

Running Head: Education for Chief Officers

Executive Leadership

## Higher Education Needs for City of Tulare Fire Department Chief Officers

BY: John P. Binaski  
City of Tulare Fire Department  
Tulare, California

March 2007

**CERTIFICATION STATEMENT**

I here by 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 language, ideas, expressions, or writing of another.

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

John P. Binaski

### **ABSTRACT**

The problem is that the City of Tulare Fire Department is the only department within the city that does not require a college degree for key management positions and only requires state fire training certification requirements for positions up to fire captain. The purpose of this research is to determine the educational requirements that would be most beneficial for a chief officer. The research questions were: a) What are the benefits of requiring a Bachelors Degree for chief officers in the City of Tulare Fire Department? b) What type of college degree requirements, if any, do similar size departments throughout California require? c) What incentives are provided or necessary to encourage fire department personnel to pursue higher education? d) What are some of the challenges to implementing a policy of requiring a college degree?

The procedures involved researching numerous periodicals, journals, publications, the internet, personal interviews, and a department educational requirement survey. Results indicated that the department should be requiring a California Fire Chief Certification for chief officer positions.

**TABLE OF CONTENTS**

Abstract..... Page 3

Table of Contents..... Page 4

Introduction..... Page 5

Background and Significance..... Page 6

Literature Review..... Page 11

Procedures..... Page 18

Results..... Page 22

Discussion..... Page 30

Recommendations..... Page 35

Reference List..... Page 37

Appendix A..... Page 39

## **INTRODUCTION**

The City of Tulare is located in Central California approximately 46 miles south of the City of Fresno. The city covers more than 18.9 square miles and has a current population over 52,250.

The City of Tulare Fire Department is a rapidly growing and ever changing organization. The department just opened its third fire station two years ago and is already in the process of acquiring a county fire station for the city's fourth station. In 2006, the department responded to 4,526 calls for service, of which over 72% were to provide emergency medical services. The department is aggressively expanding its emergency services capabilities by becoming a medium duty Urban Search and Rescue Team, providing engine based Advanced Life Support, and Confined Space Rescue. The department also provides fire and life safety inspections and public fire prevention education.

The identified problem is that the City of Tulare Fire Department is the only department within the city not requiring a college degree for key management positions and only has state fire training certification requirements up to the position of fire captain. The purpose of this research is to determine the educational requirements that would be most beneficial for a chief officer within our department. The research method used for this applied research project will be descriptive research. The research questions of this applied research paper are:

- a) What are the benefits of requiring a Bachelors Degree for chief officers in the City of Tulare Fire Department?

- b) What type of college degree requirements, if any, do similar size departments throughout California require for the position of chief officer?
- c) What incentives are provided or necessary to encourage fire department personnel to pursue higher education?
- d) What are some of the challenges to implementing a policy of requiring a college degree for chief officers?

### **BACKGROUND AND SIGNIFICANCE**

The City of Tulare Fire Department (TFD) was formally organized in April 1882, with its members comprised of merchant and property owners who had a vital interest in protecting their property. At that time, the only available fire fighting equipment for the organization was a human operated hand pump, mounted on wheels. Since there was no proper water supply system, this equipment was virtually useless and the volunteers had to resort to a bucket brigade.

In 1918, the city passed a bond initiative for a new water system that included fire hydrants. Shortly after the bond measure was passed, the department was able to purchase its first pumping fire engine and hose cart combination. In May 1923, the city purchased property and built its first fire station. Over the next 25 years, the fire department purchased several new fire engines and an alarm system with fireboxes located throughout the city.

In 1948, the city hired its first professional firefighters. Their primary job duties were to drive, operate, and maintain the fire engines. The City also hired their first fire chief this same year. Between 1948 and 1961, additional firefighters were hired which brought the

firefighting force to sixteen paid and ten volunteers. In 1961 the city opened its second fire station and staffed it with six additional firefighters.

Today, the TFD is a full service department whose primary objective is to protect the lives and property of the citizens and visitors to the community of Tulare. The department's services include; respond and extinguish fires, respond to medical emergencies and provide emergency medical care, respond to and mitigate hazardous material incidents, determine cause and origin of all fires, investigate arson crimes, prepare for disasters, review and inspect construction projects for fire and life safety hazards, inspect existing buildings for fire and life safety violations, and provide community education on fire prevention and life safety.

The TFD is divided into two divisions: Fire Suppression and Fire Prevention. The Suppression Division includes all uniformed personnel who respond to emergency incidents and perform activities required to mitigate emergencies. The Prevention Division includes the Battalion Chief/Fire Marshal, Fire Investigator, and Fire Inspectors whose primary responsibilities are fire and life safety inspections and code enforcement.

The Fire Suppression Division currently is staffed with 40 sworn personnel and operates out of three stations. The department currently staffs three engine companies and a shift Battalion Chief on a 24 hour a day basis. The TFD serves a population of approximately 52,250 residents, covers an area of 18.9 square miles and operates with a budget of 4.9 million dollars.

The entire Central San Joaquin Valley in California has seen a double-digit increase in population and housing growth. There are several factors responsible for these increases, but the primary factor is due to the area's reasonable housing costs as compared to Northern and Southern California. The City of Tulare issued over 1,000 new home permits last year and is

seeing a dramatic increase in commercial growth. Currently, the City is expecting to reach a population of 75,000 by the year 2012. This will require the fire department to build and staff a minimum of two additional fire stations over this period.

The department has seen major changes over the last four years with a complete fleet replacement, implementation of a medium duty Urban Search and Rescue team, the opening of our third fire station, planning for our fourth station, and upgrading our emergency medical response from basic life support to advanced life support. The outcome of these changes has resulted in a dramatic increase in involvement of all chief officers in the area of program management. The four battalion chiefs (3 shift and 1 fire marshal) are required to manage their respective shifts and personnel, but are also responsible to oversee an entire division of the department. These additional areas of responsibility are currently broken down into training, prevention, fleet/support, and facility maintenance. They must manage these divisions and subdivisions throughout the year as well as remain accountable for emergency mitigation. This has resulted in the departments chief officers being required to perform more program management then they ever have had to in the past.

An informal e-mail survey conducted by this author and submitted by the four battalion chiefs and the fire chief determined that only one has a bachelor's degree and two have an associates degree. The fire chief and the battalion chief/fire marshal probably have the most contact with the department's external customers and both of these individuals have no advanced degrees.

The ability to promote and advance the new missions of the fire service requires educated leaders. "Fire and emergency service managers of the future must be prepared to



discuss issues, on equal academic footing, with architects, engineers, city managers, and health care professionals” (Johnson Foundation, 1966).

The departments current entry level requirements for the job classification of firefighter/paramedics is a high school diploma or GED, California State Fire Marshals Firefighter 1 certificate or completion of an accredited basic fire academy, and a current State of California paramedic license. The minimum requirements for the promotion to fire engineer is the successful completion of the California State Fire Marshals Driver Operator 1A and 1B training. The requirement for the promotion to fire captain is the completion of the California State Fire Marshal Office Fire Officer Series. This is a series of nine 40-hour courses that cover personnel management, incident command, fire investigation, and fire prevention. The requirement for the promotion to battalion chief and fire chief is the completion of Fire Command 2A and 2B, Fire Management 2A, and ICS 400. These courses are part of the California State Fire Marshal Officer Chief Fire Officer Series.

California State Fire Marshal Officer Chief Fire Officer Series is a series of ten 40-hour courses that cover advanced personnel management, leadership, incident command, emergency planning, and emergency operations. In order to receive a Chief Fire Officer Certification from the state fire marshals office you must also have an associate’s degree. This is why this certification is not a requirement for any chief officer position with the City of Tulare Fire Department. The department has no advanced education requirements for any position within the department. Currently, the fire chief is the only major department head that does not have an advanced degree.

The City of Tulare does offer education incentives which consist of salary increases and tuition reimbursement. City employees that complete 30 college credits are eligible to

receive \$32.50 monthly in compensation and upon completion of 60 college credits are eligible to receive \$75.00 monthly in additional compensation. City employees can receive this compensation by just completing fire training courses and none of the core courses required to obtain an associate's degree. During the bargaining process in 2002, the fire union waived the additional \$75.00 monthly compensation that fire department employees could have received for a bachelor's degree in lieu of a matching deferred compensation benefit. The motive for this change was based on the fact that at the time the department only had one individual that had a bachelor's degree and he was recently hired and considered a probationary employee. In addition, the city offers to all city employees the opportunity for tuition reimbursement. The city has no limit on annual tuition reimbursement, but all courses must be approved by the employee's department head. Tuition reimbursement is calculated at the cost per semester unit for the California State University System, which is currently \$110.00 per semester unit. Tuition reimbursement is available up to a bachelor's degree for non-management positions and up to a master's degree for management positions.

Both law enforcement and the fire service have many parallels to the military, including a structure of rank. In the military, a baccalaureate degree is almost essential to qualify for promotion to a senior officer rank (Baldwin, 1996). Frequently in today's fire service, chief officers achieve their current rank based on years of experience or being in the right place at the right time (Bergel, 1999).

This applied research paper is being written after completion of the Executive Leadership course at the National Fire Academy in conjunction with the completion of the Executive Fire Officer Program. The Executive Leadership course dealt with areas that the fire service has the ability to improve upon, especially when preparing future fire service

leaders through succession planning, and provide for the improved safety of the citizens they serve.

The United States Fire Administration (USFA) has five operational objectives. They are reduce the loss of life from fire in the age group 14 years old and younger, reduce the loss of life from fire in the age group 65 and older, reduce line of duty deaths of firefighters, promote within the community a comprehensive, multi-hazard risk reduction plan led by the fire service organization, and to respond appropriately in a timely manner to emerging issues. This research is guided by several of the operational objectives, but is primarily focused on reducing firefighter injuries and deaths.

## **LITERATURE REVIEW**

The literature review was primarily conducted at the Learning Resource Center at the National Fire Academy and was concentrated on higher education. The process of review included a search of fire-service trade journals, textbooks, Executive Fire Officer Program Applied Research Project's, fire service manuals, City of Tulare rules and regulations, and reports or journals from national organizations other than the fire service.

### Benefits of higher education

Captain Eyre Saw, a chief officer in the London Metropolitan Fire Brigade, wrote in 1873, after visiting several fire departments in the United States.

When I was in America, it struck me forcibly that although most chiefs were intelligent and zealous in their work, not one that I met even made the pretension to the kind of professional knowledge which I consider essential...The day will come

when your fellow countrymen will be obligated to open their eyes to the fact if a man learns the business of a fireman only from attending fires, he must of necessity learn it badly...I am convinced that where study and training are omitted, and men are pitch forked into practical work without preparation, the fire department will never be capable of dealing satisfactory with great emergencies.

Shaw found that American fire chiefs believed they could become a good chief by just going to fires. Shaw recognized the need for education in the fire service in 1873, well before it was recognized in the United States. Unfortunately, fire service officials in this country have failed to comprehend the importance of higher education and the importance of having educated fire service personnel (Moschella & Chou, 2004).

In 1966, an ad hoc committee convened to examine the state of the U.S. fire service, which later became known as the Wingspread Conference. During this meeting, a goal was set forth to change firefighting from an industrial occupation into a profession and they stated that professional stature begins with education. Some of the recommendations the committee made had a direct bearing on the education and professional status of fire service personnel.

Professionalism is generally defined as assured competence in an occupation. Methods of guaranteeing this competence must be developed if the fire service is truly committed to achieving professionalism. Education is one method of assuring this competence (Marinucci, 1998).

In this day and age when college education has become commonplace, to employ and retain a firefighter or fire officer who is educationally inferior to the citizens they protect and for that matter those in government, appears to be impractical. As a practical matter, the firefighter or fire officer must be at least as well educated as the people with whom they live

and work (Harper, 1997). There are many benefits in securing a college education. The main benefit is that possessing a college education, coupled with the necessary experience and positive behavior in an organization, will provide that individual a wide open career path to each level of an organization as opposed to an individual lacking such college education (Beer & Spector, 1984).

The ability to accomplish the departments' goals requires the support and cooperation of elected and other government officials, as well as the support of the public. The lack of an advanced education can hamper fire officials in the achievement of these goals as pointed out by Brame, Lewis, et al, in their interview with the former Fire Chief and now City Manager of Anaheim, California, Bob Simpson;

It is my opinion that the fire service's obsession with training officers in the traditional firefighting skills and not training high-level fire service managers for administration has weakened the fire service to the point where, in many cases, fire administrators are incapable of dealing with professional managers in government, industry... (Brame, Lewis, et al, 1990).

The authors go on to state:

Competition within the public sector for scarce tax dollars can only be expected to become more intense in the future. Tomorrow's successful chiefs will have to deal with highly educated elected public officials and city managers. Comparable education is a major step toward being perceived as a peer and as a professional administrator (Brame, Lewis, et al, 1990).

During the Wingspread IV conference in 1996 at Dothan, Alabama the section on education and training noted the following:

Fire and emergency services managers must increase their professional standing in order to retain credibility with the policy makers and the community at large. Such professionalism should be firmly grounded in an integrated system of nationally recognized education and training. Mid to senior level fire and emergency services managers must have college experience if recognition of their professional status is going to be maintained. Fire and emergency service managers of the future must be prepared to discuss issues, on an equal academic footing, with architects, engineers, city managers, and health care professionals. (p.10)

### College degree requirements

An advisory commission established in 1971 to study academic standards for law enforcement recommended that within a decade every police agency should require at least four years of college as a condition of initial employment. Now this has not happened yet, but law enforcement is much farther ahead of the fire service when it comes to recognizing the importance of higher education. Today advanced degrees in law enforcement are no longer seen as an advantage when it comes to promotion, they are considered minimums.

A sample survey of classified advertisements for chief officer positions in trade journals from 1999 to 2006 indicated that less than 45 percent had the requirement of a bachelor's degree as a minimum requirement. On the other hand, a bachelor's degree is all but mandatory for the position of police chief. In addition, 45% of the classified ads stated a master's degree preferred.

Wakeman and Lowe (2004) state that leaders in the law enforcement community have “generally done a much better job instilling into their culture that college education is an important career accomplishment” (p. 121). Law enforcement commitment to higher

education is reinforced by Clark's (2005) article in Firehouse magazine. He notes that there are, "Twenty-nine doctoral programs related to the police service" (p. 132) while there are two related to the fire service. He also goes on to say that, while there are, "Twelve faculty, fellows, and researchers conducting research and instruction to the police service" (p. 132) at Harvard's Kennedy School of Government, there are no programs listed related to the fire service. This is a good example of the disparity between police and fire and the importance of higher education.

The *Standard for Fire Officer Professional Qualification, National Fire Protection Association (NFPA) 1021*, is the document that addresses qualification for fire officers. In 1971, the National Professional Qualifications Board (NPQB) was created by the Joint Council of National Fire Service Organizations (JCNFSO). The board established four technical committees to develop the standard and in 1976 the first edition of NFPA 1021 was adopted by the NFPA (NFPA, 2006). This standard only addresses job performance requirements and does not set forth any required education or training. These performance standards were designed to be used by any department as an assessment of the required knowledge and skills necessary to complete the tasks of a fire officer. This standard does not address how fire service personnel should acquire the education and training necessary to meet the job performance requirements. This is left entirely up to the local jurisdiction.

NFPA 1021 has seen several revisions over the years and portions have been adopted by the California State Fire Marshals Office. The states Fire Officer Certification is the first of three steps of certification leading to the position of certified Fire Chief. The three steps include certified Fire Officer, certified Chief Officer, and certified Fire Chief. This approach is in contrast to the four steps of certification discussed in the NFPA #1021 standard.

However, all the tasks specified in NFPA #1021 are included in California's three-tier system (CSFM, 2006).

The International Association of Fire Chiefs (IAFC), has expanded upon the standards developed by NFPA for professional qualifications and has developed the *Officer Development Handbook (2003)*. The IAFC model for professional development is based upon four elements: Education, Training, Experience, and Self-development. IAFC is less concerned with the awarding of a certain degree as it is with the subject matter that has been learned. It does however recognize that when a student completes the required education, degrees will be granted (IAFC, 2003).

Rivenbark (2000) in “Promoting Higher Education in the Fire Service” states,

The National Fire Academy (NFA) and National Fire Protection Association (NFPA) have both made it clear that higher education is an important ingredient in the career advancement of fire personnel and that higher education is critical to managing the complexities of the fire service. The NFA strongly supports professional development programs that encourage both associate and baccalaureate degrees. (p. 45)

Requiring higher educational standards are not just to justify salary levels to the public.

Bercik, Connealy, Lowe, and Mooney (2004) in the article in Firehouse magazine state that, “fire departments will have to become learning organizations if they are to effectively and efficiently serve the public safety needs for the communities” (p. 88)

#### Incentives and degree programs

In 1999, the first Fire and Emergency Services Higher Education (FESHE) conference was held at the National Fire Academy in Emmitsburg, Maryland. FESHE is comprised of



college and universities that offer both associate and bachelor degrees in a fire service field. The group is also comprised of members from local and state fire training organizations with the intent that they will include higher education into their training programs.

At the FESHE IV conference in June 2002, a model to provide a pathway for professional development of fire and emergency service personnel was developed and presented by the Commission on Fire Officer Designation, which is part of the Center for Public Service Excellence. This model shows the importance of how training and higher education should work together. Training provides the practical application to firefighting and higher education provides the ability to manage and lead.

#### Literature Review Summary

Numerous articles written specifically for the fire service over the past twenty years have stressed the importance of education and the need for chief officers to have a college degree. Clark (2004), Gardiner (2002), and Johnson (2004) all agreed on the need for fire officers to have an advanced college education in order to meet the demands of today's fire service.

The need for a college education is illustrated as an important issue by the International City Managers Association (ICMA). ICMA (1998) touts the importance of professional standards and certifications. It references the *Standard for Fire Officer Professional Qualifications*, NFPA 1021, which provides job performance requirements for fire officers (NFPA, 2006).

The recent publication of the International Association of Fire Chief, *Officer Development Handbook*, (IAFC, 2003) has laid the foundation in order to establish the required training and education required to be a fire officer. The only problem is that actual

degree requirements are not stated, only course work. This document only describes course work and subject matter qualifications, but it does provide guidance on the recommended training and professional experience levels for each of the four categories of a fire officer (IAFC, 2003).

## **PROCEDURES**

The literature review was conducted at the Learning Resource Center at the National Fire Academy and from the author's personal collection. This review included a total of eight other applied research projects from the Executive Fire Officer Program that were examined because they had a similar topic and research pertaining to higher education in the fire service.

The literature review explored the changing role of the fire service executive and the educational requirements these executives need to keep pace with the demands inherent with their current roles and responsibilities. This review also provided insight into the wide variety of approaches for promoting the achievement of higher levels of education among members of the fire service.

The literature review provides the basis for understanding the need for higher education, benefits of higher education, and limitations to improving the education level of chief officers.

The survey the researcher wrote and utilized to answer the proposed research questions was created with the sole purpose of collecting enough data to determine the current educational requirements in the fire service for chief officers throughout California. The questions asked were closed ended questions not allowing the survey participant the freedom

to formulate answers. This was done to allow the survey participant to be able to complete the survey in a short period of time. The number of questions the survey asked the participant was selected to be enough to gather adequate information without overwhelming or discouraging participation in the survey. Questions were asked using a Likert scale as well as multiple choice and yes/no questions.

The survey covered four general areas of interest; a) the need for higher levels of education, and what specific degrees might be appropriate for chief officer ranks within each department, b) whether some college education is required for promotion and if so, what levels of education are required, c) whether incentives for obtaining a college education is provided and if so, what types are provided and, d) what challenges the respondent had to overcome while attending additional college and completing a degree (see appendix for a copy of the survey).

The survey was sent to forty six similar size and characteristic departments throughout the State of California. The author received twenty seven surveys back within the stated thirty day response time. The survey was also sent to all forty suppression personnel of the City of Tulare Fire Department. The author received thirty seven surveys from department personnel. After reviewing the surveys from department personnel the author informally contacted several respondents to clarify why they responded in the way they did. The author needed more clarification for the question number ten.

The survey instrument was sent to respondents through a traditional paper format as well as offered through e-mail by the request of the recipients. Those choosing the paper version returned the complete survey via mail. Those choosing the electronic version

completed the survey by printing it out and sending it back through the mail or sending it back electronically.

The data derived from this survey provides a picture of the higher education requirements of departments in the State of California, and illustrates how these efforts compare with the recommendations cited in the literature.

Job descriptions or classifications were reviewed both for the City of Tulare and similar size departments throughout the state. This review was completed in an effort to determine the minimum educational requirements for fire management positions.

#### Limitations and Assumptions

The author of this research paper assumed that all respondents to the survey listed above answered all questions to the best of his or her ability and knowledge. It was assumed that the respondents were not subject matter experts. The respondent that answered the survey might not be a chief officer, but an administrative assistant or other staff position.

Additionally, respondents were chosen based on being located within the State of California and having similar department characteristics and responsibilities. No surveys were sent to volunteer fire departments. This list was the author's best attempt at surveying departments that are similar, but it is reasonable to conclude that there might be fire service organizations that were missed.

Finally, the time constraint imposed by the operational policies of the Executive Fire Officer Program with regard to submittal deadlines might have had an effect of narrowing the scope and depth of the research along with the number of respondents to the survey.

#### **Definition of Terms**

**Associate's Degree** - A two-year college degree, generally obtained through a junior or local community college.

**Bachelor's Degree** - A four-year degree, generally obtained through public or private state colleges and universities.

**Executive Fire Officer** - Those individuals who have been accepted into or have completed the National Fire Academy's Executive Fire Officer Program. These individuals are most often chief level officers, or occasionally those of lower ranks with equivalent responsibilities. Participants in this program must also possess at least an associate's degree.

**Executive Fire Officer Program** - A major educational effort of the National Fire Academy to enhance the management and leadership capabilities of fire officers. This four-year program consists of three core, and one elective course provided at the NFA campus in Emmitsburg, MD. Each two-week course is followed by an applied research project which must be completed within six months of the end of each course.

**Higher Education** - Any education received after the completion of high school for which college credit is awarded from an accredited college or university.

**Master's Degree** - Generally a two-year degree obtained after successful completion of a bachelor's degree.

**National Fire Academy** - A division of the United States Fire Administration (USFA) of the Department of Homeland Security, the National Fire Academy provides training and educational opportunities to the nation's fire service through a variety of on-campus and outreach programs.

## Results

### **A) What are the benefits of requiring a bachelor's degree for chief officers in the City of Tulare Fire Department?**

In addition to the task of responding to fire related emergencies, the altering role and span of fire departments is also diversifying. Thirty years ago, fire departments responded primarily to fires. Fifteen years ago fire departments were expected to respond to medical and hazardous material emergencies (USFA, 1990). Today the general public throughout the country depend on, and expects, firefighters and emergency service employees to react instantly to a wide range of ever changing emergencies. Because of these constantly changing situations, emergency service personnel are being required to explore and educate themselves on more sophisticated methods to mitigate emergencies. This changing environment requires firefighters and emergency service personnel to increase their education (Booth, 1999).

Booth (1999), in an article for Fire Chief magazine lists seventeen reasons the Police Executive Research Foundation has established as benefits of a college education in the protective services. Included in this list are;

1. Makes individuals more innovative and flexible when dealing with complex situations.
2. Allows individuals to better perform tasks with little or no supervision.
3. Engenders more professional demeanor and performance.
4. Enables individuals to more readily accept and adapt to organizational change.

There is no doubt that the job of a firefighter has moved from one that relies predominantly on brute strength to one with considerable intellectual demands (Booth, 1999). Because of these intellectual demands firefighters will need to obtain prior to promotion or even employment in the fire service, several educational intuitions have setup fire science related education programs.

The importance of education in the fire service is not new. In 1966 at the first wingspread conference held for fire service leaders the statement was made that, “professional status begins with education.” Throughout the conference, it was explained that higher education identifies a systematic body of knowledge, sets standards of conduct and helps the advancement and dissemination of knowledge. With these statements, the conference concluded that the idea for uniform education in the fire service is needed and future protocols should be developed (Clark, 1993).

**B) What type of college degree requirements, if any, do similar size department throughout California require for the position of chief officer?**

The concept of educational requirements for chief officers is not a new one. The Los Angeles City Fire Department introduced the idea of education and training standards for firefighters in the mid 1920's. In response to training shortfalls, the Los Angeles Fire College was established in 1932. As the years progressed, there were a number of initiatives designed it improve the training process, including the establishment of the National Fire Protection Association professional qualifications, the development of the National Qualifications and Standards Board, and International Fire Service Accreditation Congress (IFSAC). One item

which has always been lacking is minimal educational standards for the chief officers positions (Coleman, 1998).

In respect to promoting existing employees, fire departments commonly focus mainly on tradition and put a high level of promotional importance on experience. This tradition emphasizes the need for officers to have experience at a large number of fire and emergency incidents giving officers the ability to direct successful outcomes of emergency incidents.

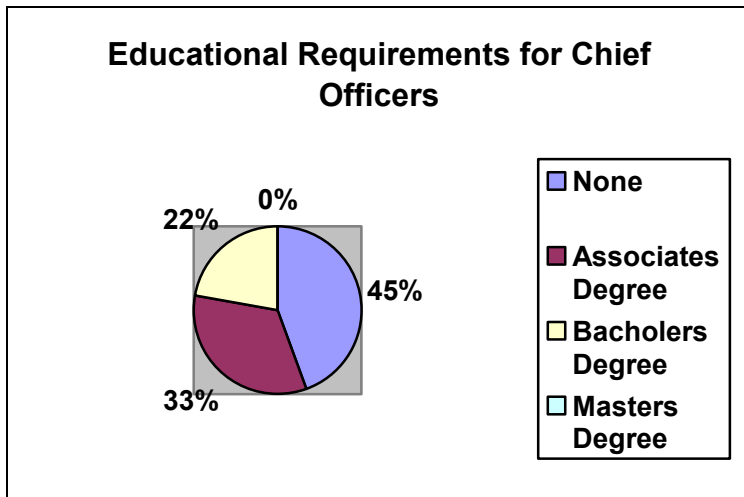
Twenty-five years ago very few training and educational programs existed to develop and prepare firefighters for the role of officer. The best teacher was experience. Today however, there are a number of education and training opportunities available to fire department personnel. Additionally, the role of the fire department officer has changed. There is a greater emphasis on fire department officers having a thorough understanding of business management practices that can only be obtained through formal education

In his book, *Going for the Gold* (Coleman, 1999), Chief Coleman advises candidates for chief officer positions to set their academic achievement goals as high as possible. Just getting the basic degree is not enough in today's world. He suggests making sure a chief's level of education is equal or above the employees they supervise. Coleman also points out that most of the professions with which fire service professionals interact with often have graduate degrees (Coleman, 1999).

A questionnaire was sent out to forty six fire agencies throughout the State of California and twenty seven returned the survey. The results are summarized below and in the graph. Of the twenty seven that returned the survey, twelve responded that they have no education requirement for chief officer positions. A majority of the departments that surrounds the City of Tulare Fire Department do not require any formal education, just years



of service and California State Fire Training certificates from the Office of the State Fire Marshal. Three of the surrounding fire agencies just tested for the position of battalion chief and had minimal requirements for the position and no educational requirements. The reason stated for this was the concern for the lack of applicants for the position. Nine fire service agencies require an associate's degree in any related field, but would prefer it to be fire related. All of these fire agencies stated that a bachelor degree would be preferred, but not required. Six fire service agencies responded stating they require a bachelors degree in a related field, but two of those agencies stated they would waive the degree requirement if completed the Executive Fire Officer Program and had their Chief Officer Certification from the California State Fire Marshals office.



**C) What incentives are provided or necessary to encourage fire department personnel to pursue higher education?**

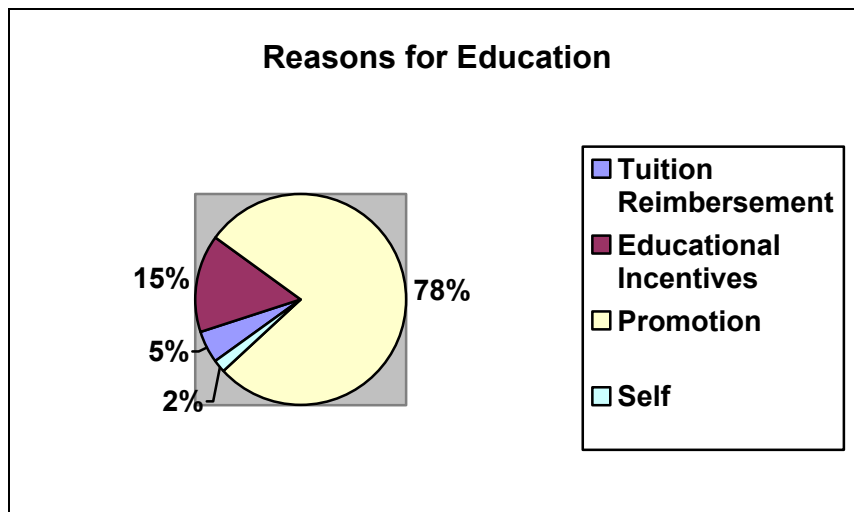
A Tuition Reimbursement Program has been established by the Tulare City Council in Section 1205 of the Employee Rules and Regulations. The purpose of this program is to provide a means to assist the employee in obtaining skills through the educational process which are essential to improving the employees ability to improve the ability of the employee to perform in his/her current position or help prepare him/her for a related promotional opportunity within the City of Tulare. The anticipated result of this program will be greater departmental effectiveness and, in turn, a more effective total organization.

According to the City of Tulare Rules and Regulations Section 423 titled, Education Incentive, the purpose of this policy is to provide an incentive for department personnel to improve their abilities to perform in their current position and better the organization as a whole. An education incentive program is available to all sworn employees of the Fire Department through the rank of Fire Battalion Chief. The education incentive program for sworn Fire Department employees is as follows:

1. A payment of \$37.50 per month shall be granted with the completion of 30 units of acceptable college credit (20 units in Fire Science) and a minimum of two years of full time paid fire service.
2. A payment of \$75.00 per month shall be granted within the completion of 60 units of acceptable college credit (20 units in Fire Science) and a minimum of three years of full time paid fire service.

A preponderance of the respondents stated that tuition reimbursement and educational incentives were not the primary reason for attending college. Over 78% stated that the main

reason for attending higher education was to give themselves a better opportunity during promotions. Only 1 respondent stated that he continued his education for personal satisfaction.



Geiger wrote in the *American Fire Journal* (1997), “Financially supporting and encouraging a firefighter’s educational pursuits should not be considered an expenditure or a fringe benefit, but rather an investment in the future of the fire service.”

The City of Tulare tuition reimbursement program is being used today more than it has been in the past. For the 2005 – 2006 fiscal year the department spent approximately \$11,683.00 on tuition reimbursement. For the current fiscal year the department has already spent \$13,227 and we still have five months before the end of the fiscal year. I think this is an interesting figure because it shows that department personnel are attending college and working towards higher education. The author reviewed the individual names associated with the tuition reimbursement and a majority of the personnel are in the firefighter ranks (72%). The department only had one individual from the rank of fire captain attending higher

education and this was an individual that already has a bachelor's degree and is working on his master's degree.

**D) What are some of the challenges to implementing a policy of requiring a college degree for chief officers?**

Firefighters can experience several problems and limitations in the area of education. One main limitation several firefighters deal with is that their work schedule is not conducive to the timetable of many educational institutions. Firefighters typically work one of two schedules. Both schedules consist of 24 hour work days. An example of a fire department schedule commonly found throughout California is firefighters on-duty for 24 hours and then off for 48 hours. In recent years an increasing number of departments have changed to a schedule of 48 hours on duty and 96 hours off duty.

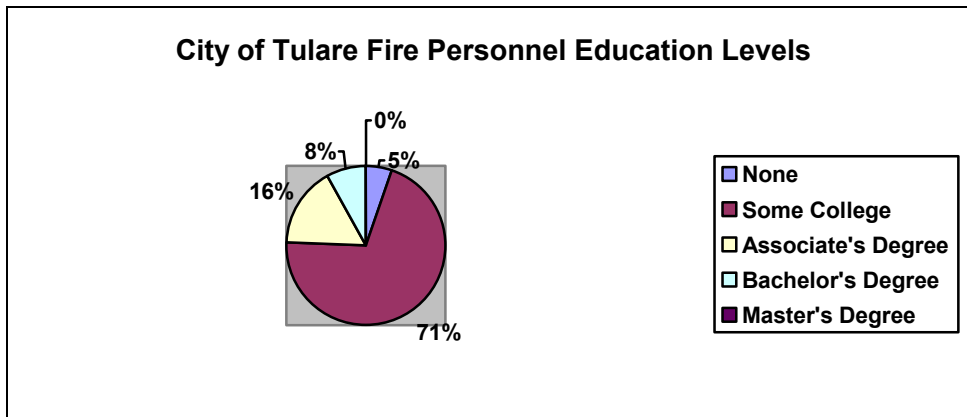
Based on the above information it becomes evident that it can be difficult for a full time firefighter to attend a Monday, Wednesday, Friday course at a local college or university. Even courses that pride themselves by catering to working adults have a difficult time accommodating a firefighter's schedule.

Attaining an advanced degree no longer involves going to a traditional college and attending class in a classroom on campus. According to Dr. William Jenaway (2004) in an article for Fire Chief Magazine, distance learning, self-paced programs, and computer based education is now available throughout the world. As we become more comfortable with technology, we are accepting these changes in how educational programs are offered (Jenaway, 2004).

A survey was sent out to all forty fire suppression personnel of the City of Tulare Fire Department and the author received thirty seven responses. The survey respondents included

one fire chief, four battalion chiefs, nine fire captains, eight fire engineers, and fifteen firefighters.

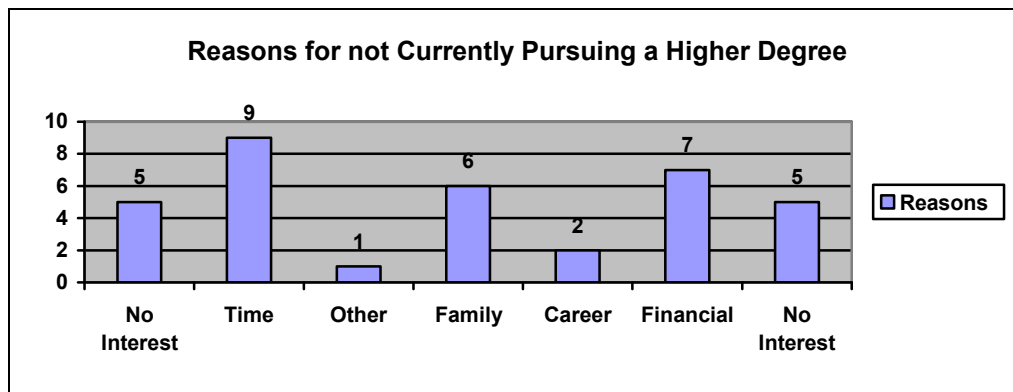
Of those that responded six individuals had an associate's degree and three had a bachelor's degree. Two individuals are currently working on their master's degree and will be completed this summer. Twenty six respondents stated they had some college and were receiving the city's educational incentive pay, but did not have a degree. Many stated they meet the core subject requirements, but did not have the general education requirements completed. The missing courses mainly included english, speech, and math.



Twenty one of the survey participants responded that they do not feel that the department passes over individuals for promotion based on their educational levels. Most believed that years of service and actual experience mattered more when determining promotions.

The two main reasons the survey showed why fire department personnel were not currently attaining their college degree were time and financial. The author was surprised by

the seven individuals that responded financial because the city offers a tuition reimbursement program. It was stated to the author by two of the respondents that the reason why they see it as a financial issue is that due to their schedule they must attend either a non-traditional or private universities that cost more per unit then the city currently pays. The City of Tulare currently reimburses \$110 per semester unit and Fresno Pacific, Chapman University, and the University of Phoenix currently charge \$240 per semester unit.



The opportunities that formal education can offer personnel in the fire service can be significant in terms of employment and promotion. With these opportunities increasing, so are the numbers of educational institutions that offer fire management courses. Due to the increased opportunities that formal education provides, so are the number of educational institutions that offer fire management courses and degrees.

### **Discussion**

With an increasing trend in the fire service to increase the responsibilities in administrative knowledge and human resource management to make for a well rounded

employee, the need for higher education in the fire service is needed now more than ever. The citizens of the community and the other industries that the fire service deals with on a daily basis expect highly educated fire officers that are capable of communicating on the same level as other professionals.

The research and literary review have confirmed that there are benefits to having a higher educated chief officer staff. They are more capable of independent work, have the ability to be more flexible when dealing with complex situations, and are less resistant to change. Fire service agencies are modeled after successful businesses and the military, which require leaders to be educated and qualified for the position they serve. Drs. Hoover and Grant in *Fire Service Administration* (1994) stated: “the incorporation of a number of new services into the daily operations and responsibilities of many fire departments requires a more modern professional management approach.” (p.7) They also stated, “Many people have qualifications to do a job, but others have not only the qualifications but the motivations to use these qualifications to improve the operation of the department. These are the individuals who should occupy senior officer positions.” (p. 152)

The first edition of *Managing Fire Services* contained an entire section on higher education in the fire service. However, the second edition of *Managing Fire Services* was produced during this time period and rarely even mentioned education (Coleman, 1998). The fire service should be trying to encourage and promote higher education and showing the benefits of it in making firefighting a profession. It is obvious from the research of the TFD that they have not achieved the goal of having a higher educated work force.

Those individuals that wish to get promoted to chief officer positions in the fire service must start their education early and complete as a minimum a bachelor’s degree. In

today's educational system, more and more colleges and universities are offering distance learning or non-traditional schedules in order to complete degree requirements.

Carter (2000) stated in his article in *Firehouse* "Fire chiefs need to become computer literate, attend various local, county, state and national seminars, build a library, join a professional association, commit time to the National Fire Academy, train regularly, broaden their administrative skills, and learn about the laws that impact upon their daily operations" (p.68).

It appears that the City of Tulare offers several benefits to make obtaining higher education achievable, but the fire department's personnel seem not to be taking advantage of it. An e-mail survey of department personnel showed that the department has only three individuals with a bachelor's degree and two of them are currently attending courses to complete the requirements for a master's degree. The department has six individuals that have an associate's degree and this equates to approximately less than 15 percent of the department. Three department personnel have a bachelor's degree, which equates to approximately less than 7.75 percent of the department.

Educational incentives and tuition reimbursement are a significant factor when individuals are deciding to attend higher education. Even with the current tuition reimbursement plan in place, TFD personnel stated that they still are concerned about the financial portion of attending college because the city currently does not reimburse the entire amount for attending anything other than a state university. Private universities that have program hours that work better for the schedule of a firefighter currently cost almost twice as much per semester hour. The city could increase for the fire and police departments the



amount of tuition reimbursement to cover the cost of private colleges with the justification being the scheduling conflicts as compared to other city employees.

The city could also look at raising the amount department personnel receive for completing college degrees and possibly bringing back the incentive for the bachelor's degree. The fire union waived the \$75.00 per month for a bachelor's degree in order to receive matching deferred compensation in the same amount. Many other departments in the survey responded that they receive 2.5% for an associate's degree and 5% for a bachelor's degree. This amount is considerably higher than what the City of Tulare currently offers and if corrected, could alleviate the problem of fire department personnel not pursuing higher education.

The other area that the survey demonstrated as a difficulty was the time factor. It was unclear whether this meant the inability to get days off from work or whether it meant not just enough time outside work to go back to college. The author did speak with a couple of survey respondents about getting clarification on survey question #10 and they stated the main area that presented the most challenges was time off from work in order to attend college hours. They have witnessed the individuals that are currently attending higher education courses and see how they must use vacation and shift trades to be able to attend classes. They said they do not have enough vacation or time to attend and complete the course work. For those members of the City of Tulare Fire Department working that work the current shift of 48 hours on duty and 96 hours off duty and that have difficulty attending classes on a rigid schedule, distance learning is a good option.

Based on the number of City of Tulare Fire Department personnel that currently have either an associate's or bachelor's degree it would be difficult to start immediately requiring

higher education. This requirement would dramatically reduce the number of qualified internal applicants for positions and would result in a grievance by the union. If the fire department mandated today that a bachelor's degree were required for the position of battalion chief only two current fire department personnel would be qualified and one of these individuals currently holds the rank of firefighter/paramedic and does not have the other minimum qualifications necessary to be able to test for the position. The City of Tulare Human Resources Department requires at least three qualified applicants for every vacant position. We currently do not meet this requirement with in house candidates and would be forced to open these positions to other qualified applicants from outside the City of Tulare Fire Department. This has been done before with limited success. It reduced department morale, made a difficult situation for the individual who came from outside the department, and caused a strain in employee-employer relations.

The City of Tulare Fire Department has the following ethnic make up; Caucasian sixty percent (24), Hispanic thirty seven and a half (15), and African American two and a half percent (1). When you compare this to the ethnicity of those who have degrees it is completely different. For bachelors degree all individuals are Caucasian (100%) and for an associates degree four individuals are Caucasian (66.6%), one individual is African American (16.6%) and one individual is Hispanic (16.6%). Requiring higher education for promotional opportunities would reduce the number of minority applicants based on the data listed above.

Of the fire service agencies surveyed, the majority (15) required a minimum of an associate's degree for the position of chief officer. This requirement is consistent with what is outlined in the International Association of fire Chiefs (2003) *Officer Development Handbook*. In California, an associate degree is also required for the Chief Fire Officer

Certification issued through the Office of the State Fire Marshal. The State Fire Training Policy and Procedures Manual (2006) states, “Possess, at a minimum, a community college associate’s degree (any major) or equivalent degree from an accredited post-secondary institution.” (p. 96).

Only six fire service agencies require a bachelor’s degree for a chief officer position, but nine fire agencies do require an associate’s degree. One way the City of Tulare Fire Department could require higher education without actually mandating an associate’s degree requirement might be to require the Chief Fire Officer Certification from the State Fire Marshals Office. This would ultimately have the same effect, but would not be an actual educational requirement.

### **Recommendations**

A review of the literature as well as the survey results confirm that not only current fire service leaders require higher education in order to function within today’s environment, but future leaders as well. Higher education requirements will ensure that fire service personnel have the academic and professional qualifications to be considered an equal to other professions from other fields.

Research showed that the immediate implementation of a bachelor’s degree requirement for the position of battalion chief would result in an extremely diminished internal applicant pool. It also showed that minorities have not taken advantage of the city’s tuition reimbursement or educational incentives. If even an associate’s degree requirement was to be put in place for the position of fire captain it would limit the amount of minority applicants. The goal of the City of Tulare has always been that the police and fire department mirror in ethnicity the community they protect. Currently, the fire department meets this

standard overall, but not when you compare the management positions to the community. If the department required college degrees immediately it would further impact this already existing problem.

In order to meet the professional needs of the City of Tulare Fire Department chief officers it is recommended that the department require the Chief Fire Officer Certification from the State Fire Marshals Office for all newly appointed battalion chief starting in January 2008. This will give department personnel the opportunity to finish coursework with the goal of having a diverse applicant pool.

## References

- Baldwin, J. (1996, March). The promotion of the United States Army: glass ceilings in the officer's corps. Public promotion record *Administration Review*, 56, 199-206
- Beer, M., Spector, B., (1984, July/August). Organization diagnosis. *Journal of counseling and development*. 642-645.
- Bercik, R., Connealy, C., Lowe, B., & Mooney, L. (2004, April). Stop wasting time and pursue your college degree. *Firehouse*, 187-188,190.
- Bergel, P. (1999, September). Higher education – tools for tomorrows leaders. *Responder*, 4, 10-11.
- Booth, W. (1999, May). Many are called but few are chosen. *Fire Chief*, 42-46.
- Brame, K., Lewis, N., et al (2001, May). Academic achievement levels for fire chiefs. *Fire Chief*, 62-65.
- California Officer of the State Fire Marshal. (2006) *State fire training policies and procedures*. Sacramento, CA
- Carter, H. (2000, August). Being a modern chief: It's more than firefighting. *Firehouse*, 68-70.
- City of Tulare (2006) Rules and regulations. Tulare, CA: Author
- Clark, B., (1993, September). Higher education and fire service professionalism. *Fire Chief*. 50.
- Clark, B. (2004, February). Who needs a PHD?. *FireHouse*, 54-59
- Coleman, R. et. Al. (1998). *Managing fire services*. Washington D.C.: International City Managers Association.
- Coleman, R. (1999). *Going for the gold*. Albany, NY: Delmar Publishers
- Geiger, C. (1997, March). Cultivating the next generation of fire officers. *American Fire Journal*, 30.
- Harper, B. (1997). *The community college role in fire service education*. National Fire Academy. Emmitsburg, MD.
- International Association of Fire Chiefs. (2003). *Officer development handbook*. Fairfax, VA: Author

- Jenaway, Dr. W. (2004, April). Training technology: Course for change. *Fire Chief*, 86-90.
- Johnson Foundation, (1966). Wingspread Conference on the Fire Problem in the United States. Racine, WI: The Johnson Foundation
- Johnson Foundation, (1976). Wingspread Conference II on the Fire Problem in the United States. Racine, WI: The Johnson Foundation
- Johnson Foundation, (1986). Wingspread Conference III on the Fire Problem in the United States. *Issues and Recommendations*. Racine, WI: The Johnson Foundation
- Johnson Foundation, (1996). Wingspread Conference IV on the Fire Problem in the United States. Racine, WI: The Johnson Foundation
- Johnson Foundation, (NDL). Wingspread Conference IV on the Fire Problem in the United States (The International Associations of Fire Chiefs Foundation). Racine, WI: The Johnson Foundation
- Kemp, M. (1999) *Advancing higher education for fire service leaders*. National Fire Academy. Emmitsburg, MD.
- Marinucci, R. (1998, August). Something borrowed, something new. *Fire Chief*, 68.
- Moschella, J., & Chou, A. (2004, November). Fire service higher education in the U.S. and Taiwan. *Fire Engineering*, 105-112.
- National Fire Protection Association (2006) NFPA 1021. *Standard for fire officer professional qualifications*. Quincy, MA.
- Rivenbark, W. (2000, September). Promoting higher education in the fire service. *Fire Engineering*, 45-47.
- United States Fire Administration (1990) *American Burning*. Washington D.C.: Author
- Wakeman, R. & Lowe, B. (2004, August). Getting educated about being in college educated. *Firehouse*, 121-122, 124-125.

## Appendix A

### Survey for Higher Education for Chief Officers

**1. How would you describe your current position with the fire service?**

- Fire Chief
- Assistant Chief
- Deputy Chief
- Division Chief
- Battalion Chief
- Fire Officer
- Other \_\_\_\_\_

**2. How long have you been employed in your current fire related job:**

- Under 1 year
- 1-3 years
- 3-5 years
- 5-10 years
- 10-15 years
- 15-20 years
- 20-30 years
- 30-50 years

**3. Does your department require a college degree for any chief officer position?**

- Yes                       No

**4. If you answered yes, is it for all chief officer positions or only specific job classifications?**

- Yes                       No

**5. If you answered no please select which positions require a college degree.**

- Fire Chief
- Assistant Chief

- Deputy Chief
- Division Chief
- Battalion Chief
- Fire Officer
- Other \_\_\_\_\_

**6. What type of degree is required for the position of chief officer?**

- Associates Degree
- Bachelors Degree
- Masters Degree

**7. What is your current level of education achieved status?**

- High School
- Some College (includes EMT or Paramedic, and certifications)
- Associates Degree
- Bachelors Degree
- Masters Degree
- PhD.

**8. If you do not have a degree or were given the opportunity for higher education, would you return back to school?**

- Yes                       No

**9. Are you currently enrolled in a degree program full or part time?**

- Full Time                       Part Time

**10. If not currently pursuing a higher degree, what do you believe is the primary reason:**

- No interest
- Do not believe it will ever help me in my career
- Family



- Financial
- Lack or distance to schools offering fire related degree programs in my area
- Time
- Other \_\_\_\_\_

**11. Does your employer provide any of the following education reimbursement or incentives to pursue additional education?**

- Partial Tuition reimbursement
- Full Tuition Reimbursement
- Text Books Only
- Time off for School

**12. Do you believe fire service employees get passed over for promotions based on their lack of education?**

- Yes                       No

**13. In your opinion, does your fire department value education? (1 = not at all , 8= The fire department does value education)**

1            2            3            4            5            6            7            8

**14. On a scale of 1-8, do you believe your education will help you advance in your fire related career? (1 = not at all , 8= I am positive education will advance my career)**

1            2            3            4            5            6            7            8

Name \_\_\_\_\_

What is your current rank? \_\_\_\_\_

What fire department do you work for? \_\_\_\_\_

E-mail address \_\_\_\_\_

**Please return the survey to:**

**John Binaski**

**1280 Greenwood Ct.**

**Tulare, CA 93274**

Any questions please feel free to e-mail me at **jbinaski @comcast.net**. Thank you for your time in order to complete this survey for the Executive Fire Officer Program of the National Fire Academy.