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Review of State Vehicle Fleet Purchasing

Abstract

- **Many state agencies operate old and high-mileage vehicles that are unreliable and have high maintenance costs. More than 40% of the state's passenger vehicles are overdue for replacement. However, replacing these vehicles has been limited by state budget constraints.**
- **Cash purchase is the most economical way to buy vehicles, but is not always feasible in tight budget years. Third-party financing can provide needed funds but would increase costs.**
- **Establishing a centralized motor pool for state-owned passenger vehicles supported by a revolving fund would be a long-term solution to this problem. This option could cut maintenance costs, allow better vehicle utilization, and provide more stable funding for vehicle replacement.**

Purpose

The Joint Legislative Auditing Committee requested that the Office of Program Policy Analysis and Government Accountability (OPPAGA) examine vehicle fleet management activities of state agencies. As part of our review, we sought to determine:

- How many state-owned vehicles exceed state replacement criteria;
- How aged, high-mileage vehicles impact maintenance costs and employee downtime; and
- The potential benefits of alternative vehicle purchasing methods, including leasing, third-party financing, and a centralized procurement system.

This report is one of a series that addresses the state's vehicle fleet management activities. Related reports address how state-owned vehicles are used by employees, whether the state data system for tracking vehicle usage is effective and efficient, whether agencies use good business practices for maintaining vehicles, and how employees use their personal cars for state business.[1]

[1] These studies include the following OPPAGA reports: Equipment Management Information System, Report No. 96-02, July 29, 1996; Use of Assigned State Vehicles, Report No. 96-03, July 29, 1996; State Vehicle Maintenance, Report No. 96-08, September 25, 1996; and Personal Vehicle Use by State Employees, Report No. 96-12, October 16, 1996.

Background

The state owns and operates about 12,500 passenger carrying vehicles, which represent a substantial state investment of approximately $135.1 million.[2] Florida's vehicle purchasing process is partially decentralized in that each agency makes its own purchases using annual state-term vehicle contracts that are bid and administered by the Department of Management Services (DMS). Agencies purchase vehicles from these contracts based on their funding for new vehicles. In fiscal year 1995-96, agencies bought about 1,600 vehicles, spending approximately $30 million.

Findings

State agencies operate many vehicles that exceed the state's criteria for replacement.

State agencies operate many old, high-mileage passenger vehicles that need to be replaced. DMS establishes the state's replacement criteria based on its assessment of when it is most cost-effective to replace state-owned vehicles to avoid the higher maintenance costs and reliability problems associated with aged, high-mileage vehicles. The replacement criteria range from 7 years or 70,000 miles to 10 years or 120,000 miles, varying by type of vehicle.

Many state-owned vehicles exceed these criteria. As Exhibit 1 shows, 2,391 of the state's passenger vehicles exceed the age replacement criteria and 3,795 vehicles exceed the mileage replacement criteria. Of these vehicles, about 1,000 exceed both criteria. More than 40% of the state's passenger vehicles meet one or both of these replacement criteria.

Exhibit 1
Many State-Owned Passenger Vehicles Exceed Replacement Criteria

N = 12,500 ***Replacement Criteria***	***Vehicles Exceeding Replacement***
Age Past Criteria (*months*)	
1 - 24	1,263
25 - 48	637
49 - 60	152
Over 60	339
Total Vehicles	**(19%) 2,391**
Mileage Over Criteria (*miles*)	
1 - 19,999	1,715
20,000 - 39,999	1,058
Over 40,000	1,022
Total Vehicles	**(30%) 3,795**

Source: OPPAGA analysis of DMS replacement data.

Agencies reported that funding limitations have precluded replacing many aged, high-mileage vehicles. For example, in fiscal year 1995-96, agencies requested about $93.6 million to acquire vehicles. However, because of budget limitations, vehicle purchase appropriations totaled approximately $26.7 million.

Continued use of aged, high-mileage state vehicles can result in increases in maintenance costs and vehicle downtime.

Using aged, high-mileage state vehicles can lead to two problems. First, the state can incur higher maintenance costs. Old vehicles are more prone to breakdowns and expensive repairs, such as engine and transmission overhauls. DMS's Equipment Management Information System does not include information on the maintenance costs by type of repair on all older vehicles. However, several state agencies reported high expenses for their older, high-mileage vehicles. For example, one agency reported spending around $4,700 in 1995 to maintain a 1983 passenger van that had more than 90,000 miles.

[2] The state's Equipment Management Information System, which is administered by DMS, does not include a precise count of the number of state-owned passenger vehicles or the cost of these vehicles. DMS administrators indicated that state agencies do not always report accurate inventory and cost information to the system. Passenger vehicles include sedans, vans, light-duty pick-up trucks, utility vehicles, and pursuit vehicles.

Second, operating old, high-mileage vehicles results in greater downtime. Such vehicles become unreliable and are unavailable for use while being repaired. The downtime associated with Florida's aged, high-mileage vehicles is not readily available. A study, however, indicates that downtime increases substantially for vehicles over 60,000 miles.[3] Some agencies reported that old, unreliable vehicles also reduce staff productivity. For example, our recent study of the Motor Carrier Compliance Office, which weighs and inspects trucks, found that officers often rode together in patrol cars because their own vehicles were being repaired.[4] As a result, the officers were unable to provide full coverage of their patrol areas.

Alternative vehicle procurement methods could benefit the state.

Florida uses a cash-purchase method to acquire state vehicles. Agencies receive appropriations for vehicles and make cash purchases using DMS's annual vehicle state-term contracts. Cash purchase is the lowest cost method for buying vehicles. However, this method requires a high initial cash outlay, which may not be available in tight budget years.

We evaluated two alternative approaches for acquiring vehicles. These approaches are lease/option to purchase and third-party financing. We also assessed establishing a centralized motor pool supported by a revolving fund for acquiring state vehicles.

Lease/Option to Purchase

Leasing enables organizations to meet equipment needs without making a large initial investment. Typically, there are two types of leases associated with governmental entities. First, operating leases involve the state paying a vendor for the use, rather than the ownership, of the equipment; such leases usually are for short-term use. Second, lease-purchase involves the state obtaining ownership of the equipment at the end of the contract for little or no additional cost. Generally, lease terms are for four years or less and the lease payments can be made monthly or annually.

Lease-purchase has the advantage of reducing the initial cash payment needed to acquire equipment. It also spreads the costs over a period of years; thus, agencies are not required to make a large initial investment. Several states reported that they have used lease-purchase to obtain needed vehicles when funding was not available for cash purchases.

However, lease-purchase can lead to higher long-term costs. Under a lease-purchase, the state pays a higher cost for vehicles, due to a lease rate, than with a cash purchase. Lease rates primarily are affected by the manufacturer's cost, interest rates, profit, and supply and demand.

We analyzed acquisition costs for cash-purchase versus lease-purchase for a mid-size sedan. The lease-purchase analysis is based on a four-year contract with an option to purchase the vehicle for $1 at the end of the lease. Exhibit 2 shows the total cash outlays under the lease-purchase method are $18,376 or $3,230 more than if the vehicle was purchased under the cash-purchase method. We also analyzed the lease-purchase method considering the time value of money. The net present value of future payments under the lease-purchase method is $16,942, again which is higher than the cash-purchase method. Thus, we concluded that leasing is not a good option for the state. Studies and experts generally conclude

[3] PHH Vehicle Management Services 1997 Fleet Management Perspective.

[4] Performance Audit of the Commercial Motor Vehicle Safety Enforcement Program, OPPAGA Report No. 94-14, December 5, 1994.

that leasing should be a last resort rather than a preferred method for obtaining needed vehicles.

Exhibit 2

Leasing Is More Expensive Than Cash Purchase

Year	*Cash Purchase Outlays*[1]	*Lease/Purchase Outlays*	*Net Present Value Lease/Purchase*[2]
1	$15,146	$ 4,594	$ 4,594
2		4,594	4,346
3		4,594	4,112
4		4,594	3,890
Total	**$15,146**	**$18,376**	**$16,942**

[1] Our analysis is based on the state's 1997 vehicle contract price for a mid-size sedan.

[2] Years 2, 3, and 4 are discounted to reflect the time value of money.

Source: OPPAGA analysis of lease data.

Third-Party Financing

Third-party financing is the practice of borrowing money from a financial or lending institution to acquire products or services. Under third-party/ financing, the state would borrow the money to purchase vehicles and repay the money on a deferred installment basis. Financial institutions are willing to loan the state money at favorable interest rates because the interest on the loan is tax exempt to the lending institution. This concept is similar to the Consolidated Payment Trust Fund administered by the State Comptroller for purchasing state equipment using a deferred-payment plan. This purchasing method provides for the use of equipment at a deferred payment rate while achieving ownership.

Third-party financing allows the state to acquire more vehicles when funds are limited, as shown in Exhibit 3. In the first year, the state could obtain the same number of cars as it would using the cash-purchase method; however, it would have about $36 million available for other purposes. Thus, the state could replace a larger number of aged, high-mileage vehicles when funds are limited. The state could also avoid the higher maintenance costs and other problems associated with retaining old, high-mileage vehicles.

Exhibit 3

Third-Party Financing Reduces Initial Cash Outlays in Early Years

			Cash Outlays (in Millions)		Net Present Value (in Millions)	
Year	**Number of Vehicles**	**Average Vehicle Cost**	**Cash Purchase**	**Third-Party Financing**	**Cash Purchase**	**Third-Party Financing**
1	2,600	$19,000	$ 49.4	$ 13.2	$ 49.4	$ 13.2
2	2,600	19,665	51.1	26.9	48.4	25.5
3	1,825	20,353	37.1	36.9	33.2	33.0
4	1,825	21,065	38.4	47.2	32.6	39.9
5	1,825	21,802	39.8	44.6	31.9	35.7
6	1,825	22,565	41.2	41.9	31.2	31.8
7	0	0	0	32.0	0	22.9
8	0	0	0	21.7	0	14.7
9	0	0	0	11.0	0	7.1
Total	12,500	--------	$257.1[1]	$275.5[1]	$226.7	$223.9[1]

[1] Total exceeds the sum of column amounts due to rounding

Source: OPPAGA analysis of third-party financing.

Although this alternative frees up funds for other purposes in the early years, it also requires the state to pay financing costs which it avoids under cash purchase. The state would pay about $1,470 more for each vehicle purchased based on current interest rates. The financing cost adds nearly $250 a year to the average cost of a vehicle with a six-year useful life.[5] In current dollars, this option would cost $18.4 million more than cash purchase.

However, when the time value of money is considered, third-party financing is more attractive because the state can borrow money at rates below what it earns on its own investments.[6] Exhibit 3 shows the annual cash outlays and net present values using cash and using third-party financing to purchase 12,500 vehicles. The state would spend $2.8 million less to replace the state passenger vehicle fleet through third-party financing when present values are considered.

Experts contend that making purchases through third-party financing is more cost-effective than financing through bond issues. Third-party financing contracts are generally written so there are no early payment penalties and they contain a "non-appropriation" or "fiscal funding-out" clause. This clause provides that if the state is unable to appropriate funds to make the lease payments designated under the agreement, the agreement will terminate at the end of the current appropriation period. The equipment would then be returned to the third-party without penalty to the state. Other states and local governments we contacted use third-party financing to obtain vehicles when cash flows are limited.

[5] This analysis assumes a four-year payment schedule with the first payment being made in advance. The interest rate is 4.79% per year. If interest rates go up, future borrowing could cost significantly more.

[6] This analysis assumes that the state would be able to invest the cash outlay savings at market rates. Under Federal Arbitrage Regulations, the state could not invest the specific funds borrowed, but would need to invest funds raised from other sources.

Centralized Motor Pool Supported by a Revolving Trust Fund

Under this alternative, the state would establish a centralized motor pool where one agency, the Department of Management Services, would buy all state passenger vehicles. DMS would coordinate vehicle purchasing and provide each agency with the vehicles it needs. DMS would retain title to the vehicles for insurance reasons, but would lease the vehicles to the agencies for their use. DMS would set the lease rates for each agency based on the amount needed to cover its operating costs and buy new vehicles for agencies once the vehicles had reached the replacement criteria. The lease payments would be placed in a revolving trust fund for the replacement and operation or maintenance of the vehicles, thus generating a system that would be self-supporting. DMS currently uses this system for its state motor pool, which provides about 150 vehicles for state employees for short-term trips.

The centralized system could be designed in different ways. DMS could be responsible for all vehicle costs, including fuel, repairs, and insurance. Alternately, DMS could be responsible for only vehicle replacement costs, with each user agency paying for its own operating costs (fuel, insurance, and repairs). Implementing the system would require an initial cash investment to cover the early years of operation, because agencies' lease payments would not cover all of the costs of replacing vehicles in the current vehicle fleet. This could be done with a cash appropriation or by borrowing the needed funds using third-party financing or the Consolidated Payment Trust Fund.

A centralized motor pool for all state-owned passenger vehicles would provide several advantages. It would streamline purchasing by placing responsibility for all passenger vehicle purchasing in a single agency. It would also reduce vehicle maintenance costs if it expedites replacement of old, high-mileage vehicles.[7]

[7] For discussion of cost-savings achievable by centralizing maintenance, see State Vehicle Maintenance, OPPAGA Report No. 96-08, September 25, 1996.

It would be important for DMS to establish a user group to guide its acquisitions and ensure it purchases the types of vehicles each agency needs.

DMS estimates that it would need ten staff to administer a centralized motor pool at a recurring cost of $360,000, or about $2.39 per vehicle per month. We could not estimate the potential cost-savings of a centralized motor pool and expedited replacement of old vehicles because agencies are not required to report maintenance costs by type of repair for vehicles not maintained in state garages. However, DMS administrators indicated that there is potential that cost could be more than offset through savings from better vehicle utilization and lower maintenance costs.[8]

A centralized system could also provide greater oversight of vehicle use. Our recent study found that many employees who are assigned vehicles do not drive the vehicles enough (at least 10,000 miles) to justify the assignment.[9] DMS could review vehicle use and identify cars that appear to be under-used and not needed to perform state business. The agencies could then reassign the cars to other employees who drive more extensively on state business. Also, charging actual costs for acquiring and operating vehicles will make user agencies more aware of vehicle costs, creating powerful incentives to be more cost-conscious in vehicle use and to ensure vehicles are used appropriately. Finally, a properly structured revolving fund can enable managers to more fully identify operating costs and select the most cost-efficient vehicles to meet the state's vehicle needs.

Several states we contacted have used this system and reported that it has worked well and produced significant benefits. For example, California officials reported that the system enabled the state to reduce its vehicle maintenance costs by eliminating aged, high-mileage vehicles. Also, the centralized system enhanced California's ability to track vehicle mileage, cost, maintenance, and proper usage.

This alternative would require appropriations to DMS to purchase vehicles and to state agencies to lease the vehicles. Funding needs would increase for several years to cover new vehicle purchases as well as lease payments. The lease payments would build-up the Motor Vehicle Operating Trust Fund to cover the eventual replacement of the vehicles. After that time, no new cash appropriation would be needed for vehicle purchases as the Trust Fund would receive sufficient funds from agency lease payments to make vehicle replacement self-supporting.

Staff of most agencies we contacted favored a centralized motor pool system. We concluded that this system has many advantages over Florida's current vehicle acquisition system and has the potential to streamline the purchasing process and cut administrative costs, reduce maintenance costs, allow better use of vehicles, stabilize vehicle funding, and improve management information on the state fleet.

Conclusions and Recommendations

Many state agencies operate aged, high-mileage vehicles that are unreliable and have high maintenance costs. Over 40% of the state's passenger vehicles exceed replacement criteria. While up-front cash purchases are the most economical way to buy cars, it is not always feasible in tight budget years. Using third-party financing would enable the state to catch up in replacing vehicles but would increase costs due to interest expenses. In the long term, establishing a centralized motor pool supported by a revolving trust fund would enhance Florida's overall current fleet management operations. This would reduce or eliminate many of the fleet management problems that we have identified in our prior studies of state vehicle administration. It could reduce administrative and maintenance costs, provide better oversight of vehicle repairs and use, and provide more stable funding for vehicle purchasing. Therefore, we recommend that the Legislature:

[8] DMS also estimates that it would need ten additional staff if it was responsible for managing statewide vehicle maintenance and fuel efforts. However, better management of vehicle maintenance could provide savings of up to $2.4 million annually. This function could be privatized.

[9] For discussion of vehicle assignment, see Use of Assigned State Vehicles, OPPAGA Report No. 96-03, July 29, 1996.

- In the short term, consider alternative vehicle purchase methods, such as third-party financing to catch up with vehicle replacement if funds are not available for cash purchases. Financing would increase vehicle costs due to the need to pay interest; but this would partially be offset by lower maintenance and downtime costs. This could be done by amending s. 287.14(5), F.S., to allow motor vehicles to be purchased by deferred or installment payments that may require interest or its equivalent, when it is in the best interest of the state, to purchase vehicles. Another method would be to amend s. 287.064, F.S., Consolidated Financing of Deferred-Payment Purchases, to include the use of motor vehicles;

- Create a centralized motor pool within DMS supported by a revolving trust fund. This would streamline the overall vehicle management process, and provide a consistent funding source for needed vehicles, and improve fleet management. DMS should be required to establish a users' group to ensure that it is responsive to agency needs in operating the motor pool; and

- Direct DMS to develop a managed maintenance program including a garage network or enter into a contract with a private vendor for managed vehicle maintenance services. Unless DMS can demonstrate that it could manage the maintenance program more cost-effectively, this function should be privatized. This would allow the state to obtain volume discounts and avoid unnecessary repairs, and could save up to $2.4 million annually.

Agency Response

In accordance with s. 11.45(7)(d), F.S., we provided our preliminary and tentative review findings to the Secretary of the Department of Management Services for his review and response. Excerpts from the Department's response are presented below.

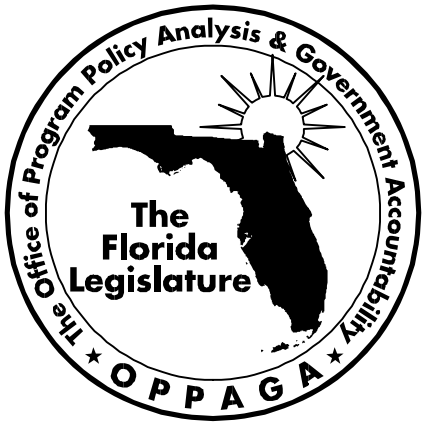
> The Department will establish and operate a centralized motor pool program supported by a revolving trust fund, if directed to do so by the Legislature. If properly and consistently funded, a centralized motor pool program should result in savings by ensuring the scheduled replacement of vehicles, avoiding major repair expenditures, and avoiding excess downtime for vehicle repairs.
>
> If directed, the Department will develop a managed maintenance program including a garage network, or contract with the private sector for these services. If these services can be more cost effectively provided by the private sector, the services will be privatized. The Department considers the reported potential savings of up to $2.4 million annually to be overstated.

OPPAGA Response

We believe the state could achieve cost savings from a centralized vehicle maintenance system. In OPPAGA Report No. 96-08, we determined that a 10% to 30% savings on agencies' current maintenance costs from private garages (estimated at $8 million), would save between $800,000 and $2.4 million annually.

The Florida Legislature

Office of Program Policy Analysis and Government Accountability



Mission Statement

This Office provides objective, independent, professional analyses of state policies and services to assist the Florida Legislature in decision-making, to ensure government accountability, and to recommend the best use of public resources.

This project was conducted in accordance with applicable evaluation standards. Copies of this report may be obtained by telephone (904/488-1023 or 800/531-2477), by FAX (904/487-3804), in person (Claude Pepper Building, Room 312, 111 W. Madison St.), or by mail (OPPAGA Report Production, P.O. Box 1735, Tallahassee, FL 32302).

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