

Reducing Accidental Fires at Four-Year Colleges by Providing  
College Fire Safety Education to High School Seniors

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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**

The problem is the Evesham Fire-Rescue Department (EFD) does not provide college fire safety education to local high school seniors preparing to go onto college. The purpose of this research will be to identify the components of a college fire safety program for local high school students that will prepare them to be fire safe while living away at college.

The research will utilize an action methodology and will be completed by meeting with local school district officials, surveying first year college students, researching the New Jersey educational requirements for high school students, contacting the public safety departments at four-year colleges, and contacting other fire departments to determine if they provide college fire safety education to high school students.

Research questions used to guide the study include what are the requirements in New Jersey, if any, for fire safety education at the high school level, determine what type of college fire safety education are four-year colleges providing first year students as part of their freshman orientation programs, what are the components of successful college fire safety programs for high school seniors being used by other fire departments, and what organizations nationally are dedicated to providing information about college fire safety education.

The research indicates that many fire departments in New Jersey and nationwide do not have college fire safety education programs for students attending high school in their communities. In addition, most colleges and universities provide minimal if any fire safety education to incoming freshman.

The author's recommendations include using nationally recognizes sources on the topic of college fire safety to develop a public education program for high school seniors. This is

beneficial to both the community we serve and also supports national objectives to reduce loss of life from fires on college campuses.



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Today's fire service continues to embrace the idea that fire prevention is one of the pillars that provides a strong foundation in the modern day fire department. In most fire departments, including my own, we have traditionally focused our fire prevention education efforts on elementary school students. After that, we typically do not offer continuing fire safety education to middle school or high school students. Today's economy and the business world demand higher levels of education for most occupations than that of forty years ago. This change in our society has resulted in record numbers of high school students continuing on to four-year colleges after graduation. The result has been an increase in accidental fires in both on-campus and off-campus housing at four-year colleges.

The problem is the Evesham Fire-Rescue Department (EFD) does not provide college fire safety education to local high school seniors preparing to go onto college. The purpose of this research will be to identify the components of a college fire safety program for local high school students that will prepare them to be fire safe while living away at college.

The research will utilize an action methodology in an attempt to solve an existing problem and will be completed by meeting with local school district officials, surveying first year college students, researching the New Jersey educational requirements for high school students and contacting the public safety departments at four-year colleges. I will also contact other fire departments to determine if they provide college fire safety education to high school students, and if so, what the content of their programs are.

The research questions that were used to guide this study include determining:

1. What are the requirements in New Jersey, if any, for fire safety education at the high school level?

2. What type of college fire safety education are four-year colleges providing first year students as part of their freshman orientation programs?
3. What are the components of successful college fire safety programs for high school seniors being used by other fire departments?
4. What organizations nationally are dedicated to providing information about college fire safety education?

Finding the answers to these questions and then making recommendations to improve my fire department and my community will be the basis for this applied research project.

### **Background and Significance**

The Evesham Fire-Rescue Department is a combination Fire-EMS department with career personnel and approximately 100 volunteer personnel. The career staff includes the Chief of Department, an Assistant Chief, a Deputy Chief, two Captains, four Lieutenants, and twenty-two Firefighter-EMT/Inspectors. In November 2014, we completed a hiring process that added four additional Firefighter-EMT/Inspectors bringing us to the current totals above. We are currently undergoing an additional hiring process to add two additional Firefighter-EMT/Inspectors to offset anticipated retirements in 2015. The volunteer staff has both Firefighters and EMTs, many of which are cross-trained in both certifications. Their supervisory ranks include Deputy Chief, Battalion Chief, Captains and Lieutenants, in both the Fire and EMS divisions.

The career staff provides primary coverage Monday through Friday during the hours of 0700-1800 (plus one BLS crew working from 0500-1600 on weekdays) and the volunteer staff provides primary coverage weeknights from 1800-0700 hours, all weekends, and major holidays. The department also provides fire code enforcement, public education and technical rescue

services (Evesham Fire-Rescue - About Us, n.d.). The department responds out of three stations strategically located throughout the community of 48,000 residents living across 30 square miles. Our township operates under the Faulkner Act utilizing a Council-Manager form of government. The community is primarily residential, but also includes several commercial/retail properties situated along two state highways and also a large area of wildland-urban interface.

Evesham Township students attend Kindergarten through 8<sup>th</sup> grades in by the Evesham Township School District (ETSD). The ETSD as of October 2014 had 4,554 total students, attending seven elementary schools (K-5<sup>th</sup> grades) and two middle schools (6<sup>th</sup>-8<sup>th</sup> grades). ETSD is one of the largest K-8 school districts in the state of New Jersey. The school district employees 921 staff members including teachers and other certified staff, support and other non-certified staff, and Administrators. The ETSD has a 2014-2015 General Fund Budget of \$69,648,464. The school district has a student to teacher ratio of 12.6 and a total budgetary cost per pupil of \$12,827 (Evesham Township School District, n.d.).

Evesham Township students attend Cherokee High School, which is a part of the Lenape Regional High School District (LRHSD). The LRHSD serves eight municipalities including Evesham, Medford, Mount Laurel, Shamong, Southampton, Tabernacle and Woodland Townships, as well as Medford Lakes Borough. Each municipality has its own elementary school district. The district has four high schools including Cherokee North and South, Lenape, Shawnee and the newest is Seneca, which opened in 2003. The LRHSD is one of the largest regional high school districts in New Jersey with a total student enrollment in 2013 of 7,062 students (Lenape Regional High School District, n.d.).

New Jersey is known for having one of the highest property tax rates in the United States. This continues to be a challenge for every governor at the state level and directly impacts local

municipal officials and their budgets. Evesham residents pay one of the highest local property tax rates in Burlington County, but also enjoy outstanding municipal services and a very strong local educational system. Of local the property tax bill for 2014-2015, the municipal budget represents 16%, the Evesham Township School District represents 40%, the Lenape Regional High School District represents 23%, Burlington County taxes are 14% and the local fire district tax is 5%. Evesham Township residents spend 63% of the total local property taxes on education funding for the local and regional school districts (Philly.com).

Evesham residents will proudly tell you that they moved to the community or they continue to stay in the community because of success rate of its school system. For example, the ETSD has 82% of its 2<sup>nd</sup> graders promoted reading on grade level, while the graduation rate of the LRHSD Class of 2014 was 96.4%. Realizing this, it is incumbent upon the Evesham Township Fire District to try and provide additional value by partnering with the school system to provide additional fire safety education beyond the 5<sup>th</sup> grade level where opportunities for this exist. This opportunity could be high school seniors that are graduating and going onto college.

Additionally, graduating high school seniors become adult members of the community and either go into the workforce or go on to college. In either case, they return home to the community and their actions as young adults can be the cause of fires in the community, especially with regard to careless smoking and also cooking fires. In addition, graduating high school seniors may also return to the community after joining the workforce and after completing college and live in our community in either rental apartments or purchase a home. While we have always focused most of our department's prevention efforts on school age children below the 5<sup>th</sup> grade and also senior citizens, providing additional fire prevention outreach for high school seniors could potential help to reduce fires in our community overall.

This research paper is a part of the Executive Analysis of Community Risk Reduction course from the second year of the Executive Fire Officer Program at the National Fire Academy in Emmitsburg, Maryland. The research paper will make use of the information shared in this two week course with great emphasis on the modules about assessing community risk, leading organizational and community change, and organizational and community politics (U.S. Fire Administration, 2013). The results of the research paper will allow me to address a current problem in my department and my community, while providing us with the solutions to resolve this issue, thereby making us a better organization and a safer community.

The research paper will also support one of the five major strategic goals of the United States Fire Administration (USFA). The research paper will specifically focus on USFA Strategic Goal 1: Reduce fire and life safety risk through preparedness, prevention and mitigation (Appendix A-2). As a future chief officer in my department, I have the responsibility to ensure that we continually identify new opportunities to provide fire prevention education to all ages of residents, not just elementary school students. This is important to ensure the continued success of our organization and reduce risk in the community that we serve.

### **Literature Review**

A literature review was conducted to locate information that would help me to answer the research questions in this paper. Answers to the research questions are the driving force behind reaching my final recommendations. The sources of information that follow will be current and comprehensive, and will be used to show what other people have said and published about the topics covered in my research questions.

After searching the internet to try and determine what if any legal standards existed in New Jersey governing our state educational system, I discovered that the N.J. Legislative

Statutes do in fact govern education, learning, and our school systems. Specifically New Jersey Legislative Statute 18A provides legislation over what topics must be covered in the school districts statewide and in what grades they must be covered. The New Jersey Core Curriculum Content Standards for Comprehensive Health and Physical Education were created to make health literacy an integral part of 21<sup>st</sup> century education. This is part of the state's initiative to prepare students to function optimally as global citizens and workers (N.J. Standards for Education, Subchapter 18A. Education). These standards require many topics to be part of the learning process including Cancer Awareness, Domestic Violence Education, Bullying Prevention Programs, Gang Violence Prevention to name a few.

New Jersey Statutes Annotated (N.J.S.A.) 18A:6-2 requires instruction in Accident and Fire Prevention shall be given in every public and private school in N.J., and that instruction be adapted to the understanding of students at each grade level. Also N.J.S.A 18A-35 requires that all students in grades 1-12 participate in at least 2.5 hours of health, safety, and physical education in school each week (Appendix A-1).

The National Fire Protection Association (NFPA) has identified fires in college campus dormitories and off-campus housing to be a significant problem in the United States. The NFPA has dedicated an entire section of website to Campus and Dorm Fires. Research by the NFPA has concluded that between 2007-2011, U.S. fire departments responded to an estimated average of 3,810 structure fires in dormitories, fraternities, sororities, and barracks. These fires resulted in an average of 2 fatalities and 30 injuries each year, as well as \$9.4 million in direct property damage (NFPA, Campus Dorm and Fires). During this same time period, cooking equipment was involved in 84% of dormitory fires. Other common causes included trash/rubbish fires, intentionally set fires, portable heating equipment, and also electrical distribution and lighting

equipment. These structure fires occurred most commonly during the evening hours between 5pm-11pm and also on weekends (Appendix A-4).

The United States Fire Administration (USFA), a division of the U.S. Department of Homeland Security residing under the Federal Emergency Management Agency (FEMA), has as a part of its mission to reduce the threat of fire to citizens nationwide. The USFA has also identified that fires on college campuses and off-campus housing is a serious problem nationwide. They have also dedicated an entire section of the USFA website to outreach materials for campus fire safety (USFA, Campus safety outreach).

Some of their findings on this topic include that since 2000, 86 fatal fires have occurred on college campuses, in Greek housing, or in off-campus housing within 3 miles of the campus. These fires have claimed a total of 123 lives. More than 80 percent of campus fire fatalities occur in off-campus housing. This statistic has a direct impact on prevention, planning and response activities for fire and ems agencies located near colleges and universities (Appendix A-3).

Even the U.S. Consumer Product Safety Commission(CPSC) has recognized the problem of fires occurring at college campuses in both on-campus and off-campus housing. In an issue of the USFA Topical Fire Report Series about University Housing Fires, the CPSC provides some very relevant statistics based on their research about these fires and their connection with cooking and appliances. The CPSC discovered that there was a significant increase in dormitory and university housing fires between 1990 and 2005. The number of reported fires went from 1800 in the late 1990s to 3,300 per year in 2005. This could be directly attributed to college students bringing more high-powered electrical equipment and appliances from home to make their stay at college more enjoyable. The problem being that these items can be dangerous



when they are used incorrectly or when they are left unsupervised, especially in dorm rooms and common areas in residence halls. The CPSC also reported that fires are more common to occur during the evenings and weekends when most students are in residence halls. While the largest majority of fires occur due to cooking incidents, the highest number of fire deaths occur in bedrooms and sleeping areas. Cooking incidents were the cause of fires 88% of reported fires on college campuses between 2007-2009 (USFA, Topical Fire Report, 2011).

In 2007, a joint effort was done nationally between the CPSC, the USFA, the NFPA and the University of Maryland's Fire Marshal to educate students, parents, and college administrators across the Nation to be aware of the fire hazards in the college setting and take precautions. In 2008, a revision to the Higher Education Opportunity Act (HEOA) by Congress now requires that universities and colleges with on-campus housing to publish annual fire safety reports and also maintain a fire reporting log (USFA, Topical Fire Report, 2011).

This revision above is also referred to as the Campus Fire Safety Right-To-Know Act. The requirement for a fire safety log must capture data about on-campus fires and report them to the federal government. The regulations provide the institution must distribute an annual fire safety report that is similar to the requirements for an annual campus security report under the Clery Act. The Clery Act was legislated into law in 1990 after the death of 19 year old Lehigh University Jeanne Clery, who was raped and murdered in a campus residence hall in 1986. Her case triggered a huge outcry nationwide about campus crimes not being reported to students on campus. The Clery Act originally focused on mandates for colleges and universities to publish weekly and annual reports concerning criminal incidents on campus, but the act was later revised in 2008 as part of the revisions to the HEOA to include incidents of fire on campus, as well as

include mandates for emergency response planning and notifications campus wide (The Clery Center).

In a recent article in *NJ Fire Magazine*, a story appeared about a recent presentation that was done on the campus of Caldwell University about college fire safety. The presentation was given by Alvaro Llanos and Shawn Simons, who were burn survivors from the Seton Hall dorm fire on January, 19, 2000 in New Jersey. Attending the presentation were not only students from Caldwell University, but also high school students from West Essex, James Caldwell and Mount Saint Dominic Academy. Also attending the presentation were fire officials from around New Jersey. Llanos and Simons spoke to the large audience about the tragic fire at seton hall and told their messages about fire safety, hope, perserverence, friendship and overcome adversities they had faced recovering from their severe burns. Following the presentation a student who is a senior at Caldwell University said, “You think it could never happen, but it could.” This reinforces that most college students are not aware of the fire safety problem on college campuses and in off-campus housing in the United States (NJ Fire Magazine, April 2015)

On May 27, 2015, I had the opportunity to attend a presentation given by Alvaro Llanos and Shawn Simons about their experiences at the tragic Seton Hall University dorm fire. The presentation was held at Cinnaminson High School in Cinnaminson, New Jersey to the entire senior class and their teachers. For ninety minutes I saw more than 100 high school seniors locked in on on the two speakers and intently listening to their story. There was no side conversations, no one texting or using their phones, and no one left to use the restroom. Several students asked questions following the presentation and then I had an opportunity to meet Simons and Llanos and thank them for their presentation that day. They deliver their

presentation hundreds of times each year to high school students, college students, parents and fire officials around the country.

There is a book published about the Seton Hall University dorm fire that I purchased at the presentation in Cinnaminson. The book is entitled *After The Fire – A True Story of Friendship and Survival* and is a national best seller. The book is a documentary written by Robin Gaby Fisher who is a nationally acclaimed news feature writer with the *Star-Ledger* in Newark, New Jersey. Her book chronicles the story of the Seton Hall dormitory fire that killed three students and injured 58 others on January 19, 2000. This fire is one of the most widely know tragedies to occur in a college or university setting in the United States (Fisher, 2010).

The book tells the story of survival of Shawn Simons and Alvaro Llanos who were living on the floor in the dormitory where the fire occurred. The two men discuss how that because they had not practiced exit drills while living at college, the night of the fire they exited their dorm room at the sound of the fire alarm and crawled down a smoke filled hallway *toward* the seat of the fire, which occurred in a common area lounge near the elevators in the center of the floor. This despite the fact that there was an exit stairwell just a few doors to the left of their dorm room. Instead they crawled down the smoke filled hallway in an attempt to escape the building going the same direction that they used daily to leave and return to their dorm room.

The book goes on to tell the story of their lengthy recovery from their burns, the doctors and nurses who cared for them during recovery, the lengthy criminal investigation and court proceedings that followed once to student suspects were identified as having set the fire as a “prank”, and about the two young women that loved these two men and supported them in their return to a normal life. This book was a valuable source during the literature review portion of

research and I would encourage others interested in the topic of college fire safety to purchase and read it (Fisher, 2010).

Another source of information for my literature review was The Center for Campus Fire Safety. The Center for Campus Fire Safety (The Center) is a non-profit, membership based, organization devoted to reducing the loss of life from fire at our nation's campuses. The Center serves as the focal point for the efforts of a number of organizations and also as a clearinghouse for information relating to campus fire and life safety. On their website they publish statistics related for fires on or near college campuses. They have found that between January 2000 and October 2014, there have been 89 documented fatal fires that occurred on college campuses, in Greek housing or in off-campus housing within 3 miles of the college campus. These fires claimed a total of 126 victims. 107 of these victims died in off-campus housing, 9 victims have died in on-campus housing, and 10 victims have died in Greek housing. Of the 89 fires, 14 were intentionally set claiming 22 lives, 38 were accidental in nature (cooking, candles, smoking, and electrical) and claimed 51 lives and 37 fires the cause was undetermined claiming 53 lives. The Center has been collecting data since January 2000 (The Center for Campus Fire Safety).

An additional source in my literature review was the website for Campus Firewatch, which started in January 2000 as an electronic newsletter concerning the topic of college fire safety and has now evolved into a coalition of school officials, fire service officials, government officials and parents who are concerned about campus fire safety in the United States. Campus Firewatch publishes a Campus Fire Safety Information Sheet which provides a listing of significant, multiple-fatality fires at colleges in the United States. Just a small representation of these multiple-fatality fires are shown below :

- 1/19/00 Seton Hall University

3 killed

- 4/13/03 Ohio State University 5 killed
- 1/13/07 Marshall University 5 killed
- 10/28/07 University of South Carolina and Clemson 7 killed

Also on their site is a running log of all college campus related fire fatalities known around the United States. This log includes both on-campus and off-campus fires within a few miles of the local college or university campus and includes a synopsis of what occurred at each fire (Campus Firewatch). The most recent incidents as of 6/10/15 include single fire deaths at:

- Purdue (IN) University (off-campus, 4/24/14)
- Mitchell (SD) Institute of Technology (off-campus, 4/24/14)
- Albright (PA) College (off-campus, 4/24/14)
- Western Kentucky University (off-campus, 10/31/14)
- Georgetown University (off-campus, 6/3/15)

In summary, the results of my comprehensive review of what other people have said about the topic of college fire safety are that this topic is relevant and needs to be addressed by students attending college, their parents, the college/university safety and security staff, fire departments that serve colleges and universities, and also local fire departments with high schools in their response district. This is especially true locally since in 2013, of 3.0 million students who graduated high school nationwide, 2.0 million or 66 percent immediately enrolled in colleges by October of that year (National Center for Education Statistics). The problem of fire safety on college campuses has been recognized by both the NFPA and the USFA. The findings of my literature review have provided answers to my research questions and supported this applied research project.

### **Procedures**

The procedures section of the research paper discusses the steps taken to arrive at the final results of the study. It will define what was done, when it was done, who did it, and who was involved. The procedures section will allow another member of the fire service to replicate the research if they have a similar challenge in their fire department related to my research topic.

This process started while I was still at the National Fire Academy (NFA) for the Executive Analysis of Community Risk Reduction (EACRR) course in February 2015 (USFA, 2013). During that time, I visited the Learning Resource Center (LRC) on campus and utilized the electronic catalog to find sources of information, which include books, journal articles, and other Executive Fire Officer Program (EFOP) research papers. The LRC staff at the NFA Campus was very helpful during the times that I visited the LRC to locate sources. Once I returned home, I continued to review other sources of information including New Jersey Statutes, journal articles, websites and interviews with fire service officials, school officials and a college student who resides in Evesham Township that experienced a dormitory fire first hand.

When I returned from the EACRR course, the first research question I wanted to answer was, “What are the requirements in New Jersey, if any, for fire safety education at the high school level?” This led me to contact our local high school and interact by email with Principal Donna Charlesworth. Principal Charlesworth provided me statistics for Cherokee High School for the number of juniors and seniors at the high school for years 2011-2014. She also provided the graduation rate for the senior classes for each of those four years. I discovered that our local high school graduates approximately 600 students each May and that an average of 98% going on immediately to college. Principal Charlesworth was also able to direct me to search for New Jersey Statute Title 18A – Educational Standards that would lead me to require curriculum topics

for students in New Jersey at all grade levels. Additionally, a review of the Annual New Jersey School Performance Report published for every school district in the state showed that Cherokee High School's academic performance is listed as *very high* when compared against all other high schools in New Jersey, scoring in the top percentile in all areas of the report. Principle Charlesworth was very supportive of my research work and stated that any future programs for college fire safety education would be delivered as part of the school's Health and Education curriculum.

The second research question I wanted to answer was "What type of campus fire safety education are four year colleges providing first-year students as part of their freshman orientation programs?" I first created an online survey tool using the website *surveymonkey.com*. The survey I created is included in the appendix of this research paper (Appendix A-9). I sent the link as part of an email explaining my research project to coworkers, members of the volunteer staff in my department, our county fire chiefs association of which I am a member (Appendix A-6), and to our county fire marshals association of which I am also a member. In addition, I also sent to the email about my survey through the students currently enrolled in the EFO program through the assistance of Angie Krantz, EFO Program Assistant at the NFA.

In my email, I explained that I was conducting a research project about college fire safety and I wanted to survey college students about what fire college safety education they have received at either the high school or college level (Appendix A-9). I asked the groups above to forward my email with the link to the survey to their sons and daughters, or family and friends who had children currently away living at college. This provided me a large potential pool of respondents for my survey. The survey was posted for three weeks and collected info from 45 respondents to the survey.

I also conducted an interview by email with the daughter of my retired coworker Ron Snyder from EFD. Ron spent the last several years of his career with our department assigned to our Fire Prevention Bureau. He was a tremendous asset to our organization, especially in the areas of code enforcement/fire inspections and for leading all of our public education efforts in the local school system. When Ron heard about my research project, he suggested that I contact his daughter who had experienced a fire in her dormitory during her freshman year while attending college in South Carolina in 2013. His daughter was traumatized by the incident and what she perceived to be a poor response by the college public safety staff and the lack of follow up after the fire by the university staff. As a result she ended up leaving that college and attending college elsewhere.

The fire occurred in an adjoining room in her suite when another female student returned from a night of partying and came back to find a table lamp turned on in her dorm room. The female student was under the influence of alcohol and was unable to figure out how to turn off the light, so she removed the lamp shade and put the lamp underneath a pillow to darken the room. The lamp then began to burn the pillow and created a smoke condition in the entire suite and onto the residence hall floor. A copy of my email interview questions and her responses are included in the appendix of this report (Appendix A-8). The name of the college and the local fire department that responded were blocked out by the author of this research paper.

My third source of information for my second research question about fire safety education for first-year college students was to send a letter to the public safety office of 30 colleges and/or universities listed in the US News and World Report 2015-2016 Best Colleges and Universities Report (US News & World Report, 2015). From this expansive report online, I selected 10 national public colleges, 10 national public universities, and 10 regional universities



from the Northeast. After making my 30 selections, I went to the website of each of them and found links to their campus public safety office, sometimes also referred to as the Environmental Health and Safety Office. Within these you can locate someone who is responsible for fire safety on the campus. I sent this person an email with a letter attached on my fire department letterhead (approved by our Assistant Fire Chief) explaining my research project and asking six questions about fire safety programs on their college or university. Unfortunately this process was very time consuming and I did not receive many replies from the people it was sent to. A copy of my letter sent to the randomly selected college and university fire safety officials is in the appendix of this research paper (Appendix A-7).

My third research question to answer was “What are the components of college fire safety programs for high school seniors being used by other fire departments?” To answer this question I would send out an email explaining my research project and include five questions to other fire departments and fire officials in New Jersey. The five questions were:

1. What does your department's college fire safety program for HIGH SCHOOL SENIORS entail? (PowerPoint, case study, videos, interactive discussion, etc.)
2. How often does your agency deliver this training program to local high school students?
3. How long has your department been delivering this training?
4. Does your department have a college or university with housing in your response area? (yes or no)
5. Has your department seen any tangible results related to accidental fires since you began delivering this training program to high school students?

I sent this email with the five questions to the President of the Burlington County Fire Marshals Association, which is the county where my fire department is located and where I reside. I am also a member of this organization. Additionally I sent the same email with five questions to our N.J. Division of Fire Safety and asked their representative to forward the email on to all Fire Officials (code enforcement/fire investigation bureaus) registered in New Jersey. I

also sent the same email through the EFO Program students with the assistance of Angie Krantz, EFO Program Assistant at the NFA. I received great feedback and several responses from other fire service professionals from both in New Jersey and around the country. Their responses helped me answer my third research question.

Additionally, I was advised by the President of my county fire marshals association that the Cherry Hill Fire Department (CHFD) in neighboring Camden County had a college fire safety education presentation that they deliver to the senior classes at both Cherry Hill East High School and Cherry Hill West High School. To find out more about their program I contacted their full-time public education officer Tammy DeLucca and requested to interview her. Tammy and I met at CHFD Central Command Office on June 4, 2015, where we reviewed her program and went over the same five survey questions that I sent out by email to other fire departments as discussed in the preceding paragraphs of this section. Tammy was extremely helpful and also explained to me that she had previously met with officials from the Cranford Fire Department in New Jersey to review their presentation for high schools seniors as a resource to creating the CHFD presentation.

My final research question was “What organizations nationally are dedicated to providing information about college fire safety education?” My research online first led me to the NFPA and USFA, which I didn’t know had specific statistics and public education materials on the topic of college campus fire safety. The two organizations are both nationally recognized clearing houses for fire safety statistics and education materials. Additionally, I found a few private foundations dedicated to data collection raising awareness and providing training and education programs about college fire safety.

The Center for Campus Fire Safety is a non-profit, membership based organization dedicated to reducing loss of life from fires on our nation's campuses. For additional information, go to [www.campusfiresafety.org](http://www.campusfiresafety.org). Campus Firewatch began originally as an electronic newsletter about college fire safety and has since grown into a full organization dedicated to partnering different community groups together to raise awareness about college fire safety. For additional information, go to [www.campus-firewatch.com](http://www.campus-firewatch.com). The People's Burn Foundation is a 501(c) 3 non-profit, was created by Della Wright, a burn survivor from Indianapolis, in memory of the loss of two of her three children in a 1991 apartment fire. The non-profit is dedicated to assisting those affected by fire and burn injuries. Their website has an entire section dedicated to college fire safety. For additional information, go to [www.pbeducation.org/home](http://www.pbeducation.org/home). The Michael H. Minger Foundation was founded after the death of Michael Minger in an arson fire at Murray State University in Kentucky. The Minger Foundation promotes Campus Fire and Life Safety through education, always knowing two ways out of any building, the use and importance of working smoke alarms, and the importance of living with automatic fire sprinklers. For additional information, go to [www.mingerfoundation.org](http://www.mingerfoundation.org).

Some limitations to my procedures is while email is the fastest way to reach people and receive the information you are looking for, many times emails are lost or accidentally deleted by the receiver of the email. In my research to campus safety officials at 30 colleges and universities, I only received replies from a few of them. So while I used the contact person's name and email address as provided in the college or university website, my email was either deleted or not received by the person that I sent it to seeking information about what fire safety education their institution was providing first year students. Possibly they were afraid to reply to

my inquiry for fear it would expose their institution to liability if they were not meeting requirements for fire safety awareness on college campuses as required under the Cleary Act.

Another limitation of my survey instrument that was sent to college students was that they must be currently attending a four-year college or university where they reside in on-campus or off-campus housing. I was not including commuter students or students attending two-year colleges, which typically do not offer housing for students.

Another limitation of my procedures was that because my survey instrument allowed the students to answer my questions anonymously, I do not have a way to contact them if I wanted to get additional information related to the college or university that they attend. For other researchers in the future I would suggest providing a question that allows them to provide a contact email or phone number for follow-up.

## **Results**

The results section includes findings from the original research that I conducted and the resulting data collected. My first research question was to determine if there were any requirements for fire safety education at the high school level in New Jersey. In fact there are requirements under New Jersey Statute 18A- Education Standards, more specifically NJSA 18A:6-2 Instruction in accident and fire prevention (Appendix A-1). The statute states that regular courses of instruction in accident prevention and fire prevention shall be given in every public and private school in this state, which instruction shall be adapted to the understanding of several grades and classes in these schools. This provides a way to get into our local high school to provide a college fire safety presentation to the senior class. The challenges are establishing point of contact with school district administrators and making them understand the importance of including college fire safety education in their curriculum. Once you overcome

these two challenges, then it's just a matter of determining where it fits in to the academic year. Typically fire safety education would fit into health classes or home economics or cooking classes.

For my second research question concerning what fire safety education was being provided to first year students at college, I conducted an online survey of current college students, interviewed a college student who experienced a fire in her dormitory in an adjoining room and contacted public safety officials from colleges and universities around the country (Appendix A-9). Out of 45 respondents, 78% lived in on-campus housing and 22% lived in off-campus housing. With regard to where they were attending college, 11 were in New Jersey, 9 were in Pennsylvania, 1 was in Delaware, 1 was in New York and 22 were from other states. The respondents were not asked to identify their institutions.

When asked how many received fire safety education during their freshman year at college, 65% replied no while 35% replied yes. Of those 18 respondents who replied yes they had received some sort of fire safety education, 56% were delivered by residence hall staff, 17% were delivered by local fire service personnel, and 27% were delivered by campus public safety personnel. Of the 35% that did receive any fire safety education, 36% was delivered in the form of discussion, while handouts, cases studies and videos/internet technologies were each used only 4.5% of the time. When the respondents were asked how many had received college fire safety education in high school, 47% or 21 had said yes they did receive and 53% or 24 said no they did not receive any college fire safety education at high school.

When I interviewed the daughter of my coworker who had recently experienced a fire while living away at college, she stated that she received limited fire safety education during freshman orientation which was delivered by the head of campus safety in a large group format

of all freshman students. They had practiced fire drills from the dormitory prior to this fire occurring. There was no follow-up fire safety education offered to the residents of the dorm following the fire incident that had occurred.

Of the 30 college and university public safety offices that I sent emails to asking about their freshman orientation programs and fire safety, only a few ever responded. Those that did stated that they provide no fire safety education at all beyond information about exit drills in the event of a fire alarm and how to contact campus police in the event an emergency. Those that did provide any fire safety education at all to incoming students did through short group discussion and handing out a fire safety education flyer or pamphlet. These were typically left behind by the students or discarded on their way out from the presentation. Responses that I received from other fire service professionals with college campuses in their response districts told me that typically the residence hall staff or campus safety personnel normally handle fire safety education for incoming students and do not involve the local fire department.

A few fire service professionals that responded to my requests for information who do have successful fire safety programs for incoming students on college campuses in their response district described two methods that make the biggest impression on first year college students. The first method is doing a mock dorm room live burn. This is done on the college or university campus and involves building two identical burn cells side by side and filling them with furniture to replicate a typical college dorm room. One burn cell is piped to have a sprinkler head in the center of the room and is supplied with water. The other burn cell has no suppression inside of it. Both cells are lit on fire and students actually see the potential destruction of fire in the college setting (Center for Campus Fire Safety). The second method that fire service professionals around the country have had success with for fire safety education of first year

college students is working with the college or university to bring in Shawn Simons or Alvaro Llanos to deliver the “After the Fire” presentation about the Seton Hall fire tragedy that occurred on January 19, 2000. This presentation is discussed above in this research paper in greater detail. For those that are unable to bring Shawn and Alvaro to their local college or university, their presentation is now available on DVD and can be used by residence hall staff or local fire department officials to educate college students (After the Fire).

My third research question asked what were other fire departments doing who have successful college fire safety programs targeted toward high school seniors. Through interviews with a local fire department public education officer and also emails sent out to New Jersey fire officials and fire service professionals in the Executive Fire Officer program, I was able to find some interesting results. In most cases, fire service professionals told me they do not currently have a college fire safety program for their local high school. They all agreed that this is something that is needed and something that they are working to develop. The challenges again were getting local school officials to “buy-in” that this is a necessary topic for their school district and then secondly where can they fit it in to an already crowded school curriculum. Knowing your state’s laws regarding education and curriculum is especially important because there may be educational mandates in your state that requires them to provide fire safety education.

Fire service professionals that either I met with locally or who replied to my email indicating that they did have a program for local high school seniors, were all using an interactive presentation format in PowerPoint with videos inserted, combined with interactive question and answer group discussion. They all said that they met with local school officials to achieve “buy-in” and then identify what time of year the program would be delivered, what time

frame they had to fit the presentation into, which was typically the length of their normal class periods. In addition, local fire officials had to decide with school district officials whether it would be best to deliver the college fire safety program as a large group assembly to the entire senior class or would it be more effective to deliver it multiple times across the school day to individual classrooms of students.

Each fire service professional who felt that they have a successful college fire safety program for high school seniors told me that the keys to success are keeping videos short, involve the audience with questions about fire safety, and use case studies of actual fires that occurred on college campuses. My research found that other fire service professionals gladly shared with me their presentations to use as models for developing a program for my own fire department if we chose to create one.

During my research about components of successful college fire safety programs, I discovered a matrix on the website [campus-firewatch.com](http://campus-firewatch.com). The matrix is entitled *Education Strategies for Campus Fire Safety* (Appendix A-10). The matrix lists 10 things to try with developing fire safety outreach. The matrix includes ten strategies, their return on investment (ROI), the effort needed by the person delivering the strategy, and a description of each strategy. Strategies include things like fire safety articles, fire extinguisher training, demonstration burns, videos and twitter. The matrix explains that the key to any good program is not to rely on one strategy but to use multiple strategies throughout the year to reinforce good fire safety habits.

For my final research question concerning what organization nationally are dedicated to providing information about college fire safety education, I found that there are a few good sources of information that are looking at college fire safety education on a national level. These include The Peoples Burn Foundation, The Michael H. Minger Foundation, The Center for



Campus Fire Safety, Campus Firewatch, the USFA and the NFPA. Each of these sources provides statistics and case studies, outreach materials, videos, information about fire safety legislation, and other downloadable resources. Each of these sources is included in the reference list at the end of this research paper. Before conducting this research, I was unaware of any of these as sources for college fire safety information.

### Discussion

The purpose of the applied research project was to identify components of a college fire safety program for local high school students that will prepare them to be fire safe while living away at college. In the discussion section, I will review and analyze the results of my research, including what others have said about my topic, things that I have discovered through my original research, and what the impacts are for my own organization.

All of the literature I reviewed confirmed that residential fires at colleges and universities, in both on-campus and off-campus housing, are a problem in the United States. While our mission as a fire service has expanded dramatically in the past 20 years, every fire department is responsible at the most basic level to protect property and save lives. One element of that is to prevent fires through fire safety education outreach. At the national level, the United States Fire Administration has established as Goal 1: Reduce Fire and Life Safety Risk Through Preparedness, **Prevention**, and Mitigation (Appendix A-2). Two key initiatives under this goal are:

1. Expand fire and life safety public education and prevention initiatives, including the use of social media, to reach **all segments** of the population.
2. Work with stakeholders to identify, promote, and offer programs and training to encourage **“whole community” preparedness, prevention, and mitigation planning.**

In my case, high school students are a segment of our population in Evesham Township that we are not currently reaching with fire safety education. Like most fire departments in the United States, we tend to focus our fire safety education toward the primary fire risk groups of the young and the elderly. This is usually a result of limited resources, including personnel and money, to deliver additional fire safety programs to other groups in the community.

Using our own EFD statistics to confirm this, in 2014 our department visited 3,183 public school children delivering fire safety education to grades K through 5 in eight public schools. Adding in private kindergartens and preschool programs, we educated another 532 children. While this is admirable and better than many other fire departments of similar size, we are still missing target efforts for fire safety education to children, teenagers and adults.

I also know from my attending the class *Executive Analysis of Community Risk Reduction* at the National Fire Academy, that the most effective risk reduction strategies are those that employ a broad-based integrated approach that uses multiple prevention interventions. The Five E's of Prevention – A New Approach include: **Education**, Enforcement, Engineering, Economic Incentive and Emergency Response (Appendix A-11). We know that of these strategies, **Education** intervention influences behavior by raising awareness, providing information and knowledge to produce a desired behavior. Developing and delivering a college fire safety locally to high school seniors will help to raise awareness and influence behavior of Cherokee High School students that are continuing on to college.

The Lenape Regional High School District at Cherokee High School is recognized in New Jersey as exceeding all state level education requirements and having a high number of students that graduate and continue on to four year colleges and universities. Using statistics provided by the administrators at Cherokee High School (CHS), for the years 2011-2014 CHS

graduated an average of 600 students annually with a 97% rate of students continuing on to college in the fall. This confirms that we do have a segment of our population that would benefit from a college fire safety education program. In addition, our department could deliver a separate program for parents of these students on how to look for fire safety features when visiting colleges with their son or daughter. The same program for parents would allow us to deliver fire safety education about preventing cooking fires, which is the leading cause of residential fires nationwide and also the leading cause of fires in university housing.

In 2013, U.S. fire departments responded to 369,500 home structure fires. These fires caused 2,755 deaths, 12,200 civilian injuries, and \$7.0 billion in direct damage. Cooking fires is the leading cause of home fires, followed by heating equipment (NFPA). By comparison, the USFA determined that an estimated 3,800 fires occur in university housing each year, with 88% of those being cooking fires (USFA). An average of 10 students die annually as a result of campus related fires (Campus Firewatch).

A review of what other fire departments are doing for high school fire safety showed that many are not providing this type of education. Those fire department who are delivering successful programs at the high school level face challenges of competing for presentation time in the already crowded school day and then developing a program that creates an impact and grabs the attention of students.

The good news is that there are solid resources in the U.S. to help a fire department develop a college fire safety education program for high school students in their community. Statistics, case studies, videos, pamphlets and brochures, and even sources for presentations given by survivors of fires that occurred at college can all be found online. National organizations like the Peoples Burn Foundation, The Michael H. Minger Foundation and the

Center for Campus Fire Safety are all working to reduce fires in the college setting through legislative action and also by providing educational resources that can be used to raise awareness with the target audiences of high school seniors and college students.

### **Recommendations**

The Evesham Fire Department has been recognized as a leader in Burlington County, New Jersey for its ability to deliver a variety of services to the residents and visitors of Evesham Township, using a blend of career and volunteer personnel. These services include handling both Fire related incidents and Emergency Medical responses, fire code enforcement, public education and technical rescue services. In a period of less than 35 years, the EFD has grown substantially and now serves the largest community in Burlington County, New Jersey. The community has over 48,000 residents spread over 30 square miles.

The fire service must recognize that we can no longer effectively serve and protect our communities by being a strictly response oriented or reactionary type of municipal service. We must engage in other community risk reduction activities like fire prevention education and inspection/code enforcement activities to provide increased value to today's taxpayers who want more service for their tax dollars. Public education is one way to add value to the fire department and its role in the community.

Our department has always been active with fire code enforcement and public education. Our need for these services has continued to grow as the community has grown. Fortunately, our chief officers past and present have recognized the importance of both of these areas as a component of our mission to protect our residents and businesses. We are also fortunate that our personnel, both volunteer and career, have recognized the importance fire code enforcement and public education play in our being an outstanding fire service organization. Our career staff

conducts all fire code enforcement activities, while both volunteer and career personnel participate in public education activities such as open houses at the fire stations, providing apparatus tours to people who walk into the station unannounced with young children in tow, and providing fire extinguisher training programs to township businesses as requested.

Our department also delivers a three day summer camp type program which we call the Kids Safety Camp. Starting back in 2000, the camp has evolved from a one day camp to its current format of a three day camp, where kids who are entering 6<sup>th</sup> grade in the fall come to the fire station from 0830-1530 and learn about topics like fire safety, basic first aid and CPR, water safety, bicycle safety, stranger danger and animal bite prevention. This camp is now offered 2-3 times each summer depending on enrollment. Programs like these are not possible without the commitment of the fire department administration, the participation of the career staff and our explorer post members, and the coordination of our fire prevention office staff.

When a fire department embraces public education the way that our department has, seeking out additional opportunities for public education are a good thing for both the department and the community we serve. In this case, while our department already does an outstanding job with public education, we are still not touching all parts of the citizens we protect. My research indicates that fires on college campuses are a significant problem in the U.S., and while colleges and universities are required to publish annual reports related to incidents of fire and campus security, they are not mandated to provide fire safety education to their students. And those institutions that are providing fire safety education, in many cases provide the bare minimum when they are competing with so many other topics that have the attention of first year college students.

Since our community has a very large high school in it, which is part of a larger regional high school system that is recognized for this high student graduation rate going on to college, it is appropriate for our department to provide a college fire safety education program for our high school seniors and their parents. Our local high school in its mission statement includes that their mission is “to develop physically and emotionally healthy students who excel in an ever changing world”. Their mission statement goes on to say that one way they will accomplish this is “partnerships with families and community” (Appendix A-5). Our fire department already has established a partnership with the high school, where twice a year we provide personnel who do a presentation on careers in Fire and EMS for all junior year health classes. Our department should expand on this partnership and begin to provide a college fire safety education program for the senior class.

As a result of the findings in this applied research paper, the author makes the following recommendations:

1. The Evesham Fire-Rescue Department (EFD) must begin to take a more active role in raising awareness and providing education on the topic of college fire safety for our high school seniors and their parents.
2. Capitalizing on the school district’s mission statement and also the educational statutes of New Jersey, the EFD should meet with school district administrators and determine how to implement a college fire safety education program annually for the senior class, beginning with the 2015-2016 school year, which will begin in September 2015.
3. The author of this research paper and members assigned to the fire prevention staff should work together to create a presentation which includes:

- a. Case studies about fatal college fires
  - b. Statistics about fires on college campuses
  - c. One or two short videos of between 5-10 minutes in length
  - d. Provide a take home brochure or pamphlet on college fire safety
  - e. Discussion of the importance of escape plans
  - f. An overview of the Seton Hall fire which killed 3 students on January 19, 2000.
4. In addition to the EFD presentation given to students, work with school district administrators to bring in the *After the Fire* presentation with Shawn Simons and Alvaro Llanos annually to Cherokee High School.
  5. Meet with Lenape Regional High School District officials to expand the college fire safety education program to the other four high schools in the LRHSD including Shawnee, Lenape, Seneca and Sequoia. This would also require the support of the fire officials from the communities that host the four other high schools.

Following these recommendations will ensure that high schools seniors from Cherokee High School will be better prepared for living away from home for the first time. In addition, these recommendations will ensure that the EFD is embracing the strategic goals of the USFA and also the USFA's national "*Fire is Everyone's Fight*" campaign. Also, by providing fire safety education to high school seniors and their parents the EFD will also help to reduce accidental fires in our own community, where these students currently live and will return to live following their graduation from college.

For future readers of this research paper, I recommend that you research your state's statutes to see if they include mandates for fire safety education and at what grade levels. Then

seek out the national organizations that are addressing college fire safety that I have provided you in my reference list. Attend classes at the National Fire Academy, at the very least your state weekend program offering at NFA. For the cost of a meal plan, you'll receive some of the best education and networking that you will ever experience in your fire service career. Then travel back to Emmitsburg, Maryland each October and participate in Memorial Weekend, which honors firefighters who have died in the line of duty during the previous calendar year. It will give you a somber and chilling perspective of the seriousness of our calling to serve others. Attending Memorial Weekend the past eight years has changed by life and I will be forever grateful to Chief Ron Kanterman who gave me the opportunity eight years ago.

In closing, I'd like to thank my Chief of Department Thaddeus Lowden, for allowing me to participate in the Executive Fire Officer Program at the National Fire Academy. It has been a great experience so far and I intend to make the organization, my family and my friends proud by graduating from the program in the future. I'd like to further acknowledge Chief Lowden's many personal and professional accomplishments as he approaches his retirement date with EFD. Not the least of his accomplishments is being an early graduate of the EFO Program at NFA.

A special thanks to two retired coworkers who I proudly call my friends, Ron Snyder and Tom Horner. Ron and Tom finished out their careers with EFD in our Fire Prevention Office. Both men have a wealth of knowledge about fire code enforcement and both equally embraced the concept of community risk reduction through public education. Ron and Tom both advocated for our department developing a college fire safety education program with Cherokee High School. It is through their mentorship and passion for the fire service that I was motivated



to do my research paper on this topic and create a program that will benefit our local high school students and the community.

Finally, I would like to thank all of our firefighters, a.k.a. “the blue shirts”, at the Evesham Fire Department who work with me every day. Our people are the real reason that the organization and I continue to be successful, as well as continuously provide a high level of service to the community every day. I stand as your boss, proud to wear the EFD patch on my shoulder, and I salute each of you. I hope this research paper inspires each of you to commit yourself to a life of personal and professional development.

### References

- After The Fire.** (n.d.). <http://www.alvaroandshawn.com/>
- Campus Firewatch.** (n.d.). Campus fire safety information sheet. Retrieved from <http://www.campus-firewatch.com>
- Campus Firewatch.** (n.d.). Fatal fires log. Retrieved from <http://www.campus-firewatch.com>
- Center for Campus Fire Safety.** (n.d.). Fire fatality data. Retrieved from <http://www.campusfiresafety.org/Resources/FireFatalityStats.aspx>
- Clery Act.** (n.d.). <http://www.clerycenter.org/>
- Evesham Fire-Rescue – About Us.** (n.d.). <http://www.eveshamfire.org/about-us/>
- Evesham Township School District.** (n.d.). <http://www.evesham.k12.nj.us/Page/1>
- Fisher, R. G.** (2010). *After the fire: A true story of friendship and survival*. New York, NY: Back Bay Books.
- Home Fire Sprinkler Coalition.** (n.d.). Burn Room Demonstration Kit. <http://www.homefiresprinkler.org/index.php/fire-sprinkler-demonstration-kit>
- Lenape Regional High School District – Mission Statement.** (n.d.). <http://www.lrhdsd.org>
- Michael H. Minger Foundation.** (n.d.). <http://mingerfoundation.org>
- National Center for Education Statistics.** (n.d.). <https://nces.ed.gov/fastfacts>
- National Fire Protection Association.** (n.d.). Fast facts about fire. <http://www.nfpa.org/safety-information/fire-prevention-week/fast-facts-about-fire>
- National Fire Protection Association.** (n.d.). Campus and dorm fires. Retrieved from <http://www.nfpa.org/safety-information/for-comsumers/occupancies/campus-and-dorm-fires>

**National Fire Protection Association.** (n.d.). Dormitory, Fraternity, Sorority and Barrack Structure Fires Fact Sheet. Retrieved from <http://www.nfpa.org/research/reports-and-statistics/printable-fact-sheets>

**New Jersey FIRE Magazine.** (2015, April). Caldwell university students reflect ‘After the Fire’. *NJFireMagazine*, 37.

**NJ Educational Standards** – Title 18A Education (n.d.). <http://lis.njleg.state.nj.us>

**O’Reilly, D.** (2014, April 18). Evesham township budget holds the line on taxes. PHILLY.COM. Retrieved from <http://articles.philly.com/2014-04-18/news>

**Peoples Burn Foundation.** (n.d.). <http://www.pbfeeducation.org>

**U.S. Fire Administration.** (n.d.). Campus fire safety outreach materials. Retrieved from <http://www.usfa.fema.gov/prevention/outreach/college.html>

**U.S. Fire Administration.** (2011, Aug). Topical fire report series – University housing fires. Vol 12, Issue 9.

**U.S. Fire Administration.** (2013). Executive analysis of community risk reduction. In *Student Manual*. Emmitsburg, MD: Author.

**U.S. News & World Report** (n.d.). <http://colleges.usnews.rankingsandreviews.com/best-colleges>

 New Jersey Permanent Statutes Database 

(UPDATED THROUGH P.L. 2015, ch.68, and JR2 of 2015)

**TITLE 18A EDUCATION**

**18A:6-2. Instruction in accident and fire prevention**

**»18A:6-2 «. Instruction in accident and fire prevention**

Regular courses of instruction in accident prevention and fire prevention shall be given in every public and private school in this state, which instruction shall be adapted to the understanding of the several grades and classes in said schools.

L.1967, c.271.

**18A:6-3. Courses in Constitution of United States**

18A:6-3. Regular courses of instruction in the Constitution of the United States shall be given in all public schools and in all private schools, attendance at which is a sufficient compliance with the compulsory educational requirements of this title in this State, which instruction shall begin not later than the opening of the seventh grade in public schools and of the equivalent grade in private schools and shall continue in the high school course and in courses of State colleges and universities and the educational departments of the State and municipal institutions.

L.1967, c.271; amended 1994,c.48,s.46.

**18A:6-4. Annual report of institutions receiving State aid and private schools**

18A:6-4. The board, body or person in charge of each educational institution, except an institution of higher education, receiving support or aid from the State and of each private school shall report, annually on or before August 1, to the commissioner, in the manner and form required by him, and the board, body or person in charge of each educational institution of higher learning receiving support or aid from the State shall report in like manner to the Commission on Higher Education, such statistics relating to the conduct of such institution or school as he may require but no private school shall be required to report concerning its expenses or finances nor shall any such report made by it be published or made public.

L.1967, c.271; amended 1994,c.48,s.47.



"18A:6-2"

search

**CAUTION:** This statutory database is unannotated and include laws that have not become operable due to unma have expired, have been ruled inoperable by a court, or l become inoperable. Effective dates are not typically incl should diligently read applicable statute source law and

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### New Jersey Legislative Statutes Summary

- **Accident and Fire Prevention (N.J.S.A. 18A:6-2) requires instruction in accident and fire prevention.**  
Regular courses of instruction in accident prevention and fire prevention shall be given in every public and private school in this state. Instruction shall be adapted to the understanding of students at different grade levels.
- **Breast Self-Examination (N.J.S.A. 18A:35-5.4) requires instruction on breast self-examination.**  
Each board of education which operates an educational program for students in grades 7 through 12 shall offer instruction in breast self-examination. The instruction shall take place as part of the district's implementation of the Core Curriculum Content Standards in Comprehensive Health and Physical Education, and the comprehensive health and physical education curriculum framework shall provide school districts with sample activities that may be used to support implementation of the instructional requirement.
- **Bullying Prevention Programs (N.J.S.A. 18A:37- 17) requires the establishment of bullying prevention programs.**  
Schools and school districts are encouraged to establish bullying prevention programs and other initiatives involving school staff, students, administrators, volunteers, parents, law enforcement, and community members. To the extent funds are appropriated for these purposes, a school district shall: (1) provide training on the school district's harassment, intimidation, or bullying policies to school employees and volunteers who have significant contact with students; and (2) develop a process for discussing the district's harassment, intimidation, or bullying policy with students. Information regarding the school district policy against harassment, intimidation, or bullying shall be incorporated into a school's employee training program.
- **Cancer Awareness (N.J.S.A. 18A:40-33) requires the development of a school program on cancer awareness.**  
The Commissioner of Education, in consultation with the State school boards, shall develop a cancer awareness program appropriate for school-aged children.
- **Dating Violence Education (N.J.S.A. 18A: 35-4.23a) requires instruction regarding dating violence in grades 7-12.**  
Each school district shall incorporate dating violence education that is age appropriate into the health education curriculum as part of the district's implementation of the Core Curriculum Content Standards in Comprehensive Health and Physical Education for students in grades 7 through 12. The dating violence education shall include, but not be limited to, information on the definition of dating violence, recognizing dating violence warning signs, and the characteristics of healthy relationships.
- **Domestic Violence Education (N.J.S.A. 18A:35-4.23) allows instruction on problems related to domestic violence and child abuse.**  
A board of education may include instruction on the problems of domestic violence and child abuse in an appropriate place in the curriculum of elementary school, middle school, and high school pupils. The instruction shall enable pupils to understand the psychology and dynamics of family violence, dating violence, and child abuse; the relationship of alcohol and drug use to such violence and abuse; and the relationship of animal cruelty to such violence and abuse; and to learn methods of nonviolent problem-solving.



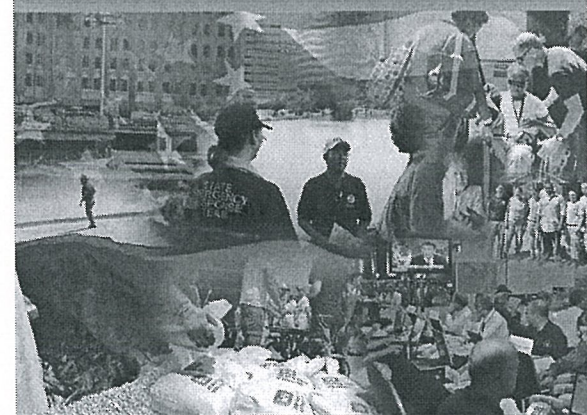
## GOAL 1:

### Reduce Fire and Life Safety Risk Through Preparedness, Prevention and Mitigation



#### Key Initiatives:

1. Encourage state, local and tribal resilience through the adoption of preparedness, prevention and mitigation strategies including code development and compliance.
2. Expand fire and life safety public education and prevention initiatives, including the use of social media, to reach all segments of the population.
3. Expand work with partner organizations, federal, state, local, tribal and nongovernment agencies to reach the public, in partnerships with organizations associated with high-risk groups.
4. Work with stakeholders to identify, promote, and offer programs and training to encourage “whole community” preparedness, prevention and mitigation planning.



# Strategic Framework



This Strategic Plan was created to help USFA achieve its vision and mission. The plan provides both strategic direction and operational focus.

America's fire and emergency services progress is greatly enhanced by USFA's efforts to take the lead on issues important to the fire service. USFA will continue to partner with fire and emergency services and stakeholders to achieve the desired outcomes outlined in this Strategic Plan. Our goals are the foundation for our work leading toward a Fire Safe America.



## **Goal 1: Reduce Fire and Life Safety Risk Through Preparedness, Prevention and Mitigation.**

The USFA programs and services contribute to significant reductions in fatalities, injuries and property loss in America. We work to reduce risk and increase resiliency through programs and training in preparedness, prevention and mitigation.

## **Goal 2: Promote Response, Local Planning and Preparedness for All Hazards.**

Every disaster response begins as a local event. To the extent that a well-prepared and trained local force responds, it remains a local event. In larger disasters, overall success depends upon the quick and seamless integration of larger state and federal support agencies. The USFA programs and training improve the effectiveness of local response and provide guidance on the integration of outside agencies.

## **Goal 3: Enhance the Fire and Emergency Services' Capability for Response to and Recovery From All Hazards.**

As a federal partner for disaster response and recovery efforts, USFA collaborates and coordinates with fire and emergency services and stakeholders to enhance capabilities, interoperability and deployment strategies.

## **Goal 4: Advance the Professional Development of Fire Service Personnel and of Other People Engaged in Fire Prevention and Control Activities.**

Through its NFA's delivery of on- and off-campus training and advocacy of a competency-based professional development system, USFA provides leadership in fire service executive and technical skills development and advocating for a single national system of training, education and professional development.

## **Goal 5: Establish and Sustain USFA as a Dynamic Organization.**

The ability to be a dynamic organization depends on the commitment of our employees. USFA employees are the means by which we achieve our vision, mission, goals and initiatives. We are committed to developing highly skilled employees to guarantee quality service to the public, promote and sustain a highly performing culture, maintain a positive work environment, and achieve organizational and individual excellence.

The following pages highlight the goals and key initiatives to accomplish in the next phase of our work. These efforts will transform this Strategic Plan from vision to our day-to-day reality.



# University Housing Fires (2007-2009)

These topical reports are designed to explore facets of the U.S. fire problem as depicted through data collected in the U.S. Fire Administration's (USFA's) National Fire Incident Reporting System (NFIRS). Each topical report briefly addresses the nature of the specific fire or fire-related topic, highlights important findings from the data, and may suggest other resources to consider for further information. Also included are recent examples of fire incidents that demonstrate some of the issues addressed in the report or that put the report topic in context.

## Findings

- An estimated 3,800 university housing fires occur each year in the United States.
- Eighty-eight percent of university housing fires are cooking fires. Small, confined cooking fires account for 81 percent of university housing fires. However, cooking fires comprise only 9 percent of nonconfined university housing fires.
- University housing fires occur most frequently in the late summer and fall, peaking in September at 12 percent. Fires in September, October, and November account for 33 percent of all fires throughout the year.
- The leading causes of nonconfined university housing fires are intentional (16 percent), other unintentional or careless actions (12 percent), open flame (11 percent), and other heat (10 percent).
- Smoke alarms were present in 85 percent of nonconfined fires in occupied university housing.

From 2007 to 2009, an estimated 3,800 university housing fires occurred in the United States each year. These fires account for approximately 1 percent of total residential building fires responded to by fire departments across the United States.<sup>1,2,3</sup> University housing fires resulted in a yearly average of 0 deaths, 25 injuries, and \$9 million in property loss.

This topical report addresses the characteristics of university housing fires reported to the National Fire Incident Reporting System (NFIRS) between 2007 and 2009 and is an update to the topical report, *University Housing Fires* (Volume 10, Issue 1, released June 2010). In NFIRS, university housing fires are considered to be fires in college and university residential buildings that include dormitories and fraternity and sorority houses.

The U.S. Consumer Product Safety Commission (CPSC) reports an increase in dormitory and university housing fires in recent years. The number of university and dormitory housing fires increased from 1,800 per year in the late 1990s to 3,300 per year in 2005.<sup>4</sup> Students bring more items from home to make their college stays more comfortable, including high-powered electrical equipment and appliances. However, the equipment can be dangerous when used improperly or left unsupervised, especially in dormitory rooms. The CPSC reported that fires are more common during the evenings and weekends when

most students are in residence halls. Most of the fires are cooking-related (hot plates, microwaves, portable grills, etc.), but the majority of deaths occur in bedrooms.<sup>5</sup> It should be noted, however, that the 1990's university housing estimates are based on NFIRS Version 4.1 data, with recent estimates based on NFIRS Version 5.0 data. There are substantial differences between the two data collection systems, and as a result, the estimates from the two systems may not be comparable. Because the two NFIRS data collection systems captured the data differently, the increase in university housing fires shown by CPSC may not necessarily reflect a true trend change.

In a joint statement in 2007, the CPSC, the U.S. Fire Administration (USFA), the National Fire Protection Association (NFPA), and the University of Maryland's Fire Marshal urged students, families, and school administrators across the Nation to be aware of the fire hazards and to take precautions.<sup>6</sup> In addition, the Higher Education Opportunity Act, passed by Congress in 2008, now requires universities and colleges to publish an annual fire safety report and maintain a fire reporting log. As part of this law, institutions must provide a description of each oncampus housing fire safety policy and sprinkler system as well as rules regarding fire safety education, training, and evacuation procedures in each residence. Along with this, universities must provide statistics on fire losses for each calendar year, as well as details on specific fire incidents.<sup>7</sup>



FEMA





## Causes of University Housing Fires

Eighty-eight percent of all university housing fires are cooking fires as shown in Table 4. The next four causes account for 7 percent of all university housing fires: intentionally set fires (2 percent), heating (2 percent), open flame (1 percent), and other unintentional, careless actions (1 percent).<sup>12</sup>

While candle fires, a subset of open flame fires, have been a major concern in university housing, they constitute half of 1 percent of all university housing fires. This may be due to the fact that only a small number of these fires are actually reported to NFIRS. This lack of reporting could be due to campus regulations banning candles, combined with the lack of data from confined fires.

**Table 4. Leading Causes of University Housing Fires (2007-2009)**

| Cause                         | Percent (Unknowns Apportioned) |
|-------------------------------|--------------------------------|
| Cooking                       | 87.5                           |
| Intentional                   | 2.2                            |
| Heating                       | 1.7                            |
| Open Flame                    | 1.3                            |
| Other Unintentional, Careless | 1.3                            |

Source: NFIRS 5.0.

## Confined Fires

Confined fires are allowed abbreviated NFIRS reporting and many reporting details of the fire are not required and not reported. These fires are small in nature and often do not cause significant injury or damage. The three major areas where data are available—time of day, month, and cause—confined fires dominate the overall university housing fire profile. Thirty-nine percent of confined university housing fires occur between 5 and 10 p.m., with the peak occurring between 7 and 8 p.m. Confined fires most often occur in the months of September, October, and November in the calendar year, and then decline throughout the rest of the academic year, with the lowest points in June and July. Cooking is the cause of 97 percent of confined university housing fires, which is not surprising given that cooking is the cause of 88 percent of all university housing fires.

## Nonconfined Fires

The next sections of this topical report address nonconfined university housing fires, where detailed fire data are available, such as equipment involved in ignition, heat source, etc. While these fires are not as prevalent as confined fires in university housing, they often cause serious injury and property damage.

## Causes of Nonconfined University Housing Fires

While cooking is the leading cause of university housing fires overall, it is only a small percentage of nonconfined university housing fires (9 percent). As shown in Figure 3, the leading causes of nonconfined university fires are intentional (16 percent), other unintentional, careless actions (12 percent), open flame (11 percent), and other heat (10 percent).



# College Campus Fire Safety

College students living away from home should take a few minutes to make sure they are living in a fire-safe environment. Educating students on what they can do to stay safe during the school year is important and often overlooked.

## SAFETY TIPS

- » Look for fully sprinklered housing when choosing a dorm or off-campus housing.
- » Make sure you can hear the building alarm system when you are in your dorm room.
- » If you live in a dormitory, make sure your sleeping room has a smoke alarm, or your dormitory suite has a smoke alarm in each living area as well as the sleeping room. For the best protection, all smoke alarms in the dormitory suite should be interconnected so that when one sounds, they all sound.
- » If you live in an apartment or house, make sure smoke alarms are installed in each sleeping room, outside every sleeping area, and on each level of the apartment unit or house. For the best protection, all smoke alarms in the apartment unit or house should be interconnected so that when one sounds, they all sound.
- » Test all smoke alarms at least monthly.
- » Never remove batteries or disable the alarm.
- » Learn your building's evacuation plan and practice all drills as if they were the real thing.
- » If you live off campus, have a fire escape plan with two ways out of every room.
- » When the smoke alarm or fire alarm sounds, get out of the building quickly and stay out.
- » Stay in the kitchen when cooking.
- » Cook only when you are alert, not sleepy or drowsy from medicine or alcohol.
- » Check with your local fire department for any restrictions before using a barbeque grill, fire pit, or chimenea.
- » Check your school's rules before using electrical appliances in your room.

## Smoking Sense

If you smoke, smoke outside and only where it is permitted. Use sturdy, deep, non-tip ashtrays. Don't smoke in bed or when you've been drinking or are drowsy.

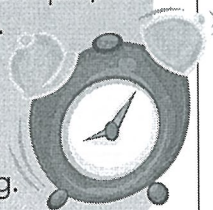


## Candle Care

Burn candles only if the school permits their use. A candle is an open flame and should be placed away from anything that can burn. Never leave a candle unattended. Blow it out when you leave the room or go to sleep.

## FACT

- ❗ Fires in dormitories are more common during the evening hours, between 5–11 pm, and on weekends.
- ❗ Roughly five out of six fires in dormitories are started by cooking.



Your Source for  
SAFETY Information

[www.nfpa.org/education](http://www.nfpa.org/education)

NFPA Public Education Division | 1 Batterymarch Park, Quincy, MA 02169



# MISSION STATEMENT

THE MISSION OF THE LENAPE REGIONAL HIGH SCHOOL DISTRICT,  
A LEADER IN PROGRESSIVE EDUCATION, IS TO DEVELOP  
PHYSICALLY AND EMOTIONALLY HEALTHY STUDENTS WHO EXCEL  
IN AN EVER-CHANGING WORLD, ACCOMPLISHED THROUGH:

- UNLIMITED EDUCATIONAL EXPERIENCES
- A CURRICULUM WHICH EXCEEDS THE NEW JERSEY  
CORE CURRICULUM CONTENT STANDARDS
- INTEGRATION OF TECHNOLOGY
- EXPECTATIONS OF HIGHER ACHIEVEMENT FOR ALL  
STUDENTS AND STAFF
- PARTNERSHIPS WITH FAMILIES AND COMMUNITY IN A  
SECURE, CHALLENGING AND ENERGIZING ENVIRONMENT



**Robertson, Michael**

---

**From:** Chiefs <chiefs-bounces@bcfirechiefs.org> on behalf of jlehmann@bcfirechiefs.org  
**Sent:** Sunday, March 08, 2015 10:27 AM  
**To:** joelehmann@cfl.rr.com  
**Subject:** [Fire Chiefs] Campus Fire Safety training  
**Attachments:** ATT00001.txt

BC Fire Chiefs :

I am currently working on a research paper for Year 2 of the Executive Fire Officer Program. The paper requires that I conduct original research on my topic, including such things as interviews and surveys. My research is about college students and whether or not they received Campus Fire Safety training either in high school or during their freshman year at college. Fires occurring in student housing at colleges is a serious problem in the U.S. This includes several fatal fires in both on-campus and off-campus housing. This problem has been identified by both the United States Fire Administration and the National Fire Protection Association. An outcome of the research paper will be to develop a campus fire safety program for local high school seniors preparing to attend college.

Each of you likely knows someone who is currently a full-time student living at college. This could be your child, the child of a friend or relative, a neighbor's son or daughter, etc. I am asking that you forward the survey link below to that person. The anonymous survey is only eight questions in length but will provide valuable information to my research. The survey will only be active until 5 pm on Friday, March 20, 2015. **Again, the survey below is directed toward students currently attending college full-time and living in either on-campus or off-campus housing at the college.**

Thank you for your assistance. – Mike

***Lieutenant Michael Robertson***

BC Fire Chiefs Association member

Evesham, NJ 08053 Cell - 609 929 2863

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

SURVEY LINK <https://www.surveymonkey.com/s/3LZXBTY>

You are receiving this email because you have requested or someone on your behalf has requested you to be added to this list. This email list is being provided as a benefit to members of the Burlington County Fire Chiefs association. If you wish to be removed from this list, send me an email to [jlehmann@bcfirechiefs.org](mailto:jlehmann@bcfirechiefs.org) ask to unsubscribe and I will remove you as soon as possible.

*Chief Joseph Lehmann, Jr. (Ret.)*

[joelehmann@cfl.rr.com](mailto:joelehmann@cfl.rr.com)

(856) 912-8628





## EVESHAM TOWNSHIP FIRE DISTRICT NO. 1

*Operations Division*

P.O. Box 276 – 984 Tuckerton Road – Evesham, New Jersey 08053-0276 – 856-983-2210

6/21/15

Rutgers University, New Brunswick Campus  
Office of Campus Safety  
New Brunswick, NJ

Inspector Webb:

I am a career fire Lieutenant from New Jersey and also a student at the National Fire Academy in Emmitsburg, Maryland. I am writing you today as part of a research paper for the Executive Fire Officer Program at the NFA. My research paper requires that I conducted original research on my paper's topic. My research paper topic is about fire safety education for students on college campuses. I am contacting several colleges and universities from the U.S News and World Report, 2015 Best Colleges Rankings List. I am trying to research the following questions:

1. Do first year students at your college or university receive campus fire safety education as part of their freshman orientation program?
2. If yes, what is the specific content of the education they receive? (i.e. – Interactive discussion, a Powerpoint based lecture, videos, incident case study, handouts, dormitory evacuation plans, portable fire extinguisher training, etc.)
3. If more than just handouts, how long does the training last?
4. Who specifically delivers this training? (Residence hall staff, campus public safety personnel, local fire officials)
5. How long has your college or university been delivering this training?
6. What college fire safety education do residence hall staff members receive, if any?

Your answers to these questions and any additional information about your programs would be greatly appreciated. Your timely response to these questions would be greatly appreciated, as my research is time sensitive. All responses should be directed to me at [mrobertson@eveshamfire.org](mailto:mrobertson@eveshamfire.org). If this request should have been directed to another person or to residence hall staff, please forward this letter to the appropriate person.

Your participation will greatly enhance my research and will benefit fire service professionals nationwide. Thank you for your time.

*Michael Robertson*

Michael Robertson  
Career Lieutenant  
Email - [mrobertson@eveshamfire.org](mailto:mrobertson@eveshamfire.org) / Cell - 609 929 2863



**[REDACTED]** – daughter of retired Evesham Fire-Rescue Career Firefighter/EMT Ron Snyder  
Sent to Michael Robertson on 6/22/15 as part of his research project for Executive Fire Officer Year 2

---

1. Approximate date of the fire in your dorm: (Month/year is fine)  
*October 2013*
2. Time of day approx and day of the week:  
*About 2-3 a.m. on a Friday night (early Saturday Morning)*
3. What college or university were you at:  
**[REDACTED]**
4. What year were you at school: (Freshman, Soph, etc)  
*Freshman*
5. How were you made aware of the fire: (Fire alarm went off, smoke woke you up, someone woke you up, you walked into the room, etc)  
*My roommate had gone out that night and I had just been hanging out with friends and went to bed around midnight. She came home and woke me up because the smell was so bad and she didn't know what to do.*
6. Describe the layout of the room or rooms where the fire occurred:  
*It was a 3-bedroom suite, 2 people per room. All the rooms were parallel to each other with a common room running perpendicular. My room had been in the middle and we shared a bathroom with the room to the right of us that connected the two rooms, which is where the fire originated. We were on the third floor of the building.*
7. What were you doing just prior to the fire:  
*I had been asleep.*
8. Describe the fire incident:  
*One of my suitemates that I shared a bathroom with had come home either drunk or high and her roommate's desk lamp was on. She then decided to turn the light off by putting the lamp on the other girl's bed and putting a pillow on top of it while the light was still on. I do not believe there were ever-actual flames.*
9. Was the dorm ever evacuated:  
*The dorm had been evacuated, but it was well after the smoke had become pretty bad. There was probably about a 30-40 minute time period between the time I had been woken up and the time the fire alarm went off. The smoke had become unbearable on the third floor by that point in time, actually burning our eyes and affecting our breathing.*
10. Did the local fire department respond:  
*The **[REDACTED]** fire department had responded but by the time they had gotten there, public safety had already removed the burning objects by just walking them out of the building without any safety precautions taken beforehand.*



11. Did campus police or public safety officials respond:  
*Emilee and I (my roommate) had called the front desk, which had been occupied by a campus safety officer about 5-10 minutes after she had woken me up. The man told us to try to wake up our other suitemates and stay out of the room. We managed to get the two girls in the room to the right of us out of the suite, but the one girl who had thrown the lamp on top of the pillow would not wake up. Several minutes later a couple of campus safety officers came up to our room and looked around. We told them that we couldn't wake up Paige (the girl suitemate in the room of the incident) and that the other roommate must not be home yet. The officer told us to go back into the smoking room and get her back out. Emilee tried to go back in but could only stand the smoke for a minute or two. Then one of the officers went into the room, grabbed the glazed over Paige and told her she needed to leave. Then another officer grabbed the burning pillow and told us to all go downstairs and to take the elevator. Once we exited the elevator on the first floor is when the fire alarm went off. Campus safety didn't tell us anything else about what was happening.*
12. Did the residence hall staff respond:  
*Since it had been the middle of the night the only staff duty had been campus police.*
13. What caused the fire incident:  
*The impaired roommate throwing a pillow on top of a lamp that had been on all day caused the incident.*
14. Was anyone at fault or held responsible:  
*Paige was at fault and we were told that she would be held responsible for the incident.*
15. What disciplinary actions were there if any:  
*No disciplinary actions were taken. We all had to have a mandatory meeting with the on campus fire chief just to go over the incident and voice our concerns. This meeting had been provoked by my dad, who had been very upset with the actions taken by campus police and his concern about the smoke detector not going off.*
16. How much damage did the fire create:  
*The lamp had caused the girl's pillow to burn up as well as the top of her bed. The lamp was also burnt but that was the only real damage done.*
17. How were you personally affected by this incident:  
*After this all my things had smelled like smoke for weeks and I felt very uncomfortable and unsafe living in on campus housing.*
18. What campus fire safety training or education did you receive during your freshman student orientation program: (Video, flyer or pamphlets, discussion led by residence hall staff, local fire department or campus public safety officers, no training at all)  
*The head of campus safety had given a whole presentation about fire safety during freshman orientation, mainly talking about stupid mistakes being made such as putting easy mac in the microwave without water. We also had fire drills in our dorms a few times before this happened.*
19. Any other information about the incident I may have forgot to ask that would be important for me to know:



*While I continued my stay at this school, no measures were taken afterwards to ensure our safety or fix the very visible problems that had occurred that night.*





A-9

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## Campus Fire Safety

[Summary](#) [Design Survey](#) [Collect Responses](#) [Analyze Results](#)

## CURRENT VIEW

[+ FILTER](#) [+ COMPARE](#) [+ SHOW](#)

## No rules applied

Rules allow you to FILTER, COMPARE and SHOW results to see trends and patterns. [Learn more »](#)

## SAVED VIEWS (1)

**Original View** (No rules applied)[+ Save as...](#)

## EXPORTS

## SHARED DATA

## No shared data

Sharing allows you to share your survey results with others. You can share all data, a saved view, or a single question summary. [Learn more »](#)[Share All](#)

RESPONDENTS: 45 of 45

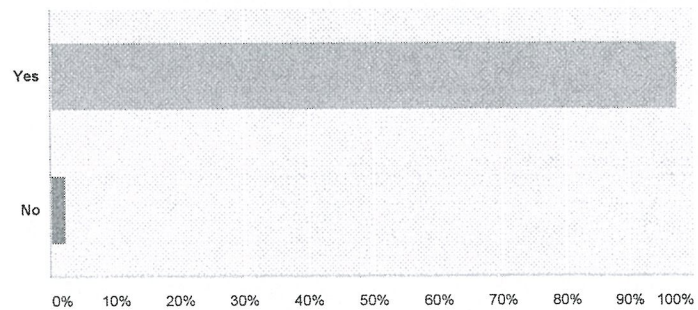
[Export All](#)[Share All](#) **Question Summaries** **Data Trends** **Individual Responses**

PAGE 1

Q1

[Customize](#)[Export](#)**I currently attend a college where I am living during the school year.**

Answered: 45 Skipped: 0



| Answer Choices | Responses |    |
|----------------|-----------|----|
| Yes            | 97.78%    | 44 |
| No             | 2.22%     | 1  |
| Total          |           | 45 |

Q2

[Customize](#)[Export](#)**What year student are you currently at college?**

Answered: 45 Skipped: 0

Freshman

Sophomore

Junior

Senior

Graduate

| Answer Choices     | Responses |
|--------------------|-----------|
| ▼ Freshman         | 33.33% 15 |
| ▼ Sophomore        | 31.11% 14 |
| ▼ Junior           | 20.00% 9  |
| ▼ Senior           | 13.33% 6  |
| ▼ Graduate Student | 2.22% 1   |
| Total              | 45        |

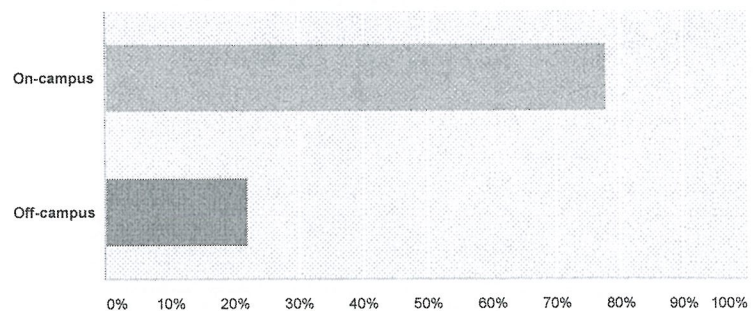
Q3

Customize

Export

**I currently live in which type of housing?**

Answered: 45 Skipped: 0



| Answer Choices | Responses |
|----------------|-----------|
| ▼ On-campus    | 77.78% 35 |
| ▼ Off-campus   | 22.22% 10 |
| Total          | 45        |

Q4

Customize

Export

**You attend a college in which state?**

Answered: 44 Skipped: 1

New Jersey

Pennsylvania

Delaware

New York

Other state

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

| Answer Choices | Responses |
|----------------|-----------|
| ▼ New Jersey   | 25.00% 11 |
| ▼ Pennsylvania | 20.45% 9  |
| ▼ Delaware     | 2.27% 1   |
| ▼ New York     | 2.27% 1   |
| ▼ Other state  | 50.00% 22 |
| Total          | 44        |

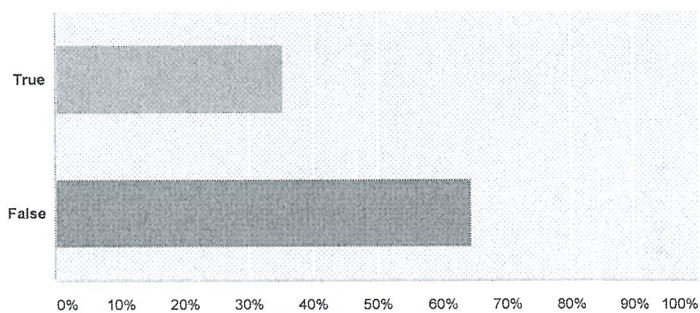
Q5

Customize

Export

During my freshman year orientation, I was given information or taught about campus fire safety.

Answered: 45 Skipped: 0



| Answer Choices | Responses |
|----------------|-----------|
| ▼ True         | 35.56% 16 |
| ▼ False        | 64.44% 29 |
| Total          | 45        |

Q6

Customize

Export

The campus fire safety presentation was delivered by:

Answered: 45 Skipped: 0

College staff

Local Fire Department...

Campus Public Safety...

I did not receive any...



| Answer Choices                               | Responses |
|----------------------------------------------|-----------|
| College staff                                | 22.22% 10 |
| Local Fire Department Personnel              | 6.67% 3   |
| Campus Public Safety Personnel               | 11.11% 5  |
| I did not receive any training in this topic | 62.22% 28 |
| Total Respondents: 45                        |           |

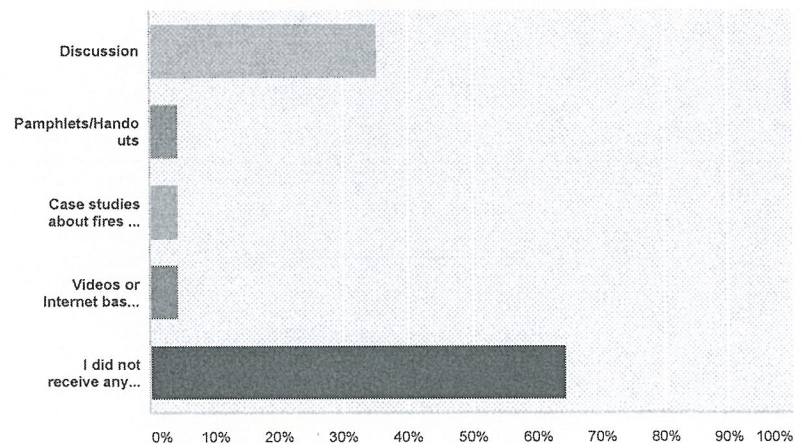
Q7

Customize

Export

### The campus fire safety presentation I received included

Answered: 45 Skipped: 0



| Answer Choices                                          | Responses |
|---------------------------------------------------------|-----------|
| Discussion                                              | 35.56% 16 |
| Pamphlets/Handouts                                      | 4.44% 2   |
| Case studies about fires on college campuses            | 4.44% 2   |
| Videos or Internet based technology                     | 4.44% 2   |
| I did not receive any training on this topic at college | 64.44% 29 |
| Total Respondents: 45                                   |           |

Q8

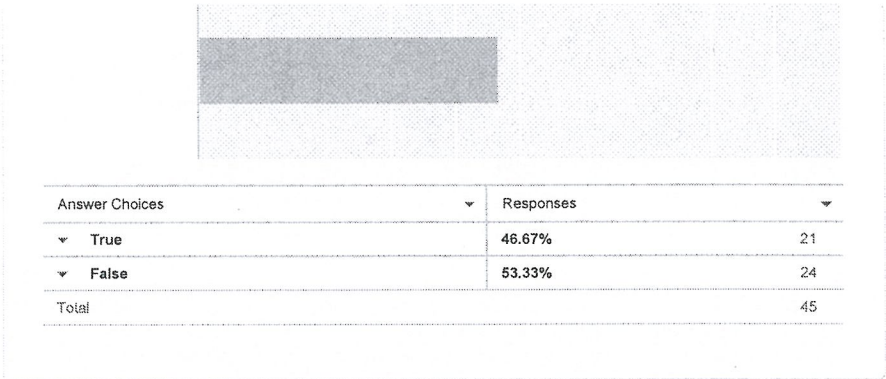
Customize

Export

### Before coming to college, I received campus fire safety education in high school.

Answered: 45 Skipped: 0

True





# A-10



## Education Strategies for Campus Fire Safety

*These are 10 “Things to Try” when it comes to fire safety outreach. The key to any program is to not rely on any single one, but to have a comprehensive suite of outreach strategies, preferably throughout the year, reinforcing the fire safety messages.*

| Strategy                   | Return on Investment (ROI) | Effort expended | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|----------------------------|----------------------------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Articles                   | Moderate                   | Easy            | Run articles in your student newspaper. Yes, students are very much online, getting their information on their smartphones. They still do read the student newspaper (to some degree) and this is a channel to not overlook. This is easy to do, falls into the category of “low hanging fruit.” Often the newspapers are looking for content as well, so here is a chance to provide them with some ready-made content. Want some tips on content and style? Look at the next item about using Lists. |
| Lists                      | Good                       | Easy            | Use Lists whenever you can, and keep them short. Stats? Don’t do it unless they are short and in context. Take a page out of Steve Job’s playbook when introducing the iPod. What means more to people... 5 GB or 1,000 songs in your pocket?                                                                                                                                                                                                                                                          |
| Fire extinguisher training | Good                       | Moderate        | Fire extinguisher training. This is great for hands-on training and you can cycle a lot of people through it quickly. You can do it in a high-traffic area and while you are teaching them how to do PASS, you can also slip in one more message, like smoke alarms or two ways out.                                                                                                                                                                                                                   |

| Strategy | Return on Investment (ROI)  | Effort expended       | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------|-----------------------------|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Burns    | Low                         | Moderate<br>Feel good | Do a demonstration burn. Burning two mockups, one sprinklered, one unsprinklered, is a great way to show how fast a fire spreads and how effective sprinklers are. However, be ready for a relatively low turnout, which really begs the question, do you get a good return on investment for these events? It takes time and money to build the props, get the fire department there and run them, all for how many students watching? Yes, they work really well, are very impactful, make you feel really good, but if there are 75 people watching, and half of them are fire department, staff and media, was it worth it all? Highly effective (for those that are there) but low ROI (because a lot were not). |
| Twitter  | Possibly good, hard to know | Easy                  | Twitter campaign. This is pretty easy to do, especially since Campus Firewatch (@campusfirewatch) generates a Tweet-a-Day in September for you to retweet. Each tweet includes a link to a video or other resource. This falls into the "low hanging fruit" category, but the ROI is hard to measure. Just because someone saw the tweet, well, did it change behavior? But, on the other hand, since it is easy to do, what do you have to lose?                                                                                                                                                                                                                                                                     |

| Strategy | Return on Investment (ROI)  | Effort expended   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------|-----------------------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tables   | Low                         | Easy<br>Feel good | <p>Set up a table. It has to be in a high traffic area. However, what are you hoping to accomplish with it? Hand out flyers? (forget it, not effective). Show videos? These should be SHORT and IMPACTFUL (humor, lots of flame, that sort of thing) or have a lot of your own students in them to get people to stop. By the way, be careful on using humor. What may be funny to one group isn't always to others, so do a bunch of testing beforehand.</p> <p>A hint on this one...if you are using videos, get your monitor or television on a stand up high. If it is on a table, as soon as you have two people standing in front of it, no one else is going to see it, and it is a waste of time. If it is at head height, or higher, more people will see it, catch it out of the corner or their eye, and perhaps stop.</p> |
| Stickers | Possibly good, hard to know | Easy              | <p>Pizza box stickers. If you look on the Campus Firewatch Resource page you can see some examples of ones we did in the past, or you can have some students come up with new ones that will resonate. Give them to the local pizza shops to put on the pizza boxes as they are going out the door. It is a way to hit more than just the student population.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |



| Strategy | Return on Investment (ROI) | Effort expended | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------|----------------------------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Videos   | Good                       | High or Easy    | <p>Show videos or post them on social media. Keep them short, 90 seconds to 3 minutes is ideal. Longer ones might be used in a setting such as training or orientation, but no longer than 10 minutes, max. Done right, this can have a real high ROI, but that is just the point, it is hard to figure out what is "right."</p> <p>The great thing about this is you don't have to create your own. Scour the Internet (or better yet, see if you can have some students do this for you) then embed them from YouTube on your web page. There are some examples on the Campus Firewatch YouTube channel<br/> <a href="http://www.youtube.com/campusfirewatch">www.youtube.com/campusfirewatch</a></p> <p>The new hot thing is Vine, which is an app for smartphones. Six-second videos. Yes, six seconds (Twitter bought them for \$30, million). I didn't think it could work, but what do I know? It has taken off, especially after Joss Whedon posted a series of them from his Much Ado About Nothing roadshow to South by Southwest.</p> |

| Strategy | Return on Investment (ROI)  | Effort expended | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------|-----------------------------|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Project  | Good                        | High            | Campus Fire Safety Community Service Project. This is definitely one that takes a lot of work to organize and run. It's not hard, but it does take some effort. By having students work alongside fire fighters and going into the community, into homes, you can get a good ROI because 1) the students involved learn fire safety by doing fire safety, 2) they become motivated and possible evangelists, and 3) the community is made safer by their contribution. There is more information at the Minger Foundation <a href="http://www.mingerfoundation.org">www.mingerfoundation.org</a> . |
| Ads      | Possibly good, hard to know | Moderate        | Bus ads are really pretty easy to do and often overlooked. Look at other examples of bus ads that vendors are using. Make them highly visible, low on text, or if you do have text, use lists or something similar. Lists are great, they really resonate with people. Look on the Campus Firewatch resource page for some bus ad examples.                                                                                                                                                                                                                                                        |





## *Coffee Break Training* - Fire Prevention and Public Education

### The Five E's of Prevention — A New Approach

No. FM-2013-13 October 17, 2013

Learning Objective: The student will learn the concepts of the Five E's as they relate to fire prevention.

The most effective risk-reduction strategies are those that employ a broad-based integrated approach utilizing a combination of prevention interventions. President Harry S. Truman's 1947 conference on fire prevention coined the original Three E's — education, enforcement and engineering. In 2000, the National Fire Academy added economic incentive and emergency response because of their importance to community risk reduction. The goal of using multiple interventions in parallel is twofold: Prevent incidents from occurring, and when prevention fails, reduce or mitigate the impact of the incident. Each of the E's can contribute to the development of realistic, comprehensive and effective solutions. Together the E's produce a synergistic effect and are more effective than when used individually.

**Education:** Education intervention influences behavior by raising awareness, providing information and knowledge to produce the desired behavior. Education is only effective if people do what they are supposed to do, i.e., firefighters wearing seatbelts.

**Enforcement:** Enforcement interventions include passing, strengthening and enforcing laws as well as issuing and enforcing regulations.

**Engineering:** Engineering involves changes in the physical environment: the design, development and manufacture of safety products. Changes are the result of advances in technology; some examples are fire sprinklers, smoke alarms, helmets and airbags.

**Economic incentive:** These incentives are measures used to influence behavior either positively or negatively. Positive economic incentives reward people monetarily for behaving in a certain manner or making certain choices. Negative economic incentives punish people monetarily for behaving in a certain manner or making certain choices. Tickets, fines and citations are used to discourage people from choosing unsafe behaviors. Economic incentives can be used to persuade people to do business (sales, coupons, discounts, etc.). Government also uses economic incentives. Montgomery County, Maryland, offers a one-time 50 percent reduction in property taxes for retrofitting a home with a fire sprinkler system.

**Emergency response:** Emergency response interventions are used by emergency responders (fire/Emergency Medical Services/law) to mitigate risk. The emergency response capability of the community must be considered during the risk-assessment process. Some risks can only be mitigated by adding new emergency response capability or enhancing current emergency response capability. Emergency service personnel are trained and equipped to handle many emergencies; however, there are occasions when emergency services can be overwhelmed by demands. This is when a well-organized, well-managed Community Emergency Response Team can make a world of difference.

Source: U.S. Department of Homeland Security, Federal Emergency Management Agency. "Executive Analysis of Community Risk Reduction" course, December 2012.

For archived downloads, go to:

[www.usfa.fema.gov/nfa/coffee-break/](http://www.usfa.fema.gov/nfa/coffee-break/)