

ASSESSING THE FINANCIAL COMMITMENT TO FIRE AND LIFE SAFETY
SERVICES FOR THE CLEARCREEK FIRE DISTRICT

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CERTIFICATION STATEMENT

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ABSTRACT

The Clearcreek Fire District's (CCFD) response area and services have expanded rapidly over the last 15 years. Fire and Life Safety Services (FLSS) responsibilities have grown without an assessment of the financial commitment to support the added responsibilities. The problem this applied research project addressed was that the growth of the community has increased the responsibilities of fire prevention services without an assessment of the financial commitment to those services. The purpose of this applied research project is to assess Clearcreek Fire District's financial commitment to fire and life safety services and to determine whether additional funding to fire and life safety services is needed. The research method was evaluative in nature. An evaluation of the Clearcreek Fire District's annual budget was performed. A survey was sent to similar-sized departments to obtain data. Research questions seek to discover the percentage of annual budget dedicated and what services are provided within the FLSS divisions at Clearcreek and similar population served departments. The researcher utilized a personal interview, evaluation of growth of the response area, budget evaluation and a budget survey. The results of this study indicate that financial commitment dedicated to FLSS efforts for Clearcreek Fire District is below average. This research indicated that Clearcreek Fire District and similar population served departments provides the same services within the auspices of the FLSS division as the similar population served departments.

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INTRODUCTION

The Clearcreek Fire District proudly serves Clearcreek Township and the City of Springboro in Warren County, Ohio. The growth of the community has placed an increasing expectation on all Clearcreek Fire District responsibilities, including areas effecting fire prevention. Clearcreek Fire District defines fire prevention interchangeably with the term fire and life safety services. The growth has caused service increases without an assessment of the financial commitment to support those services.

The City of Springboro recognized this changing demographic as a challenge for the future in the *City of Springboro Master Plan (2005)*.

Citizens have come to expect a certain level of government services, sometimes without fully realizing the true costs of providing these services. Cities like Springboro have been forced to adopt innovative approaches to economic development in light of shrinking tax reserves. (Springboro, 2005, para. 13)

Clearcreek Township also recognizes the rate of growth as having a potential impact on services, specifically on fire protection as revealed in the *Clearcreek Township Master Plan (2005)*.

The Fire District operates on the proceeds of a fire levy that is renewed every 10 years. In 2000, the District prepared and adopted a Strategic Plan for operations. As population in the Township increases it will become necessary to add firefighting capacity both in terms of staffing and facilities. (Clearcreek Township 2005, p. 14)

Clearcreek Fire District has transitioned from a volunteer organization into a combination fire department over the last 15 years. This expansion of the fire department was needed to match the increasing demands for service resulting from the rapid growth of the community. Fire district responsibilities have expanded outside the basic roles of fire and emergency medical

services. These expanded duties include the areas of fire and life safety services. Fire and life safety services activities have increased to match the demands of the growing community. Over the past 15 years, fire and life safety service's activities at Clearcreek Fire District have increased to include code enforcement, fire investigation, public education, pre-fire planning, plans review and fire protection systems acceptance testing. The quandary the department now faces is that fire and life safety service's responsibilities have increased without an assessment of the financial commitment to support these services. The problem this study addressed is whether Clearcreek Fire District's financial commitment to fire and life safety services is comparable to other departments who provide the same services.

The purpose of this applied research project is to assess Clearcreek Fire District's financial commitment to fire and life safety services. The information obtained by this project will be used to assess whether additional funding is needed to support current fire prevention efforts. The information gained by this research will allow the fire district's executive leadership team and township administrators to determine whether additional funding to fire and life safety services is needed or if the commitment is consistent with similar population served departments.

The research method for this applied research project will be evaluative in nature. The research will explore the existence of budgeting and purchasing practices of the Clearcreek Fire District and surveyed departments. The research will also reveal how financial resources are utilized in fire and life safety services effort to fire departments that serve a similar population base.

The following questions will be answered by this evaluative research:

1. What percentage of the annual budget is dedicated to Fire and Life Safety Services efforts at Clearcreek Fire District?

2. What percentage of the annual budget is dedicated to Fire and Life Safety Services at fire departments that serve a similar population base?
3. How are the financial resources dedicated to Fire and Life Safety Services utilized at Clearcreek Fire District?
4. How are the financial resources dedicated to Fire and Life Safety Services utilized at fire departments that serve a similar population base?
5. What fire life safety services are provided at fire departments that serve a similar population base?

BACKGROUND AND SIGNIFICANCE

A personal interview was conducted with Richard Chenault, Clearcreek Township Fire Department fire fighter (1947-1970) and retired fire chief (1970- 1992). The interview revealed the history of fire prevention and planning in the early development of Clearcreek Township Fire Department. According to Mr. Chenault (personal communication, June 10, 2005), prevention activities in the 1960's included an address locator program which was initiated for all residents in the response area. This program was completed by volunteers and was financed through donations and fund raising events. In the 1970's fire prevention was being promoted nationally and began to expand locally. Fire station tours were conducted; however fire prevention topics were not discussed. During fire prevention week, the only activity conducted by the department consisted of fire drills for the local schools. The volunteer fire department could not financially or operationally support additional programs. Prevention and public education efforts were increased in the late 1980's. Fire prevention was expanded to include tours of the fire station with a brief safety message. As Clearcreek Fire District staffing increased in the early 1990's, public education efforts also increased. Fire station tours were expanded to include multiple educational topics such as Stop, Drop and Roll, Crawl Low under Smoke, Do Not Play with Matches and Call 911. Near the end of the 1990's, smoke alarm maintenance, carbon monoxide detector activation, home escape plans and meeting places were emphasized.

Clearcreek Fire District successfully passed a levy in May 2001, additional financial resources became available. Two additional fire stations were built; career personnel were hired; fire equipment was purchased and four new executive staff positions were created. The creation of the Captain of Fire and Life Safety Services position in 2002 expanded the mission of fire and life safety services. Code enforcement through fire inspections, fire investigations, pre-incident

planning, plans review, acceptance testing, public education and counseling of juvenile fire setters were pursued. The financial commitment to fire and life safety services has been dedicated to the salaries of the Captain of Fire and Life Safety Services, wages for career firefighter/inspectors, to the purchase of materials and tools and to the purchase of public education materials.

According to the U.S. Census Bureau Report (2000), population in the City of Springboro has increased from 6590 in 1990, to 12,380 in 2000 and to a projected 15,780 in 2004. This growth accounts to a 55 % increase since 1990. The population has increased 33% in the same time period in Clearcreek Township. The actual increase since the 1990 census may be as much 52% as reflected in Clearcreek Township's Master Plan.

The US Census taken in the year 2000 showed that the population of the unincorporated areas of Clearcreek Township was 8,747. This represents an increase of 2,172 over the population found in the 1990 Census. Historically, population in the Township increased sharply during the 1960's, leveled off during the 1970's, and then began a steady increase that has accelerated in recent years. Population added since the 2000 Census can only be estimated, primarily based on the number of zoning permits issued in the Township.

However, based on permits issued and on typical household size, it is estimated that since 2000 at least another 2,400 residents and possibly more have been added to the Township. (Clearcreek Township, 2005, p. 25)

According to the City of Springboro Newsletter (2006), 1,462 residential building permits have been issued since 2000. This equates to an average of 244 new homes each year.

Commercial development has also increased. Commercial development primarily occurs in the City of Springboro. According to Denise Payne, secretary for the City of Springboro

Building Department (personal communication, February 3, 2006), 982 permits were issued for commercial structures and 159 new commercial structures have been completed since 1990.

Increased residential and commercial growth has caused a 15% to 20% annual increase in emergency activity (Clearcreek Fire District, 2004). This factor has affected the Fire and Life Safety Services Division through increasing demand for plans review, commercial fire inspections, pre-planning, public education, and residential adoption/foster care inspections. Increased commercial building development has expanded the need for plans review, code enforcement, and acceptance testing of fire alarm and fire protection systems.

This research may be valuable by justifying additional fund and resource commitment. The impact this study could have on the Clearcreek Fire District is to improve the quality and quantity of services provided in the areas covered by Fire and Life Safety Services Division by adding resources.

The research may reveal that not enough funding is being provided for fire and life safety services. If this is discovered, administration may choose to limit the level of dedication to fire and life safety services. If services are limited to only essential functions of fire prevention, the quality of the services remaining may be improved. If current financial commitment is consistent with other departments, evaluation of the effectiveness of existing programs could occur.

LITERATURE REVIEW

The National Fire Protection Association's Fire Protection Handbook explains that the first step in organizing for fire protection is the activity of fire prevention. "Preparing for fire begins with the promotion of fire prevention and built-in fire protection, which fire departments can do in a variety of ways" (Cote & Hall, 1997, pp. 1-22). Fire departments are involved in fire protection as inspectors and certifiers for a wide range of fire-related regulations. Fire departments are also involved in the investigation of fires revealing the cause of such events. Departments then pass on valuable information to the public on how to prevent such tragedies using the fire to emphasize prevention information. The fire department is constantly involved in local programs to educate the public about fire safety. This indicates that many fire department responsibilities fall on the fire prevention division. A typical fire prevention division is responsible for inspections, fire investigations, public education and fire suppression testing.

The National Fire Protection Association's Fire Protection Handbook additionally encourages a priority on prevention when it states "In summary, the fire department is central to local fire prevention and protection, and fire prevention and protection is central to the duties of the modern fire department" (Cote & Hall, 1997, pp. 1-23). This statement clearly indicates that commitment to fire prevention should be a priority in planning and operational areas.

In 1972, President Nixon appointed the National Commission on Fire and Prevention Control to examine the United States' Fire Problem. One of the results of the formation of this commission is the report titled *America Burning*. *America Burning* (1972) explained that the traditional emphasis on fire protection had been on suppression and not fire prevention. The commission made 90 recommendations on fire prevention and control. "Paid fire departments typically spend their money on fire suppression; usually less than 5 percent of the budget is

devoted to fire prevention” (National Commission on Fire Prevention and Control., 1972, p. 18). Additionally, “The commission recommended that local governments make fire prevention at least equal to suppression in the planning of fire department priorities” (National Commission on Fire Prevention and Control., 1972, p. 18).

The commission’s research indicated that the typical financial commitment is prioritized to other areas of the fire department not related to fire prevention.

America Burning (1972) further explained that indifference had existed within the fire service in the area of fire prevention.

But indifference exists where it is least excusable. For example, there are those in the fire services who are unaware of the technological state-of-the-art in their field. There are fire department administrators who pay lip service to fire prevention and then do little to promote it. (National Commission on Fire Prevention and Control, 1972, p. 2)

America Burning was referenced because of its historical significance. The document was produced and widely distributed to enhance the fire service’s and the public’s awareness of the importance of fire prevention. The report reflects the most modern effort of a governmental entity’s attempt to influence fire prevention. The report clearly indicated that fire prevention in the fire service was not an operational or financial priority, at the date of its publication.

According to Clark, Gannon & Stephens ,

Fiscal management is calibrating the use of resources with citizens’ perception of need; it is managing the financial resources that have been attributed or allocated to the fire and rescue organization. In such a way to ensure that the organization can remain true to its vision, carry out its mission, and achieve its objectives in the context of organizational values. (Clark, Gannon & Stephens, 2002, p. 167)

This statement clearly indicates that the dedication of each fire department to its mission and goals should match the public's expectations. The overall commitment to the mission and goals will be clearly evident in the department's financial commitment to such.

Finkler stated "To the extent possible, management should try to establish and use an objective budget process that best leads to the accomplishment of the organization's mission, goals, and objectives" (Finkler, 2005, p. 58). Finkler further defines budget as simply a plan (Finkler, 2005). Finkler's observation clearly indicates that the financial plan or financial commitment should reflect what is important to the customer and the organization's meaning.

Crawford explained that:

Expecting one person to do an adequate job of conducting a plan review of new construction, enforcing the fire code, conducting public fire and life safety presentations, and investigating fires is unrealistic and may result in legal liabilities and ultimately doom prevention efforts. If a community's resources are limited, the type and scope of prevention programs conducted in that community must also be limited. (Crawford, 2002, p. 385)

This observation indicates that the efforts of the Fire and Life Safety Services Division must be clarified. If multiple fire and life safety services are needed, additional resources must be committed to it to ensure the division's success. It is Crawford's opinion that as resources are limited, the efforts must become prioritized and focused to ensure effectiveness.

Wickliffe (1999) evaluated the budgets of six fire departments from various regions across the United States. The author discovered that the majority of organizational budgets for the surveyed departments were devoted to fire suppression. Wickliffe further discovered that a relatively small portion of the departments' budgets were utilized for fire prevention activities.

Wickliffe discovered that approximately 3.5% of annual fire department budgets were devoted to prevention. This survey reflects the concept that the fire service is devoting 96.5% of their budget on other operational efforts. This study indicates that departments are not proportionally devoting financial resources to the prevention effort.

Wakeham (1995) researched fire departments' fire prevention budgets as they related to the overall departmental budget. The researcher discovered that fire department budgets increased an average of 3% a year in the surveyed departments between 1989 and 1993. The financial commitment to fire prevention in the overall budget was actually reduced on average from 4.73% to 2.07% in the same time period. This research indicates that even during periods of financial stability, there is a tendency to reduce fire prevention allocations. The author also discovered that "the percentage of funds allocated or cut for prevention activities has not been comparable to the percentage allocated or cut for suppression activities" (Wakeham, 1995, p. 52).

Schaenman (1993) discovered that paid fire departments typically spend most of their money and efforts on fire suppression with approximately 3% to 5% of the budget allocated to fire prevention. Schaenman's study reflects that at least 95% of the budget is dedicated to the reactionary goal of fire suppression over the progressive attitude of preventing fire.

Jones (1992) studied the financial commitment to fire prevention and uncovered a marginally higher percentage of financial dedication to fire prevention. The funding allocation for fire prevention was calculated at less than 9% of the budgetary expenditures for the total budget in the survey. While this survey represents a significant increase over the previously discussed studies, the financial percentage of commitment remains insignificant in comparison to the financial support of fire suppression.

In assessing how the financial resources are utilized, some interesting trends were discovered. Jones (1992) discovered that two thirds of the departments surveyed utilized in-service suppression personnel to conduct building inspections. Jones also discovered that less than 25% of the surveyed departments indicated they had a home fire inspection program in existence. The same survey revealed that 89.5% of the sample maintains a public education program. These results indicate that public education was prioritized over building inspections and home fire inspection programs.

Lovvorn (1991) surveyed fire prevention activities provided in the state of Florida. The survey revealed that 100% of surveyed departments provided building inspections. The study revealed that 95% of the departments provided arson investigation and public education activities and that 90% provide plans review. This study reveals that most departments in the state of Florida were relatively progressive in maintaining four major functions of fire prevention.

The literature review reveals that budget allocations should reflect the needs of the community. Also revealed is the fact that budgeting practices reveals the commitment priorities of those involved in establishing the budget. The literature also suggests that the surveyed departments may not be hitting the target with the priorities established by their department.

PROCEDURES

The author researched the growth trend in the response area of Clearcreek Fire District. A study of the Master plans from both the City of Springboro and Clearcreek Township and Census Bureau results were used to document the exponential growth of the Clearcreek Fire District response area including the City of Springboro, Ohio and Clearcreek Township in Warren County, Ohio. Residential and commercial growth was evaluated using population and

building permits as indicators.

An interview with the former fire chief of Clearcreek Fire District was used to establish a historical perspective. Chief Chenault was chosen due to his lengthy involvement with CCFD. Record keeping was limited in the early development of the department and Chief Chenault was a readily available source for the information. The interview consisted of several questions related to fire and life safety services topics revealing what has been accomplished prior to the 1990's. These results were used to determine the progress of fire and life safety services from a historical perspective.

Evaluations of the Clearcreek Fire District budget identified the history of the financial commitment to Fire and Life Safety Services over 2003, 2004 and 2005. Three years of budget evaluations allowed the researcher to assess recent financial commitment to fire and life safety services. Three years of information also allowed the data to be more accurate, producing an average and reducing the possible influence of financial and purchasing trends. The source of the data was the budgets, financial statements and billing documents from the Clearcreek Fire District over 2003, 2004 and 2005. The data was obtained through the administrative offices of the Clearcreek Fire District. The data was obtained through a request for information through the Chief of Department.

Budget commitments to fire and life safety services were broken into two categories, wages and the purchase of materials to support fire and life safety services. The amount was calculated by adding the total salary of the Captain of Fire and Life Safety Services. The entire salary of the Captain is used because the Captain's main area of responsibility is fire prevention. A formula was used to estimate the wages of firefighter involvement in fire prevention. An average wage was needed for simplification. The average wage was calculated by adding the six

steps on the career pay scale and dividing. The amount was figured by factoring the total number of inspections performed each year multiplied by 2 hours. This factor was used as an average time dedication to perform the initial and re-inspections. $2 \times \text{AVERAGE CAREER WAGE} \times \text{NUMBER OF INSPECTIONS} = \text{WAGE COMMITMENT FOR INSPECTIONS}$.

The same formula was used to calculate each year.

Wages dedicated to public education events were also evaluated. An average of 3 career personnel was used for a 1 hour time commitment. $3 \text{ PERSONNEL} \times \text{AVERAGE CAREER WAGE} \times \text{NUMBER OF EVENTS ATTENDED} = \text{WAGE COMMITMENT FOR PUBLIC EDUCATION EVENTS}$. The Captain's salary was combined with the hourly wages of fire inspectors and those who performed fire inspections and public education details. The same formula was used to calculate each year.

Purchases for fire and life safety services were calculated for each year. Orders for bills were used. Bills were sorted by vendor and categories to determine the total amount for each year.

The sum of the wages committed and purchases for fire and life safety services was compared to the annual budget to arrive at a percentage of the annual budget for the financial commitment to fire and life safety services.

A survey was used to collect information about how much financial commitment was dedicated to fire and life safety services and which services were provided by each department. The survey consisted of a combination of open and closed ended questions. The questions inquired as to the annual fire department budget for the last three years. The questions further explored what percentage of the annual budget was spent on fire prevention activities. Data revealed the amount of which fire prevention services monies were spent on. The results were

compared to Clearcreek Fire District's financial commitment. The surveys were mailed with a cover sheet. Non-respondents to the initial mailing were faxed an additional request for information. (see Appendix A).

The population for the survey was 54% of the fire departments in the state of Ohio that provide service for between 20,000 and 30,000 citizens. The population range was determined by matching the population served by CCFD (25,000) with a range of plus or minus 5,000. The population range served as a definition for similar departments as compared to the Clearcreek Fire District. The population was obtained by referencing the National Directory of Fire Chiefs and EMS Administrators 14th Edition. The directory is published annually by the National Public Safety Information Bureau. The directory gave a population census of 1,199 fire departments in the state of Ohio.

The Ohio geographical area was chosen to minimize the effects of regional trending influences. For example, practices that may be typical in the western region of the country may not be applicable in the Midwest. These limiting factors increase the external validity of the data. The population was developed by referencing the number of citizens served by each department.

A typical sampling unit was a fire department. Fire departments provide fire prevention services and have annual budgets to evaluate. The sampling units were consistent with the type of business that is being evaluated. Also, fire department records are readily available for evaluation and are public records.

The source of the data was individuals employed by the fire department who have access to the data. Typically the Chief of Department or Fire Prevention Division responded. The data evaluated was the budgets, financial statements and billing documents from the source's fire

department over the last three fiscal years.

67 questionnaires were sent by mail to the population. 32 responded by return mail, 4 responded via facsimile and 31 were non-respondents. 55% of the respondents classified themselves as "Paid". 44% of the respondents classified themselves as "Combination". 1% did not respond. (see Appendix B).

61% respondents reported themselves as serving a population of 20,000 to 25,000. 33% of the respondents reported themselves as serving a population of 25,000 to 30,000. 3% classified themselves as serving a population of <20,000 and 3% classified themselves as serving a population of >30,000.

The respondent's reported their department's annual budgets for 2003, 2004, and 2005. The range of budgets for 2003 was between \$300,000 and \$6.2 million. The range of budgets for 2004 was between \$360,000 and \$6.8 million. The range of budgets for 2005 was between \$400,000 and \$7.1 million. The range of budgets for the three year period was between \$300,000 and \$7.1 million.

A separate fire prevention budget was affirmed by 18% of the respondents. 81% of the respondents reported no existence of a fire prevention budget and 1% did not respond. The range of percentage of annual budget dedicated to fire prevention services was between 1% and 20%.

LIMITATIONS OF THE STUDY

The majority of the publication dates used in the literature review ranged from 1991 to 2005. The only exception was a commission report published in 1972. The commission report was used to form a historical perspective as it relates to the research. The data discovered in the literature review is limited for fire departments who serve similar population sizes as compared to CCFD.

The budget evaluation was limited due to the fact that a detailed fire prevention budget is not in existence at CCFD. The absence of a line item budget limited this researcher's ability to precisely evaluate how much money was spent on each fire prevention service. The budget evaluation required a calculation of un-documented hours as dedicated to fire and life safety services. The calculation of the wages proved challenging since daily record of hourly commitments to life safety events are not tracked at the Clearcreek Fire District. In addition, fuel, transportation, vehicle maintenance and other costs were not included in the evaluation.

As the results from the budget survey were evaluated, it was discovered that 55.5% of the survey respondents were unable to evaluate a line item amount for services provided by the fire prevention budget (question 7). Of the 44% of the respondents who did report a percentage, some confusion was evident by the percentage ranges reported. The respondents provided two sets of information. 36.1 % of the respondents provided a percentage of the fire prevention budget for each area of fire and life safety services. 8.3% of the respondents provided a percentage of the departmental budget for each area of fire and life safety services. The CCFD data provided monetary amounts dedicated to each area of fire prevention while the respondents of the survey reported by percentage. A conversion provided the data needed.

The survey does not require exact dollar amounts. The respondents may have estimated

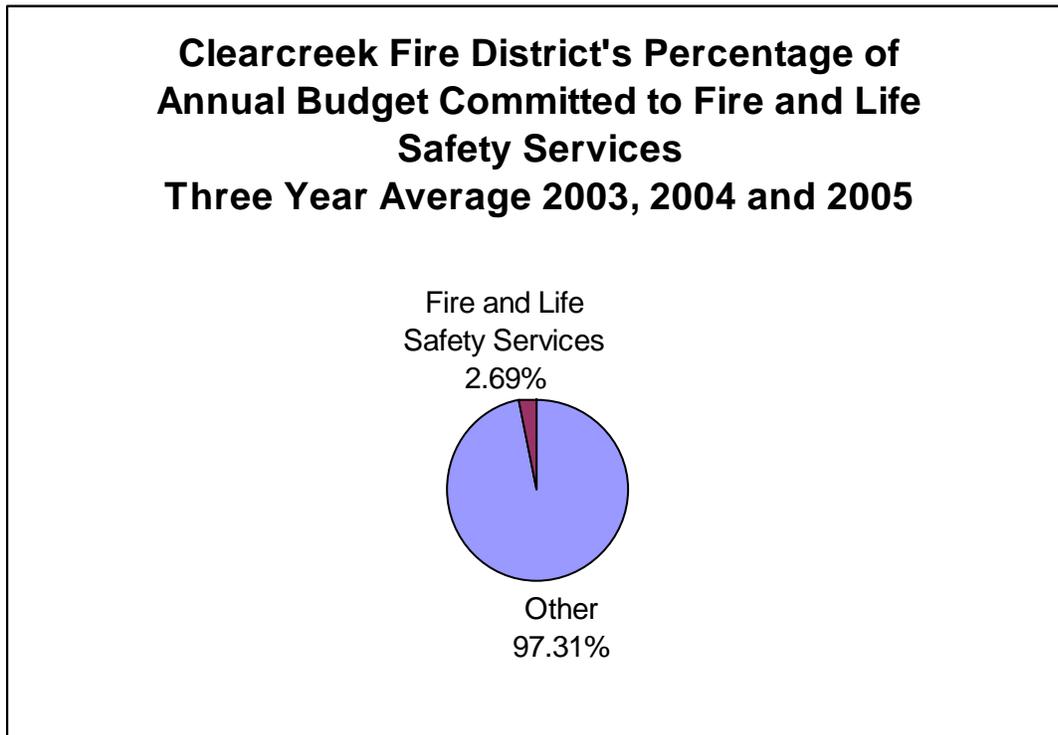
the percentages of annual budget commitments in percentages. The validity of the data may be influenced by the level of effort exhibited by the individuals collecting and analyzing the data.

RESULTS

1. What percentage of the annual budget is dedicated to fire and life safety services efforts at Clearcreek Fire District?

The 2003 Clearcreek Fire District Budget (actual) was \$2,521,560. In 2003, a total of \$79,366 was dedicated to fire and life safety services. This equates to 3.15% of the annual budget. The 2004 Clearcreek Fire District Budget (actual) was \$2,960,464. In 2004, a total of \$71,379 was dedicated to fire and life safety services. This equates to 2.41% of the annual budget. The 2005 Clearcreek Fire District Budget (actual) was \$3,210,075. In 2005, a total of \$89,529 was dedicated to fire and life safety services. (see Appendix C). This equates to 2.79% of the annual budget. Over the three year period of evaluation, the average percentage of the annual budget dedicated to fire and life safety services was 2.69%. (see Figure 1)

Figure 1



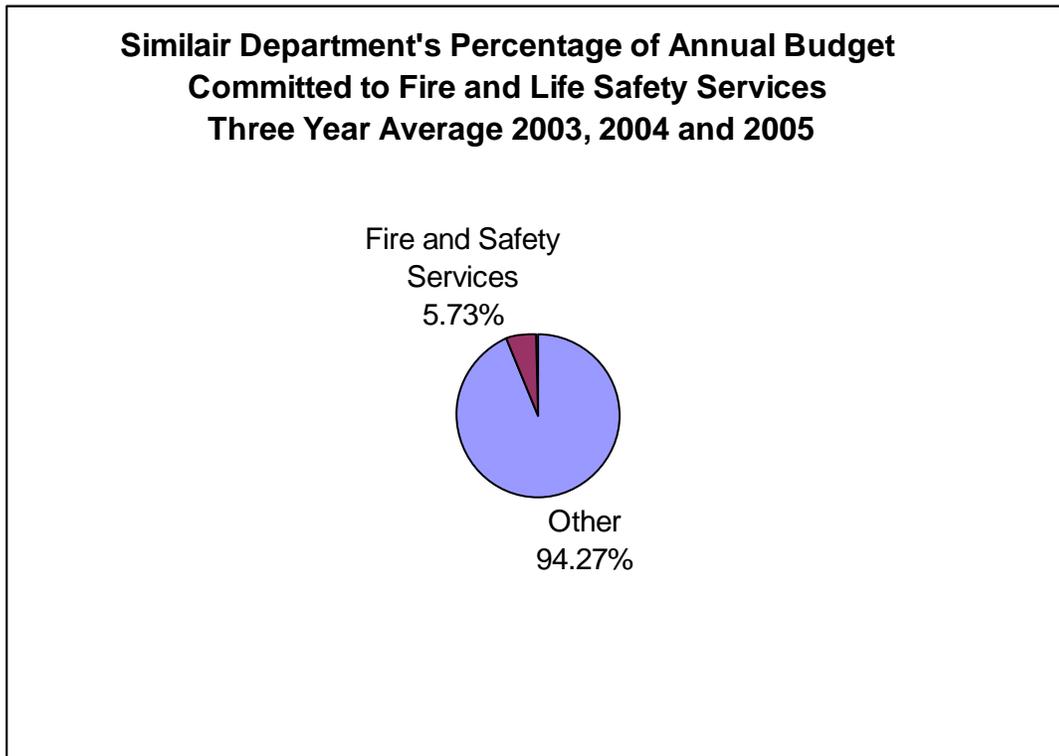
2. What percentage of the annual budget is dedicated to Fire and Life Safety

Services at fire departments that serve a similar population base?

In 2003, 27.5% of the respondents reported their annual commitment as 1% and 3%. 13.79% of the respondents reported the commitment as 15%. The average among all respondents was 5.8%. In 2004, 28.57% of the respondents reported their annual commitment as 1%. 25 % of the respondents reported the commitment as 3%. 10.7% of the respondents reported the commitment as 15% and 20%. The average among all respondents was 6.1%. In 2005, 35.7% of the respondents reported their annual commitment as 1%. 21.43% of the respondents reported their commitment as 3%. 10.7% of the respondents reported the commitment at 15% and 20%. The average among all respondents was 5.76%. (see Figure 2)

Over the three year period of evaluation, the average percentage of the annual budget dedicated to FLSS was 5.73%. (see Figure 2)

Figure 2



3. How are the financial resources dedicated to Fire and Life Safety Services utilized by Clearcreek Fire District? (see Figure 3)

In 2003, \$76,748 was dedicated to wages for fire and life safety services. The 2003 Captain's salary was \$53,075. The average hourly career wage for 2003 was \$14.87. The career wages dedicated the completion of 350 inspections were \$20,818. The career wages dedicated to the completion of 46 public education events were \$2855. Purchases for fire and life safety materials in 2003 totaled \$2618.

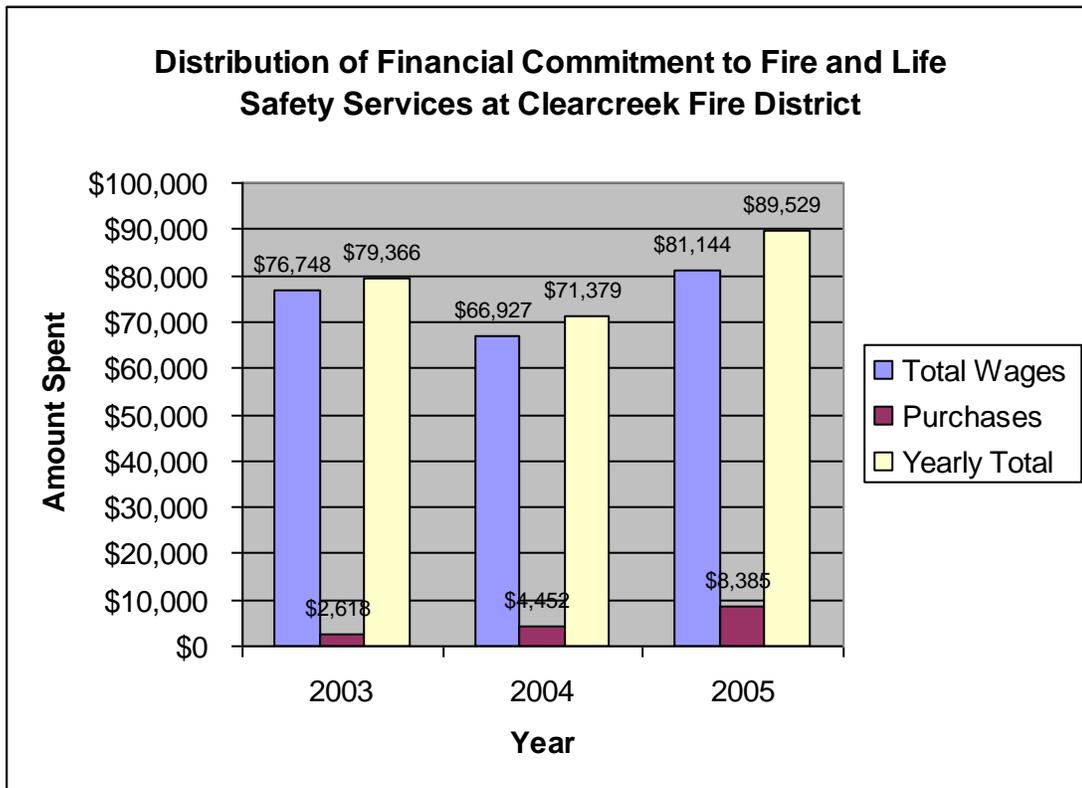
In 2004, \$66,927 was dedicated to wages for fire and life safety services. The 2004 Captain's salary was \$56326. The average hourly career wage for 2004 was \$15.41. The career wages dedicated the completion of 127 inspections were \$7,828. The career wages dedicated to the completion of 60 public education events were \$2,773. Purchases for fire and life safety

materials in 2003 totaled \$4,452.

In 2005, \$81,144 was dedicated to wages for fire and life safety services. The 2005 FLSS Captain’s salary was \$57,954. The average hourly career wage for 2004 was \$15.95. The career wages dedicated the completion of 311 inspections were \$19,841. The career wages dedicated to the completion of 70 public education events were \$3,349. Purchases for fire and life safety materials in 2005 totaled \$8,385.

The following services are provided by the Fire and Life Safety Division at the Clearcreek Fire District: Fire inspections, fire investigations, public education and pre-planning are performed by the Captain of Fire and Life Safety services and career personnel. Plans review and acceptance testing are performed solely by the Captain of Fire and Life Safety Service.

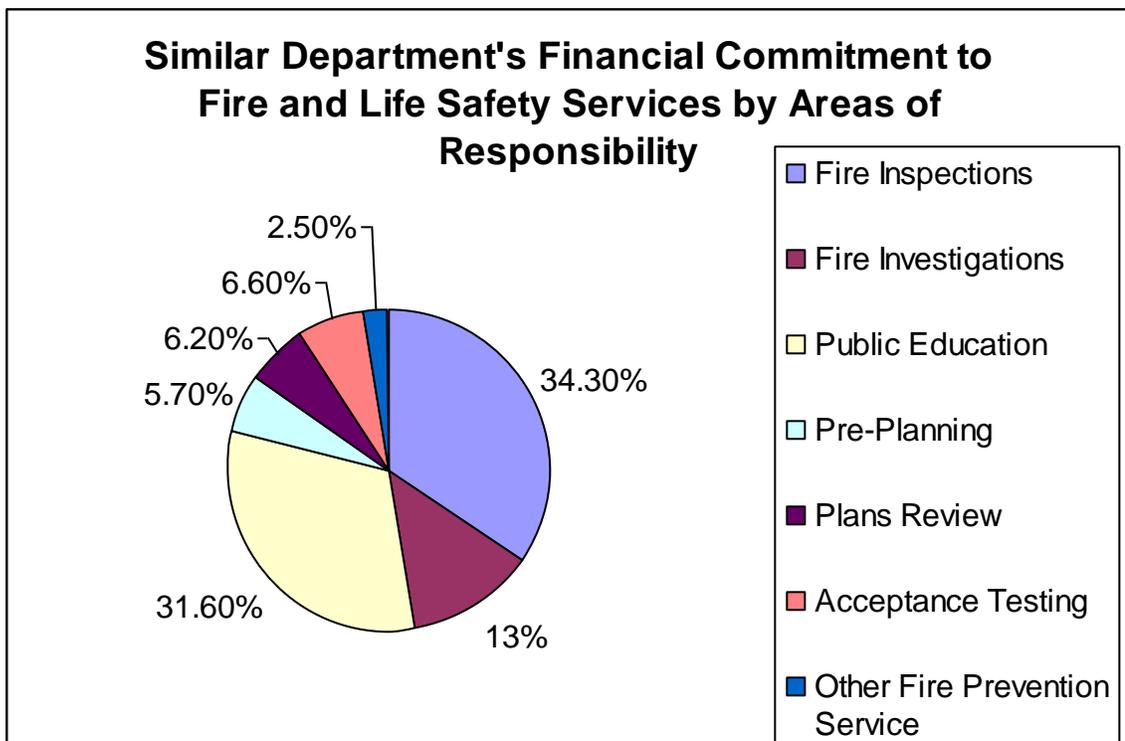
Figure 3



4. How are the financial resources dedicated to Fire and Life Safety Services utilized at fire departments that serve a similar population base? (see Figure 4)

Surveyed departments reported a percentage of the annual budget dedicated to each category of fire prevention over the budget years 2003, 2004 and 2005. The respondents reported an average of 34.3% was used for fire inspections, 13% was committed to fire investigations, 31.6% was dedicated to public education, 5.7% was focused on pre-planning, 6.2% was directed to plans review and 6.6% was focused on acceptance testing. Departments reported that 2.5% of the monies were allocated to other fire prevention services.

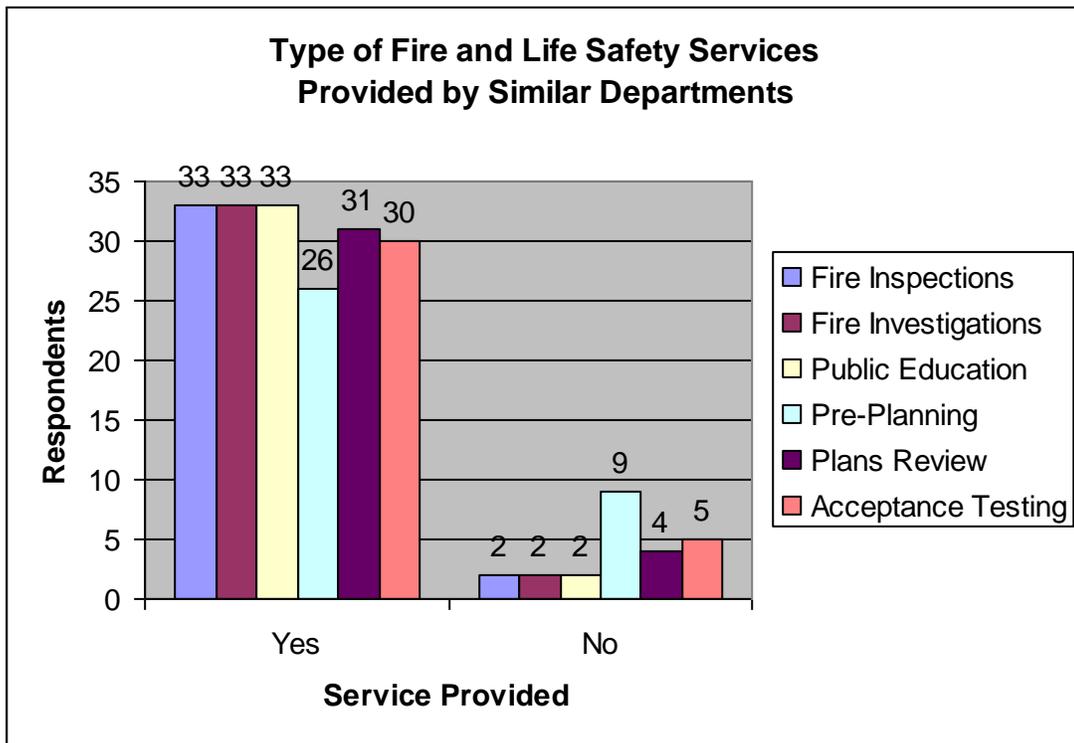
Figure 4



5. What fire life safety services are provided at fire departments that serve a similar population base? (see Figure 5)

The fire prevention services provided by each department were analyzed. 94% of the respondents reported providing fire inspections, fire investigations and public education duties. 74% of the respondents reported providing pre-planning. 88% of the respondents reported the activity of plans review. 85% of the respondents reported the performance of acceptance testing. One department did not respond.

Figure 5



DISCUSSION

The literature review revealed that commitment to fire and life safety services was directly reflected in the amount of financial allocations dedicated. Additional literature review provided information concerning public financial management. Budgeting and financial management readings were used to reveal how a budget should reflect the desires and services needed for the community. The literature also revealed previous surveys that reflect the percentage of financial commitment from several regions across the United States. Additional review revealed how the monies were utilized within fire prevention bureaus and what areas of major responsibilities were maintained. The fire prevention bureau is often the last division to be established and the first one to fall victim to budget cuts.

This research indicates that fire prevention should be a priority in modern fire protection. The national commitment to fire prevention has not significantly changed since 1972 as revealed in the National Commission on Fire Prevention and Control's report *America Burning*. This research indicates that a 30 year effort to place fire prevention at the fore-front of the fire service has not produced corresponding financial commitment to the fire prevention effort.

Webster (1996) defines commitment as to pledge or to obligate. The author applied this definition to illustrate what commitment really means. The definition of the word commitment can be illustrated through the ideologies of modern business. A commitment to product involves an increase in internal interest in the development of the product. Product development requires a financial commitment to insure the success of the product.

The results of this study indicate that financial commitment dedicated to FLSS efforts at similar population served departments are within the boundaries discovered in previous studies. In previous studies, Wickliffe quoted that approximately 3.5% of the annual budget was devoted

to prevention (p 28). Schaenman (1993) discovered that paid fire departments typically spend most of their money and efforts on fire suppression with approximately 3% to 5% of the budget allocated to fire prevention. Jones (1992) discovered that funding allocation for fire prevention was calculated at less than 9% of the budgetary expenditures for the total budget in the survey (p 13). Clearcreek Fire District's average financial commitment to FLSS was discovered to be at 2.7% while similar-sized departments reported an average of 5.7% of the annual budget over the same three year period.

Which fire prevention programs are provided in departments was researched. In previous studies, Jones (1992) revealed that 89.5% of the sample maintains a public education program (p 17). Lovvern (1991) revealed that 95% of the departments provided arson investigation and public education activities and that 90% provide plans review (p 5).

This research indicated that Clearcreek Fire District provides the same services within the auspices of the FLSS division as the similar-sized departments. Clearcreek Fire District currently provides fire inspection, fire investigation, public education, pre-planning, plans review and acceptance testing. Clearcreek Fire District performs the same services of those of similar population served departments while dedicating approximately 47% less of the financial means to perform those duties. More financial commitment and additional resources to FLSS is needed at Clearcreek Fire District to meet the increasing responsibilities caused by the growth of the response area.

If the fire service's product is the community's safety, the community's safety is secured through prevention. Increasing the personal safety, security and livelihood of the people who live in the community is the ultimate mission of the fire service. Preventing tragedy from occurring holds more value than reacting to tragedies.

The impact of increasing financial commitment to fire and life safety services at Clearcreek Fire District should be considered an investment. The prevention investment would pay immeasurable dividends in both hard and soft costs of emergency mitigation.

RECOMMENDATIONS

The growth and the higher expectation of fire and life safety services have increased without an assessment of the financial commitment to fire and life safety services. The results of this assessment will be reviewed by Bernie Becker, Chief of Department, and Clearcreek Fire District to evaluate the financial commitment to fire and life safety services. Additional resources may be dedicated towards the fire prevention efforts at Clearcreek Fire District.

The financial commitment needs to be nearly doubled just to meet the level of financial commitment to FLSS in similar sized departments in the state of Ohio. This will require dedication of financial resources through the financial planning practices while preparing future budgets. Additional financial commitment could include additional personnel assigned to handle the responsibilities of the fire and life safety services division. An additional career person, dedicated solely to the efforts of fire prevention may allow the existing programs to be more effective.

This researcher recommends the establishment of a fire and life safety services annual budget. The budget is needed to evaluate where current monies are being utilized to allow for future study of the effectiveness of the financial investment of fire prevention.

Additional studies are needed to evaluate the effectiveness of fire and life safety services and where additional funding would best serve the response community. The financial commitment to fire and life safety services at the Clearcreek Fire District should be re-evaluated in three years

to determine if additional financial commitment occurred and how the commitment impacted the community.

For future researchers wishing to pursue this topic, this researcher recommends a high level of scrutiny in the development of the survey instrument. Peer review of the survey instrument for clarity and focus is needed. Specific budget dollar amounts would allow the research to be more accurate.

REFERENCES

- City of Springboro. (2005). *Strategic Plan* (para. 13). Retrieved July 8, 2005, from <http://www.ci.springboro.oh.us/website/index.asp?webpageid={F5FB8753-A6EB-4C18-B888-A737F67783DA}>
- City of Springboro. (2006, Spring). Residential building permits. *City Notes*[Newsletter], 5.
- Clark, W.H., Gannon, R.P., & Stephens, G. (2002). Fiscal management. In D. Compton & J. Granito (2nd ed.), *Managing fire and rescue services* (pp. 167). Washington, DC: International City Management Association.
- Clearcreek Fire District. (2004). *Annual Report*. Clearcreek Township, OH: Author.
- Clearcreek Township. (2005). *Master Plan*. Clearcreek Township, OH: Author.
- Cote, A.E., & Hall, J.R., Jr. (1997). America's fire problem and fire protection, In A.E. Cote & J.L. Linville (Eds.), *Fire protection handbook eighteenth edition* (pp. 1-22-1-23). Cambridge, MA: National Fire Protection Association.
- Crawford, J. (2002). Comprehensive prevention programs. In D. Compton & J. Granito (2nd ed.), *Managing Fire and Rescue Services* (pp. 385). Washington, DC: International City Management Association.

Finkler, S.A. (2005). *Financial management for public, health, and not-for-profit organizations* (2nd ed.). Upper Saddle River, NJ: Roberts.

Jones, K. L. (1992). *The local fire service commitment to prevention*. (Executive Fire Officer Program). National Fire Academy, Emmetsburg, MD.

Lovvorn, A. W. (1991). *Fire prevention programs, who's doing what?* (Executive Fire Officer Program). National Fire Academy, Emmetsburg, MD.

National Commission on Fire Prevention and Control. (1972). *America burning* (Library of Congress Card No. 73-600022). Washington, DC: U.S. Government Printing Office.

National Public Safety Information Bureau. (2005). *National directory of fire chiefs and ems administrators*, 14, 555-595.

Schaenman, P.S. (1993). *International concepts in fire protection: new ideas from europe*. Arlington, VA: Tridata.

United States Census Bureau. (n.d.). 2000 census population finder. Retrieved June 10, 2005, from <http://factfinder.census.gov/servlet/SAFFPopulation>

Wakeham, R. T. (1995, May). Budgeting for danger. *Fire Chief*, (Executive Fire Officer Program). National Fire Academy, Emmetsburg, MD.

Webster's II new riverside dictionary (Rev. ed.). (1996). Boston, MA: Houghton- Mifflin.

Wickliffe, L. (1999). *Fire service leadership in america, will they focus on change vs. maintaining tradition?* (Executive Fire Officer Program). National Fire Academy, Emmetsburg, MD.

APPENDIX A – COVER LETTER AND BUDGET SURVEY

Date: January 14, 2006

Dear Fire Service Professional,

I am enrolled in the Ohio Fire Executive Program administered by the Ohio Fire Chief's Association. I am conducting a survey for a research project and I value your input.

Please take a few minutes, complete the enclosed survey and return it in the pre-addressed, postage provided envelope. Please complete and return the questionnaire by February 17, 2006.

This survey is a valuable component of my research into the financial commitment of fire prevention for my department.

Thank you and please contact me if you have any questions or concerns.

Jeff Prass

Jeffrey G. Prass

Captain, Fire and Life Safety Services

Clearcreek Fire District

QUESTIONNAIRE

1. How would you classify your department?

___ Paid

___ Combination

___ Volunteer

2. What is the population your fire department serves?

___ 20,000 to 25,000

___ 26,000 to 30,000

3. What is your fire department's budget for each fiscal year listed?

2003 _____

2004 _____

2005 _____

4. Does your department have a separate budget for fire prevention services? YES NO

5. What percentage of your annual budget is allocated for all fire prevention services for each fiscal year?

2003 ___ 1% ___ 2% ___ 3% ___ 4% ___ 5% ___ 10% ___ 15% ___ 20%

2004 ___ 1% ___ 2% ___ 3% ___ 4% ___ 5% ___ 10% ___ 15% ___ 20%

2005 ___ 1% ___ 2% ___ 3% ___ 4% ___ 5% ___ 10% ___ 15% ___ 20%

6. Please check all fire prevention services your department provided for years 2003-2005.

Fire Inspections	_____
Fire Investigations	_____
Public Education	_____
Pre-Planning	_____
Plans Review	_____
Acceptance testing	_____

Other fire prevention services provided by your department:

7. What percentage of the annual budget is dedicated to each fire prevention service your department provided for years 2003-2005? (TOTAL = 100%)

Fire Inspections	_____
Fire Investigations	_____
Public Education	_____
Pre-Planning	_____
Plans Review	_____
Acceptance testing	_____
Other fire prevention services	_____
TOTAL	100%

Please include a spreadsheet of your department's annual budget by line item for fiscal years 2003, 2004, 2005, if available.

Your Information: Please Print

Fire Department Name: _____

Department's Address: _____

State: _____ Zip Code: _____

Respondent's Name and Rank: _____

Respondent's Contact Information: Phone: _____ Cell: _____

Email Address: _____

Please return the completed questionnaire in the provided envelope.

Thank you for your participation in this study.

APPENDIX B – QUESTIONNAIRE RESULTS FROM SIMILAR POPULATION SERVED
DEPARTMENTS

1. How would you classify your department?

20 Paid

16 Combination

0 Volunteer

2. What is the population your fire department serves?

22 20,000 to 25,000

12 26,000 to 30,000

1 <20,000

1 >30,000

3. What is your fire department's budget for each fiscal year listed?

2003 Range \$300,000 to 6.2 Million

2004 Range \$360,000 to 6.8 Million

2005 Range \$400,000 to 7.1 Million

4. Does your department have a separate budget for fire prevention services?

YES 6

NO 27

NR 3

5. What percentage of your annual budget is allocated for all fire prevention services for each

fiscal year? (Number of Respondents for Each Category)

2003 8 1% 2 2% 8 3% 1 4% 2 5% 2 10% 4 15% 2 20% NR 7
 2004 8 1% 2 2% 7 3% 1 4% 2 5% 2 10% 3 15% 3 20% NR 8
 2005 10 1% 1 2% 6 3% 2 4% 1 5% 2 10% 3 15% 3 20% NR 8

6. Please check all fire prevention services your department provided for years 2003-2005.

(Number of Yes Respondents for Each Category)

Fire Inspections	<u>33</u>
Fire Investigations	<u>33</u>
Public Education	<u>33</u>
Pre-Planning	<u>26</u>
Plans Review	<u>31</u>
Acceptance testing	<u>30</u>
NR	<u>1</u>

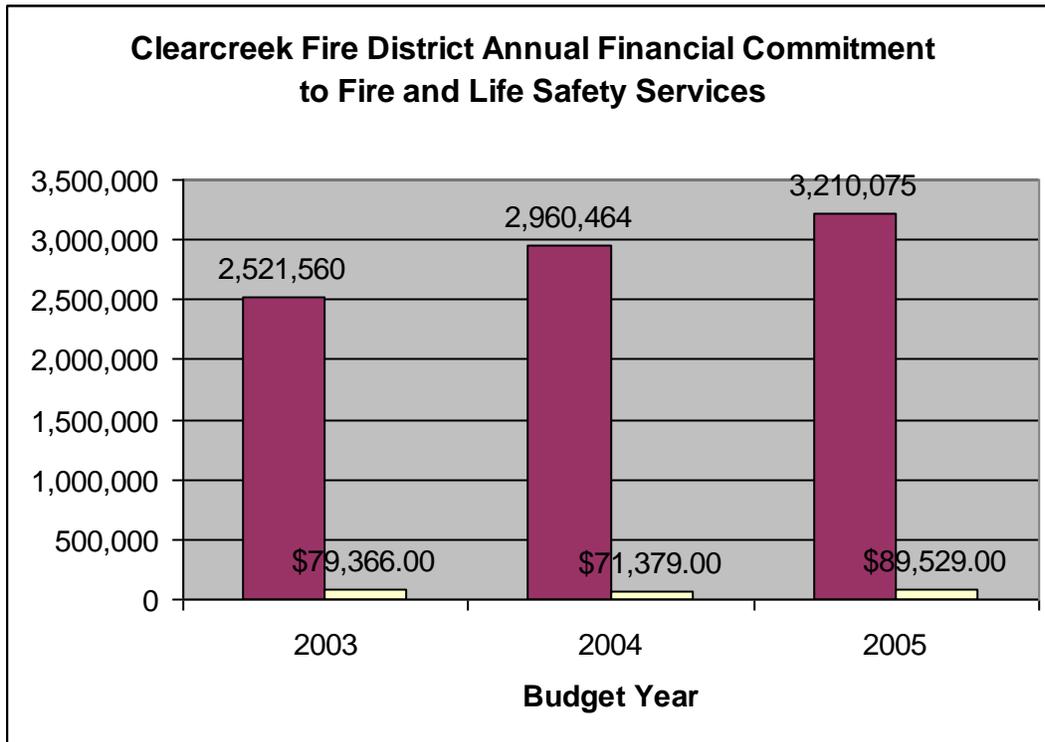
Other fire prevention services provided by your department:

Juvenile Fire setter Treatment, Underground Storage Tank Installation, Open House, Smoke Detectors.

7. What percentage of the annual budget is dedicated to each fire prevention service your department provided for years 2003-2005? (TOTAL = 100%)

Fire Inspections	<u>Range .75% to 94%</u>
Fire Investigations	<u>Range 0% to 30%</u>
Public Education	<u>Range 0% to 80%</u>
Pre-Planning	<u>Range 0% to 15%</u>
Plans Review	<u>Range 1% to 20%</u>
Acceptance testing	<u>Range .75% to 10%</u>
Other fire prevention services	<u>Range 0% to 40%</u>
NR 20 or 55%	
TOTAL	100%

APPENDIX C- CCFD ANNUAL FINANCIAL COMMITMENT TO FLSS



APPENDIX D- CCFD BUDGET EVALUATION CALCULATIONS

2003 Fire and Life Safety Service Expenditures for Clearcreek Fire District

Captain FLSS Wages	\$53,075
Public Education Wages	\$2,855
Inspection Wages	\$20,818
FLSS Materials Purchase	\$2,618
TOTAL	\$79,366

2004 Fire and Life Safety Service Expenditures for Clearcreek Fire District

Captain FLSS Wages	\$56,326
Public Education Wages	\$2,773
Inspection Wages	\$7,828
FLSS Materials Purchase	\$4,452
TOTAL	\$71,379

2005 Fire and Life Safety Service Expenditures for Clearcreek Fire District

Captain FLSS Wages	\$57,954
Public Education Wages	\$3,349
Inspection Wages	\$19,841
FLSS Materials Purchase	\$8,385
TOTAL	\$89,529