

**The Bill Blackwood
Law Enforcement Management Institute of Texas**

**A Cost Benefit Analysis:
The Implementation of an Assigned Vehicle Program**

**An Administrative Research Paper
Submitted in Partial Fulfillment
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Leadership Command College**

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ABSTRACT

A cost benefit analysis of the implementation of an assigned vehicle program is relevant to contemporary law enforcement because as an administration of government, there is a responsibility to the citizens of their community to examine and explore any program that may be of benefit to its populace though increased service or by saving taxpayer money. Furthermore, there exists a responsibility to research programs that may be of benefit to its employees in terms of increasing morale and increasing productivity.

The purpose of this research is to examine the benefits and drawbacks of an assigned vehicle or take home vehicle program. Consideration will be given to both the law enforcement agency and to the community. The method of inquiry used by the researcher included: a review of law enforcement articles journals, Internet sites, professional magazines, and a survey distributed to 20 survey participants. The researcher will also conduct personal interviews and telephone interviews.

The researcher discovered the existence of numerous studies and research that stated the benefits outweigh the drawbacks for the implementation of an assigned vehicle program. Vehicle maintenance costs decrease, response times to calls decrease, and officer morale improves. The findings showed that the initial cost of the implementation could be deferred over five or more years to minimize the initial costs.

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INTRODUCTION

It is known throughout the law enforcement community that most officers and deputies want their own patrol vehicles. They want their vehicle to be personally assigned. To them, it is not just a benefit, but also a symbol of pride and commitment to law enforcement. Numerous studies, dating back to the 1980s (St. Louis County Police Department, 1980 [as cited in Whitehead, 1996]; Hampton Police Department, 1986) have outlined the benefits to law enforcement agencies. Benefits to such a program have been documented in scholarly papers and law enforcement publications for more than two decades. The issues to be examined consider whether or not the implementation of an assigned vehicle program or take home vehicle program would be of benefit to law enforcement and the communities they serve.

The issue of an assigned vehicle or take home vehicle program is relevant to law enforcement because the costs associated with the purchase of patrol and law enforcement vehicles continue to increase. The law enforcement pool car fleet and its associated fuel and maintenance costs are high because the vehicles are being driven 16 to 24 hours a day. The purpose of this research is to examine costs associated with the pool car system and the proposed costs associated with an assigned or take home vehicle program. This research will examine the proposed benefits a law enforcement agency can achieve with an assigned vehicle program. The community will be considered when evaluating benefits. The research will further examine the law enforcement agencies personnel and how they view the assigned vehicle program. It will also attempt to propose a course of action an agency can take if they choose to implement the program.

The research question to be examined focuses on the costs associated with the pool car system. Research will examine several factors that influence an agency when implementing an assigned vehicle or take home vehicle program. The research will examine overall cost, employee morale, and community benefit. The intended method of inquiry includes: a review of law enforcement articles journals, Internet sites, and professional magazines. A survey will be distributed to 20 participants. The researcher will also conduct personal interviews with administrators and patrol officers and will conduct telephone interviews when a personal interview is not practical.

The anticipated findings of the research are that in the numerous studies and research, the benefits outweigh the disadvantages for the implementation of an assigned vehicle program. The research will illustrate how the law enforcement agency, patrol officers, and community can benefit from the program. The findings will show that the initial cost of the implementation can be deferred over five or more years to offset the cost.

The field of law enforcement will benefit from the research or be influenced by the conclusions because it will afford law enforcement agencies a study that will serve as a template or guide to examine their agencies and decide if the implementation of such a program is feasible in their community. Agencies can determine, through this research, if the program meets their operational needs. Communities can determine if the program will meet their local political objectives.

REVIEW OF LITERATURE

An examination of the research determined a deficiency with the pool car system. With a pool car system, the officer must drive to his or her assigned station, find a

vehicle, then load and inspect the vehicle before going in service to receive calls. The amount of time needed to perform these tasks ranges from five to fifteen minutes. This can be further increased to 30 minutes if the officer has to attend a roll call or briefing. Time can be increased if there are not any cars in the parking lot for officers to drive. With the pool car system, cars are driven two or three shifts per day, five to seven days a week. Officers have to wait for the last shift to bring the car back to the station and unload before the next shift can take it. Late arrests, emergency calls, and other factors beyond the control of the officers affect this issue. One officer commented that it was not unusual to see officers hanging around the parking lot waiting for a car to use because the last shift had not returned to the station with their patrol car (Zhang & Benson, 1997). The community is negatively affected because no one can respond to calls for service without a vehicle.

A take home car would allow officers to be available to respond to calls for service the minute they get into their cars to start their shifts. The community would also benefit from shift change itself. During shift change, there would be as many as twice the number of cars on the road, ready to assist the citizens of their community. Detective Asa Higgs, spokesman for the Jacksonville, Florida police department, stated that shift changes takes half an hour; every day, the department has one and one half hours of double manpower (Yates, 1992). The community also benefits from officers policing while going to or coming from work. Most agencies with a take home vehicle policy require officers to handle any situations they see while in a patrol vehicle, thus giving the community extra officers. The officers handle accidents, drunk drivers, or other problems encountered while going on or off duty (Yates, 1992).

Communities also benefit from having a patrol vehicle in their neighborhood. The patrol vehicle is a crime deterrent. The people of the community or neighborhood feel safer when they see an officer park his or her car in their neighborhood (Mildred, 2006). When one police chief from the Fort Wayne Police Department got into a dispute with the Patrolman's Benevolent Association over charging officers to drive their vehicle home. The Patrolman's Benevolent Association threatened to discontinue their participation in the program. One officer said the citizens from his neighborhood association were raising the money to pay the city so he would keep his vehicle in their area (Mildred, 2006).

The question of improved officer morale can be addressed by understanding how officers view the pool car system. Officers view the pool car systems as a game of chance. The question of reliability and function is the overwhelming concern. Pool vehicles are often over-used and in constant need of repair because of abuse and continued around-the-clock use (Zhang & Benson, 1997). Having a take home car would allow officers to be personally responsible for the care and upkeep.

A study by Zhang and Benson (1997) focused, in part, on officer morale issues. Seventy-five percent of officers stated that "individually assigned vehicles increases officer morale and enhances their professional image" (p. 758). Many law enforcement agencies list take home vehicles as a "perk" or benefit. Take home vehicles can help agencies fill their ranks (Scoville, 2005). Scoville (2005) wrote, "police departments that offer take home patrol cars often use them as recruiting tools" (p. 38-39). Further, he noted that "take home cars have been an acknowledged factor in why some officers left one agency for another" (Scoville, 2005, p. 39).

The issue of costs associated with the implementation of the program was reviewed. The costs focused around two main issues: whether vehicle maintenance costs are more or less with take home vehicles and whether vehicles would last longer and stay in service longer if they were personally assigned. The research showed there would be a net saving in maintenance costs and vehicle life would be extended (Yates, 1992). Officers take better care of a take home vehicle because they are held personally responsible for their care and maintenance. Personal pride in keeping their mobile office safe and operational was also a factor. Officers also believe take home vehicles last longer due to better maintenance and care. They have fewer breakdowns, resulting in less down time, mainly because mechanical problems receive immediate attention (Zhang & Benson, 1997). Zhang and Benson (1997) stated, "Officers are familiar with all their assigned vehicle equipment and are confident in the mechanical condition. Their readiness to patrol is high" (p. 758).

Another issue discovered was that take home vehicles last longer. Yates (1992) explained:

Take home cars accumulates mileage at one third less the rate of a pool car used three shifts per day, seven days per week. The cars will need one third fewer oil changes, tire replacements and brake overhauls, and they will have to be replaced at far wider intervals. (p. 88)

Skadan's study (as cited in Zhang & Benson, 1997) of the Visalia Police Department in California showed a significant reduction in maintenance costs and an increase in vehicle duration. The take home vehicle program cost 31.34% less than the conventional pool car system. Zhang and Benson (1997) stated, "Other benefits

included increased officer morale, visibility, flexibility in deployment, and decrease in response time” (p. 750). The city of Tacoma in Washington commissioned a study that concluded that by allowing police officers to drive to and from work in their patrol cars, the city saved approximately \$200,000 per year (Scoville, 2005).

Zhang and Benson (1997) reported that through their own research, pool cars cost twice as much to maintain in parts when repair costs were reviewed. Pool cars far exceed conventional take home cars in costs associated with drive train and electrical systems repairs. They also reported that pool cars were 70% more expensive than take home cars to maintain. The only area discovered where the costs on take home cars were higher was cosmetic repairs. Realizing the sense of pride associated with take home cars, one can understand this issue.

METHODOLOGY

The research question to be examined considers whether or not the implementation of an assigned vehicle program or take home vehicle program would be of benefit to the law enforcement agency and the communities they serve. The research will examine the cost to implement and maintain the program. Officer morale, recruitment, and retention will also be issues examined.

The researcher hypothesizes that this research will reveal that the benefits far exceed the drawbacks of an assigned vehicle or take home vehicle program. The costs associated with the implementation will not be considerable if the agency chooses phase the program into the agency by incorporating the purchase of a few extra vehicles each budget year. The researcher hypothesizes that agencies can implement

the program over a five-year time frame, thus allowing the costs to be deferred over several budget cycles.

The method of inquiry will include: a review of law enforcement articles journals, Internet sites, and professional magazines. The instrument that will be used to measure the researcher's findings regarding the subject of the implementation of an assigned vehicle program will include a written survey. The survey will consist of ten questions distributed to 20 participants. All participants were law enforcement administrators from throughout Texas, and one was from Arizona.

The researcher will also conduct personal interviews and telephone interviews. The telephone interviews were conducted with administrators and officers of various agencies in Texas and Arizona. The response rate to the survey instrument resulted in a 100% return rate. The information obtained from the survey will be analyzed by comparative analysis, showing the feasibility of the implementation of the program.

FINDINGS

A survey of twenty agencies was conducted to determine how many agencies had a take home vehicle program or a partial take home vehicle program. Agencies were also surveyed on their opinions in reference to employee morale and recruiting. The survey showed favorable responses toward a take home vehicle program. (see Appendix 3).

Question one asked the respondents if their agency had a take home vehicle program. The survey indicated that 55% (N=11) of the respondent agencies had a full take home vehicle policy for all commissioned employees. Forty percent (N=8) of the agencies that did not have a take home vehicle policy had a partial take home policy,

allowing certain officers in specific assignments to take their vehicles home. One agency did not allow any take home vehicle under any circumstance.

Question two corresponded to the eight agencies that had a partial take home vehicle program. Respondents were asked to list the job assignment, position, or rank held that allowed the officer to drive a vehicle home. Many agencies with staff on call allowed them to take their vehicles home to hasten response time to incidents. Survey respondents reported combinations of staff members allowed to take a vehicle home. Some reported detectives and crime scene officers, while others reported lieutenants and command staff. The survey showed the rank and/or assignment of the staff members that were allowed to drive their vehicles home. (see Appendix 1).

Question three corresponded to the “yes” or “no” answers about whether the respondents felt officers would be able to respond to calls for service faster if they had a take home vehicle at their disposal. The survey reflected that 90% (N=18) of the participants felt officers would be able to respond faster to calls for service with a take home vehicle. Only two respondents felt they would not.

Question four asked if their agency imposes a mileage restriction on how far an employee can live from their jurisdiction in order to take their vehicle home. Seventy percent (N=14) of the participants’ agencies imposed some sort of distance restriction, while 30% (N=6) had no restriction at all. (see Appendix 2).

Questions five and six were “yes and “no” answers corresponding to whether the respondents felt an assigned vehicle or take home vehicle program would be considered a perk or benefit and increase officer morale. All surveyed, 100% of the

respondents, believed the program would be a benefit to employees and increase officer morale.

Question seven was a “yes” or “no” response also. Participants were to respond “yes” if they believed advertising a take home vehicle program would be beneficial in the recruiting of new officer candidates. Ninety-five percent (N=19) of the survey participants stated that a take home program would assist in recruiting new officers. Only 5% (N=1) felt it would not.

The question of vehicle care and maintenance was addressed by asking if an officer would take better care of his or her vehicle if the vehicle was personally assigned. Eighty-five percent (N=17) believed officers would take care of the vehicle and be responsible for the care and maintenance. One respondent believed they would not, and one was undecided.

Those surveyed were asked how long their agency keeps the fleet in service and on line prior to selling or retiring the vehicles. Respondents were given many choices; however, only two categories had responses. Over 80,000 miles was the overwhelming choice for 90% (N=19) of the respondents. One participant stated that his agency retires vehicles at 200,000 miles. Twenty percent (N=2) take their vehicles out of service between 70,000 to 80,000 miles.

Question ten asked if, as a supervisor or agency administrator, whether they would place a restriction on off duty use of a take home or assigned vehicle. Eighty-five percent (N=17) of the respondents stated they would impose restrictions. Fifteen percent (N=3) stated they would not. When asked to list the restrictions to be imposed,

the answer's verbiage varied, but the researcher observed the common theme of simply restricting the use of the vehicle to official agency use only.

DISCUSSION/CONCLUSIONS

The problem or issue examined by the researcher considered whether or not the implementation of an assigned vehicle program or take home vehicle program would be of benefit to law enforcement and the communities they serve. The program has shown to be cost effective to maintain by the decreased maintenance costs incurred. The research question that was examined focused on three areas in this study. Agencies will benefit in terms of increased service, fiscal savings, and increased manpower. Research showed decreased response times to calls for service. Officers' morale and quality of life improved with an assigned or take home vehicle. And lastly, the community in which the agency serves was shown to benefit from the decreased response times and having police cars in their parked in their neighborhoods.

The purpose of this research was to outline the benefits and possible disadvantages of the assigned vehicle program and show agencies the program would not just benefit the patrol officer, but the agency and community as well. The researcher hypothesized the research would reveal that the benefits far exceed the disadvantages of an assigned vehicle or take home vehicle program. The costs associated with the implementation will not be considerable if the agency chooses phase the program into the agency by incorporating the purchase of a few extra vehicles each budget year. Agencies can implement the program over a five to seven year time frame, thus allowing the costs to be deferred over several budget cycles.

The researcher concluded from the findings that the program can increase officer morale, aide in the recruitment of new officers, and possibly help retain existing officers. Implementation of the program benefits agencies by decreasing the cost of vehicle repairs and prolonging the service life of the vehicle. The researcher also found the community enjoyed officers taking their vehicles home. The vehicles made the community feel safer, and the community felt that having take home vehicles present was a crime deterrent.

The findings of the research supported the hypothesis. The reason why the findings support the hypothesis is probably due to a majority of agencies surveyed either having a take home policy or a partial take home policy. Limitations that might have hindered this study resulted because only 20 agencies were surveyed. A more in depth study would require double the amount surveyed.

The study of assigned or take home vehicles is relevant to contemporary law enforcement because the research has shown agencies can and do save money with an assigned or take home vehicle program. The cost to start the program can be overwhelming, but an agency can defer the cost of the program's implementation over a five to six year budget period. Agencies who wish to implement the program can start by assigning vehicles to specialized units, including Field Training Officers, Special Weapons and Tactics (SWAT), special response team members, or traffic units. The vehicles assigned to those officers will last three times longer than pool vehicles. The agency can buy the same number vehicles the next budget cycle as normal; however, they will have more vehicles in their fleet because the vehicles issued to the specialized units will not have reached the maximum mileage limit since they are only driven by one

officer, not three. The vehicle budget increases during the transition; however, some of the costs will be offset by reduced maintenance costs. Furthermore, the vehicles will last 2/3 longer than pool vehicles. If a department can withstand an increase in cost for the amount of time needed to implement the program, they will realize the benefits after the second year of implementation, when they see decreased maintenance costs, improved morale, and increased retention of their staff. Agencies, commissioned staff, and citizens stand to benefit from the results of this research by it serving as an instrument to examine the issue and determine if the program fits the needs of their agency.

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APPENDIX 1

Staff members who are allowed to take vehicle home listed by assignment

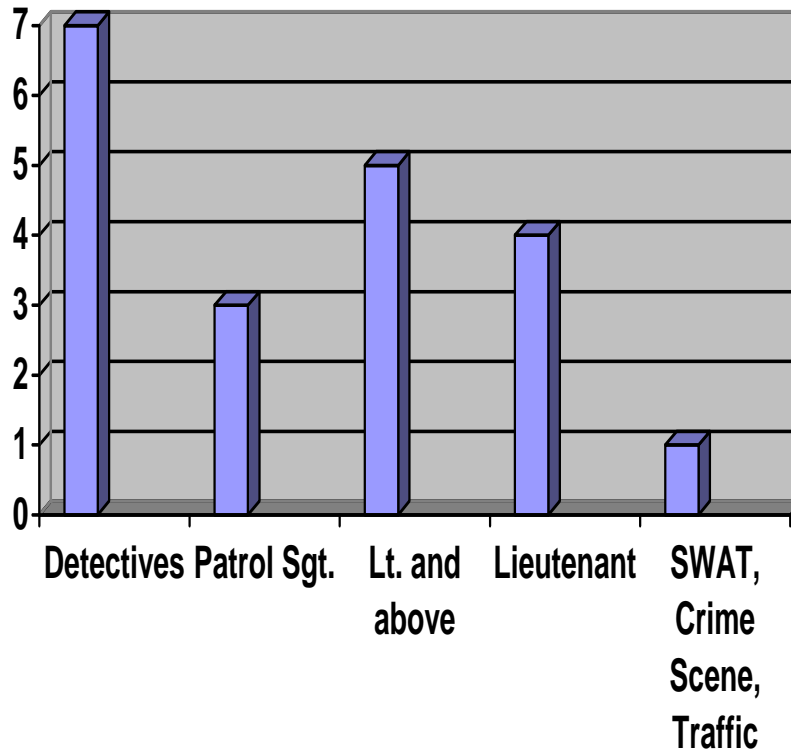


Figure 1. The graph illustrates the job assignment or rank of officer that is allowed to drive a department owned vehicle home.

APPENDIX 2

Distance from city limits staff was allowed drive home if issued a take home vehicle

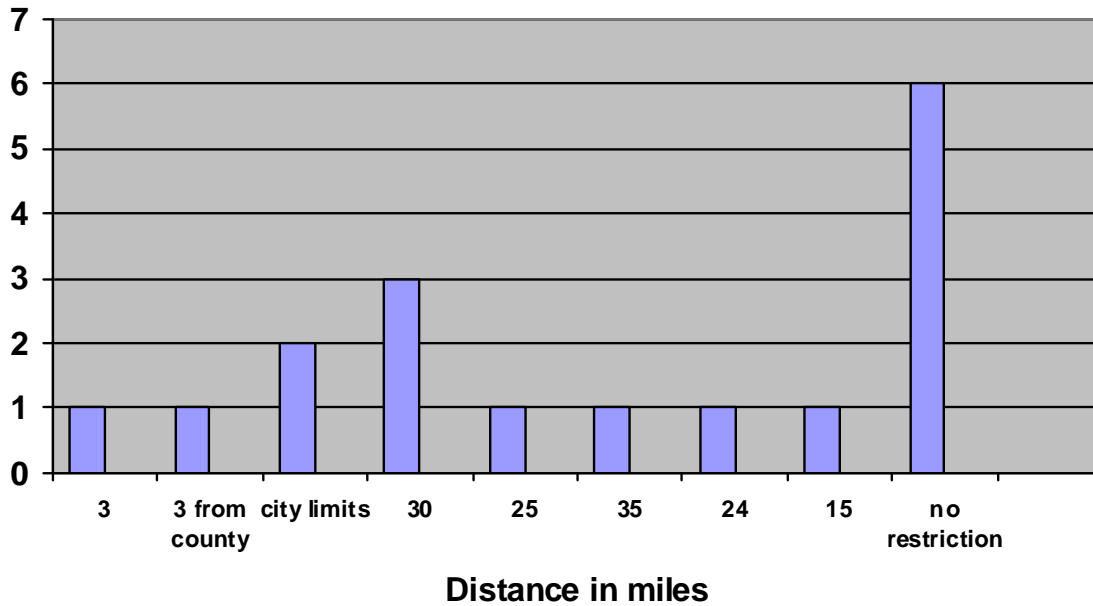


Figure 2. Illustrates the distance in miles, from a department's jurisdiction, the staff member is allowed to drive home in a take home vehicle.

APPENDIX 3

This is a survey requested in partial fulfillment for graduation from the Leadership Command College

Please return to Sergeant Michael Nansel
Humble Police Department

1. Does your agency have a take home vehicle program? Yes No

2. Does your agency have a partial take home policy; allowing only certain officers or units drive their vehicles home? Yes No

If yes; circle all personnel that are allowed to take their vehicles home.

Patrol (marked units)

CID / Detectives Investigators

Supervisors: Patrol Sergeants CID Lieutenants any rank above Lt.

Special Units: SWAT/SRT Crime Scene Others _____

3. If your agency has a take home vehicle program; do you feel the officers are able to respond faster to call-outs or calls for service because they have a take home vehicle at their disposal? Yes No

4. Is there a mileage restriction imposed on how far an employee can live from their jurisdiction in order to take their vehicle home? Yes No

If yes; what is the mileage limit imposed? _____

5. Do you feel a take home vehicle is a "perk", benefit or incentive for officers? Yes No

6. Do you feel a take home vehicle program would improve morale in officers? Yes No

7. Do you believe if an agency advertised their take home vehicle program it would assist in recruiting new officers? Yes No

8. Do you believe an officer would take better care of his or her vehicle if they were allowed to take their vehicle home and were responsible for its care and maintenance? Yes No

9. How many miles are on your agencies vehicles before retiring them or selling them at auction?

Less than 50 thousand

Between 50 and 60 thousand

Between 60 and 70 thousand

Between 70 and 80 thousand

Over 80 thousand

10. As a supervisor or administrator, would you place restrictions on off duty use of a take home vehicle? Yes No

If yes, please list some of the restrictions below.
