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# A Study to Assess the Benefits Students Received from Completing the Fire Cadet Program in Chesapeake Public Schools

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APPROVAL PAGE

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# CHAPTER I

# INTRODUCTION

All children are typically asked, "What do you want to be when you grow up?" Their response is usually policeman, fireman or the lastly super hero. The occupations children select are based on their range of career knowledge. Typically, primary schools have career day where policeman with "McGruff the Crime Dog" or fireman with "Sparky the Fire Dog" arrive with all their public relations propaganda and entertain the children with safety information and instruction related to doing the right things. These public service personnel appear like super heros with their shiny badges, multi-colored patches and high-tech equipment and vehicles. It is no wonder that children would select a career in public service. However, there are those who never give up the pursuit of being a public service hero as they progress through our educational systems.

In vocational programs, the goals have long been to train students for success in the workplace by providing them with lifelong work skills. The Fire Cadet Program in Chesapeake Public Schools was a two year program which prepared high school students with specialized skills for careers in fire service. This program was served through the Industrial Cooperative Training (ICT) classes as a cooperative program where students earned two elective credits toward high school graduation. In this specialized program, students combined classroom instruction both in the high school and at the fire training academy with on-the-job training in a fire station. An ICT teacher/coordinator instructed generally related work topics in the classroom; a fire training officer instructed directly related work topics at the training academy and both coordinated an instructional

evaluation plan for each student. The goal of the program was to insure that students were state certified as level three firefighters and emergency medical technicians. These certifications provided the necessary training for acquiring employment as a bonafied firefighter. As a minimum, these certifications were required for employment with Chesapeake Fire Department (New, January 26, 1995).

While the Fire Cadet Program for the City of Chesapeake, Virginia, was terminated in 1991, the majority of the personnel who were involved in the program have commented on the program's success and offered mixed reasons for its termination. To enhance the overall success of any program, follow-up studies need to be developed to determine the success and failure of any pilot program.

## Statement of the Problem

The problem of this study was to assess the benefits students received from completing the Fire Cadet Program in Chesapeake Public Schools.

## Research Goals

The following goals were established to guide the research:

1. Identify why the program was started.
2. Determine the current employment status of program completers.
3. Determine if the program had indirect benefits to participants.
4. Identify reasons why the program was terminated.

## Background and Significance

The goal of the Fire Cadet Program was to prepare students for full-time employment in the fire service field. While the program operated between the years of 1985 and 1991, its success was measured only by the number of students who enrolled and completed the program. The success of any program providing specialized skills, if it was to survive in the educational system, must provide jobs for students upon completion or graduation from high school.

Neither the Chesapeake Public Schools nor the Chesapeake Fire Department required a follow-up study to be preformed to determine the success rate of this specialized training program. The creation of such a framework would provide a method to be used for future studies whether they were in fire service training or other areas. For this reason, this study would provide closure for a previously implemented experimental program.

In addition, this study would provide a framework to assess success or failure of future specialized programs within the Chesapeake Public School System. If used, it would provide a starting point for future researchers to base follow-up studies.

## Limitations

The following limitations were established to guide this study:

1. The researched period was from 1985 to 1991.
2. The research was limited to Fire Cadet students enrolled in the Industrial Cooperative Training (ICT) program.

3. The research was limited to graduates of Chesapeake Public Schools in Chesapeake, Virginia.
4. No previous follow-up research existed on this program.

## Assumptions

The following assumptions have been made to assist in the completion of this study:

1. Information from unpublished sources will be available for review and analysis.
2. City of Chesapeake personnel will be willing to participate in the study.
3. Program completers can be located within the time period allowed.
4. The results of this study will be used to enhance follow-up of future experimental training programs.

## Procedures

This research was developed to determine the educational benefits and employment status of Fire Cadet program completers. The data needed to complete the study was collected by means of a follow-up survey and interviews with personnel involved in the program. The student records kept by Chesapeake Public Schools ICT teacher/coordinators and the Chesapeake Fire Department provided information for locating students. The survey was sent to students who enrolled in the program during the years 1985, 1986, 1987 and 1989. In 1988, the program was temporarily terminated due

to funding (Anderson, January 31, 1995). Interviews with personnel from Chesapeake Public Schools and the Chesapeake Fire Department provided background information for determining the instructional benefits of the program.

The survey included questions to determine the benefits of participating in the program while in school, benefits received as a result of completing the program, current fire service positions held by completers, location of current fire service employment, length of time to gain employment in the fire service field, and any higher education received after completing the program. After collecting the data, the information will be compiled and made available to the Chesapeake Public Schools and Chesapeake Fire Department for future educational use.

## Definition of Terms

The following terms will provide the reader with a better understanding of their meaning as applied to this study:

1. ICT: Industrial Cooperative Training.
2. Teacher/Coordinator: The teacher who is responsible for the total operation and effectiveness of the high school program. This involves classroom instruction, job placement, on-the-job supervision, and cooperation with classroom instruction.
3. Cooperative Training: Learning experiences gained on-the-job through the correlation of vocational classroom instruction and part-time employment.

4. Emergency Medical Technician (EMT): Personnel who "response to calls for assistance in order to provide efficient and immediate care for critical ill or injured persons. After providing initial care, they transport the patient to a medical facility" (Grant and Murray, 1978, p. 8).
5. Fire Cadet: High school student enrolled in a firefighter training program.
6. Firefighters: Personnel who put out fires and save lives and property (Petersen, 1975, p. 24).

## Overview of Chapters

Chapter I of this study introduces Fire Cadet Training and explains the need for conducting a follow-up study in Chesapeake Public Schools. The main goal of the Fire Cadet Training Program was to prepare students for a career in the fire service.

The following chapters will review literature provided by those who were involved in the program. The methods and procedures used in the study will be discussed in Chapter III. The findings of the research study will be presented in Chapter IV. Chapter V will provide a summary of what was learned, draw conclusions and make recommendations for the study's future use.

# CHAPTER II

# REVIEW OF LITERATURE

Fire has played a significant role in the development of civilization. During early civilization, it was said that the makers and keepers of fire were very important people. These fire keepers were an essential part of life because it was they who provided for warmth, provided for a means to prepare food, and guarded the weapon to use against ones enemies. Later, the need to control fire became more important because civilized man learned of the destructive powers fire possessed.

In this chapter the history of the firefighting and innovative trends used locally will be discussed. The focus of local trends will be on an innovative program to train high school students for the fire service profession.

## HISTORY

The control of fire has a rich history of events that parallel the evolution of man. The brief historical picture drawn in this chapter shadows only a few of the events surrounding the development of fire protection. From prehistoric man who held a reverence-like fear for the power of fire to modern man who continues to develop technology, the profession of firefighting has emerged from a history of social, economical and political needs. The following will introduce fire equipment, techniques, the labor force and influences that affected the growth of the fire service profession.

The first attempt to control fire with systemized equipment was by Hero, an Egyptian around 1500 B.C. His invention was a gigantic syringe used to squirt water at fire. His invention was the forerunner to the fire pump, however it never developed to more than an oddity because of its cumbersome use. Also, the interest to protect against fire have not gained the popularity that it would in time to come. As cities began to grow, the concern to protect against fire in these densely populated walled environments also grew. The first attempt to organize a team of firefighters was by Augustus of Rome around 24 B.C. He organized a group of slaves who became known as "Vigiles." Their role was to put out fire throughout the city. The motto of this group was "Semper Vigilans" (Always Vigilant). Later Roman emperors would disband the firefighters because slavery went out of style and because the business community was more interested with making money than volunteer firefighting (Coleman, 1983, pp. 2-3).

With the passage of time and the transfer of world power from Greeks and Romans to Europe, the English were the first to pass laws to protect against fire loss by organizing fire insurance companies. The enactment of fire insurance then spurred interest in fire prevention. New attempts to control fire, such as the famous "bucket brigades" emerged. Organized fire protection techniques were well on their way. The labor to fight fire was supplied by the military as a sub-duty. Since America was a European colony they had no military. The military was controlled by Europeans and their concerns were to keep the colonies and Indians in line. Therefore, the business people acting as volunteers were the only source of labor for keeping fires contained in the colonies. The colonial firefighting organizations were very different from their European counterparts.

Man power for fighting fire came from the civilian population who volunteered. Many of these volunteers were business people who organized themselves at times of emergencies. There was virtually no equipment other than buckets and blankets. Early settlers feared fire because building construction was of wood and thatch. Lawmakers in the colonies passed laws to protect against fire by drafting building construction guidelines to prevent the spread of fire. Developing cities like Boston passed local laws to prohibit wooden construction to ease fire loss.

In most cities and towns, everyone was a firefighter. "In 1653, Boston passed a law which required each resident to own a bucket, a ladder that would reach the ridge pole of the roof, a 12-foot pole with a swab on the end, and ropes and hooks for pulling down a burning house" (Coleman, 1983, pp. 6-7). In the early 1700's, Boston was the first to equip their city with a "Jynks Injine" (fire engine) ordered from England. This was a hand operated pump engine which required several men to operate. As the engines became larger, more manpower was needed to operate the pumps. As more volunteers were recruited, a network system of businessmen emerged which would grow into a political force who controlled employment opportunities in business and local government elections.

The industrial revolution and technology changed the fire service by the end of the 18th century. Horse drawn fire pumps were replaced by motorized carriages, design in fire wearing apparel provided improved personal protection from fire and debris and better understanding of the political organization of fire companies surfaced. Fire insurance companies with a growing concern to minimize fire loss developed a system to pay fire

companies for extinguishing fires. They would pay whichever fire company arrived at the scene first. The various volunteer fire companies in densely populated cities would compete to get to the fire first. This competition led to fighting and ultimately, extinguishing the fire became secondary only after settling who had ownership of the fire. Buildings continued to burn as volunteer fire companies fought in the streets. The outbreak of the Civil War brought a temporary stop to the fighting because the organized groups of firefighter volunteered to fight in the war.

One of the significant uses of fire in the Civil War was its use as a weapon. A union general, Sherman, is remembered for the burning of Atlanta which demonstrated the historical use of fire as a weapon. As in prehistoric civilization, the fear of fire and the power it possessed soon brought an end to the war. As soldiers returned home, jobs were created to employ this surplus of labor as paid firefighters. It did not mean the end of volunteerism in the fire service but provided for a new organization in the fire service which eased the infield conflicts of various volunteer fire companies. It also enhanced the reliability of the fire service protection to the community. The hiring of ex-military provided the organization with a paramilitary image of ranking officers. The common ranks of "Lieutenant" and "Captain" were ranks adopted from the wars. One might ask, "how a chief out ranks a captain?" With most long explanatory titles the name is shortened for ease in conversation. The title chief was shortened from chief engineer or battalion chief which denotes an upper change of command. The title is simple shortened to "Chief." (Coleman, 1985, p. 12)

At the close of the 1800's, volunteers were at there peak. There was a fierce competition in large cities between machine and man. The volunteer fire companies had grown in numbers and with numbers, the volunteers were able to control elections with voting power and formed a social circle. Volunteer fire companies had resisted the purchase of motorized fire equipment because it took less men to operate. Cincinnati, Ohio, recognized the problem of fighting among fire companies and took measures to replace volunteer fire companies with paid professional firefighters. Also, a power steam engine called "Uncle Joe Ross" was built by Abel Shawk and Alexander Latta. There was a competition between the fire companies who preferred the hand-operated engines and the new steam powered engine in 1852. The new steam powered engine won the contest by shooting a 225 foot stream of water with the work of only three men. The steam powered engines were slow to replace the old hand operated engines because it took more men to operate a hand engine which meant more volunteers were needed which in turn meant larger fire companies and more socializing (Ditzel, 1982, p. 6).

It is unknown who actually built the first fire engine. Richard Newsharn claimed to be the first in 1720 when he took an ordinary water pump and mounted it on wheels. His first customer was King George I of England who purchased the invention to water his lawns. In the colonies, Philadelphia purchased a copy of Newsham's invention because it could pump 70 to 170 gallons per minute and because the problem of time getting to a fire continued to haunt the survival of any building.

John W. Christie in 1912 devised a method to build a gas powered engine that

could both drive the engine and pump the water. Today's engines have evolved from this invention (Ditzel, 1982, pp. 5-7).

## LOCAL HISTORY

Like most of the urban cities of the north, the growing city of South Norfolk formed Chesapeake's first fire department in 1892 out of a concern for fire protection. The department was manned by a handful of citizens who volunteered their time to protect the community. The "early paid firefighters were few and wages were sometimes based on a per fire rate" (Chesapeake Fire Department Yearbook, 1993, p. 119). Much of the fire protection came from volunteers as did their equipment, so to speak, did. The original fire fighting equipment was drawn by horse or mule. The Chesapeake Fire Department Annual notes how the original donated horse ate all the department's resources and had to be sold to pay the feed bills. Also, it notes how the original firefighter supplied their own firefighting gear which consisted of rubber boots, a rubber slicker and helmet. It was not until 1912 that the department was able to purchase its first motorized fire engine. The monies used to purchase the engine came from fund raising such as dinners and donations, activities that are still carried out by rural volunteer fire departments today. There were many volunteer departments throughout what is now the City of Chesapeake. They operated on the same primary principles of volunteer departments where equipment and manpower were donated.

The City of Chesapeake was formed in 1963 by the merger of the City of South Norfolk and Norfolk County. With this merger came the merger of two fire departments,

the urban paid department of South Norfolk and the rural mostly volunteer departments of Norfolk County. The problem of merging for the two entities was monumental. The departments took several years before they would be merged as one with one chief. In November 1965, the City Manager took steps to unify the city. He named an overall chief, abolished the miscellaneous "odd jobs" such as trash collection, law enforcement and others to be held strictly fire protection activities. (Chesapeake Fired Department Yearbook, 1993, pp. 119 - 140).

As the city grew, training innovations of the 1960's where men were trained at a common site emerged. Land for a central training ground was rented from Texas Oil Company for one dollar per year and buildings were constructed by firefighters. The goals for this site was to provide better training to all firefighters and to unify the old fire departments as one in the newly formed city (Bagley, 1995).

In the early 1970's, the city became the first to install 5" fire hose on its fire engines. The fire chief after attending a National Fire Chief's Convention in Seattle, Washington, learned how 5" fire hose could be used to combat fire. The other area fire chiefs thought the idea laughable because, how would you hold a 5" hose to fight fire (the standard fire fighting hose was 1 1/2" and 2"). Their jokes resulted in Chesapeake being known as the "Land of the 5" Hose." In actuality, this hose was not used as a hand held fire line, but provided an above ground water main from a fire hydrant to the scene of a fire. This innovation provided one of the best water supply sources in the area and it is still used today in all area fire departments (Bagley, 1995).

## ORGANIZATION OF THE FIREFIGHTER TRAINING PROGRAM

Innovation in fire fighting equipment and techniques continued. In the 1980's, the department's philosophy was the use of innovation to save time, money and provide better service to the community. Innovative ideas like the purchase of 5" hose, recycling of old fire trucks, and residential like fire station construction were among the few of their accomplishments. One of the innovative ideas again came from still another National Fire Chief's Convention. The idea of training high school students for the fire service career.

Since most fire departments do not require prior training experience, they must rely on successful demonstration of math and English skills through the application of an entrance exam.

> Individuals selected for entry into fire departments at this level are carefully screened to see if they possess the mental capacity to understand such things as fire chemistry and behavior, fluid hydraulics, electricity, and building construction. The physical demands include such things as being able to carry heavy weight, agility to move about with equipment, the absence of fear of heights or enclosures, and personal ability to get along in a teamwork atmosphere (Coleman, 1983, p 25).

Because of the innovative philosophy of the Chesapeake Fire Department, Fire Chief Robert G. Bagley, Chesapeake Fire Department, and James L. McDonough, III, Chesapeake Public Schools, developed the ground work for a pilot program to train Chesapeake Public Schools students who were interested in firefighting. This program would provide high school students with experience and training necessary to enter the

field of firefighting. "Before it could happen, approval was necessary from not only the Chesapeake School Board but also from the City Council" (McDonough, 1986, p. 6).

The ground work began in 1984 when issues of liability, insurance, city ordinance, and pay had to be addressed. The state code of Virginia, 40.1-79.1(B) required " . . . that the volunteer fire company or the governing body of such, county, city or town has purchased insurance which provides coverage for injuries to or the death of such, person in his performance of activities" (State Code of Virginia, p. 122). Based on this law, the City of Chesapeake drafted a city ordinance to amend the city code to provide for the establishment of a Fire Cadet Program. The ordinance entitled "An Ordinance Amending Chapter 2 of the City Code, entitled "Administration," adding thereto Section 2-41-19, authorizing the Chief of the Fire Division to establish a Cadet Program in the Fire Division to provide to eligible students training, education, and experience in Fire Protection and Emergency Medical Service" was passed by City Council in early 1985, and the Chesapeake School Board approved this collaborative effort on February 26, 1985 (Public Records, 1985).

The 1985-86 school year marked the first year for this innovative program. It was the first in the state of Virginia. Five high school juniors took part in this two-year program to become trained as firefighters. It was started to build up volunteer rolls to provide a better conduit between the volunteer and paid firefighters; it was thought the program could save money in the end by training personnel at part-time minimum wage; attract more minorities to the profession by providing recruitment to youth; and the

program would provide pre-screening for applicants seeking full-time employment (Bagley, February 1995).

Initially, students applied to the ICT program of the high school in which they were enrolled. Besides being accepted into the ICT program, students also applied to the Chesapeake Fire Department. The department required applicants to pass an agility test, a panel interview, a physical exam, and a background check. This application process was patterned from the typical procedures one must pass before being considered for full-time employment within the department. Historically, an adult making application to the fire department was required to submit application and pass all of the above including a written examination. Then their name was placed on an eligibility list based on their overall score. At the completion of the program it was thought that trainees could be hired to go directly into the fire station without having to be retrained, thus saving the cost of hiring a full time person who would have to undergo extensive training before they could be assigned to actual duty. Secondly, if the student was not hired by the City of Chesapeake, they would have the necessary certifications to be hired anywhere in the state of Virginia. Lastly, it was hoped that more minorities and women could be attracted to the profession through early education (Bagley, February 15, 1995).

Hiring procedures upon completion of the fire cadet program were the same for everyone applying for employment to the City of Chesapeake. The fire cadets were required to make application and past entrance exams. The training received as a result of completing the fire cadet program counted in the education background section of the application. It should be noted that background education included anyone who had prior

firefighting training, education or a combination of both. Therefore it should be understood that application selection is a very rigorous process regardless if you completed the fire cadet program. In an interview with the present fire chief, Chief Michael L. Bolac, on April 10, 1995, he stated "there was no dual entry system for the fire cadets, they had to apply just like everyone." One of the problems he saw was the scoring on the written comprehension section; the applicants did not score high enough to make the top of the eligibility list. He felt those that had made the top of the list and who had been hired would have been hired regardless of the program. He did state that the program made a difference for students who participated because it gave them a good introduction into the fire service profession and their service to the department, though it has not been measured, was of value. Surprisingly, the fire training is very academic and for those students who had no interest in pursuing college or high levels of education, they found the fire training curriculum challenging.

During the first year of training, students would receive training necessary to meet the requirements of the National Fire Protection Association for qualification at the NFPA 1001 Level (Firefighter I) and training to pass the state of Virginia Emergency Medical Technician (EMT) exam. In the last year of the program, students would receive training necessary to meet the requirements of the National Fire Protection Association Level II and Level III. This training required countless hours of study and practical drilling in preparation for the final test. The exam consisted of pages of multiple choice questions and individualized practical exams of fire related skills. These skills included measuring the velocity of a fire stream, inspecting a ladder for safety, and rope tying to name only a

small few. For students who were not anticipating higher education in either college or a training institute, they were alarmed at the number of hours studying they had to devote (Jones, 1995).

In 1990, funding became a problem for continuing the program. Students who participated in the fire cadet program were hired by the fire department and were paid minimum wage. The minimum wage at that time was $3.35 and students worked an average of 20 hours per week. When minimum wage increased to $3.80 in 1989 and the annual cost of the program was approximately $50,000.00, the fire department could no longer afford to fund the program alone. Because of city downsizing, neither the city nor the school system could expend the funds to continue the program and the last class of students completed the program in 1991. City Council funded the last class with $20,000.00 from the reserve funds with the understanding that should funds become available, the program could be funded (City Council, September 25, 1990).

## SUMMARY

This chapter explored the origins of the fire cadet training program of the Chesapeake Public Schools and Chesapeake Fire Department. It included a history of the profession including local trends. Chapter III will include the methods and procedures used to develop a follow-up survey for those enrolled in the program and who completed the training.

# CHAPTER III

# METHODS AND PROCEDURES

Chapter III, Methods and Procedures, outlines and discusses the population studied, the instrument used, the procedures used to collect data, the statistical analysis used, and the summary. This information should aid the reader in understanding how the data for the research was collected and analyzed.

## POPULATION

The population studied consisted of all students who participated in the Fire Cadet Training Program during the life of the program, 1986-1991. There were 30 students who participated in this program and all 30 were used as the population for this study. Appendix A contains the listing of the population.

## INSTRUMENT DESIGN

The instrument used to gather information for this research was a survey. The survey was developed by asking questions of instructors and administrators who were knowledgeable of this program when it was offered. The survey contained questions in three areas: Present Employment, Program Evaluation, Advance Education and Comments. Present Employment examined current employment as to whether the student was employed or unemployed, full-time or part-time, and present occupation. Also, the employment section sought to determine if students were employed in the field of fire

services. The program evaluation section sought benefits of the program in both direct and indirect employment assistance. The advanced education section sought to determine if students enrolled in a vocational area program continued to higher levels of education. And lastly, the comments sections was used to gain greater depth into comments students may have had but were unable to give. The survey consisted of open and closed ended questions and were included in Appendix B.

## METHODS OF DATA COLLECTION

The students were contacted by United States Postal Service, telephone or hand carried surveys. The students located out-of-town were contacted by mail or by hand carried survey. A cover letter accompanied all surveys explaining the purpose of the research and the importance of its return. A sample of the cover letter is included as Appendix C. The survey was administered between April 26, 1995 and July 15, 1995.

When all surveys from students were received, the data collected in all of the three areas were complied and totaled. The information was used for making determinations about the program.

## STATISTICAL ANALYSIS

Each of the student's surveys were tabulated in frequencies of responses in the four areas of response. Each question on the survey, regardless of area, was calculated into percentages as to how many graduates responded to a given question. The data was presented with tables in the following chapters.

## SUMMARY

This chapter compiled the results of the instrument as well as outlining the procedures used to collect information. The data collected will be presented in Chapter IV, Findings.

# CHAPTER IV

# FINDINGS

The purpose of this chapter is to report the findings of the research study. The study's purpose was to assess the benefits students received from completing the Fire Cadet Program in Chesapeake Public Schools.

The method of collecting data for this study was by means of survey. The programs participates were surveyed. The survey consisted of six close-ended questions and one open-ended question which covered four areas: 1. present employment status, 2. program evaluation, 3. advanced education, and 4. comments. It was administered to all 30 Fire Cadet Program completers.

## REPORT OF THE FINDINGS

After the survey was sent, a follow-up letter was mailed and follow-up calls were made to assist with data collection. A cut-off date of July 15, 1995 was established. Table I indicates the number and percentage of surveys sent compared to the number of surveys completed. A total of 30 surveys were sent to program completers and 20 surveys were returned. The percentage of surveys returned was 67%.

TABLE 1

SURVEY RESPONSE

| | |
|---|---|
| Surveys Distributed | 30 |
| Surveys Returned | 20 |
| Not Returned | 10 |
| Percentage Returned | 67% |

Table II reports the current employment status of cadets. There were a total of 20 responses in this section. The responses collected resulted in the following breakdown: employed full-time - eighty-five percent, employed part-time - zero percent, unemployed - 15 percent. Of those employed full-time, nine were employed as firefighters. Of the nine employed as firefighters, six were employed by the city of Chesapeake, one was employed by the city of Portsmouth and two were employed by the government.

TABLE II

EMPLOYMENT STATUS

| | TOTAL | PERCENTAGE (N = 20) |
|---|---|---|
| Employed full-time | 17 | 85 |
| Employed part-time | 0 | 0 |
| Unemployed | 3 | 15 |

Table III identifies the reported occupations held by 17 former fire cadets who were employed. Nine were firefighters and eight were employed in non-related fire service fields. Of the nine reporting to be firefighters, 67% were employed by the city of Chesapeake, 11% were employed by the city of Portsmouth and 22% were employed by the government.

TABLE III

CURRENT OCCUPATION

| | |
|---|---|
| Firefighter | 9 |
| Non-firefighter | 8 |

Table IV gives an overview of the length of hiring time for those nine cadets who were hired as full-time firefighters. One was hired in less than six months; three were hired between seven months to one year; four were hired in more than one year; and one was hired in more than two years. Of the 11 who were not hired, one never applied, six stopped applying and four stated they are still applying.

TABLE IV

HIRING TIME AS A FULL-TIME FIREFIGHTER

| | TOTAL | PERCENTAGE (N = 20) |
|---|---|---|
| never applied | 1 | 5% |
| less than 6 months | 1 | 5% |
| 7 months to 1 year | 3 | 15% |
| more than 1 year | 4 | 20% |
| more than 2 years | 1 | 5% |
| more than 3 years | 0 | 0 |
| stopped applying | 6 | 30% |
| still applying | 4 | 20% |

Table V records the responses from 20 cadets responding to feelings concerning employment skills obtained from the program. The percentage, 95% indicated the program provided skills to obtain employment in the fire services field.

TABLE V

DO YOU FEEL THE FIRE CADET PROGRAM PROVIDED YOU WITH THE SKILLS TO OBTAIN EMPLOYMENT IN THE FIRE SERVICES FIELD?

| | NUMBER RESPONDING | PERCENTAGE OF TOTAL RESPONSES (N = 20) |
|---|---|---|
| Yes | 19 | 95 |
| No | 1 | 5 |
| Total | 20 | 100 |

Table VI compiled responses from 20 cadets who selected the areas most benefitted from the program. Cadets could select more than one response with 90% selecting attitude, 85% selecting human relation, 80% selecting attendance to school, and 75% selecting both grades in school and early career selection. Only three elected to offer other areas. They were responsibility and self-worth.

TABLE VI

DID YOU BENEFIT IN OTHER EMPLOYMENT AREAS BECAUSE OF THE PROGRAM?

| | TOTAL | PERCENTAGE (N = 20) |
|---|---|---|
| Attitude | 18 | 90 |
| Attendance to school | 16 | 80 |
| Grades in school | 15 | 75 |
| Human relations | 17 | 85 |
| Early career selection | 15 | 75 |
| Other: Responsibility | 2 | 10 |
| Other: Self worth | 1 | 5 |

Table VII reports the results of 20 cadets who would or would not recommend the program to other. All 20 cadets, 100% reported to recommend the program to others.

TABLE VII

WOULD YOU RECOMMEND THIS PROGRAM OR SIMILAR PROGRAMS BE MADE AVAILABLE TO FUTURE HIGH SCHOOL STUDENTS?

| | NUMBER RESPONDING | PERCENTAGE OF TOTAL RESPONSES (N = 20) |
|---|---|---|
| Yes | 20 | 100 |
| No | 0 | 0 |
| Total | 20 | 100 |

Table VIII compiled the responses of cadets who have received some form of post-secondary education. From the responses, 60% have attended college, 50% have received training and 25% received no further education. More than one response for this question was received from five cadets receiving both training and attending college.

TABLE VIII

ADVANCED EDUCATION

| | NUMBER RESPONDING | PERCENTAGE OF TOTAL RESPONSES (N = 20) |
|---|---|---|
| None | 5 | 25 |
| Training | 10 | 50 |
| College | 12 | 60 |

Lastly, Table IX compiled the responses to an open ended question requesting additional information. Of the 20 survey received, 19 elected to response. Their responses are grouped into the following areas: beneficial program, desired to see it returned, advantage for hiring, helping others and direction in life. Of the eight who commented on the advantages and disadvantages for obtaining employment in the fire services field, one of the six who stated there was no advantage was employed as a firefighter.

TABLE IX

COMMENTS: ADDITIONAL INFORMATION ABOUT THE FIRE CADET PROGRAM AS TO HOW IT HELPED OR DID NOT HELP YOUR FUTURE.

| OFFERED RESPONSE | NUMBER RESPONDING | PERCENT (N = 19) |
|---|---|---|
| Beneficial Program | 12 | 63% |
| Desired to see it return | 6 | 32% |
| Hiring Advantage | Yes: 2; No: 6 | 11%; 32% |
| Learned to help others | 4 | 21% |
| Positive direction for life | 3 | 16% |

## SUMMARY

Chapter IV illustrated the findings of this study by means of eight tables compiling information obtained from the survey. In Chapter V the research will be summarized, a conclusion of the data gathered and recommendations of how the research can be of value to future programs.

# CHAPTER V

# SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The purpose of Chapter V, Summary, Conclusions and Recommendations was to summarize the contents of the first four chapters. Conclusions were made in relation to the research goals stated in Chapter I and recommendations are given as a result of the findings in Chapter IV.

## SUMMARY

The problem of this study, as stated in Chapter I, was to assess the benefits students received from completing the Fire Cadet Program in Chesapeake Public Schools. When the program ended in 1991, no follow-up studywas conducted to evaluate its success. Four years later, from data supplied by the Chesapeake Fire Department, addresses and information concerning cadets were found intact and usable to provide contacts for solving this problem. As a result, this study has attempted to reveal the benefits provided to program completers.

In Chapter IV, Findings, the data gathered from returned surveys was presented. The data showed that 85% of the cadets responding were employed. The employment of these cadets was equally divided between those who were currently employed in the fire services field and those who were employed elsewhere. The data also revealed that cadets received the skills necessary to gain employment in the fire services field and they were hired within two years of applying for employment. In addition, between 90% and 75% of

the cadets stated they received other indirect benefits from the program relating to attitude, attendance to school, grades in school and human relations, early career selection, responsibility and self-worth. Overwhelmingly, 100% of the cadets would recommend the program or similar programs be available to future high school students. The most interesting data collected was related to post-secondary education. From the research in Chapter II, Review of Literature, this program was developed for students who were not considering education beyond high school. The responses from question six, "What advanced training or education have you received since leaving high school?" showed that 60% have attending college and 50% have received post-secondary training!

## CONCLUSIONS

The research has shown that students received benefits from participating in the program. The research goals were established to help in solving the problem of the study. Following are the research goals and the data response to each goal.

**1. Identify why the program was started**. Chapter II, Review of Literature, gave historical background for the development of the program. It was started to give non-college bound high school students training necessary to enter the field of fire service. Also, it was developed to provide a conduit between the volunteer fire companies and the paid department, help recruit minorities into the fire service and provide pre-screening for future employment.

**2. Determine the current employment status of program completers**. Chapter IV, Findings, revealed the status of the program completers. Eighty-five percent of those responding to the survey are currently employment. Fifty-three percent are firefighters and 47% are employed in other fields. Fifteen percent are unemployed but they indicated they were attending college or training.

**3. Determine if the program had indirect benefits to participants**. The responses from the survey, particularly Question four, "Did you benefit in other employment areas because of the program?" and Question seven, "Addition information about the fire cadet program as to how it helped or did not help your future." In Chapter IV, Findings the data from the responses given for these questions was reported Ninety percent stated it helped them with attitude and 85% stated it helped them in human relations. Also, three volunteer responses included responsibility and self-worth and 63% stated that the program was beneficial as additional benefits received as a result of participating in the program. One respondent stated, "Before getting into the cadet program I had no direction. My grades were low and I was not head[ed] for college. After I got into the cadet program I turned my grades [around] and began setting goals (getting hired in this field and college) because I like firefighting."

**4. Identify reasons why the program was terminated**. Primarily, the program was terminated due to funding. With the downsizing of government, city departments are forced to cut spending. Luxury programs, such as the fire cadet program, are cut because

of operational costs. The annual cost to operate the program in 1989 was $50,000.00. At that time, minimum wage was $3.80 per hour. Today, minimum wage has increased to $4.25 per hour. Also, the fire department, as well as other city departments, has been under a hiring freeze. This year was the first time new firefighters have been hired since the termination of the cadet program.

## RECOMMENDATIONS

Based on the findings of this study, it is recommended that apprenticeship style programs be considered as an addition to cooperative training programs. The data collected revealed that program participants received both direct and indirect benefits from the program. While the government sector may not be the place to develop training programs due to downsizing, the private sector offers opportunities to be explored in the fields of technology, communication and health/personal care.

Direct benefits received from the fire cadet program were employment in the fire services field and an opportunity to experience on-the-training in an apprenticeship style environment. Forty-five percent of the respondents were employed as firefighters and 20% were still seeking employment in the fire services field. All the respondents stated that the program was a positive experience. The one negative issue concerned the disappointment with the few employment opportunities offered by the employer who trained them. This problem arose from the method of application and the economy. A remedy to the application process would be to change the hiring procedures to permit a dual application system for persons trained under the direct supervision of city

departments. For example, once a cadet has completed training, they would have placed on a separate list of qualified applicants. As openings are available, a portioned number of qualified cadet applicants could be selected in portion to applicants from the overall applicants. This suggestion would give cadets the hiring advantage rather than competing directly with everyone who applies.

The indirect benefits of the program are best realized in the data revealing those who have received post-secondary education. Whether the program or the reality of life in the working world inspired the program participates to gain advanced training, 60% did. If apprenticeship style programs offer the incentive to continue education and training beyond high school, the education system will meet one of its goals to better education its workers for the 21st century. Therefore, direct training for a select career inspired furthered education.

Lastly, follow-up from former program participants was difficult because of the length of time from leaving the program to present follow up date of this study If regular follow-up of program outcomes are monitored in a timely manner more input and better data can be collected and a realization of the importance they play in our education system realized.

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# APPENDIX A

POPULATION

# List of Former Fire Cadets

| Name and Address | | | Date Hired |
|---|---|---|---|
| Mark A. Barker | 852 Drawbridge Drive | 23323 | 09/29/86 |
| Joseph Barnes, III | 201 Scarlett Drive | 23320 | 09/29/86 |
| Robert D. Beasley | 508 Whitehaven Circle | 23325 | 10/16/89 |
| Michael P. Carlin | 1320 Fordyce Drive | 23320 | 09/29/86 |
| Trinity J. Carter | 2064 Millville Road | 23323 | 10/16/89 |
| Keith J. Copeland | 1971 Millville Road | 23323 | 07/01/89 |
| Andrew G. Creekmore | 1892 Ames Circle East | 23321 | 06/08/90 |
| Sheri Davis | 1905 Gatewood Court | 23320 | 10/16/89 |
| Christian L. Fultz, Jr. | 4004 Monaco Court | 23321 | 10/16/89 |
| Robert Gower | 2408 Johnstown Road | 23320 | 09/29/86 |
| Warren E. Gower | 728 Luray Terrace | 23320 | 10/16/89 |
| Charles R. Hamilton II | 1332 Winslow Avenue | 23323 | 09/29/86 |
| Charles H. Hartman | 3720 Ballahack Road | 23322 | 10/16/89 |
| William R. Hite | 905 Bellingham | 23320 | 10/16/89 |
| Jason R. Everette | 2421 Payne Road | 23323 | 10/16/89 |
| Kenneth Morgan, Jr. | 2661 Prescott Circle | 23323 | 09/27/86 |
| Paul Olson | 545 Scarborough Drive | 23320 | 09/27/86 |
| Paul Phillips | 1424 Salton Drive | 23325 | 10/05/87 |
| Scott A. Saunders | 929 Shillelagh Road | 23320 | 10/16/89 |
| Victor L. Simons | 1018 Fentress Road | 23320 | 09/29/86 |
| Harry C. Slaughter, Jr. | 423 Wood Duck Lane | 23323 | 10/05/87 |
| Robert S. Whichard, Jr. | 3104 Ida Street | 23324 | 09/29/86 |
| Daniel F. White, III | 1328 Fordyce Drive | 23320 | 09/29/86 |
| George L. Wilson | 5268 Jones Lane | 23320 | 10/05/87 |
| Jason L. Woodard | 704 Wood Duck Lane | 23323 | 10/05/87 |

Former Fire Cadets hired by the Chesapeake Fire Department

| | | |
|---|---|---|
| Michael Scott Alphin | 128 Mt. Vernon Avenue | Portsmouth, VA 23707 |
| Joseph Stephen Gibbs | 1413 Waterlawn Avenue | Chesapeake, VA 23323 |
| Jonathan C. Lewter | 428 Plummer Drive | Chesapeake, VA 23323 |
| Patrick A. Martin | 424 Blanche Drive East | Chesapeake, VA 23323 |
| Wayne M. Sweeney, Jr. | 2609 Mark Street | Chesapeake, VA 23324 |

# APPENDIX B

SURVEY

# Chesapeake Public Schools
# Fire Cadet Program Completer Survey

The purpose of this survey is to assess the benefits students received from completing the Fire Cadet Program in Chesapeake Public Schools.

## Present Employment Status:

**1. What is your present employment status?**

Employed _____ Unemployed _____

Full-time _____ Part-time _____

Occupation _____

Name of Employer _____

**2. After completion of the Fire Cadet Program, how long did it take for you to find employment in the field of fire protection?**

never applied _____
less than 6 months _____
7 months to 1 year _____
more than 1 year _____
more than 2 years _____
more than 3 years _____
stopped applying _____

## Program Evaluation:

**3. Do you feel the Fire Cadet Program provided you with the skills to obtain employment in the fire services field?**

Yes _____ No _____

(more on the back)

**4. Did you benefit in other employment areas because of the program?**

| | |
|---|---|
| Attitude | _____ |
| Attendance to school | _____ |
| Grades in school | _____ |
| Human relations | _____ |
| Early career selection | _____ |
| Other: please specify _____ | _____ |

**5. Would you recommend this program or similar programs be made available to future high school students?**

Yes _____ No _____

## Advanced Education:

**6. What advanced training or education have you received since leaving high school?**

| | | |
|---|---|---|
| None | _____ | |
| Training | _____ | Please specify _____ |
| College | _____ | Please specify _____ |

## Comments:

**7. Additional information about the fire cadet program as to how it helped or did not help your future.**

_____

_____

_____

_____

_____

_____

_____

# APPENDIX C

COVER LETTER

One of the Chesapeake Public Schools

Deep Creek High School
2900 Margaret Booker Drive • Chesapeake VA 23323

April 26, 1995

ASSIGN(Name;)
ASSIGN(Address;)
ASSIGN(City, State, Zip;)

Dear ASSIGN(Salutation;):

In 1991, the Fire Cadet Training Program was terminated in Chesapeake Public Schools due to funding limitations. As a follow-up study, I am trying to determine the benefits students received as a result of participating in the program. Your current status in the work force and opinions concerning the program are very important to this study.

The enclosed survey will assist educators in the City of Chesapeake with planning of future programs as well as determining the results of past programs. Please take a few moments to complete the enclosed survey and return to me by May 15, 1995, to insure that your response is included in the results of this study. A self-addressed stamped envelope is enclosed for your convenience.

Thank you for your time and effort in completing this survey as your response is vital to the completion of this study.

Sincerely,

J. Page Bagley
ICT/EFE Teacher/Coordinator

/jpb

enclosures