Driver's Education- is it worth the cost?

By: Paul Moledor
Assistant Chief
Cuyahoga Falls Fire Department
1924 Front Street
Cuyahoga Falls, OH 44221

A research project submitted to the Ohio Fire Executive Program

31 January 2008

CERTIFICATION STATEMENT

I hereby certify that the following statements are true:

1. This paper constitutes my own product, that where the language of others is set forth, quotation marks so indicate, and that appropriate credit is given where I have used the language, ideas, expressions, or writings of another.

2. I have affirmed the use of proper spelling and grammar in this document by using the spell and grammar check functions of a word processing software program and correcting the errors as suggested by the program.

Signed: _____

Printed Name: __Paul Moledor_____

ABSTRACT

The Cuyahoga Falls Fire Department does not have a comprehensive driver's education program as desired by the Chief of the Department. Furthermore, the department lacked the information to determine if one would be beneficial. The purpose of this study was to investigate what other Ohio Fire Departments are doing and what benefits are derived from their driver's education program. A descriptive research method was used to gather the data. The following three questions were investigated for this paper: What driver's education programs are being used by the fire service in Ohio? Do Fire/EMS Departments that have a driver's education program have fewer accidents as compared to departments without a program? What are the benefits to a Fire/EMS department that has implemented a driver's education program? A survey was developed and sent to fire departments that serve a population of over 15,000 in Ohio. The results of the survey identified the type as well as the many benefits of driver education programs in Ohio. The findings of this paper have resulted in three recommendations for the Cuyahoga Falls Fire Department. The recommendations include: implementation of a driver education program for the department, development of a tracking method for vehicle costs and the development of a method to evaluate the effectiveness of the newly implemented driver's education program.

TABLE OF CONTENTS

INTRODUCTION

Statement of the Problem

There are approximately 1,100,750 firefighters working for 30,400 Fire/EMS Departments in the United States as stated by the National Fire Protection Association. Looking at trends in firefighter fatalities from 1977 to 2000, the number shows a steady decline in fatalities from a high of 171 in 1978 and a low of 77 in 1992 (FEMA, 2002). However, the average fatality rate for firefighters has remained steady at 100 fatalities per year. These numbers do not include the results of the terrorist attack on the World Trade Center. Since 1984, another developing trend for the fire service is that collisions involving motor vehicle accidents accounting for 20 to 25 percent of firefighter's fatalities annually (NFPA, 1993). Looking at the year 2005, there were 115 firefighters killed in the line of duty and emergency vehicle accidents accounted for 23 of these fatalities (USFA, 2006). Vehicle fatalities are the second leading cause of death of firefighters and are the most preventable (IAFF, 2005).

Although the Cuyahoga Falls Fire Department has not had any serious accidents or injuries, the statistics show that it can happen to any Fire Department including the Cuyahoga Falls Fire Department. *The problem this study addressed is that Cuyahoga Falls Fire Department does not have a comprehensive driver's education program as desired by the Chief of the Department.* Furthermore, the department lacked the information to determine if one would be beneficial. A comprehensive driver's education program for the purpose of this study was defined as a program that meets the National Fire Protection Agency 1451 Standard for a Fire Service Vehicle Operations Training Program- 2007 edition.

Purpose of the Study

The Cuyahoga Falls Fire Department has seen an increase of call volume from 5851 calls in 1997 to 7717 calls in 2006. This is an increase of approximately 32%, which has resulted in a corresponding increase in the amount of miles driven by the department vehicles. In 2000, the department took over transporting of EMS patients from the local private ambulance service. This has caused additional road mileage to be put on the vehicles. Logical, vehicles that are on the road more frequently will have an increased chance of being involved in a motor vehicle accident. Additional issues are related to this increased risk of having accident include; aging road conditions, aging city infrastructure, increased vehicle traffic and increased use of mutual aid agreements.

The emerging trend for Ohio is to incorporate driver education into the State of Ohio's new firefighter recertification hours. House Bill 401 was signed into law in January 2007 and it will take effect on April 14, 2007. The state will now required any firefighter to have 12 hours of continuing education in order to recertify as a firefighter. The chairman of the Fire Education Committee for Ohio feels that driver's education will be a component of the new continuing education hours. He feels this is one step that the Ohio Department of Public Safety is taking to combat emergency vehicle accidents (telephone interview, Mr. Phil McLean, October 25, 2006). *The purpose of this research project is to provide the Cuyahoga Falls Fire Department with information on what other departments in Ohio are doing with respect to a driver's education program and what benefits are derived from a driver's program in order to support administrative decisions about a future program for the department.*

Research Questions

Descriptive research was used to gather information needed to determine if there are

benefits to a driver's education and what types of programs are available to the Cuyahoga Falls Fire Department. *The research questions this study investigated are the following:*

1. What driver's education programs are being used by the fire service in Ohio?
2. Do Fire/EMS departments that have a driver's education program have fewer accidents as compared to departments with no program?
3. What are the benefits to a Fire/EMS department that has implemented a driver's education program?

BACKGROUND AND SIGNIFICANCE

The City of Cuyahoga Falls was founded in 1812 on the banks of the Cuyahoga River. Twenty-five years later in 1837, a volunteer fire department was formed. The department remained a volunteer department until 1932 (City of Cuyahoga Falls, 2006). Since then, the City and the Fire Department have enjoyed a steady economic growth pattern of residential, commercial and industrial uses. Currently, the department is staffed with 84 sworn members based out of five stations strategically located through out the city. The population of the city has grown to over 50,000 (City of Cuyahoga Falls, 2006). With the increase in population, there has been an increase in the call volume for the department. In 1997, Cuyahoga Falls Fire Department responded to 5851 alarms and in 2005, the Department went on 7551 alarms. This is an increase of 30% over the 8 years period (CFFD, 2005). Over the last 20 years, the accident rate for the Cuyahoga Falls Fire Department has not been accurately recorded. However, there have been no documented major accidents in the history of the department.

One of the major obstacles to Cuyahoga Falls Fire Department having a driver's education program in a department seems to be financial. If a department chooses to purchase a program, it can cost between $300 and $400 per person (Stout, 2006). For a department with 84 people, this program can cost around $25,200. The Falls Fire department feels this type of driver's education program is good and needed but it did not have the money to purchase a program based on the current budget. Some insurance providers, (Volunteer Fire Insurance Services) offer a driver's education program at reduced rates. Another common method of instruction in the fire service is to develop an internal program for driver's education.

Associated with emergency vehicle accidents, there are injuries and fatalities inflicted on other people who are involved in the accidents. In the International Association of Fire Chief's

Association publication, August 1, 2006 On Scene magazine the EMS section reports, "In 2004, the National Highway Traffic Safety Administration (NHTSA) reported that 170 people were killed and 18,772 were injured in motor vehicle accidents with emergency vehicles. The majority of those killed were drivers and passengers of civilian vehicles" (Riddle, 2006).

Another fact involving firefighter fatalities is the concept of near-misses. Webster's Dictionary defines near-misses as any result that is nearly but not quite successful or a narrowly averted collision or near escape. According to one article, industrial studies show that for every fatality there are 300 to 600 near-misses (FireRescue, 2006). Using the figure of 600 near-misses per 1 fatality and the figure of 26 emergency vehicle related fatalities of firefighters for 2005, yields that 15,600 near-miss events occurred in the United States in 2005. A further breakdown of this figure reveals that every day there are 650 near misses or 10.83 near-misses per hour. Even if we use the conservative number of 300 near-misses per one fatality, it still leaves a figure of 5.42 near-misses per hour.

These issues regarding emergency vehicle safety show that the problem is very complex. There is no one solution that will fix the problem. There must be a set or series of solutions. As with any complex issue, if one solution is used, it may not actually solve the problem and can create additional problems. A representative of the Nation Fallen Firefighters Foundation, Gordon Routley states, "firefighters will need a cultural attitude change. Firefighters feel that they are invincible and it is their right to get to the scene as fast as possible. Some firefighters feel injuries and fatalities are just the cost of doing business and risking life and limb to get the job done is acceptable" (Routley, 2006). Routley, further states that "nothing could be further from the truth" (Routley, 2006).

There have been some attempts to do drivers education with in the Cuyahoga Falls Fire Department but nothing has been sustained. Over the years, CDL training and some vehicle maneuverability type training was completed but no formal department wide training has been adopted. Many times, driver's education is left to the station officer or the senior member of the crew. When the officer feels the new employee is ready to drive, they are given permission. The issues of no written department guides on driver's education, no formal training and no continuing education cause the department to be out of compliance with NFPA.

The Cuyahoga Falls Fire Department is looking to gather information and analyze the benefits involved in the implementation of a driver's education program. *The potential impact of this study is that a comprehensive driver's education program may be implemented in the Fire Department.*

Another important aspect of a driver's education program is that just by having a program does not mean the department will never have an accident. There are no absolutes in any line of work. The bottom line is that associated with a driver's education program, there is an increased level of safety which results in a safer community and a safer environment for the citizens and the fire personnel.

LITERATURE REVIEW

The literature review used in preparation for this paper revealed that there were numerous articles, studies, periodicals, testimonials, standards and many opinions on the subject of how to reduce emergency vehicle crashes. Reviewed first are the laws and standards that govern the Fire/EMS service.

Under Ohio Revised Code section 4506, the requirements for a Commercial Driver's License (CDL) are discussed. The law clearly states that "Fire equipment for a fire department, volunteer or non-volunteer fire company, fire district, or joint fire district" is exempt from the CDL requirements. It further exempts public safety vehicles used to provide transportation or emergency medical service for ill or injured persons (OBMV, 2006). The only requirement of a fire department employee or volunteer is that he/she must possess a valid Ohio Driver's License (ODPS, 2005).

The National Fire Protection Association was established in 1896. According to the NFPA website, it serves as the world's leading advocate of fire prevention and is an authoritative source on public safety (NFPA, 2006). NFPA has three main standards and numerous other standards that address the issues of vehicle safety and training. Of the main standards, the first is the overarching NFPA 1500 Standard on Fire Department Occupational Safety and Health program, 2002 edition. Chapter 6 deals with fire apparatus, equipment and drivers / operators. To be compliant, it requires that any fire apparatus must be operated by members who have successfully completed an approved drivers training program or those under supervision by a qualified driver. NFPA 1500 requires the department to develop a standard operating procedure and discusses that vehicles shall be operated in compliance with all traffic laws and rules set

forth by the fire department. Drivers of the vehicles shall be directly responsible for the safe and prudent operation of the vehicle under all conditions (NFPA, 2002).

The NFPA has another standard on Fire Service Vehicle Operations Training Program, NFPA 1451. This standards committee's intent was to create a training program outline that would produce drivers who were able to prevent vehicle accidents. This standard contains the minimum requirements for a fire service operations training program. It further states each department shall establish written standards pertaining to all areas of vehicle operations and training. This should also include a drug and alcohol testing policy for drivers involved in crashes. Each department shall establish and maintain a driver training and education program to prevent vehicle crashes, deaths and injuries. Section 5.2.1 states that training shall be conducted as often as necessary, but not less than twice each year. Section 5.2.2 requires annual training shall be hands-on exercises. NFPA feels that the driver should be trained in defensive driving in all conditions. The document gives some examples of defensive driving techniques. Lastly, section 5.3.7 contains language calling for a specialized training program for off road vehicles and 5.3.8 for specialized or unconventional units. In section 5.3.9, the standard states, "fire departments shall train operators for inclement weather driving conditions..." (NFPA, 2007) The driver's education program must include how to handle the vehicle in various weather conditions. There is a specific section 5.4 that lists driver instructor qualifications. The standard states a department must have written standard operating guidelines on emergency response procedures and crash investigations.

The third NFPA document is NFPA 1002, which is the Standard on Fire Apparatus Driver/Operator Professional Qualification. The document specifies training requirements that are associated with each of the main fire apparatus in different fire organizations. These vehicles

include the following: apparatus equipped with fire pump, aerial device, tiller type, wildland fire apparatus, aircraft rescue and mobile water supply apparatus. In general, the standard calls for the operator to be licensed to drive any and all vehicles that they are expected to operate. It also outlines that the operator must be able to operate the vehicle safely in all conditions. They must know the effects on vehicle control related to liquid surge brakes, braking reaction time, load factors, center of gravity and so on (NFPA, 2003). A driver's education class and program will have to meet these rigorous requirements for an operator.

In a study completed for the National Fire Academy Executive Fire Officer program entitled Risk Management Associated with Emergency Vehicle Operations. The author surveyed 42 fire departments and found the following results. Forty-seven percent of the respondents reported meeting the NFPA 1002 Standard for Fire Apparatus Driver/Operator Professional Qualifications. Respondents reported on initial training indicated that 47% received more than 25 hours of training, 1% received 21-24 hours, 1% received 13-20 hours and 31 % received eight to twelve hours. As for continuing education requirements, 68% of the responders reported that they received less than 15 hours per year (Philips, 2003). The study also showed another action that will help reduce death and injury while driving an emergency response vehicle; it is to conduct a simple periodic check on the operator's driver license. The check should be conducted every three years. The study asked this question on the survey and found that 68% of the respondents replied that their department did the periodic checks for violations with the Department of Motor Vehicles (Phillips, 2003).

In August of 2004, The Federal Emergency Management Agency, (FEMA), released its booklet FA-272, Emergency Vehicle Safety Initiative. The initiative included numerous agencies including the U.S. Fire Administration. Twenty-two recommendations were developed

and many pertained to driver's education. It called for the development of a layered or modular training program that included specific training for all levels of an organization on their responsibilities related to emergency vehicle safety. There must be proficiency training to assess the performance of the drivers. The initiative calls for instructor training credentials and limits the use of driving simulators. FEMA reported that a simulator is a good tool but cannot replace practical driver training exercise using actual emergency vehicles. The initiative also calls for refresher training on an annual basis and to recertify according to department requirements no less than every three years. This document goes on to give various examples of situations that must be addressed in every day practices (FEMA, 2004).

The Emergency Vehicle and Roadway Scene Safety Program developed by the International Association of Fire Fighters, along with other agencies have put together a course in vehicle safety that is related to the Emergency Vehicle Safety Initiative program. The program highlights three main issues at the heart of the problem: 1) 20-25% of all firefighters fatalities are related to vehicles, 2) it is the second leading cause of death for firefighters and 3) these crashes are among the most preventable deaths. The IAFF program sites a study that was conducted by the University of Michigan in 1998. The study states in the United States, an average of 2,472 fire truck collisions occurred per year for the years 1994-1996. Six occupants in the fire trucks were killed as a result of vehicle accidents yearly during this study period. During the same time period, these accidents with fire trucks killed 21 civilians. There are also 413 occupants of fire apparatus injured and over 642 civilians injured per year (IAFF, 2005). The IAFF program goes into discussing the aspects of training and gives case studies of actual incidents involving fire apparatus collisions. Many departments and companies are using this program coupled with an extensive hands-on program for their driver's education program.

The Morbidity and Mortality weekly report investigated the impact of vehicle accident rates among EMS workers. During 1991- 2000, 300 fatal accidents occurred involving ambulances. This resulted in the deaths of 82 ambulance occupants and 275 occupants of other vehicles and pedestrians. No further breakdown of the figures was given. The majority of the fatalities 41% occurred while riding in the driver or passenger seat of the vehicle. "The surveillance date and case investigations identify riding unrestrained as an important risk factor for EMS workers" (MMWR, 2003).

A report analyzing national statistics showed that every 12 minutes someone dies in a motor vehicle crash, every 10 seconds an injury occurs and every 5 seconds a crash occurs (OSHA, 2006). There are 8760 hours in a year. In 2005, 23 firefighters lost their lives due to motor vehicle accidents (USFA, 2006). Dividing the number of hours in a year by the number of firefighters killed yearly yields for every 381 hours worked or every 15.9 days a firefighter dies in a motor vehicle related accident. The OSHA document continues by discussing that employers shoulder the cost for these crashes that occur both on and off the job. "By implementing a driver's safety program in the workplace, you can greatly reduce the risks faced by our employees and their families while protecting your company's bottom line" (OSHA, 2006). This report states that:

> …motor vehicle crashes cost employers $60 million annually in medical care, legal expenses, property damage and lost productivity. They drive up the costs of benefits such as workers compensation, social security, and private health and disability insurance. In addition, they increase the company overhead involved in administering these programs. The average crash costs an employer $16,500. When a worker has an on-the-job crash that results in an injury, the average cost to their employer is $74,000.

> Costs can exceed $500,000 when a fatality is involved. Off-the-job crashes are costly to employees as well (pp. 4).

The paper also discusses information on a positive return-on-investment that is realized by employers with a well-defined driver's safety program. Based on an Executive Survey of Workplace Safety, 61% of the surveyed business executives stated their company received a return-on-investment of $3.00 or more for every $1.00 spent on workplace safety (Liberty Mutual, 2001). The paper also gives a worksheet to figure the costs of motor vehicle crashes (Appendix 1). Numerous examples of companies are given where a vehicle safety program is enacted. The company has a reduction of motor vehicle accidents resulting in the savings of large sums of money. Nationwide Insurance Company implemented a ten-step program on vehicle safety and saw some interesting results. Even though the number of miles driven by Nationwide employees has increased by 19% over the years, the company's preventable crash rate has decreased by 53%. Overall motor vehicle costs are down 40% (OSHA, 2006). General Motors, (GM), the world's largest vehicle manufacturer implemented a driving program "Create the Habit" for over 250,000 employees. With this program, GM saw an increase in seat belt use from 61% to 85% and the program is credited with saving 5 lives per year (OSHA, 2006).

A web search on Westlaw search engine produced 59 court cases that pertained to emergency vehicle accidents in Ohio. In one case, Robertson versus Department of Public Safety, the court stated that an Ohio State Highway Patrol trooper, showed willful and wanton misconduct which resulted in a fatal multi-vehicle accident. The trooper, Lee Sredniawa was driving a patrol car that was involved in a high-speed chase through an intersection, which caused a fatal accident. The court awarded the family of the deceased a 2.2 million dollar settlement. In 2005, the Department of Public Safety appealed this decision in the State Court

system. The Ohio Supreme Court denied it. Currently, the case is still active and in litigation (Westlaw, 2006). In another Westlaw case of the State of Ohio versus Michael Montecalvo, a paramedic was found guilty of involuntary manslaughter. Montecalvo a paramedic and driver of the ambulance drove the ambulance through a red light and struck an automobile at an intersection fatally injuring a female who was pregnant (Westlaw, 2006). Montecalvo was convicted and served eight months in prison. Monetary damages in the Montecalvo case have not been disclosed. In an article, the author cites a motor vehicle accident where a pumper was responding in emergency mode to a non-emergency type call. The responding crew attempted to pass a car stopped in the eastbound lane in the fire trucks direction of travel. Two cars were approaching the fire engine from the westbound lane. One car stopped and the other car skidded into the eastbound lane. The engine struck the car and the 17-year-old driver was killed. The parents of the victim filled a lawsuit against the county, the fire company and the driver seeking damages in the sum of $24 million (Wilbur, 2004). Another court case involved a Columbus Fire Department ladder truck that went out of control and rolled onto its side. The truck slid into the Patrick J's Bar landing upside down in the bar. Four firefighters and four patrons were injured. Court cases were filed on behalf of the injured parties (Rienpendholf, 2002). Settlements were not disclosed in this case. In most of the court cases the settlements are made but they do not become part of the court record. All of these court cases whether they involve a settlement or not are costly to the department members and its citizens.

Another benefit to a driver's education program can be seen in the programs offered by the Ohio Bureau of Workers' Compensation, (BWC). Coupling a driver's safety program with an all-inclusive program like a drug-free workplace program, an organization can receive a discount on the BWC premium. BWC's ten-step business plan is another premium discount

reduction program that a fire department can implement. A 10-step business plan is an initiative to help employers in developing, and implementing workplace safety and health programs. The program's goal is to help develop a culture where every employee values and takes responsibility for safe job performance. These employees are actively involved in the management of workplace safety and health. These discounts can be significant and vary with each organization. Some of the listed benefits for a BWC program include increased economic value for the organization and reduced workers' compensation costs (BWC, 2006).

Lastly, the insurance industry was examined about driver's education programs for the fire service. There is very little external communication is available from the industry on receiving reductions for a fire organization implementing a driver's program. In an interview of a large insurance company in Northeast Ohio that holds the liability insurance to more than 200 cities and townships, insurance rates were discussed (telephone interview with Mr.Wichert, August 15, 2006). Mr. Wichert stated for every program that an organization implements to improve safety of that organization, the possibility of reducing claims also improves. With the possible reduction of claims, there can be a reduction of insurance premiums. The insurance industry can market these improvements to a department in order to search for a better insurance rate for that department. The insurance representative also noted that many organizations forget to inform the insurance carrier of these progressive safety improvements. Implementing the ideas and concepts similar to the FEMA Emergency Safety Vehicle Incentive program are all different ways that will improve an organization's marketability. Therefore, it will ultimately reduce insurance rates. One of the standard areas of discount premiums for Ohio Emergency Response organizations is the fact that Ohio has very strong immunity laws for public safety personnel. Under Ohio Revised Code section 3737.22.1, the law gives a broad range of

immunity to fire department personnel who are operating within the scope of their duty. There must be a clear case of willful and wanton misconduct to override the immunity laws (ORC, 2006). Therefore, it is very difficult to get a successful conviction in either criminal or civil cases because of the laws. However it still can happen and there are always a few claims that are awarded but this number is very small compared to other industries.

This literature review provides information regarding general information, laws, and benefits about a fire service driver education program. One problem area is that Ohio law excludes firefighters from CDL requirements. Even though NFPA has strict guidelines on driver education requirements, Ohio has not adopted NFPA as a state standard. However, the industry standard is the NFPA and although it is not Ohio law, a logical link can be drawn that will hold fire departments accountable to the NFPA standard in the event an incident occurs. The Insurance Service Organization requires that a department have at least 40 hours on initial training with four- ½ day of continuing education annually for personnel. However, this is still not a law that must be followed (telephone interview Ms. Porsche Stewart, January 2007). A law review shows that there have been numerous civil and criminal court cases against fire department personnel as a result of vehicular accidents. Additional, the literature review showed that there are numerous emergency response personnel and citizens being injured on an annual basis. These are causing the departments, cities and particularly the taxpayer great financial hardships. The average cost for motor vehicle accidents can be in access of $16,500 (OSHA, 2006). Even more importantly than the monetary aspect of vehicle crashes, there is the loss of life and injury to our firefighters as well as the citizens.

PROCEDURES

A survey was developed to help identify the answers to the research questions and gain some pertinent information (Appendix 2). The survey was constructed so that all the general information about a department and a community was at the beginning of the document. The details of department's driver education program were asked at the end of the document. This was done to make the departments whom did not have a driver's education program to be more inclined to fill out the survey.

The following procedures were used to obtain the data for analysis. The Ohio State Fire Marshall's Office was contacted to provide a complete listing of all fire departments that are registered in the state. This provided a list of 1202 departments. Another list was developed that showed the population levels of all the cities in Ohio with a population of 15,000 or above. The two lists were correlated together to obtain a final list that would show the names of the fire departments that service a population of 15,000 and above. The process yielded a list of 115 departments. These 115 departments represent 10% of the total 1202 fire departments in Ohio.

The 18-question survey was mailed on May 7, 2007 to all 115 departments. A cover letter was added to the survey mailing. The letter contained some general information as to who was doing the survey and why it was being conducted (Appendix 3). The departments were asked to fax back the completed survey by May 28, 2007. This time frame allowed the department three weeks to complete the survey. The survey also provided the person who fills out the survey a method to indicate if they wanted to see the completed results of the survey.

Definition of Terms

All of the terms used in this document are standard with commonly used ideas and concepts. If there are any unusual terms, they are defined at the time of use in the text of the document.

Limitations of the Study

There were some limitations to the survey and the sampling method. Some departments were not sent surveys even though the serve a population over 15,000. This was because some departments serve more than one jurisdiction. An example of this situation is joint fire districts. There is no good way to determine which areas of the state this occurs because it is not tracked in the State of Ohio. Another limitation of the study is that many departments that serve populations under 15,000 have a well-developed driver's education programs that meet or exceed national standards. In Summit County, Fairlawn Fire Department is one of the departments that have a commercial company conduct driver's education training. Fairlawn Fire Department serves a population around 7,000 (interview with Fairlawn Fire Chief Glenn Goodrich, January 2007). Another issue with the sampling method was the definition of population for a city or township. The population of the jurisdiction is a set figure listed by the United States Census Bureau. Many jurisdictions have a large workforce that can cause the population to swell to over 15,000 during the day. These cities were not included in this survey.

Lastly, looking at the survey itself finds some issues that need addressed. Some of the information that was asked is not easily obtained. Items such as number of off-duty accidents, near-miss reporting, and court costs are usually not tracked. Other areas in the survey that could have been better defined include what is the national standard for driver's education. It could be NFPA, your local insurance carrier or any number of other standards. There were two questions

that could have been asked to give additional information to the study. What was the age of the people involved in accident is one question. The other is, what was the number of years the driver had on the job that was involved in the accident. An interesting correlation might have been derived from this data. These are the major limitations of the study.

RESULTS

The results of the survey showed some interesting information and trends in regards to the driver's education being conducted in Ohio. The demographics of the survey show that 115 Fire Departments received the survey, 55 of them were returned. This was a return rate of 47.4%. Five departments returned the survey after the deadline for completion and were not counted in the research paper. Telephone contact was made with an additional three departments that did not return the survey. This was done to identify why the survey was not retuned. There was no attempt made to ask the department to fill out the survey. One reason given for not returning the survey was that the department representative on the telephone did not remember seeing the survey. Another reason given was the department was busy and did not have the time to complete the survey. The last one stated they did send the survey back but the author never received the survey.

Looking at the survey response matrix, the majority of returned surveys were received from the full-time career departments in the State, 69.1%. The second highest response received was from the career and part-time departments, (27.3%). These two categories account for 96.4% of the total survey responses. One response was received from the all-volunteer and one response was received from the part-time paid department.

Additionally, the size of a department can be examined by examining the number of personnel the department lists on the roster. There was a range in staffing from 26 members to a high of 1542 members. The large staffing number was not considered in the results because it would have skewed the average figure. The results show that the majority of the reporting

departments range from 26 members to 359 members. The average staffing level for departments that responded was 59.7 personnel.

Research question one: What driver's education programs are being used by the fire service in Ohio? The results show that of the 55 reporting departments, 48 provide a driver's education program and 7 departments do not provide a program. This yields a percentage of 87.3% of the surveyed Fire Departments do provide some type of driver's education program for their employees.

The type of driver's education program that the departments are providing was the next item investigated. Seven departments did not have a program; these were listed as missing from the system. Table 1 shows the breakdown of the types of programs from the survey results.

Table 1

Driver Training Programs in Ohio Fire Departments	Number	Percent
Internally developed program	19	39.6%
Internally developed program/insurance based	4	8.3%
Internally developed program/purchased	1	2.1%
Purchased commercially	10	20.8%
Insurance based	13	27.1%

All of the above listed programs	1	2.1%
Total	48*	100%

* A total of 55 departments returned the survey, 7 did not fill out this section

The highest number of answers given was from departments that had internally developed a program, 39.6 %. The next highest category, 27.1% was departments that had purchased a commercially developed program. The survey also asked each department to name the program or programs that they used (Appendix 4).

The associated cost of the program that was delivered to the members of the department was also examined. The range of program costs is from a low of "no cost" listed to a high of $500.00 per person. Twenty-four of the departments or 64.9% surveyed indicated there was no cost associated with their driver's education program. Seventy-five percent of the departments report a cost of $20.00 or less for the program. Ninety-seven percent of the departments report a cost of $150.00 or less for the program that they provide to their department.

The frequency of training was also asked in the survey. There are 55% of the departments providing driver's education on an annual basis. Slightly less than 15% provide initial training. Ten percent of the departments provide the training biannually and approximately 22% provide training every three years. These numbers do not add up to 100% due to some of the survey's had multiple answers marked. As example, some departments marked initial training and every three years on the survey.

The last item on the survey related to question one was if the program meets a national standard. What was found was that two departments, 4.2% did not meet the national standard.

Thirteen departments or 27.1% did not know if their program met a national standard. Thirty-three departments or 68.8% indicated they did meet a national standard. Again, the seven departments that indicated they did not have a program were indicated as missing from the system.

Research question two: do fire /EMS departments that have a driver's education program have fewer accidents as compared to departments with no programs? The frequency of moving motor vehicle accidents on-duty was examined; all 55 respondents reported they have had accidents while on-duty. Looking at the survey results for off-duty accident rate shows that 96.2% of the departments report having accidents off-duty.

Further analysis of the frequency of on-duty accidents, shows 22 departments or 40% reported they have 1 accident per year. Almost 70% of the reporting departments have from 1 to 4 accidents per year. One department with 41 personnel has an accident rate of 66 per year. This large number causes a shift in the data and inflates the mean number and standard deviation. This figure of on-duty accidents per year was further broken down into two categories, those departments that have a driver's education program and those departments that do not have a program. It was found that those departments with a program report almost 40% (cumulative percent) accident rate of at least one accident per year. Eighty-five percent (cumulative percent) of the reporting departments with a driver's education program have between one to five accidents per year. With the departments that do not have a program 42% of the cumulative percent report at least one accident per year. Eighty-five percent (cumulative percent) of the reporting departments with no driver's education program have between one to six accidents per year.

The frequency of moving motor vehicle accidents off-duty was examined. Almost 87% of the reporting departments show members having one or less moving vehicle accidents while off-duty. Four departments report no off-duty accidents and two departments did not answer the question. This accounts for 46 of the 55 reporting departments. Less than 14% of the reporting department stated they had an off-duty accident rate of over 2 accidents per year. Again, this figure of off-duty accidents per year was further broken down into two categories, those departments that have a driver's education program and those departments that do not have a program. It was found that departments that have a driver's education program, 87% of off-duty members have a rate of one accident or less per year. Those departments that do not have driver's education program, 85.7% of off duty members have a rate of one accident or less per year. This data suggests there is no significant difference in accident rate with a department with a program verses a department without a program.

What are the benefits to Fire/EMS departments that implement a driver's education program was the last research question to examine. In the survey there was a question regarding possible benefits to a driver's education program (Appendix 2). The departments were asked if they had observed any changes in their department as a result of their driver's education program. There were nine categories in order to rate the department's driver program. Related to the category, the department could choose from the following changes related to the question; increase, decrease or no change. The categories were developed from the literature review section of this paper. An "other" category was created on the survey to identify if the department had observed any other benefit besides those listed.

The first item examined under benefits was the reported effect on insurance premiums of the department driver's education program. It was found was that 90% of the departments that

have a program reported no effect from their driving program on their insurance rate. It did show that 10% of the departments received a decrease on their insurance premiums. There were no departments that reported an increase in their premiums. The departments that reported a reduction in insurance premiums did not report any cost savings resulting from the premium reduction.

The next item examined was the effect of the driver's education program on their department's workers compensation program. Almost 98% of the departments that have a program reported there was no effect from their driving program on their workers compensation rates. It did show that 2.5% of the departments received a decrease on their workers compensation rate. There were no departments that reported an increase in their workers compensation rate. The departments that reported a reduction in workers compensation rates did not report any cost savings resulting from the rate reduction.

The next item examined was the reported effect on vehicle accidents and associated deaths and injuries of the department with a driver's education program. What was found was that 62.8% of the departments that have a program reported there was no effect from their driving program in their vehicle accident rate and associated deaths and injuries. It did show that 37.2% of the departments observed a decrease in vehicle accident rate and associated deaths and injuries. There were no departments reporting an increase in their vehicle accident rate or associated deaths and injuries. The departments that reported a reduction in vehicle accident rates did not report how much of a reduction was associated with the drivers program.

Another item examined was the reported effect on vehicle repairs associated with vehicle crashes with a driver's education program. The majority, 51% of the reporting departments state that the driver program has no effect on vehicle repairs while 39.5% reported a decrease in

vehicle repairs. Additionally, 9.3% of the reporting department stated their vehicle repairs increased with a driving program.

The next item investigated was the effect of a driver's education program on the department's court costs. Court costs included criminal and civil penalties. Ninety-three percent of the departments reported no change in their court costs related to the driver program. There were 6.8% of the departments that indicated there was a decrease in court costs. No departments indicated an increase in department court costs. The departments that reported a reduction in court costs did not report any cost savings resulting from the court cost reduction.

Near-miss motor vehicle crashes were looked at next. It shows that 46.2% of the reporting departments had no change to the near-miss crashes while 51.3% reported a decrease in near-misses as a result of the driver program. Almost 3% of the departments reported an increase in near-miss crash events. None of the departments reported how much of a change in the near-miss events that occurred after a driver education program was implemented.

The next item examine was the reported effect of the driver's education program on image of the department. What was found was that 45.5% of the departments that have a program reported there was no effect on the department's image. It did show that 4.7% of the departments had a decrease on their department image. Fifty percent of the reporting departments stated there was an increase in the department image.

The next item to examine is the reported effect of the driver's education program on morale of the employees of the department. Fifty-three percent of the reporting departments stated there was no change in their employee morale as a result of the driving program. A decrease in employee morale was reported by 4.7% of the departments. Of the surveyed department 41.9% reported an increase in employee morale as a result of their driving program.

The last item to be examined is the reported effect on department uniformity with regards to a driver's education program. What was found was that 86% of the reporting departments stated they had in increase in the department uniformity. No effects from their driving program were reported by 11.6% of the departments regarding department uniformity. The survey did show that 2.3% of the departments reported a decrease in their department uniformity.

On the survey, there was the "other" category for a department to write in any positive or negative benefit to a driver's education program. However, there were no comments related to program negatives or positives. Most people wrote comments similar to these; if questions contact this person, we had 4 accidents caused by deer, never had a serious accident but adopted a proactive approach, etc. Numerous people stated that they had no method of tracking the changes a program may have made in their department.

DISCUSSION

The results of the survey did coincide with the information found in the literature review on this topic. The results show that most departments surveyed do provide a driver education program. Also, the survey shows there are some limited financial and non-financial benefits to a driver's education program.

In examining the data from the survey, it reveals some global issues. One is that the results of the survey may not be a completely accurate representation of what is occurring in the State of Ohio. When compared to the entire state, the 55 departments that did return the survey account for approximately 4.5% of the departments in Ohio. Including more Ohio departments in the survey field will increase the validity of the study and provide a more accurate representation of the Ohio Fire Service. Secondly, 48 or 87.3% of the reporting departments did have a driver's education program. Again, this may or may not be representative of what is occurring in Ohio because of the small statistical database.

Focusing on the question that asked if the department's program met national standards, 68% reported their program did meet national standards. That leaves 32% of the reporting departments either not knowing if their program met any national standard or the department knew their program did not meeting the standards. The various NFPA standards clearly define what is required to be in a vehicle-training program. It defines the knowledge, skill and abilities that a driver/operator must meet to be qualified. Any program adopted by the Cuyahoga Falls Fire Department must meet the national standards.

The types of program that are being used in Ohio were adequately defined by the survey. The majority of the programs were internally developed courses. Many of the programs had

some basis in a commercial program or an insurance company. The commercial programs tended to cost more money to implement. Sixty-four percent of the departments reported there was no cost associated with a providing a driver's program to their department. These departments may not have had any costs associated with a vendor or program but they did have some type of in-kind costs. In-kind costs would include a member's salary, on straight or overtime, cost of books or copies of material, cost of training props and so forth. In summary, there could be very little cost associated with a driver's program. The impact to the Cuyahoga Falls Fire Department is that if finances are limited for the program, an in-house program could be developed to reduce the costs while still providing the education. Alternative funding methods, such as grant programs, could help offset the cost of a program.

The benefits to a driver's education program are defined in the survey and support what was found in the literature review. The survey showed that 10% of the departments that responded to the survey reported a decrease in costs with a driver's program in the areas of insurance premiums and court cases. Also, 2.5% of the departments with a program reported a reduction in the department's workers compensation rate.

Insurance premiums with regards to driver's education programs were discussed with a leader in the insurance industry (telephone interview, Mr. Wichert, August 15, 2006). However, no firm rates were given as to the effect of a driver's education program would have on a department's insurance premium. However, actual savings and costs associated with insurance premiums are very real but sometimes vague. Specifically looking at the fire service statistics for annual costs of collisions shows the following results: 2,472 fire apparatus collisions per year according to the Emergency Vehicle Safety Initiative program (IAFF, 2005) times the average cost of a vehicle crash, $16,500 (OSHA, 2006) gives the figure of $40,788,000. This figure

represents annual costs associated with fire apparatus collisions and includes the cost of repairs, replacement, premiums, etc.

In one area related to cost benefit analysis, the results of the survey showed additional reductions in costs attributed to a driver's education program. Thirty-nine and one half percent of the reporting departments with a driver education program reported a reduction in vehicle repairs. There is a probability of 40% that a drivers program could impact the vehicle maintenance program for the Cuyahoga Falls Fire Department by reducing costs.

There were four benefits of a driver's education program that were identified that have little direct monetary value, but value to a department. Fifty-one percent of the reporting departments that have a program stated they had a reduction in near-miss accidents. FireRescue Magazine shows that for every 600 near-misses that occur, there is one fatality (FireRescue 2006). A reduction in near-miss events may affect the fatality rate for the fire service. Another area of benefit was a 50% increase in the image of the department and a 41% increase of employee morale. The last benefit is an 86% increase in the department uniformity. Consistency in the fire service allows for a smoother and safer operation. Although these benefits are intangible, the benefits are important to the Cuyahoga Falls Fire Department.

One area of the survey results that was controversial was the accident rate of departments with a program verses without a program. Common logic would be that a department with a driver's education program would have a lower accident rate than one without a program. A correlation table was developed and there is no significant correlations observed with this study. In other words, when looking at the effect on accident rate of having a program versus not having a program there was no statistical significance between the two groups. One possible theory could be the term "self-selected group". This theory can be easily applied when looking

at accident rates. The term can be applied to departments that have an increased or high accident rate. Because of their high accident rate, the department develops or secures a driver program to counter the increased accident rate. If a department has a low accident rate, then there is not as great a need to develop a driver's program. In other words the theory states, there is no driver's program warranted if there is not an increase or a high accident rate for that department. Another possible theory is that the small statistical sampling of Ohio fire departments as previous discussed may have skewed the correlation results. The impact to the Cuyahoga Falls Fire Department is that regardless of the actual accident rates associated with or without a program, the department may still receive some intangible benefits for adopting a program, as have other Ohio fire departments with driver's programs.

The last point that needs explored is the fact that even if a department has an excellent driver's education programs it does not equate to never having a vehicle accident. In the survey results, all 55 of the reporting departments stated that they had accidents. This included the departments that had a driver's education program. When discussing accident rates, a rate reduction is the proper method to measure the success of a program. This is the paradox of any driver's program. The rational argument is that if a comprehensive driver's training program is given to a member of the department, they will be more competent and less likely to have an accident. However, this logical is not supported by the data collected during this applied research project.

RECOMMENDATIONS

The purpose of this research project was to provide the Cuyahoga Falls Fire Department with information on what other departments in Ohio are doing with respect to a driver's education program and what benefits are derived from a driver's program. The results also showed that there was no correlation in accident rates for departments with or without a driver's education program. The survey results identified many different types of programs being provided in Ohio. The survey results also identified specific benefits of a driver's education program. The Ohio fire departments that provided a driver's education program did receive numerous benefits from their program. All of these results can be applied to the problem for the Cuyahoga Falls Fire Department which is the department does not have a comprehensive driver's education program as desired by the Chief of the Department.

The first recommendation for the Cuyahoga Falls Fire Department is to develop an effective method of tracking all vehicle costs. This includes accidents, fuel costs, near miss events, insurance premiums, worker compensation costs, vehicle repairs and so on. This will help obtain some the information necessary to develop a projected cost benefit analysis for the department. Currently, the department lacks the internal information necessary to do this type of analysis.

Secondly, the department should develop a strategy to choose a driver's education program for the department and then implement the program in the department. In order to facilitate a solid strategy for the department, a committee could be formed. A suggested committee list would include the following stakeholders: a Training Officer, a Chief Officer, a member of each rank and a member of Local 494 (the Cuyahoga Falls Fire Fighter's Union), a member of the Law Department and or Finance Department. This committee would determine

what program to implement and set up a timetable for the implementation. This committee can assist in securing the necessary funding for the program. Ownership at all levels of the Department is important for the success of the driving program.

Lastly, the Cuyahoga Falls Fire Department should track any changes in the department as a result of the implementation a driver's program. This evaluation must be factual and record the positive effects as well as the negative effects of the program. This information will help obtain the results of the cost benefit analysis for the department that we currently can only project. On-going evaluation of the program is essential to any cost benefit analysis.

This research paper leads to further investigation of several areas uncovered by this project. A more in depth and detailed look at the fire service in Ohio regarding driver's education should be conducted. Secondly, a detailed study of the driver's education programs that are being provided in Ohio needs investigated to determine if they meet the criteria set forth in the NFPA standards. Another area for future study could be focused on what benefits a department is observing from a driver's education program and the value of those benefits. As an example, when a department reports a reduction of costs associated with vehicle repairs related to a driver's education program, we could attempt to identify the amount of reduction of these costs. This may yield an anticipated savings to a department for the program. Lastly, a study could be conducted on how the new Ohio law regarding firefighter continuing education will affect a department driver's education program or lack of program. These are just a few of the additional areas related to this paper that could be studied.

REFERENCES

City of Cuyahoga Falls. (2006). *History of the City*. Retrieved 8 August 2006 form http://cfo.cityofcf.com

Cuyahoga Falls Fire Department. (1995-2005). *Annual Report*[s]. Cuyahoga Falls, Ohio: City of Cuyahoga Falls Fire Department.

Cuyahoga Falls Fire Department. (1997-2001). *EMS run summary*. Printed 1 August 2006. Cuyahoga Falls, Ohio: City of Cuyahoga Falls Fire Department.

Cuyahoga Falls Fire Department. (2006). *History of fire department*. Printed 13 August 2006. Cuyahoga Falls, Ohio: City of Cuyahoga Falls Fire Department.

Daniels, D. I. (2006). Oil, speed & other addictions. *Firehouse*, April 2006, 144-146.

Goldfeder, B. (2006). So, did the stand down matter? *FireRescue*, July 2006, 92-93.

Liberty Mutual. (2001). *A majority of U.S. businesses report workplace safety delivers a return on investment.* Retrieved 19 August 2006 from http://www.libertymutual.com

Liberty Mutual. (2002). 2002 *Workplace safety study released*. Retrieved 19 August 2006 from http://www.libertymutual.com

National Fire Protection Association [NFPA]. (2007). NFPA 1451: Standard for a Fire Service Vehicle Operations Training Program. Quincy, Massachusetts: NFPA.

National Fire Protection Association [NFPA]. (2002). NFPA 1500: Standard on Fire Department Occupational Safety and Health Program. Quincy, Massachusetts: NFPA.

National Fire Protection Association [NFPA]. (2003). NFPA 1002: Standard on Fire Apparatus Driver/Operator Professional Qualifications. Quincy, Massachusetts: NFPA.

National Fire Protection Association [NFPA]. (2006). NFPA website: *Fire Service.* Retrieved 8 August 2006 from http://www.nfpa.org

National Fire Protection Association [NFPA]. (2007), Firefighter fatalities in the United States-2006. Quincy, Massachusetts: NFPA.

National Highway and Transportation Safety Administration [NHTSA]. (2006*). DOT HS 809 682: The Economic Burden of Traffic Crashes on Employers,* Washington, D.C.: NHTSA

Occupational Safety and Health Association [OSHA]. (2006), *B942.3576: Guidelines for employers to reduce motor vehicle crashes.* Washington, D.C.: OSHA.

Ohio Bureau of Motor Vehicles [OBMV]. (2006). *Commercial driver's license (CDL).* Retrieved 16 August 2006 from http://bmv.ohio.gov/driver_license/cdl.htm

Ohio Bureau of Worker's Compensation [OBWC]. (2006). *Discount programs.* Retrieved 19 August 2006 from http://www.ohiobwc.com

Ohio Department of Public Safety [ODPS]. (2005). *HSY 7607: Digest of Ohio motor vehicle laws.* Columbus, Ohio: ODPS.

Ohio Revised Code [ORC]. (2006). *Section 3737.221*. Retrieved 19 August 2006 from http://onlinedocs.andersonpublishing.com

Phillips, S. (2003). *Risk management associated with emergency vehicle operation*. Applied Research Project National Fire Academy, February 2003.

Proudfoot, S.L., Romai, Bodick, T.G., & Moore. (2003). *Ambulance crash-related injuries among emergency medical service workers*- United States, 1991-2002. Morbidity and Mortality Weekly Report, 52(8), 154-155.

Riddle, K. (2006). International fire fighter safety stand down and EMS. *The International Association of Fire Chiefs [IAFC] On Scene*. June 2006. 3.

Riepenhoff, J., Marx, M., & Narciso, D. (2002). I thought it was a bomb. *Columbus Dispatch,* 16 July 2002.

Routley, J. G. (2006). What we can do today to implement the "16 firefighter life safety initiatives". *The International Association of Fire Chiefs [IAFC] On Scene*, June 2006. 6-7.

Stout, K. (2006). Drive Team. Retrieved 19 August 2006 from http://www.driveteam.net

The International Association of Fire Fighters [IAFF]. (2005). *Instructor guide: improving apparatus response and roadway operations safety in the career fire service.* Washington, DC: IAFF.

The International Association of Fire Fighters [IAFF]. (2006). *International association of fire fighters launch new online emergency vehicle safety program.* Retrieved 8 August 2006 from http://www.usfa.dhs.gov/about/media/2006releases/041806.shtm

Tippett, J. B. (2006). Danger on roads less traveled. *FireRescu*e, March 2006, 94-95.

Tippett, J. B. (2006). Near-miss reporting begins return data to the fire service. *The International Association of Fire Chiefs [IAFC] On Scene*, August 2006. 1.

United States Fire Administration [USFA]. (1992). *No. L-195: Alive on arrival- tips for safe emergency vehicle operations*. Emmitsburg, Maryland: USFA.

United States Fire Administration [USFA]. (2002). *FA-220: Firefighter fatality retrospective study 1990- 2000*. Emmitsburg, Maryland: USFA.

United States Fire Administration [USFA]. (2002). *FA-306: Firefighter fatalities in the United States in 2005.* Emmitsburg, Maryland: USFA.

United States Fire Administration [USFA]. (2004*). FA-272: Emergency vehicle safety initiative.* Emmitsburg, Maryland: USFA.

Westlaw. (2006). Web search of court cases involving emergency motor vehicles in Ohio. Retrieved 7 August 2006 form http://web2.westlaw.com

Wilbur, M. (1998). Response guidelines for private vehicles. *Firehouse*, June 1998.

Wilbur, M. (2000). Preventing apparatus rollover fatalities & injuries: Protecting our own. *Firehouse*, October 2000.

Wilbur, M. (2004). Negligence and the emergency vehicle operator. *Firehouse*, July 2004.

APPENDIX 1 - COSTS OF MOTOR VEHICLE CRASHES TO EMPLOYERS WORKSHEET (OSHA 2006).

Costs of Motor Vehicle Crashes to Employers Worksheet

Direct Costs to the Organization

Workers' compensation benefits	$ _____
Healthcare costs	$ _____
Increases in medical insurance premiums	$ _____
Auto insurance and liability claims and settlements	$ _____
Physical and vocational rehabilitation costs	$ _____
Life insurance and survivor benefits	$ _____
Group health insurance dependent coverage	$ _____
Property damage (equipment, products, etc.)	$ _____
Motor vehicle repair and replacement	$ _____
EMS costs (ambulance or medivac helicopter)	$ _____
Vehicle towing, impoundment and inspection fees	$ _____
Municipality or utility fees for damage to roads, signs or poles	$ _____

Direct Total $_____

Indirect Costs

Supervisor's time (rescheduling, making special arrangements)	$ _____
Fleet manager's time to coordinate vehicle repair, replacement, etc.	$ _____
Reassignment of personnel to cover for missing employees (less efficient)	$ _____
Overtime pay (to cover work of missing employees)	$ _____
Employee replacement	$ _____
Re-entry and retraining of injured employees	$ _____
Administrative costs (documentation of injuries, treatment, absences, crash investigation)	$ _____
Inspection costs	$ _____
Failure to meet customer requirements resulting in loss of business	$ _____
Bad publicity, loss of business	$ _____

Indirect Total $ _____

TOTAL $ _____

APPENDIX 2 - SURVEY SHEET

Drivers Education Survey

Please fill out this survey to the best of your knowledge.
(Circle or fill-in where appropriate)

1. Which best describes your organization?

   All Volunteer Full-Time Career Career & Part-time Part-Time Paid

   Other (please specify) _____

2. What type of public safety organization best describes your department?

   Police Fire EMS Fire & EMS

   Other (please specify) _____

3. Which best describes the population that you service?

   <10,000 10,001- 25,000 25,001- 50,000 50,001-100,000 100,000>

4. Has a department member ever been involved in a moving vehicle accident while on-duty or at work?

   Yes No

   Yes If yes, how many? _____

5. Has a department member ever been involved in a moving vehicle accident while off-duty?

   Yes No

   Yes If yes, how many? _____

6. How many moving vehicle accidents have occurred in your department in the past:

   0-2 Years _____ 3-5 Years _____ 6-9 Years _____ 10> Years _____

7. How many personnel have been involved in a moving vehicle accidents while off duty in the past:

   0-2 Years _____ 3-5 Years _____ 6-9 Years _____ 10> Years _____

8. How many members are in your department? _____

9. What is the call volume of your department per year? _____

10. What is your department's name? _____

11. What is the county your department is located in? _____

If your department has a driver education program,
Please answer the questions below.

12. What year did your department begin the driver education program?
    Year_____ Month _____

13. What best describes the type of program you use?

    Internally Developed Purchased Commercially Insurance Based
    Other (please specify) _____

14. What is the cost per person in your program? _____

15. How often is the driver education program given to your department? (circle as many as apply)

    Initial training Annually Biannually Every three years

    Other (please specify) _____

16. Does your department's driver education program meet national standard requirements?
    Yes No Unknown

17. What is the name of the program in place (i.e. internal, commercial or insurance)?
    _____

18. Have you observed any changes in your department as a result of your driver education program? (circle as many as apply)

Insurance premiums	Increase	Decrease	None
Workers' Compensation rates	Increase	Decrease	None
Vehicle accidents and associated deaths and injuries	Increase	Decrease	None
Vehicle repairs associated with vehicle crashes	Increase	Decrease	None
Court costs including criminal and civil penalties	Increase	Decrease	None
Near-miss motor vehicle crashes	Increase	Decrease	None
Image of the Department	Increase	Decrease	None
Morale of the employees	Increase	Decrease	None
Uniformity in department vehicle operations	Increase	Decrease	None

Other _____
_____

Please return this survey by **May 28, 2007** to:

Assistant Chief Paul Moledor
330-971-8400
C/O Cuyahoga Falls Fire Department
1924 Front Street
Cuyahoga Falls, Ohio 44221

Fax to 330-971-8409

Please include your email address if you want a copy of the results:
_____

APPENDIX 3 - COPY OF SURVEY COVER SHEET

Cuyahoga Falls Fire Department

1924 Front Street
Cuyahoga Falls, Ohio
44221

Paul D.
Moledor
Assistant Chief

Phone: (330)971-8403
Pager: (330) 873-7121
Fax: (330) 971-8409

May 7, 2007

Dear Chief Officer

My name is Assistant Fire Chief Paul Moledor, I am currently enrolled in the Ohio Fire Executive Fire Program. This program is administered by the Ohio Fire Chief's Association Charitable Trust Fund.

I am working on a research paper entitled, "Driver's Education- Is it worth the cost?" It should be relevant to Police and Fire/EMS departments in Ohio. I have developed the enclosed survey to gather some data on Driver's Education Programs in the State of Ohio. The survey is only 18 questions long and should take five minutes to ten minutes to complete. Please return the completed survey back by May 28, 2007 to the following fax number:

330-971-8409

Thank You in advance for filling out the survey. If you would like feedback from the survey please indicate this on the survey by providing your email address in the proper blank at the end of the survey.

Sincerely,

Paul Moledor
Assistant Fire Chief

APPENDIX 4 - NAMES OF DEPARTMENT DRIVER COURSES

(Actual spelling was used as found on survey sheet)

Hybrid course interal dev	**VFIS- EVO Class**
Internal	**OFA- EVO CLASS**
VFIS	**VIFS**
based on VIFS and Avon standards	**CEVO-II Fire- National Safety Council**
Internal	**VFIS**
ISO	**Internal**
Internal	**Internal**
VIFS program	**Cuyahoga Community College**
IAFF"S Imroving Appratus response	**internal**
NFPA drivers training- Practical	**Internal**
VFIS tailored to Dpt needs	**VFIS**
Internal	**VFIS**
VFIS	**Internal**
Based on VFIS	**VIFS**
Internal	**Insu- Academy of Professional DRs**
Aubrun Career Center- VO ED school	**VIFS**
Internal + County VOED using state	**EVD thru VFIS**
12 hr EVOC	**Divisions opertor program**
National Ass Pro Drivers	**VIFS- A/C is an instructor**
VFIS	**modified National Safety Coucil/NFPA**
OFA outreach	**Internal, VIFS, IAFF program**
Internal	**Probattonany ???**
Internal	**Internal**
Unknown- set up to NFPA 1002	