

MAINTAINING & STAFFING A PUBLIC EDUCATION PROGRAM

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ABSTRACT

This research was completed to address the reduction in public education contacts being completed by the Howland Fire Department. The department has experienced a reduction in safety education contacts during the past two years. The modification of current utilization of staff was also reviewed for efficiency.

The initial questions for the research project were reviewed and modified during the literature review process. Is additional staffing required to maintain or increase the educational program contacts? Will modifying existing staffing participation allow the department to maintain or improve existing programs? How will the department be able to meet future educational needs?

During the course of the research project, staffing changes within the department required modifications of the project. A historical research review of trade magazines, books covering fire department management and operations, previous research documents, and statistical data was completed. The research shows that based on department fire loss and injury statistics there has not been a documented appreciable increase in loss or injuries. It was determined that continuous monitoring of fire loss and injury statistics would reveal a failure in Howland Fire Department's educational programs. There was no clear evidence based on the research found to support the need for additional staffing in the fire prevention bureau.

Therefore, recommendations based on findings have been to continue to utilize current staff to provide fire safety and other educational programs, continue to monitor statistics for changes in injury or loss statistics, and a needs assessment will provide the department with more accurate educational requirements to meet customer needs.

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INTRODUCTION

A review of the Howland Fire Department's current public education programs revealed a continued reduction in the number of public contacts being made. This reduction in public education contacts appears to be a continuing process. The current staffing and deployment of the department has resulted in the fire prevention bureau relying on members of the volunteer staff and explorers post to provide most of the staffing to operate the programs.

Howland Township has made a significant contribution to the fire safety of the community by the adoption of a Township Fire Code. Trumbull County Fire Chiefs' Association (1999 edition), the Northeast Ohio Unified Fire Code (NEOUFC) has allowed the fire department to improve its activities in the inspection process within the business community. However, with the desire to improve the quality and maintain or increase the number of contacts within the residential community, should the department consider adding staffing to provide these programs and educational activities?

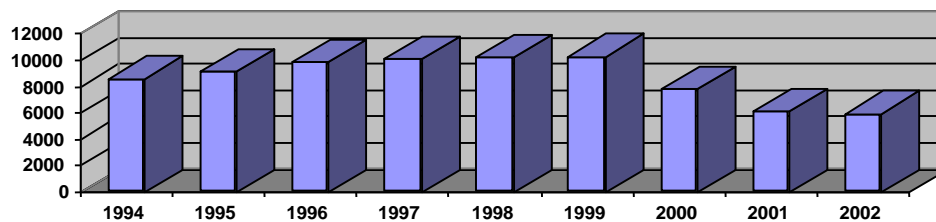
This paper will address the following research questions. Will additional staffing be required to maintain or increase the educational program contacts? Will modifying the utilization of existing staffing participation allow the department to maintain or improve existing programs? How will the department be able to meet future educational needs?

The completed document will be used to develop a plan of action and presented to the Fire Chief and the Township Trustees.

BACKGROUND AND SIGNIFICANCE

Howland Fire Department has committed to providing an ongoing, quality public education program. This process has received the support and assistance of both the fire department administration and the Township administration. The adoption of the (NEOUFC), has provided an important tool for the fire department to maintain the high level of fire safety in community's commercial buildings. The local code has added fire safety training to the requirements for all commercial occupancies. The commercial occupancies are now required to hold fire drills and provide training to their employees in the areas such as the proper use of fire extinguishers.

The Township has also worked to provide educational programs to its residents. The fire department and the administration continue to support the fire safety programs of the department. With Township and community donations, a \$48,000.00 fire-safety education trailer was purchased to improve the ability of the department to provide quality safety-education programs. The departments public safety programs reached an average of 10,000 people per year during the years 1994 thru 1999.



Howland Fire Department

Public Education Contacts

Figure 1

However, by 2002 the department has dropped to just under 6,000 contacts. (Figure 1) Although the department has added several facets to its current educational training programs, it continues to teach the standard fire safety programs. In addition, the department provides a weather safety program, a fire sprinkler training program, a bike safety program, and child safety-seat-inspection program. With these additional programs, there is a need for additional manpower requirements in order to provide needed staffing coverage.



Howland Fire Department

Fire Safety Education Trailer

Figure 2

One captain and one fulltime inspector was the staffing level of the fire prevention bureau. Recent changes in the departments staffing have resulted in the modification of bureau staffing. Fire prevention bureau staffing is currently one fulltime inspector and a part-time inspector position. The department also has a special operations bureau, operated by one staff member assigned to a 24/48 shift, that maintains responsibility for

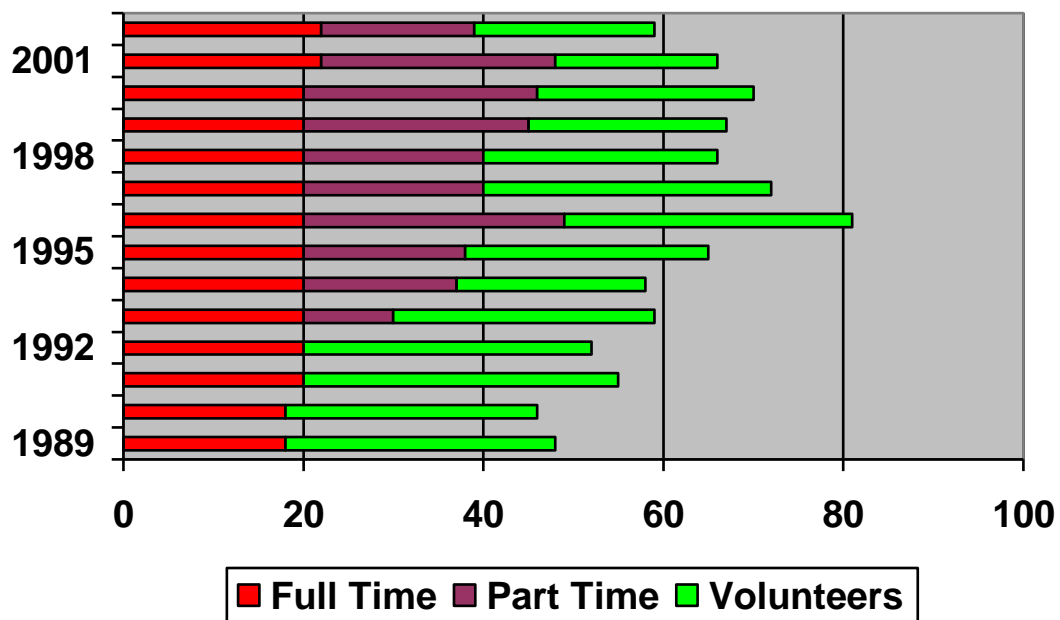
the child safety-seat inspections and the bike safety programs. Members of the department's sponsored Explorers Post, assist in programs by providing staffing during fire-safety trailer programs. (Figure 2)

The department has experienced few major fires, low fire loss, and few fire related injuries, largely due to aggressive public education programs that the department has provided.

A special report conducted by Perroni, C., (1993), documented South Carolina's reduction in fatal fires through their educational programs. Prior to 1988, South Carolina had consistently ranked among the top three states with the highest fire death rates in the nation. In addition, the rate had been escalating at an average of twenty percent per year. In 1988, fire claimed the lives of 164 people in South Carolina. At a rate of forty-seven fire deaths per million of population, the state had the highest fire death rate in the country two consecutive years.

As a result of these statistics, South Carolina introduced a statewide fire-safety program that emphasized smoke-alarm installation and fire-safety education. By 1991, the state's fire death ranking had dropped from number one to number six. Right after the program lost its funding, the death rate began to climb again, and by 1993, South Carolina returned to having the nation's second-highest fire death rate. Due to the increase in fire deaths, the program has since been restored. After the program was restored South Carolina again reduced their fire deaths. Based on the statistics and results from South Carolina's report, indications are that Howland Fire Department should continue or at least maintain their educational efforts to assure the current level of safety within the community.

Howland Fire Department has continued to see an increase in call volume, as well as an increase in requests for other services, such as educational programs. By supplementing staffing needs with the addition of part time staff, the department continues to provide as many requested programs as the current staff can accommodate. The reduction in the number of active volunteer firefighters in conjunction with the increased requests for service has begun to strain the ability of the department to meet all commitments. (Figure 3) In order for the department to continue to provide the quality and frequency of programs that residents expect, efforts to provide additional resources to the fire prevention bureau must be made to prevent a reduction in the level of safety the community currently experiences.



Staffing of the Howland Fire Department

Figure 3

Between December 2002 and April 2003, Howland Fire Department experienced two major residential structure fires and several minor residential fires. During this same

period, the department has not experienced any commercial structure fires. The department is concerned this may be the beginning of a downward spiral that could be a result of the reduction of our public education programs.

Howland Township's citizens have come to depend on their fire department to provide a multitude of services including one of the most active educational programs in the area. A need for an active safety and prevention program has been proven by our communities' injury and fire loss statistics.

LITERATURE REVIEW

During initial searches for materials, no material that directly answered the staffing question for education positions was identified. In reviewing fire safety articles and data, it seems to be clear that all interested parties believe in the importance of fire safety education. However, the lack of a requirement in any federal, state, or local standards to require public fire safety educators in the fire service would seem to be in direct conflict with the exhibited philosophy. The review of various publications including trade journals point out that the reduction of fires through public education results in a substantial reduction in suppression cost. Research will be used to devise a method of calculating the staffing needs of a fire prevention bureau.

In 1973, the National Commission on Fire Prevention and Control (NCFPC) was assembled to look at Americas' fire problem. The resulting document, Neville, A., (1973), America Burning, was presented to the fire service, politicians, and the public. During the commission's review of the fire related issues, fire safety education was

addressed. The commission reached several conclusions, which emphasized the need for fire safety education.

Recommendations from America Burning (1973) included a variety of actions to improve overall fire safety. Ninety recommendations were made in their report. They recommendations included number one to provide a national focus on fire issues to promote a comprehensive program to address problems. (p.9) Recommendation seven was to suggest local governments make fire prevention at least equal to suppression. (p.18) The creation of a master plan for fire protection was the topic in recommendation ten. (p.25) Recommendation thirteen was to provide funding to assist local jurisdictions in creating a master plan for local needs. (p.31) The report also made several recommendations to create, adopt, or modify existing Fire and Building Codes to improve fire safety by changing or improving building safety. The recommendations on education included adding curriculum changes to schools to require annual instruction requirements for fire safety classes. It also suggested that training on fire safety education be provided as part of the requirements for new schoolteachers. Recommendations also included various incentives including tax credits for persons installing early warning systems or suppression systems in residential structures. Other recommendations by the report addressed areas of training firefighters, providing adequate equipment, or providing funding assistance for these items.

According to the (NCFPC) American Burning (pg. 28), "Fire departments have an obligation to bring fire safety education, not only into schools and private homes, but also into occupancies with greater than average fire potential or hazard to people". The issue of the need for fire safety education was clearly addressed. However, there was

no mention of requiring the formalization of the educational system within the fire service. The study also recommended that each community develop a “master plan” for fire protection. The issue of education was one of the areas to be addressed in this plan.

In 1987, a three-day workshop hosted by the United States Fire Administration (USFA) and the Federal Emergency Management Association (FEMA), was held to revisit the status of issues addressed by the original report, *America Burning* (1973). During the intervening years, many fire departments had begun to take action on the recommendations and findings revealed in the 1973 report. The statistics had begun to tell the tale of the effectiveness of fire prevention in general. A reduction in fire deaths and injuries was reported. Fire deaths had dropped from 12,000 to under 8,000 due in part to the recommendations made by the commission.

Campbell and Feldstein (1987), *America Burning Revisited*, made five recommendations to improve the fire protection of the future. Several national projects were included in these recommendations, but did not address the establishment of a fire and life safety education position with the fire department makeup. The document also provides a list of other possible solutions.

America Burning Revisited reviewed the recommendations made by the 1973 *American Burning* report and the progress made on those recommendations since the report was issued. Five recommendations were made by the report in relation to fire safety (p.104). The first recommendation was to “Mount an on-going national campaign to change cultural orientation” to change the cultural attitudes toward fire safety. The development of a national political action committee, the Congressional Fire Services

Caucus, to lobby for fire safety issues was another recommendation. Funding, the development of a national fire safety database, and comprehensive project to develop future fire department roles and priorities was addressed by the other recommendations. The task force also listed other possible solutions to the problem under five broad areas, Cultural orientations, Political action infrastructure, Development of new and improved fire protection technology,



Figure 4

Fire protection information, and Redefine the traditional public safety service delivery system (pp.105, 106). As a result, the National Fire Protection Association (NFPA) developed a program entitled Risk Watch, (Figure 4) which includes many of the approaches of Project Impact. (Figure 5) FEMA has begun a community-based, all-risk program entitled, Project Impact: Building Disaster Resistant Communities.



Figure 5

Even with all of the emphasis placed on public education by the commissions, task forces, and articles, there has still not been a clear recommendation on the staffing and requirements for a fire safety education position within the fire department.

In the NFPA Journal (March/April 2000), Dennis Compton the Chief of the Mesa, Arizona Fire Department stated quite clearly, "Public educators have grown accustomed to a perpetual slot on the fire service "B team." Even in many progressive fire departments, our work is considered merely value-added to the

central mission of emergency service delivery, appreciated more for its public relations benefit than for its potential to contribute directly to a community's safety. At worst, public education is still thought of as an unattainable luxury - too costly or too labor-intensive to be accorded equal footing on the traditional playing field. One needs to look no further than the average fire department's budget to see that fire and life safety educational efforts continue to be chronically under-funded and under-staffed.”

The issue of fire prevention is addressed by most fire service text in the direction of code enforcement and inspection activities. Cote, A. (1997), relates the importance of fire safety education. The changing face of safety education is also apparent. Cote also discusses, in detail, the status of fire safety education and educators. Standards have been adjusted to meet these changes. The NFPA, (2001), adopted the NFPA 1035 standard for professional qualifications for fire and life safety educators. The standard gave the position its own identity and provided basic requirements. It includes a list of qualifications, which for the first time did not include a requirement for the person to be a firefighter. This action revealed the beginnings of a move to a broader based safety education stance within the fire service. This also opened the possibilities of using civilian staff in the public education position.

NCFPC (1973) stated, “There is wide acknowledgment and acceptance that public education programs on fire prevention are effective. The reduction of the number of fire deaths since the first America Burning report is due to a number of factors, including increased awareness that fire is not an inevitable tragedy. As with efforts to prevent or reduce losses from other hazards, such as earthquake, flood and hurricane,

public education will not be totally effective on its own. Nevertheless, no prevention effort can succeed without a public education component. Social marketing techniques appear to have the greatest likelihood for success on fire issues since they seek to change the way people think and make decisions.” (p. 38)

Jones, K. (1999) states the Fairfax County Fire Department addressed their lack of staffing and budget constraints by creating a partnership program with community members. Chief Glenn Gaines approved this concept with the proviso that “there were very limited funding and no additional staff personnel available to accomplish this mission. The group met this challenge by developing partnerships with the private sector to seek support in the development of the central educational site.”

The National Fire Administration (NFA) and FEMA (1990), reviewed and completed Fire Service Programs Across America, to compare fire department programs and staffing of fire education operations. (Table 1)

<u>Department</u>	<u>Staffing</u>	<u>Duties</u>	<u>Population</u>
St. Louis Park, MN	Four Part Time	Education and Code Enforcement	46,000
Columbus, OH	Three Full Time	Education	500,000
Frederick, OK	One Full Time	Education	6,000
Rock Hill, SC	Four Full Time	Education	42,000
Aberdeen, SD	Two Full Time	Education	30,000
Conroe, TX	One Full Time	Education	30,000
Beckley, WV	One Full Time	Education	22,000
New Berlin, WI	Two Part Time	Education Firefighting Duties	33,000
Covina, CA	One F/T Four Vol.	Education	40,000
Trenton, NJ	None		93,000

Sample of Educational Staffing Levels

Table 1

During which it was noted that some departments had several fulltime educators, while many used a combination of full time staffing and part time staff to provide their educational programs. Departments address the issue of fire safety education at various levels, from full time to part time positions. There is great variation from community to community of their involvement in staffing of public education programs. It appears the levels of involvement and staffing are being driven by only by the fire department or community concerns for fire safety.

PROCEDURES

During this research, data was reviewed to exhibit the effectiveness of public education programs and activities in the fire service. A comparison of statistical data of other fire departments and their educational activities was made to determine the current level of Howland Fire Department's program effectiveness. An attempt to find evidence of a direct correlation between fire departments staffing levels of a public education program and the effectiveness of these programs was made. South Carolina's, Get Alarmed program was reviewed. A review of Internet documents and statistics was conducted. Howland Fire Department statistics and programs were reviewed.

RESULTS

After researching the issues of staffing and maintaining program quality, there is certainly a firm level of support by all national organizations for fire safety education. However, there was no source identified that has developed or even recommended a

staffing criteria or level for staffing a public education program. While, during the same time, there have been volumes of data on fire suppression staffing and equipment needs published. This appears to be in direct conflict with the position, which the national organizations have taken.

In addressing the research questions, the following information was identified for question one. The question, is additional staffing required to maintain or increase public education contacts? There are examples of many departments who have managed to contact large numbers of the public without the benefit of having full time educators on staff. In *Public Fire Education Today: Fire Service Programs Across America* (1990), the Trenton, New Jersey Fire Department (p. 113), serving over 93,000 residents has no full time educator but has still managed to provide some level of educational programming to their community. They have done so by utilizing their suppression staff to provide programs, they also created a partnership with the Tobacco Institute to purchase educational materials for use in community safety programs. The Peoria, Illinois Fire Department (p. 63), serves a population of over 100,000 and has no full time educational staffing. Staff members assist the department in educational programs when requested. The department has worked closely with corporations such as, K-Mart and McDonalds as well as with the Red Cross and their International Association of Firefighters Local 544 to provide handouts and other materials for their programs. These two examples, from among the hundreds of departments mentioned in *Fire Service Programs across America* by NFA and FEMA, provide just a few ideas that the department can use to provide programs without additional staffing increases. It was also noted that departments used non-fire service assistance in providing some if not all

of their educational programs. Fire departments continue to use a variety of resources, including corporate partnerships, Boy Scout Explorers, Junior Firefighter Programs, Senior Citizens, and various service organizations.

Question 2: Will modifying existing staff participation allow the department to maintain or improve existing programs? Many departments continue to use their duty staff to assist on programs. By reviewing the current participation levels, and seeking either programs that lend themselves to using duty staff or non specific staff, it should allow for the duty staff to continue to assist in providing programs. In Fire Service Programs Across America NFA, FEMA (1990), it was stated that “Every Fire Service Organization expressed the need for more resources to help conduct public education programs.(p. ii) The Howland Fire Department like other departments is in need of additional resources to continue to provide services to our community.

The report listed possible resources that a fire department could possibly utilize.

- American Red Cross
- Chamber of Commerce
- Service Organizations such as - Jaycees, Lions, Rotary, Optimist, and Other Local Service Groups
- McDonalds, Burger King
- Lions Clubs
- Insurance Agencies - Both local Agents and Corporate
- Shriners Burn Institute
- Community Businesses

- Partnerships with other agencies - Police and Fire
- Local Schools

By using these resources, a department can enable their existing staff to provide quality programs that can be provided with minimal adjustment to current staffing levels.

How to meet the future needs of the department? Research indicates by using non-traditional programs and alternative methods the Howland Fire Department can meet most of the anticipated needs. However, by using the resources from the previous list the department could improve it's ability to meet the needs of the future.

Instituting national programs such as Project Impact (FEMA) or Risk Watch (NFPA) would allow the Howland Fire Department to provide current and timely programs. These programs are modified by these agencies to meet the current needs. It would also improve their ability to provide a well balanced and progressive safety education program. It might also allow the department to enter into partnerships with organizations that have joined these national efforts on a corporate level, thus gaining access to valuable resources.

DISCUSSION

A review of Howland Fire Department's current programs should be made using the FEMA (1991) document, Short Guide to Evaluating Local Public Education Programs. In addition to specific statistical data comparisons, it also offered other avenues to utilize when evaluating a program. The guide stated "The strongest possible evidence of a public education program's success is to demonstrate that it changed one

or more of these factors: fires, deaths, injuries and/or dollar loss". (p 2) The ability of the Howland Fire Department to compare its data with a department with no ongoing educational activity is somewhat limited due to the department's long-term educational activities. The Howland Fire Department has been involved in fire safety programs for almost twenty years. In order to use an accurate statistical comparison for evaluation, the department would have to wait to see if the figures begin to increase.

It was cited in the article Essentials of Public Education, Fire Chief, Kenyon, S., Knudtson, J., Rhodes, T., Schumacher, D., Appy, M., (2001) by Rhodes that "Time and lack of knowledge are the biggest obstacles...they do not take the time to give pre- or post-tests". The Howland Fire Department must develop and implement a method of obtaining and monitoring statistics for public education programs. For obvious reasons, waiting for this trend to begin to influence statistics would be less than desirable. In using other alternatives as described in the evaluation guide NFA (1991), such as, if a program persuades people to take the actions that make a difference, then fires, death, injuries, and/or dollar losses should be reduced, either immediately or over time. The guide also described other methods that may be used to evaluate the effectiveness of prevention programs, if the following conditions or actions can be identified;

- A majority of the community was reached with the message
- A tested sample of people showed a sharp increase in knowledge of what to do in a fire
- A significant portion of the community now exhibit the proper behavior then a much stronger argument can be made that it was indeed the fire prevention program that caused the change in the bottom line.

Another effective way to measure fire prevention awareness is to conduct pre-testing and post-testing. Testing retention several weeks, months, or even a year after a program was conducted may identify more results that are definitive.

The department must begin to evaluate public education requirements and needs to develop information to allow for adequate planning for future needs of fire safety education.

RECOMMENDATIONS

The Howland Fire Department has provided a multitude of educational and safety programs over the past twenty years. These programs should be continued and efforts made to keep the programs current. After researching and reviewing the information, the following recommendations have been identified.

1. Create a community survey and distribute it to the residents and businesses.
This would allow the department to gain knowledge concerning the department's status.
2. Using the results of the survey, conduct a needs assessment of the current educational programming to determine if the current programming meets the needs of the community.
3. Use the completed needs assessment to develop a strategic plan for the educational programs. This would assure the programs are meeting the community's needs.
4. Develop a pre-testing and post-testing document that can be used for evaluation of program effectiveness.

5. Continue to work with the local schools to institute the “Risk Watch” program in grades K-8. While the department has tried to institute this program, we have not been successful.
6. Develop a senior instructors program. The local SCOPE program has expressed interest in providing assistance in providing instructors for the “Risk Watch” program. This would help address the shortage of staffing for educational programming.

By following these recommendations, the department can begin to evaluate the needs of both the community and the department. Staffing and program requirements could be more clearly identified and modified to meet department and community needs.

The information obtained by utilizing these recommendations would then need to be incorporated into the departments strategic planning, which could be used to support the direction of educational programs. The results would also provide a vehicle to identify the departments educational staffing needs.

This process would also help the department monitor the communities needs. It would also allow the department to better understand and react to the communities changing needs in the future.

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