MISSISSIPPI

Too Many State Cars? A Cost Analysis of Vehicles Operated by Select State Agencies

October 2023

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State Auditor

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Executive Summary

Mississippi state agencies and other government offices own thousands of vehicles purchased with taxpayer money. From fire trucks to passenger sedans, these taxpayer-owned vehicles represent millions of dollars of spending—both to purchase and maintain vehicles over time. Due to the significant taxpayer cost of owning and operating this massive fleet of vehicles, the Mississippi Office of the State Auditor (OSA) has evaluated whether state agencies could save taxpayer money spent on operating vehicles. This evaluation shows state agencies can save money by accurately projecting how frequently vehicles will be used instead of focusing only on how many miles they will be driven. By considering the intended use of the vehicles, state agencies can project usage frequency and determine whether deploying taxpayer-owned, taxpayer-rented, or personal vehicles is more cost effective.

Though each state agency operates vehicles with autonomy, the state—through the Department of Finance and Administration's Bureau of Fleet Management (BFM)—sets the policies for the "purchase, lease, rental, acquisition, use, maintenance and disposal of vehicles by state agencies."[1, 2] Analysts engaged BFM to compare actual operating expenses from calendar year 2022 to the projected rental expense of similar vehicles. **Put differently, analysts looked to see if it would be cheaper for the state to own, rent, or allow employees to use personal cars.** Analysts sampled vehicles operated by both large and small state agencies to evaluate a variety of vehicle usage trends. This comparison only includes the two types of passenger sedans because the state has negotiated fixed rental rates for these vehicles.[3] Figure 1 shows the total number of vehicles and sedans owned by the 10 state agencies sampled by analysts.

Figure 1

State Agency	Total Vehicles	Passenger Sedans
Agriculture and Commerce	153	5
Corrections	602	259
Employment Security	14	5
Environmental Quality	155	8
Information Technology Services	10	0
Medicaid	18	11
Mental Health	1	1
Rehabilitation Services	140	12
Wildlife, Fisheries, and Parks	577	8
State Aid Road Construction	15	2

[1] See Miss. Code Ann. §25-1-77.

[2] No traditional lease terms have been recorded by BFM or other state agencies.

[3] According to the state's current rental agreement, "[a] mid-size rental car is normally the largest rental that will be reimbursed."

Vehicle operating expenses vary by frequency of use.

Analysts compared the per-mile operating expense of taxpayer-owned vehicles, taxpayer-rented vehicles, and personal vehicles owned by agency employees to determine the most cost-effective use of taxpayer resources. Figure 2 shows these cost comparisons.

Figure 2

Usage Type		Mid-Size Sedan	Full-Size Sedan
Taxpayer-Owned Vehicle		$0.26 /mile	$0.32 /mile
Taxpayer-Rented Vehicle	1-day Rental	$0.25 /mile	$0.32 /mile
	2-day Rental	$0.38 /mile	$0.47 /mile
	3-day Rental	$0.51 /mile	$0.61 /mile
	4-day Rental	$0.64 /mile	$0.76 /mile
	5-day Rental	$0.77 /mile	$0.90 /mile
Personal Vehicle		$0.625 /mile[4]	

Benefits and drawbacks of the state owning, renting, or allowing employees to use a personal vehicle are:

- When the state allows employees to use their personal vehicles, the only cost to the state is the standard per-mile rate established by the federal government. This must be paid to the employee.
- When the state owns a vehicle, the state must pay the cost of maintaining the vehicle.
- When the state rents a vehicle, the expense depends on how many days the vehicle is reserved. In other words, a taxpayer-owned vehicle generally does not accrue operating expenses when it is parked, but taxpayers are charged a daily fee regardless of whether a rented vehicle is cranked.

Figure 3 summarizes these tradeoffs and shows how analysts calculated operating expenses.

Figure 3

$$\frac{\left(Rental\ Day(s) \times \frac{Rental\ Cost}{Day}\right) + Fuel\ Cost}{Mile(s)\ Driven} = \boldsymbol{Operating\ Expense\ of\ Taxpayer\text{-}rented\ Vehicle(s)}$$

$$\frac{Maintenence\ Cost + Fuel\ Cost}{Mile(s)\ Driven} = \boldsymbol{Operating\ Expense\ of\ Taxpayer\text{-}owned\ Vehicle(s)}$$

$$Mile(s)\ Driven \times \frac{\$0.625}{Mile} = \boldsymbol{Operating\ Expense\ of\ Personal\ Vehicle(s)}$$

[4] The 2022 IRS mileage rate changed from $0.585 /mile to $0.625 /mile on July 1, 2022. The current rate is $0.655 /mile.

State agencies can save taxpayer money by having a plan.

Owning, renting, and using personal vehicles each provide cost savings to taxpayers in specific circumstances. For example, since the operating expense of rented vehicles hinges on the number of days the vehicle is reserved, taxpayers can save money when vehicles are rented for short-term use. However, taxpayers eventually realize cost savings by purchasing vehicles as both mileage and usage increase. Taxpayers can even realize savings when agencies reimburse employees for using their own personal vehicles. Figure 4 and Figure 5 plot the operating expenses per mile for taxpayer-owned vehicles, taxpayer-rented vehicles per day, and personal vehicles.[5]

Figure 4

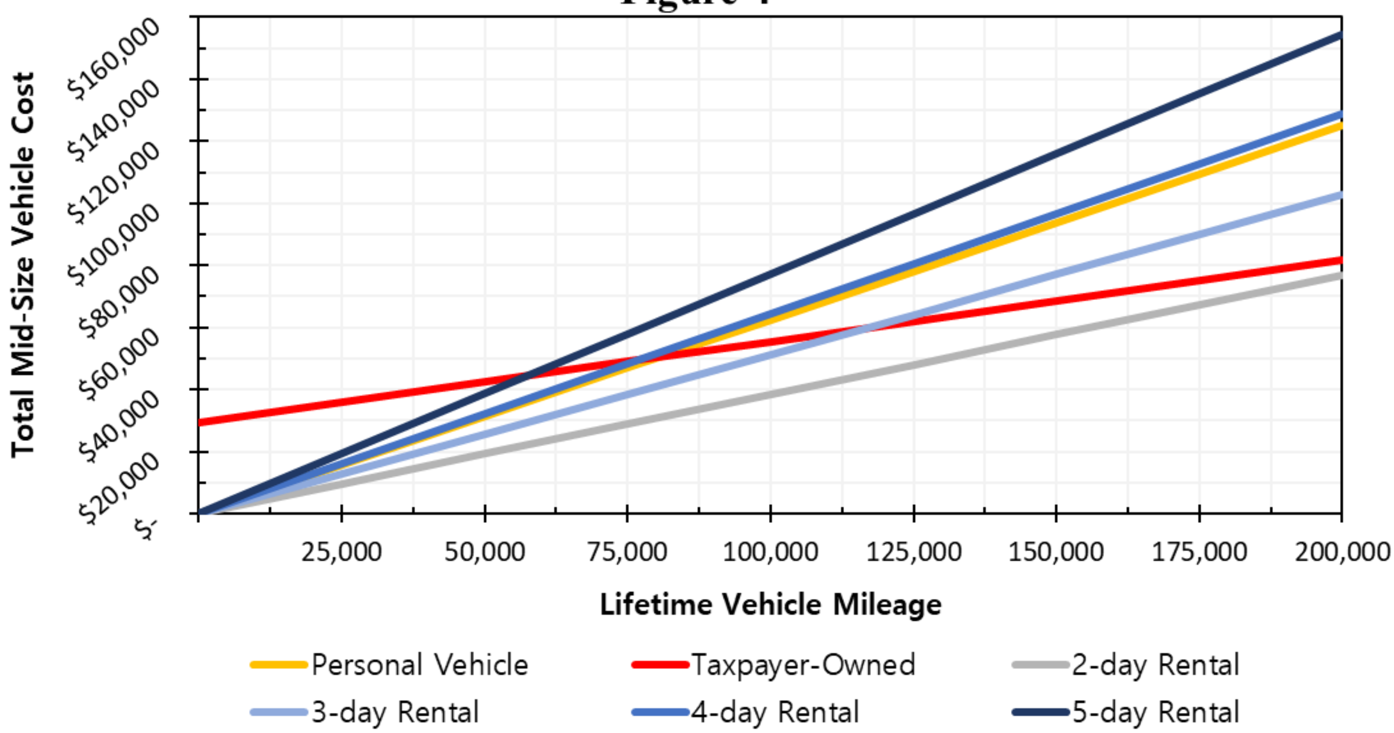


Figure 4 shows the scenarios when purchasing a mid-size sedan is more cost effective than renting or using a personal vehicle. While the operating expense of a taxpayer-owned vehicle is $0.26 per mile—less than the per-mile expense for both renting and using a personal vehicle—agencies must first purchase that vehicle. In the figure, analysts include the $29,300 median purchase price of sampled mid-size sedans before adding any per-mile operating expenses.[6]

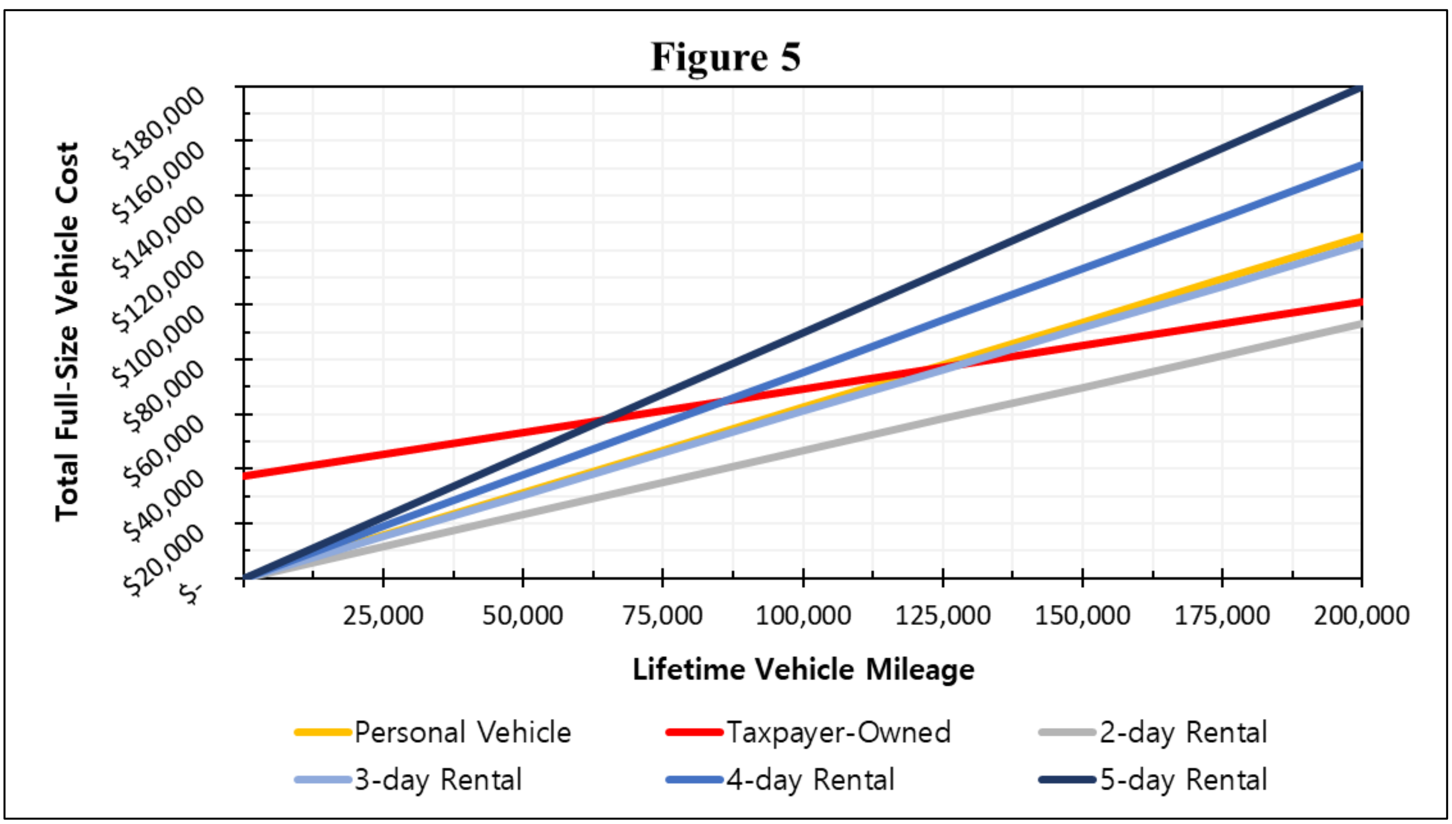
The operating expense for taxpayers to rent a mid-size sedan climbs from $0.25 per mile if it is reserved for one day each week to $0.77 per mile when reserved for a full workweek. Consequently, **the total**

[5] Regardless of owning or renting, the fuel costs will be the same for identical vehicles.
[6] See Figure 3 for per-mile operating expense formula(s).

operating expense of renting a mid-size sedan exceeds that of owning one when it is used three or more days each week and is driven over 115,000 miles during its useful life. Figure 4 also shows mid-size sedan used fewer than two days each week must operate over 200,000 lifetime miles before ownership becomes more cost effective than renting.

Further, instead of purchasing a mid-size sedan projected to be used fewer than four days each week or driven less than 75,000 lifetime miles, state agencies can save taxpayer money by reimbursing employees who use their own personal vehicles.

Figure 5 shows the cost to operate taxpayer-owned, taxpayer-rented, and personal full-size sedans is also largely influenced by the frequency of use. Again, analysts include the median purchase price of sampled full-size sedans—$37,285—before the $0.32 per mile operating expense for these taxpayer-owned vehicles begins accruing. According to Figure 5, taxpayers save money by reimbursing employees who use their own personal vehicles instead of renting a vehicle more than three days each week or owning a vehicle driven less than 125,000 lifetime miles. The figure also shows the operating expense for renting a vehicle one day each week is $0.32 per mile, which grows to $0.90 per mile when a vehicle is rented for a full workweek. **For full-size sedans, state agencies should almost always opt to purchase vehicles projected to be used more than two days each week and driven over 125,000 lifetime miles because vehicle usage directly correlates with increased operating expenses for taxpayer-rented vehicles**. This trend underscores the importance of accurately projecting vehicle usage before state agencies purchase any vehicle.



Conclusion

Figure 6 shows a simplified decision matrix for state agency employees to choose the most cost-effective way to use a passenger sedan for state business.[7] For example, the figure shows renting is always the least expensive option if the vehicle will be used one or two days each week. However, it also shows the vehicle's lifetime mileage more heavily influences the decision to rent, purchase, or allow employees to use their personal vehicles as the days of vehicle usage per week increase.

Figure 6

Days of Usage per Week	All Sedans	Only Mid-Size Sedans	Only Full-Size Sedans	Only Mid-Size Sedans	Only Full-Size Sedans	All Sedans
1 Day	Rent	Rent	Rent	Rent	Rent	Rent
2 Days	Rent	Rent	Rent	Rent	Rent	Rent
3 Days	Rent	Rent	Rent	Rent or Purchase	Rent or Purchase	Purchase
4 Days	Personal Vehicle	Personal Vehicle or Purchase	Personal Vehicle	Purchase	Personal Vehicle or Purchase	Purchase
5 Days	Personal Vehicle	Personal Vehicle or Purchase	Personal Vehicle	Purchase	Personal Vehicle or Purchase	Purchase
Total Lifetime Miles	<50,000	50,000 – 100,000		100,000 – 150,000		>150,000

This analysis shows state agencies should accurately project the frequency a vehicle will be used to conduct taxpayer business when determining whether owning, renting, or requiring personal use of vehicles is least expensive. State agencies may also be able to save taxpayer money by executing long-term vehicle lease agreements, which are allowed by the BFM's policies. This analysis shows state agencies can save taxpayers money by having a well-reasoned fleet management plan.

[7] When the decision matrix shows two options, consult Figure 4 for mid-size vehicles or Figure 5 for full-size vehicles.