

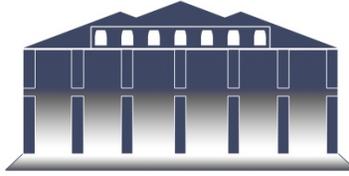
**Stronger Reporting and Management Structure
Would Improve State Bureau of Investigation
Vehicle Oversight**



**Final Report to the Joint Legislative
Program Evaluation Oversight Committee**

Report Number 2012-12

November 14, 2012



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November 14, 2012

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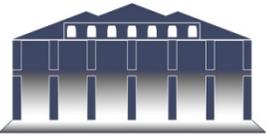
The Program Evaluation Division work plan was amended on April 25, 2012, to direct the division to review fleet management among major law enforcement agencies. This report is the first on this issue and focuses on vehicles managed by the Department of Justice's State Bureau of Investigation.

I am pleased to report that the Department of Justice cooperated with us fully and was at all times courteous to our evaluators during the evaluation.

Sincerely,

A handwritten signature in black ink, appearing to read "John W. Turcotte".

John W. Turcotte
Director



PROGRAM EVALUATION DIVISION

NORTH CAROLINA GENERAL ASSEMBLY

November 2012

Report No. 2012-12

Stronger Reporting and Management Structure Would Improve State Bureau of Investigation Vehicle Oversight

Summary

A 2011–12 series of Program Evaluation Division reports on motor fleet management of state-owned vehicles prompted legislative interest in law enforcement vehicles. The present evaluation examined vehicles operated by the State Bureau of Investigation (SBI) in the North Carolina Department of Justice (DOJ). Although results indicated SBI's vehicle management generally followed best practices, findings identified room for improvement.

SBI's decentralized vehicle management and weaknesses in internal controls have resulted in inconsistent oversight. Because law enforcement vehicle management is independent from the Department of Administration, responsibility for oversight of SBI's 384 motor vehicles falls to the managers of 28 units, sections, or districts and to individuals with assigned vehicles. This evaluation found weaknesses in three of eight identified internal controls: written policies and procedures, monitoring, and data integrity assurance. Further, managers' approaches to oversight were inconsistent. Until these weaknesses are addressed, SBI's ability to implement and enforce effective controls will continue to be compromised and the potential to achieve cost savings will be limited.

Although SBI follows best practices for vehicle acquisition and disposal, SBI has not established clear criteria to guide vehicle replacement planning, assignment, and maintenance. Budget reductions may constrain the ability to replace vehicles, but they do not preclude planning, especially at a time when the fleet's average mileage exceeds 90,000 miles.

SBI collects vehicle data with a recently implemented electronic fleet management information system, but increased attention to replacement planning, vehicle assignment, and reporting would promote a more comprehensive approach to fleet management. Improvements to routine reporting could enhance the system's usefulness as a management tool by, for example, providing detailed division-wide vehicle utilization data, setting thresholds for vehicle replacement to aid in planning, issuing alerts for approaching scheduled maintenance, and providing more detailed reporting to managers.

The General Assembly should direct DOJ to implement a fleet-management approach for SBI law enforcement vehicles. Elements of implementation should include using electronic vehicle data to enhance business decisions; conducting annual internal vehicle audits that test internal controls and data validity; and revising policies and procedures related to vehicle replacement planning, assignment, and maintenance to make them more explicit.

Scope

This report, the first of a series on law enforcement motor vehicles, examines vehicles operated by the State Bureau of Investigation (SBI) in the North Carolina Department of Justice.¹ The evaluation was directed by the Joint Legislative Program Evaluation Oversight Committee when it amended the Program Evaluation Division's work plan on April 25, 2012.

Four research questions guided this evaluation.

1. What are the characteristics of the SBI vehicle fleet and the employees who use them?
2. What policies and procedures guide fleet management, including vehicle use, maintenance, assignment, acquisition, and disposal?
3. Do practices follow policies and procedures that guide fleet management?
4. What and how reliable are internal controls to assure adherence to policies and procedures that guide vehicle fleet management?

Data were gathered from the following sources:

- agency policies and procedures related to fleet management;
- a vehicle inventory, including make, model, year, vehicle type, maintenance history, staff assignment, and costs;
- on-site vehicle inspections;
- a review of oversight mechanisms and processes;
- interviews, written queries, and a survey of agency and program administrators; and
- a literature review of best practices in fleet management.

Background

Previous Program Evaluation Division reports have described law enforcement motor vehicles as different from vehicles operated by other state agencies.² Integral to the law enforcement mission, law enforcement vehicles differ in how they are used and for what purpose, in the specialized equipment they may require, and in the need for confidential license plates if they are used in undercover operations. Unmarked law enforcement vehicles avoid public scrutiny because the vehicles are not recognizable as belonging to the State. Further, statutes treat law enforcement vehicles differently from other state vehicles. Together, these differences have prompted questions about the efficient and effective operation of North Carolina's law enforcement motor fleets.

A series of reports issued by the Program Evaluation Division in 2011–12 evaluated vehicles operated by state agencies and institutions, including those with law enforcement missions. The reports examined fleet management practices of state agencies and institutions with more than 200 state-owned vehicles in Fiscal Year 2010–11. An objective of these evaluations was to determine adherence to fleet management best practices across state agencies. With the exception of the second report,

¹ The second report, which will examine the fleets operated by the Department of Public Safety, will be released in 2013.

² Program Evaluation Division (2012, June). *Key Ideas from Five Program Evaluation Division Reports on State-Owned Vehicles and Permanent License Plates*. Raleigh: North Carolina General Assembly.

which focused on the North Carolina Department of Administration Motor Fleet Management's oversight of passenger vehicles, these reports were not intended to provide in-depth analysis of any one entity. Together, the series laid the groundwork for the present evaluation of vehicles operated by the Department of Justice's (DOJ) State Bureau of Investigation (SBI).

The 2011–12 reports identified best management practices, which are techniques, methods, and processes that have been demonstrated as essential and effective means for managing assets. In general, best practices are defined as the most efficient (least amount of effort and resources) and effective (best results) way of accomplishing a task, based on repeatable procedures that have proven themselves over time. In the case of state-owned vehicles, adherence to best practices ensures their appropriate use and holds agencies and institutions accountable. Meeting best-practice standards allows fleet managers to optimize fleet size, composition, and expenses by tracking and analyzing vehicle use and cost. The Program Evaluation Division reviewed fleet management guidelines established by industry leaders, including the United States General Services Administration, to identify four general categories of fleet management best practices:

- policies and procedures;
- management of vehicle utilization data;
- financial management; and
- vehicle replacement and acquisition.

Findings from the 2011–12 Program Evaluation Division report series on management of state-owned motor vehicles showed DOJ met 77% of best management practice criteria.³ Because SBI manages the majority (94%) of DOJ vehicles, management of SBI vehicles reflects the performance of DOJ as a whole. In rebuttal to the evaluation rating, DOJ argued the narrowly scoped criteria of fleet management business practices did not apply to them due to the nature of law enforcement, and DOJ contended that although their business practices were slightly different from those identified for the evaluation, their practices ensured the DOJ fleet was managed in a professional, cost-effective manner.

Differences between law enforcement and other state-owned vehicles have prompted questions about their status and management in North Carolina and beyond. In North Carolina, the earlier reports heightened legislative interest in law enforcement motor vehicles because both SBI and the Department of Public Safety's State Highway Patrol are exempted from vehicle management requirements that apply to other state entities. Statutes distinguish between law enforcement and other vehicles granted to agencies that use motor vehicles for transporting, apprehending, or arresting persons charged with violating the law. As shown in Exhibit 1, statutes exempt SBI law enforcement motor vehicles from rules for fuel efficiency, oversight, and commuting; permit unmarked vehicles and confidential registrations; and allow special equipment.

³ DOJ ranked ninth among 14 state agencies and institutions with over 200 vehicles in meeting best practice criteria; the average was 79%.

Exhibit 1: Statutes that Pertain to SBI Law Enforcement Vehicles

Statute	Section
N.C.G.S. § 143-341	(8)(i) General Services <ul style="list-style-type: none"> (2b) – exempts law enforcement vehicles from the requirement that new vehicles be in the top 15% of their class in fuel economy (3) – exempts motor vehicles under the ownership, custody or control of SBI and the Department of Public Safety’s State Highway Patrol and Butner Public Safety, which are used primarily for law-enforcement, fire, or emergency purposes from the requirement that all departments must transfer passenger vehicles to the Department of Administration (7a) – the Department of Administration’s commuting reimbursement rate does not apply to marked or unmarked law enforcement vehicles
N.C.G.S. § 20-39.1	<ul style="list-style-type: none"> (b) – exempts motor vehicles used to transport, apprehend, or arrest persons from the requirement to be marked and permits these vehicles to have private license plates (e) – law enforcement agencies must be issued confidential license plates to be used on publicly owned or leased vehicles that are primarily used for transporting, apprehending, or arresting persons (g) – law enforcement officers on special undercover assignments may be assigned fictitious license plates under assumed names to be used on publicly owned or leased vehicles
N.C.G.S. § 20-125	<ul style="list-style-type: none"> (b) – all vehicles owned and operated by SBI and used by officers in the performance of their duties may be equipped with special lights, bells, sirens, horns, or exhaust whistles

Note: Internal Revenue Service rules address commuting among law enforcement personnel and exempt law enforcement employees who are on call 24 hours a day, seven days a week, from vehicle fringe reporting requirements.

Source: Program Evaluation Division based on a review of North Carolina General Statutes and Internal Revenue Service rules.

Other states have addressed questions about law enforcement vehicle fleets. Reports from Mississippi and Oklahoma recommended special exemptions and guidelines for vehicle use and management, such as commuting and procurement procedures. Two Florida reports focused on pursuit vehicles, which they found were relatively more costly to purchase and operate than sedans. A West Virginia study of state police motor vehicles identified problems with fleet management and vehicle assignment, particularly involving larger, more costly SUVs that were not clearly justified.

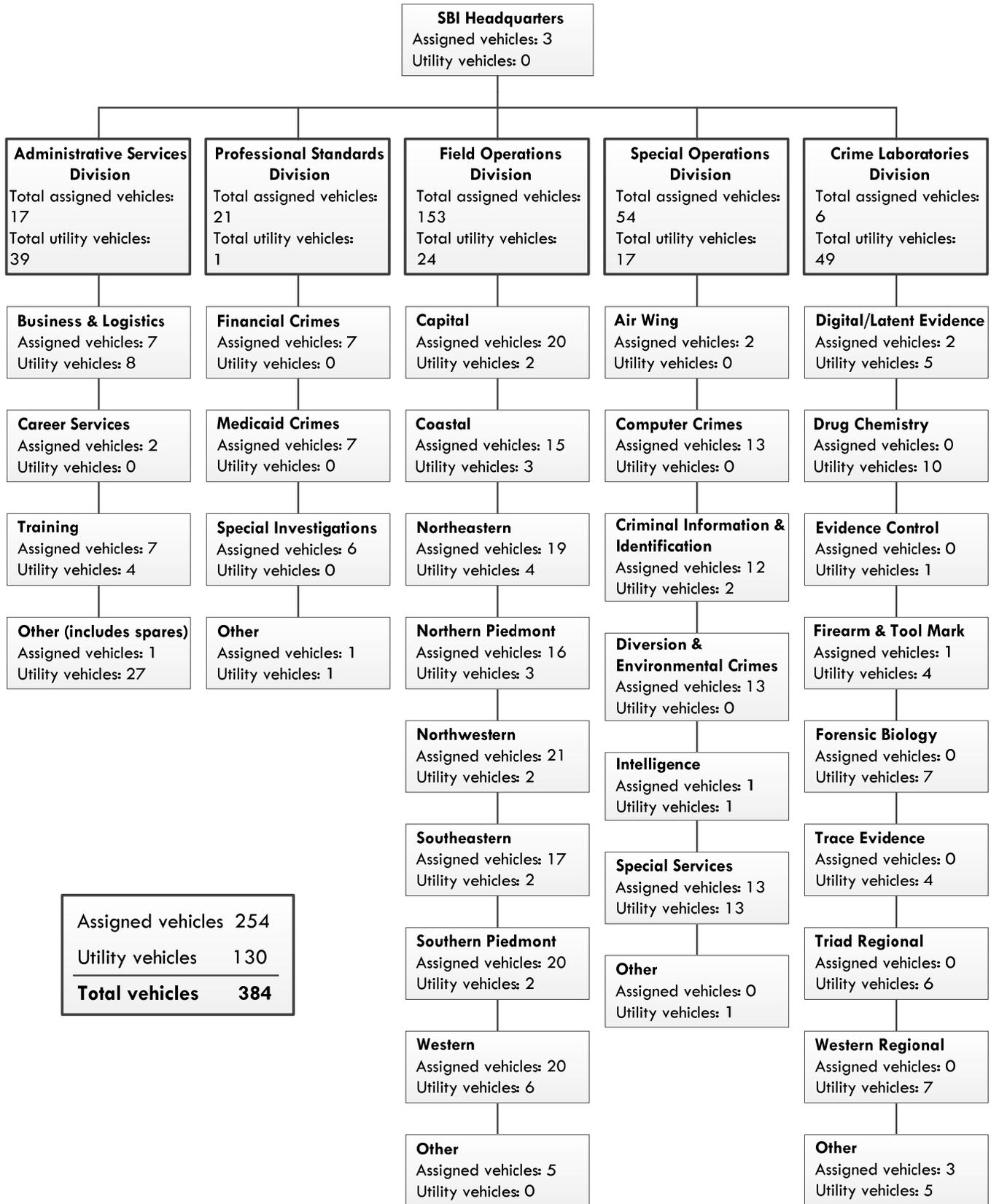
The current series of reports addresses questions about law enforcement motor vehicles by focusing on the two agencies with the specific mission of law enforcement, namely DOJ and the Department of Public Safety. This evaluation is the first of the series and focuses on SBI.

Findings

Finding 1. Weaknesses in management controls and the State Bureau of Investigation’s decentralized vehicle management structure have resulted in inconsistent oversight.

The Department of Justice’s (DOJ) State Bureau of Investigation (SBI) has a centralized and district management structure. Five divisions include a total of 28 units, sections, and districts that manage vehicles (see Exhibit 2). The Field Operations division’s regional structure consists of eight districts; all other divisions are functional disciplines that may provide services and vehicles across the State. All districts and each unit or section that operates vehicles are responsible for vehicle oversight, and individual agents have ultimate responsibility for the vehicles assigned to them.

Exhibit 2: SBI Management Structure and Vehicles Operated Within Divisions



Note: Only units that operate vehicles are shown. "Other" includes vehicles designated for section administrative activities as well as 26 utility vehicles in the Administrative Services Division, which are spare vehicles available for temporary use.

Source: Program Evaluation Division based on information from SBI.

Across these units, sections, and districts, SBI's motor vehicle fleet inventory consisted of 384 vehicles over the seven months between November 2011 and May 2012. Fleet characteristics are summarized in Exhibit 3. As shown, SBI categorizes vehicles as assigned (to individuals) or utility (not assigned to a specific individual). Nearly all (96%, or all but 10) of the 254 assigned vehicles were assigned to sworn law-enforcement employees.⁴ Utility vehicles included those for special purposes (e.g., surveillance); vehicles for general use by unit, section, or division employees; and spare vehicles managed by the Business and Logistics Section and available for general temporary use. Spare vehicles comprise the largest single proportion (20%) of utility vehicles. Across SBI, the division-wide ratio of vehicles (384) to all staff (527) was 1 to 1.4.

Exhibit 3:

Characteristics of SBI's 384 Assigned and Utility Vehicles

	Assigned Vehicles (n=254)	Utility Vehicles (n=130)	Total (n=384)
Section Inventory			
Field Operations	153	24	177
Special Operations	54	17	71
Professional Standards	21	1	22
Administrative Services	17	39	56
Crime Laboratory	6	49	55
SBI Headquarters	3	0	3
Body Type Inventory			
Sedan	133	70	203
SUV	90	28	118
Pick-up truck	30	9	39
Van	0	13	13
Other	0	8	8
Minivan	1	2	3
Range of Model Years			
Oldest	2002	1989	
Newest	2012	2012	
Operating Cost per Mile			
Average	\$ 0.20	\$ 0.24	

Notes: Operating costs calculations excluded statistical outliers.

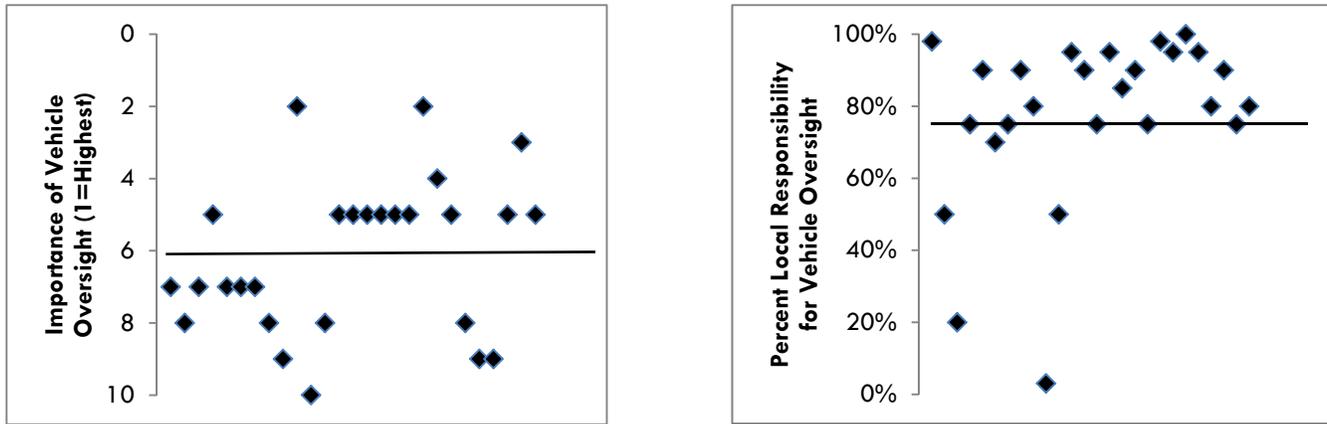
Source: Program Evaluation Division based on data from SBI.

Management approaches to vehicle oversight were inconsistent across units, sections, and districts. The Program Evaluation Division administered a survey to examine the implementation of oversight in SBI's decentralized management structure and found consistency in some oversight domains but

⁴ Non-sworn employees with assigned vehicles were eight Criminal Information Training Specialists, one Armorer/Firearms Coordinator, and the director of the Crime Laboratory.

variability in others.⁵ As shown in the left-hand figure of Exhibit 4, responses indicated inconsistency in how much importance and responsibility managers associated with vehicle oversight. On average, managers rated importance—on a scale of 1 to 10, with 1 as most important—at 6, with a range from 2 to 10. One respondent commented, “Although vehicle oversight is important, it ranks low in comparison to management of our primary responsibility of criminal investigation,” but oversight “is sufficient to insure the proper use of and care of issued vehicles.”

Exhibit 4: Managers’ Ratings of Importance of and Responsibility for Vehicle Oversight Varied



Notes: Ratings were based on responses from the 27 managers who received the survey (one position was vacant at the time of the survey). The rating scale was from 1 (highest importance) to 10 (lowest importance); as shown by the line in the left-hand figure, responses had an average of 6 (n=27). As shown by the line on the right-hand figure, the average proportion of local responsibility managers assumed was 76% (n=26 due to one missing response).

Source: Program Evaluation Division based on survey responses.

As shown in the right-hand figure of Exhibit 4, there also was a range in how managers apportioned responsibility for vehicle oversight to local and central SBI administration: on average, 76% of responsibility was assigned to units, sections, and districts and the remaining 24% to central administration. However, when examining individual responses, the proportions assigned to local responsibility ranged from 3% to 100%, indicating considerable variability in how managers saw their role in oversight. Altogether, the survey responses shown in Exhibit 4 indicate potential weaknesses in vehicle oversight due to the decentralized management structure. According to the survey data, managers interpret their role in and the importance of vehicle oversight for themselves.

Survey responses also showed inconsistency in managers’ perspectives on agent and management’s oversight responsibilities. Whereas some respondents emphasized the sole responsibility of agents for vehicles, others described a more hands-on approach by management. One stated, “Vehicle oversight is generally the responsibility of the district/section/unit management team to which it is assigned.” Another mentioned routine inspections by in-district assistant supervisors and the in-district Special Agent in Charge.

⁵ Survey responses were provided by all 27 unit, section, and district managers with vehicle oversight responsibilities at the time of the survey. One of the 28 positions was vacant at the time of the survey.

Inconsistency in management approaches has implications for how well the decentralized management structure works. Survey results indicated variability in the level of attention to vehicle oversight, the amount of responsibility assumed for oversight, and the amount of support provided to agents who operate vehicles. This variability introduces risk of insufficient oversight. Better vehicle management can co-exist with and ultimately enhance SBI’s law-enforcement mission.

SBI’s decentralized management structure requires uniformly implemented policies, procedures, and other controls to ensure good vehicle management. In general, internal control mechanisms protect resources, assure compliance, assess organizational performance, and ensure data reliability. A system of internal controls typically consists of those listed in the left-hand column of Exhibit 5. As shown, this evaluation found SBI had implemented most of the identified controls; however, weaknesses were found for some written policies and procedures, monitoring, and data integrity assurance.

Exhibit 5: SBI Has Most Internal Controls in Place, but Monitoring, Policies and Procedures, and Data Integrity Assurance Need Improvement

Internal Control	Purpose	Implemented at SBI?	SBI Procedures
Annual inventory	Track assets from arrival to retirement	●	Follow OSC requirements for assets over \$2,500
Documentation review	Ensure written policies and procedures are followed	●	Examples include staff inspections and assigned vehicle compliance forms
Internal control self-assessment	Evaluate the agency’s internal control system	●	Follow OSC requirements, complete annual checklist
Safeguarding assets	Verify existence of assets and prevent loss and theft	●	Written and implemented policies and procedures; part of OSC self-assessment
Surplus approval	Ensure proper processing of surplus vehicles	●	Follow state surplus procedures
Written policies and procedures	Provide policies for vehicle use and management	◐	Some but not all vehicle management areas are covered in SBI Policies and Procedures
Monitoring	Prove operational effectiveness of controls	◐	Staff inspections and division management structure, but weaknesses were identified
Data integrity assurance	Verify accuracy of data entered into the electronic tracking information system	○	None evident

● = Full implementation ◐ = Partial implementation ○ = Does not exist

Notes: OSC stands for the Office of the State Controller. To independently test whether existing controls were implemented in accordance with SBI policies, the Program Evaluation Division inspected vehicles and documentation for a random sample of 60 vehicles. All compliance agreements were on file as required, and vehicle use logs had been completed and entered into SBI’s electronic Vehicle Tracking System.

Source: Program Evaluation Division based on SBI documents.

Some written policies and procedures require clarification. Although most written policies and procedures were in place, some required clarification. In particular, policies pertaining to vehicle assignment, replacement planning, and maintenance did not provide adequate guidance needed for

strong fleet management. These issues are presented in greater detail in Finding 2 of this report.

SBI's Professional Standards Division monitors vehicle use and management with periodic inspections of personnel and asset management, but these inspections are not as rigorous as audits. The purpose of inspections is to monitor whether the management of personnel and physical assets adheres to internal policies and procedures and to identify areas that need improvement. Vehicle inspections consist of ratings on the following items:

1. Are there adequate vehicles assigned?
2. Are the vehicles being assigned satisfactorily?
3. Are mileage and maintenance costs routinely monitored?
4. Are there adequate controls to prevent abuse?
5. Do the computerized printouts and equipment and supply items (safety equipment) found in the vehicles match the required inventory?
6. Is there adequate documentation to ensure that assigned vehicles and utility vehicles are being maintained properly? Are the vehicles clean and properly maintained?

Inspectors rate each item in terms of compliance with SBI policies and procedures. In three inspection reports reviewed for this evaluation, all but one item related to vehicles was rated as meeting compliance; one rating of "marginal compliance," on adequate assigned vehicles noted the district needed additional SUVs.

Although these inspections provide regular opportunities to monitor vehicle management, they are not rigorous enough to provide assurances. First, there are no manuals or guidelines in place to set rating standards.⁶ Second, inspections do not provide the same level of assurance as audits. As shown in Exhibit 6, audits provide more detail about operations and seek to determine whether a program achieves its intended aims. Audits also examine internal controls and practices that assure quality and identify controls that need improvement to correct observed problems.⁷

SBI tracks vehicle data but does not adequately ensure data integrity.

The Program Evaluation Division inspection of a random sample of 60 vehicles and an analysis of electronic Vehicle Tracking System (VTS) data found vehicle use logs had been completed and entered into the system. Although the logs provide written documentation for data entered into VTS and managers sign off on logs before they are entered, data integrity assurances rely on data verification after data have been entered—a step missing in SBI procedures. Further, administrators expressed concerns that weekly data were not entered regularly enough to be reliable; they added that their confidence in monthly data was higher. The Program Evaluation Division's vehicle inspection demonstrated issues with data integrity assurance when it revealed a 10% error rate in vehicle

⁶ SBI administrators explained that inspectors are selected from among acting supervisory staff based on their expertise in a particular management domain and draw on their experience to assign ratings.

⁷ DOJ internal audits may cover vehicles as one type of asset, but to date no audit has focused on them. A recent audit of the Medicaid Fraud Unit touched on vehicle internal controls, inventory, and mileage and included a cursory inspection. However, according to the auditor, the audit "did not dig deeply" because vehicles were not the main focus.

identification and license plate numbers. Findings related to VTS data and use are presented in more depth in Finding 3 of this report.

In sum, SBI’s decentralized structure and management controls do not fully assure consistent vehicle oversight. As shown in Exhibit 5, existing SBI internal controls provide some but not all assurances. Strong fleet management requires consistent oversight and robust internal controls, and aspects of both areas require improvement. These weaknesses could be addressed with a comprehensive fleet-management approach.

Exhibit 6: Inspections Provide Immediate Assessments but Do Not Offer the Depth of an Audit

Inspection	Audit
An assessment at a moment in time that identifies positive and negative conditions, usually accomplished with a checklist	A systematic evaluation to determine if programs and related activities achieve planned expectations
An extensive physical examination to determine compliance with policies and procedures	A review of written policies and procedures, documentation of activities, corrective actions taken, or trends
A process structured to initiate immediate corrective action when it is required	An aid to determine the correlations between documented procedures, activities, and actual execution
Often a precursor to an evaluation of programs and systems	Assist in identifying root cause, which can lead to long-term corrective action

Source: Program Evaluation Division.

Finding 2. The State Bureau of Investigation has not established clear criteria to guide vehicle replacement planning, assignment, or maintenance.

The State Bureau of Investigation’s (SBI) policy is to maintain a fleet inventory that ensures division sections and personnel are provided appropriate vehicles to fulfill the wide variety of SBI missions through acquisition of specific vehicle classifications, diversification within classifications (where appropriate), and fleet diversity to facilitate covert use of vehicles in law enforcement investigations. SBI is a unique statewide law enforcement organization charged with responding to all types of crimes, at all times, and at all locations across the State, and SBI views its vehicles as the primary tool required to meet this charge. SBI’s vehicle needs are different from other state agencies: depending on an agent’s job duties, his or her vehicle must be capable of

- transporting large equipment,
- traversing rough terrain, and/or
- blending in as an undercover vehicle.

With its fleet of 384 vehicles, SBI should be engaging in fleet management practices based on the United States General Services Administration’s guideline that fleets of about 200 or more vehicles require full-time fleet supervision. Written policies and procedures provide controls to ensure vehicles are used appropriately and to establish accountability standards. The Program Evaluation Division reviewed SBI’s policies and procedures on

vehicle acquisition, replacement, and disposal; vehicle assignment; and vehicle maintenance.

In terms of vehicle replacement, SBI meets best practices for acquiring and disposing of vehicles but does not have clear criteria for planning.

The Guide to Federal Fleet Management establishes best practices for vehicle replacement and assignment.⁸ Vehicle replacement includes acquisition, disposal, and planning. The methods used to acquire and dispose of vehicles directly affect fleet performance and cost, and timely replacement affects vehicle availability, safety, reliability, and operating costs.

- **Acquisition.** Acquisition best practices balance users' needs with economies derived from volume purchasing and standardization of vehicle types. SBI's Business and Logistics Services Section maintains a list of specific vehicles for job classifications. SBI purchases new and pre-owned vehicles through the North Carolina Department of Administration's Purchase and Contract Division. If a specific vehicle is available on one of the State's term contracts for standard types of vehicles, it is purchased new. Pre-owned vehicles or other vehicles not readily available are purchased according to state purchasing guidelines. Because the Purchase and Contract Division purchases standard types of vehicles and purchases vehicles in volume, SBI is meeting acquisition best practices. In addition, SBI acquires some vehicles as a result of court-ordered seizure or forfeiture.⁹
- **Disposal.** After a vehicle has reached the end of its useful life, disposal best practices minimize life-cycle costs and maximize residual value.¹⁰ SBI vehicles are kept in service until found to be unreliable or otherwise inappropriate for use based on mileage, condition, or vehicle type. Vehicles are disposed of in accordance with state surplus rules, and thus SBI is meeting disposal best practices.
- **Planning.** Planning best practices include empirically based guidelines that trigger replacement based on vehicle age and/or mileage approaching defined thresholds. A replacement plan should project replacement dates and costs for each vehicle and should be updated annually. The purpose of such plans is to identify long-term replacement spending needs and associated budgetary requirements and to communicate these funding needs. SBI sorts its vehicles based on mileage and maintenance cost data in its Vehicle Tracking System, but SBI has not defined a vehicle age or mileage threshold at which vehicles should be replaced. Instead, SBI reported that, "generally the oldest vehicle gets replaced." In addition, SBI does not have a replacement plan that it updates

⁸ U.S. General Services Administration. *Guide to Federal Fleet Management*. Retrieved August 15, 2012 from www.gsa.gov/vehiclepolicy.

⁹ SBI currently has 15 vehicles that were acquired through seizure or forfeiture.

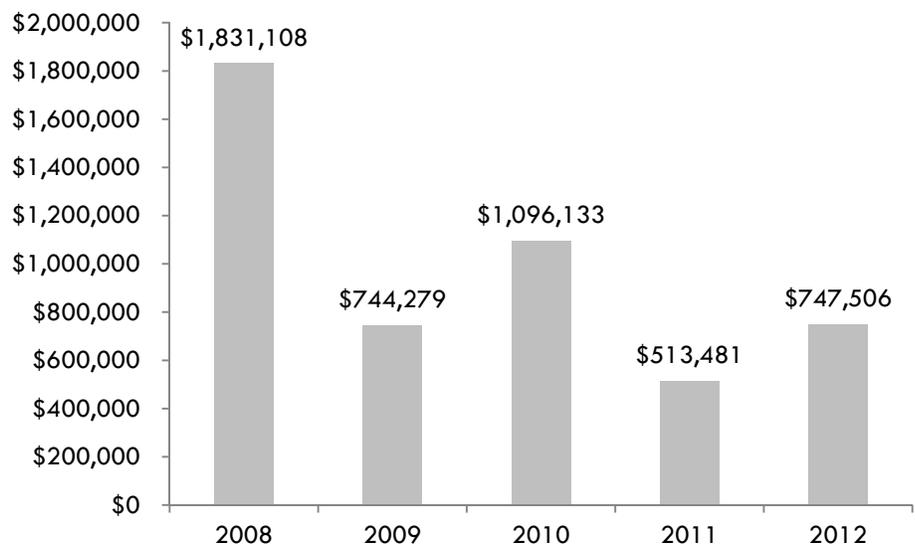
¹⁰ Life-cycle costs look into the future to project actual fleet costs throughout the life of the vehicles under consideration. Residual value is the estimated amount the State can obtain when disposing of a vehicle after its useful life has ended.

annually. Therefore, SBI is not meeting replacement planning best practices.

SBI has faced funding challenges, but budget constraints do not prevent replacement planning. Since 2008, North Carolina has had to make substantial cuts each year to balance its budget. As shown in Exhibit 7, funding available for SBI motor fleet purchases has decreased 59% from 2008 to 2012. As a result of these budget constraints, SBI has had to operate with fewer vehicles and maintain an aging, high-mileage fleet. Among the 384 vehicles included in this evaluation, the average mileage of assigned vehicles was 92,238 and the average mileage of utility vehicles was 91,813 (see Exhibit 8). Further, 43 assigned vehicles and 9 utility vehicles had over 125,000 miles. Based on existing use and mileage data, the Program Evaluation Division estimates an additional 41 vehicles will exceed 125,000 miles by June 2013.

Exhibit 7:

Funds Available for SBI Motor Fleet Purchases Have Decreased 59%, Fiscal Year 2008 to 2012



Source: Program Evaluation Division based on information from SBI.

Exhibit 8: Average Mileage for SBI Motor Vehicles is Over 90,000 Miles

Vehicle Body Type	Assigned Vehicles			Utility Vehicles		
	Number	Average Mileage	Average Age	Number	Average Mileage	Average Age
Sedan	133	85,386	4 years	70	93,291	7 years
SUV	90	104,640	5 years	28	123,109	8 years
Pick-up truck	30	84,335	4 years	9	105,533	10 years
Minivan	1	124,450	6 years	2	70,542	6 years
Van				13	50,176	12 years
Other				8	26,882	8 years
Total	254	92,238	5 years	130	91,813	8 years

Source: Program Evaluation Division based on information from SBI as of August 2012.

In addition to affecting how often vehicles can be purchased, budget constraints affect what types of vehicles can be purchased. District managers expressed concerns over the lack of four-wheel-drive vehicles and the variety of vehicles available. One manager commented,

In recent years four-wheel-drive vehicles have become more difficult to issue...It is simply unrealistic for a rural sheriff's department to call an agent for assistance on a homicide and the agent not be able to respond because of weather or poorly maintained roads.

Another manager stated,

The make and model of available vehicles to choose from on state contract should be expanded. As of now, there are only three vehicles to choose from so all of the vehicles in a unit wind up looking the same and look like the standard police vehicle packages (Dodge Chargers, etc.). This greatly diminishes surveillance capabilities.

Replacement planning becomes even more important in the face of fiscal constraints because organizations need to maximize their limited budgets. According to the Guide to Federal Fleet Management,

A best-practice fleet does not succumb to under-funding vehicle replacement and causing large backlogs to develop. Shifting costs from acquisition to maintenance and putting mission fulfillment at risk is an unsound management decision.

As presented in the Program Evaluation Division's 2012 report on the Department of Administration's Division of Fleet Management, suboptimal vehicle replacement practices are inefficient because the cost of maintenance increases, the resale value of assets diminishes, and safety and reliability concerns increase.¹¹ Depending on a vehicle's age, delayed replacement affects the cost of annual maintenance. As vehicles age, they continue to depreciate and accumulate miles. This mileage accumulation and continued depreciation decreases the value of the vehicle at the time of resale and results in the State receiving less money when selling older vehicles. Beyond the inefficiencies associated with aging vehicles, vehicle safety and reliability are also a concern.

SBI does not have clear criteria to guide vehicle assignment. The Guide to Federal Fleet Management requires written justification to establish the need for full-time vehicle assignment. SBI's policies for vehicle assignment state that SBI determines the general type of vehicle that may be appropriate given a person's duties and his or her geographical assignment and then describes examples of assignments. For example, sedans are assigned to agents without significant collateral duties, whereas SUVs are assigned to agents with some collateral duties or other assignments that necessitate a significant onboard inventory of equipment. For this evaluation, significant collateral duties were defined as duties which affected the type of vehicle assigned, such as bomb squad technician or firearms coordinator.

Within SBI's fleet of 254 assigned vehicles, the Program Evaluation Division identified 44 individuals who were assigned SUVs, pick-ups, or minivans and did not meet the following criteria: their primary duty required a

¹¹ Program Evaluation Division. (2012, March). *Motor Fleet Management Uses Best Practices, but Needs Telematics to Strengthen Accountability*. Raleigh, NC: North Carolina General Assembly.

vehicle other than a sedan (as described in one of the assignment policy's examples) or they had collateral duties that justified a particular vehicle.¹² The Division queried SBI to determine why these staff members had been assigned vehicles other than sedans.

- Thirty-three of the vehicles were assigned under guidelines in place prior to 2010, and SBI stated that future vehicles for those employees would be considered in light of current assignment policies.
- Nine of the vehicles were assigned to members of the Computer Crime Unit. SBI explained these personnel are routinely called upon to execute searches in which they seize large volumes of computers, peripherals, and electronic storage media, and they are required to transport computer hardware to crime scenes for analysis as well as equipment to conduct training along with traditional agent equipment. SBI's vehicle assignment policy, however, does not state that agents with computer crime duties require vehicles other than sedans. Indeed, the Program Evaluation Division identified four agents with the same primary duty who were assigned sedans.
- Two of the vehicles were assigned to members of the Drug Enforcement Administration Task Force. SBI explained these agents are required to conduct long-term surveillance in both moving and stationary modes, and this special assignment requires a non-traditional vehicle that can supplement the fleet of other task force members. SBI's vehicle assignment policy, however, does not state that agents with Drug Enforcement Administration Task Force duties require vehicles other than sedans.¹³

SBI does not have clear criteria to guide vehicle maintenance. According to the Guide to Federal Fleet Management, the heart of any fleet maintenance program is effective preventive maintenance.¹⁴ The objective is to minimize equipment failure, reduce unscheduled repairs, and limit the time needed for repair as much as possible by checking and inspecting the condition of equipment during scheduled inspections and correcting defects before they become serious.

The Program Evaluation Division's review of policies and procedures found SBI deficient with respect to written policies for vehicle maintenance. SBI stated that they did not have a written policy or procedure for maintenance because each agent is expected to follow the maintenance guidelines in their assigned vehicle's owner manual. Given the decentralized nature of SBI's operations and management, each district is ultimately responsible for developing and implementing their own maintenance program.

Managers' survey responses revealed inconsistencies in tracking routine maintenance: whereas a majority (63%) of managers did track it, the

¹² One additional individual did not meet these criteria but was reportedly assigned an SUV due to the agent's large stature.

¹³ The one other agent with Drug Enforcement Administration Task Force duties was also assigned an SUV, but the agent had a collateral duty that required an SUV.

¹⁴ A preventive maintenance program consists of checking or inspecting vehicle systems that include, but are not limited to, the engine, electrical and cooling systems, vehicle lubrication, and running gear.

remaining 37% reported they did not. Four commented that tracking and having maintenance performed was the sole responsibility of individual agents. All but two managers stated they tracked repairs, but here, too, comments revealed inconsistent approaches. For example, one described using an “informal approach,” whereas another explained they “determine who has had major repairs and we determine if [the vehicle] is still under warranty prior to any other repair on the vehicle and make sure it is cost-effective for the make, model, and mileage on the vehicle before the repair is made.”

In sum, SBI’s fleet size requires dedicated fleet supervision. Policies and procedures that are in place are intended to provide controls to ensure vehicles are used appropriately, but policies for vehicle replacement planning, assignment, and maintenance lacked the specificity needed to ensure accountability.

Finding 3. The State Bureau of Investigation collects vehicle data but does not use it to optimize fleet management.

As shown in Exhibit 1, statutes exempt vehicles operated by the Department of Justice’s (DOJ) State Bureau of Investigation (SBI) from requirements that all state passenger vehicles come from the North Carolina Department of Administration motor pool. Because SBI has 384 vehicles and is exempt from centralized oversight, SBI is solely responsible for managing and maintaining its vehicles. A review of best practices conducted as part of the 2011–12 Program Evaluation Division report series found that state entities with more than 200 vehicles should implement measures to ensure vehicles are managed systematically as a fleet rather than as individual assets. Best practices also prescribe electronic vehicle data—the most efficient method for tracking fleet data—as essential to effective management.

SBI’s Vehicle Tracking System (VTS) was developed in-house and fully implemented in October 2011 to provide electronic fleet management information. According to SBI administrators, the objectives of the system were to track vehicles, vehicle assignment, and cost per mile. At the time data were collected for this evaluation, in the summer of 2012, SBI administrators regarded VTS as a new system with the potential to improve fleet management. Although vehicle data were captured electronically before VTS, the new system was an improvement because it provided a single interface with North Carolina accounting and personnel data systems—systems which had previously been separate and required SBI staff to enter data more than once.¹⁵

VTS data include variables that reflect vehicle characteristics (such as state property number, vehicle identification number, make, model, and year), mileage, maintenance and repairs, and costs. Vehicle use and maintenance information are entered into the system from weekly and monthly logs

¹⁵ VTS was developed independently from electronic fleet information management systems in place at other state agencies, such as the Department of Administration, Department of Transportation, and the Department of Public Safety’s State Highway Patrol.

completed by the staff that operate the vehicles.¹⁶ These data are essential to fleet management because understanding vehicle utilization is necessary to determine the appropriate size and mix of a fleet. Vehicle utilization data, which can be tracked through vehicle mileage and frequency of use, can be used to determine the business need for a vehicle.

To make the data available for management decisions, VTS provides reports to managers and administrators. Each section, unit, and district supervisor can view data on vehicles operated by their area. Responses to the Program Evaluation Division survey of managers revealed a generally positive view of VTS. Most respondents (74%) reported VTS improved their management abilities by providing better access to vehicle data. One commented, "All the information that I need is in one place, and I do not have to track down multiple weekly activity summaries to obtain information. VTS allows me to stay abreast of potential problems and allows me to monitor how agents in this unit utilize their vehicles."

Improving VTS reporting could enhance its effectiveness as a fleet management tool. The Guide to Federal Fleet Management identified several management advantages to implementing an electronic fleet management information system.

- Large volumes of data can be entered and analyzed.
- Decentralized fleet operations can work with standardized data definitions, data input fields, and data reports.
- Historical data enable comparisons over time (longitudinal statistical reports), across organizational divisions and cost centers, and across drivers.
- Managers can more readily identify problems.
- The legitimacy of data-driven management lends credence to strong policy enforcement or recommendations for changes in policies or programs.

Together, these advantages enable agencies to move from managing individual vehicles to managing them as a fleet. Although VTS has the capacity to facilitate detailed tracking and reporting of vehicle utilization, current routine reports do not provide data needed for true fleet management.

The Program Evaluation Division analyzed VTS data to provide two examples of reports that could support the development of a fleet-management approach (see Exhibit 9). Some of these data are already reported in some form, but SBI does not examine patterns over the entire fleet and centralize data reporting. For example, division administrators could set thresholds as the basis for division-wide fleet management. In addition, what are now ad-hoc reports on cumulative vehicle mileage could be made routine, examined for trends and problems across SBI by Business and Logistics administrators, and delivered monthly to all managers.

Centralized reporting on vehicle use would enable SBI to evaluate whether the fleet is the right size to meet the division's needs. This analysis is critical

¹⁶ The Program Evaluation Division's physical inspection of a random sample of 60 vehicles revealed generally accurate vehicle data, with the exception of the 10% error rate among vehicle identification number and model year data previously noted.

to determine whether the current inventory and associated costs are justified—without it, SBI cannot determine whether the fleet is the right size.

Exhibit 9: Examples of VTS Data Analysis that Could Promote Fleet Management

Analysis	Purpose	Results	Management Implications
Assigned vehicles with high cost per mile (CPM)	Routinely identify assigned vehicles with higher costs than others, by body type	<ul style="list-style-type: none"> • 16 high CPM vehicles were identified (8 SUVs, 6 sedans, 2 pick-up trucks) • Full-size SUVs had significantly higher CPM than mid-size SUVs • 7 of the 8 high CPM SUVs were full-size SUVs 	<ul style="list-style-type: none"> • High CPM assigned vehicles could be reviewed to identify the cause • Assignment could be reviewed to ensure higher-cost vehicle types are warranted
Monthly assigned vehicle use	Identify patterns of use to assess which assigned vehicles are under- or over-utilized	<ul style="list-style-type: none"> • Average monthly mileage was 1,734 • 27 vehicles significantly exceeded the average (2,353 miles or more), 5 of them substantially more than the average (2,972 miles or more) • 28 vehicles were driven significantly less than the average (1,115 miles or fewer), 1 of them substantially less than the average (464 miles) 	<ul style="list-style-type: none"> • Business and Logistics could set thresholds to identify high- and low-use assigned vehicles across the fleet and alert local managers • Assigned vehicles with higher monthly mileage could be reviewed to ensure miles driven correspond with assignment location and duties • Assigned vehicles with lower mileage could be reviewed to assess whether the assignment is warranted

Notes: High CPM vehicles were those with a CPM greater than two standard deviations above the mean CPM for the body type. Monthly vehicle use analysis was based on assigned vehicles with data for all months (n=231). “Significantly” indicates observations one or more standard deviation above or below the mean; “substantially” indicates observations two or more standard deviations above or below the mean.

Source: Program Evaluation Division analysis of VTS data provided by SBI.

As an example, the monthly vehicle use analysis shown in Exhibit 9 identified 28 assigned vehicles as underutilized over the seven months of evaluation data. SBI might determine these assignments are not warranted and, assuming the vehicles were not needed elsewhere, might surplus those vehicles. Based on data for these 28 vehicles, eliminating them could save a total of \$49,031 in operating costs per year, with the potential of \$226,475 in revenue if they were sent to surplus.¹⁷

Vehicle assignment decisions also could be supported by VTS data and reporting. As shown in analyses for Finding 2 of this report, some staff responsibilities may have changed since their vehicle was assigned and they would be better served with a different type. A periodic, regular report of staff vehicle assignments could facilitate a review of whether assignments remain appropriate. One manager suggested VTS could be used to determine which make and model is better suited for the particular agent, their assignment, the geographical area, and the vehicle’s reliability.

¹⁷ The savings figure is based on actual fuel and maintenance costs, November 2011 through May, 2012; the potential revenue figure is based on Kelley Blue Book rough trade-in values as of October 2012. This basis provides a conservative estimate.

Data on routine maintenance and mileage are already entered into VTS weekly (for assigned vehicles) or monthly (for utility vehicles). VTS functionality could be enhanced by issuing reminders when routine maintenance is due. Electronic reminders sent to managers would help ensure timely compliance and could reduce time spent reviewing data to calculate when it is time to schedule maintenance. Building on the first example provided in Exhibit 9, reminders could also be configured to alert managers when a vehicle's mileage, fuel consumption, or vehicle maintenance costs exceed the norm. Managers are expected to monitor this information, but VTS reporting could facilitate and ensure the accuracy of the task.

Modifying VTS reporting is critical to improving fleet management and to moving SBI from thinking of vehicles as tools toward considering them as a fleet that requires centralized management. With 384 vehicles in its inventory, SBI's fleet clearly exceeds the fleet management threshold of 200 vehicles identified in the Program Evaluation Division's reports on management of all state-owned motor vehicles. With VTS, SBI has an essential tool to facilitate a fleet-management approach. As SBI continues to improve VTS and develops a fleet-management approach, division administrators could work with other agencies to identify best practices, to share directions to improve system functionality, and to explore opportunities to align with technology used by other entities.

Recommendation

The General Assembly should direct the Department of Justice to implement a fleet management approach.

This recommendation is in keeping with the 2011–12 Program Evaluation Division reports on fleet management. In addition to improving vehicle management at the State Bureau of Investigation (SBI), recommended changes would enable SBI to readily meet requirements if the State were to implement a statewide management model.

Specifically, the Program Evaluation Division has previously recommended that the Department of Administration supervise the management and operation of all state-owned vehicles.¹⁸ State agencies would retain ownership of and responsibility for day-to-day vehicle management and they would be obliged to meet reporting requirements related to vehicle cost and use information management, inventory management, and new vehicle planning and acquisition. A centralized supervisory model would ensure agencies with 200 or more vehicles adopt a fleet management approach to the operation and maintenance of state vehicles.

Despite having implemented the Vehicle Tracking System (VTS) to electronically manage fleet data, SBI administrators continue to view each vehicle as an individual tool critical to SBI's work rather than as part of a fleet to be managed as a whole. Findings in the current evaluation reveal that SBI should adopt a fleet management approach, which would both prepare SBI in case the State adopts a statewide model and improve

¹⁸ Program Evaluation Division. (2012, April). *Ineffective Policies and Diffuse Oversight Result in Inefficient Use of State-owned Vehicles*. Raleigh, NC: North Carolina General Assembly.

management under its existing structure. This approach can be accomplished by

- modifying VTS report content and application;
- assuring strong controls with internal vehicle audits; and
- clarifying policies and procedures.

Each of these improvements is integral to fleet management.

Modify VTS report content and application. Electronic fleet information management is a central component of a fleet management approach. As shown in Findings 2 and 3, VTS data could be used to better manage vehicles across SBI units, sections, and divisions by, for example, setting thresholds for cost and use and informing vehicle replacement. SBI should centralize fleet management in the division's Business and Logistics Section and use these reports to support the adoption of a fleet management approach. For example, VTS reports could be developed to

- set division-wide thresholds for cost and use to indicate when vehicles should be removed, replaced, or closely monitored;
- provide the basis for a vehicle replacement plan;
- review vehicle assignment to ensure high-cost vehicle assignments are warranted and employee needs are met with current vehicles;
- determine whether the vehicle inventory is the appropriate size to meet the division's needs; and
- trigger maintenance reminders in VTS.

Assure stronger controls with internal vehicle audits. In addition to applying VTS data to inform fleet management, the Department of Justice should conduct annual internal audits that focus specifically on vehicles. SBI's decentralized management structure requires strong internal controls to ensure consistent vehicle management. This evaluation found controls in place to address most management areas, but, as shown in Finding 1, weaknesses in some controls and inconsistencies in management suggest additional oversight would improve management and support a fleet management approach.

Annual internal fleet audits should test the controls that appear in Exhibit 4 and provide more depth than existing procedures. In particular, the audits could assure VTS data integrity, which is essential as the system assumes a central role in fleet management.

Clarify policies and procedures. Finally, the Department of Justice should revise policies related to vehicle replacement planning, assignment, and maintenance to make them more explicit. As presented in Finding 2, SBI has written policies and procedures to ensure vehicles are used appropriately. However, the Program Evaluation Division found policies for vehicle replacement planning, assignment, and maintenance lack the specificity needed to ensure accountability. Policies should be changed to support the fleet management approach, including the following areas identified in this report:

- define a vehicle age or mileage threshold at which vehicles should be replaced to guide vehicle replacement planning;
- develop a vehicle replacement plan and update the plan annually;

- provide justification for all vehicle assignments beyond existing policies that only provide examples of the general type of vehicle that may be appropriate given a person's duties and his or her geographical assignment; and
- develop a written policy for maintenance across all vehicles as guidance for consistent tracking of routine maintenance and repairs.

Adopting a fleet management approach—in part by modifying VTS reporting and use of the data, conducting annual internal vehicle audits, and clarifying policies and procedures—would prepare SBI to meet agency reporting requirements under a statewide fleet supervisory model. More immediately, these changes allow SBI to assure accountability for the day-to-day operation and management of its motor vehicle fleet.

The Department of Justice should report on the implementation of this recommendation by providing the Joint Legislative Oversight Committee on Justice and Public Safety with a detailed description of the implementation of centralized fleet management by July 1, 2013.

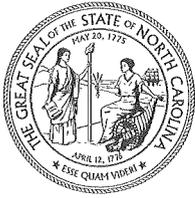
Agency Response

A draft of this report was submitted to the Department of Justice. Its response is provided following the report.

Program Evaluation Division Contact and Acknowledgments

For more information on this report, please contact Sean Hamel at sean.hamel@ncleg.net.

Staff members who made key contributions to this report include Jim Horne, Kiernan McGorty, Carol H. Ripple, Pamela L. Taylor, and Larry Yates. John W. Turcotte is the director of the Program Evaluation Division.



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GREGORY S. MCLEOD
DIRECTOR

October 23, 2012

Mr. John W. Turcotte
Director, Program Evaluation Division
North Carolina General Assembly
300 N. Salisbury Street, Suite 100
Raleigh, NC 27603-5925

Dear Mr. Turcotte:

The State Bureau of Investigation appreciates the opportunity to provide a response to the Program Evaluation report No. 2012-12 (hereinafter referred to as the PED report). The present evaluation, the first of a series on law enforcement motor vehicles, examined vehicles operated by the State Bureau of Investigation (SBI). The results of this three month extensive evaluation found the SBI's management of law enforcement vehicles to follow best practices. The report did acknowledge room for improvement. We appreciate the professionalism exhibited by the PED staff throughout this review.

The SBI is committed to collaborating with the General Assembly and its staff to assure the efficiency of SBI law enforcement vehicle management practices and program operations. This marks the second external independent review in the last twelve months of SBI law enforcement vehicle management. The first was conducted by the Office of State Auditor and released in June 2012. The State Auditor scope included an examination of internal controls designed to ensure that the Department properly accounts for and safeguards these assets and to ensure compliance with the Office of State Controller inventory policies. The results of the State Auditor audit disclosed no internal control deficiencies or instances of noncompliance or other matters that are considered reportable under generally accepted government auditing standards. The SBI strives to provide the most cost effective vehicles to our agents even as our state funding for law enforcement motor vehicles has decreased 59% since 2008. Our law enforcement motor vehicle fleet average exceeds 90,000 miles per vehicle and the average age of vehicles is 8 years old.

The mission of the State Bureau of Investigation is to: investigate major crimes; identify and apprehend criminals; prepare evidence for use in criminal courts; scientifically analyze evidence; exercise original jurisdiction in specified criminal matters; and to serve and protect the citizens of North Carolina by responding to requests for assistance from local, state and federal law enforcement agencies. Our SBI professionals are routinely called upon to handle some of the most high profile and complex criminal investigations. This requires our personnel to be



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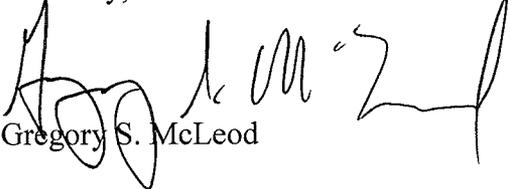


highly trained and knowledgeable in a vast array of criminal investigations and to respond utilizing an extensive inventory of law enforcement equipment. This necessitates a variety of vehicles to accomplish our mission and ensure public safety. The SBI maintains a fleet inventory that ensures our personnel are provided safe and appropriate vehicles to fulfill the wide variety of SBI missions.

The PED report recognizes the state of the art SBI Vehicle Tracking System (VTS), which is and will continue to be enhanced to optimize fleet management. The SBI continues to utilize VTS to identify best practices and provide our managers with the best available information to make informed decisions. The SBI is committed to continue to develop and grow the VTS in order to further strengthen our fleet management. The SBI welcomes the opportunity to share this robust system with our partners in state government. In addition to the SBI VTS, the SBI has utilized internal controls for many years, to include onsite inspections by our Professional Standards Division. The inspections by our Professional Standards Division includes: are there adequate vehicles assigned; are the vehicles being assigned satisfactorily; are mileage and maintenance costs routinely monitored; are there adequate controls to prevent abuse; do the computerized printouts of equipment and supply items (safety equipment) found in the vehicles match the required inventory; and is there adequate documentation to ensure that assigned vehicles and utility vehicles are being properly maintained. These internal inspections are conducted on every district, unit, and section in the agency.

The SBI effectively manages its law enforcement vehicle resources and will continue to focus on delivering critical law enforcement services in a safe and cost effective manner. Overall, the most recent program evaluation effort provided constructive professional information that can help us with the continuous improvement of fleet management operations. When we make improvements to our internal tracking systems and internal audit planning procedures, we will examine the cost effectiveness and utility of incorporating these PED recommendations into our business processes. Thank you for the opportunity to provide feedback.

Sincerely,



Gregory S. McLeod