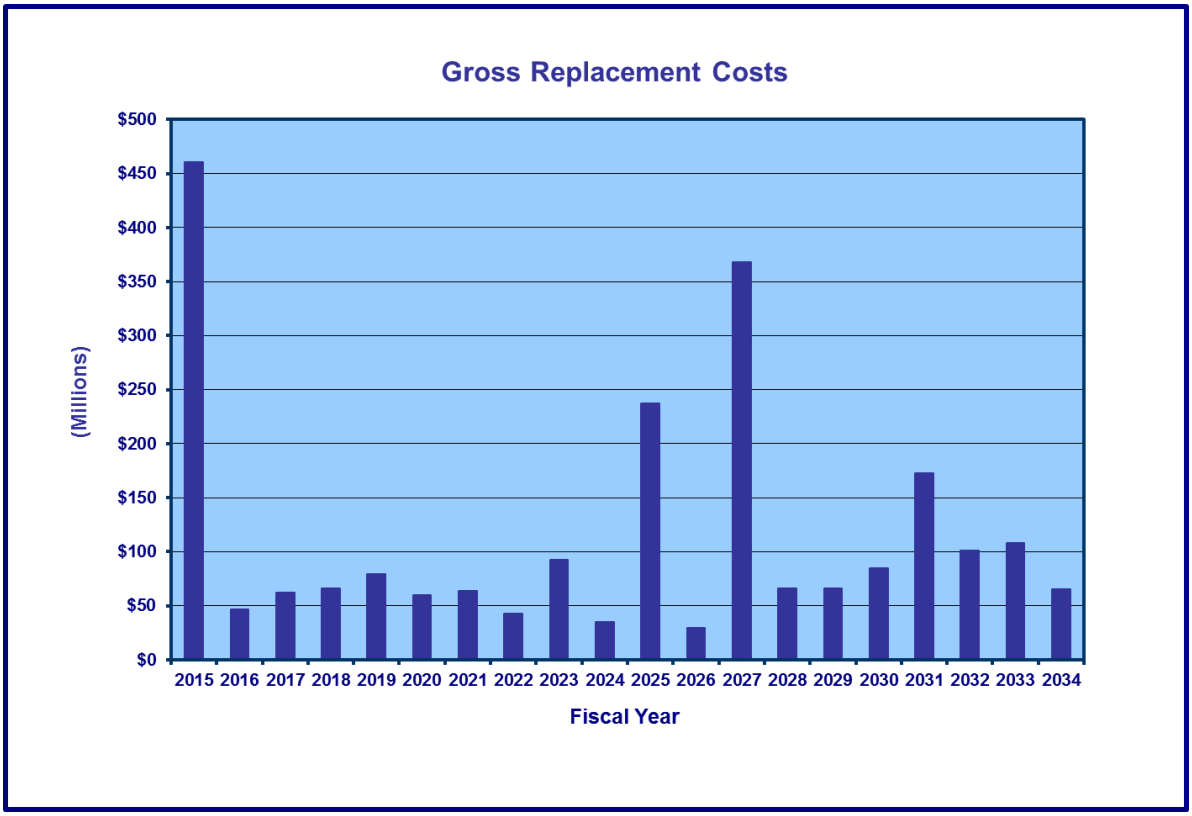
In order to better understand the impact of the State's current fleet replacement practices and to lay the foundation for improving them, we developed a high-level replacement plan using our proprietary software program *CARCAP*^{TM}. Since development of a replacement plan and determining the optimality of replacement cycles was outside the scope of this project, the plan we prepared is intended as a snapshot of the current fleet's replacement requirements relative to its current age replacement parameter (mileage was not considered as mileage data was incomplete). The months in the State's current cycle are similar to *or exceed* the age parameters we typically see in best practice fleets' empirically based cycles. Therefore it is likely if empirically based cycles were completed for Florida, the most cost effective cycles

would be at or below the current levels. Therefore our plan is a conservative and reasonable estimate of replacement needs.

The plan is based on key elements from the inventory provided including vehicle classification, original purchase price, and age. It assumes that vehicles in the fleet today will be replaced with a like vehicle (which is not always the case) and that all vehicles are needed (which again is not the case, as discussed in the fleet size section of this report). Mercury assigned a vehicle class to each vehicle in the fleet and estimated the purchase price of a vehicle in each class. Vehicle replacement costs were based on the purchase price in today's dollars derived from the most current purchase for the vehicle class and inflated for inflation. In all, these parameters were defined for 120 vehicle and equipment classes. This program quantifies the future replacement dates and costs of each vehicle in the fleet.

The original cost of the assets in the fleet was $570.7 million and the estimated cost to replace the fleet today is $869.4 million. The weighted average of current replacement cycle is 10.8 years, to maintain cycles at a smooth pace a little over 1/10 of the fleet should be replaced each year. That would require an $86 million dollar annual spend to replace vehicles. The state has been expending considerably less than this - an average of $25 million during the last five years. As can be seen in the graph below, there is a large *backlog* of vehicles in need of replacement, where "backlog" is defined as the number and replacement cost of vehicles in the first year of a replacement plan that meet or exceed the recommended age for replacement. At the current time almost half of the vehicles in the fleet (12,385) are due for replacement (i.e. they exceed the mileage parameter set in the replacement cycle).

Exhibit 32: Replacement Funding Requirements



Given that it isn't realistic to replace half the vehicles in one year (even if the State had the financial ability to do so), we calculated the capital cost of replacement if the fleet were renewed incrementally over the next 10 years. A capital investment of approximately $100 million dollars per year over the next 10 years is required to reach current replacement standards, over four times the State's average annual spending for replacements over the last five years.

We believe the magnitude of the backlog can best be met with a switch to "pay as you go" (debt) financing. This merits serious consideration by the State in view of the following:

- The State has done a poor job of replacing the assets in its fleet using its current financing approaches (i.e. mainly paying cash from each fiscal year budget);
- There are large backlogs of replacement needs – totaling almost $460 million – that are unlikely to be eliminated under the cash approach.

Fleet renewal offers the State an excellent opportunity to reduce the size of its fleet. Given the State's need to reengineer most all of its practices, the need for fleet expertise to assist it in doing so, and the current statute that appears to provide authority to lease vehicles, we believe the best option for fleet renewal is an operating lease. In addition to bringing necessary financing to the table, leasing brings fleet

expertise and economies of scale beyond what Florida, or any other individual state, can effectively provide. This would enable Florida to reach best practices in these areas at a much quicker pace. Since all major fleet management companies offer a full range of fleet services, the leasing approach offers opportunities for savings if the services recommended for outsourcing, such as commercial repairs, are bundled with the lease.

Value-Added Features of Vehicle Lease Services include:

- **Fleet leasing is a means of providing vehicles with a lower amount of annual capital investment.**

  Fleet leasing minimizes the opportunity cost of investing in vehicles by shifting the financing of fleet purchases to the private sector, thereby conserving the State's cash resources.

- **Fleet leasing stabilizes cash flow requirements.**

  Fleet leasing results in a smoothing of cash flow requirements based upon regular monthly rental payments rather than periodic capital investment for direct vehicle purchases. Fleet leasing overcomes the obstacles to Federal reimbursement for vehicle replacement and fleet growth because there is no need to accumulate funds for these purposes.

- **Fleet leasing takes advantage of the professional, specialized fleet acquisition and disposal operations in the private sector.**

  Leasing moves the functions related to ***vehicle acquisition and vehicle disposal*** to the private sector. In doing so, these functions are moved from the more generic purchasing and equipment sale operations in government, to the professional specialized, fleet acquisition and disposal operations in the private sector. This offers both cost and administrative efficiencies to the State's fleet operation.

- **Leasing is generally beneficial in both current and present value dollar terms.**

  Cost/benefit analysis completed for other entities has shown that leasing is cost beneficial in both current and present value dollar terms.

- **Fleet leasing optimizes depreciation management.**

  Depreciation accounts for a large share of the total fleet expense. Contracting for lease services minimizes depreciation by consolidating vehicle purchases for volume pricing; adopting a life cycle based acquisition formula; leveraging technology to automate the vehicle order process; and expanding and enhancing the remarketing network.
- **Fleet leasing provides enhanced administrative support for fleet operations.**

The processing and payment of fleet expenses, tracking the performance of the fleet over time, and following through on paperwork intensive activities are all part of the ***administrative support*** provided by the lease contract. These enhanced support services ensure vendor invoices are audited and paid timely with a minimum of State resources.

- **Fleet leasing provides enhanced driver services.**

  By including services such as ***driver maintenance assistance and collision management*** **in the lease contract,** State drivers safety and productivity is maximized by ensuring vehicles get the right repair at the right time. They also serve to control maintenance and repair expenses.

As indicated, determining the optimality of replacement cycles and preparing an economic case for alternative financing was outside the scope of this project. Given that the required annual spend of $100 million is neither feasible nor desirable, the economic proof may be somewhat of a moot point. It is, of course, necessary for the State to understand how the lease option would affect the budgetary cycle. While the total cost of ownership is lower over the life of a vehicle with optimized cycles, the impact on the budget cycle in any given year is a different matter, particularly when the organization has been significantly underfunding replacements in recent years. To that end, we are able to provide an example comparison of cash purchase vs. lease costs if the recommended smooth replacement program were implemented. We modeled lease costs based on lease terms and rates from recent engagements with other clients that lease their vehicles. The Exhibit below compares costs associated in the first five years of the hypothetical renewal plan.

Exhibit 33: Projected Five Year Fleet Renewal Plan

Financing Method	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Ad Hoc Cash	$ 100.19	$ 100.94	$ 100.94	$ 100.94	$ 100.94	$ 503.95
Lease	$ 13.38	$ 27.63	$ 40.79	$ 53.47	$ 64.79	$ 200.06
Lease v Cash Savings (Cost)	**$ 86.81**	**$ 73.31**	**$ 60.15**	**$ 47.47**	**$ 36.15**	**$ 303.89**
Average Age (10.1 Years Start)	**9.6**	**8.9**	**8.2**	**7.2**	**6.4**	

As the Exhibit reveals, the pay-as-you-go approach allows the State to annually make headway on its replacement backlog over time. In the first five years, the lease offers $304 million in savings over the direct cash purchase of the same vehicles. While the

lease cost will continue to rise at a higher rate until all units are on the program, even though the 10th year cumulative differential for the State is still a positive $337 million.

The general increase in State expenditures over time allows for planning within the State budget process. An extremely important point to note is that the figures above reflect only the costs and savings associated with acquiring vehicles. Lowering the average age of the fleet will also result in savings in fuel, maintenance, and other operating expenses beyond those already identified in this report. This is also the case for fleet rightsizing where a newer fleet will facilitate a greater reduction in fleet size and larger associated savings. In addition there would be indirect cost savings associated with improving employee productivity as the reliability of the fleet is improved.

Recommendations

11. *Fleet replacement planning and budgeting should be centralized in the State. DMS, as the State's professional fleet management organization, should be charged with the responsibility of coordinating fleet replacement activities, including development of a replacement plan and estimating annual expenditures associated with vehicle purchases and/or debt financing.*
12. *The State should identify optimal replacement cycles for key types of vehicles in the fleet, where "optimal" is defined as those ages or accumulated usage intervals at which each type of asset's total cost of ownership is at a minimum. These analyses will provide the economic justification for having a robust fleet replacement program and for developing appropriate replacement rates for these particular types of vehicles.*
13. *Current statute suggests that leasing of vehicles is authorized given specific approvals. The State should confirm that increasing fleet replacement funding levels through a change in capital financing approaches is feasible.*
14. *The State should develop a long-term fleet replacement planning program which provides a systematic, quantifiable, and, hence, defensible foundation for year-to-year replacement spending proposals.*
15. *The State should adopt leasing as its primary means of financing fleet renewal and develop a RFP for fleet leasing and related services.*
16. *The State should tie fleet replacement changes to the recommended rightsizing effort. If end users can be assured that their front-line vehicles will be replaced in a consistently timely fashion, with corresponding improvements in vehicle availability and reliability, it should be possible to reduce the size of the fleet. In the absence of such assurance, resistance to downsizing is likely to be considerable.*
17. *The State should develop a short term state prioritization process for selecting which vehicles to actually replace each year. The process would be applied by each agency.*

FLEET SIZE AND UTILIZATION

Introduction and Industry Best Practices

The primary factor driving fleet related costs for any organization are the size and composition of the fleet. The more vehicles an organization owns, the higher the annual cost to that organization, because for each fleet asset there are costs associated with ownership and operation. Therefore, any serious effort to lower total fleet costs needs to start with an analysis of opportunities to right-size the size of the fleet.

Even under-utilized vehicles consume fuel and maintenance resources each year. These units also depreciate and lose value each and every day even if they are older and are fully amortized (i.e. paid for). Time and effort are also required to maintain appropriate licenses, tags, fleet inventory records, insurance, fuel cards, etc. The units may also take up valuable space at maintenance yards, parking lots and garages.

Evaluating fleet size and usage patterns of a group of fleet assets should always be done in the context of an organization's mission, the types of functions performed and the levels of service required. Vehicles and equipment are necessary tools used to accomplish these goals. It is the State's responsibility to provide these tools in the most efficient and economical manner possible.

This does not mean that the State has to own all of the units necessary to provide these services. It simply has to have access to the equipment when it is needed, for the duration that it is needed, and at a reasonable cost. This can be accomplished any number of ways such as buying a unit and permanently assigning it to a particular agency; buying a unit and assigning it to a motor pool for shared use; renting a unit on an as-needed basis; or reimbursing employees for using their personal vehicle in the conduct of State business. A cost effective plan usually consists of a combination of all of these methods.

Understanding the transportation needs of agencies is imperative for identifying vehicles that can be removed from the fleet. For example, it would be easy to establish a hard-and-fast minimum mileage requirement (i.e. 6,000 miles annually for a general purpose pickup truck) to justify permanently assigning a vehicle to an agency. However, other factors must be considered such as how the vehicle is used, how operations would be impacted without the unit, is a replacement available in a State motor pool or from a commercial rental agency, and could an employee reasonably be expected to perform the required function in their personal vehicle and be reimbursed by the State.

An example of an under-utilized vehicle, in terms of mileage, that may initially appear to be a candidate for elimination from the fleet may be a cargo van that is assigned to a State electrician. The vehicle may only accumulate 5,000 – 6,000 miles per year, but the vehicle is clearly justified. The van essentially becomes a shop on wheels. Special shelving is installed in the vehicle, ladder racks are installed on the roof, the electrician's tools, materials and supplies are stored in the vehicle. The van may have relatively low

average annual mileage, but the electrician begins each day at the shop, receives work assignments for the entire day, drives from job site to job site and returns to the shop at the end of the day. Mileage does not accumulate as quickly because the electrician spends most of the time at any number of locations working and not in the van accumulating miles. It would be unproductive, in this example, for the electrician to be expected to load and unload a pool van each day. Many other examples exist of specialty vehicles and equipment that are required regardless of usage such as the emergency response Hazardous Materials units used by the National Guard or an Ambulance at a medical facility.

We cannot over-emphasize the relationship between fleet size and the age of the State's fleet. Every agency that we met with agreed that they could meet their transportation needs with fewer permanently assigned vehicles. However, before agencies can agree to relinquish most spare and backup units, they must have assurance that annual funding for replacing front-line vehicles will increase to appropriate levels and will become a recurring rather than an ad hoc appropriation. In essence, due to the lack of consistent replacement funding over the years many agencies have to keep two old unreliable vehicles in service when a single newer vehicle would suffice. Simply stated, if the State wants to realize the financial benefits of a smaller fleet, it will have to take steps to renew its existing fleet. As discussed throughout this report, a newer smaller fleet will save the State money, improve operational efficiency, lower greenhouse gas emissions, and enhance the safety of State employees.

Highly effective fleet operations use state and employee-provided (both leased and owned) vehicles and short-term rental vehicles as transportation options that can be balanced with other modes of transportation to optimize state travel. This approach promotes long-term, prudent stewardship of travel and fleet funds. All three methods of vehicle travel must be managed together for effective statewide fleet and travel management to occur. Specific strategic elements of such a program include:

- Breakeven analyses to identify best-value transportation options;
- Personal (employee owned) vehicle reimbursement thresholds;
- Competitively bid rental car contracts with performance requirements;
- Alternative mileage reimbursement rates;
- Data tracking and reporting;
- Oversight and enforcement; and
- Total travel (state owned, privately owned, and rental vehicle) review and management.

Analysis & Findings

It is important to note that assessing opportunities to reduce the size of the State's fleet and to analyze transportation options was specifically not in the scope of the current project. Rather, these efforts are the focus of other reviews that will be conducted later at the option of the State. However, since the savings that can potentially result from rightsizing the State's fleet are so substantial, we would be remiss to not cover the issue at least at a high level.

The Exhibit below shows a summary of mileage data from the twelve largest state agencies.

Exhibit 34: Fleet Mileage

Agency	Units Reporting Miles	Miles Reported	Average Miles
Department of Transportation	4,177	30,188,585	7,227
Agriculture & Consumer Services	3,022	20,117,343	6,657
Department of Corrections	2,651	24,199,142	9,128
Highway Safety & Motor Vehicles	2,643	43,852,239	16,592
Fish & Wildlife Conservation Commission	2,294	17,545,016	7,648
Environmental Protection	1,414	9,083,013	6,424
Department of Law Enforcement	563	6,431,876	11,424
JAC - Public Defender	98	1,011,315	10,320
JAC - State Attorney	481	5,339,214	11,100
Financial Services	483	5,688,361	11,777
Children & Families	479	2,720,222	5,679
Business & Professional Regulation	395	4,776,328	12,092
Totals	**18,700**	**170,952,654**	**9,142**

"Units Reporting Miles" as of 5/31/2013.

As can be seen, the overall average miles per year are less than the State requirement of 10,000 miles for permanent assignment of a vehicle to an employee. And while half of the agency fleets have averages above the threshold, there are still many of vehicles in agency fleets that were driven well below 10,000 miles during the study period. The following Exhibit illustrates this point:

Exhibit 35: Fleet Use by Mileage Band

Miles	0 – 5,000	5,001 – 10,000	10,001 – 15,000	15,001 +
All units	2,699	5,476	5,380	6,276
Passenger vehicles	698	2,701	3,032	4,119

We understand that current statutes allow low mileage vehicles to be operated by agencies so long as they are not assigned to individual employees. This approach is unique in our experience as most states have developed minimum use criteria for vehicles to remain in the fleet. While mileage alone cannot be used as the sole

determinant of the need for a vehicle[17], the number of vehicles in the State's fleet with low mileage, the absence of motor pools, and the lack of a coordinated mileage reimbursement program leads us to believe that significant savings are available to the State from better management of fleet size.

As previously noted, DMS develops the breakeven analysis required by statute to determine the annual mileage point where assignment of a State vehicle is more cost-effective than reimbursement for a driver's use of his or her personal vehicle for State business purposes. A breakeven analysis model is an appropriate fleet tool for comparing alternate means of transportation. However it appears that key cost components, such as maintenance, are not currently included in the DMS breakeven model. Moreover, there is no review process where mileage reimbursement practices are audited by DMS to ensure that the lowest cost transportation options are actually being utilized. With a total of $10.9 million spent last year on mileage reimbursement, the program is ripe for savings through better management and oversight.

To develop savings in these areas the State needs to proceed with the two studies it has outlined as subsequent phases of the fleet improvement effort (i.e. study of fleet size and of best value transportation options). Our recommendations in this are listed below.

Recommendations

18. *The State should conduct a study to reduce the size of the fleet by eliminating low use vehicles.*

    There are clear opportunities to reduce the number of vehicles in the State's fleet. Such an action has the opportunity to produce millions of dollars in annual savings.

19. *DMS should study the feasibility of establishing shared-use motor pool locations in Tallahassee.*

    Motor pools are a great way to increase vehicle use and decrease fleet size. No multi-agency motor pool currently exists in Tallahassee, although every agency with operations in the capital indicated that they have pool vehicles. Sharing these vehicles by establishing a central motor pool at one or more locations is a common sense approach to saving money. Our research indicates that central motor pools have been established by nearly every state in their capital city. DMS should study the feasibility of establishing pool locations such as downtown and at the Capital City Office Complex located in south Tallahassee and perhaps in other large metro areas. DMS should also consider the feasibility of outsourcing motor pool service to a car rental company that offers a pick-up and delivery service.

[17] Mercury Associates uses a multi-factor approach known as VAM (Vehicle Allocation Model) that we developed for the U.S. Government to help our clients to right-size their fleets.

20. *The State should develop and implement an ongoing fleet utilization monitoring system.*

    In order to continue to put downward pressure on the size of the fleet, periodic reviews of the fleet should be conducted. We would recommend that minimum usage thresholds (mileage and/or hours) be established for each major type of vehicle and equipment. These thresholds need to be developed individually for each agency in recognition that agency missions and business activities – and thus vehicle use - can vary to a great degree. DMS can then produce regular exception reports that identify the units that fall short of the established utilization guidelines.

21. *The State should mandate the use of charge-back rates as a financial incentive for agencies to maintain an optimized fleet size.*

    Agencies feel that there are no costs associated with maintaining large fleets of older vehicles whose usage continues to decline. As previously discussed, however, there are actually significant costs associated with keeping underutilized vehicles in the fleet. Florida should build cost incentives into rate structures that chargeback fixed (e.g. depreciation and insurance) and operating (e.g. maintenance and fuel) costs within each agency that retains ownership of vehicles and equipment.

    Fixed and variable monthly charges continually confront fleet users with the costs of having vehicles at their disposal. No matter how much or how little they use an asset in a particular month, fixed charges don't change – just as the loan or lease payment for an individual's car doesn't change. Consequently, there is a clear fiscal (budgetary) benefit to maximizing fleet utilization under this type of charge-back system. Getting rid of under-utilized vehicles lowers an agency's monthly fleet replacement charges. Under this type of system, it is not uncommon to see voluntary reductions in fleet size of five-percent initially as the system is put into place.

FLEET ACQUISITION

Introduction and Industry Best Practices

Owning or leasing vehicles and equipment represents the single largest cost category of fleet operations, usually eclipsing expenditures for maintenance (except for significantly aged units). Best practice organizations develop timely and effective vehicle order and delivery processes that secure competitive vehicle pricing, maximize resale and meet customer needs. These processes are then managed to ensure that quality and timeliness parameters are met.

Having the right vehicle for the job is fundamental to an effective fleet operation. Acquisition processes that balance fleet users' transportation and mobility needs with economies derived from volume and competitive purchasing and standardization of vehicle types, maximize effectiveness in this area. The acquisition process begins with

development of vehicle specifications that define the technical attributes and configuration, and/or the functional capabilities of a vehicle or piece of equipment. How an organization develops and employs specifications affects a) cost effectiveness, b) suitability of the purchased vehicles for fleet users' needs, and c) the level of effort and amount of time required to acquire vehicles. Best practice processes select from among competing vehicle make/models that meet functional/technical specifications to optimize vehicle cost effectiveness, streamline vehicle procurement, and facilitate standardization of the fleet.

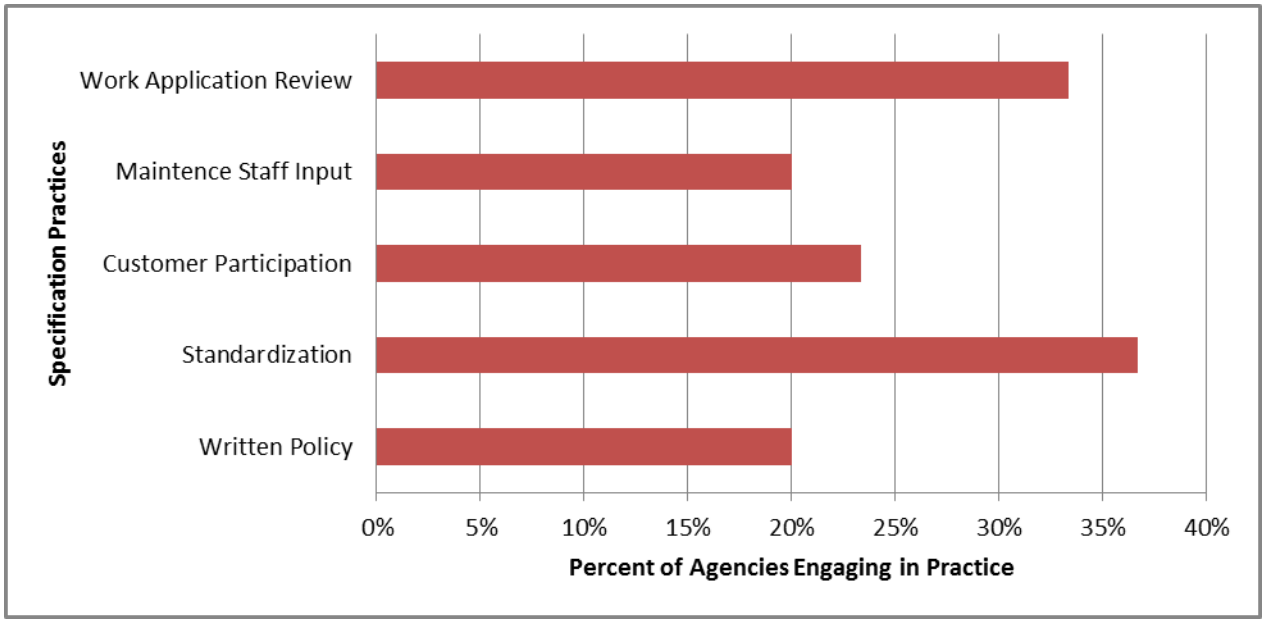
An effective specification process systematically incorporates information on user needs and maintenance experience with particular types of vehicles and components and subsequently balances custom design requirements with standard features. It requires substantial knowledge of user operations and of industry specifications and options available in the marketplace. The selection of a vehicle type and specifications should take advantage of technological advances, comply with applicable rules and regulations, consider cost effectiveness and facilitate standardization of fleet composition. Where upfitting is required post manufacturer, shipping vehicles from the manufacturer directly to professional outfitters is generally the most economical method.

The most effective processes in this area include use of a team with the knowledge, skill and ability to match user applications with vehicle specifications. The team develops a selector list of vehicle types from which agencies choose their replacement vehicle. The number of vehicle types and authorized models on the selector list must be comprehensive enough to meet the functional requirements of each agency and the priorities identified for each application while maximizing standardization. A participative process that formally solicits agency and industry input prior to finalizing vehicle specifications and the selector list is essential.

Analysis and Findings

As we described in the background section (page 18), while there is some effort made regarding communication on specifications, there is not a formal process at the State level that mirrors the best practice actions detailed above. As the chart below indicates, some agencies, especially those that utilize trucks and heavy equipment, may engage in some of the practices outlined. However, the percentage of agencies utilizing such practices is less than 40-percent and the State central process appears to rely heavily on prior year specifications and input from agencies. The state approval process is geared to ensuring basic size guidelines are met, and there is generally no in-depth review of vehicle application.

Exhibit 36: Specification Practices



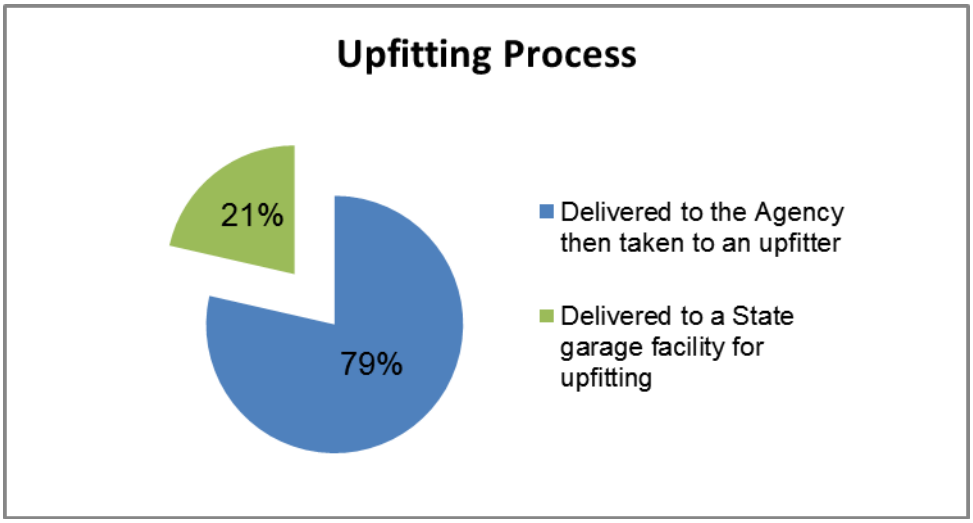
The next step in the acquisition process is to engage in a competitive solicitation that includes pricing for the vehicle and common options and up-fitting configurations. This includes looking at a variety of methods to secure bids, from developing an internal bid process to utilizing bid pricing from other entities, such as other State contracts, that an organization is qualified for. A simplified life cycle cost analysis formula that considers not just acquisition price, but residual values, fuel, and maintenance cost should be developed for use in determining which vehicle meeting specifications represents the best value to the organization while treating suppliers fairly. In addition, timing the solicitation so that vehicles are received as early as possible in the model cycle is required to maximize residual value. After considering all factors, the responsible organization should include the vehicle(s) representing the best value for the State for each application on the selector list.

While several agencies reported using a "best value" approach, Florida is using only acquisition cost, including options, to determine bid award.

For vehicles that require upfitting, in addition to quality and cost, **primary consideration should be to put newly acquired vehicles into service as quickly as possible**. Upfitting prior to delivery is preferable and generally more cost effective. When post-delivery upfitting is necessary, the associated costs must be competitive, captured and codified properly and capitalized where appropriate.

Currently Florida is completing all upfitting after delivery with the majority of vehicles taken to a third party upfitter by the agency.

Exhibit 37: Upfitting Process



Once vehicles are delivered, a thorough check of the vehicle should be made to ensure specifications have been met. The vehicle should be properly licensed and registered, entered into the FMIS, slated for ongoing inspections as required (e.g., emissions, commercial vehicles), and put in service as quickly as possible.

Every day a vehicle sits awaiting upfitting, check in and assignment it is decreasing in value and when it goes through its cycle and is sold, the resale revenue will be less because the vehicle will be older. Vehicles should be ordered at the beginning of the model year with deliveries commencing no later than October. The majority of new vehicles should be placed in service in the fall. Where assignment must be staggered over several months due to the annual quantity of replacements and limitations in the end user operating environment, delivery of vehicles should be scheduled monthly so vehicles do not sit. It is important to note that this is an acceptable process if it is the end user operating environment that dictates the need. In these cases DMS should work with the end user to maximize fall delivery. If the fleet or garage is the bottle neck to fall assignment, then the output should be increased via supplemental employees or outsourcing.

Recommendations

22. *Develop, formalize and document a policy and process for vehicle specification, solicitation and selection that incorporates best practice elements.*
23. *Convene a vehicle standardization working committee with representatives from the major fleet agencies, and include both operating and fleet staff. Identify a few job classifications (those that are both numerous and common in every agency) that could logically use a standardized type of vehicle and gather input from the working committee to allow the development of complete, detailed specifications for the chosen vehicle types. This should be a step by step, ongoing effort.*

24. *Develop a life cycle formula to be applied in vehicle procurement that recognizes key cost components beyond purchase price.*
25. *Work with agencies and vendors to maximize delivery and assignment at the beginning of the model cycle.*
26. *Explain the costs associated with customization and the benefits of standardization and life cycle costing application in procurement to top management to solicit their support for implementation.*

FLEET DISPOSAL

Introduction and Industry Best Practices

Disposal practices that select the right method and timing for disposal are essential for effective fleet management. After a vehicle has reached the end of its useful life, the procedures to remove it from service and to dispose of it should be designed to a) maximize residual value, b) formally consider agency time in the process, c) avoid unauthorized retention and use of officially replaced assets, and d) ensure the removal of unneeded replacement parts from inventory.

Maximizing resale return is a critical component of vehicle life-cycle cost management. The return must take into consideration all costs associated with the disposal process, including the employee time involved. Effective fleet disposal incorporates a variety of sale approaches designed to bring a vehicle to sale as quickly as possible and to yield the greatest value to the organization. Sale results are carefully monitored and adjustments are made regularly to realize maximum returns.

At the time a decision is made that a vehicle is to be disposed of, almost all vehicles have a salvage or residual value. Even a vehicle that has been “totaled” usually has value for parts not damaged. Therefore, once vehicles have been replaced and/or removed from service, it is desirable to dispose of the vehicles (turn the vehicles into cash) as quickly as possible. In addition, requiring the disposal of vehicles being replaced prevents “fleet creep” - growth of the fleet through unnecessary retention of replaced vehicles.

Vehicles lose value each day they sit idle pending sale. Commercial fleet leasing companies have a performance standard that they monitor closely called “days to sale”. They know that each day a surplus vehicle remains on its books represents an asset that is losing value. Vehicles in government fleets are no different. The biggest mistake that many government fleets make is conducting/participating in a quarterly or annual sale process for all of its assets. In addition to the normal daily devaluation due to age, maintenance issues such as seals drying and batteries needing to be replaced occur.

Net proceeds from the sale or disposal of vehicles should be returned to the fleet. The value derived at the time of vehicle resale is an incentive to the using organization to keep the vehicle clean and properly maintained – but only if the using organization is

the beneficiary of the proceeds from the sale. Further, the using organization should be entitled to use the credit from the timely disposal of a well-maintained vehicle to offset the full cost of the replacement vehicle.

There are several methods used by fleets to dispose of vehicles and equipment including:

- ✓ Auctions (wholesale and retail);
- ✓ Direct Sales to Outside Individuals
- ✓ Specialized Marketing Auctions/Sales
- ✓ On-line Sales; and
- ✓ Employee Sales.

Historically auctions were one of the most common methods for disposing of fleet assets for public entities. By the very nature of the process, auctions attempt to solicit the highest price for an asset. Organizations can conduct an auction themselves, hire an auction service to conduct the auction for them, or utilize the services of a professional vehicle resale company to do so.

Selling direct to consumers via a sealed bid or similar process is also employed effectively by many organizations. This option is often best suited to specialty pieces of equipment or when aiming sales at certain markets.

Selling vehicles directly to employees is a method utilized heavily in the private sector with great success. In the public sector, however, the method is seldom utilized due to the perception it creates and the potential for ethical issues to arise.

One of the fastest growing methods of disposing of vehicles is through on-line sales. This method generally provides for the greatest exposure of an asset to potential buyers, which in turn, may result in a higher salvage value. However users must be sophisticated in their understanding and approach of on-line trading to obtain the potential benefits.

Each disposal method has costs and benefits associated with it and some types of vehicles are better suited to particular methods. Effective disposal management calls for having a variety of methods available for selling the vehicle and analyzing which markets and approaches will typically maximize the net residual value. Third party vendors that specialize in vehicle sales may add value in the process. When selecting resale methods best practice calls for considering, prior to sale, all elements that impact net return including the sale price, the time required from users and the fleet organization and the level of refurbishment.

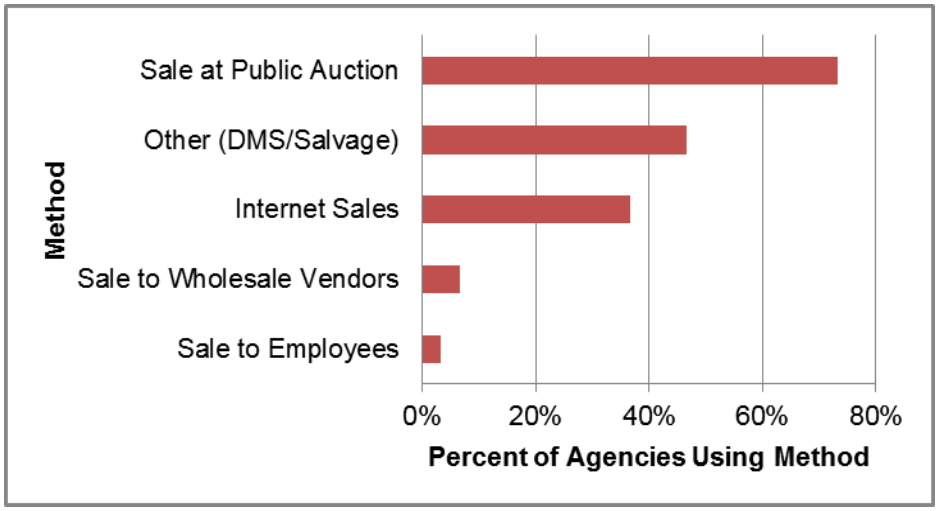
Once the costs and benefits of various methods have been analyzed and methods selected for various types of equipment, performance metrics are employed to actively

manage disposal returns. In addition market factors are regularly reviewed and actions taken as required to maximize returns and reflect changes, if any, which may significantly impact expected returns.

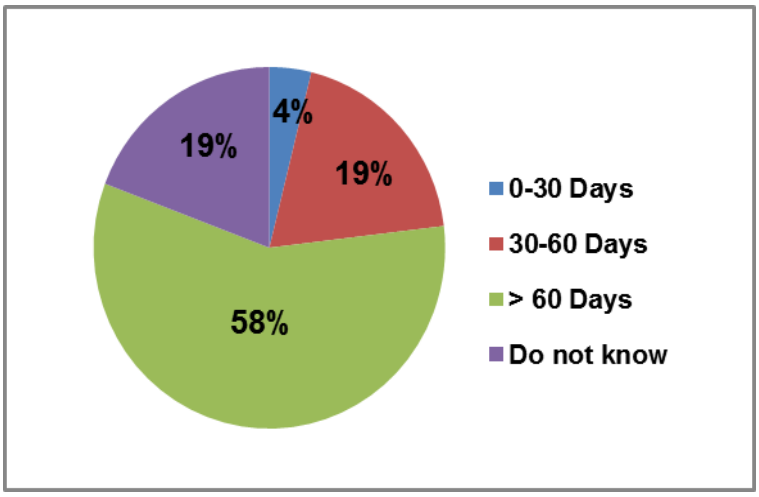
Analysis and Findings

Agencies indicated that they were using a variety of methods to dispose of vehicles (see graph below). However, DMS disposal reports site only two methods in use last fiscal year with the majority of vehicles (83-percent) sold at a single auction site in Tampa. The other 17-percent were internet sales and so it is apparent that agencies do not have a clear understanding of current disposal practices. The choice of method and location of sale is not supported by a formal analysis of the net revenue derived for the various methods. Nor have other methods been evaluated.

Exhibit 38: Auction Methods



While auctions are held monthly, the logistics involved in getting vehicles to the site at times adds significant days to the termination-to-sale time period. As indicated in the graph to the left, only 4-percent of Florida's sales are occurring within 30 days of termination.



One of the most telling statistics from the survey came in response to the question "*Is the amount of funds received for (sale of) vehicles consistent with or above industry averages*?" Over 92-percent of the agencies responded that *"they did not know*". The lack of focus on sale results may be related to lower revenue from the aged units sold. Most likely, the driving factor is that agencies are not aware of the amount of sale proceeds returned to the agency, or if those proceeds are used specifically for purchasing replacement vehicles.

On average, sale of vehicles is costing twice as much for the live auction units (24% of gross sales) vs. the internet sales units (12-percent of gross sales). While analyzing the auction results to determine best value was outside of the scope of this review, it was obvious that the transport cost of bringing vehicles to Tampa was the major differential in terms of net sales revenue. DMS is in the process of rebidding the transport contract and is moving to regional sourcing. While this is a positive step that should bring transport costs down, it does not replace the need for a total evaluation of remarketing alternatives and selecting the mix that will maximize return to the state.

Recommendations

27. *Conduct an analysis of the cost and benefits of employing various resale methods to dispose of vehicles. Use the results to establish core methods for various types of equipment.*
28. *Formalize and document a policy and process for vehicle disposal that incorporates the best practice elements, including minimizing days to sale and return of funds to the agency fleet.*
29. *Establish performance metrics to actively monitor and manage disposal outcomes.*

FLEET MAINTENANCE AND REPAIR

Introduction and Industry Best Practices

Fleet maintenance and repair processes significantly impact vehicle availability, reliability, safety, economy, and environmental integrity. The challenge of any internal

fleet maintenance program is to balance their facilities, mechanic labor, parts and commercial/contract services so as to maximize vehicle reliability, safety, availability, and operating performance of vehicles while minimizing labor, parts, overhead, and commercial service expenditures.

Although more difficult to quantify, indirect economic impacts associated with fleet maintenance are also important and can far exceed the direct costs. For example, mechanical failures that idle employees or disrupt service can result in productivity losses, the costs of which dwarf those associated with repairing a vehicle. Such impacts highlight the importance of using maintenance management and performance measurement techniques to control maintenance and repair quality.

There are four basic approaches to securing maintenance for the State's fleet vehicles:

1. Maintain the fleet at a State owned, operated, and staffed shop. Primary advantages most often cited for utilizing an in-house shop include convenience to users, reduced vehicle downtime, and greater control over priority, quality and cost. Internal maintenance operations are also cited as an emergency management factor, as the State would have maintenance resources and control of their use during critical service and emergency situations.
2. Outsource specific fleet maintenance activities to local vendors. While this works well for a small number of repairs or specific services, using this method to secure all repairs can become administratively burdensome and difficult to manage. The end result is often greater direct and indirect costs.
3. Outsource all fleet maintenance to a fleet management company. This approach involves use of a management company that coordinates maintenance and repair activities. Services include providing a network of repair facilities in the geographic areas required by the organization, authorizing repairs in accordance with fleet guidelines, scrutinizing and paying vendor bills, and providing detailed maintenance and repair data in automated format on all repairs completed. This approach works well for corporations and large public sector fleets that are dispersed over a large geographical area (e.g. a state fleet). For fleets operating in small defined areas, our experience indicates it can be more costly than a well-run in-house maintenance program as long as the internal operation is running at optimal levels.
4. Privatize all fleet maintenance shop operation to a commercial facility service provider. This involves having a private firm perform maintenance and repair activities onsite in a facility owned by the entity (e.g. city, county, state). This model is routinely used by the U.S. Department of Defense and by many utilities. There are not a significant number of local and state government organizations using this model, generally because political, labor relations, and management issues are often difficult to overcome.

Hybrid approaches involving alternatives one and two (an internal shop with outsourcing to local vendors) represent best practice for geographically centralized operations. In

these cases vendors are tapped to perform fleet maintenance and repair services for certain functions and conditions. For example an in-house operation may be most effective and efficient when commercial repair vendors are utilized for managing in-house work backlogs and peaks; avoiding costly investments in facility construction, tooling, training, and/or staffing; to meet low volumes service demand in remote areas or for specialty/low volume repairs; and to achieve a degree of flexibility (e.g., in terms of locations, hours of service, etc.) in the provision of services. In typical best practice operations approximately 10 to 15-percent of the work is outsourced.

If internal facilities face significant hurdles to reaching optimum performance, alternative three, a third party fleet provider, is a reasonable solution. It is also the preferred approach for large geographically dispersed best practice fleets. These fleets typically operate a central maintenance facility where large numbers of vehicles are located (e.g. a state capitol) and use a third party management company to secure repairs in all other areas. In some cases the repair services are bundled with other services such as vehicle acquisition, financing and disposal.

In all cases best practice entities ensure cost-effective operation of internal facilities and use of vendors by:

- Ensuring the internal shop is operating optimally using state of the art management, skilled trade personnel and technology;
- Performance is monitored regularly with a dash board of performance measures that cover all aspects of the operation;
- Determining the comparative cost effectiveness of performing a service in house or using a vendor, including the cost of employee time involved in securing the service;
- Managing and controlling vendor performance relative to individual service orders and ongoing service levels; and
- Capturing all relevant information on services performed both internally and externally so as to maintain a complete record of vehicle maintenance history and costs.

Analysis and Findings

Currently there is a lack of consistency in the management of vehicle repairs and maintenance. All the alternatives described above are used to some degree by various agencies. However, under the current approach the state cannot be assured that its vehicles are properly maintained. There is a lack of data and information, metrics, analysis, policies and procedures to effectively manage repairs. For example, there is no written rationale or data that supports the options currently utilized including:

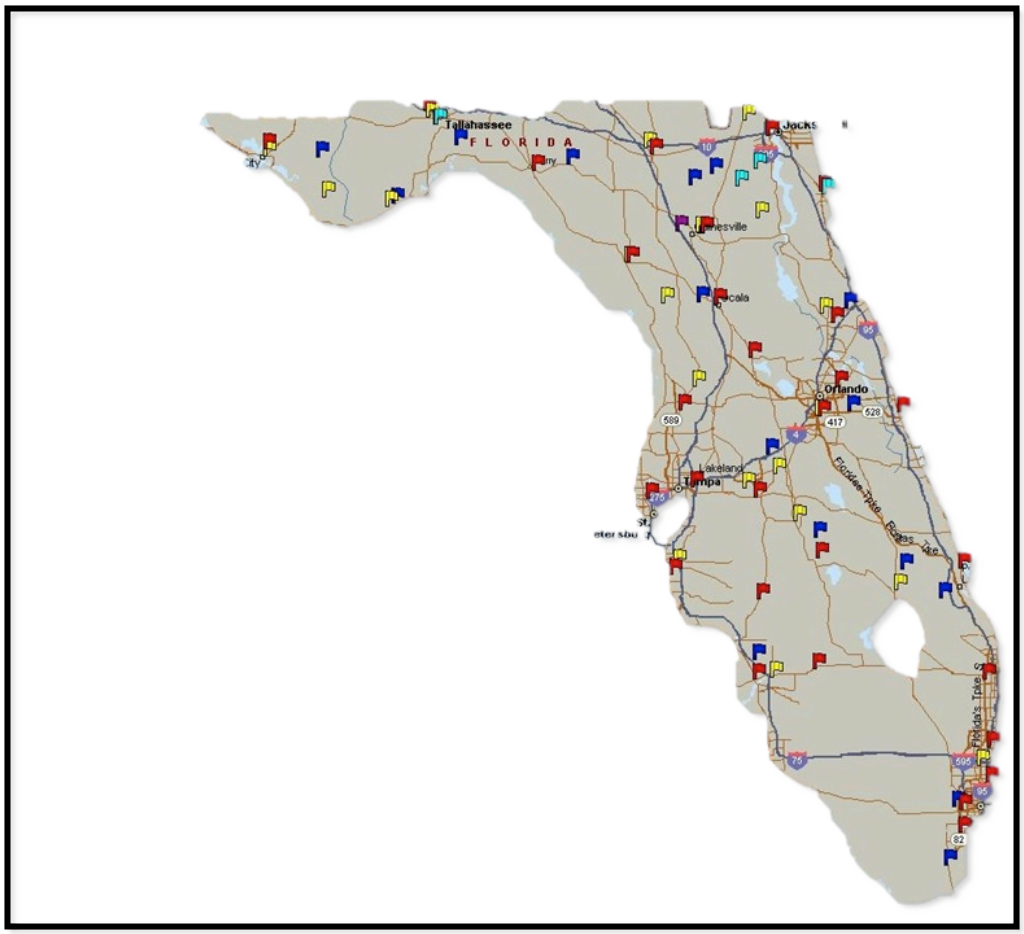
- The pilot program using a maintenance management company (ARI) for securing commercial repairs has not been formally evaluated. Most agencies were unaware that this option for securing repairs was available.
- DOT uses an on-site maintenance contractor to manage one of its shops. This option has not been formally evaluated and compared to in-house management of the other 25 shops to determine if the contracted approach should be expanded or eliminated.
- Methods for securing and authorizing ad hoc repairs from independent vendors vary across agencies and are often time consuming and inefficient.
- Use of the State's commercial fuel card program (WEX) for repairs has not been evaluated and while this practice facilitates the procurement and payment process, it is more costly in our experience than a managed approach (e.g. using ARI).
- State shops are agency specific and not open to all state agencies.

Evaluation of State Shop Services

As noted in Section A (page 18), state agencies operate a total of 89 vehicle maintenance facilities. The graphic below illustrates the distribution of shops throughout the State. There are no uniform standards to provide guidance as to the general operations of these shops. Operations are left entirely to the discretion of the parent agency.

The shops all operate differently in accordance with their own agency policies and procedures. For example, the shop operated by HSMV is almost exclusively run for the purpose of up-fitting new vehicles for the Florida Highway Patrol. Little or no repair work is done at this shop. The shop operated by FWC does a small amount of up-fitting for their vehicles but the primary function of the shop is to repair and refurbish watercraft. The rest of the shops vary in the level of services offered but most core requirements such as Preventative Maintenance (PM) and a modest range of repair services are available. In a few shops, such as the DOT facilities in Gainesville and Lake City, the range of repairs is substantially more extensive to include major overhauls and fabrication. More importantly the shops work solely for the parent agency and do not offer services to any others. The following graphic illustrates the number and location of the shops.

Exhibit 39: Scoring Matrix Shop Distribution

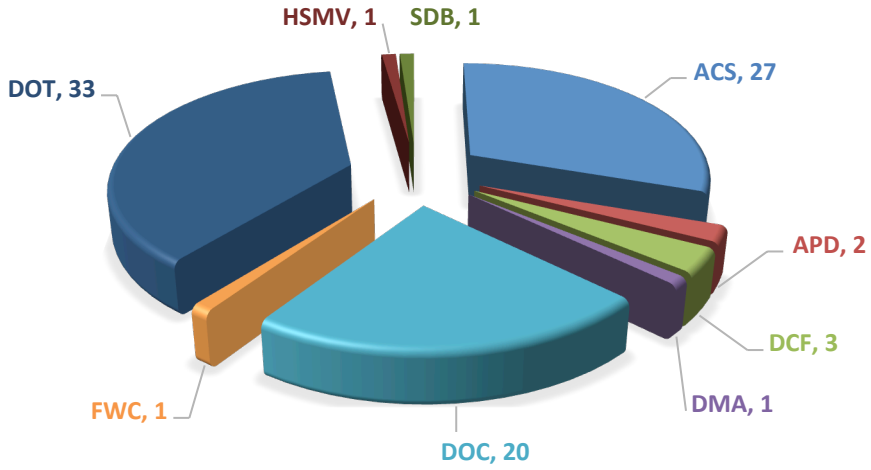


DOT		**DOC**	
ACS		**APD**	
DCF		**OTHER**	

The various colors of pennants indicate the differing parent agencies. The shops are generally distributed along major transportation corridors and many times, within just a few miles of each other.

The next Exhibit shows the number of shops associated with each parent agency.

Exhibit 40: Scoring Matrix Shop Distribution



As part of this project, we visited ten shops selected by the State to gain an understanding of in-house maintenance operations. Shops represented a cross section of agencies, the types of vehicles in the fleet, facility configurations, and staffing. The locations of the shops were divided into the northern section of the State, the central section, and the southernmost section. Agencies involved included DOT, ACS, FWC, DOC, and HSMV. Mercury personnel traveled to each location to examine the facilities and interview shop personnel.

We developed an interview process that included 200 questions covering all aspects of shop operations. In some areas, the questions were purely informational in nature to help us understand each operation as completely as possible. Other questions were intended to assist in rating the shops against industry standards and in doing so, have some form of comparison to one another. Note that one of the shops, the DOT Broward Service Center, is operated by a commercial contractor (G4S). By rating all of the shops uniformly, we gathered a sense of relative performance.

The scoring methodology included a range of points (0-25) for activities that are part of a best practices fleet maintenance organization. The number of points awarded was based on the relative level in which the practice in question met expectations. We further adjusted the scoring based on a weighting system. The aspects of the operations that had the greatest potential impact on service delivery carried the greatest weight.

There is no pass/fail in the scoring. Rather, from a high level, we can gauge the overall completeness of the operation in terms of industry practices and to what degree those practices compare to the best practices in fleet maintenance.
The Exhibits below provide summary information from the scoring matrix that was used. A total of twenty-four functional areas that apply to fleet shop operations and directly affect the level and quality of service delivery to the shop's customers were scored.

Note that the lists do not include the FWC North Florida Shop because this facility only works on large watercraft (primarily upfitting, decommissioning, and capital refurbishment) as this activity is not comparable to the other vehicle maintenance shops.

Exhibit 41: Scoring Matrix Summary 1

Location	Organization and Staffing	Maintenance Personnel Certification and Training	Preventive Maintenance Program	Defect Reporting and Service Writing	Work Scheduling and Estimating	Work Assignment	Quick Fix Services	Quality Control	Warranty Work
DOC LAKE BUTLER	75	10	45	60	10	30	17.5	37.5	5
ACS TALLAHASSEE	55	75	70	0	50	25	40	50	25
DOC ORLANDO	40	25	60	65	50	60	25	10	75
DOC DORAL	40	40	60	90	50	85	25	50	75
ACS ORLANDO	70	75	60	80	75	75	25	50	75
DOT ORLANDO	54.16	35	90	70	30	45	60	75	30
HSMV MIDDLEBURG	75	40	0	60	75	125	50	80	65
DOT GAINESVILLE	95	45	90	85	90	110	70	90	35
DOT FT. LAUDERDALE	100	75	70	85	100	125	75	100	75

The DOT Ft. Lauderdale facility is the Broward Service Center operated by G4S.

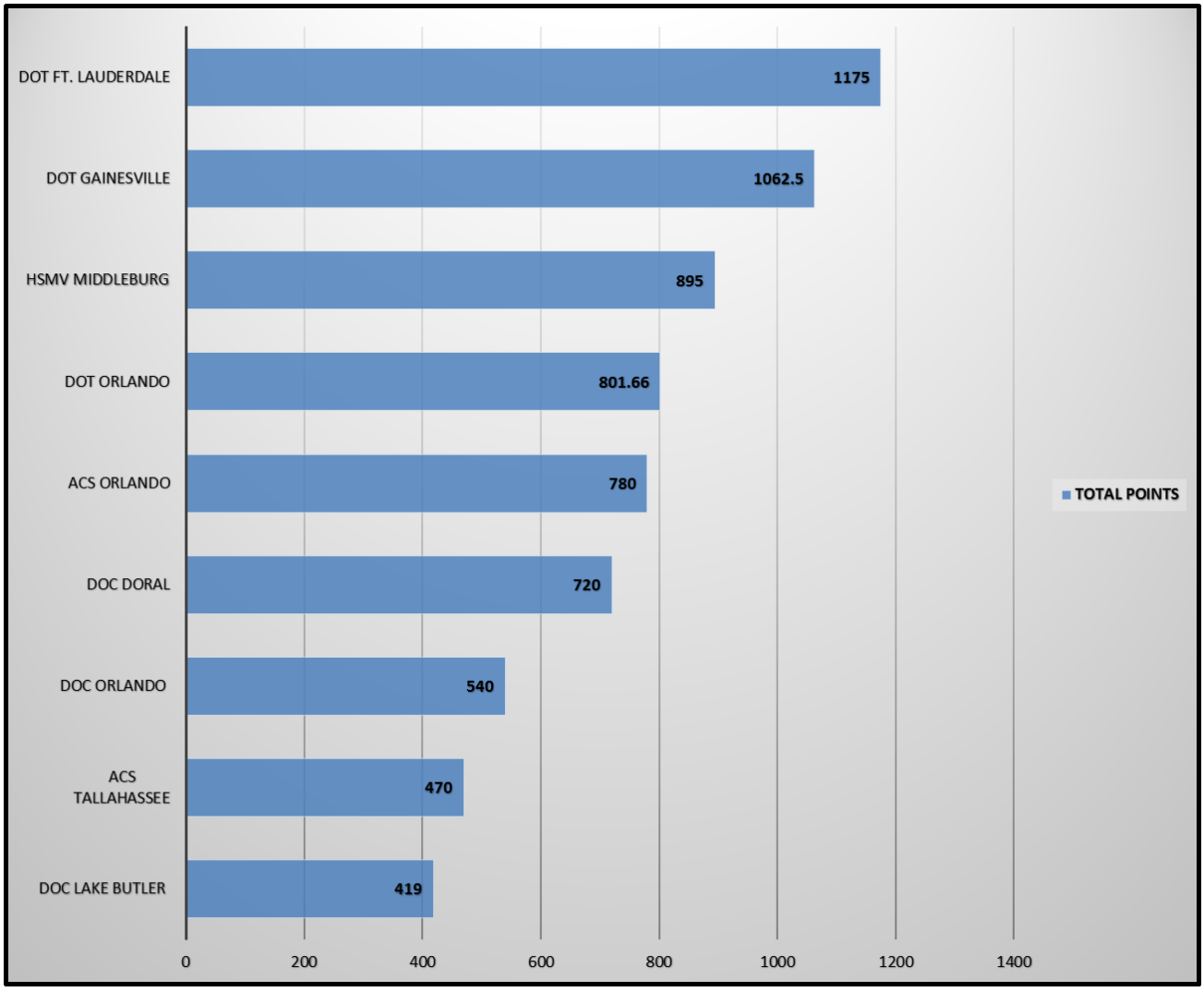
Exhibit 42: Scoring Matrix Summary 2

Location	Customer Communication and Feedback	Parts Procurement and Supply	Inventory Management	Parts Procurement	Warehousing and Inventory Control	Fleet Management Information System	Key Performance Indicators	TOTAL POINTS
DOC LAKE BUTLER	10	20	20	15	32	19	13	419
ACS TALLAHASSEE	25	0	0	25	0	5	25	470
DOC ORLANDO	50	0	10	25	20	25	0	540
DOC DORAL	75	10	10	25	60	25	0	720
ACS ORLANDO	50	0	0	50	40	55	0	780
DOT ORLANDO	15	35	70	70	75	47.5	0	801.7
HSMV MIDDLEBURG	50	0	40	50	80	20	85	895
DOT GAINESVILLE	65	10	40	85	30	32.5	90	1,062.50
DOT FT. LAUDERDALE	100	35	60	25	30	30	90	1,175

The DOT Ft. Lauderdale facility is the Broward Service Center operated by G4S.

The next graphic is a summary of the final scores given to the shops. The maximum possible score was 1600. More than half of the facilities reviewed achieved less than 50-percent of the possible points.

Exhibit 43: Scoring Matrix Site Inspection Results



The underlying reasons for the results vary widely and include such things as budget restrictions, shop location which often drives the facility configuration, and staffing to name a few. In fact, the only major hindrance that was revealed and consistent with every shop including the contracted operation, was the failure of the FLEET software system. Uniformly, the shops indicated that the system is labor intensive, fails to connect to other important State systems, and provides little useful information to aide in managing shop operations.

Two of the shops we assessed, the HSMV shop in Middleburg and the FWC shop in Tallahassee were examples of highly specialized operations. The HSMV shop is dedicated to the process of up-fitting law enforcement vehicles and the FWC shop is primarily used for the up-fitting and refurbishment of watercraft. Both shops perform some minor vehicle maintenance, however, that is the exception, not the rule.

By and large the shops appeared to be in reasonable condition, tooling was adequate for the work at hand, and staffing was generally appropriate. However, we found some shops to be old, poorly outfitted, understaffed, and generally the need for these shops requires further study.

We also found that half of the shops were under-utilized based on the size and capacity of the facility. Staffing in these shops was appropriate for the number of vehicles assigned to them, but clearly there is capacity for more work.

External Services

As mentioned above, DOT currently has one District shop, the Broward Service Center, which is operated by a commercial vendor. The vendor, G4S, employs the mechanics, provides a full range of services comparable to internal shops, develops and executes monthly maintenance schedules, and other services as requested. The shop only serves DOT vehicles at the present time.

The use of a vendor of this type is not new in the State since FDOT has been using vendors for this type of service since 2007. At that time, two shops were managed by First Vehicle Group which is a company comparable to the current provider. As that contract expired, the number of shops was reduced to one and through a competitive bid process, G4S was awarded the contract.

The contract itself is similar to others in the commercial maintenance sector. The vendor divides the services into two categories: Routine maintenance and repairs (Target Services) and non-routine repairs and services (Non-Target Services). The former is charged as a flat monthly fee, usually one-twelfth of the contract amount. The latter is charged on a per request basis and is billed as “time and materials” as would a private sector shop.

There are multiple advantages for the agency in this type of contracted operation:

- Costs are clearly fixed for each year of the contract. Any losses are suffered by the contractor, not the agency or the State.
- All aspects of the operation are managed and performed by competent, dedicated fleet professionals whose experience and training is essential to a successful service.
- The contractor already has in place many of the best industry practices such as mechanic training, safety programs, maintenance scheduling programs and processes, and national contracts for parts discounts, and parts management. The services are from a corporate level that is mature and capable of providing everything as turnkey.
- The contractors also have a management structure designed exclusively to promote efficiencies and effectiveness. Production and quality is monitored using

state of the art fleet software and the reporting is usually thorough and continuous.

- The contracting agency is able to clearly define any and all Key Performance Indicators as well as overall performance expectations. The contractor is obligated to deliver services at the highest possible level. The agency needs only provide a qualified contract administrator to ensure compliance.

Our high rating of the Broward Service Center is driven by the contractor's knowledge of and implementation of best practices for fleet maintenance and repair. While no fleet maintenance operation receives a perfect score, we found the practices and processes of G4S to be excellent.

In another pilot program, the State has piggybacked on a contract held by the State of New York with a commercial fleet management company known as ARI Services. ARI provides a central call center manned by trained technicians. These technicians assist customers by determining their needs and then directing the driver to a qualified shop. Essentially, ARI provides the expertise and management oversight but the actual work is performed by a variety of vendors. ARI also tracks the vehicle histories, pays the vendors, and provides extensive reports for State management on fleet maintenance activities.

The State has a small portion of its fleet (733 units) enrolled in ARI's Total Management System (TMS), spending a total of $1.7 million for goods and services in FY 2012 – 2013. Participants are well served by ARI. The program is said to be in "pilot" status however the program has been functioning for some time and there has been no formal review of the "pilot". As a result other state agencies were not aware of the services available.

There are a number of maintenance management firms who can provide the essential day-to-day services required to maintain a large and widespread fleet such the State of Florida. Using ARI as an example, we describe below the type of services that are available and may be of great value to the State.

We evaluated the current contract that the State is using with ARI. We present this evaluation to demonstrate what is available from ARI and similar contractors. Our specific recommendations follow the evaluation.

ARI's TMS provides a vehicle M&R program for vehicles less than 16,000 pounds gross vehicle weight (GVW) and a truck program for vehicles 16,000 pounds or more.

- Customized PM coupon books or PM schedules.
- In-house, 24/7/365 repair authorizations managed by ASE-certified technicians. Toll-free number for assistance. ARI encourages drivers to call for authorization for all services, which is the recommended practice. In our experience, vendors usually spend up to whatever limit a driver is given (e.g., $100).

- Ensures parts pricing, labor rates, and times are compared to published national guidelines.
- The State can set spending thresholds whereby ARI can authorize repairs up to a set limit. If a dollar limit is not established, ARI will contact the State for repairs in excess of $1,000.
- Negotiates with component/vehicle manufacturer for reimbursement of warranty related repairs on behalf of the State and returns 100 percent of all post-warranty recoveries to the State.
- Provides detailed on-line management reports.
- Provides vehicle manufacturer's recall information and prompts drivers when recalls are overdue.

ARI offers two types of vendors from which the State may obtain M&R services:

- **National Account Vendors** A network of nationwide dealerships (e.g., Goodyear, Firestone, Pep Boys) that offer consistent "fleet" pricing. It should be noted that these vendors provide rebates to ARI based on volume; however, the State is not receiving any portion of the rebate. With a fleet of over 700 units enrolled, we expect to see rebates ranging from two to five percent.
- **Independent Account Vendors** An independent local merchant. ARI will add independent shops to its network if requested.

Most ARI vendors are invoiced electronically through ARI's *"IntelliPay"* service so they receive payment within 48 hours via electronic transfer. ARI charges vendors up to three percent of the total invoice as a "processing" fee. Thus, a vendor may be paid up to, but no less than, 97 percent of its invoice whereas the State is billed 100 percent of the invoice. Other than deductions under *IntelliPay*, all services provided by ARI vendors are treated as "pass through" expenses. While vendors may ultimately pass through the cost of the *IntelliPay* service in higher prices to the end user, the cost of the service has advantages of:

- Timely receipt of data
- Lower margin for errors since data is not re-keyed from paper invoices; and
- Appeal of fast payment attracts vendors to the network.

Since New York procures tires directly from a tire manufacturer, tires are not specifically included in the ARI agreement. However, the State spent $32,169 for tires through ARI in FY2012 – 2013. While tires would be priced at "national account" rates, the State is not receiving a volume rebate from ARI.

Most service fees in the current contract are high compared to other contracts we have reviewed and likely could be lowered through a competitive solicitation. That being said,

if the contract is used appropriately, the time savings derived from the streamlined authorization and billing process, combined with knowledge based repair decision making, offsets any fees paid. For future reference we have noted in the Exhibit below which fees offer a potential savings opportunity if an effective contract is negotiated.

Exhibit 44: M&R Contract Terms

Service	PVPM18	Per-occur	Savings Potential	Comments
TMS Cars and Vans <16,000 lbs.	$5.15		YES	Repair costs and services are to be passed through at "standard national prices" or what is typically charged to fleet customers. The contract states that ARI may not increase or add to supplier/service provider billings. ARI is not sharing national account or tire rebates with the State. Vendors using ARI's *IntelliPay* service are charged up to three percent in order to receive electronic payment from ARI within 48 hours. The contract stipulates a fee of $5.90 PVPM. The State was charged $5.70 PVPM when it first enrolled in the program; however, effective July 2012 invoice, the rate was reduced to the current amount $5.15 PVPM.
TMS Trucks 16,000 or more lbs.	$20		YES	State does not currently have any trucks enrolled in TMS.
Emergency Roadside Service Cars and Vans <16,000 lbs.		$30	YES	Cost of service passed through by ARI. **NOTES:** 1) ARI is supposed to check if the vehicle carries free roadside service from the OEM prior to using its vendor; 2) WEX does not charge a service fee on top of vendor charges for roadside service.
Emergency Roadside Service Trucks 16,000 or more lbs.		$50	YES	Same as above.
Accident Management Program		$225	YES	State does not currently have any trucks enrolled in Accident Management. The State must decide whether to enroll in the Total Accident Management program or individually select the Accident Documentation Report and/or Repair Estimate programs at the **beginning** of the program. The State may delete accident management/subrogation programs as a feature as new vehicles are added to the system. The State may add or delete the accident management/subrogation programs for existing vehicles by providing a written request to ARI.
Accident Report Documentation (if		$100	YES	Includes damage appraisal.

[18] PVPM=Per Vehicle Per Month

unbundled from Accident Management Program)				
Obtain Repair Estimates (if unbundled from Accident Management Program)		$125	YES	Includes damage appraisal.
Subrogation		$105 or 15%	NO	State does not currently have any trucks enrolled in subrogation. The State must decide whether to enroll in Subrogation at the **beginning** of the program and select a fee structure of either $105 per subrogation attempt or pay ARI 15 percent of the recovery amount.
Payment Terms		Net-30	NO	
Post-warranty Recovery		$0	NO	ARI returns 100 percent of recoveries from OEM to the State.

Another method some state agencies utilize to secure repairs is using the WEX fuel card to pay for these repairs. However the WEX card does not offer the controls (e.g., State approvals at pre-defined dollar thresholds) and detailed (e.g., ATA codes) data gathering provided by ARI. The agencies still require drivers to obtain approval for repairs. Further, there has been no review of the WEX charges to determine if the pricing for services is comparable. Agencies prefer to use the WEX card as opposed to paying each vendor directly and, thus, *should* find the ARI program attractive.

And finally, approximately 24-percent of the State's annual repair spend is procured directly from individual vendors. This is, by far, the least desirable method in that the State is likely paying market rates for services and parts; there is no centrally managed record of costs, repair frequency, or other pertinent information other than a gross cost in the finance system for expenditures. Considerable agency time is expended in the repair authorization and payment process.

Summary Results

The wide-variety of programs provided by the State and the large territory that the fleet operates in poses special challenges for Florida in managing fleet maintenance and repair operations. Similar organizations including federal agencies, other large states, and large corporations employ all four of the approaches detailed in the introduction to this section of the report – as does Florida. The difference is that peer organizations apply these approaches based on fact based analysis to find the best fit for each approach, coordinate efforts among the various components of the greater organization, and monitor activities through detailed data and management information so that adjustments can made as appropriate. In contrast, Florida, to date has employed a decentralized approach based on past practices rather than a rigorous analysis of cost and performance data. There is little sharing of best practices among agencies, which

predominately operate as silos of independent action. Since oversight is limited, there is no assurance that State vehicles are properly maintained and that costs are appropriate.

In an environment as large and complex as the State of Florida, there is no single "one size fits all" approach that will optimize fleet maintenance operations. Rather, a well-designed blend of different options will best serve the State and its multi-faceted agencies. The following recommendations rely on DMS fulfilling a central role as a facilitator to break down the barriers that presently prevent the State from realizing optimal value from its extensive investment in facilities, maintenance contracts, and staff time organizing/managing fleet maintenance. At a high-level we are recommending the State open all shops to all agencies, consolidate shops located in close proximity to each other, hire on-site contractors to operate the largest shops, continue to operate State-run shops only if they meet rigorous standards, use a fleet maintenance service provider such as ARI to manage all ad hoc vendor maintenance, and tie all maintenance and repair together under DMS' oversight through a new highly capable FMIS.

The recommendations are presented with the understanding that some tasks may take longer to implement than others, some must be done sequentially, and others can be done concurrently.

We also have an appreciation that at current staffing levels DMS would not be able to accomplish these tasks. Although there is a significant level of effort required initially, once the recommendations are in place, the operation will require a far lower level of management. As such, DMS should actively seek the assistance of fleet professionals to execute the work in the short term. For example, the development of a maintenance contract for bid will require effort to produce, evaluate, and award. However, once the contract is in place, DMS need only supervise the contractor level to ensure compliance with contract terms and appropriate levels of service.

DMS can also contract for assistance in efforts such as auditing the shops each year. The audit process can be completed by a specialized team of professionals from a vendor and the results presented to DMS for action without the need for a permanent State employee on staff.

Recommendations

30. Open Shops to all Agencies

DMS should be charged with creating a steering committee to identify the inter-agency barriers that currently preclude fleet maintenance from being a shared service. Further, this committee should be required to find solutions and methods that will promote and support inter-agency services.

DMS should also take the lead in two important areas: one, to help eliminate the obstacles or perceived obstacles related to intra-agency billing. Secondly, DMS should take steps (with professional help) to establish reasonable labor rates and markups to assure full recovery of costs for each event.

31. Develop shop standards and consistent shop procedures

DMS, in conjunction with the agencies, should develop a minimum shop criterion that defines a "standard" shop. The criteria should address all aspects of the shop and its operations. For example, the number of technicians that are required to perform routine maintenance and repairs for a specific fleet size should be calculated for all shops using a standardized methodology. We would suggest using the Vehicle Equivalency method found elsewhere in this report. Another example would be defining the shop size and number of work bays necessary for a shop to support the size of fleet assigned to it. Industry standards are readily available for this kind of assessment. The standards should then be applied to every shop operated by the State, regardless of the reporting agency.

DMS should develop standardized financial processes such as calculation of shop charge-out rates, reporting procedures, Key Performance Indicators (KPIs), and other methodologies as necessary to promote consistent operations within the shops.

DMS should develop a methodology for auditing the shops once the aforementioned standards are implemented. Annual audits can ensure that the policies and procedures are understood and the shop is in compliance.

32. Consolidate Shops

There are numerous instances where state agencies operate vehicle repair facilities within very close proximity to one another. The reasons for the duplication of similar services are, as one might expect, related to the differences in mission for each of the agencies. Even though jurisdictions overlap, the agencies have, over many years, operated independently[19]. This duplicative effort is costly and in many situations could be avoided by consolidating the shops.

DMS should undertake a focused study of opportunities to consolidate shop operations wherever it is feasible. The effort should include detailed categorizing of each agency's need, the impacts on operations, and a cost benefit analysis.

Using the results of the aforementioned standards assessment, the shops should be mapped and recommendations made for consolidation. DMS should also facilitate meetings through the steering committee, to make the proposals and secure the consensus of the agencies affected. The steering committee can address all aspects of the recommendations including operational impacts, personnel decisions, and

[19] A listing of shop locations is available in the Appendix.

even property management decisions. Ultimately, a tactical plan to implement the recommendations should be created and executed.

33. *Outsource Large Shops*

The viability of using a commercial contractor to operate a State owned maintenance facility appears to be proven. The customer (DOT) provided information that suggests their satisfaction with the level and quality of the services. Our own examination of the shop shows that the contractor has the internal systems and methods in place to assure that the shop is cost effective and efficient.

Following the previous recommendation of consolidating shops, the State will be in a very desirable set of circumstances in that there will a clear and concise knowledge of the status of the shops, the adjustments that have been made regarding the size and type of vehicles that would report to a given shop, and other crucial details. These details can form the basis of a Request for Proposal for commercial operation of some of these shops.

Clearly there will be shops for which commercialization is not feasible or attractive to potential bidders. Once identified, these shops should continue to operate as a State run facility. The standards for shops that have been previously developed can and should be used to ensure that the candidates for commercialization are the best. It is entirely possible that the State may want to include a cluster of shops to be managed as one by the contractor as opposed to a single facility. The key is that the management methodology is of the highest caliber.

The State should review the existing contract with G4S and assess the performance and true costs to ensure that the terms and conditions set forth in the contract are being met and that outcomes meet expectations. The contract can then be used as the basis for a new Request for Proposal that includes any adjustments needed. Once the vendor responses are received, the bids need to be carefully evaluated and awarded.

We also recommend that the State consider splitting the potential award into at least two different contractors. In doing so, the State does have some protection should one of the contractors default. Moreover, the use of at least two will provide the State with the means to compare apples to apples as well as against State run facilities.

34. *Outsource all commercial repairs to a single maintenance management service provider e.g. ARI. This will require development of an RFP for fleet maintenance and repair services. The State should ensure that the terms, conditions and requirements are clear and designed to bring the state the best value.*

Key terms not in the current New York contract that should be included are:

a. Require awarded vendor's third party venders to furnish vehicle damage and liability insurance coverage for each vehicle while it has possession of the vehicle.

b. Require that all data and information relating to fleet management purchases and services provided by awarded vendor are the property of the State. Require the vendor to supply the State with the data in a medium mutually agreed for loading into the statewide Fleet system and to send billings to individual agencies.

c. Require the vendor provide all reasonable assistance to the State and any successor providers upon termination of the contract in transferring electronic data to the management information systems utilized by such successors.

d. Consider in advance reporting and KPI's for the service and include them in the contract.

e. Require the vendor implement fraud and theft prevention tactics so as to minimize fraudulent activities by merchants and State employees.

f. Pursue national account rebates as part of the negotiation process.

g. Require the names of vendor's "national account" vendors to be disclosed.

h. Negotiate tire rebates from vendor or use State contract.

35. *Once a State of Florida contract has been secured, require agencies to use the contract for ALL maintenance and repair at non state facilities. This will eventually reduce the use of the WEX cards to fuel purchases.*

FLEET FUELING

Introduction and Industry Best Practices

The cost-effective provision of fuel is critical to the operation of any fleet. For a fleet the size of Florida's, fuel represents a significant expense that must be controlled.

Outsourced Fuel Management

Most large fleets use a fuel card vendor or fleet management company to provide fuel card services for a variety of business reasons. Principle among these is the large territory that an organization such as the State of Florida operates in makes full coverage with an in-house bulk fuel site network impractical and cost-prohibitive. Fuel card companies bring state-of-the-art systems, reporting and associated controls; vendor relationships; networks with thousands of commercial fuel stations, and greatly simplified processes for securing fuel transaction data, billings, audits and payments. A best practice contract typically would require the vendor to:

- Provide a nationwide fuel management program offering gasoline and diesel fuel procurement through the use of a universal (single) credit card.

- Provide a minimum 90 percent Level III data transaction data capture.
- Provide a specified minimum number of commercial fuel facilities in areas detailed by the customer.
- Provide a specified number of facilities that have car wash and maintenance service facilities capable of transmitting Level III data.
- Provide a minimum number of sites in various regions that are open 24x7.
- Provide fuel price mapping.
- Provide fuel site mobile application.
- Provide on-line system accounting and reports.
- Provide annual review of use and performance.
- Provide multiple billings and interface with the customers current accounting codes.
- Develop (with the customer) a plan to assure access to fuel during emergencies.
- Provide a fuel card unique to each vehicle capable of tracking all fueling activity associated with the fuel card.
- Provide audit control and fraud detection for all fuel transactions. Such controls must prevent the use of cards for cash advances, appropriate fuel type or for purchasing at certain fuel providers or facilities as specified by the Customer.
- Maintain the appropriate level of control on spending such as limiting the size or number of transactions.
- Invalidate lost or stolen cards immediately upon receipt of notification by customer personnel.
- Provide an exception process whereby the Customer is notified electronically daily of any activity outside prescribed criteria as established by the Customer.
- Provide reporting tools that allow the Customer to request new commercial cards and to close existing accounts on line via real-time access.
- Provide new (excluding the initial implementation order) or replacement cards within 48 hours of receipt of the State's request.
- Provide fuel card customer service assistance 24x7 accessible via toll-free telephone number.
- Provide invoices net of exempted excise and sales taxes.
- Provide a fuel card compatible with existing equipment used at current bulk fuel dispensing State owned sites.
- Provide a dedicated account representative who has the ability and authority to resolve day-to-day problems and to meet in person with customer officials at least quarterly for the duration of the contract.

- Provide electronic transfer of invoices and detail on each transaction in a proscribed format.
- Ensure a reasonable initial response period and resolution to inquiries from State personnel.

In best practice fleets, managing the proper use of fuel cards is a daily activity. While fuel card vendor services include fraud prevention via continuous monitoring of fuel transaction data, fleet personnel must be actively involved in the daily management process. Fuel card monitoring activity typically includes reviewing data and producing exception reports on vehicles that exceed parameters set on items such as fuel capacity, mileage, fuel-type, and miles per gallon. Fleet personnel work jointly with the fuel card company in establishing exception parameters. When reports are issued, fleet staff review, research, collaborate with fleet users, and take action as required.

Analysis and Findings

DMS has secured a fuel card contract with WEX, a well-known fuel card company. Fuel secured from private vendors using the WEX card represents 67-percent of Florida's total fuel expense. While not necessarily detailed in the Florida contract, the vendor is capable of providing most all the services identified in the best practice listing above.

Unfortunately, it does not appear that Florida is using all of the services that the WEX card offers. For example, mileage and fuel data are entered manually by most agencies rather than downloaded directly from the WEX system into the State's FLEET system. There are a few Florida agencies that have worked with WEX to provide a download of fuel data which they in turn provide to DMS in electronic interface for FLEET. DMS historically has not wanted to secure vehicle mileage information from the fuel-vendor data-feed, having concluded that accurate meter readings are not available. In our experience, many large fleets successfully use the mileage data captured via their fuel management card, eliminating the need for time-consuming mileage reporting from the agencies. This is generally accomplished through a combination of training, exception reporting, and advanced FMIS functionality that uses logarithms to perform a reasonableness check on meter readings, rejecting those that are out of range.

Each agency is responsible for the management of the fuel for their assigned vehicles. With a few exceptions, it does not appear that a robust management process utilizing the controls and reports available is occurring at the agency level. There certainly has been no statewide analysis of fuel use, cost or issues, nor a comparison to in-house alternatives. There does appear to be significant time spent in manual processes for audit and data entry that do not add value.

Agencies also reported that when the contract was moved to WEX, DOT sites could not be utilized by non-DOT vehicles for approximately 18 months due to a compatibility issue between the DOT fuel management system and WEX. Compatibility should have been researched and requirements detailed in the contract document, along with the time period for resolving any problems.

Outlined below is a high level review of best practices in commercial fuel management and an indication (Yes, No, Some, Unknown) of Florida's current practice. Unknown (Unk) is generally a result of detail review beyond the scope of this project.

Exhibit 45: Commercial Fuel Practices

USE OF COMMERCIAL FUEL MERCHANT MANAGEMENT	Florida
Written policies and procedures for fueling practices	Yes
Clarity and logic of written policies, procedures, memorandums, instructions, and rules are comprehensive, complete, and acceptable	Some
Written contracts for commercial fuel card	Yes
Negotiated discounts based on fuel volume	Yes
Negotiated discounts based on branded merchants or individual stations	No
Excise tax is not charged at invoice level (if applicable)	Yes
Fuel card distribution and controls against misuse and fraud, including hard and soft controls (e.g., limit purchases by product, time of day, dollars per transaction/day/week/month, number of transactions, etc.	Unk
Separation of duties between: 1) employee responsible for fuel card driver ID/PIN assignment ("administrator"); 2) employee responsible for request and termination of cards ("account custodian"); and 3) employee responsible for physical security of fuel cards ("fuel card custodian." The fuel card and account custodians should not be card users and should not be the same person.	Unk
Fuel access control system tracks Level III data	Yes
Fleet policy enforces proper entry of odometer readings	No
Fuel card PIN is secure (i.e., could not be "guessed" or otherwise obtained by a wide number of employees	Unk
Agencies are billed for fuel consumed on a monthly basis	Yes
Exception reports are properly designed to identify MPG variances, pattern discrepancies, product variances, and excess fuel purchases	Unk
Purchases are managed by exception and reasonable number of audits rather than each individual purchase	No
On-line access to add drivers/vehicles, report lost/stolen card, issue new/replacement cards, update driver/vehicle information and PIN	Yes
Fuel data is imported into electronic FMIS	No

Recommendations

36. *DMS should develop and implement a fuel management program that establishes policies and procedures to which agencies must conform. This should include at minimum:*
    a. *A requirement to enter an accurate odometer reading when fuel is purchased. There are a number of methods that can be utilized to*

minimize incorrect entries and ensure fuel can be secured as needed.

b. *Work with the State's financing and accounting organization to develop an acceptable audit mechanism for automated billings and require its use by all agencies. This audit should make use of the many tools available from the vendor for exception reports. Additional exception reports could be developed inside the FLEET system if warranted.*

37. *DMS should work with WEX to obtain a download of all fuel, mileage and repair data into the FLEET system. Appropriate controls at the pump and a coding conversion on repairs should be part of the process. Individual billings could still go to the agencies where the common audit process would be applied.*
38. *In future contracts the State should detail more of its business requirements. Regular discussions should take place with the vendor for ways to decrease fuel costs and/or increase rebate amounts.*
39. *Once an effective repair contract has been secured, use of the WEX card to pay for repairs should be curtailed.*

State Bulk Fueling Operation

Best practice in-house fuel operations employ procurement and supply processes that ensure the quality and costs of fuel purchases are controlled through appropriate contract award, monitoring, and renewal procedures. Similarly fuel inventories are properly replenished, stored, and controlled through appropriate ordering, delivery confirmation, and inventory management procedures. In addition, compliance with applicable federal, state and local regulations regarding storage tanks and dispensing equipment is actively managed. Dispensing procedures afford users fast, convenient, and safe access to fuel and complete, accurate, and timely accounting for all quantities of fuel dispensed. Any provision of mobile fueling services should be cost justified.

As noted in the background section (page 18) of this document state agencies operate a large number fuel sites. In all, there are 111 fuel sites around the state with 215 tanks of varying sizes. Many fuel sites have small tanks and exist to fuel landscape equipment rather than vehicles. As with most states, the fueling sites were developed with the assumption agencies could purchase fuel at costs far lower than retail suppliers. Moreover, the on-site tanks provided the agencies with a great deal of convenience and some security during major emergencies such as fires and hurricanes.

Only FDOT operates fueling sites available to all State vehicles (although this inclusive policy has only recently been adopted). DOC has a large number of tanks at their various facilities, but these serve only those facilities.

Analysis and Findings

What was most obvious when reviewing fuel information and operations is that agencies did not have existing reports that were actively used by management to track fuel use,

cost, and other transactional data. Information on gallons dispensed and the cost expended was not readily available – as it should be for any organization that operates fuel stations. While FDOT has an automated fuel management system, obtaining reports appeared difficult. At DOC, detailed data was not available for some sites.

The cost of fuel based on data provided by all agencies was over $3.72 per gallon, compared to the $3.35 average cost for fuel from commercial providers through the WEX card. Unfortunately the State was unable to provide us with details on the fuel types it dispensed from its bulk fuel site; therefore we cannot be certain if the variation is due to a different mix of fuels, or cost of fuel itself[20].

We endeavored to look at the data from a variety of views. We compared a sample of the retail market for unleaded fuel, to the WEX charges for unleaded, to what samples of state invoices for unleaded fuel we could obtain. Both WEX and the average retail market in Florida were $3.32 per gallon; the state invoice cost was $3.30 per gallon. To the extent that these prices are representative, the State is getting a good deal from WEX since they provide automated billing, detailed reports, and security controls for the same cost as retail stations that offer none of these advantages.

While the price for the State to acquire unleaded for its bulk fuel sites is lower than WEX, the State incurs material additional costs to operate its sites that are not reflected in the per gallon cost. For instance, we know that FDOT markups fuel 10 cents per gallon to recover its indirect and overhead costs. This makes its pump price 8 cents per gallon more expensive than WEX and calls into question the cost-effectiveness of FDOT having fuel stations at all.

There are, of course, reasons other than cost for an organization to decide to operate an in-house fuel program. Principal among these is access to fuel during emergencies and natural disasters – an obvious significant concern in Florida. There is also the issue of employee productivity. Having a fuel station on-site is convenient especially in remote locations where retail fuel stations are not plentiful. However, in most parts of the State employees would pass dozens of retail gas stations on their way back to home base each day.

Our analysis also shows that there are several other issues associated with the State-owned fuel sites:

- The total cost of managing and maintaining the sites is not recognized;
- Access to agency sites is often restricted to the parent agency only;
- There is no standardized reporting methodology; and,
- There is no centralized oversight of the statewide fuel operations.

[20] Diesel fuel is more expensive than unleaded.

With bulk fuel expenditures exceeding $18.8 million in 2012-13, the program should be better optimized and managed. As with shop facilities, the State should assess how many sites it needs to own by consolidating sites and studying the fully-burdened cost of operating each site. Fuel sites should meet minimum standards including compliance with environmental regulations, providing modern facilities and equipment, providing a card-lock fuel system to guard against theft, meeting minimum fuel throughput (i.e. gallons dispensed compared to storage capacity), and providing lower costs than retail fuel stations accessed through the WEX card. Allowance for remote areas and emergency preparedness should also be considered in developing an optimized State run fuel network.

Recommendations

40. *DMS should review the current State contract for fuel to determine if it meets the State's needs and offers the best value in terms of costs, deliveries, and emergency supply provisions.*
41. *DMS should conduct an audit of each state operated fuel site to determine if there is a compelling reason to keep a site open. Absent a viable justification, the site should be closed. All sites that remain should be opened and made available to all State agencies except in a few cases where security concerns would make this infeasible.*
42. *A chargeback system should be developed to allow fuel purchased by one agency to be billed back to another. Rates should include indirect and overhead costs calculated by DMS through a uniform methodology.*
43. *A standardized methodology for reporting fuel data should be developed to record all key transactions including fuel deliveries, fuel issues, inventory reconciliations, maintenance, equipment repairs/replacements, etc.*

SECTION C: INFORMATION ON RECOMMENDED OPTIONS

In this section of the report we provide additional information on the options recommended in Section B (page 39) above. The format for this section of the report follows the State's solicitation for this project and requirements are repeated in italicized letters.

FLEET ADMINISTRATION

Timeline[21]:
Provide the timeline with key events from the beginning of the procurement process through the expiration of a contract.

Implementation of this recommendation can be accomplished in a total of one year and should be accomplished in phases as described below.

- Phase I (6 months):
  - Begin work to revise Statutes and Administrative Code sections to support a more centralized and comprehensive fleet management program.
  - Begin process of recruiting for new positions and/or contractor support for DMS Fleet Management Bureau

- Phase II: (6 months)
  - Conclude revision to Statutes and Codes
  - Conclude recruiting/contracting
  - Begin full centralized operations

Transition Plan:
Provide a transition plan for the full implementation of the fleet management recommended option, which addresses, as applicable:

A. *Changes in the number of agency personnel (and reemployment and retraining assistance plan for affected employees) and affected business processes.*

DMS will require up to an additional 12.8 FTE positions. Many of the required additional resources could be provided by contractors/vendors. However, at a minimum DMS will require the following additional staff:

- .3 of a Division Director

[21] Note all timelines in this report presume that Legislative approval and budget authority has been obtained. To the extent that obtaining approval and funds requires a significant amount of time, then timelines would need to be adjusted.

- .3 of an Administrative Assistant
- 1 Fleet Operations Division Supervisor

Funding for the new positions and/or contractors should come from a reduction in agency budgets in recognition of the savings that will be generated through better management of State fleet assets. As with all improvement initiatives the precise timing of obtaining savings after investments have been made will have to be determined through the State's budget process.

B. Employee transition issues

- Since we are not recommending transfer and/or outsourcing of existing positions there will be no employee transition issues associated with our recommendations in this area.

C. Required Statutory changes

As described in Section B (page 39) changes to the following Statutes and Administrative Code Sections will be required to support a more effective centralized fleet management approach in Florida:

- Chapter 287, Part II, Means of Transport.
- Chapter 286, Climate Friendly Public Business
- Chapter 24.105 (13)
- Chapter 590.02
- Administrative Code 60B-2
- Proviso language in the Fiscal Year 2013-14 Budget that stipulates extended vehicle replacement cycles of 150,000 miles for four agencies and 175,000 miles for three agencies.

D. Budget changes required by agencies

- Agency budgets should be reduced to pay for the additional staff/contractor costs required to implement the recommend fleet administrative changes. While we project positive savings for the State even after making the required investments to implement our recommendations, some savings will take time to materialize. Therefore, we recommend the State assume no net-cost for the changes in this section of the business case analysis. Consequently, the costs of implementing the fleet administration recommendations should be funded on a pro rata vehicle basis by reducing the fleet operating budgets of State agencies. We estimate the cost of the additional positions/contractor support at an average of $100,000 per position. With an increase of 12.8 positions this produces a transfer of funding from agencies to DMS of $1,117,000 or $49 per vehicle.

E. Communication with affected stakeholders.

- Changes to affected stakeholders should be communicated as part of the fleet committee process created for this project.

Compensation

If applicable, identify all forms of compensation to the vendor(s), e.g., direct payments, transfer of state property, free use of state assets, and revenues that do not pass through state accounts.

- Compensation to contractors for fleet administrative functions would be in the form of cash for services rendered.

Responsibilities

Document what responsibilities and costs will be retained by the agency once the solution has been implemented; the estimated expenditures by fiscal year over the expected life of the project; the specific performance measures that will be achieved or impacted; specific performance standards that must, at a minimum, be met to ensure adequate performance; and a contingency plan to address potential vendor nonperformance.

- Agencies will continue to operate, fuel, and maintain their fleets. DMS will assume a more active role in management oversight and reporting, and in providing certain services where economies of scale are evident.
- Expenditures by fiscal year for fleet administration will be the current DMS Fleet budget plus $1,117,000 in the first fiscal year (presumably FY 2014-15). Subsequent year expenditures will be regulated by the State budget process for inflationary cost increases.
- Performance measures we recommend for fleet administration include fleet availability at 90-percent, PM schedule compliance rate of 90-percent, days-to-sale for used assets at 60 days, residual value recovered through remarketing of an average of 10-percent, six fleet shop audits completed per year, and fuel cost of market average (determined by the Oil Price Information Service) plus >5 cents.
- Developing a contingency plan for vendor nonperformance is not applicable for this section.

Other Options

Explain why other options evaluated are not in the best interest of the state.

- The option of continuing with a passive and decentralized approach to fleet management is counter to industry best management practices and will not produce the savings of 5 to 10-percent that we estimate are available to Florida through optimizing fleet management processes.

Policy Impacts
Describe any differences in current state agency policies or processes that would need to be standardized, consolidated, or reviewed to reduce needed customization of the recommended option.

- Under our proposed approach State agencies will relinquish much of the management of strategic fleet processes to DMS and instead focus on tactical processes such as fleet assignment, and acquiring, disposing, fueling and maintaining vehicles through the processes that DMS establishes.

FLEET MANAGEMENT INFORMATION SYSTEM

Timeline:
Provide the timeline with key events from the beginning of the procurement process through the expiration of a contract.

The following is an outline of the general tasks necessary to procure and implement a new fleet management information system. DMS should consider contracting with a consultant or system integrator to assist with the acquisition of an appropriate COTS system.

Phase I – Needs Assessment and System Selection (Sample Work Plan)

- Needs Assessment, RFP Development and Issuance
- RFP Questions And Answer Processing
- Bid Receipt and Courtesy Communications
- FMIS Bid Review and Vendor Final Pool Selection
- Vendor Demonstrations
- Functional Review
- Vendor Customer Site Visit (Optional)
- Selection Process
- Contract Review and Pricing Negotiation
- The second phase includes tasks to install and configure the selected system and then to train users and move the system into operational production.

Phase II – System Implementation (Sample Work Plan)

- System Implementation
- Data Conversion
    - Data Scrubbing and Normalization
    - Data Conversion Management
    - Data Conversion Testing
    - Production Data Conversion

- Interface Definition Development
- System Screen Design, KPI Setup, & Reports
- Screen Design
- Key Performance Indicators
- Management Report Development
- System Installation
- System Codification, Configuration and Administration Training
- Training Materials Development
- Pre-Production Training
- Production Support

Typical timelines are anticipated to be approximately four to six months to complete the tasks in phase I and 10-12 months for phase II tasks, depending on availability of key fleet personnel. Ideally, a phased implementation would be employed to bring segments of the organization onto the application over an 18-24 month period.

Transition Plan:

Provide a transition plan for the full implementation of the fleet management recommended option, which addresses, as applicable:

A. *Changes in the number of agency personnel (and reemployment and retraining assistance plan for affected employees) and affected business processes.*

This issue has already been covered in the Fleet Administration discussion above.

B. *Employee transition issues*

- Not applicable.

C. *Required Statutory changes*

- This issue has already been covered in the Fleet Administration discussion above.

D. *Budget changes required by agencies*

- Agencies should be required to pay DMS a fee of $1.75 per month for all fleet assets, not just light-duty vehicles as stipulated in current law. DMS currently collects $383,000 per year in FLEET fees. Expanding fees collection to all types of vehicles and equipment would produce an additional $142,000 per year. Once this change is made, fees per agency would be:

Exhibit 46: Proposed FLEET System Fees

Agency	Fleet	Fees[22]		Agency	Fleet	Fees
DOT	5,362	$ 112,602		OAG	126	$ 2,646
ACS	4,290	$ 90,090		DMS	103	$ 2,163
DOC	3,147	$ 66,087		DMA	100	$ 2,100
HSMV	2,925	$ 61,425		DOE	45	$ 945
FWC	2,779	$ 58,359		SDB	43	$ 903
DEP	1,628	$ 34,188		DOS	27	$ 567
FDLE	654	$ 13,734		PSC	26	$ 546
JAC	570	$ 11,970		EOG	24	$ 504
DFS	569	$ 11,949		DVA	19	$ 399
DCF	552	$ 11,592		DOR	17	$ 357
DJJ	551	$ 11,571		DEO	6	$ 126
BPR	485	$ 10,185		AHCA	2	$ 42
DOH	417	$ 8,757		FPC	2	$ 42
APD	331	$ 6,951		CIT	1	$ 21
DOL	190	$ 3,990		**Totals**	**24,991**	**$ 524,811**

The State should also require colleges and universities to use the new COTS fleet system to track and report their assets. Consequently, the FLEET system fee should be extended to the approximately 5,000 vehicles operated by these institutions[23]. This would produce an additional $105,000 per year in revenue for DMS to help defray its costs.

E. Communication with affected stakeholders.

- Changes to affected stakeholders should be communicated as part of the fleet committee process created for this project.

Compensation

If applicable, identify all forms of compensation to the vendor(s), e.g., direct payments, transfer of state property, free use of state assets, and revenues that do not pass through state accounts.

- Compensation to contractors and software vendors to assist with the acquisition and implementation of a new fleet system would be in the form of cash for services rendered.

Responsibilities

Document what responsibilities and costs will be retained by the agency once the solution has been implemented; the estimated expenditures by fiscal year over the expected life of the project; the specific performance measures that will be achieved or

[22] Based on $1.75 per month per asset.

[23] Including 3,000 licensed vehicles and an estimated 2,000 pieces of construction, landscape, and material handling equipment.

impacted; specific performance standards that must, at a minimum, be met to ensure adequate performance; and a contingency plan to address potential vendor nonperformance.

- No change from current practices and responsibilities will be required.

Other Options
Explain why other options evaluated are not in the best interest of the state.

- Improving data collection and analysis capabilities is a prerequisite for optimizing the cost and performance of the State's fleet program. All other strategic and tactical initiatives depend upon a new tier 1 COTS system being put in place. The old adage that "No measures equals no improvement" applies well in this situation.

Policy Impacts
Describe any differences in current state agency policies or processes that would need to be standardized, consolidated, or reviewed to reduce needed customization of the recommended option.

- None that have not already been noted (redefining the term vehicle, requiring the universities to use a new COTS system).

FLEET REPLACEMENT

The recommendations in this area involve further analysis and detailed review of alternatives; therefore the next steps require focus on activities the State must engage in. This includes

- Establishment of a cross functional team that includes DMS Fleet management, budget & finance officials, and agency representatives, supplement them with experts as required, and charge them with developing a statewide Fleet replacement planning and budgeting process. An appropriate sub-team should be charged with confirming that debt finance alternatives are feasible for use by the State.
- Engagement of experts, either via contract and/or hiring of professional fleet management staff, to develop optimal replacement cycles for key types of vehicles, a long-term fleet replacement planning program that includes funding alternatives to execute the optimized plan, and development RFP to secure the lease funding and related services.

Timeline:
Provide the timeline with key events from the beginning of the procurement process through the expiration of a contract.

Implementation of this recommendation can be accomplished in approximately 18 months.

- Determine alternative financing viability – 4 months
- Complete replacement, financing plan, lease RFP and contract award – 12 months
- Implement replacement and financing plan – 6 -12 months and ongoing

Transition Plan:

Provide a transition plan for the full implementation of the fleet management recommended option, which addresses, as applicable:

A transition plan for implementing the replacement planning process includes the following steps. (Note: if a lease or loan strategy is selected, the time involved in competed that process is provided in the Acquisition Section (page 90).

- Secure staff resources for DMS Fleet
- Engage experts to assist with analysis detailed above
- Document replacement planning and budgeting process
- Determine activities associated with review or reports and corresponding agency communication
- Develop and execute statewide policy

Impact of Change:

- Modernize the fleet
- Optimize the total cost of ownership
- Decrease the direct and indirect costs of downtime
- Right Size the fleet
- Cost savings from improved performance, less downtime
- Streamlined consistent replacement financing and budgeting

A. Changes in the number of agency personnel (and reemployment and retraining assistance plan for affected employees) and affected business processes

- There will be an initial investment in time on the part of those involved in the team recommended. Once the policy and practice is in place, the recommended staffing of DMS will suffice to manage the process.

B. Employee transition issues

- No issues beyond those identified with DMS staffing changes.

C. Required statutory changes

- The current statute appears to authorize leasing. The recommendations for this item include identifying where lease and/or loan finance options would require any statute change.

D. Budget changes required by agencies

- If lease (or loan) alternative financing is chosen, the capital outlay financing method currently used would cease. In its place would be a pay-as-you-go process requiring annual appropriations to make payments on the lease or loan.

The process for budgeting and financing new and replacement vehicles would be changed from an individual agency view to a statewide view. Once the total statewide package is authorized, the appropriate amounts could be placed in individual agency capital or operating budgets as appropriate.

E. Communication with affected stakeholders.

- Changes to affected stakeholders should be communicated as part of the fleet committee process created for this project and in written policy developed and disseminated by DMS.

Changes in replacement and financing practices that lead to fleet renewal involve the execution of new business methods. Detailed below are key strategies that will maximize success.

<u>Replacement Plan Execution</u>

Even the best fleet replacement plans and the replacement cycle guidelines on which they are based are derived from cost and other information for the “average” or “typical” vehicle or piece of equipment. Consequently, they do not fully take into account the unique characteristics of each asset in a fleet or changes to the asset’s utilization or condition since the plan was last updated. For this reason, the replacement plan should serve as the point of departure for identifying which assets are *candidates* for replacement each year, not which assets *will* be replaced each year. Annually these candidates should be scrutinized using a series of criteria that is not limited to age and life-to-date miles or hours of use.

A scoring system that takes into account factors that are unique to each vehicle, including current utilization level; front-line or backup assignment status; recent repair history and pending repair/refurbishment costs; perceived reliability, suitability, and safety; and ease of replacement should be used to modify and finalize each year’s projected fleet replacement plan and associated budget request. The State should ensure input from key stakeholders is part of the review of the baseline replacement plan. This step will need to be taken in order to ensure that the particulars of any

replacement plan the State intends to implement reflect operational requirements and fiscal realities then in effect in key fleet user agencies.

Each year after vehicles have been selected and replaced, the plan must be updated to generate the potential list for the next year. Finally it is important that State leaders embrace the renewal plan and ensure cooperation from agencies in its implementation.

Outsourcing Financial Services

While qualified service providers and competitive pricing exist for finance services, to realize their benefits and control the cost, the State must engage such service providers in the process and elicit their confidence in the State as a business partner. The latter is especially important in a first time outsourcing such as this. Service providers will make decisions on participating in the bid process on both the RFP and the quality and strength of involved State staff. Even for those that do decide to participate, their bid prices will reflect the confidence they have in how quickly they can build an effective working relationship with the State.

In addition to developing professional, detailed RFP documents, we recommend the State assign a high level executive to "sponsor" the project and address both internal and external communication needs. This executive sponsor would chair a project team of fleet management, budget, finance, accounting, procurement and legal staff that are all authorized to speak for their respective disciplines. A project manager would lead this team in development of RFP's, solicitation of participants, RFP analysis, detailed planning and execution of the changes required, and management of plan execution across State government.

Rightsizing

As indicated, implementing the results of a utilization study in concert with fleet renewal will make the task of implementing needed fleet reductions substantially less contentious as users are assured of timely replacement and the ability to secure additional vehicles when they are needed. However, it will still require strong executive level support to ensure that the maximum number of vehicles is deleted from the fleet. Therefore an active and ongoing voice from the Governor's office and executives in each agency is required to maximize success and savings.

Compensation

If applicable, identify all forms of compensation to the vendor(s), e.g., direct payments, transfer of state property, free use of state assets, and revenues that do not pass through state accounts.

- Since this is basically the selection of policy and practice, there are no compensation issues. If a lease or loan is chosen, the compensation issues arise in the acquisition process and are covered in that section (page 90).

Responsibilities

Document what responsibilities and costs will be retained by the agency once the

solution has been implemented; the estimated expenditures by fiscal year over the expected life of the project; the specific performance measures that will be achieved or impacted; specific performance standards that must, at a minimum, be met to ensure adequate performance; and a contingency plan to address potential vendor nonperformance.

- Initially, DMS has the responsibility to coordinate the steering committee and secure expertise to assist.
- Long-term, DMS has a responsibility to ensure the replacement process is working effectively, produce annual replacement plans and selectors, process orders, monitor replacement cycles and costs, and manage the lease or loan contract (if chosen).
- Agencies must provide the data and information required to effectively build a solid replacement process and be open to re-evaluating functional requirements.
- If a fleet management company is involved there will be specific metrics regarding the development of selectors. If the process is maintained in-house, then similar metrics should be established.

FLEET SIZE AND UTILIZATION

As noted in Section B (page 39) of this report, this project includes optional tasks covering fleet rightsizing and management of mileage reimbursement. Consequently, for this current report we did not complete any detailed analysis of these activities. Therefore, our submission for this section of the report is for information purposes only.

Timeline:

Provide the timeline with key events from the beginning of the procurement process through the expiration of a contract.

Implementation of this recommendation can be accomplished in a total of one year and should be accomplished in phases as described below.

- Phase I: (3 months)
  - Negotiate contract with consultant to complete Optional Task 3: Review and Recommended Fleet Management Tools, Policies and Performance Measures to Support Agency Travel Needs.
  - Negotiate contract with consultant to complete Optional Task 4: Review and Recommend the Target Size for the State Fleet.
  - Gather detailed information on utilization for all fleet vehicles and equipment including updating odometer readings.
- Phase II: (6 months)
  - Conduct fleet rightsizing study.
  - Conduct POV audit.

- Develop POV management tools
- Develop new fleet use and POV policies and procedures as required.

- Phase III: (3 months)
  - Remarket and/or reassign vehicles targeted for elimination.
  - Rollout new POV management tools to a small agency for field-testing before full rollout.

Transition Plan:

Provide a transition plan for the full implementation of the fleet management recommended option, which addresses, as applicable:

A. *Changes in the number of agency personnel (and reemployment and retraining assistance plan for affected employees) and affected business processes.*
   - Not applicable to this section

B. *Employee transition issues*
   - Since we are not recommending transfer and/or outsourcing of existing positions there will be no employee transition issues associated with our recommendations in this area.

C. *Required Statutory changes*
   - No changes to current laws would be required to implement recommendations in this area. New policies and procedures may be needed, however, and so some refinement of the Administrative Code on fleet use and POV reimbursement may be necessary.

D. *Budget changes required by agencies*
   - Agency budgets should be reduced by the amount of savings produced by the studies of fleet size and POV reimbursement. Precise savings amounts cannot be provided until studies are complete. However, based on our experience estimated savings from the fleet rightsizing effort would be from $1.9 to $3.8 million in auction proceeds, from $3.8 million to $7.6 million[24] in the fuel and maintenance cost savings, and $1.6 million in annual savings from improved management of POV reimbursement[25]. Five year total benefits would range from $7.3 million to $13 million.

E. *Communication with affected stakeholders.*
   - Changes to affected stakeholders should be communicated as part of the fleet committee process created for this project.

[24] Range based on 5% to 10% (1,250 to 2,500) fleet reduction and $1,283 in annual savings for each asset eliminated (derived from 2010 California fleet reduction project) and $1,694 in auction revenue per unit sold.
[25] 15% improvement, which we have seen with other organizations.

Compensation

If applicable, identify all forms of compensation to the vendor(s), e.g., direct payments, transfer of state property, free use of state assets, and revenues that do not pass through state accounts.

- Not applicable to this section

Responsibilities

Document what responsibilities and costs will be retained by the agency once the solution has been implemented; the estimated expenditures by fiscal year over the expected life of the project; the specific performance measures that will be achieved or impacted; specific performance standards that must, at a minimum, be met to ensure adequate performance; and a contingency plan to address potential vendor nonperformance.

- Agencies will continue to operate, fuel, and maintain their fleets. DMS will assume a more active role in management oversight and reporting, and in providing certain services where economies of scale are evident.
- Annual savings have been estimated above but need to be verified through the conduct of detailed studies of fleet size and POV mileage reimbursement.
- Performance measures will need to be developed during the detailed studies of fleet size and POV mileage reimbursement.
- Developing a contingency plan for vendor nonperformance is not applicable for this section.

Other Options

Explain why other options evaluated are not in the best interest of the state.

- The option of continuing with a passive and decentralized approach to fleet management is counter to industry best management practices and will not produce the savings that we estimate are available to Florida through optimizing fleet management processes.

Policy Impacts

Describe any differences in current state agency policies or processes that would need to be standardized, consolidated, or reviewed to reduce needed customization of the recommended option.

- Changes to policies will likely need to be implemented and will be identified during the detailed studies of fleet size and POV mileage reimbursement.

FLEET ACQUISITION

The recommendations for acquisition of vehicles and equipment involve changing the current specification and procurement process. If the state moves to leasing vehicles from a fleet management service company, the acquisition process would transition to that company. These companies have the expertise to assist the State with specification and selector development. Further, their procurement process includes a best value analysis in selection of the actual vehicles involved.

If the State does not move to leasing, then it must develop a specification, selector and procurement process that includes best practice elements identified above.

Timeline:
Provide the timeline with key events from the beginning of the procurement process through the expiration of a contract.

The total timeline for reengineering the acquisition process will be affected by whether the state chooses to lease vehicles from a fleet management service company and include acquisition services or finances acquisitions with loans. In both cases there is a commitment of time from agencies and DMS to identify and detail the types of work performed and the vehicles required to meet business needs. However, a fleet management service company already has the tools and expertise in place to assist in defining the specification details and streamlining the acquisition process.

If a fleet management service company is used, then the timeline will follow that detailed in the fleet finance section (page 68). If the state will be handling development and implementation of the new process in house, the timeline is estimated at 18-24 months.

Transition Plan:
Provide a transition plan for the full implementation of the fleet management recommended option, which addresses, as applicable:

A transition plan for full implementation of either fleet lease or state reengineered acquisition process includes the following steps:

1. Secure staff resources for DMS Fleet
2. Engage experts to assist with implementation of fleet lease process or creation of state acquisition process
3. Document the acquisition process
4. Determine activities associated with review and results of the process, including reports and corresponding agency communication
5. Develop and execute reengineered statewide acquisition policy

Impact of Change:

- Assures right vehicle for the job
- Minimizes acquisition cost component through specification, standardization and timing of delivery
- Potential maintenance and repair cost savings from proper specification and standardization.

The transition plan has the following impact on key defined elements as follows:

A. *Changes in the number of agency personnel (and reemployment and retraining assistance plan for affected employees) and affected business processes.*

- If the State develops the process in house, there will be a need to temporarily provide DMS expert assistance with developing the process and associated tools. This likely could be contracted. Once the process is in place, DMS would need one staff member with detailed knowledge of vehicles, including heavy equipment.
- If the State moves to the fleet management company option once the new process is in place, DMS, Purchasing and every agency with fleet vehicles will realize a substantive decrease in the time employees currently expended in the acquisition process. This time is often spread across multiple positions so elimination of full time equivalent (FTE) positions is not likely. However, the FTE time can be redirected to agency core mission activities.

B. *Employee transition issues*

- Depending on the option chosen, an appropriate technical employee to lead the specification development may be required for DMS staff.

C. *Required Statutory changes*

- There is no statutory change required for the acquisition processes themselves.

D. *Budget changes required by agencies*

- Acquisition process changes in and of themselves do not require budgetary changes. If leasing is selected, the changes are as detailed in the finance section.

E. *Communication with affected stakeholders.*

- Changes to affected stakeholders should be communicated as part of the fleet committee process created for this project and in written policy developed and disseminated by DMS and Purchasing.

Compensation

If applicable, identify all forms of compensation to the vendor(s), e.g., direct payments, transfer of state property, free use of state assets, and revenues that do not pass through state accounts.

- If handled in-house there is no compensation that occurs beyond payment to vendors for the purchase of vehicles, which is currently the practice.
- If acquisition is handled by the fleet management company, then the budget changes detailed in the finance section (page 68) apply.

Responsibilities

Document what responsibilities and costs will be retained by the agency once the solution has been implemented; the estimated expenditures by fiscal year over the expected life of the project; the specific performance measures that will be achieved or impacted; specific performance standards that must, at a minimum, be met to ensure adequate performance; and a contingency plan to address potential vendor nonperformance.

With either method, DMS has a responsibility to ensure the process is working effectively and producing results. Agencies must provide the data and information required to effectively build a solid acquisition process and be open to re-evaluating functional requirements.

Purchasing has a responsibility to ensure that it meets the needs detailed by DMS to ensure an effective process, e.g. ordering vehicles in certain timeframes and expanding the award criteria.

If a fleet management company is involved there will be specific metrics regarding the acquisition price, error rates, and timeliness of order and delivery. If the process is maintained in-house, then similar metrics should be established

Other Options

Explain why other options evaluated are not in the best interest of the state.

- The option of continuing with the narrow and decentralized approach to fleet acquisition is counter to industry best management practices. It will not produce the savings of 5 to 10-percent that we estimate are available to Florida through optimizing fleet management processes.

Policy Impacts

Describe any differences in current state agency policies or processes that would need to be standardized, consolidated, or reviewed to reduce needed customization of the recommended option.

Changes in process associated with acquisition must be detailed and implemented by DMS.

FLEET DISPOSAL

The recommendations for disposal call for a change in current practices. If the State moves to leasing vehicles, the disposal process could be moved to the fleet management service company. These companies have the expertise to select the mix of sale alternatives that would maximize net sale return.

If the State does not move to leasing, then it should develop a disposal process that includes best practice elements identified above.

Timeline:

Provide the timeline with key events from the beginning of the procurement process through the expiration of a contract.

If bundled with fleet leasing, the times for that project would be followed. If to be done standalone, a 12 month time period would suffice to complete the steps outlined in the transition plan.

Transition Plan:

The basic step for full implementation of either fleet lease or state reengineered disposal process

- Secure staff resources for DMS Fleet.
- Engage experts to assist with implementation of fleet lease disposal process or in the creation of a state process. These steps include.
    - Analyze sale alternatives and select mix of methods to maximize sale return.
    - Draft request for proposal(s) as required to secure methods identified. This should include the associated tools to evaluate proposals.
    - Select service providers and implement new methods.
    - Document the disposal process.
    - Train DMS staff on review of results and metrics.
- Determine activities associated with review and results of vehicle sales, including reports and corresponding agency communication.
- Develop and execute reengineered statewide disposal policy.

Impact of Change:

- Maximize resale return.
- Minimize state agency time in the disposal process.

The reengineered disposal process involves the following:

A. Changes in the number of agency personnel (and reemployment and retraining

assistance plan for affected employees) and affected business processes

If all disposal activities are moved to a fleet management company, then DMS could decrease staff associated with the sale part of the process (currently 1.8 FTEs)

If the new methods are to be contracted and managed by DMS, then there will be only a slight decrease in employee time required. The focus of employee time, however, would move to ensuring the vendor(s) were effectively meeting contract obligations and evaluating the results.

B. *Employee transition issues*

Contract employees currently involved in the disposal process would no longer be required if a fleet management company handles the disposal process

C. *Required Statutory changes*

No Statutory changes are required.

D. *Budget changes required by agencies*
   a. If the state leases vehicles, the disposal revenue will automatically be netted against the state's payment stream.
   b. If the state does not lease, the sale revenue should be returned to individual fleet budgets.

E. *Communication with affected stakeholders.*

Changes to affected stakeholders should be communicated as part of the fleet committee process created for this project. In addition specific policy and process instructions for agencies would be issued.

Compensation

If applicable, identify all forms of compensation to the vendor(s), e.g., direct payments, transfer of state property, free use of state assets, and revenues that do not pass through state accounts.

Vendors contracted to provide disposal services will be paid cash in accordance with the contracts. This generally will be in the form of netting the gross-sale amount for each vehicle, returning only the amount that equals gross cost.

Responsibilities

Document what responsibilities and costs will be retained by the agency once the solution has been implemented; the estimated expenditures by fiscal year over the expected life of the project; the specific performance measures that will be achieved or

impacted; specific performance standards that must, at a minimum, be met to ensure adequate performance; and a contingency plan to address potential vendor nonperformance.

The agencies will be required to follow the process selected by DMS to dispose of vehicles. DMS will engage in active management of vendor, both in terms of process and results. The vendor is responsible to meet all the terms and conditions detailed in the contract.

A detailed, specific RFP and evaluation process aimed at securing vendors that will bring the state the best value is a key first step in minimizing the chance for nonperformance. Active management by DMS of outcomes will bring any issues that may arise to light early. Having multiple mechanisms available enables the state to utilize other methods of sale in the event of a default by one of the providers.

Other Options

Explain why other options evaluated are not in the best interest of the state.

- Other options will not maximize the dollar return to the State that optimizing the resale process and results offer.

Policy Impacts

Describe any differences in current state agency policies or processes that would need to be standardized, consolidated, or reviewed to reduce needed customization of the recommended option.

As indicated above, disposal policy would be changed to reflect the methods to be utilized.

FLEET MAINTENANCE AND REPAIR

The recommendations for Maintenance and Repair target a number of specific areas with the purpose of improving access to services, standardizing shop requirements, reducing costly duplication, increasing service cost controls, and improving the documentation process that is so essential to managing a large fleet over an area the size of Florida without costly duplication.

The best solution for the State, as with other similar large organizations, includes a blending of in-house expertise, some commercially managed facilities, and program of commercial management support to fill in gaps working with DMS who is in the best position to evaluate and manage the services. Further, the State will benefit from a detailed study and action plan to reduce the number of shops currently in operation and consolidate maintenance and repair work to other facilities.

Steps to implement these repair and maintenance recommendations include:

Open Existing State Shops to All Agencies

- DMS to establish steering committee to identify barriers to the inter-agency use of existing shop facilities;
- Eliminate current restrictions or problems related to inter-agency cost recovery (billing) to allow shops to be utilized by all agencies as needed;
- Establish standard rates for labor and other essential markups to ensure that the provider agency recovers its costs completely.

State Garage Operation Standards

- DMS, in conjunction with the agencies, should develop criteria that define minimum standards for shop operations. The State should establish a policy that these standards must be consistently met at a high level or the shop should be closed. Standards should include minimum criteria for shop facilities and tools, development of a cost allocation system including fully-burdened shop rates, well devised labor and parts management processes; excellent use of the FMIS, and meeting KPIs for cost and customer service (such as fleet availability);
- Use Vehicle Equivalency method to determine appropriate shop staffing and identify changes in staffing needs as the number of vehicles using the shop changes;
- Establish Key Performance Indicators to track shop performance;
- Develop reporting requirements for all shops to ensure that KPIs can be measured uniformly; and,
- DMS should develop a procedure for conducting shop audits to identify any deficiencies and to develop remedial actions as required.

Shop Consolidation

- Using the shop standards, DMS should evaluate all State run shops and determine if some operations can be consolidated;
- Once candidates are identified, DMS should provide agencies with a detailed proposal for closing the shops and redirecting work to others whenever possible;
- DMS should provide agencies with a detailed cost avoidance plan all impacts to agencies; and,
- Determine an action plan for shop consolidation or shop closures.

Outsourced Repairs

- Secure staff resources for DMS Fleet, either permanent or contracted;
- Engage experts to assist with development of RFP, analysis of bid responses and development of detailed implementation plan;
- Develop and execute statewide policy;
- Develop and execute communication and education plans on use of services for
    - Drivers

- Agencies
  - Document process for monthly billing and payment for use statewide, including audit/check process;
  - Determine Monthly reporting requirements from vendors;
  - Document process for monthly data import from vendors to fleet system; and,
  - Determine activities associated with review or reports and corresponding agency communication.

Outsource Large State Garage Operations

- Using the newly standardized rates and information to determine shop capacities and performance, identify shops that may be viable candidates for operation by commercial providers;
- Develop and RFP designed exclusively for the operation and management of shop facilities using expert help as needed;
- Analyze bid responses to determine the best selection of at least two vendors who can meet all of the requirements;
- Confer with the steering committee to ensure all obstacles have been identified and addressed with potential vendors; and,
- Award contracts to the most responsive bidders.

Impact of All Changes:

- Improve agency access to shop facilities where costs are controlled;
- Ensure that minimum standards are met for all aspects of shop operation;
- Right size state garage staffing and the number of State run facilities;
- Cost savings from improved performance, less downtime, more effective management;
- Consistent repair data across agencies - detailed repair data, available in automated format;
- Garage performance metrics are in place and provide critical management tools to ensure a high level of performance;

Timeline:

Provide the timeline with key events from the beginning of the procurement process through the expiration of a contract.

The estimated overall time line includes;

- Phase I (6 months):
  - Develop
  - Open shops
  - Set Garage Standards

- Phase 2: Commercial Maintenance Contract with Fleet Maintenance Contractor (6-12 months)

- Phase 3: Outsource Large Shops (12 months)

Transition Plan:
A plan for full implementation of a reengineered repair and maintenance resource and process includes the following steps:

A. *Changes in the number of agency personnel (and reemployment and retraining assistance plan for affected employees) and affected business processes:*

DMS staff may need to increase (see Administration section – page 39)
Retraining of supervisors and employees in garage operations and KPIs.
Retraining of support staff in billing audit/use of exception reporting.

B. *Employee transition issues*

Drivers will need to be informed of and trained on the new procedures for accessing maintenance and repairs.

The potential exists for a decrease in shop personnel or at minimum, some reassignments to different facilities. Employee rosters for individual agencies will change.

C. *Required Statutory changes*

No statutory change required

D. *Budget changes required by agencies*

Repairs will remain part of operating budget. Total will decrease in some cases and parties receiving payments will change.

E. *Communication with affected stakeholders.*

DMS will play a pivotal role in communicating policies, procedures, changes to programs, monthly billing, and performance data to all stakeholders.

Compensation
Compensation to a management services vendor will likely increase with the increased number of vehicles subscribing to the service.

Compensation to subcontracted commercial providers will increase as shops are contracted however the cost of targeted and non-targeted services may be lower than current expenditures due to payment structures.

Subcontractors operating shops will also receive some compensation in the form of free use of State assets such the shop facilities, tools, and utilities.

Agencies utilizing State shops will compensate the providing agency through inter-agency transfers.

Compensation to WEX will decline as agencies access services other than direct use of commercial vendors.

Responsibilities

Phase 1: Commercial Maintenance Contract

- Vendor Provides
  - network of vendors that meets State needs
  - professionally staffed call center for repair authorization
  - professionally staffed and managed shops
  - payment for repairs to other vendors
  - automated detailed repair records
  - summary and exception reporting on repair services
  - performance metrics and status
  - recommendations to decrease cost, increase effectiveness

- DMS Provides
  - Contracts with vendors
  - Contract Management and Administration
  - Reporting and analysis

- Agencies
  - Take vehicles to authorized vendors for service and repair
  - Pay monthly billings from vendors
  - Review DMS analysis and reports
  - Take actions for improvement as appropriate

There is ample competition that would qualify to provide services.

Risk of default of a major maintenance management services provider is minimized if the following occurs:

- Ensure contract includes appropriate vendor qualifications, terms and conditions, and performance standards, performance bond
- Active management by agencies and DMS
- Early and strong enforcement of contract terms
- Readiness to solicit bids from alternative vendors

Phase 2: Garage Standards

DMS

- Responsible for creating the steering committee and facilitating meetings with agencies to eliminate obstacles to opening State run shops to all agencies.
- Conduct detailed cost analysis to develop standardized labor rates and markups for cost recovery
- Conduct analysis of performance and determine appropriate staffing levels for shops before and after consolidation
- Develop audit procedures and conduct audits to ensure shop facilities are in compliance with established standards
- Develop and implement key performance management reports and ensure proper training on the fleet management system to increase data accuracy
- Report to agencies on regular basis and advise on progress and resolve problems

Agency

- Appoint a representative to the proposed steering committee to participate in meetings and contribute suggestions to overall reengineering of maintenance practices.
- Review all reports and communications issued by DMS.
- Work in a positive manner to improve the statewide processes.

Phase 3: Outsource Large Shops

There is ample competition (four national vendors) that would qualify to provide services. If the selection and management are done responsibly the risk to the State is minimal. As the contract originator and eventual contract manager, DMS can minimize the risk of default as follows:

- Having two vendors in place provides flexibility in case of non-performance
- Phase in process for decisions, vendors etc.
- Ensure there is an outsourced option in place as back up
- Ensure contract includes appropriate vendor qualifications, terms and conditions, and performance standards, performance bond.
- Provide active management
- Ensure early and strong enforcement of contract terms
- Retain a readiness to solicit bids from alternative vendors

Other Options

In the current configuration, the State does use a blended approach of in-house and commercial services. However, the programs are not well coordinated with one another nor is the overall program clearly focused on the goal of providing services at the best cost. There is a paucity of good management information, few if any reasonable performance targets, little standardization, and agencies appear to operate in silos rather than as elements of a larger organization.

The evaluation of the current approach revealed a number of gaps in critical areas such as information gathering and cost controls. Further there is substantial duplication of services, a marked disparity in the levels of service quality, and noticeable absence of formal fleet management knowledge. On the whole, the current approach should be re-engineered as recommended to eliminate critical weaknesses, increase the level of professional support and control, and reduce costs.

Policy Impacts

- The process associated with inter-agency billing must be reviewed and streamlined to facilitate inter-agency use of in-house shops.

- Requirements and processes associated with M&R must be documented and communicated to agencies.

- Agency policies that may restrict drivers from accessing newly available services should be reviewed and modified.

FLEET FUELING

Bulk Fuel

The recommendations for bulk fuel target a number of specific areas with the purpose of improving the manner in which bulk fuel is purchased, stored, and distributed by State agencies who maintain fuel supplies on site.

The recommendations for commercial fuel are mainly focused on processing data. Together the recommendations are aimed at establishment of a controlled approach managing the substantial costs associated with providing fuel on site to users.

Timeline:

The total timeline for reviewing the current contractual agreements, developing additional requirements for the same, educating agencies on how to procure fuel properly, evaluating the number of sites in operation, and developing reporting methods should fall within a 12-18 months.

The timeline for implementing the commercial fuel recommendations is 12 months.

Transition Plan:

Bulk Fuel

The process for reengineering the fuel procurement methods and evaluating the need for sites will require the following steps:

1. The current bulk contract should be thoroughly reviewed to ensure that fuel orders are matched with the appropriate pricing levels using OPIS or PLATTS data at the time of order. All suppliers should use the same pricing index and

variations in the costs will only come from delivery changes based on the size of the load.

2. An audit should be conducted by DMS to develop detailed information on each tank at each site in the State. Further, the agency that operates the site should provide a detailed justification for the continued use of the site. The justification should weigh the actual costs of operation against that of procuring fuel from a commercial site via the existing WEX processes. Where the state operation cannot be cost justified based on fuel alone, continuation may be appropriate if factors such as employee time and emergency need are supported.
3. The State, through DMS, should establish uniform pricing for fuels distributed through the bulk sites. The pricing should be reviewed regularly, such as monthly, to determine an average cost per gallon. Equally, the cost of maintaining the sites should be recovered with a uniform markup that can be transferred back to the agencies and/or contractors who perform the actual maintenance.
4. A standard methodology for reporting transactions, fuel orders, and fuel drops should be developed to allow for reconciliation and for analysis. DMS should dictate the required information to be gathered, either electronically or by other means to ensure standardization and accurate data collection and reporting.
5. As with the maintenance and repair cost recommendations, the method should be determined or developed to allow agencies to chargeback others for fuel from bulk sites. In the alternative, the reporting method should allow DMS to acquire the necessary transaction data, apply the appropriate costs, and chargeback agencies as required.

Commercial Fuel

1. Develop and implement a fuel management program that establishes policies, requires odometer entry and streamlines the audit process.
2. Download of all fuel, mileage and repair data into the FLEET system via electronic interface.
3. Detail more of the State's business requirements in future contracts
4. Curtail use of fuel card for repairs once an alternate method is available.

A. Changes in the number of agency personnel (and reemployment and retraining assistance plan for affected employees) and affected business processes

Once commercial and bulk fuel processes are in place, less state employee time will be required to process data and information.

B. Employee transition issues

Employee time can be redirected to each agencies' core mission activity

C. Required Statutory changes

There is no statutory change required for the processes

D. Budget changes required by agencies

A decrease in cost of fuel is envisioned once all processes are in place. If the state fuel can be in line with commercial fuel costs a savings will result. Even if it only can be brought down $.20 per gallon, that is an annual savings of over $1,000,000.

E. Communication with affected stakeholders.

DMS will need to document the new processes and ensure that all agencies are informed and trained to follow the procedures.

Compensation

There should be no change in compensation processes that is currently in place. The amount paid to bulk vendors may be lower depending on the final terms and conditions of the contract award.

Responsibilities

DMS will be responsible for coordinating the contract requirements and developing the RFP for a new fuel contract agreement.

DMS will be responsible for surveying the current fuel sites and assessing the need for continued use with the operating agencies.

DMS will be responsible for developing and managing the commercial fuel billing and data processes.

Agencies will be responsible for adhering to published process requirements and providing accurate information regarding the operation and use of both State and commercial fuel sites.

Other Options

The use of commercial vendors to supply fuel where sites have been deemed too expensive or unjustified will be the only viable option.

Policy Impacts

The changes to policies and processes are outlined above in the recommendations.

SECTION D: COSTS AND BENEFITS

This State's statement of work specified that this section is intended to document the direct and indirect baseline costs, savings, and qualitative and quantitative benefits resulting from the implementation of the recommended options and the estimated timeline for realizing the benefits. In addition, all elements of cost were to be clearly identified and supported by applicable records and reports.

Mercury's ability to detail cost savings was limited by a number of factors, most notably the lack detailed data available from the State. Even where we were able to obtain data, the granularity did not exist to assign costs to specific activities. For example, while we were able to obtain some data on employee time expended on "fleet management" activities, detailing that time by specific activity, e.g. paying bills for fuel vs. paying bills for repair vs. entering data into the FLEET system vs. making decisions on replacement vehicles, was not available. As a result, cost savings could only be estimated based upon the data elements provided.

The second limitation in terms of identifying the actual cost benefit of a given option is that actual savings from recommended outsourcing options can only be precisely identified when actual bids are received from vendors. Similarly with fleet renewal or rightsizing, a refined savings estimate can be provided only when the replacement parameters have been determined and number of vehicles being eliminated from the fleet identified. While the data won't entirely support analysis of costs at the activity level, we were able to project savings for the State's fleet operations as a whole. Our savings estimates later in this section of the report are based on available State data as well as percentage cost reductions that are typical of what we have seen with other clients who have implemented the best practices recommended.

RECOMMENDATION AND BENEFIT SUMMARY

This project is intended to identify best practices as they could be applied to the existing methods employed in the management of the State's fleet, with optimized ones, which will enable substantial improvements in how the fleet program is operated and managed. A number of specific opportunities have been identified to reduce the cost of current practices that are duplicative, labor intensive, sub-optimal, or otherwise inefficient. These opportunities – when realized – will yield a significant economic benefit.

Implementing best practices in fleet management will result in replacing ineffective and inefficient technology, to improvements in business processes, to standardization of practices across agencies, to maximizing employee productivity, and to outsourcing activities better performed in the private sector.

The Exhibit below summarizes the functional recommendations and expected benefits associated with their successful execution. It is important to note that the Exhibit

focusses on *tangible* benefits. There are a host of qualitative and intangible benefits that result from a well-run fleet including safe, functional fleet vehicles that support the execution of the State's various missions in a way that not only reduces cost, but minimizes the employee time associated with the operation of the required transportation. Every hour an employee does not have to spend on securing and maintaining fleet vehicles is an hour that can be dedicated to core mission activities. For example if only one less repair per vehicle occurred each year, there would be a minimum time savings of one hour that would have been spent in transporting the vehicle to and from a maintenance facility. That is over 20,000 hours or 10 full time equivalent positions.

Exhibit 47: Functional Recommendations and Expected Benefits Summary

Rec. #	Functional Activity	Strategic Direction Recommended	Summary of Benefits	Estimated Implementation Timeline[26]
1	Administration	A) Expand DMS' role in providing oversight, analysis, and services to manage the State's fleet.	• Best practice fleet management execution • Realization of economies of scale	12 months
2	Information Systems and Reporting	A) Replace the existing FLEET application with a more robust, fully featured and user-friendly COTS application that allows easy distribution of information to all fleet users, customers and management in a real-time environment. B) Develop management reporting requirements and ensure business processes and data capture procedures directly support the reporting model.	• Provides data and information required to engage in best practice fleet management • Eliminates time consuming manual data entry and audit processing	18-24 months
3	Replacement Planning and Financing	A) Centralize Fleet replacement planning and budgeting B) Identify optimal replacement cycles C) Develop and execute Fleet Replacement and	• Modernize the fleet • Optimize the total cost of ownership • Cost savings from improved	18 months

26 Note that timelines assume changes to statutes and budget changes have already been approved.

		Financing Plan using data based optimum replacement cycles and minimum TCO D) Develop and execute annual prioritization process	performance, less downtime • Streamlined consistent replacement financing and budgeting	
4	Acquisition	A) Develop and execute vehicle specification, solicitation and selection process that incorporates best practice elements. Including A) Standardization working committee B) Life cost procurement selection C)Optimized Delivery Cycle	• Assures right vehicle for the job • Minimizes acquisition cost component through specification, standardization and timing of delivery • Potential maintenance and repair cost savings from proper specification and standardization.	• 12 months
5	Disposal	A) Conduct data based analysis to select core sale methods for various types of equipment. B) Establish performance metrics to actively monitor and manage disposal outcomes.	• Maximize resale return • Minimize state agency time in the disposal process	12 months
6	Fleet Size and Utilization	A) Conduct a study to reduce the size of the fleet by eliminating low use vehicles B) Study the feasibility of establishing shared-use motor pool locations in Tallahassee C) Develop and implement an ongoing fleet utilization monitoring system	• Right size the fleet • Lower capital and operating costs	12-18 months

		D) Consider the use of charge-back rates as a financial incentive for agencies to maintain an optimized fleet size.		
7	Maintenance and Repair	A) Open Shops to all Agencies B) Develop shop standards and consistent shop procedures and centralize the policy and practice requirements for State garage operations in DMS. Daily operational management of vendor and state operated facilities to remain with individual agencies C) Consolidate Shops D) Outsource Large Shops E) Outsource all Commercial repairs to a maintenance management service provider; develop and execute RFP for these services and require agencies to use the contract for ALL maintenance and repair at non state facilities.	• Improve maintenance and reliability of the State's fleet • Right size state garage staffing • Cost savings from improved performance, less downtime, more effective management • Consistent repair data across agencies available in automated format	12-18 months
8	In-House Fuel Operations	A) Review the current State contract for bulk fuel to determine if methods for savings exist. B) Complete a justification audit of all current sites. C) Develop uniform pricing, chargeback and processing methods to ensure total costs are identified, adequate controls in place, and required data captured	• Potential for significant cost savings • Improved Fuel Management and controls	12-18 months
9	Contract Fuel Operations	A) Develop and implement a fuel management	• Significant decrease in	6-12 months

		program that establishes policies, requires odometer entry and streamlines audit process. B) Establish electronic interface for fuel, mileage and repair data into the FLEET system. C) Detail more of the State's business requirements in future contracts D) Curtail use of fuel card for repairs once alternate method is available.	State time associated with fleet data entry and audit processes. • Improved overall fuel management	
10	Personal and Rental Vehicles	A) Calculate personal vehicle and rental vehicle break-even analysis B) Issue statewide policy on selection of transportation options C) Develop tool for agency use in selecting best option D) Assign state owned vehicles as appropriate	• Optimized transportation method selection • Consistent, cost effective practices • Decrease total costs associated with travel	12 months

VALUE OF BENEFITS

Implementation of the fleet best practice recommendations will transform the way the fleet is managed. As indicated above, our savings estimates below are based percentages or specific factors that are typical of what we have seen with other clients who have implemented similar best practices. The baseline current costs are derived from the **direct cost provided plus a percentage factor for indirect costs.** Given that the data was available only at the general activity level, our estimates can only be provided at this level. We believe the baseline data provided may be understated due to the lack complete and accurate cost information available. Thus our estimates are conservative and actual savings may be higher than projected.

We have segmented savings into two categories, one for operational cost savings and the second for savings associated with replacement, fleet renewal and right sizing. This is followed by recommended implementation and benefit realization matrixes that detail

a proposed timelines for implementation of best practices and the realization of expected benefits.

Operational Benefit

The Exhibit below details the operational savings associated with implementing our best practice recommendations. **Once all recommendations are executed, an $8.8 million annual savings is estimated.**

Exhibit 48: Operational Benefits Summary

Expense Category	Current Baseline TOTAL Cost[1]	Current State Employees	Proposed State Employees	Estimated Savings (Cost)	Realized Savings Timeline	Recommendation Numbers Applicable	Comments
DMS Fleet Management[2]	$ 655,462	5.4	19.0	$ (1,117,000)	Cost incurred as employees secured - 12-18 months. Annually thereafter	ALL	Proposed FTE is max. as some positions could be contracted. Increased cost is for state and contractual staff. This cost will be offset by decreased cost realized by departments in functional areas below.
Fleet IT System	$ 278,486			$ (1,425,680)	Cost incurred as system developed-18-24 months. Annual cost $235K thereafter	ALL	Baseline costs of $278,486 represent total cost in the FY12-13 DMS Fleet budget for all IT related activity (Develop & Ops) plus 20%. DMS estimates future costs for support and operation of the current FLEET system are estimated at $140,000.The estimated cost of $1.4 million for the new system includes initial development plus ongoing annual operations of $235,870 . The new system development and operational costs will be offset by decreases in department expenditures in the functional areas below.
Department Fleet Management, Administration and Support Services	$ 11,131,036	135.2	94.6	$ 2,782,759	Savings for fleet realized as new processes are instituted 12-24 months. Annually Thereafter	ALL	30% reduction in FTE required via automation of current manual processes and increased information and analysis from DMS. In some departments position count represents small percentages of time from a number of staff. This time may be realigned to focus on core mission service delivery.
Fuel CC Charges	$ 45,058,291						Recommended improvements in fuel process accrue to the Fleet Asset Mgt. function.
Bulk Fuel	$ 22,608,758			$ 355,883	12-18 Months; Annual savings	1,2,8	Savings estimated at $.10 per gallon for 70% of Fuel.
Contracted M&R	$ 26,308,420			$ 6,102,240	12-18 Months; Annual savings	1,2,3,7	Reduction of cost per VEU by $160 (approximately 10%).
In House Garage Parts	$ 11,160,451						
Vendor Operated Garage	$ 1,169,795						
In House Garage Operations	$ 21,018,729	265.8	TBD				
Personal Vehicle Reimbursement	$ 13,116,826			$ 491,881		10	Reduction in premium reimbursement by 15% netted against cost of providing vehicles - savings is 25% of reimbursement savings
Rental Vehicles	$ 972,662					10	
Net Resale Return	$ (2,836,627)			$ 275,200		5	Additional net revenue of $200 per unit; assumes sales at historic numbers.
Liability Insurance	$ 1,326,124						
Total	**$ 151,968,414**			**$ 7,465,283**			
Annual Ongoing Operating Savings after IT System Implementation				**$ 8,798,891**			**A 5.9 % decrease in annual cost (direct + indirect) associated with management and operation of the fleet.**

1 Overhead added to FY2012-13 reported expenditures plus 30% in-house repair and 20% all other categories
2 Excludes IT and Disposal shown separately; Disposal cost netted against revenue, net is resale return

Replacement, Renewal and Rightsizing Benefit

Replacement and renewal are primarily associated with the capital cost of fleet operations, which is the actual life cost expended in procuring fleet vehicles. This is typically referenced as *actual* depreciation defined as acquisition cost less resale value. Best practice recommendations made for the acquisition and disposal of vehicles are aimed at minimizing the actual depreciation realized by the state for vehicles it procures. However, it is assignment, utilization, and replacement practices that determines *when and how often* a vehicle is procured and thus it is these factors that drive overall fleet capital cost. A life cycle cost analysis will provide the data and information required to determine how often a vehicle should be replaced. Executing that schedule impacts a number of factors all of which can be estimated to obtain the total cost of ownership (TCO).

Replacement cycles obviously have a major impact on the both acquisition expenditures (and their corresponding annual depreciation) and resale return. As referenced in our

section B (page 39) analysis, replacement cycles also impact maintenance, fuel cost and fleet size. Therefore the cost impact of any change in how often vehicles are replaced must consider the impact on capital acquisition expenditures/depreciation, resale return, maintenance and fuel. Only when all these factors are detailed and analyzed in detail can the *TCO* and costs/benefits of specific replacement decisions be determined.

Our recommendations call for development of optimal replacement cycles, a replacement plan based on those cycles, and movement to renew the fleet via operating leases. We believe that an *economic* comparison is the most appropriate way to quantify if it would be in the State's long-term interests to replace its fleet assets more frequently. We recognize the fact, however, that *economic* arguments for taking a particular course of action are largely irrelevant if they cannot be reconciled with *fiscal* realities. Strategies that clearly are beneficial to taxpayers over the long term must still be affordable in the short term. Otherwise, they simply will not be pursued. To this end, the State should quantify the *fiscal* impacts of the recommended plan under various capital financing methods. **Given the advanced age of Florida's fleet, continuing with the practice of the last several years is really not a viable option.** Therefore identifying methods and associated costs to renew the fleet is essential.

Beyond indicating that any recommended action on replacement cycles and fleet renewal would minimize *TCO* while ensuring fleet vehicles are available to deliver core mission services, it is not possible to precisely detail the cost impact or benefits without actually completing the detailed analysis. However, we were able to provide a representative forecast based on available data and our work with other states. This representative forecast, which was provided in Section B (page 39) of this report, is repeated below.

Exhibit 49: Projected Five Year Fleet Renewal Plan

Financing Method	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Ad Hoc Cash	$ 100.19	$ 100.94	$ 100.94	$ 100.94	$ 100.94	$ 503.95
Lease	$ 13.38	$ 27.63	$ 40.79	$ 53.47	$ 64.79	$ 200.06
Lease v Cash Savings (Cost)	**$ 86.81**	**$ 73.31**	**$ 60.15**	**$ 47.47**	**$ 36.15**	**$ 303.89**
Average Age (10.1 Years Start)	**9.6**	**8.9**	**8.2**	**7.2**	**6.4**	

We have maintained throughout the report that tying fleet renewal with rightsizing would maximize the potential benefits to the State. We calculated examples of potential savings from rightsizing based on our work with other fleets. If rightsizing is paired with

renewal it is anticipated that an additional 5 to 10-percent decrease in the size of the fleet is possible. There are two areas of financial benefits associated with decreasing fleet size. The first is one-time revenue from the sale of the assets eliminated from the fleet. The second is an *annual* decrease in capital and operating costs. Capital savings come in the form of avoidance of the cost of securing the vehicle, measured here as annual depreciation. Operational savings is an avoidance of repair costs as it is more costly to maintain two units than one, even if one of the units is used infrequently. As detailed in section B (page 39), we utilized averages realized in California to estimate Florida's cost savings. As the Exhibit below indicates, on the low end there is a potential of $2.1 million dollars in annual savings if the statewide fleet is downsized by 5-percent.

Exhibit 50: Savings from Fleet Rightsizing

Activity	Estimated Savings
Right Size the Fleet - Annual	$1.6 - $3.2 Million
Right Size the Fleet - One Time	$2.1- $4.2 Million

When the annual savings from rightsizing is added to the estimates in operational savings from best practice implementation, the result is a potential annual savings of $11.0 million annually ($2.1M + $8.9M).

IMPLEMENTATION MATRIX

Given the scale and complexity of the recommendations, it is not feasible or desirable to attempt to implement them all at the same time. Our recommended approach to implementation is summarized in the Exhibit below. It envisions a three-year process that begins with four major efforts including expanding DMS role, replacing FLEET system, developing a plan to renew the fleet, and right sizing the fleet. Such a timeline is feasible only if execution of the plan is given a priority statewide. In addition, all timelines in this report presume that Legislative approval and budget authority has been obtained. To the extent that obtaining approval and funds requires a significant amount of time, then timelines would need to be adjusted.

Exhibit 51: Implementation Matrix

	Estimated Implementation Timeline in Quarters (3 Months)											
Recommendations	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24	25-27	28-30	31-33	34-36
1A) Expand DMS' fleet mgt. role	X	X	X	X								
2A) Replace the existing FLEET application		X	X	X	X	X	X	X				
2B) Develop management reporting requirements									X			
3A) Centralize Fleet replacement planning and budgeting		X	X	X	X	X	X					
3B) Identify optimal replacement cycles		X	X									
3C) Develop and execute Fleet Replacement and Financing Plan			X	X	X	X	X					
3D) Develop and execute annual prioritization process							X					
4A) Develop and execute vehicle specification and selection process							X	X	X	X		
5A) Conduct data based analysis to select core sale methods									X	X	X	X
5B) Establish performance metrics									X	X	X	X
6A) Conduct a study to reduce the size of the fleet		X	X	X	X							
6B) Study the feasibility of shared-use motor pools Tallahassee				X	X							
6C) Develop an ongoing fleet utilization monitoring system						X	X					
6D) Consider the use of charge-back rates												X
7A) Open shops to all agencies					X	X						
7B) Develop shop standards and consistent shop procedures					X	X	X	X				
7C) Consolidate Shops						X	X	X	X			
7D) Outsource Large Shops						X	X	X	X			
7E) Outsource all sublet repair to a maintenance service provider	X	X	X									
8A. Review the current State contract for bulk fuel						X	X					
8B. Complete a justification audit of all current sites.							X	X	X			
8C) Develop uniform pricing, chargeback and processing methods								X	X	X		
9A) Develop and implement a fuel management program				X	X							
9B) Establish electronic interface for fuel, mileage and repair data				X	X	X						
10A) Calculate personal vehicle and rental vehicle break-even analysis				X	X							
10B) Issue statewide policy on selection of transportation options						X						
10C) Develop tool for agency use in selecting best option						X						
10D) Assign state owned vehicles as appropriate						X	X	X				

BENEFIT REALIZATION MATRIX

Since implementation of improvements will proceed incrementally not all of the benefits of optimizing fleet management will be available immediately. This is because the execution of best practices must be in place before the benefits are realized. For example, some operating expense savings are secured through process changes and outsourcing and are realized annually thereafter. Other improvements, such as fleet renewal, impact capital expenditures and are realized over the life of the vehicle while others, such as a new FMIS system, represent a one-time expense.

The five year cumulative benefit of implementing the operating best practice and right sizing recommendations is a potential $26.8 million dollar savings as summarized in the Exhibit below.

Exhibit 52: Five-Year Costs and Benefits

Expense Category	Current Baseline TOTAL Cost	Estimated Savings (Cost)	Year 1	Year 2	Year 3	Year 4	Year 5	5 Year Cumulative Total
DMS Fleet Management	$ 655,462	$ (1,117,000)	$ (1,117,000)	$ (1,117,000)	$ (1,117,000)	$ (1,117,000)	$ (1,117,000)	$ (5,585,000)
Fleet IT System	$ 278,486	$ (1,425,680)	$ (1,069,260)	$ (356,420)	$ (3,798)	$ (3,798)	$ (3,798)	$ (1,437,074)
Department Fleet Management	$ 11,131,036	$ 2,782,759		$ 1,391,380	$ 2,782,759	$ 2,782,759	$ 2,782,759	$ 9,739,657
Bulk Fuel	$ 22,608,758	$ 355,883			$ 177,942	$ 355,883	$ 355,883	$ 889,708
Maintenance and Repair	$ 59,657,395	$ 6,102,240		$ 610,224	$ 1,830,672	$ 4,576,680	$ 6,102,240	$ 13,119,816
Personal Vehicle Reimbursement	$ 13,116,826	$ 491,881		$ 491,881	$ 491,881	$ 491,881	$ 491,881	$ 1,967,524
Rental Vehicles	$ 972,662							$ -
Net Resale Return	$ (2,836,627)	$ 275,200			$ 275,200	$ 275,200	$ 275,200	$ 825,600
Operating Total	$ 105,583,999	$ 7,465,283	$ (2,186,260)	$ 1,020,064	$ 4,437,655	$ 7,361,605	$ 8,887,165	$ 19,520,230
Right Sizing Total		$ 3,500,000		$ 2,500,000	$ 1,600,000	$ 1,600,000	$ 1,600,000	$ 7,300,000
Grand Total			**$ (2,186,260)**	**$ 3,520,064**	**$ 6,037,655**	**$ 8,961,605**	**$ 10,487,165**	**$ 26,820,230**

APPENDIX

1. List of Maintenance Facilities
2. List of Bulk Fueling Sites
3. FMIS Implementation Sample Work Plan
4. List of all Recommendations

APPENDIX 1
Shop Facilities

Agency	Shop	City
ACS-DPI	Winter Haven Vehicle Maintenance Shop	Winter Haven
ACS-FFS	Chipola 2/4	Bonifay
ACS-FFS	Myakka	Bradenton
ACS-FFS	Withlacoochee	Brooksville
ACS-FFS	Jacksonville	Bryceville
ACS-FFS	Bunnell 1/2	Bunnell
ACS-FFS	Tallahassee 2/2	Carrabelle
ACS-FFS	Waccasassa 3/5	Chiefland
ACS-FFS	Bunnell 2/2	Deleon Springs
ACS-FFS	Waccasassa 5/5	Dunnellon
ACS-FFS	Waccasassa 4/5	Florahome
ACS-FFS	Caloosahatchee	Fort Meyers
ACS-FFS	Lakeland 2/2	Frostproof
ACS-FFS	Everglades	Ft Lauderdale
ACS-FFS	Waccasassa 1/5	Gainesville
ACS-FFS	Suwannee	Lake City
ACS-FFS	Lakeland 1/2	Lakeland
ACS-FFS	Chipola 3/4	Marianna
ACS-FFS	Blackwater	Milton
ACS-FFS	Waccasassa 2/5	Ocala
ACS-FFS	Okeechobee	Okeechobee
ACS-FFS	Orlando	Orlando
ACS-FFS	Chipola 1/4	Panama City
ACS-FFS	Perry	Perry
ACS-FFS	Tallahassee 1/2	Tallahassee
ACS-FFS	Tallahassee Airport	Tallahassee
ACS-FFS	Chipola 4/4	Wewahitchka
APD	Tacachacle	Gainesville
APD	Sunland	Marianna
DCF	Florida State Hospital	Chattahoochee
DCF	Northeast Florida State Hospital	Macclenny
DCF	North Florida Evaluation & Treatment Center	Gainesville
DMA	State Vehicle Maintenance Facility at Camp Blanding	Starke
DOC	Avon Park CI	Avon Park
DOC	Franklin CI	Carrabelle
DOC	Northwest Florida Reception Center	Chipley
DOC	Wakulla CI	Crawfordville

Agency	Shop	City
DOC	Tomoka CI	Daytona Beach
DOC	Walton CI	De Funiak Springs
DOC	South Florida Reception Center	Doral
DOC	Dade CI	Florida City
DOC	Martin CI	Indiantown
DOC	RMC	Lake Butler
DOC	Mayo CI	Mayo
DOC	Santa Rosa CI	Milton
DOC	Lowell Reception Center	Ocala
DOC	Okeechobee CI	Okeechobee
DOC	Central Florida Reception Center	Orlando
DOC	Polk CI	Polk City
DOC	Charlotte CI	Punta Gorda
DOC	Union CI	Raiford
DOC	ACI	Sneads
DOC	Gulf CI	Wewahitchka
DOT	315-Arcadia Shop	Arcadia
DOT	310-Bartow Shop	Bartow
DOT	378-Brooksville Shop	Brooksville
DOT	312-Ft. Myers Shop	Cape Coral
DOT	326-Chiefland Shop	Chiefland
DOT	336-Chipley Shop	Chipley
DOT	379-Pinellas Shop	Clearwater
DOT	350-Cocoa Shop	Cocoa
DOT	351-Deland Shop	Deland
DOT	341-Broward Shop	Ft Lauderdale
DOT	340-Treasure Coast Shop	Ft Pierce
DOT	321-Gainesville Shop	Gainesville
DOT	324-Jacksonville Shop	Jacksonville
DOT	313-LaBelle Shop	Labelle
DOT	322-Lake City Shop	Lake City
DOT	352-Leesburg Shop	Leesburg
DOT	333-Marianna Shop	Marianna
DOT	361-North Dade Shop	Miami
DOT	363-District Office Shop	Miami
DOT	360-South Dade Shop	Miami
DOT	332-Midway Shop	Midway
DOT	335-Milton Shop	Milton

Agency	Shop	City
DOT	355-Ocala Shop	Ocala
DOT	354-Orlando Shop	Orlando
DOT	353-Oviedo Shop	Oviedo
DOT	331-Panama City Shop	Panama City
DOT	323-Perry Shop	Perry
DOT	330-Ponce De Leon Shop	Ponce de Leon
DOT	314-Sarasota Shop	Sarasota
DOT	311-Sebring Shop	Sebring
DOT	327-St. Augustine Shop	St Augustine
DOT	376-Tampa Shop	Tampa
DOT	346-Palm Beach Shop	West Palm Beach
FWC	North Florida Shop	Tallahassee
HSMV	FHP Central Install Center	Middleburg
SDB	Main Campus	St Augustine

Key to Agency Abbreviations in Chart Above:

ACS-DPI: Department of Agriculture & Consumer Services – Division of Plant Industry
ACS-FFS: Department of Agriculture & Consumer Services – Florida Forest Service
APD: Agency for Person with Disabilities
DCF: Department of Children & Families
DMA: Department of Military Affairs
DOC: Department of Corrections
DOT: Department of Transportation
FWC: Fish & Wildlife Conservation Commission
HSMV: Department of Highway Safety & Motor Vehicles
SDB: Florida School for the Deaf & Blind

APPENDIX 2
SUMMARY OF FUEL SITES

AGENCY	NUMBER OF VEHICLES	NUMBER OF FUEL SITES	TOTAL NUMBER OF TANKS
Department of Transportation	5,362	42	96
Department of Agriculture & Consumer Services	4,290	3	8
Department of Corrections	3,147	46	81
Fish & Wildlife Conservation Commission	2,779	17	27
Department of Environmental Protection	1,628	3	3
Totals	**17,206**	**111**	**215**

APPENDIX 3
OUTLINE OF AN FMIS IMPLEMENTATION WORK PLAN

The following work plan represents a standard list of tasks for an FMIS implementation project. DMS should consider contracting with a consultant or system integrator to assist the agencies with the implementation of the selected system.

Task 1.0 - Project Kick-Off Workshop
This meeting is to initiate the project by reviewing the project tasks and scope of work, identifying staff members that will be assigned to the project, and review and refine a detailed project timeline, establish project management and communication protocols, and discuss project risks. Additionally, the workshop would cover key project activities, such as developing specifications for interfaces, verification of functionality for system acceptance, and training methodology and materials. Following this meeting, a project timeline is created based on the mutually approved milestones discussed during the kick-off workshop.

Task 2.0 – Project Interviews
DMS management and agency interviews will identify and validate the sections of the system that will need to be utilized to support the needs of each entity. For DMS to utilize the system as an agency wide management tool, the individual system reporting, security and system configuration, equipment master, KPI features, and interface management modules should support individual agency needs and work procedures.

Task 3.0 - Data Conversion
Data conversion will be required to migrate DMS data and core inventory onto the system platform and will involve migrating information from systems, such as FLEET, locally managed systems or other applications and other stand-alone data sources, such as MS Excel files will also need to be addressed as part of a formal data conversion plan that should be finalized as part of data conversion task. Additional data conversion steps that will need to be performed include the following.

Task 3.1 - Data Scrubbing and Normalization
“Cleaning up” and normalizing the data that is to be migrated is usually required. It is very common to find variations in spelling of key pieces of information, such as vehicle make and model or vendor names. To address this issue, we recommend that vehicle and equipment inventories be processed through a VIN decoder, which will normalize inventory with real VIN values. Other records should be analyzed utilizing exception identification techniques.

Additional data normalization and exception identification can be performed using queries that will be utilized to identify records that require attention. Invalid records may be purged prior to the data migration. Upon completing this task, the data export process can begin.
Note: Prior to entering into production used of the system we recommend a final data analysis to address any new data issues that may exist.

Task 3.2 - Data Conversion Mapping
After the information from these data sources has been normalized, the process of mapping the data between the DMS systems and the FMIS system must occur. This process is necessary to ensure that the data will be migrated to the proper fields in the system. Additionally, consideration must be given for variances in system use among components that are utilizing the same system to compensate for differences in business practices and use of the systems.

Task 3.3 - Data Conversion
A formal process and methodology for extracting data from the existing systems should be developed, which may include developing SQL statements to create data exports, utilizing native export features with these systems, or collaborating with other IT resources to provide these data extracts. This methodology is used to perform an initial data extract and document the procedures. Modifications to the data extract tools and methodology will be performed and the extract process repeated until a satisfactory data set is produced.

Upon producing a satisfactory dataset import scripts are developed that following the initial data conversion map. These import scripts will take the export files originating from the systems and import these records into a TEST database that is accessible through the application.

Task 3.4 - Data Conversion Testing
Upon completing the initial data conversion testing is required to validate the accuracy of the conversion. This is a time consuming process because each feature within the system (e.g. creating work orders, editing vendor records, and running reports should be tested. During this testing phase the DMS' project team will test and validate the results of the converted data documenting issues. Any issues that are found must be addressed and the conversion processes repeated until a successful conversion is established.

Upon successfully completing the testing phase, a final TEST database will be utilized for training. This database should be established using the DMS approved conversion scripts and methodology and include DMS's most current fleet data from all systems. This training TEST database should be attached and made accessible through the application for all authorized DMS and component personnel to begin evaluating the data within the new system.

Task 3.5 - Production Data Conversion
Prior to entering into the production phase of the project, a final data conversion should migrate the most current information into the system, which will serve as the initial population of the system. These data sets, where appropriate will be maintained by interfaces and business processes identified by the system implementer.

Task 4.0 - Interface Definition and Development
During this task, the interfaces necessary to integrate with all of the sources of fleet related data (e.g., commercial fuel transactions) and export to other State systems

would be defined and developed. It is anticipated that the following interfaces may be required as part of this project:

- Bulk Fuel System
- Commercial Fuel Card Systems
- DMS & Component property accountability systems
- DMS & Component financial systems

As part of the interface development process the system implementer will require any sample data files, interface definitions, and field mappings documents that are available. The documentation is then used to develop the interfaces required by DMS.
The completed interfaces will be installed on a test platform. Part of the interface testing is to validate that the imported data has populated the proper Exhibits in the database. The tester' will document any issues found during the interface testing. After rework, the testing is repeated until the interfaces are working properly.

Validation of the interface functionality is usually performed using management reports, SQL queries, and selecting random data sets to verify the information is processing properly. Additionally, testing of the interface exception reporting and data correction methodology must occur prior to interface acceptance. Each interface should be tested individually rather than as a group to allow more quality control over each utility.

Task 5.0 - System Screen Design, KPI Setup, & Reports
Although it is understood that there are standard reporting and system elements that apply globally to DMS and its components, it is anticipated that there will be a requirement to tailor the system to complement operational needs. As such, the system implementer will need to address the unique requirements of DMS based on interviews and sample materials provided by the agency (e.g. reports). The requirements will have been documented during the initial interviews; however, the screen designs, key performance indicators (KPI), and reporting requirements should be verified as part of this task.

Task 5.1 - Screen Design
The systems may include native features that allow for the tailoring of system screens. As such, we anticipate that these tools will be leveraged to tailor screens and application layout.

Task 5.2 - Key Performance Indicators
KPIs are real-time monitors that graphically represent operational measures. For example, a common KPI is vehicle downtime, which measures the amount of time that a vehicle is not available for use due to maintenance or repairs. These types of measures are highly desired because they monitor and summarize key areas of an operation without the traditional method of having to run reports for each measure. Additionally, KPIs can be configured to notify system users by email or SMS messages when thresholds are met.

It is anticipated that there may be 10-15 common or global KPIs that can be used by all users. However, it is expected that some key users may require additional KPIs to

support their operational needs. KPIs will be developed and implemented for the appropriate component in the test environment.

Task 5.3 - Management Report Development
Any required management reports not available in the standard reports provided by the fleet management system can be addressed by developing ad hoc reports. These reports can be developed through the included system report builder, Crystal Reports, or MS SQL Reporting Services

Task 6.0 - System Installation
The project plan assumes that the selected system will be a hosted solution. As such, the system installation will be limited to verifying that the connectivity to the hosted application and key features, such as import and export data, printing, and invoking interfaces is working properly. Further involvement of DMS personnel and resource would be required in the case of an internally hosted system.

Task 7.0 – Training Materials Development
Prior to initiating personnel training, user-training materials are developed that include all of the key modules that DMS will utilize.

Generally, system administrator manuals and standard user manuals are required. The system administrator manual will address topics, such as system security, configuration and settings, invoking interfaces, and maintenance activities. The standard user manual will include topics, such as standard report execution, KPI development, ad hoc report development, data exporting, and managing the equipment inventory records.

Task 8.0 – System Configuration and Administration Training
DMS personnel will be trained on the administration features of the system and advanced functions within the application. Guidance and recommendations are based on industry best-practices on how the system should be configured to meet DMS's needs.
The users included in this training should be decision-makers and key personnel that have a direct impact on "how business is done" as it relates to the fleet operation, reporting, and administration information requirements.

Task 9.0 – Pre-Production Training
Immediately prior to production standard users should participate in pre-production training. The training should include standard report execution, KPI development, ad hoc report development, data exporting, and managing the equipment inventory records. The instructor will also present workshop scenarios in which the users use the system to create reports, extract information into an MS Excel spreadsheet, add vehicle records to the system, and create basic queries to find data. At the conclusion of this training, the system users will have the core skills to use the system.

Task 10.0 – Production Support
During the first week of production use, a technical resource should be provided at DMS headquarters that will be available to support DMS personnel on the use of the system

and address technical issues. This resource will be responsible for documenting technical issues and coordinating with DMS, the system vendor, and other resources as necessary to resolve issues that are identified.

APPENDIX 4

Recommendations

1. *Strengthen Chapter 287, Part II, Means of Transport by obtaining the following changes:*
    a. *Expand definition of "motor vehicle" to include all motor vehicles used for State business. Consider using a more typical definition such as every ground-based asset that has a license plate, and/or has wheels and an engine with 20 horsepower or more, and/or has a purchase cost of $10,000 or more, and/or or requires tracking of periodic maintenance.*
    b. *Broaden DMS authority to encompass all motor-vehicle operations in support of State business, including vehicular travel in State owned, employee owned, daily rental, or leased vehicles.*
    c. *Eliminate the number of miles listed in statute for vehicle assignment. It can be replaced with language indicating that DMS is to determine the mileage assignment point using a break-even analysis.*
    d. *Tighten the language relative to commuting, limiting it to specific conditions and occasional enroute use where it is essential to the delivery of State services. Require DMS to define conditions in fleet policy.*
    e. *Mandate DMS collaboration with user agencies by establishing a State Fleet Council through appropriate modes of communication (e.g., service level agreements meetings, satisfaction surveys).*
2. *Revise other statutes and codes that grant some organizations independent fleet management authority (Chapter 24.105, Chapter 590.02, and Administrative Code 60B-2). At minimum, DMS should be required to include all organizations in its oversight and reporting responsibilities and all organizations should be mandated to use a new commercial-off-the-shelf fleet management information system to standardize data collection and ease reporting.*
3. *Revise Chapter 286, Climate Friendly Public Business, to provide that the DMS should include greenhouse gas emissions as one of the factors it uses in determining which vehicles to purchase each year based on a life-cycle cost analysis rather than highest MPG as currently stated.*
4. *Expand DMS' role in providing oversight, analysis, and services to manage the State's fleet.*
5. *Increase DMS' fleet staff resources from the current 6.3 FTEs to 19 so the organization can assume its expanded role.*
6. *Replace the existing FLEET application with a more robust, fully featured and user friendly, intuitive COTS application that allows easy distribution of information to all fleet users, customers and management in a real-time environment.*

7. *Conduct a needs and requirements assessment leading to the procurement of an integrated COTS FMIS solution.*
8. *Perform a benefits analysis comparing in-house VS hosted solutions for the COTS FMIS application.*
9. *Create an FMIS system administration/fleet data analyst team to provide application support and training, conduct performance, trend analysis and business intelligence reporting.*
10. *Develop management reporting requirements and ensure business processes and data capture procedures directly support the reporting model.*
11. *Fleet replacement planning and budgeting should be centralized in the State. DMS, as the State's professional fleet management organization, should be charged with the responsibility of coordinating fleet replacement activities, including development of a replacement plan and estimating annual expenditures associated with vehicle purchases and/or debt financing.*
12. *The State should identify optimal replacement cycles for key types of vehicles in the fleet, where "optimal" is defined as those ages or accumulated usage intervals at which each type of asset's total cost of ownership is at a minimum. These analyses will provide the economic justification for having a robust fleet replacement program and for developing appropriate replacement rates for these particular types of vehicles.*
13. *Current statute suggests that leasing of vehicles is authorized given specific approvals. The State should confirm that increasing fleet replacement funding levels through a change in capital financing approaches is feasible.*
14. *The State should develop a long-term fleet replacement planning program which provides a systematic, quantifiable, and, hence, defensible foundation for year-to-year replacement spending proposals.*
15. *The State should adopt leasing as its primary means of financing fleet renewal and develop a RFP for fleet leasing and related services.*
16. *The State should tie fleet replacement changes to the recommended rightsizing effort. If end users can be assured that their front-line vehicles will be replaced in a consistently timely fashion, with corresponding improvements in vehicle availability and reliability, it should be possible to reduce the size of the fleet. In the absence of such assurance, resistance to downsizing is likely to be considerable.*
17. *The State should develop a short term state prioritization process for selecting which vehicles to actually replace each year. The process would be applied by each agency.*
18. *The State should conduct a study to reduce the size of the fleet by eliminating low use vehicles.*

There are clear opportunities to reduce the number of vehicles in the State's fleet. Such an action has the opportunity to produce millions of dollars in annual savings.

19. *DMS should study the feasibility of establishing shared-use motor pool locations in Tallahassee.*

    Motor pools are a great way to increase vehicle use and decrease fleet size. No multi-agency motor pool currently exists in Tallahassee, although every agency with operations in the capital indicated that they have pool vehicles. Sharing these vehicles by establishing a central motor pool at one or more locations is a common sense approach to saving money. Our research indicates that central motor pools have been established by nearly every state in their capital city. DMS should study the feasibility of establishing pool locations such as downtown and at the south Tallahassee campus. DMS should also consider the feasibility of outsourcing motor pool service to a car rental company that offers a pick-up and delivery service.

20. *The State should develop and implement an ongoing fleet utilization monitoring system.*

    In order to continue to put downward pressure on the size of the fleet, periodic reviews of the fleet should be conducted. We would recommend that minimum usage thresholds (mileage and/or hours) be established for each major type of vehicle and equipment. These thresholds need to be developed individually for each agency in recognition that agency missions and business activities – and thus vehicle use - can vary to a great degree. DMS can then produce regular exception reports that identify the units that fall short of the established utilization guidelines.

21. *The State should mandate the use of charge-back rates as a financial incentive for agencies to maintain an optimized fleet size.*

    Agencies feel that there are no costs associated with maintaining large fleets of older vehicles whose usage continues to decline. As previously discussed, however, there are actually significant costs associated with keeping underutilized vehicles in the fleet. Florida should build cost incentives into rate structures that chargeback fixed (e.g. depreciation and insurance) and operating (e.g. maintenance and fuel) costs within each agency that retains ownership of vehicles and equipment.

    Fixed and variable monthly charges continually confront fleet users with the costs of having vehicles at their disposal. No matter how much or how little they use an asset in a particular month, fixed charges don't change – just as the loan or lease payment for an individual's car doesn't change. Consequently, there is a clear fiscal (budgetary) benefit to maximizing fleet utilization under this type of charge-back system. Getting rid of under-utilized vehicles lowers an agency's monthly fleet replacement charges. Under this type of system, it is not uncommon to see voluntary reductions in fleet size of five-percent initially as the system is put into place.

22. *Develop, formalize and document a policy and process for vehicle specification, solicitation and selection that incorporates best practice elements.*

23. *Convene a vehicle standardization working committee with representatives from the major fleet agencies, and include both operating and fleet staff. Identify a few job*

classifications (those that are both numerous and common in every agency) that could logically use a standardized type of vehicle and gather input from the working committee to allow the development of complete, detailed specifications for the chosen vehicle types. This should be a step by step, ongoing effort.

24. *Develop a life cycle formula to be applied in vehicle procurement that recognizes key cost components beyond purchase price.*
25. *Work with agencies and vendors to maximize delivery and assignment at the beginning of the model cycle.*
26. *Explain the costs associated with customization and the benefits of standardization and life cycle costing application in procurement to top management to solicit their support for implementation.*
27. *Conduct an analysis of the cost and benefits of employing various resale methods to dispose of vehicles. Use the results to establish core methods for various types of equipment.*
28. *Formalize and document a policy and process for vehicle disposal that incorporates the best practice elements, including minimizing days to sale and return of funds to the agency fleet.*
29. *Establish performance metrics to actively monitor and manage disposal outcomes.*
30. *Open Shops to all Agencies*

    DMS should be charged with creating a steering committee to identify the inter-agency barriers that currently preclude fleet maintenance from being a shared service. Further, this committee should be required to find solutions and methods that will promote and support inter-agency services.

    DMS should also take the lead in two important areas: one, to help eliminate the obstacles or perceived obstacles related to intra-agency billing. Secondly, DMS should take steps (with professional help) to establish reasonable labor rates and markups to assure full recovery of costs for each event.

31. *Develop shop standards and consistent shop procedures*

    DMS, in conjunction with the agencies, should develop a minimum shop criterion that defines a “standard” shop. The criteria should address all aspects of the shop and its operations. For example, the number of technicians that are required to perform routine maintenance and repairs for a specific fleet size should be calculated for all shops using a standardized methodology. We would suggest using the Vehicle Equivalency method found elsewhere in this report. Another example would be defining the shop size and number of work bays necessary for a shop to support the size of fleet assigned to it. Industry standards are readily available for this kind of assessment. The standards should then be applied to every shop operated by the State, regardless of the reporting agency.

DMS should develop standardized financial processes such as calculation of shop charge-out rates, reporting procedures, Key Performance Indicators (KPIs), and other methodologies as necessary to promote consistent operations within the shops.

DMS should develop a methodology for auditing the shops once the aforementioned standards are implemented. Annual audits can ensure that the policies and procedures are understood and the shop is in compliance.

32. Consolidate Shops

There are numerous instances where State agencies operate vehicle repair facilities within very close proximity to one another. The reasons for the duplication of similar services are, as one might expect, related to the differences in mission for each of the agencies. Even though jurisdictions overlap, the agencies have over many years operated independently[27]. This duplicative effort is costly and in many situations could be avoided by consolidating the shops.

DMS should undertake a focused study of opportunities to consolidate shop operations wherever it is feasible. The effort should include detailed categorizing of each agency's need, the impacts on operations, and a cost benefit analysis.

Using the results of the aforementioned standards assessment, the shops should be mapped and recommendation made for consolidation. DMS should also facilitate meetings through the steering committee, to make the proposals and secure the consensus of the agencies affected. The steering committee can address all aspects of the recommendations including operational impacts, personnel decisions, and even property management decisions. Ultimately, a tactical plan to implement the recommendations should be created and executed.

33. Outsource Large Shops

The viability of using a commercial contractor to operate a State owned maintenance facility appears to be proven. The customer (DOT) provided information that suggests their satisfaction with the level and quality of the services. Our own examination of the shop shows that the contractor has the internal systems and methods in place to assure that the shop is cost effective and efficient.

Following the previous recommendation of consolidating shops, the State will be in a very desirable set of circumstances in that there will a clear and concise knowledge of the status of the shops, the adjustments that have been made regarding the size and type of vehicles that would report to a given shop, and other crucial details. These details can form the basis of a Request for Proposal for commercial operation of some of these shops.

Clearly there will be shops for which commercialization is not feasible or attractive to potential bidders. Once identified, these shops should continue to operate as a State run facility. The standards for shops that have been previously developed can and should be used to ensure that the candidates for commercialization are the best. It is

[27] A listing of shop locations is available in the Appendix.

entirely possible that the State may want to include a cluster of shops to be managed as one by the contractor as opposed to a single facility. The key is that the management methodology is of the highest caliber.

DMS should review the existing contract with G4S and assess the performance and true costs to ensure that the terms and conditions set forth in the contract are being met and that outcomes meet expectations. The contract can then be used as the basis for a new Request for Proposal that includes any adjustments needed. Once the vendor responses are received, the bids need to be carefully evaluated and awarded.

We also recommend that the State consider splitting the potential award into at least two different contractors. In doing so, the State does have some protection should one of the contractors defaults. Moreover, the use of at least two will provide the State with the means to compare apples to apples as well as against State run facilities.

34. *Outsource all commercial repairs to a single maintenance management service provider e.g. ARI. This will require development of an RFP for fleet maintenance and repair services. The State should ensure that the terms, conditions and requirements are clear and designed to bring the state the best value.*

Key terms not in the current NY contract that should be included are:

a. Require awarded vendor's third party venders to furnish vehicle damage and liability insurance coverage for each vehicle while it has possession of the vehicle.

b. Require that all data and information relating to fleet management purchases and services provided by awarded vendor are the property of the State. Require the vendor to supply the State with the data in a medium mutually agreed for loading into the statewide Fleet system and to send billings to individual agencies.

c. Require the vendor provide all reasonable assistance to the State and any successor providers upon termination of the contract in transferring electronic data to the management information systems utilized by such successors.

d. Consider in advance reporting and KPI's for the service and include them in the contract.

e. Require the vendor implement fraud and theft prevention tactics so as to minimize fraudulent activities by merchants and State employees.

f. Pursue national account rebates as part of the negotiation process.

g. Require the names of vendor's "national account" vendors to be disclosed.

h. Negotiate tire rebates from vendor or use State contract.

35. *Once a State of Florida contract has been secured, require agencies to use the contract for ALL maintenance and repair at non state facilities. This will eventually reduce the use of the WEX cards to fuel purchases.*

36. *DMS should develop and implement a fuel management program that establishes policies and procedures to which agencies must conform. This should include at minimum:*
    a. *A requirement to enter an accurate odometer reading when fuel is purchased. There are a number of methods that can be utilized to minimize incorrect entries and ensure fuel can be secured as needed.*
    b. *Work with the state's financing and accounting organization to develop an acceptable audit mechanism for automated billings and require its use by all agencies. This audit should make use of the many tools available from the vendor for exception reports. Additional exception reports could be developed inside the FLEET system if warranted.*
37. *DMS should work with WEX to obtain a download of all fuel, mileage and repair data into the FLEET system. Appropriate controls at the pump and a coding conversion on repairs should be part of the process. Individual billings could still go to the agencies where the common audit process would be applied.*
38. *In future contracts the state should detail more of its business requirements. Regular discussions should take place with the vendor for ways to decrease fuel costs and/or increase rebate amounts.*
39. *Once an effective repair contract has been secured, use of the WEX card to pay for repairs should be curtailed.*
40. *DMS should review the current State contract for fuel to determine if it meets the State's needs and offers the best value in terms of costs, deliveries, and emergency supply provisions.*
41. *DMS should conduct an audit of each state operated fuel site to determine if there is a compelling reason to keep a site open. Absent a viable justification, the site should be closed. All sites that remain should be opened and made available to all State agencies except in a few cases where security concerns would make this infeasible.*
42. *A chargeback system should be developed to allow fuel purchased by one agency to be billed back to another. Rates should include indirect and overhead costs calculated by DMS through a uniform methodology.*
43. *A standardized methodology for reporting fuel data should be developed to record all key transactions including fuel deliveries, fuel issues, inventory reconciliations, maintenance, equipment repairs/replacements, etc.*