

# **Child Safety Car Seat Installation and Inspection Program**

## **Leading Community Risk Reduction**

By: Sherry P. Richter  
Fort Lauderdale Fire Rescue  
Fort Lauderdale, Florida

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## **Certification Statement**

I hereby certify that 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.

Signed: \_\_\_\_\_

## **Abstract**

Improperly installed child safety car seats are a leading cause of injury and death to infants and children nationally, and the Fort Lauderdale Fire Rescue Department does not mitigate this risk with a child safety car seat inspection and installation program. This applied research project develops a Child Safety Car Seat Inspection and Installation Program as part of a community risk reduction strategy. Using action methodology, research identified the required formal training, local resources and internal department resources to enhance a new program's effectiveness. Procedures included a literature review, personal interviews, and electronic survey sent to the operational members of the Fort Lauderdale Fire Rescue Department. Results established the best curriculum and resources, and recommendations were for a pilot program with sufficient support based on national standards.

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## **Child Safety Car Seat inspection and Installation Program**

Motor vehicle injuries are the greatest public health problem facing children today. In fact, they are the leading cause of death among them (CDC 2003). Child safety seats are effective when correctly installed. The risk of pediatric deaths are reduced by 71% for infants and 43% for children ages 1-4 (Newman 2004). Today's fire service organizations should take the lead and embrace a proactive approach to educate the public on the installation and use of child safety seats. A citizen may visit any fire station within their community seeking assistance from fire personnel trained to install, inspect and educate them on values of vehicle child safety seats.

However, the Fort Lauderdale Fire Rescue Department does not have a child safety seat inspection and installation program to address this issue.

The purpose of this applied research paper (ARP) is to outline a child safety seat inspection and installation program that the Fort Lauderdale Fire Rescue Department and similar departments could adopt as part of a community risk reduction measure.

Research methodology used for this project is the action method that identified the following:

- 1.) What formal training is required for personnel to be eligible to inspect and install child safety car seats?
- 2.) Are there other agencies, groups and associations that support a child safety car seat inspection and installation program for the Fort Lauderdale Fire Rescue?
- 3.) What resources does the Fort Lauderdale Fire Rescue department possess which could enhance the effectiveness of a child safety car seat inspection and installation program?

## **Background and Significance**

The City of Fort Lauderdale is located in Broward County, Florida on the eastern seaboard of the state midway between Palm Beach and Dade counties. The population is over 189,000 residents year round, and over 200,000 during the winter months. Our community occupies 43 square miles, making the City of Fort Lauderdale the sixth largest municipality in the State of Florida. Interstate 95 runs through this large community, where many commercial and private vehicles commute for business, pleasure, and/or touring. During the winter months, traffic volume increases significantly with many more out of state vehicles on the road traveling within the corporate boundaries of our city. Not to mention a large number of rental cars traveling year round through our area. One quarter of emergency responses for by Fort Lauderdale Fire Rescue for year 2004 was motor vehicle crashes (City, 2004). In the City of Fort Lauderdale year 2004, there were 635 motor vehicle crashes involving children ages 0 to 5 years old, and 428 crashes involving children ages 6 to 10 years of age (City, 2004). These numbers have increased over a period of time from the year 2000 to 2004 (City, 2004).

Motor vehicle injuries are the leading cause of death among children (CDC 2003). Forty percent of children aged 4 years and younger fatally injured in the year 2003, were not restrained in a child safety car seat (NHTSA 2003). Risk factors that greatly contributed to these statistics include drivers who were under the influence of alcohol and allowed their children to ride without the proper vehicle restraints (Cody 2002).

According to county statistics 1,941 tickets were issued in 2003 for violating Florida Statue 316.613, which requires passenger type automobiles to carry and secure children

while traveling on Florida's roadways (Broward County, 2004). In the City of Fort Lauderdale, 161 citations were issued in 2003 and 113 tickets issued in 2004 for violation of the provision of Florida Statute 316.613 Child restraint seat system (Broward County, 2004). This sobering statistic ranked Broward County, Florida third in child safety seat citations, with Miami-Dade and Palm Beach Counties as the top two violators in the state (Florida DOT, 2005). It appears clear that additional work is needed to educate the public on the need to use child safety car seats.

Still, sixty percent of those 0 to 4 years old who died in motor vehicle crashes were restrained in child safety seats. To what extent did improperly installed child safety car seats or inadequately secured children contribute to these deaths? According to Kelly Hamilton, regional instructor for the national Safety Council in South Florida, 96% of child safety car seats are improperly installed. In addition, many children who are riding in child safety car seats are improperly secured (personal interview, March 8, 2005). Kelly Hamilton stated the most common problems with child safety seats were seat placement, installing the wrong seat, and not using the safety belt correctly after the seat had been installed. These alarming statistics indicate the need to develop a child safety car seat inspection and installation program for the City of Fort Lauderdale Fire Rescue Department.

It is believed that supporting a child safety car seat program sponsored by a fire service organization consisting of 13 full service fire stations utilizing trained fire personnel should prove beneficial in reducing the number of fatalities and the number and severity of injuries among children involved in motor vehicle crashes. Moreover, such an initiative may provide the local communities with effective child safety

education. Such an initiative will embrace the basic concept of motor vehicle child safety restraint systems with acceptable national standards and methods in the proper installation of securing of child safety restraint systems.

This applied research project on the development of a child safety seat installation and inspection program is relevant to the course work included in the curriculum of the National Fire Academy Executive Fire Officer Program (EFOP), *leading community risk reduction* (LCRR), R280 course (National Fire Academy [NFA], 2005). This researcher noted the following links: *Unit 1: Getting Ready, Unit 3: Building Support, and Unit 4: Identifying Intervention Strategies*. This ARP relates to the United States Fire Administration (USFA) operational objectives: (a) to reduce by 25% the loss of life of the young (FEMA 2004). This paper is dedicated towards meeting the USFA objectives by developing a child safety seat installation and inspection program for the Fort Lauderdale Fire Rescue department.

## **Literature Review**

The literature review was organized around three specific questions that arose in trying to develop a plan of action for a child safety seat inspection and installation program: (1) What formal training is required for personnel to be eligible to inspect and install child safety car seats? (2) Are there other agencies, groups and associations that might support a child safety seat inspection and installation program? (3) What resources does the Fort Lauderdale Fire Rescue department possess to enhance the effectiveness of a child safety seat inspection and installation program?

Child safety seats (CSS) are designed to prevent injury to young children involved in motor vehicle crashes and are required by law in all fifty of the United States (McKay,



Curtis, 2002). Motor vehicle crashes are the leading cause of death and injury to young children (CDC 2003). If properly used, it is estimated that these seats reduce fatalities by 71% and reduce injury by more than 50%, requiring the seat must be properly installed and the child fully restrained within it (McKay, Curtis, 2002).

Physical “hands-on” (National SAFE KIDS, n.d.) inspections are one of the most effective ways to ensure proper installation and correct use of CSS and seat belts. Safety experts throughout the United States have shown that it is not uncommon to find parents who think they have installed the CSS correctly, yet when checked at voluntary inspection stations, 85% were installed improperly (Hanson 2001). Authors agree that many adults are unaware they are using the child safety restraint incorrectly, thereby placing their child at risk (Hanson 2001; Bushue 1999). What can be done? Effective child passenger safety training is most important. This will provide technical information and raise awareness to parents (Kidseat, n.d.).

The National Highway Traffic Safety Association (NHTSA) established a standardized 32-hour CSS training program and this was the first national training program to address the need for a child passenger safety professional (CPS) to properly install and inspect child safety seats (Kidseat, n.d.). This course prepares CPS professionals to be responsible for educating their communities in child passenger safety. NHTSA has the most up-to date and accurate information available for this standardized technical course. Upon completion, a person is certified to provide a level of quality control and proper inspection and installation of CSS (Kidseat, n.d.). One can conduct checkpoints with- out being certified, of course. However, this certification provides an

additional level of quality control and assurance that an individual would be proficient at inspection and installation of CSS (Kidseat, n.d.).

*Operation Kids*, sponsored by the *International Association of Chiefs of Police* training program identifies the law enforcement community to increase awareness and provide basic technical information about child safety including wearing bicycle helmets, child safety restraint systems, etc. *Buckle Up Kids*, sponsored in part by the *United States Fire Administration* provides a two-day training course program designed for firefighters and emergency medical personnel. Its goal is to train these professionals to work effectively in their communities to increase overall usage of child restraint systems as well as to foster correct use (NYSDMV, n.d.). Both groups participate in the 32-hour CSS training course developed by the NHTSA in order to properly install and inspect the child safety restraint systems.

There are many organizations, groups, and local associations willing to support CPS fitting stations including Rotary clubs, Kiwanis clubs, car dealerships, and automobile insurance companies (Kidseat, n.d.). Many states provide grant programs through their respective Traffic Safety Commissions that assist with the funding of child safety seat installation programs. Successful CPS programs offered by The Roseville Fire Department in California, St. Mary's hospital in Queens New York, and the Department of Motor Vehicles in Washington, DC used funds that were secured through these grants. (NHTSA, 2005).

In January of 1999, the National Transportation Safety Board called on auto manufacturers, insurance companies, the states, and others to create a national system of permanent child safety seat fitting stations to help parents ensure kids are properly

buckled up. (Fit for a Kid, n.d.). Trained, certified inspectors at Daimier Chrysler Five Star Dealers nationwide are now available to check safety car seats for free, in answer to the call from the National Traffic Safety Board. With the support of the National Safety Council the company established a program Fit for a Kid (Fit for a Kid , n.d.). General Motors has entered into a five-year partnership with the *National SAFE KIDS Campaign* initially committing \$10.6 million to strengthen current CPS programs, and to create new ones (National SAFE KIDS, n.d.). The Ford Motor Company created a program called Boost America, to deliver a message to every elementary school, and preschool regarding a safe ride for children between the age of 4 and 8 years old who are too big for infant seats, yet still too small for adult size safety belts. The company distributed one million booster seats during 2001 and 2002 in which the United Way provided half of the funding to needy families and half through vouchers distributed by participating Ford Motor Company dealers and Boost America partners (Boost America, n.d.). The Florida Department of Transportation provides grants funding to local safety-related agencies (fire departments, local law enforcement agencies) as “seed” money to initiate new safety programs to install, inspect, and/or enhance existing like programs in various traffic areas (Florida DOT, 2005).

Bushue (1999) and Hanson (2001) conducted surveys in their respective fire service organizations and found that operations personnel receptive to participate and become certified professional safety seat technicians in an effort to reduce the fatalities and injuries to children in their communities. Both authors agreed that there was an issue by personnel and management involving time constraints in providing this type of public service due to their call volume, other related training, and daily responsibilities of the

fire departments. Bushue (1999) and Hanson (2001) agreed that fire stations are ideal sponsors of a child safety car seat installation program since it is believed that fire stations are strategically located throughout their municipalities, making installations, inspections, and re-inspections very accommodating to the public.

Numerous articles on the subject of firefighter participation in child seat restraint safety have demonstrated that fire stations are very suitable locations to promote child safety restraint systems. “The time has come for the fire service to look beyond the current paradigm and take a different approach to public safety (Eanes, 1993, p. 20).” The Chesterfield Fire Department in Virginia for example has touched the community by developing a “*swim safe*” (p. 20) and child safety seat inspection programs to heighten awareness and educate parents in child safety.

Other agencies too, have utilized fire stations to perform child safety seat programs such as Yolo County Health Department in Sacramento, California (County of Yolo, n.d.). This county organization trains and funds programs that are provided at local fire stations by fire department personnel. Rainbow Babies Group and Children’s Hospital in Cleveland, Ohio joined with the National Safe Kids Coalition to organize “fitting station programs” (Stregar, 2002, p.24). This partnership with the Cleveland Fire Department, Division of EMS to run a child safety car seat installation program for three hours on the second and fourth Tuesday of each month.

Bushue (1999) and Hanson (2001) agreed that in order to adopt and implement a program, the proper training is required and partnerships should be formed with established child safety advocates. Both authors also suggested that organizations implement a pilot program in order to trouble shoot any problems that may need to be

addressed. They believe that appointments, and schedules are necessary for the program to be organized, and work well.

In summary the literature identified for this applied research project has supported facts that improper installation is a critical factor affecting child occupant protection. Most parents and caregivers are unaware of how to install a child car seat properly. The literature supports training as being a crucial factor that will help eliminate improper installations.

### **Procedures**

This applied research project used the action method for the development of a Child safety seat installation and inspection program as part of a community risk reduction method. The literature review was promptly started at the National Fire Academy's Learning Resource Center (LRC) in Emmitsburg, Maryland during this authors attendance in the *Leading Community Risk Reduction-R280* course, in January of 2005.

The LRC provided an enormous collection of indexed periodical resources relating to this topic. In addition, the LRC provided other documents researched and written by previous Executive Fire Officer Program students that were used to conduct this research. The "World Wide Web" was a paramount resource in obtaining additional information through literature for this applied research project. Search engines were utilized on this topic that provided statistics and information on child safety seat programs and its components for success. This procedure was utilized for all three-research questions answered.

Personal interviews were conducted as part of the procedure for obtaining vital information for the development of the child safety seat program for the Fort Lauderdale Fire Rescue department. The interviews conducted provided ideas and facts that helped answer question number one, *what training is necessary for individuals to conduct CSS inspection and installation*, and question two, *what other groups and agencies would support a CSS program?* Three personal interviews were conducted by way of telephone, which proved beneficial in the timely completion of this research project. The individuals interviewed were chosen on their overall knowledge and experience regarding this topic. Their participation in the interview process contributed to the successful development of a child safety car seat inspection and installation program for their respective organizations.

The interviewees were as follows; Brian Schaffer, Lieutenant, Pompano Beach Fire Rescue Department; Edgar Gallardo, School Resource Officer, Miramar Police Department, and Kelly Hamilton, Regional Instructor for the National Safety Council (South Florida Chapter) on child safety seats inspections and installations.

These interview questions were geared toward answering the original research questions and obtaining additional information to develop an outline for the development of a child safety seat program for our organization. The interviews were conducted in the month of March and April 2005.

A survey was distributed electronically in February 2005, to members of the Fort Lauderdale Fire Rescue Department to answer question number three (**Appendix A**). The survey sample size was 330 operational personnel of all ranks who are sworn members of the Fort Lauderdale Fire Rescue Department. These members were chosen

because they would ultimately be directly involved with the success of a child safety seat program and its operation as part of a community risk reduction method. Of the 330 individuals receiving this survey, 25% of the members returned it for evaluation.

### **Assumptions and Limitations**

The procedures employed during this research project were based on several fundamental assumptions. First, it is assumed that all authors referenced in the literature review performed objective and unbiased research, and that the information and data obtained was accurate.

Secondly, the information obtained on the electronically delivered survey was in agreement with the objectives recognized by this applied research project. The respondents surveyed are assumed to be sworn firefighter personnel with the City of Fort Lauderdale Fire Rescue. The reliance of information furnished by the respondents was based on their knowledge and experience on this topic, and results of this survey are not based on scientific sampling.

The individuals interviewed are assumed to be legitimate certified CPS technicians for their respective organization, and the telephone interviews provided answers to questions that were fairly accurate and honest for this project.

### **Definitions of Terms**

ARP- applied research project (FEMA 2005)

CSS- Child safety seats (McKay, Curtis 2005)

CPS- Child passenger safety professional (Kidseat n.d.)

## Results

The results to the questions posed in the introduction of this applied research paper were obtained by the above procedures for the development of a Child Safety Car Seat Inspection and Installation Program suitable for the Fort Lauderdale Fire Rescue Department.

*Question number one:*

**What formal training is required for personnel to be eligible to inspect and install child safety car seats?** To answer this question, research was conducted by using the Internet to find out how someone in the state of Florida could be trained to become a Child Safety Seat Installation and Inspection Technician. This author was able to find Ms. Kelly Hamilton, Regional Instructor for the National Safety Council in South Florida. Ms. Hamilton was interviewed via telephone on April 18, 2005, and asked the above research question.

Hamilton stated:

In order to prepare your personnel from your organization to properly install and inspect child safety seats, the organization would contact the National Safety Council and enroll the individuals in a 32-hour training course taught by a certified instructor on child safety seats. The cost of this class is \$60 per person. A representative would come to your location and teach as many members as you would want in order to start your own Child Safety Seat Program. She also recommended training to be taught in a block of 4 consecutive days. This would be important because of the amount of information being delivered to the students, including “hands-on” installation of various car seats. She further



stated that a technician must be re-certified every 2 years. The re-certification process includes a 100 question test with a passing grade of 85% or higher, and observation of the technicians actually performing installation procedures on at least five-safety seats. She noted that the cost is half the price of initial training, and could be done on site during a scheduled day that the organization has set up to perform these services to the community.

*Question number two:*

**Are there other agencies, groups and associations that support a child safety seat inspection program for the Fort Lauderdale Fire Rescue?** This question yielded an interesting response from those interviewed on the subject of child safety seat programs. They had both obtained financial support through grants submitted through the Department of Transportation in Florida. These grants enabled the Pompano Beach Fire Rescue and the Miramar Police Department to supply their active programs with a variety of child safety seats that would be distributed to families who did not have, or could not afford a child safety seat. These seats are also available to be installed in order to replace a child safety seat that had been recalled, or is found to be unsafe for use during an inspection.

Gallardo stated:

Training for the first Resource Officers was conducted by the National Safety Council through a grant received by the Florida Atlantic University Nursing Program. Those officers initially trained enabled us to start our program successfully. Officer Gallardo continued his education to become a certified instructor providing him with the credentials to certify other officers who

decided to commit themselves to the program. This maneuver saved their city an outlay of funds to certify additional officers for the task. Officer Gallardo also wrote grant proposals to the Department of Transportation, and received a supply of child safety seats to support the program, and the city residents in need (personal communication, April 16, 2005).

For the City of Pompano Fire Rescue, the city initially absorbed the cost to train seventeen people who wanted to participate in a Child Safety Seat Program.

Shaffer stated:

I have found by making phone calls to local business in our community, I was able to obtain a lot of support for our program. The local Ford Dealership has donated a mini-van that is stationed at our monthly events held on the second Tuesday of the month. This car is brightly painted with signage that advertises our program and our organization to attract, and promote the use of child safety seats and driver responsibility.

Both organizations were able to advertise their events in local community newspapers, radio stations, and city-network television “free of charge” to inform the community members of the upcoming installation and inspection dates and times.

Gallardo of Miramar Police Department stated:

I have called and have received support from Wal-Mart, and Home Depot to host these events that I had scheduled. These companies provided us with space in their parking areas to perform installation and inspection. Wal-Mart also gave individuals a 20% discount on the purchase of a new child safety seat that allowed

us to maintain our inventory. Home Depot provided us with the space to perform our program, chairs, and refreshments at scheduled events. These resources assisted in the success of our program for we do not have an ideal place to perform these installations and inspections (personal communication, March 31,2005).

Both officer Gallardo and Lieutenant Schaffer have commented that there are local organizations and clubs that would be happy to support their programs. It is a matter of making the phone calls and making them aware that the program exists, therefore allowing them to get involved for the good of their community, and their group goals.

*Question number three:*

**What resources does the Fort Lauderdale Fire Rescue Department possess to enhance the effectiveness of a child safety car seat inspection and installation program?** To answer this question an in-house survey was conducted to obtain information from personnel to get ideas and answers to questions.

To conduct installation and inspection of child safety seats it is paramount to have the commitment, and willingness of the personnel in our organization that would provide this service. Survey question four asks: ***Would you be willing to be trained and participate in a Child Safety Seat Program developed for our organization?*** The responses to this question revealed that 98% of the returned surveys indicated that the participants are willing to be trained in order to conduct installation and inspections on CSS. 100% of the surveys returned indicated that personnel would support a Child Safety Seat Program, however 2% of the respondents were not willing to be trained.

Surprisingly enough, 100% of the respondents who have children have never participated in a child safety seat program. This was determined by question three: ***Have you ever participated in a child safety seat program?***

Personnel survey question two asked: ***Have you ever been approached by the public to inspect or install a child safety seat while you were at work?*** All respondents surveyed have been approached at least one time while on duty to install or inspect a child safety seat. Some respondents commented that the local hospital advised the new parent to “stop by” any fire station to perform this service. Personnel were surveyed about their opinion of which fire stations would be ideal locations to provide a child safety seat program for our organization. Results indicated that all fire stations were thought of as ideal locations; however, many respondents indicated that one station in every district would suffice to successfully provide this service.

This survey allowed for additional comments to be added when asked: ***Can you think of any other resources that our department possesses to enhance the effectiveness of a Child Safety Seat Program?*** 78% of the respondents did not provide any comments. The other 22% jotted down a few ideas including:

- Re-instatement of a Public educator position.
- The use of the prevention bureau to provide this service to parents and caregivers in need.
- Some comments warranted a negative response commenting on the possible liability that could be incurred by having such a program if the seats were not installed properly.

- 2% of the personnel that were not interested in be trained voiced their concerns of possible repercussions, and the loss of their job, if they had improperly installed a child safety seat.

The total personnel survey is available in Appendix A. Appendix B will provide a developmental outline as reference for the expansion of a Child Safety Car Seat Inspection and Installation Program for the Fort Lauderdale Fire Rescue Department.

Appendix (B)

### **Discussion**

There were many commonalities from the research questions answered in this applied research project and the literature review. The most important item identified was the need for proper training required for a person to be eligible to perform inspection and installation of the child safety seats. In the state of Florida, the 32- hour course will certify a person to become a CPS. The training is ongoing, and requires a commitment from the people involved for the success of a program to last. When interviewed Ms. Hamilton stated:

I have trained many people to become proficient at installing and inspecting child safety seats, however, the success of their program is based on the commitment and funds that their organization will provide to insure the program lasts. A program that is successful will take at least one committed person that will keep up with the ongoing changes related to the child seats and the automobile industry. For this reason re-certification is required every two years (personal communication, April 18, 2005).

In New York State for example, the Governor's Traffic Safety Committee provides statewide coordination for the Child Passenger Safety Training Program. The Governor's Committee maintains an up-to-date schedule of child passenger safety seat check events and classes, and will gladly furnish information to any agency or organization interested in conducting a training course consisting of a minimum 32 hours regarding this topic (NYSDMV, n.d.). In addition, to become a certified child passenger safety technician one must complete a standardized 32-hour training course promulgated by the National Highway Traffic Safety Administration (Kidseat n.d.). It is evident that the aforementioned answers research question number one and furthermore supports that finding in the literature review.

This commitment will include re-certification every two years, consistently planning and participating in scheduled events, and working with other agencies to enhance the child safety seat program.

Authors agreed that grant writing is an integral process to fund programs designed for individual organization needs for the preparation, justification, and funding needed for the delivery of a child safety seat program (Bushue 1999; Hanson 2001). Participating organizations providing an inventory of child passenger safety seats is necessary to effectively and efficiently provide a parent or caregiver lacking the funds, an opportunity to get such a seat for their children. In addition to receiving the safety seat for their child parents and/or caregivers are provided "on the spot" with proper education by on-site technicians. This proactive concept is a public relations boost for participating organizations (Fit for a Kid, n.d.).

Furthermore, many organizations and groups are willing to participate in supporting a child safety seat program. The automobile industry is a great and generous resource to tap into for supporting events (Kidseat, n.d.). The industries involvement allows them a selling edge to consumers who are deciding what vehicle to purchase for their families.

Authors agreed that being creative, and taking the initiative to call upon local organizations will add to the success of a child safety seat program being as part of a community risk reduction method (Bushue 1999; Hanson 2001). Building local coalitions may generate funds necessary to enhance an established program by providing safety seats to individuals in need and/or a location to support a scheduled event. California law for example insurance companies to replace child safety seats involved in a motor vehicle crash (NYSDMV, n.d.). The National SAFE KIDS Campaign launched the *Safe Kids Buckle Up* program in 1992. The National SAFE KIDS Campaign entered into a five-year agreement with General Motors to expand this program. General Motor's initial commitment totaled 10.6 million dollars over this five-year period (Cody 2002).

This literature provides adequate documentation that organizations are willing to financially support child safety seat programs. Most authors and persons interviewed believed that an organization initiating a child safety seat program with trained personnel could successfully educate, inspect, and install the safety seats. However, as the program matures to the next level of continued funding, it would be advantageous to evaluate the successes and "pitfalls" and perhaps seek out other funding mechanisms to enhance the continued success of the program.

Bushue (1999) and Hanson (2001) agreed that fire stations are ideal locations for this style of program. Moreover, the aforementioned authors justify this claim since career

fire stations are positioned strategically throughout their respective municipalities and are open around the clock year round. Thus making installation and safety checks convenient to the local community.

While conducting interviews with other agencies that have Child Safety Seat programs, Pompano Beach Fire Rescue for example conducts their CSS program on the first Tuesday of every month at fire station number 24. Inquiries from their citizens are channeled through this station to schedule an immediate or timed schedule convenient to that citizen. Pompano Beach personnel are continually trained in order to meet their certification credits with training from local safety organizations like the National Safety Council.

The implications that would affect the organization would be the initial outlay of public taxpayer funding to train individuals to perform this program to the public. For example, the scheduling of a 32-hour course may generate additional fiscal burdens from tight departmental overtime funds to ensure that the training is properly preformed concurrent to the maintenance schedule to be properly trained as a child passenger safety seat technician.

Another concern may be time restraints from engine, ladder, or rescue companies to perform this service in concert with other duties such as training, demonstrations and more important, responding to fire and/or medical alarms. In most cases, those companies affected with the program are taken out of service saving overtime costs to perform the program objectives. The caveat of removing companies out of service is the burden of in-service companies bearing the brunt of coverage until objectives are completed. Authors and interviewees agreed this is a risk analysis issue contingent upon



the organization weighing community safety and the need and support to deliver an effective program. In addition, authors agreed the aforementioned concerns pale in comparison to the positive benefits that a Child Safety Seat Inspection and Installation program could bring to the community and our children's safety.

### **Recommendations**

This study has demonstrated the feasibility of developing a Child Safety Seat Inspection and Installation Program within the Fort Lauderdale Fire Rescue Department. In addition to developing this program, the Fort Lauderdale Fire Rescue Department should be able to create equity within the communities it serves and support local political leaders.

Based on the literature review, telephone interviews, electronic surveys, and the analysis of the results of this applied research project, the following recommendations have been designed to assist with the preparation and development of a Child Safety Seat Inspection and Installation Program for the Fort Lauderdale Fire Rescue Department:

- Solicit a supervisor to follow the developmental plan Appendix (B) who is willing and committed to oversee and maintain the program. Responsibilities would include grant proposal writing, scheduling training and events, contacting other organizations for assistance, and advertising the installation and inspection events.
- Initially train twelve operational personnel split between A, B and C shift that are willing to participate in the program.
- Initially train 4 day-workers who are also willing to commit themselves to the installation and inspection program.

- Create a phone number available to the public to call in order to set up appointments on the day of a scheduled event.
- Initially utilize station number 13 to host the new program. This location has room to store supplies and materials needed to run a pilot program. This station has ample parking, and shelter inside the bay area in case of inclement weather.
- Print up business cards with the contact phone number and distribute to all stations, to supply citizens who visit fire stations looking for instruction on inspection and installation of child safety seats.
- Set up a group email, and a newsletter for members involved with the program. This will provide good communication, and allows committed members to be informed of upcoming events. It will also allow members to suggest changes that could improve the program.
- As the program matures, consider using two additional stations in other districts to perform scheduled inspection and installation of child safety seats.
- Consider continuing education for committed members who are willing to become in-house instructors to educate and train additional personnel.

A recommendation for future readers of this applied research project is to continue research into Child Safety Seat Inspection and Installation Programs in their area to learn what resources other agencies have utilized to make their programs successful. This would also benefit the organization designing a program with contact numbers of instructors for training personnel, and groups willing to support their program.

The key point to developing a Child Safety Seat Inspection and Installation Program in the City of Fort Lauderdale is to provide another community service, and resource that will aid in keeping our children properly secured and safe while riding in motor vehicles.

## References

- Boost America, (n.d). *What is Boost America?* Retrieved March 16, 2005 from  
<http://www.boostamerica.org/aboutba.htm>
- Broward County Clerk of the Court. (2003,2004). [Broward County State Statue 316.613  
 (child restraint seat system) Statistics from the Clerk of the Court].  
 Unpublished raw data.
- Bushue, B. (1999). *Child Safety Seat Inspections* (Executive Fire Officer Applied  
 Research Project). Emmitsburg, MD: National Fire Academy.
- Center of Disease Control. (2003). *National Center for Injury Prevention and Control:  
 Child Passenger Safety*. Retrieved January 12, 2005, from  
<http://www.cdc.gov/ncipc/factsheets/childpas.htm>
- City of Fort Lauderdale. (2003,2004). [Fort Lauderdale Fire Rescue Statistics from  
 Sunpro Fire Reporting System]. Unpublished raw data.
- Cody, B., (2002). *Child Passengers at risk in America: a national study of restraint use*.  
 Washington, DC: National SAFE KIDS Campaign.
- County of Yolo Health Department. (n.d.). *Carseat Safety*. Retrieved March 12, 2005  
 from <http://www.yolocounty.org/org/health/ph/carseat.asp>
- Eanes, R.L. (1993, August). Accident Prevention: The Next Paradigm. *Firehouse*, p. 20.
- FEMA, United States Fire Administration. (2004). *2004-2005 Training Catalog:  
 Catalog of Courses for the National fire Academy and the Emergency  
 Management Institute*. USFA 5-Year Operational Objectives.  
 Emmitsburg, MD: Federal Emergency Management Agency.

Fit For a Kid. (n.d.). *Fit for a Kid Background information*. Retrieved March 28, 2005, from [http://www.fitforakid.org/press\\_center/release\\_background\\_ffak.html](http://www.fitforakid.org/press_center/release_background_ffak.html)

Florida Department of Transportation (DOT). (n.d.). *Highway Safety Grant Program*.

Retrieved March 28, 2005 from

<http://www.dot.state.fl.us/safety/HighwaySafetyGrantProgram/hsgp/hsgp.htm>.

Hanson, M.(2001). *Child Safety Seat Inspection and Installation* (Executive Fire Officer Applied Research Project). Emmitsburg, MD: National Fire Academy.

Kidseat. (n.d.). *NHTSA 32-Hour Safety Course*. Retrieved March 12, 2005 from

<http://Kidseat.org/course.html>

McKay, P. MD & Curtis, L. MD. (June 2002). Child Safety Seats: Do Doctors Know Enough? *American Journal of Emergency Medicine*, 2, 32-34.

National Child Safety Board. (n.d.). *CPS Technician Certification Workshops*. Retrieved March 16, 2003 from <http://www.cpsboard.org/workshop.htm>

National Fire Academy (NFA). (2003). *Leading Community Risk Reduction-Student Manual*. Emmitsburg, MD: Author.

National Highway Traffic Safety Administration. (2003). *Buckle Up America: Child*

*passenger Safety Week*. Retrieved January 12, 2005 from

[http://www.nhtsa.dot.gov/people/injury/airbags/buckleplan/CPSWeekPlaner\\_files/index.html](http://www.nhtsa.dot.gov/people/injury/airbags/buckleplan/CPSWeekPlaner_files/index.html)

National Highway Traffic Safety Administration. (2004). *Traffic Safety Facts : Children*.

Retrieved January 12, 2005 from <http://www.nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/TSF2004/2004chdfacts.pdf>

National SAFE KIDS Campaign. (n.d.). *Programs: Safe Kids Buckle Up*. Retrieved  
March 12, 2005 from

[http://www.safekids.org/tier3\\_cd.cfm?content\\_item\\_id=377&folder\\_id=3](http://www.safekids.org/tier3_cd.cfm?content_item_id=377&folder_id=3)

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Newman, E. (2004, June). Buckle Up. *JEMS*, 50-52

New York State Department of Motor Vehicles (NYSDMV), Governors Traffic Safety  
Committee. (n.d.). *Child Safety Seats*. Retrieved January 12, 2005 from

<http://www.nysgtsc.state.ny.us/sesa-ndx.htm>

Streger, M., (June, 2003). Keeping Kids Safe. *EMS*, 3, 24.

## Appendix A

### Electronic Survey distributed to Fort Lauderdale Fire Rescue Personnel

**To:** Operational Personnel

**From:** Lt. Sherry P. Richter

**Subject:** Child Safety Seat Program

This Survey is being distributed to you as part of a research paper that I am writing on developing a Child Safety Car Seat Inspection and Installation Program for the Fort Lauderdale Fire Rescue Department. Please fill out the following survey and email it back to me, or print it out and send the hard copy through interoffice mail. I request that surveys be sent no later than February 25, 2005. Your input is valued, and is very important to the development of this program. All responses are confidential and will be reviewed by me to gain insight of your ideas and concerns. I want to thank you for your participation, time and effort to assist me on this applied research project.

**Name:**

**Rank:**

**Years of service:**

1. Do you have Children? If so, what are there ages?  
Yes  
No
2. Have you ever been approached by the public to install or inspect a child safety car seat while you were at work? Please indicate what stations you were at when this occurred. Approximate how many times.
3. Have you ever personally participated in a Child Safety Car Seat Program?  
Yes  
No
4. Would you be willing to be trained and participate in a Child Safety Car Seat Program developed for our organization?

5. Which fire stations do you think would be the best locations for the public to gain assistance in inspection and installation of a child safety car seat?
6. Can you think of any other resources our department possesses to enhance the effectiveness of a Child Safety Car Seat inspection and Installation Program?
7. What impacts do you think the development of this program could have on our organization?
8. Would you support a Child Safety Car Seat Inspection and Installation Program developed for the Fort Lauderdale Fire Rescue Department?
9. Do you have any other comments regarding this subject?

Thank you for your comments  
Lt. Sherry P. Richter, C Shift Operations  
954-873-1873



## **Appendix B**

### **Outlined Plan for a Child Safety Car Seat Inspection and Installation Program for the Fort Lauderdale Fire Rescue Department**

**Grant Proposals:** Write grant proposals and submit to Florida Department of Transportation for money to conduct initial training of 4-day workers. Continue training of two day-workers to become certified instructors to train additional operations personnel. Continue grant proposals, and submit to Broward County EMS Grant System and Florida State EMS Division for a supply of child safety car seats.

**Training:** Train additional 12 operations personnel using newly certified instructors.

**Supplies:** Store child safety seats, and other supplies at station 13 in the training room.

**Contact:** Contact local TV, and radio stations to advertise the first inspection and installation event. Send out flyers to day care facilities, and neighborhood associations to advertise a scheduled event. Distribute business cards with program information to all fire stations.

#### **Contact numbers for training and information on CSS program:**

Ms. Kelly Hamilton, Regional Instructor, National Safety Council, 561-718-1907  
[kellyhamilton@safetycouncil.com](mailto:kellyhamilton@safetycouncil.com)

Mr. Edgar Gallardo, Resource Officer, Miramar Police Department, 754-323-7662  
[egallardo@ci.miramar.fl.us](mailto:egallardo@ci.miramar.fl.us)

Mr. Brian Shaffer, Lieutenant, Pompano Beach Fire Rescue, 954-786-4510  
[brianshaffer@copbfl.com](mailto:brianshaffer@copbfl.com)

#### **Useful webs Sites:**

[www.fitforakid.com](http://www.fitforakid.com)

[www.kidseat.org](http://www.kidseat.org)

[www.myflorida.com](http://www.myflorida.com)

[www.safekids.org](http://www.safekids.org)

[www.safetycouncil.com](http://www.safetycouncil.com)

#### **Additional resources:**

Kiwanis Club-Riley Paine, President  
954-303-5324

Rotary Club 954-424-0731

American Legion Post 36 954-463-0146

Elks Lodge No.652 954-463-7474