Alternative Funding for the Bomberos of Costa Rica

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Abstract

This report examines the different revenue models employed by privately funded fire and emergency medical service providers in the United States. The main finding is there are two common revenue models used: the contract and the subscription-based models. The purpose of this report is to provide the national fire service organization of Costa Rica with recommendations on implementing new revenue sources, including whether and how they can adopt the U.S. revenue models given their context. The research included a review of relevant literature, a survey of fire departments in the U.S., and interviews with industry experts. From this research, three recommendations arose: to charge for existing services, to establish a national goal for fire reduction, and to consider the provision of EMS.

Authorship

This project represents the joint work of Gregory Hesler, Lawrence Loomis, David Nill, and Stefan Rashkov.

Gregory Hesler wrote the "Argument for Privatization" and contributed to the "Privatization of the ICE" sections in the Background chapter, as well as the "Fire Tax" and the "Donations" sections of the Findings chapter. Gregory also compiled the appendices for the report, and actively conducted interviews for the group.

Lawrence Loomis contributed to the "Emergency Medical Services in the U.S." and the "U.S. Goal to Reduce the Fire Problem" sections in the Background chapter, as well as the "Cost Structure", the "Fundraising, Donations & Other Sources", and the "Fire Prevention" sections of the Findings chapter.

David Nill contributed to the section on the Bomberos' structure and services, as well as the "Implications of the Insurance Reform" section of the Background chapter. In addition, David wrote the "Funding Alternatives" section of that chapter describing the different types of fees; he also contributed to the Findings chapter with the sections on the negatives of the private fire service and a summary of the group's findings of the private non-profit model. David also contributed to the Recommendations chapter and was active in the sample selection and interviewing of fire departments, as well as editing the document and compiling the bibliography.

Stefan Rashkov maintained correspondence with Esteban Ramos who represents the Bomberos of Costa Rica. Stefan contributed to the "Public Services and Privatization", "Effectiveness of Private Fire Service Providers", "Pros of Private Model", "Emergency Medical

Services in Costa Rica" sections of the Background chapter, as well as much of the Methodology chapter and the Recommendations chapter of the paper. Stefan also contributed with a general strategy of the project and was the principal editor of the document.

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Chapter 1. Introduction

Countries throughout the world are faced with high demands and pressures to provide citizens with better and more cost-effective public services. A government provides public services to its citizens either directly, through the public sector, or by financing private provision of services. The most common public services in developed nations include education, health care, electricity, water and gas services, telecommunications, police, military, fire service, public transportation, town planning, waste management, and social housing. Historically, these services have been provided by local or national state monopolies. Richard Batley (1996) and others (Aharoni, 1986; Cook & Minogue, 1990; Chamberlain, 2007) claim that demands for higher fiscal accountability and higher efficiency have pushed governments to break monopolies and to liberalize the public services sector. In developing countries in particular, insufficient funds and pressure from foreign donors have been additional factors. As a result, governments consider or have already adopted different forms of privatization (Chamberlain, 2007).

Fire service is a public service that has some specific characteristics. The main goals of the fire service are to save lives, save property, and to protect the environment. Fire departments in the United States are generally organized as branches of the local or county government, special-purpose district entities, or not-for-profit corporations. They are funded from property taxes, service fees, fundraising, and other contributions.

Modern firefighting did not originate until the early 18th century in France, when the first fire brigades were created. In North America, professional fire companies have existed since 1850, and in 1853 the first full-time paid professional fire department in the United States

was founded in Cincinnati, Ohio (City of Cincinatti, 2007). With the increasing population of the United States, the number of fire departments and firefighters has risen proportionally. In 2006, there were 30,635 fire departments in the United States. This number includes both career and volunteer, public and private departments. In the larger metropolitan areas, the fire departments employ "career" firefighters, i.e. full-time, paid (United States Fire Administration, 2007). According to the United States Fire Administration, 12.6 percent of all fire departments in the United States employ career firefighters and protect 62 percent of the U.S. population (USFA, 2007). In rural areas, fire departments have either volunteer or paid "on call" firefighters. Still, many departments are mixed, because they employ career, on-call, and volunteer firefighters.

The majority of public services throughout Latin America have long been strictly centralized national governmental monopolies (Hausmann & Stein). In the Republic of Costa Rica, the *Instituto Nacional de Seguros (INS)* is the state insurance monopoly, which is a highly centralized institution that covers a wide array of insurance services, referred to as "social security". *El Cuerpo de Bomberos* (The Firefighting Unit) is an integral part of the INS, which means that it is financed entirely through tax revenue.

Over the past three decades, Costa Rica has been dealing with decentralization and liberalization reform and these reforms have reached varying levels of implementation. The major liberalization movement in the country involved the Instituto Costarricense de Electricidad, the country's national electricity and telecommunications supplier (Chamberlain, 2007). Since the late 1980s, the company has been through several opportunities to reform itself as a privatized company, allowing the private sector to compete with ICE, but this process

was met withstrong civil discontent. Due to a nationwide resistance, both from the company's workforce and regular citizens, and due to several criminal activities of the proponents of the ICE's privatization, the company was never fully able to privatize (Chamberlain, 2007).

Currently, as a result of the signing of the Central American Free Trade Agreement (CAFTA), the Costa Rican government is liberalizing the insurance market, thus allowing participation of the private sector (Chamberlain, 2007). Consequently, the public funds supplied by the INS to the Bomberos will be significantly reduced when the liberalization takes effect. The Bomberos are exploring other sources of revenue to fill the gap in their budget as well as any organizational changes necessary for adopting a new revenue model.

The Bomberos need to know the important factors to consider during the transition from a centralized, state-run organization to a self-sustaining, possibly private, entity. They are examining models suitable for the Costa Rican culture and models that have proved to work well in other countries around the world. In order to aid in the restructuring of the Bomberos, our group analyzed the different models of fire operations, both public and private, in the United States and abroad, and how public fire organizations have made the transition to private. Based on our evaluation of the different models, we propose possible scenarios for privatization and provide our recommendation for a model that would suit the Bomberos.

Chapter 2. Background and Literature Review

In this chapter, we provide a review of relevant topics such as public services and privatization, and place them in the context of Costa Rica's history of privatization, the Bomberos' organizational structure and services, and the implications of the legislation to be passed. This chapter also includes a review of literature on alternative funding sources for fire departments.

Public Services

From the 1920s until the 1970s in countries around the world, the extent of government involvement in many socioeconomic activities grew considerably. Events such as the Great Depression triggered greater confidence in the state to solve society's problems, which became a factor for a large expansion of public services not only in socialist nations and newly independent states but also in developed industrial countries (Esman, 1990). A rise in public expenditures and the number of public employees are indicators of this expansion. Even after a significant wave of privatization in the 1980s, public expenditure in the United States, for example, constituted 36.1 percent of the gross domestic product in 1990 (Organisation for Economic Co-Operation and Development, 1993).

Privatization

Privatization is a broad term and can be interpreted in various ways. It is generally understood as "the transfer of assets and service functions from public to private hands" (Hanke, 1987). As presented by Dr. Haque in his summary of research findings from Heald (1990), Hanke (1987), and Aharoni (1986), privatization encompasses a number of activities: the

transfer of ownership from the public to private sector by selling state-owned assets and enterprises; the contracting out of public services to private contractors mainly for production purpose while maintaining regulatory control; the liberalization of government monopolies and the endorsement of private enterprises to promote competition; the withdrawal of government regulations over the market enterprises; the substitution of user charges in place of tax financing (Haque, 1996).

Privatization can also be considered as a movement that has had followers and significant impact worldwide. Developed market economies such as the United States, the United Kingdom, Canada, France, Germany, and Italy have supported and widely implemented privatization (Fitzgerald R. , 1988), but it has also been adopted by many Asian, African and Latin American countries, and later, by the former communist states of Eastern Europe, the Soviet republics, and other communist nations like Vietnam and China (Haque, 1996). As mentioned in the Introduction, the primary reasons for privatization have been the public demand for fiscal accountability and higher efficiency and, in developing nations, insufficient funds and pressure from foreign donors (Aharoni, 1986; Cook & Minogue, 1990; Batley, 1996; Chamberlain, 2007).

As it has become more widespread over the past three decades, privatization has also extended in scope to now include not only enterprises with a direct product, but also public services offered by the government, such as social security or welfare provision. Developing countries that have adopted privatization of some form have typically started with potentially competitive state-owned enterprises that produce tangible products (Adam, Cavendish, & Mistry, 1992; Cook & Kirkpatrick, 1988; Kikeri, Nellis, & Shirley, 1992; Odle, 1993). Privatization

of public services, however, has been slower and more difficult because of issues raised regarding public interest and acceptance and has been determined “not so much by economic criteria as by the political and bureaucratic resources available to decision makers” (Cook & Minogue, 1990)

Reasons for Privatization

Since the 1980s, public sector organizations have experienced a continued pressure for change and reform due to financial restrictions placed on public spending by the government (Fitzgerald & Stirling, 1999). The most common answer to these demands has been privatization. Specifically in developing countries, the main reasons for privatizing have been the fiscal difficulty of the states to sustain public services and also the influence from donors of capital, such as that from Structural Adjustment Programs (Batley, 1996).

Just as the term “privatization” has evolved to include a wide range of meanings, the underlying causes and reasons for privatization can also be attributed to not simply fiscal restrictions, but to a broader change in economic ideology and organization. On one hand, the objective might be to reduce the reliance on governmental subsidies or to create incentives for better management. On the other hand, the reason could be to eliminate the remains of state socialism, to attract modern technology, or to attract more foreign direct investment.

An Argument for Privatization

Supporters of privatization maintain that the effect of introducing competition or even just replacing a public monopoly with a private one would be increased efficiency and accountability (Wolf, 1993). When public services are run by the government, they are run as a

monopoly. Monopolies create no drive for financial efficiency due to lack of incentive (Guardiano, Haarmeyer, & Poole, 1993). Citizens look toward elected officials to cut costs but to maintain the level of service. This is one reason why cities and towns are looking to outsource their public services and to privatize. According to Geranmayeh, Halal, and Pourdenhnad, David Osborn puts it best in Ten Ways to Turn D.C. Around ,

> Think about injecting competition into *every* city service. Entrepreneurial governments have discovered that when organizations must compete for funding, they keep their costs down, respond quickly to changing demands and strive mightily to satisfy their customers. (Geranmayeh, Halal, & Poudenhad, 1993)

As privatization puts pressure on the company to satisfy and cater to the specific needs of the community that it is serving, companies are also forced to increase cost effectiveness and maintain a lower cost of operation. Competition and profit margin are two factors that compel private companies to keep costs to a minimum as well as providing high-quality service.

Privatization in Costa Rica: the ICE

Costa Rica's history of privatization has been marked by the attempts to restructure the country's national electricity company, the Instituto Costarricense de Electricidad (ICE). The ICE was founded shortly after the War of 1948 to promote the industrialization of Costa Rica. As written in Costa Rica's law, the purpose of the ICE was to provide swift and effective solution to the country's scarcity of electrical power where such scarcity exists and to create the provision of constant useable energy to satisfy normal demand. In 1963, the function expanded to

telecommunications. The ICE was established as a non-profit organization, offering all of its services at cost (La Asemblea de La República de Costa Rica, 1948).

The privatization of the ICE is a very important part of Costa Rica's free-market history, as it depicts the struggle of opposing economic viewpoints. The board of directors of the ICE advocated the company's privatization, while the labor unions opposed it. There were two privatization proposals for the ICE over the last twenty-five years. In the mid-eighties, in response to President Oscar Arias' appeal for ideas about the economic democratization of the country, the first ICE privatization proposal was made to address financial and technical problems, with reference to the energy crisis of the time. The ICE's board of directors claimed the Institute lacked training in finance, and was faced with major changes in telecommunications technology (Chamberlain, 2007). The board requested a 60 percent raise in electricity rates for 1989, with additional 5 percent and 10 percent raises over the following two years (Salas Picado, 1995). Also recommended were cost-saving measures such as selling 60 percent of telecommunication services and 40 percent of its power and light utilities to private owners. In response to this request, the ICE administration was directed to consolidate the National Power and Light Company and ICE to form a single entity.

The initial proposal of privatization was met with strong resistance by nine labor unions whose workers were employed within ICE, mostly out of fear of losing their jobs. They also assessed it as the state's transfer to ICE of costs unrelated to the Institute (Chamberlain, 2007).

The opposing standpoints of the ICE board of directors and the labor unions constituted a heated debate. Through court arbitration hearings, the labor unions gained headway in the argument, with a formula for increased pay and managerial works. Political parties took sides in

the argument as well. President Arias pushed for privatization while others from the National Liberation Party stood against it. When the ICE attempted privatization, the labor unions retaliated with protest and any idea of privatization without resistance was ousted. Eventually, the privatization project was officially dropped in October of 1988 (Chamberlain, 2007).

The argument was not over, though.The business sector had established a say in Costa Rica's infrastructure, and an ICE Combo proposal was made in April 2000. President Miguel Angel Rodriguez, proposed a bill for "modernizing" the Instituto Costarricense de Electricidad y Telecomunicaciones. The bill advocated the transformation of the ICE into a public business to compete with private-sector firms (Brooks, 1999). However, this market would always be implemented with government oversight, so the president established monitoring agencies. Despite all of this effort, the president who constructed this proposal in 2000 is currently serving a prison term for illegal activities during his administration related to the privatization of Costa Rican government activities (Chamberlain, 2007). This second bill was under much debate until it was put on permanent hold due to nationwide protest against the privatization.

In addition to Costa Rica's internal efforts for privatization, foreign governments were also pushing for the ICE to privatize for several reasons, mainly in order to adopt a more modern, liberal, and successful business model. However, the recent scandals involving at least three of Costa Rica's most recent presidents and international businesses concerning privatizing the country's economy have raised national consciousness of powerful corrupt influences in the potential sale of state assets to private firms (Chamberlain, 2007, Alphandary, 2000).

In conclusion, the privatization of the ICE never came to fruition due to highly vocal protest of the workforce, but the Institute underwent changes that improved its operation

nonetheless. Costa Rica has been recognized as one of the top two countries in terms of electricity and telecommunications development in Latin America for the country's gains in mobile telecommunications (Fumero, 2004).

Fire Service in Costa Rica

The revenue of the Bomberos of Costa Rica is controlled by the INS, the country's national insurance provider. The Bomberos rely on a percentage of the INS' budget as their source of funding *(See Appendix A, Ley del Cuerpo de Bomberos del Instituto Nacional de Seguros)*. In order of highest amount contributed, the next source of income for the Bomberos are the fines and fees as outlined in their law. Lastly, they accept national and international donations from private entities. The new legislation will significantly reduce the INS contribution to the Bomberos' budget, and thus the fire-fighting operation must seek alternate funding. In this section, we will discuss the organizational structure of the Bomberos, how it compares to United States fire departments, and the services the Bomberos offer.

Organizational Structure of the Bomberos

The Bomberos are organized in a hierarchy of departments, with an administrative group overlooking all operations among its sixty-one fire departments. The administrative group is comprised of an executive officer and four zone leaders. The zone leaders work together in organizing appropriate response for emergencies, utilizing the fire departments from their zones (Instituto Nacional de Seguros, 2007).

The Bomberos operation included a Paramedics Unit that once was part of the fire department structure but separated and became its own operation due to population growth

and an increased number of emergencies. Many United States fire departments have discontinued providing ambulance services out of the fire departments themselves. Due to an increase in emergency calls, many of the ambulances that were within the fire department have moved out and are operating on their own (Balaker, 2003). Currently, fire departments in the United States respond to medical emergencies and assist with patient care before and while the patient is being transferred to the paramedics (Balaker, 2003). Costa Rica's mode of operation is similar in this sense.

There is an everyday threat imposed on communities that utilize hazardous materials. Both fire departments in the United States and Costa Rica have created a special team to respond to incidents involving such substances. In 1996, the Bomberos established a Dangerous Materials Unit, whose main objective is to respond to incidents involving dangerous materials. Their secondary objective is to carry out works that permit the rescue of victims of any emergency such as automobile accidents or people trapped in a building as a result of an earthquake (INS, 2007). This is equivalent to a U.S. HAZMAT team. However, not all fire departments in the United States have their own HAZMAT team. Most rely on private organizations to provide the HAZMAT service (Foley, 2004).

For research and development of operations, the Bomberos have an Engineering Department, of which Señor Esteban Ramos, our project liaison, is the director. The seventeen engineers of this department share the responsibility of promoting, controlling and verifying in diverse environments the security by means of prevention, from schools and other buildings, to the verification of the fixed systems against fires in large buildings. (INS, 2007).

Lastly, there is a National Academy of Firefighters, which has the main purpose of providing vocational training to Costa Rica's firefighters (INS, 2007). The National Academy of Firefighters opened its doors in 2001. Many United States fire departments, such as the Worcester Municipal Fire Department, provide their firefighters with appropriate training (Worcester Fire Department, 2008). In the United States, there are also private firefighting schools whose sole purpose is to train firefighters. The National Academy of Firefighters works like a private firefighting school in the United States in the sense that their sole purpose is to train.

The Bomberos have one thousand volunteer firefighters across all the departments. Similarly the organization of fire departments in the United States, the Bomberos use a variety of paid, on-call and volunteer firefighters within each fire department. As in the United States, volunteer firefighters outnumber career firefighters. Volunteer firefighters make up 72 percent (823,350) of the firefighter population in the United States, while the other 28 percent is made up of career firefighters (USFA, 2007).

Services Provided by Bomberos

In addition to their main purpose of responding to fire- and emergency-related incidents within the community, the Bomberos provide several services in the way of fire prevention and community betterment.

For industries and home-owners, the Bomberos provide fire risk evaluations free of charge to enterprises through their Department of Prevention Engineering (INS, 2007).This service consists of a technical report that identifies main risk factors and includes suggestions for measures to reduce risk.

The Bomberos also provide approval of construction plans and monitor the regulation of construction projects for developers. These approvals are required for a developer to receive a construction permit. Also, the service must be performed within five business days from the official request. The Bomberos have a Consultation Center as well, which provides phone, fax, and e-mail consultation regarding prevention techniques and equipment, fire protections systems, fire escapes, emergency lighting, etc. (INS, 2007).

The Bomberos also offer, for free, a fire prevention course to business enterprises. The course involves thirty-five hours of training and is recognized by the "Servicio Civil" by a trainee's receipt of Certificate of Expertise. In addition, the Bomberos travel to academic institutions to provide educational programs in fire prevention for students. Lastly, they provide a prevention program for children in pre-school. Specifically geared towards children, the Bomberos provide education through games and activities (INS, 2007).

The Bomberos maintain community involvement through several outlets. The Bomberos provide emergency plans for all properties, inspect hydrants, and establish local emergency committees, and invite children to tour fire departments. There is also an Office of Community Service within the Bomberos that creates opportunities for the firefighters to contribute volunteer services (INS, 2007).

Implications of the Insurance Market Reforms

The Instituto Nacional de Seguros is a facet of the Costa Rican government that was established in 1924 to provide a system of insurance for all residents of the country, both foreign and domestic. Since its inception, the INS has been a non-profit organization with social welfare in mind. The types of coverage that the INS provides includes worker's compensation,

mandatory automobile insurance, property liabilities, harvest insurance, and support for fire departments (Fumero, 2004). Due to pressure from foreign countries, Costa Rica moved to completely liberalize their markets by privatizing the state monopoly insurance company. Upon signing the Central American Free Trade Agreement, the Costa Rican government has agreed to separate the INS from the country's government, as stipulated by Chapter 12 of the Preliminary Draft on "Financial Services" and in Annex No. III, Article 12.2, insertion 2 (Chamberlain, 2007).

Several professionals challenge this move by the Costa Rican government. According to Fumero (2004), in a competitive open market scenario, private insurance providers will prefer the 'good risks,' i.e. customers who own safe houses in secure neighborhoods, whereas people living in wooden houses in high risk neighborhoods will not be considered 'good risks.' Fumero believes that one can think of this liberalization as a denial of fire protection and emergency health care, what should be an obligated social service, to people considered high risk (2004).

Private Provision of Fire Service

Public fire departments are still the most common arrangement in the United States (USFA, 2007), but a growing number of communities are served by privately operated fire departments, most notably in the states of Arizona, Tennessee, Georgia, and Oregon (Guardiano, Haarmeyer, Poole, 1993). According to a report for the Small Business Administration prepared by John Campbell in 1981, private fire provision can be achieved through one of the following arrangements:

- Independent, not-for-profit fire department, which may or may not receive financial support from the government, is the most common arrangement for volunteer fire departments.

- Local government contracting for fire services with an outside public or private fire department.
- Individual contract or subscription with a public or private authority.

By studying the organizational types of fire departments in USFA's National Fire Department Census Database, we can confirm that the models of private fire service provision used today still follow the same arrangements as those identified in Campbell's report (1981).

Effectiveness of Private Fire Service Providers

Numerous research studies in the United States have shown that private companies can deliver quality and reliable service at a lower cost than equivalent public-sector providers (Guardiano et al., 1993). According to Guardiano, Haarmeyer, and Poole (1993), there are three main practices that allow such a low cost of operation. One is to have the company employ fewer full-time firefighters and use part-time workers to fill positions when needed. Secondly, cost can be reduced by sharing of specialists and apparatus between stations within a close proximity, as well as by cross-training of members. Thirdly, lower cost is achieved by emphasizing on fire prevention through public awareness and the use of new technology.

Private fire companies that serve a large number of communities can also take advantage of their centralized structure by sharing resources between their fire departments. Sharing of expensive and critical equipment that is only occasionally needed allows the fire department to save on capital investment and keep costs low, while still having the necessary equipment at its disposal. In other words, a centralized fire company can provide access to greater resources to small communities that otherwise might not be available to the small community. This, however, is not a benefit unique to private companies, since it may be

observed in larger public fire districts that unify a number of fire departments. An example of this is the Sacramento Metropolitan Fire District, which has forty-two fire stations that share expensive apparatus throughout the company (Sacramento Metropolitan Fire District, 2007).

Besides the lower cost and the benefits of sharing resources, private providers can also offer better quality of service than public ones (Guardiano, et al., 1993). In their contracts with communities, private fire companies are required to adhere to performance stipulations. These performance standards are based on measurable statistics such as response times. Later in this chapter, we discuss that, under certain circumstances, private companies do not provide better quality of service.

According to Adrian Moore (1998), another advantage of private fire departments is that they can quickly adopt new technology, as they do not have to pass through as much bureaucracy as public departments; thus they are more innovative. For example, after a study proved that lime green paint was significantly more visible to the public than typical fire engine red paint, Rural Metro Corporation paid for all of their apparatus to be repainted with the high visibility paint. This measure reduced the number of accidents with their equipment and other vehicles, saving the company money as well as making fire protection safer for the communities in which they serve (Moore, 1998).

Emergency Medical Services

The struggle for cities within the United States to get the most efficient Emergency Medical Care has been ongoing since the late 1960s (Poole, 1995). Previously, emergency care was provided by funeral homes, hospital-based ambulances and the local fire departments. During the Vietnam War, the observation was made that being able to provide adequate

medical attention to the patient by trained personnel would increase patient survival (Poole, 1995). However, at that time, there was not a national EMS system in the United States. The federal government identified the need for such a system and passed the National Highway Safety Act in 1966, which created the Department of Transportation. The Department of Transportation was to oversee EMS operations and to provide funds for ambulance, training, and communication(Poole, 1995). The increased training resulted in more advanced pre-hospital care (Pozner, 2004).

At present, Emergency Medical Services are provided in the United States at two different levels, Basic Life Support (BLS) and Advanced Life Support (ALS). Throughout the country, ambulances are typically staffed with professionals of both levels of training. The BLS personnel, officially called Emergency Medical Technicians (EMT), are trained for 110 hours and can provide a minimum level of care such as first aid, CPR, administration of oxygen and defibrillation (Poole, 1995)In contrast, the ALS providers, also called Paramedics, are trained for 1,500 hours, enabling them to administer drugs, perform advanced airway techniques, and intravenous therapy, in addition to the same techniques that an EMT can provide (Pozner, 2004). The paramedics' further training allows for the stabilization of the patient en route to the destination hospital.

When a medical emergency is called into the communications office, both an ambulance and a fire truck are dispatched. Typically, the fire department is closer to the caller's address and will be first on scene to start treatment. A study done by the *Journal of Emergency Medical Services* (JEMS) examined the two hundred largest U.S. cities and found that about 97 percent of the first response is done by the public fire department. In contrast, throughout the US,

transport of victims is a done nearly equally by between private and public EMS agencies . According to Monosky, transport to the hospital is done by private ambulance agencies 42 percent of the time (Monosky, 2003). To address the increasing demand of service due to community population increase in the United States, more ambulance agencies have been established and most of them are private. These agencies are contracted by cities and towns to provide emergency medical service. The EMS is privately funded but legally controlled by the local government contracting the service. According to Balaker, the incentive for using private EMS service is to enhance performance goals, save cost, and to instill a greater level of accountability of the service itself (2003).

When a community raises the question of privatizing a municipal agency, there is always the fear that the professional quality of the work will decline (Balaker, 2003). According to Balaker (2003), a privately run organization needs to improve its quality of work to keep the public satisfied. With a good public reputation, the private company will be able to spread and expand into other communities (Balaker, 2003). This creates competition between different companies which keeps the Emergency Medical Services striving to improve.

To continuously improve their performance, EMS servicesmust stay up-to-date with technology. In cities, where a large number of ambulances are employed, Automatic Vehicle Location (AVL) has been added to quicken response times. An article in *JEMS* states that 70 percent of the private transport companies currently have this feature on their vehicles, while it is used in only 20 percent of public fire department that run ambulances (Cady, 2002).The AVL is a technological advancement which allows the dispatch center to track the movements of the ambulances, and allows for the closest one to be sent to the emergency. As cited by Gribbon

(2006), a study done in New York City validates that the AVL quickens response time for life threatening emergencies by thirty-three seconds . Therefore, technological developments such as the Automatic Vehicle Location can be highly beneficial to the performance of EMS providers.

EMS in Costa Rica: La Cruz Roja

The main provider of emergency medical service in Costa Rica is the Cruz Roja Costarricense (CRC, or Costa Rican Red Cross). There are also a small number of private ambulance companies, but they only provide coverage in the San José area. In 2006, the Costa Rican Red Cross responded to 250,712 emergency calls (Cruz Roja Costarricense, 2007), but we found an unconfirmed claim that roughly one-third of emergencies are not attended because of insufficient resources (The Real Costa Rica, 2007).

The CRC is a private, non-profit organization, which is part of the International Red Cross and Red Crescent Movement. One quarter of the CRC's revenue comes from public funds; 42 percent comes from the INS and the Caja Costarricense de Seguro Social (CCSS). The rest of the funds are raised by the CRC itself through activities such as a national televised bingo (10 percent) and other public events. For every public activity ranging from sporting events to rock concerts, the event management is required to pay a fee to the CRC to provide EMS. These fees contribute most to the CRC's EMS funding. In addition, the CRC sells refreshments at sporting events such as bullfights (Cruz Roja Costarricense, 2007; Welch, 1997).

Funding Alternatives Used by U.S. Fire and EMS Companies

Private fire departments in the United States have a variety of revenue sources other than taxes, including various types of user fees, fines and penalties, sale of assets, fundraising and donations. Following is a review of literature that we have found on alternative funding sources.

User Fees: Response Fees

Non-tax funding options include user fees or charges, also known as cost recovery fees, which are intended to offset some or all of the costs of delivering the service (Federal Emergency Management Agency, 2001). Cost recovery fees are charged to the user of the service, but are discretionary on the part of the user, and there are provisions that allow adjustments based on the user's ability to pay (Wren, 1995). User fees are charges made only to the actual recipient of the service. R. Dipoli (1997) outlines examples of such fees in the report "*10 Capital Funding Sources that Still Make Sense"*:

- Ambulance transport fee – fees charged to patients transported to the hospital by fire department emergency medical units.
- False alarm response fee – a fee that covers the cost for response to false alarms. This fee is passed to the property owner.
- Hazardous Materials Response fee – this fee is charged to the party responsible for causing the release of hazardous chemicals resulting in an emergency response by the fire department.
- Stand-by fee – a fee charged to a party for fire department personnel to stand by at non-emergency, or post-emergency situations.

- Public service fees – fees for non-emergency response such as animal rescue and pumping out flooded homes (Dipoli, 1997).

A 1993 report by the USFA on funding alternatives for fire and EMS departments includes additional response-oriented fees as revenue sources, specifically fire suppression and rescue fees (USFA, 1993). Fire suppression fees are most often charged when negligence, code violations, or criminal activity are involved in causing the fire. Rescue fees are often charged for water rescue, confined space rescue, and motor vehicle extrication. In addition, many communities have ordinances which allow cost recovery for responses to incidents involving the misuse of alcohol (FEMA, 2001).

A special kind of user fee is the impact fee. Impact fees are one-time charges to the developer or owner of new property to pay for the increased response burden on fire and EMS services as a result of the development. These fees are proportional to size and type of construction and often are set by a formula, which can vary from jurisdiction to jurisdiction (Wren, 1995).

User Fees: Fire Prevention Fees

Fire departments use fees to cover the cost of fire prevention activities (FEMA, 2001; Wren, 1995). The most common fire prevention fees are inspection fees, plan review fees, and permit fees. Some departments charge a flat fee for inspection of a certain occupancy type, while others base their inspection fee on square footage or the presence of a special hazard. In order to discourage contractors and businesses from taking fire inspectors' time for granted and to encourage speedy compliance, some fire departments have created fees for re-inspections as well (FEMA, 2001). Plan review fees are charged for a fire department's review of building plans

for compliance with fire safety codes. Permit fees can be charged for occupancy permits (for inspecting day care centers, hospitals, hotels, and other businesses), as well for special hazards permits (for activities such as open burnings, use of fireworks, making movies, and using large tents for fairs and circuses).

Plan review and inspection fees can be a substantial form of revenue for fire departments. For example, the San Francisco Fire Department's Fire Prevention Bureau obtains approximately 70 percent of its income from these two fees. The Bureau conducted 19,335 inspections in the fiscal year of 1997-1998 and their total revenue for that year was $2,960,017. From a total of eight programs offered, the Inspections Program generated $991,280 in revenue; plan review fees generated $1,173,947; and fire permits generated $619,332 (FEMA, 2001). It is important to note, however, that the Bureau's budget is only a portion of the budget for the entire fire department.

User Fees: Subscription Fees

Subscription fees have been used by some volunteer organizations for years (Wren, 1995). The concept of subscription fees dates back to the early years of the United States, when fire marks on buildings indicated which fire service they had been subscribed to, if any (FEMA, 2001). The concept is that property owners pay annually for the right to use the fire services in the case of an emergency. As could be expected, this form of funding has resulted in several widely publicized in which departments have responded to calls for a structure fire, but watched the building burn, after verifying that no lives were involved (Wren, 1995). The departments hesitate to fight the fire because if they do and this becomes common practice, it may discourage residents to pay the subscription. According to Wren (1995), the subscription

fee is more equitable if there are provisions for low-income households. Subscription fees can also modify behavior by giving subscribers a discount for fire protection systems, such as sprinklers. According to Adrian Moore (1998), sprinkler systems can greatly reduce the damage caused by fire.

The subscription concept has also been applied to EMS, and is more popular than subscription systems for fire departments. In the United States, Medicare, Medicaid, and private insurance companies are billed at a standard rate. A subscriber would receive coverage for any portion of the bill that is not paid for by his or her insurance. However, this becomes a problem when insurance companies refuse to pay out the benefit. Insurance companies claim that the bills are not real, because the uninsured are forgiven, or that the whole subscription model represents co-insurance (Wren, 1995). According to Michael Wren (1995), one possible way around these problems is to make the program official, i.e. a co-insurance plan. Table 2.1, devised by Dennis Murphy of the Springfield Fire and Safety Department in Springfield, Oregon, depicts revenues from a theoretical subscription plan, assuming a 10 percent subscription rate. Subscription rates would need to be higher for those without private insurance. Many home-owner insurance policies have a provision to pay for fire suppression services, especially where there is no tax-supported fire department (Wren, 1995). The USFA goes into detail about how the Medicaid/Medicare system works with subscription systems in their report *Funding Alternatives for Fire and Emergency Services* (2001).

Table 2.6 Subscription Program Revenue Calculations (Assuming a 10% Subscription Rate)

	Non-Subscribers	Subscribers*
General Information		
Population	44,786	4,976
Households	14,447	1,605
Fee Per Household	$0	$50
Subscription Fees Generated	$0	$80,250
Patients Transported	1,791	398
Utilization Rate	4%	8%
Average Billing Per Patient	$560	$560
Average Insurance Per Patient	$414	$414
Average Collected Per Patient	$480	$414
Total	**$859,680**	**$164,772**
Revenue Comparison Per 1,000 Persons		
Population	1,000	1,000
Utilization Rate	4%	8%
Patients Transported	40	80
Collection Per Patient	$480	$414
Patient Collection Revenue	$19,200	$33,120
Number of Households	323	323
Fee Per Household	$0	$40
Membership Fee Revenue	$0	$12,920
Total Revenue	**$19,200**	**$46,040**
		** Assumes 10% Subscription Rate*

Table 1 Subscription Program Revenue Calculations (Assuming a 10% Subscription Rate)
Taken From *Funding Alternatives for Fire and Emergency Service, FEMA 2001.*

Fines and Penalties

Fines and penalties are assessed for different violations of the law, such as fire code violations, but they are not a major source of income in the United States (Wren, 1995). This is evident from the Sacramento Metropolitan Financial District's Final Budget Summary for the Fiscal Year of 2007. Fines comprise $17,500, or 0.012 percent, of $148,928,639 in projected revenues (Sacramento Metropolitan Fire District, 2007).

Sale of Assets

A fire department can raise revenue by selling equipment the department plans on retiring. For example, the New York City Fire Department sends most of its retired engines, ladders, and towers to the auction block of the New York City Surplus, a city agency responsible for the sale of surplus equipment. Such equipment is bought by fire equipment manufacturers or directly by fire departments that are small or cannot afford new equipment (FEMA, 2001).

Foundations and Cash Donations

There are more than 25,000 foundations that support educational, charitable, or other public service projects in the United States (FEMA, 2001). In total, large national foundations offer billions of dollars in grants. An example of a large foundation is the Abell-Hanger Foundation in Midland, Texas, which donated $162,000 to fire and EMS departments in Texas. Research of the availability of foundation money in the United States may reveal that the Bomberos fulfill the application requirements of some of these foundations.

Donations are essential to volunteer fire departments, but are insignificant for most career departments. Career departments usually receive contributions for specific projects, such as a fire safety education program (Wren, 1995). Fire and EMS companies also receive corporate donations for the purchase of new equipment. The Federal Emergency Management Agency encourages fire departments to look at large corporations, such as gas stations, restaurant chains, factories, or insurance companies that are headquartered or have a substantial presence in their local community (FEMA, 2001). FEMA's report includes a strategy on how to approach corporations for receiving donations.

Miscellaneous Sources

Fundraising activities are also used as a source of revenue by fire departments across the United States. These activities range from yearly door-to-door fund drives to bake sales to sports events (FEMA, 2001). Some fire departments incorporate a donation leaflet in the mailing of utilities bills to property owners. Another interesting and fundraising activity is holding a community casino night. The fire department sells chips or tickets used to place bets in games and may also charge admission and run concessions (FEMA, 2001). A casino night, however, requires a lot effort to ensure that it is properly managed and policed, and even when properly administered may nevertheless hurt the image of the fire department (FEMA, 2001).

The U.S. National Goal to Reduce the Fire Problem

During the late 1960s, citizens of the United States became aware of the growing fire problem because of a sharp increase in fires and fire related deaths (Neville, 1973). Congress recognized the growing fire problem and responded to it by establishing the National Commission on Fire Prevention and Control in 1971 (Neville, 1973). Its purpose was to research the fire problem that existed and to recommend solutions and any necessary legislative change. The commission's first recommendation was that the federal government create a fire administration that could provide state and local governments with grants to help them in the enforcement of the new fire protection laws (Neville, 1973). As a result, the United States Fire Administration (USFA) was established in 1974 with the passing of the Federal Fire Prevention and Control Act (FEMA, 1987). Also, this act required that the state and local governments be responsible for fire prevention, fire suppression and public education on fire safety within their jurisdiction while the federal government provided funding for the new programs (Neville,

1973). One of the most significant actions of the USFA was to set a national goal to reduce the number of fire incidents and fire related deaths in the United States by 50 percent within twenty-five years (FEMA, 1987). Other ideas that the USFA recommended was to strengthen the fire safety codes for buildings. Specifically, they recommended that every household and building be equipped with fire alarm or smoke detector systems (Neville, 1973). Also, the USFA made automatic fire extinguishing systems, such as sprinklers, mandatory for buildings that accommodate large numbers of people (FEMA, 1987). This would reduce the damage done to the building while allowing the people to escape.

The federal government also looked to private manufacturers and state and local governments for help in making fire awareness more available (Neville, 1973). The private manufacturers were able to change the materials of products and make them more fire resistant. The state and local governments used federal funds to provide more effective fire prevention tactics, such as subsidizing smoke detectors and other fire alerting systems for households (FEMA, 1987). The federal government also directly provided fire departments with grants to improve response times and the quality of the fire apparatus (FEMA, 1987). For the United States to accomplish the goal from 1974, the joint effort of both government and private entities was necessary. By implementing the changes introduced by the USFA, the number of fires in the United States was successfully cut in half by the year 2000 (National Fire Protection Association, 2006).

Chapter 3. Methodology

The primary objective of this project is to provide recommendations for an appropriate model of private funding for the Bomberos of Costa Rica, specifying different sources of revenue. For this purpose, we conducted a qualitative study of fire departments in the United States, gathering data on their structure, size, services, costs and revenue sources. Originally, we intended to collect data from a large number of fire departments. Based on that data, we were hoping to make an exhaustive list of identifiable revenue models and make a comparative analysis of them in order to find a suitable one for Costa Rica. However, it was difficult to obtain data from a large number of fire departments because of a low response rate and the privacy of some of the data. Moreover, there were significant variations in the types of information that fire departments provided to us. As a result, our findings are not statistically valid as they do not represent the entire population. However, they do provide a broad picture of the different organizational and revenue models and their advantages and disadvantages.

Sampling Method

We created an initial list of fire departments to contact by selecting fire departments from the National Fire Department Census Database, managed by the United States Fire Administration, because it is the most exhaustive publicly available directory of U.S. fire departments. We used the judgment sampling strategy, which is common for qualitative research and involves the active selection of the most useful sample to answer the research question (Marshall, 1996). In our case, the judgment criteria were the organizational type of the fire department and its size. Therefore, our initial list (*see Appendix B*) was a stratified sample

of forty-seven private fire departments in each of the following four categories: industrial career, industrial volunteer, contract career, and contract volunteer fire departments of varying sizes. These were existing categories in the database and include all fire departments that are entirely private.

As the study progressed, we found that the private non-profit model is the most common among the four categories and determined that we needed to study it further in order to identify the typical characteristics of the model and any extreme outliers. For this reason, we created a second list consisting of non-profit fire departments. The target population of our last round of surveying was privately operated, non-profit fire departments. We obtained a list of this population from the National Fire Department Census Database and filtered by organizational type to include all fire departments categorized as private non-profit organizations, including those falling under Section 501(C)(3) of the United States Internal Revenue Code. Section 501 organizations are exempt from state and federal taxes because of their philanthropic mission (United States Internal Revenue Service, 2008). The total size of this population is 244. To determine the size of the sample, we followed the method of Salant and Dillman, authors of *How to Conduct Your Own Survey* (1994). A sample of forty-nine elements would produce a valid statistical outcome with a marginal error of 10 percent. The selection method used for the second list was systematic random sampling, in which the first fire department was chosen at random from a group of five, by drawing a number. After this random choice of the first fire department, every fifth fire department was chosen. This gives all members of our list frame an equal chance of being selected.

Over half of the fire departments we contacted did not respond by the end of this study. Therefore, the information that we have collected cannot be considered representative of the entire population. However, as new categories stopped emerging from the data, we considered the number of responses to be sufficient for providing a broad perspective of how private non-profit fire departments operate.

Interview Process

The group had a predetermined set of questions prepared for each information source, which can be found in Appendix B. The interviews were semi-structured. In semi-structured interviews the established interview questionnaire is consistently followed with each subject in the sample, even though the content, length, and complexity of responses to the questions may vary considerably between subjects. The main advantage of this approach, compared to fully structured interviewing, is that it allows interviewers to explore complex issues by asking open-ended questions, while keeping the interviews sufficiently standard to allow for comparison of the collected data (Carey, Morgan, & Oxtoby, 1996).

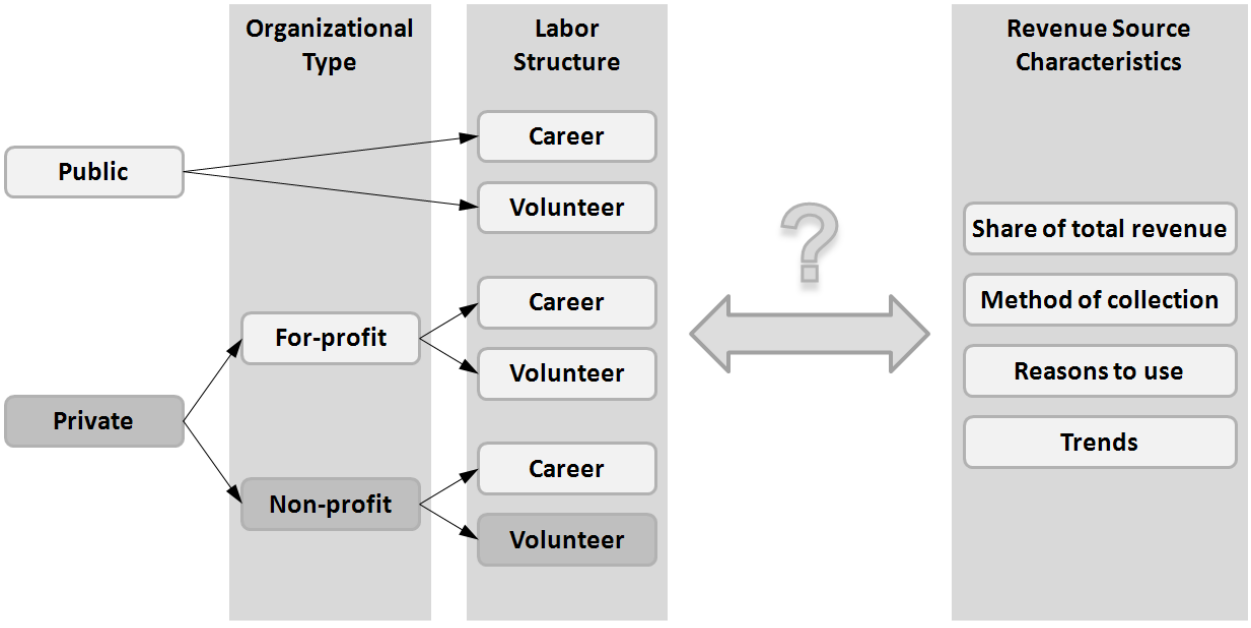
Obtaining responses happened in two ways. The group first initiated contact over the phone. If a person at the fire department was ready to answer the questions during the initial call, we wrote down their answers directly into a blank questionnaire document. If the participant agreed, we also audio recorded the conversation so that we could more easily review it afterwards. If a participant was not available or could not answer the questions during a call, the group made up to three follow-up contacts. Often, an appropriate person to answer the questions was not reachable over the phone. In that case, if we could obtain an e-mail

address, we sent an official request for information, along with the attached questionnaire, both of which are found in Appendix B. Occasionally, participants preferred to fill out the questionnaire themselves, in which case we sent them the questionnaire by e-mail as well.

Each fire department's response was recorded in a questionnaire document. All of the response documents are compiled in Appendix B.

Data analysis

The main purpose of the data analysis was to identify all of the categories, or types, of revenue models employed by U.S. fire departments. This includes the identification of each separate source in their revenue structure, its share of the total revenue, its method of collection, and the reasons to use that source. Our goal was to determine how these characteristics relate with the organizational type and the structure of labor of fire departments. The following diagram illustrates this graphically.



Chapter 4. Findings and Discussion

In this chapter, we discuss the characteristics and rationale behind the different organizational and revenue models of fire departments in the United States. We also analyze individual revenue sources and whether and how they could be implemented in Costa Rica.

In the beginning of this chapter, we present two case studies of private career fire departments: the Rural Metro Pima County Fire Department (Arizona) and The Woodlands Fire Department (Texas). We have selected these specific fire departments because they employ subscription-based revenue models and we have obtained ample information about them and how they determine their subscription rates. Their place in the beginning of the chapter facilitates the discussion that follows about revenue sources, cost structures, and factors to consider when establishing a subscription-based model.

Next, we describe the typical cost structure of the different types of fire departments. This is followed by a detailed discussion of the two revenue models used by private fire departments, the subscription-based and the contract-based models. Specifically, we discuss their revenue structures, and raise arguments for and against each model. We discuss some important aspects of the subscription-fee model such as the collection mechanism and making it mandatory versus optional. The chapter ends with a discussion of various supplemental sources of revenue used in the United States and the effects of organizing fire prevention activities.

Private Models of Fire Service

There are four organizational models of fire departments. They are broken down into public and private fire departments and the private ones can be further broken down into industrial departments, for-profit corporations, or non-profit contracted organizations. Non-profit organizations that are volunteer or mostly volunteer and are contracted by local communities comprise by far the largest number of private fire departments. Nevertheless, their revenue originates from taxes. In contrast, fire departments that are entirely privately funded are either subsidiaries of private corporations serving their own land and manufacturing plants, or the rare case of for-profit fire companies that serve the public. The latter employ career firefighters and their main revenue source is the subscription fee.

Cost Structure

The cost for providing a reliable and efficient fire protection for a community is enormous. From analyzing a number of different budgets of both public and privately funded fire departments, there is a common trait that arises with respect to their cost structures. Between public and private departments, the cost structure shows little variation, but there are large differences between career and volunteer fire departments. For career fire departments, the cost of labor, both for administration and firefighting personnel, is the largest share of their expenses – approximately 70 percent *(See Budgets in Appendix D)*. In contrast, the largest expense for volunteer fire departments is for repair and maintenance of the facilities and vehicles, since they do not have to pay personnel for responding to calls *(See Budgets in Appendix D)*.

The reason why labor is the biggest cost for career fire departments is because they are always found in high-density areas where the call volume is significantly higher than in rural areas and they rely on full-time paid firefighters to serve the large volume of calls. The large number of full-time firefighters also results in a large amount of money spent for health, retirement, and death benefits, which typically constitute 10 percent of the budget *(See Budgets in Appendix D)*. Even though volunteer fire departments do not have to pay the firefighters for their labor, insurance and death benefits are still provided for them.

While career and volunteer fire departments differ in their labor cost, they have similar repairs and maintenance expenses. For career fire departments, where there are possibly multiple stations and many apparatus, the departments would have a fleet mechanic to service the vehicles. This also comes at a cost, but it would still be about the same per truck as what a volunteer fire department would have to pay. Volunteer fire departments do not have a fleet mechanic, due to their smaller size, but usually have a contract with apparatus manufacturers to update their equipment and also hire truck mechanics for servicing the vehicles. For example, the department buys a ladder truck from the manufacturer “Sutphen” and after a number of years trades the truck in and gets a new ladder truck at a discounted price (Sutphen, 2008). This discount typically ranges between 20 and 30 percent and the length of the period ranges between ten to fifteen years. This makes updated technology available to volunteer fire departments, while keeping the cost relatively low.

Due to the higher call volume, career fire departments use their trucks more heavily than volunteer departments. Therefore, the time period in which career departments operate the apparatus is approximately eight years. Even though they have the trucks for a shorter

amount of time, the discount they receive is smaller – about 10 percent *(See Budgets in Appendix D)*. To keep the cost of maintenance at a minimum, department personnel usually volunteer some of their time to repair any problems they can by themselves.

Other costs make up a small portion of the expenses for both career and volunteer fire departments. These other costs are made up of fuel, protective equipment and supplies. Even though these items are expensive, they are small in comparison to personnel and maintenance expenses, because they only make up about 7 percent of the total cost *(See Budgets in Appendix D)*. However, the rising price of fuel has increased steadily over the past few years, which has increased its share of the total cost.

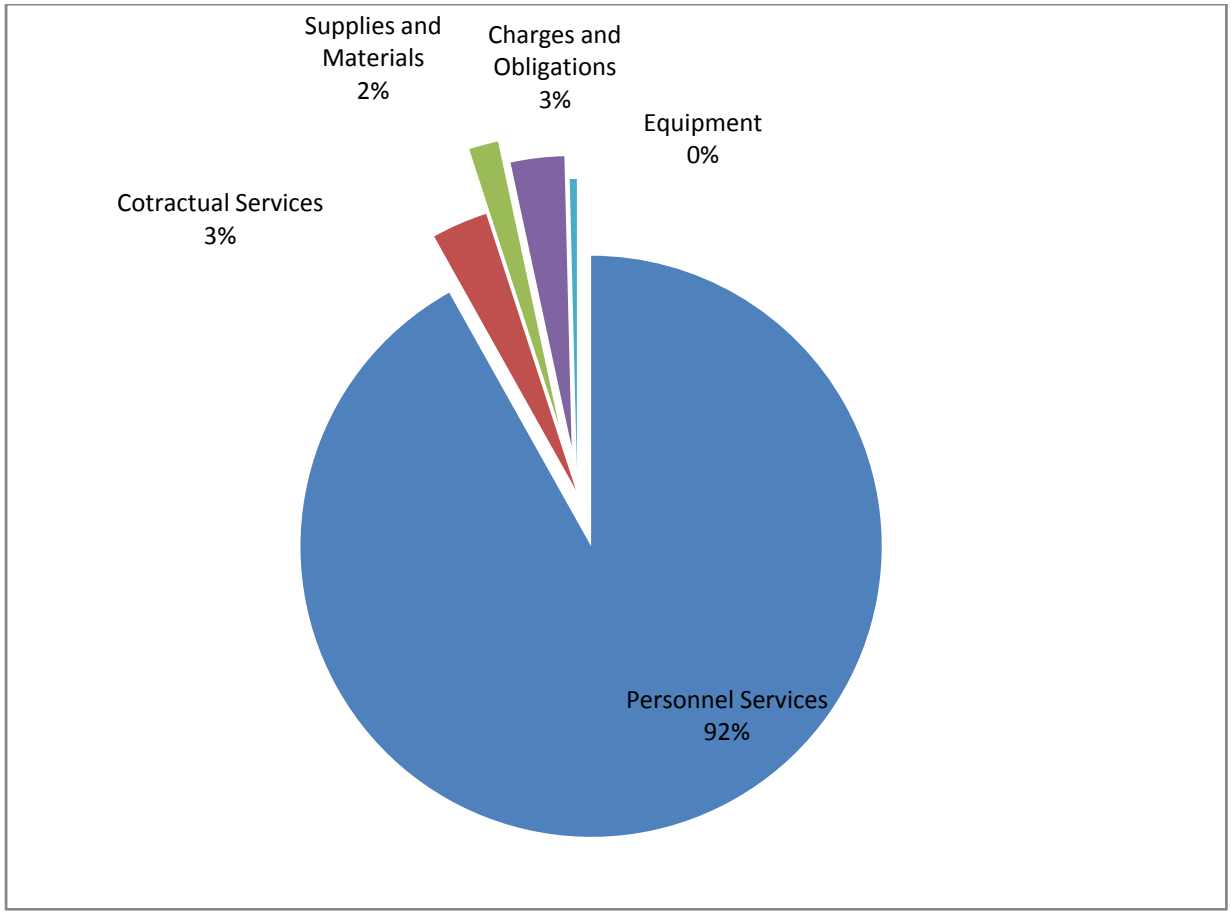


Figure 1 Cost Structure of the Boston Fire Department from its 2005 Budget

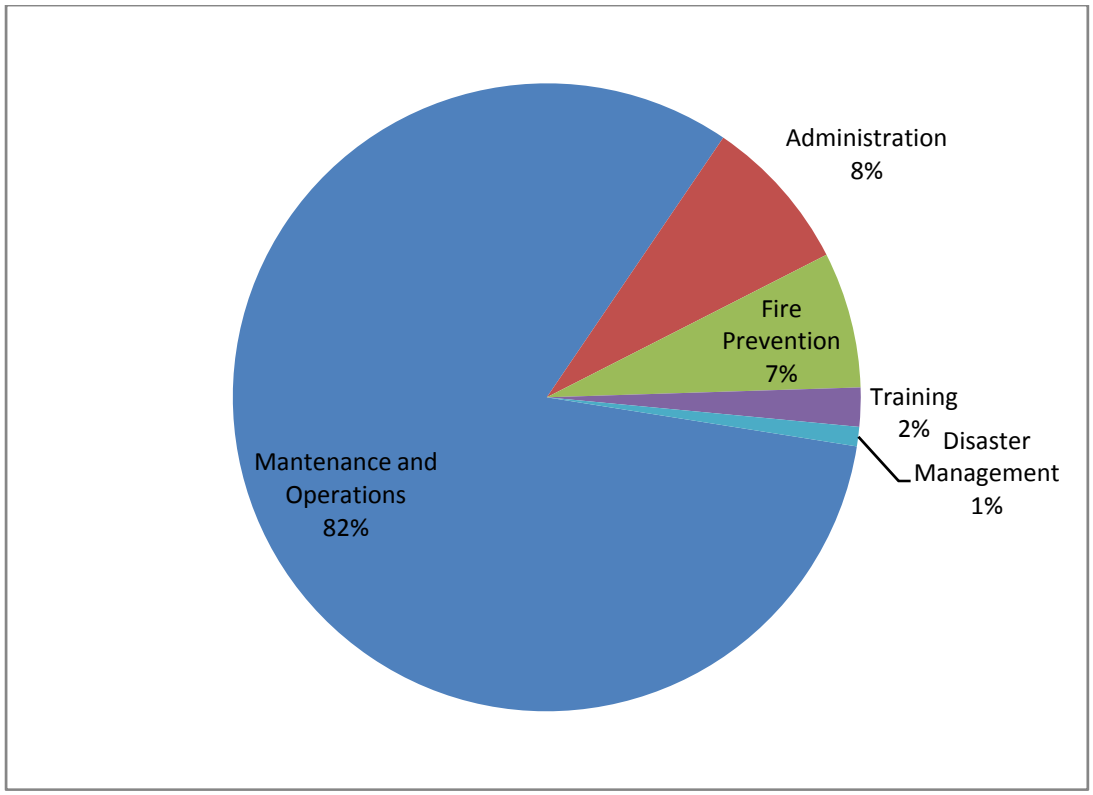


Figure 2 Cost Structure Lynnwood Fire Department from its 2005 Budget

Subscription-based Model

Rural Metro is the only fire company we found that uses an entirely subscription-based revenue model. Nevertheless, it is important because it serves over four hundred communities in twenty-three states and responds to over one million calls annually. Rural Metro did not provide their budget or any specific financial data because it is confidential. However, their revenue model is very similar to that of emergency medical service (EMS) companies, and therefore we use the numbers we have obtained from a subscription-based EMS company to illustrate the revenue structure of a subscription-based company.

Subscription to Rural Metro's services is voluntary. All calls are attended regardless of whether the property owner has paid the subscription fee or not. If it has been paid, then the

service is provided at no extra cost. However, in cases when the subscription fee has not been paid, the cost of service is assessed and the user is charged a usage fee. The usage fee is well above the price of the subscription fee and is comprised of several pre-determined rates that Rural Metro uses to assess the cost. These items include hourly rates for ambulance and firefighters, and rates for the resources utilized to address the emergency. If the user is unable to pay due to low income, the fee can be waived after filing a low income claim. Otherwise, the property owner is responsible for paying the incurred usage charges. In case these are not paid, the fire company can start a debt collection process.

In brief, the usage fee is a measure taken to cover for expenses not paid by subscription. The high price of the usage fee creates an incentive for property owners to pay the subscription instead.

Some special scenarios are worth noting. For example, if a car fire were to take place on a road, the party responsible for the accident would also be responsible for the fire suppression usage charges and would therefore benefit from having paid a subscription. If it were an electrical fire from power lines that were on a person's property, the property owner would be responsible for paying because the service affects them directly (Rural Metro, 2008).

Setting the Subscription Fee Rates

As presented in the Rural Metro Case Study (Appendix C), the subscription fee is determined by either the value or the size of the property. In Rural Metro's case, the fee is established by "annual rates," which depend on the type of property, residential or commercial, and its square footage. Mobile homes, also known as trailer homes, have the lowest rates because they are a form of low-income housing. Other types of residential property have the

next highest rates, and commercial property has the highest. In terms of the type of property, the rates are adjusted to be affordable to the user.

Mandating the Subscription Fees

Both fire departments and EMS companies that use the subscription-based revenue model have stated that payment of the subscription fee is voluntary. In this context, the subscription fee essentially plays the role of insurance, and covers the expenses when service is provided. When the subscription fee is not obligatory, as said earlier, the cost of service for non-subscribers is compensated by usage charges, which are significantly higher. This creates an incentive for property owners to pay the subscription fee. From the perspective of the fire department, mandating the subscription fee may seem beneficial because it can provide a stable stream of revenue if paid by a sufficient number of customers. However, making it mandatory would eliminate usage fees.

Another important effect of mandating the subscription fee is the way its rate is determined. When the subscription is voluntary, any rate increases are carefully scrutinized and spread out over time, so as not not to cause customers to discontinue their subscription. An example of this is the slow increase of the subscription rates for commercial owners in the Pima County (see Rural Metro Case Study, Appendix C).

In conclusion, the decision factors for making the subscription fee mandatory are as follows. Firstly, the fire company has to estimate the effect on the number of customers and, secondly, the amount lost from the elimination of the usage fee. It is important to point out that these decision factors are purely economic, and the social implications of mandating the subscription fee may result in customer dissatisfaction at a larger scale. It is also important to

stress the fact that the subscription fee is generally lower than what it would cost a public fire department to provide equivalent service using tax revenue.

Private non-profit model

All private non-profit fire departments operate in rural areas and are all-volunteer or mostly volunteer. The inception of the private fire company has typically arisen from population and economic growth to a minimum level that requires fire protection. Furthermore, all of the private non-profit fire departments we surveyed have been operating in this arrangement since their founding.

Types of Communities Served

Our survey results reveal that communities served by contract volunteer fire departments have low population densities and minimal land development. Some fire departments, such as the Franklinville and Seven Lakes fire departments in North Carolina, serve communities that have a portion of suburban development. However, most of their protected area is rural. An extreme, atypical example of low population density is of the community stated in the above paragraph. The Trail City fire department in Trail City, South Dakota protects a land mass of a half-million acres with only two thousand people occupying the area in total.

None of the contract volunteer fire departments we surveyed protect a fully urbanized area with high population density. The communities served by contract volunteer fire departments are on the town and county level. The largest population served by the fire departments we surveyed is ninety-thousand, in Geauga County where Munson Fire

Department operates. From the reports of population size and number of calls attended by the fire departments we have surveyed, it has been evident that volunteer contracted departments operate in areas that have little demand for fire service. When the demand for fire service grows to a level the contract volunteer company cannot meet with their performance, the department usually is acquired by the local government. A similar case of a contract volunteer fire department being unable to meet its demand is that of Savannah, Georgia, described in detail later.

Pros and Cons of Private Model

When surveying private fire companies, we first looked at whether private companies actually offer lower cost, and if so, how they achieve it. We found sources that both confirm and reject the notion that private fire companies provide lower cost. Our conclusion is that in small communities, private fire companies do offer lower cost than public ones, while this is not the case in large communities.

There are two main methods that private fire companies save money. Firstly, they save large amounts from labor cost by using fewer paid firefighters than public fire departments. This is why 92 percent of contracted private fire companies are mostly or all volunteer (USFA, 2007). Furthermore, private fire companies hire minimum full-time personnel and use part-time personnel to cover vacancies when needed. Secondly, private companies usually achieve higher productivity than public ones, because they provide additional services and use downtime more effectively. Services performed by private companies that optimize the use of labor and generate supplemental revenue include:

- Training and public education

- Building and refurbishing fire apparatus
- Combination fire and security patrols
- Training industrial fire brigades
- Alarm monitoring and installation

In contrast with the arguments supporting the assumption that private fire companies provide lower cost, we have also found evidence that in certain circumstances they can actually experience higher cost and poorer levels of service than public fire departments. We have observed that there are cases of communities that have contracted out fire service and have consequently switched back to public provision. This has been the case for several departments we have contacted for this project, including the Martinez Fire Company in Georgia, and the Rio Verde Fire Department in Arizona. In 1986, fourteen communities in Arizona contracted private fire departments, all of which were provided by a large single contractor: Rural Metro. By 1995, six of those fourteen communities chose not to renew their contracts with the company, for reasons related to increasing costs of service and the dissatisfaction with the level of service (IAFF, 1997).

Another such case is that of the city of Savannah, Georgia. In 1979, Savannah decided to contract out fire service for the newly annexed southern half of the city through the private contractor Southside Fire Services. The northern half of Savannah continued to receive fire services from the Savannah Fire Department. The cost of providing fire protection to the southern half of the city continued to increase until 1996, when the Savannah City Manager and Fire Chief presented a plan to incorporate the Southside Savannah with northern Savannah. For almost $1.6 million per year, the private contractor provided only six on-duty

personnel operating from three stations. The private contractor was receiving the equivalent of $260,000 per on-duty firefighter. Also, the citizens in need of emergency service would wait as long as fifteen to twenty minutes before Southside Fire Service could gather enough personnel to respond. In the northern part of the city, the public fire department responded to requests for service in less than ten minutes with twelve personnel, with a cost of $138,000 per on-duty firefighter (*See Table 2 below).*

Annual Cost of the Southside Fire Department Contract to Provide Fire Protection to the Southern Half of the City of Savannah

Year	Private Cost of City	Contractor Yearly Increase	Percentage Increase
1979	$508,000	FIRST YEAR	N/A
1980	$541,042	$32,000	5.91%
1981	$586,817	$47,000	8.01%
1982	$686,000	$99,183	14.46%
1983	$734,020	$48,020	6.54%
1984	$801,951	$65,893	8.21%
1985	$874,940	$73,000	8.34%
1986	$934,110	$61,110	6.54%
1987	$998,767	$72,267	7.24%
1988	$1,083,660	$84,893	7.83%
1989	$1,147,596	$63,936	5.57%
1990	$1,204,976	$57,380	4.76%
1991	$1,259,204	$54,228	4.31%
1992	$1,331,608	$71,775	6.00%
1993	$1,382,307	$50,699	4.00%
1994	$1,442,546	$60,239	4.36%
1995	$1,471,397	$28,851	2.00%
1996	$1,511,860	$40,463	2.75%
1997	$1,557,216	$45,356	3.00%

TOTAL $20,058,027

AVERAGE YEARLY INCREASE $53,683

AVERAGE ANNUAL RATE OF INCREASE 6.40%

Table 2 Increasing costs of private fire service in Savannah, Georgia. Taken from the report "Privatization of Emergency Services" by the International Association of Fire Fighters

The difference in cost and level of service between the public and private fire departments led Savannah government officials to propose a citywide emergency response system to all of Savannah. The Savannah Fire Department determined that it could more efficiently utilize its resources in the northern half of the city without sacrificing the level of service. The SFD proposal included a guarantee of nearly three times more firefighters on an alarm than was currently delivered by Southside. With the addition of two fire companies, the Savannah fire department was able to provide the level of service depicted in the table below. Even with this increased level service, the city officials estimated a savings of $95,233 per year (IAFF, 1997).

In 1996, the City Council unanimously voted not to renew its contract with the private-for-private Southside Fire Service. Immediately, the City Council ordered the Savannah Fire Department to start acquiring personnel, stations, and equipment. The expiration of the contract with Southside Fire Department was in 1998, and the public department was immediately ready to begin service in Southside Savannah (IAFF, 1997).

This change could be understood as a result of Savannah's size, and thus demand for service. Their population is much larger than the typical size of community served by a private provider in the United States. In 1995, according to the United States Fire Administration, well over half the communities served by private fire protection had populations of 15,000 or less (IAFF, 1997). Savannah's population was in the hundreds of thousands (US Census data). With a higher demand for fire service, the private operation failed to perform satisfactorily.

Terms of Contract

The contract terms between a private fire department and the community are very similar for all of the fire departments surveyed. The contract outlines what services the fire department will provide and how the community will pay the department for the service. All but one of the fire departments we surveyed have performance and financial stipulations they must adhere to. The performance levels are set in terms of call response times and number of individuals responding to a call. An example of a contract between a private fire company and a community is the Fire Protection Contract for the town of Dryden, New York, and can be found in Appendix E.

Budgeting Process

The manner in which the community funds the department is generally the same throughout our panel of surveyed fire departments. The fire department has a proposed budget that is reviewed by a community board including government officials and the fire department management and the two parties come to an agreement on what is spent on the service. This budget review is conducted periodically, typically every year. In some communities, such as Geauga County, Ohio, where Munson Fire department operates, the proposed tax rate for fire service has to be voted on by its residents. For four of the departments interviewed, the amount of money received by the fire department depends on property values of the community served. In some fire departments this money comes from the fire protection portion of the property tax within a community, while in other communities, there is a fire tax as a separate tax based on property value. In our research, a recurring value of the fire tax is seven cents per hundred dollars of property value.

In our sample, we found one fire department that does not use this budgeting process: the Trail City Fire Department in South Dakota. It is contracted by two separate Native American reservations, both governed by the Bureau of Indian Affairs (BIA). The BIA is a federal agency under the U.S. Department of the Interior that administers 55.7 million acres of land held in trust by the United States for American Indians, Indian tribes, and Alaska Natives (*Department of Interior Website*). The communities Trail City Fire Department serves are charged hourly rates for the fire services used. These rates are broken down into cost per firefighter and cost per truck. Without needing to pay for labor, the revenue goes towards acquiring equipment, even though Trail City also acquires donated or discarded equipment of other fire departments. This fire department is considered an outlier in our research because of two characteristics. Firstly, the population density is extremely low because it is a large area of farmland. Secondly, the contracted communities which the fire department serves have not paid for service provided in the past two years. The reason this may be an important case is because Costa Rica has similar areas of low population density and vast farmlands. A contract that does not contain adequate provisions concerning non-payment will make it difficult to resolve any legal issues that may arise from this.

Fire Tax

Through our research we have found towns such as Franklinville, North Carolina, which employ a tax known as a fire tax that serves as a source of income for the fire departments. The tax revenue collected is directly linked to the fire department. This is a percentage of every one hundred dollars of the appraised value of the home. The majority of fire departments that

employ this tax are private departments. For public fire departments the tax is usually included in the town's property tax.

Fire tax is an elastic revenue source, because it changes with the change of property value. It is important to note that in the United States the property value is different from the fair market value. The fair market value is what the house would sell at on the market at any given time, while the property value is the value assessed by the city or town. Most cities and towns in the United States have an established systematic and objective way of determining property value. Meanwhile, as we have found from an interview with Luis Gamboa, in Costa Rica the property value is self reported, thus potentially creating inaccuracies or inconsistencies in the evaluation of property.

Fundraising, Donations, and Other Supplemental Sources of Funding

Some of the fire departments we contected use supplemental sources of revenue, ranging from grants to subscription EMS service and fundraising.

We found that many fire departments generate additional revenue by charging for services that once were at offered free of charge. The services we are talking about are applying for permits to construct new buildings, doing a fire prevention audit/inspection, and holding classes on fire safety. This extra source of income would involve a very little amount of change. One drawback to changing the free services to paid services is getting people to still use the services. In the long run this may cost more money if people ultimately decide not to take advantage of the services once they are forced to pay for them.

Many fire departments throughout the United States use fundraising to offset some of the expenses associated with the fire service. When fundraising activities are organized

correctly, they can help to supplement the budget with significant funds. For a fundraiser to be useful for any organization there needs to be participation by the organization's members as well as community involvement.

Even though a fundraiser may seem to be an appealing way of raising money for a fire company, a lot of time and effort are needed to make it run smoothly. Some fire departments provide all-you-can-eat dinners, in which they charge a basic price. Others have what are called "fill the boot" drives, an event where each firefighter takes one of their boots, goes up to stopped cars and asks people for donations. Usually this drive is done at a strategic time. For example, the Clinton Volunteer Fire Department in Clinton, Connecticut, does a "Fill the Boot" drive on Black Friday (the busiest shopping day of the year) in front of an outlet mall. During religious holidays, fire departments also hold plant sales, for example the Easter lily and Christmas tree sales in Glastonbury, Connecticut.

For fundraising events like these to take place, there needs to be proper planning, so that all necessary materials are bought and gathered, which involves a lot of time and volunteer labor.

Fire Prevention

Fire prevention and awareness has increased in the United States, reducing the number of fires that occur. By 2003, the number of fires in the United States had been cut in half from 3.264 million in 1977 to 1.585 million, which proved the success of the national goal set in the 1970s by the National Fire Protection Association (NFPA) to reduce fire incidence in the United States. As described in the Background and Literature Review Chapter, this goal was largely achieved by developing and implementing low cost smoke detectors and by improving the

response time of fire departments. The decreased number of fires has consequently led to a sizeable cost reduction, because it decreased the number of firefighters needed to staff the stations. With less personnel being paid to stand by, the department could save money or put it to other uses. This is why many of the fire departments have started including first responder and emergency medical services (EMS) in order to increase their call volume and to utilize idle time more effectively.

Educating the public about how to protect their homes and families and making products such as smoke detectors and fire extinguishers widely available and more affordable were key factors in the reduction of the number of fires in the United States. Fire prevention activities for instructing the citizens how to preplan for an emergency, install smoke detectors, and use fire extinguishers has led to the decreased number of casualties and amount of damage done to property.

In the United States, the week of October 9 is dedicated to fire prevention. It was chosen to commemorate the Great Chicago fire of 1871. During that week, fire departments organize events with schools and the community to educate both children and adults. Since the children are going to be the next generation of a community, teaching them how to prevent fires, and what to do if there is a fire, would reduce the number of fire incidents over time.

Chapter 5. Conclusions and Recommendations

After our extensive research of private fire departments in the United States, our group has identified two revenue models that have successfully sustained a private fire operation: the contract department model, and the subscription-based revenue model. Neither of these revenue models can be adopted by the Bomberos without significant revision of their organizational structure.

Regarding the subscription-based model, U.S. fire departments set the subscription fee in two different ways. One way is to set it as a percentage of assessed property value; the second way is to calculate it based on square footage of the property. Should the Bomberos adopt a subscription-based revenue model, we recommend that they base the subscription fee on square footage until Costa Rica implements a more reliable and accurate mechanism of assessing property value. We make this recommendation because variances and inaccuracies in the property value assessment are highly probable, since property value is currently reported by the owner.

The contract model of service is not feasible for the Bomberos. The model has proven to be best suited for areas with low population density because it offers the benefits of private companies: lower cost and high efficiency. However, since contract departments entirely rely on volunteers, they fail to perform sufficiently in high population areas because they cannot respond to the higher volume of calls with reasonable timing. This model is not feasible for the Bomberos because it would require their decentralization and switching to funding from property taxes or instituting a local fire tax. In a country of Costa Rica's size, the centralized organizational structure of the Bomberos is highly beneficial and therefore the team does not

recommend the contract model because of the consequent decentralization it requires. Moreover, decentralization will negatively impact the communities that currently benefit the most, because they are typically rural communities with low-income population that may be incapable of sustaining their local fire company.

Establishing Fees for Existing Services

The Bomberos provide a number of services which they currently do not charge for, including fire risk evaluation, approval of construction plans, and the oversight of construction projects. We strongly recommend that the Bomberos consider charging for these services by instituting a fee schedule, because this would require little or no organizational change. Inspection and plan review fees can have the largest contribution, as these services are essential and, in certain cases, required by law. The Bomberos should also consider instituting penalty fees for false alarms, hazardous materials response fees, fire code violation fees, and the so-called “impact” fee. All of these fees are described in detail in the Background and Literature Review chapter. The Bomberos need to sample the public response to different proposed fee rates in order to establish a fee schedule that would maximize their revenue from these services,

National Goal to Reduce Fire Incidents

In 1974, the United States Fire Administration (USFA) set a nationwide goal to reduce the number of fire incidents and fire related deaths in the United States by 50 percent within twenty-five years. The primary tactic of the USFA in accomplishing this goal was to raise fire awareness in industry as well as community. The federal government set regulations for private

manufacturers on making the materials of products more fire resistant. State and local governments used federal funds to provide more efficient fire prevention tactics, including the subsidy of smoke detectors and other fire alert systems. The federal government also dispersed grant money for fire departments to purchase apparatus and develop their operations. The United States achieved the 50 percent decrease in fire incidents in the end of 2002. A detailed description of this goal and how it was achieved is contained in the last section of the Background and Literature Review chapter.

Since it is less expensive to fund such efforts than to fight fires and lose lives and property, we recommend that the Bomberos set a similar national goal to reduce fire incidents with a specific target and timeframe. In order to do this, they must conduct a thorough analysis of the trends in number of incidents in Costa Rica and their nature.

We also recommend that the Bomberos actively provide incentives for efficient fire suppression systems such as sprinklers, particularly in industrial settings where the cost of such systems can be spread out. In households, the Bomberos should promote the use of fire detectors and extinguishers because of their lower cost.

Provision of Emergency Medical Services

Our third recommendation is that the Bomberos consider offering emergency medical services (EMS). As we have found, the most common type of public provider of EMS in the U.S. is the public fire department. Moreover, every three in five calls to fire departments require emergency medical service (USFA, 2007). The integration of EMS into the fire service, which began in the United States in the 1970s, was mainly motivated by financial pressures on the fire department budget (Page, 2003). By providing emergency medical services, a fire department

can raise additional revenue and take advantage of the inherent economies it can produce. When comparing ambulance service provided by a fire department with that of a specialized EMS company, the fire department possesses several comparative advantages. Most importantly, the actual costs of EMS provision are limited to the incremental costs and equipment, because the fire department will benefit from its multi-role personnel. Also, fire departments have consistently shorter response times and, lastly, they have the trust and support of their communities.

To pursue the option of providing EMS, we recommend that the Bomberos carry out a comprehensive study of the following factors:

- They need to examine the current state of EMS provision in the country and estimate the gap in supply. At present, emergency medical services in Costa Rica are provided by the Costa Rican Red Cross (CRC) and a small number of private ambulance companies, but about one-third of medical emergency calls cannot be attended due to limited resources.
- From an organizational perspective, the Bomberos have to consider how they can supplement or collaborate with the Red Cross in the provision and training for EMS.
- From a financial standpoint, besides a cost analysis, the Bomberos must weigh the possible revenue models for funding the EMS, including the subscription-based model.
- Finally, they must survey the public for its opinion on the proposed solutions.

Overall, integrating EMS as part of the Bomberos may seem implausible in the short run, but is nevertheless of great significance from a long-term perspective. Therefore, we highly recommend a serious study of this opportunity.

In summary, we have three main recommendations for the Bomberos of Costa Rica. First, to establish a fee schedule in order to charge for services already offered and to institute fines. Second, to set a national goal to reduce fire incidents with a specific target and timeframe and to actively create incentives to achieve this goal. Finally, we recommend that the Bomberos conduct a thorough study of EMS in Costa Rica and the opportunity to offer EMS as part of their organization.

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Appendices

Appendix A:

The Bomberos

Contents:

Informe Estadístico

PRESENTACIÓN

Prevención una pequeña palabra que envuelve un gran sentido de responsabilidad, cuyo significado nos remite a toda acción que se realice con el objetivo de evitar un riesgo.

En este caso, ese riesgo es el incendio. Riesgo que los costarricenses no hemos controlado de manera efectiva y que fue el causante en el año 2006, de que 927 estructuras resultarán dañadas y lo más grave aún 24 seres humanos perdieron sus vidas.

Desgraciadamente a pesar de los esfuerzos hechos para concientizar a las personas usuarias de edificos, a los profesionales que diseñan y construyen edificaciones, a los organizadores de eventos, entre otros, ha sido realmente difícil incorporar la variable INCENDIO a la gama de actividades con la celeridad necesaria.

Instamos a la población a estar alertas, a practicar normas de prevención y seguridad en materia de incendios, a hacer uso de una serie de distintas herramientas de prevención como extintores, escaleras de emergencia, luces de emergencia, sistemas de detección y alarma, planes de evacuación que pueden representar la diferencia entre la vida y la muerte.

BOMBEROS
COSTA RICA

1

SISTEMA DE INFORMACIÓN PARA LA ATENCIÓN DE EMERGENCIAS (SIGAE)

EL SIGAE es el Sistema de Información Geográfica para la Atención de Emergencias que el Cuerpo de Bomberos integra este año a su metodología de trabajo. Este sistema inició el 01 de enero de 2007, en la Oficina de Comunicaciones de Bomberos (OCO). Su implementación ha requerido promover algunos cambios enfocados a mejorar la calidad de la información y su procesamiento. Entre las principales mejoras realizadas están:

1. Nueva Clasificación de Incidentes
2. Reportes de Servicio según el Macro grupo de Incidentes
3. Conteo Individual y general de Salidas a Incidentes
4. Centralización de la información
5. Se elimina la segunda orden de los vehículos
6. Se estandariza la información de los Reportes de Servicio.

El sistema ha sido concebido con el fin de abarcar todas las funciones del Cuerpo de Bomberos que participa en los procesos de prevención y atención de incidentes.

Adicionalmente, se prevé la integración de un módulo denomidado S.E.R, destinado a la supervisión de Estaciones de Bomberos el cual podrá accesarse en todo el país por medio del servicio de Internet.

Entre las ventajas que ofrece el SIGAE se encuentran:

- Brindar Información accesible
- Facilitar el trabajo administrativo
- Facilitar la justificación de Recursos
- Facilitar la documentación de las Operaciones
- Centralizar la información

2

El SIGAE 2007 maneja el Expediente de la Emergencia, basándose en 4 componentes básicos:

El funcionamiento del SIGAE se basa en múltiples módulos integrados al Expediente de la Emergencia, sobre el cual los usuarios de las áreas agregan sus aportes a ese Expediente, según las tareas que le corresponde realizar.

3

INCENDIO PLANTA QUÍMICOS HOLANDA MOÍN, LIMÓN

I. INFORMACIÓN GENERAL

1.1 Tipo de emergencia atendida
Incendio declarado

1.2 Fecha de la emergencia y hora del reporte al Cuerpo de Bomberos.
Miércoles, 13 de Diciembre del 2006, 11:21 am

1.3 Ubicación
Provincia: Limón
Canton: Limón
Distrito: Moín

1.4 Ocupación
Patio de tanques para la importación y distribución de solventes; monómetros, metanol, tolueno, soda cáustica, acetonas, aceite ND40, hexano, propanol, grasas.

FIGURA 1
Ubicación geográfica Químicos Holanda Costa Rica S.A.

5

1.5 Área de construcción

Área operativa : 5.000 m^2

Área de terreno: 11.000 m^2

1.6 Personas fallecidas o heridas en el lugar

1.6.1 Fallecidos

- Giovanny Hernández Montoya,
- Greivin Cortés Quirós,

1.6.2 Heridos

- Alberth Solano Sánchez, de 33 años, con quemaduras en un 50% de la superficie corporal. Trasladado a la unidad de quemados del Hospital San Juan de Dios.

1.7 Daños materiales

1.7.1 Tanques de almacenamiento

El patio de tanques resultó afectado en un 100%, como se muestra en la Figura No.2. Todos los tanques estuvieron expuestos a temperaturas superiores a los 1000 ˚C, por lo que existen deformaciones, fatiga del acero y la separación de soldaduras débiles en los techos de la mayoría de los recipientes.

FIGURA 2:
Distribución del patio de tanques, el óvalo delimita las zonas expuestas a fuego directo.

6

1.7.2 Camión Cisterna:

Daños totales en:

- Cabezal, marca MACK, placa 130034
- Cisterna para transporte de líquidos inflamables, marca HEIL

II. DESPACHO DE UNIDADES Y MANEJO DE LA EMERGENCIA

Oficial a cargo, unidades y control de tiempo.

Datos Primera Alarma		
Oficial a Cargo	Método de aviso	Estaciones
Sr. Gilberth Warren Warren	9-1-1	Limón-Batáan- Siquirres- Tibás-Central

Total de Unidades					
Extintoras	Plataformas	Cisternas	Paramédicas	ARAC	Soport
07	0	01	02	01	01

Tiempos		
Hora de alarma	Hora en la escena	Hora de aplicación
11:21 a.m.	11:32 a.m.	11:32 a.m.
Controlado	Hora de retiro	Hora en la base
21:45 del 13 de Diciembre 2007	02:00 del 14 de Diciembre 2007	02:17 del 14 de Diciembre 2007

7

III. LLEGADA AL INCENDIO DE LA PRIMERA UNIDAD DE BOMBEROS

El personal de la primera unidad de Bomberos que llegó al lugar, se encontró una estructura envuelta en llamas por lo que de inmediato procedieron a trabajar con sistemas de monitores y líneas de mangueras de 63 m.m. de diámetro.

Los Bomberos ingresaron por los costados norte y sur de la estructura aplicando como agente extintor espuma para detener el avance del fuego.

El abastecimiento de agua para las máquinas de Bomberos se tomó desde una fuente denominada "Canal de Desarrollo" de JAPDEVA, ubicado aproximadamente a 800 metros de Químicos Holanda.

Vista frontal, desarrollo del incendio.

Fuente de información Departamento de Ingeniería en Prevención TEM. Andrés Hernández Ramírez. Perito en Prevención e Investigación de Incendios

8

INCENDIO ESTACIÓN DE SERVICIO SHELL ESCAZÚ

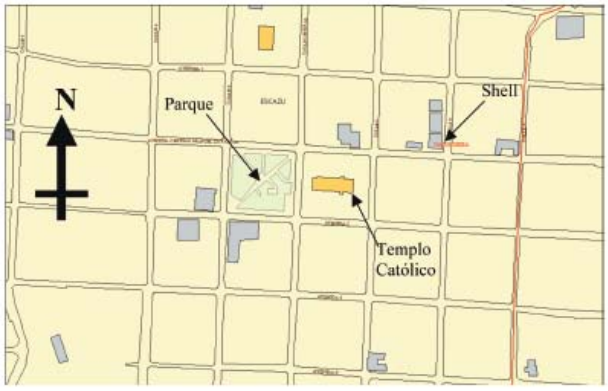

Figura 1
Ubicación Estación de Servicio Shell, Escazú

I. INFORMACIÓN GENERAL:

1.1. Tipo de emergencia atendida:
Incendio declarado

1.2. Fecha de la emergencia y hora de reporte al Cuerpo de Bomberos:
Sábado, 28 de Octubre del 2006, 08:50 am.

1.3. Ubicación
Provincia : San José
Cantón: Escazú
Distrito: San Miguel

9

1.4. Ocupación

Estación de servicio dedicada a:

- Expendio de combustibles
- Cambio de lubricantes
- Tienda de conveniencia

1.5. Área de construcción

1006.50 m^2

1.6. Personas fallecidas o heridas en el lugar

1.6.1. Fallecidos

André González Umaña, niño de 5 años de edad.
Nicole González Umaña, niña de 11 de años de edad

1.6.2. Heridos

Gloriana Umaña Marín. Mujer, mayor de edad, madre de los niños fallecidos. Sufrió quemaduras de primer grado en brazo izquierdo y de segundo grado en antebrazo y hombro derecho.

Ramón Vargas Campos. Hombre, mayor de edad, trabajador de la Estación de Servicio. Sufrió quemaduras de primer y segundo grado, en rostro y extremidades superiores.

Alfonso Marín Herrera. Hombre, mayor de edad. Cliente en espera de ser atendido. Presenta quemaduras de segundo grado en la espalda y en extremidades superiores.

1.7. Daños materiales

1.7.1. Edificio

Sufre daños en 240 m^2 a nivel de estructura de cubierta, construida en acero, cubierta de hierro esmaltado y cielo raso, el material de este último era de aluminio el cual alcanzó rápidamente el punto de fusión.

La Tienda de conveniencia sufrió daños en las paredes del costado este y sur, y fractura de ventanales del costado sur.

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1.7.2. Dispensadores

La Estación contaba con dos dispensadores de gasolina los cuales sufrieron daños.

1.7.3. Vehículos

Existen cuatro vehículos involucrados en el incendio, según se detalla en la fotografías.

Las fotografías anteriores muestran los daños en los vehículos involucrados en el incendio

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II. DESPACHO DE UNIDADES Y MANEJO DE LA EMERGENCIA

Oficial a cargo, unidades y control del fuego

Datos Primera Alarma			
Oficial a Cargo	Método de aviso		Estaciones
Sr. Walter Sanchún	Telefónico 869-41-63		Pavas
Total de Unidades			
Extintoras	Plataformas	Cisternas	Paramédicas
2	1	1	1
Tiempos			
Hora de alarma	Hora en la escena		Hora de aplicación
08:50 a.m.	08:56 a.m.		08:56 a.m.
Hora de controlado	Hora de retiro		Hora en la base
09:04	13:24		14:23

III. LLEGADA AL INCENDIO DE LA PRIMERA UNIDAD DE BOMBEROS

El personal de la primera unidad de Bomberos que llegó al lugar se encontró una estructura envuelta en llamas por lo que de inmediato procedieron a trabajar con líneas de mangueras de 63 mm de diámetro, ingresando por los costados este y sur.

Se aplicó espuma como agente extintor para detener el avance del fuego y extinguir por el método de sofocación (eliminación de oxígeno). Durante la búsqueda primaria se encontraron en el asiento trasero del vehículo, dos niños fallecidos.

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Cuadro general de información sobre principales emergencias atendidas

Tipo	2001	2002	2003	2004	2005	2006
Corto circuito	1564	1692	2068	2124	1198	2713
Charrales	6233	7603	6016	7068	6100	7037
Fuego en vehículo	513	555	580	584	590	623
Revisiones	1029	1301	1316	1494	1717	1906
Emergencias aéreas	56	52	49	39	36	53
Emergencias con materiales peligrosos	622	764	826	370		53
Inundaciones	166	2196	195	149	184	86
Accidentes de tránsito	1221	1218	1123	1115	1127	1095
Incendio en barco	6	9	6	7	8	7
Servicios comunales	724	1131	1002	1092	1112	1183
Incendios pocas proporciones	815	920	948	960	860	860
Incendios grandes proporciones	116	78	66	48	51	57
Falsas alarmas	64	75	89	50		85
Escape de gas				739	620	741

Estadísticas de Bomberos
2006

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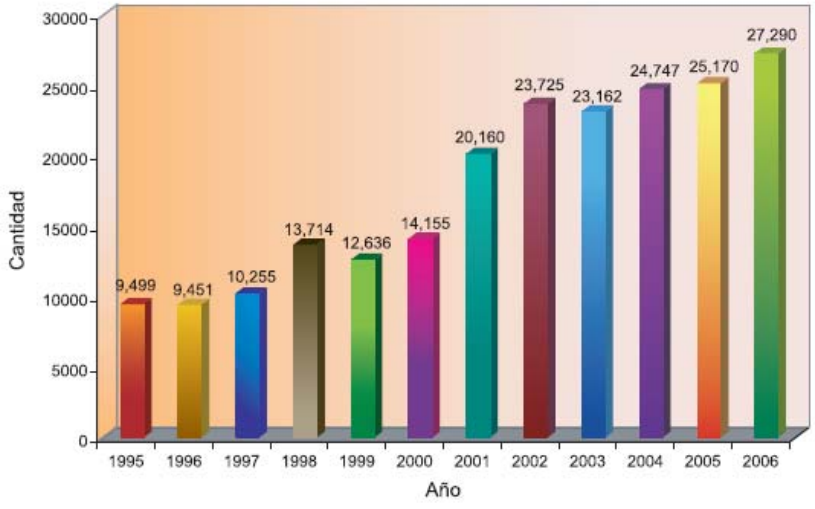
Distribución de emergencias atendidas por año



Estadísticas de Bomberos
2006

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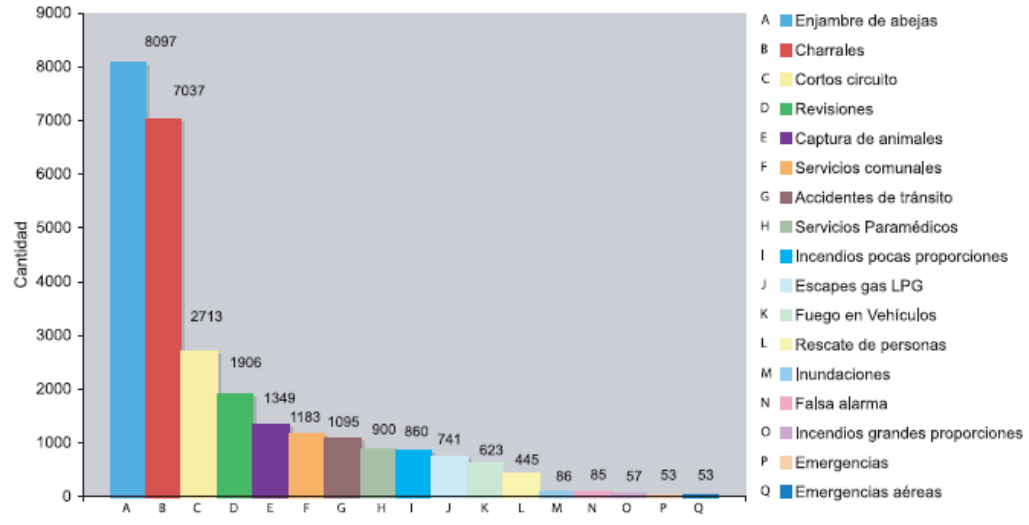
Principales tipos de incidentes



Estadísticas de Bomberos
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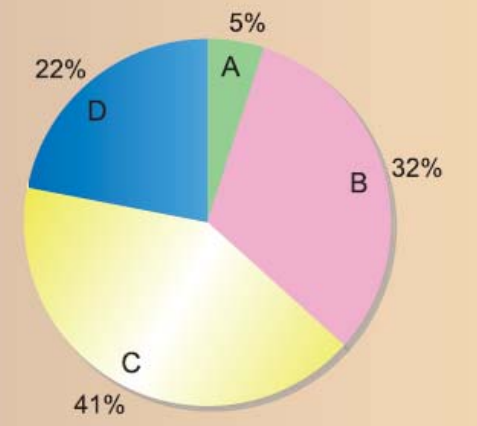
Eventos atendidos según hora de alarma



Estadísticas de Bomberos
2006

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Proyectos constructivos, recibidos para análisis por el Depto. Ingeniería de Bomberos en el 2006

Mes	Cantidad
Enero	116
Febrero	101
Marzo	98
Abril	70
Mayo	145
Junio	126
Julio	89
Agosto	107
Setiembre	117
Octubre	113
Noviembre	107
Diciembre	87
Total proyectos constructivos	1276

Estadísticas de Bomberos
2006

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Proyectos visados por el Depto. Ingeniería de Bomberos según tipo de ocupación

Tipo de ocupación	Cantidad
Condominios	97
Centros educativos	70
Edificios de oficinas	47
Locales comerciales	39
Urbanizaciones	36
Hoteles	18
Supermercados	14
Estaciones de servicio	14
Apartamentos	14
Acondicionamiento Seg. Humano/ Prot. Ci	14
Industria	13
Sistema Contra Incendio	10
Centros comerciales	8
Agencia Bancaria	8
Iglesias o capillas	7
Bodegas	6
Restaurantes	6
Almacenes	5
Cafetería	5
Laboratorios	5
Spa y Gimnasio	5
Cancha Fútbol 5	4

Tipo de ocupación	Cantidad
Clínicas	3
Sala de conferencias	3
Bar	2
Consultorios Médicos	2
Casa Club	2
Discotecas	2
Estacionamiento	2
Hospitales	2
Plantas Hidroélectricas	2
Accesos	1
Albergue	1
Biblioteca	1
Cabinas	1
Cobertizo	1
Cuarto de máquinas	1
Farmacia	1
Hangar	1
Mezanine	1
Rancho	1
Tanques de almacenamiento de combustibles consumo	1
TOTAL	476

Estadísticas de Bomberos
2006

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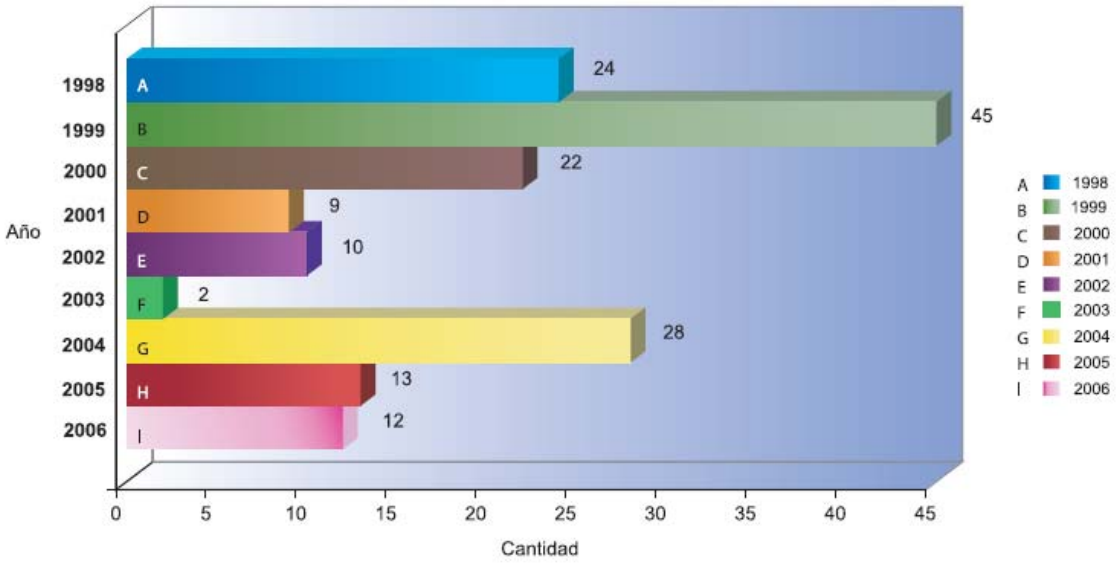
Referencia a la cantidad de muertes relacionados con incendios



Estadísticas de Bomberos
2006

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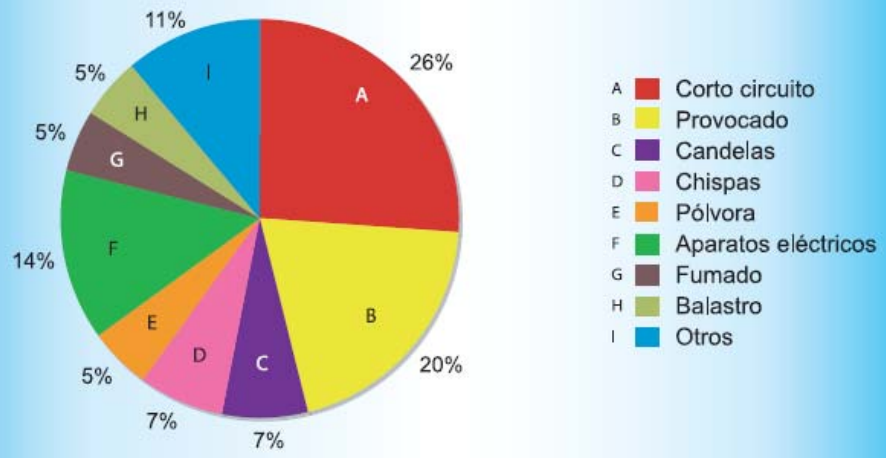
Causa de incendios investigados



Estadísticas de Bomberos
2006

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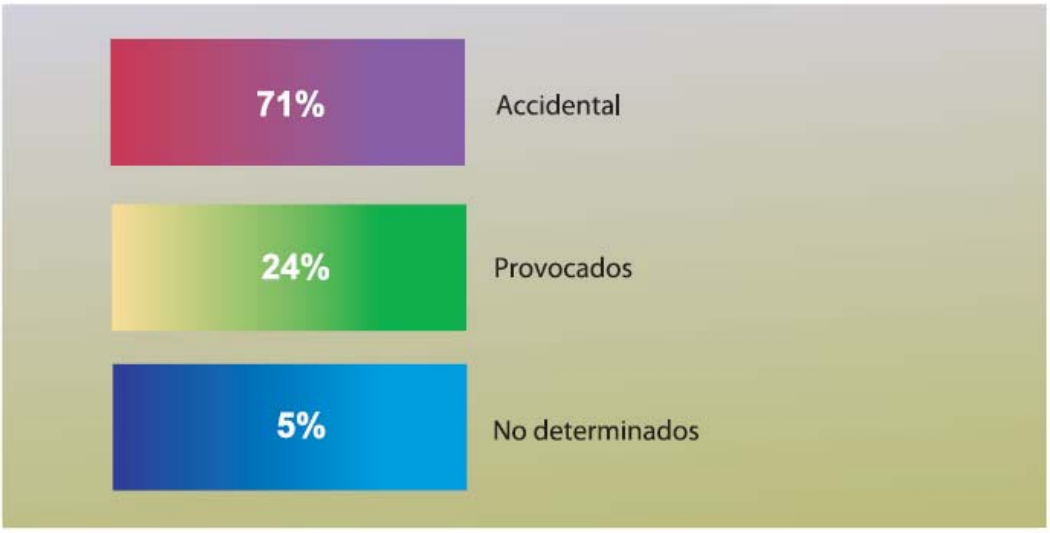
Categorías de los Incendios estructurales investigados



Fuente: Ingeniería de Bomberos.
Muestra: 190 Incendios Investigados.

Estadísticas de Bomberos
2006

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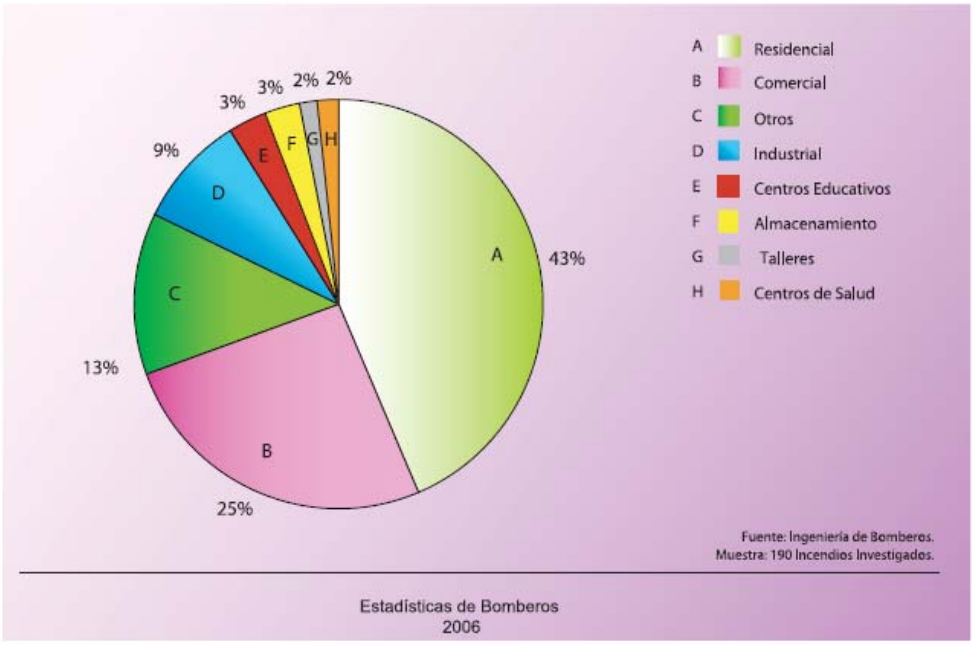
Incendios estructurales declarados e investigados según tipo de ocupación



Fuente: Ingeniería de Bomberos.
Muestra: 190 Incendios Investigados.

Estadísticas de Bomberos
2006

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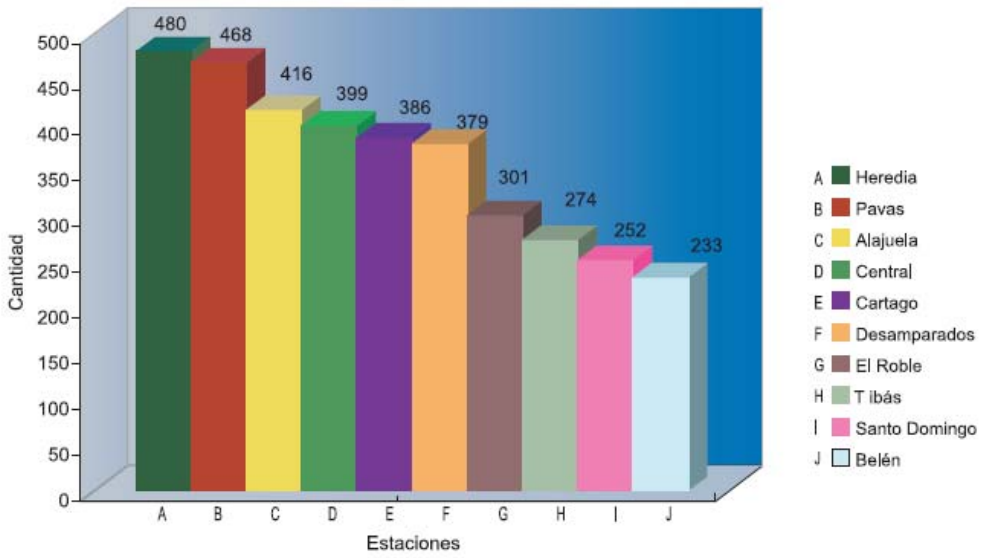
10 Estaciones que han atendido mayor cantidad de incendios en charrales



Estadísticas de Bomberos
2006

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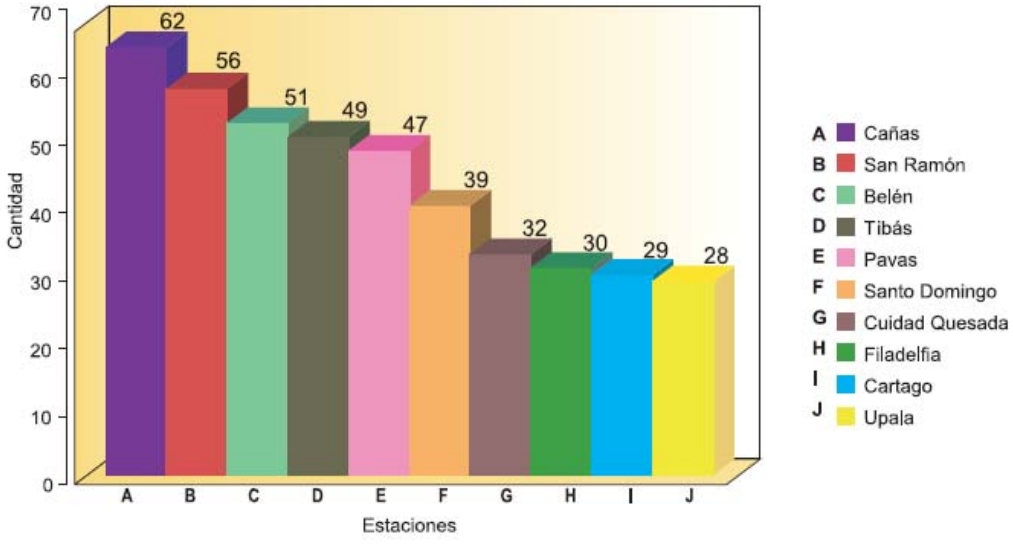
10 estaciones que han atendido la mayor cantidad de accidentes de tránsito



Estadísticas de Bomberos
2006

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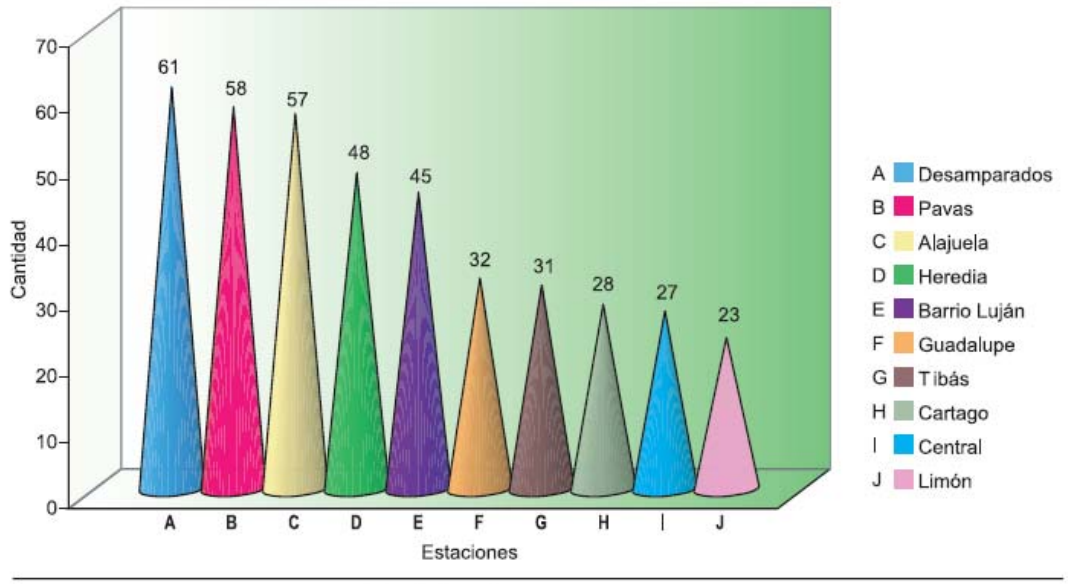
10 Estaciones que han atendido la mayor cantidad de escapes de gas L.P.



Estadísticas de Bomberos
2006

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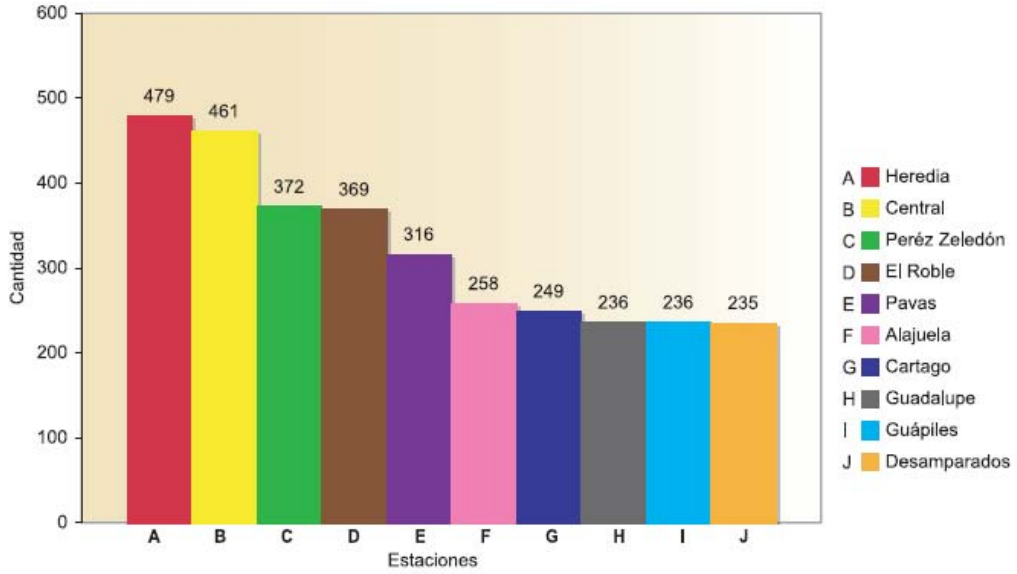
10 Estaciones con mayor atención de enjambres de abejas



Estadísticas de Bomberos
2006

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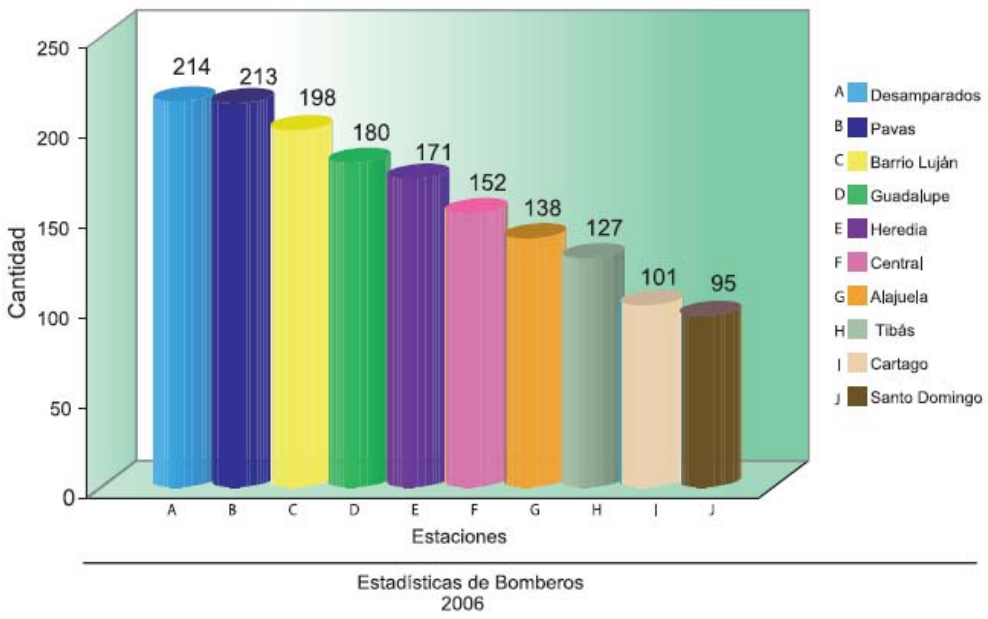
10 Estaciones que han atendido la mayor cantidad de cortos circuitos



Estadísticas de Bomberos
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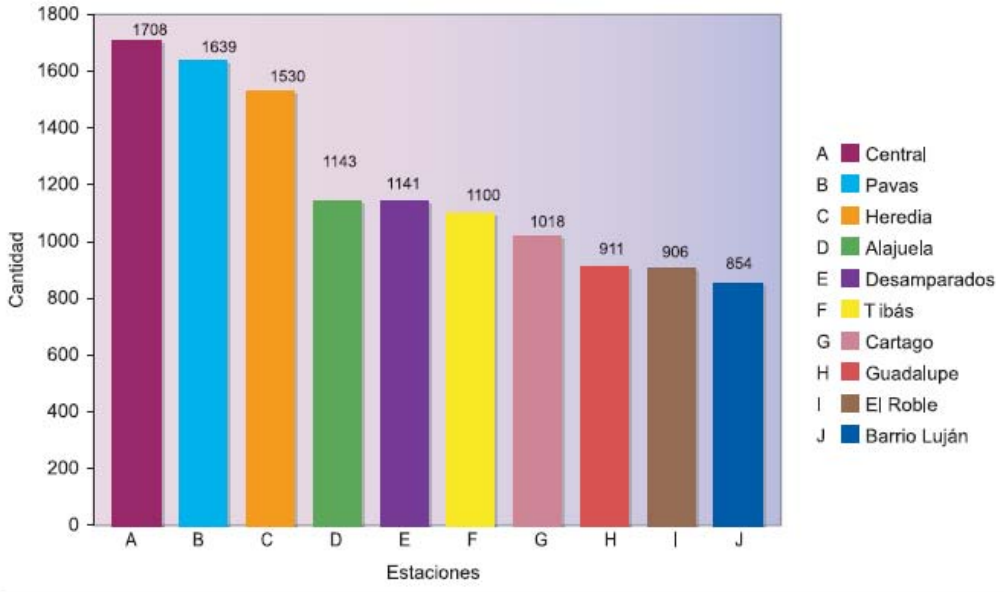
10 Estaciones con mayor cantidad de salidas



Estadísticas de Bomberos
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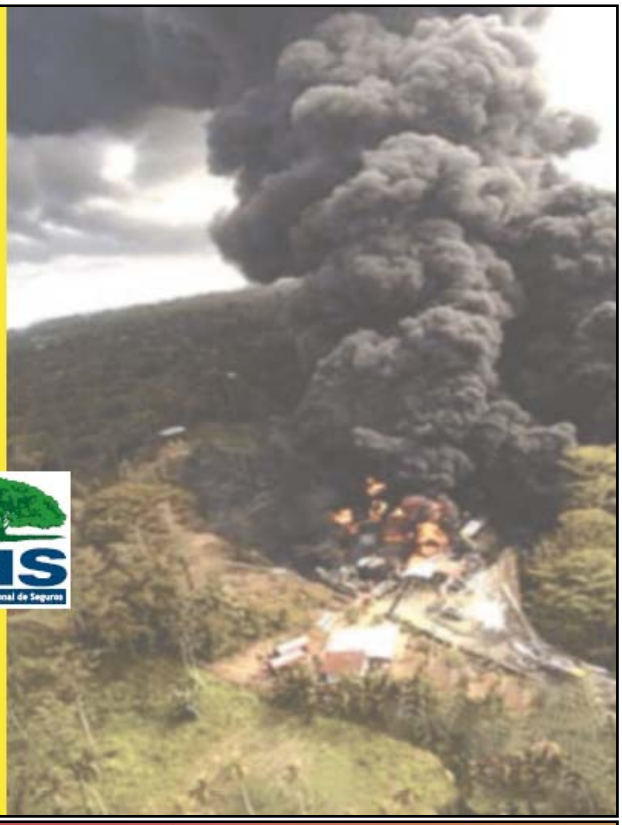
BENEMÉRITO CUERPO DE BOMBEROS DE COSTA RICA

Teléfono:287-6000
Página Web:ins-cr.com



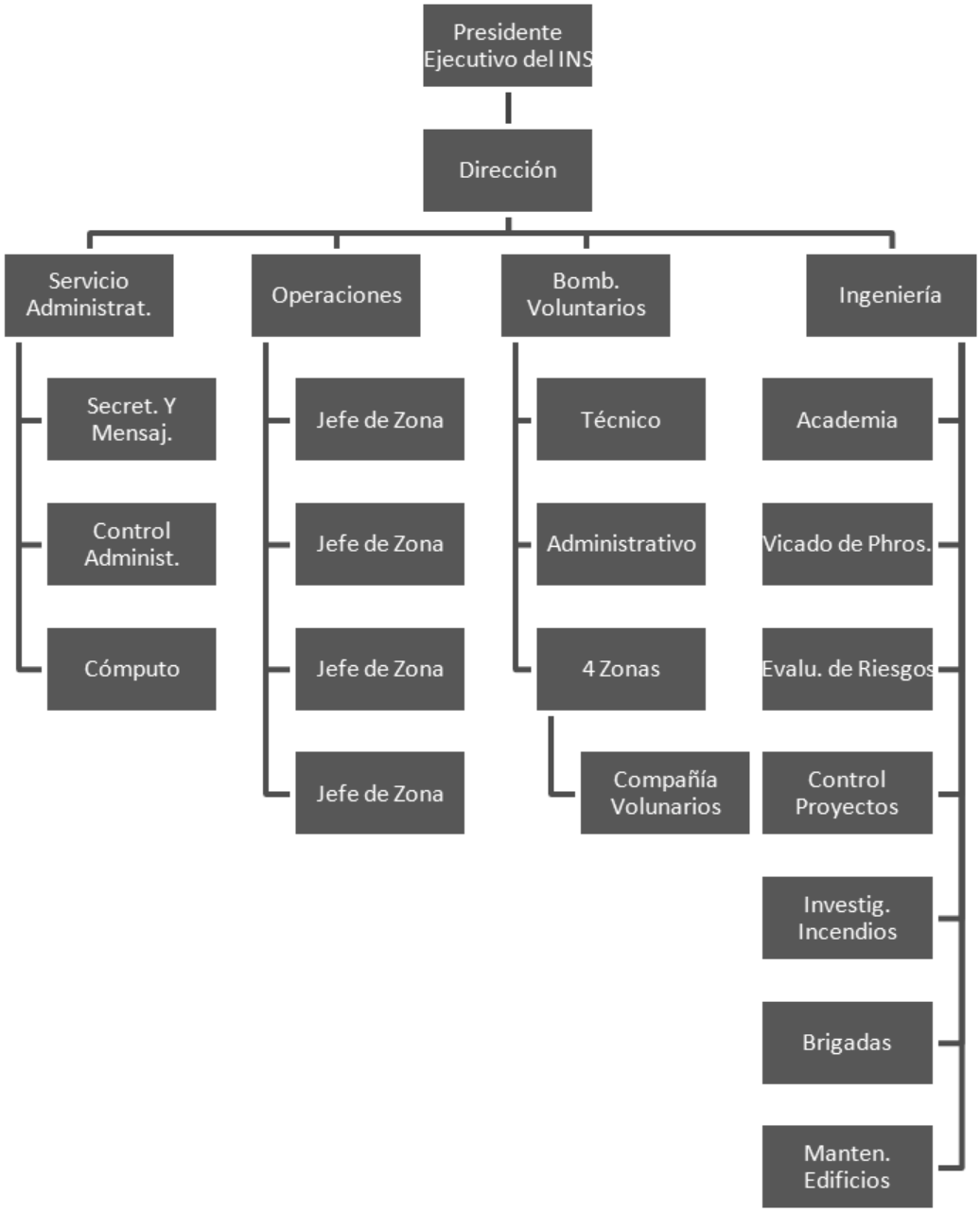
Fotografía tomada del periódico Extra

estaciones de Bomberos

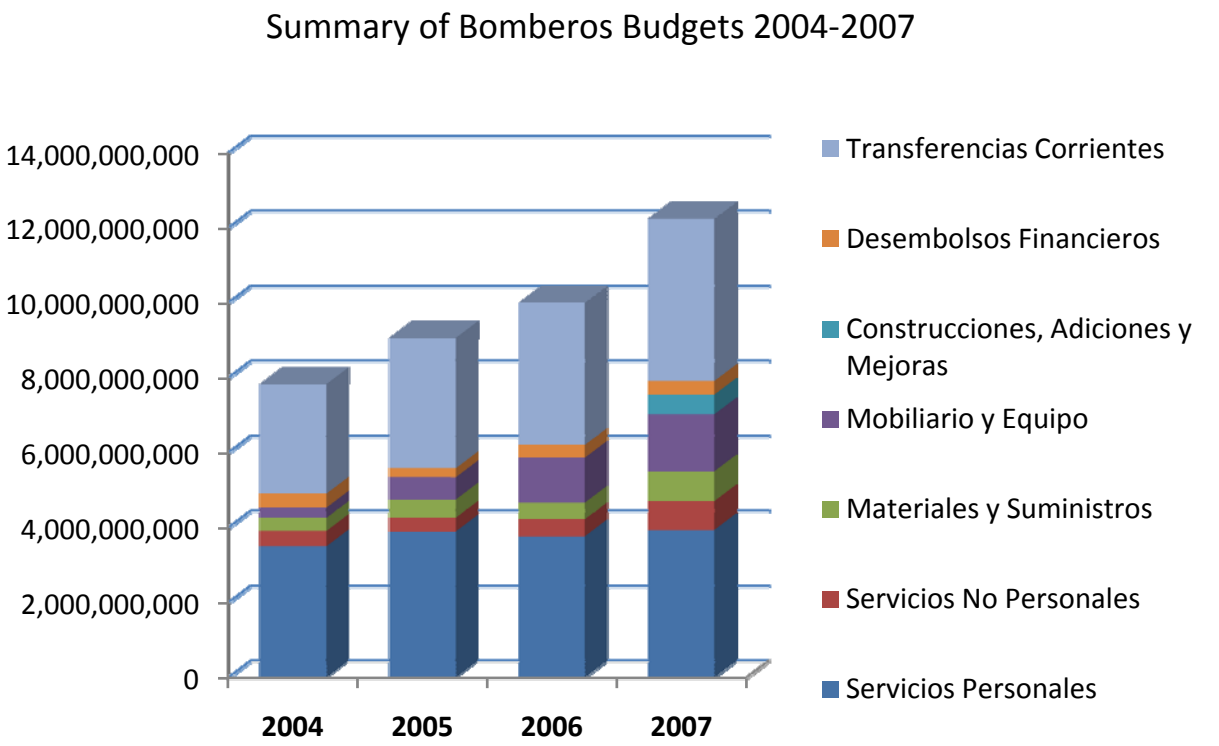
Números telefónicos

Academia Nacional de Bomberos..	276-9697	Garabito	637-8800	Pavas	220-0464
Acosta	410-1415	Golfito	775-0260	Pérez Zeledón	771-0333
Aeropuerto Daniel Oduber	668-1197	Grecia	494-0033	Pital	473-4143
Aeropuerto Juan Santamaría	440-3343	Guadalupe	283-7058	Puntarenas	661.0429
Aeropuerto Tobías Bolaños	290-7735	Guápiles	710-6290	Puriscal	416-8018
Alajuela	440-6521	Heredia	261-2198	Quepos	777-0308
Atenas	446-5066	Juan Viñas	532-2258	San Marcos de Tarrazú	546-6444
Barrio Luján	255-2750	La Cruz	679-9263	San Pedro de Poás	448-5066
Barrio México	221-3970	Las Juntas Abangares	662-0185	San Ramón	445-5120
Bataán	718-6358	Liberia	666-0279	San Vito	773-3600
Belén	239-5717	Limón	758-0229	Sarchí	454-4048
Buenos Aires	730-0251	Naranjo	451-5626	Santa Ana	282-7838
Cañas	669-0072	Nicoya	685-5147	Santa Cruz	680-0090
Cartago	591-2890	OCO	244-0555	Santo Domingo	244-0158
Central	223-8055	Orotina	428-5544	Siquirres	768-8218
Ciudad Neilly	783-3484	Pacayas	534-4060	Tres Ríos	279-9142
Ciudad Quesada	460-0502	Palmar Norte	786-6983	Tibás	241-2131
Coronado	292-6976	Palmares	453-3575	Tilarán	695-8475
Desamparados	259-2304	Paraíso	574-6160	Turrialba	556-0118
El Roble Puntarenas	663-4490	Paramédicos	223-8055	Upala	470-0419
Esparza	635-5121	Paquera	641-0537	Zarcero	463-3281
Filadelfia	688-8733	Parrita	779-9798		

Organizational Chart of the Bomberos



Budgets 2004-2007



Source: Bomberos Actual Budgets for 2004 through 2007

Bomberos Budget 2004

Instituto Nacional de Seguros

Presupuesto de Egresos en Nivel de Actividad

Periodo Comprendido del 01 de Enero a Diciembre del 2004

	Presupuesto	Porcentaje	Gastado	Comprometido	Dispuesto	Disponible	Gasto Mensual
Servicios Personales	**3,502,079,371**	45%	2,738,483,406	-	2,738,483,406	763,595,965	228,206,951
Servicios No Personales	**409,365,000**	5%	341,422,664	-	341,422,664	67,942,336	28,451,889
Materiales y Suministros	**346,168,000**	4%	193,904,717	-	193,904,717	152,263,283	16,158,726
Mobiliario y Equipo	**276,054,000**	4%	77,023,336	-	77,023,336	199,030,664	6,418,611
Desembolsos Financieros	**373,401,000**	5%	238,272,097	-	238,272,097	135,128,903	19,856,008
Transferencias Corrientes	**2,922,619,550**	37%	2,474,749,190	-	2,474,749,190	447,870,360	206,229,099
Total	**7,829,686,921**	100%	6,063,855,411	-	6,063,855,411	1,765,831,510	505,321,284

Bomberos Budget 2005

Instituto Nacional de Seguros

Presupuesto de Egresos en Nivel de Actividad

Periodo Comprendido del 01 de Enero a Diciembre del 2005

	Presupuesto	Porcentaje	Gastado	Comprometido	Dispuesto	Disponible	Gasto Mensual
Servicios Personales	**3,900,325,000**	43%	3,052,473,829	-	3,052,473,829	847,851,171	254,372,819
Servicios No Personales	**365,106,000**	4%	315,851,860	-	315,851,860	49,254,140	26,320,988
Materiales y Suministros	**486,729,000**	5%	413,271,705	-	413,271,705	73,457,295	34,439,309
Mobiliario y Equipo	**593,862,000**	7%	334,922,722	-	334,922,722	258,939,278	27,910,227
Desembolsos Financieros	**240,053,000**	3%	240,037,856	-	240,037,856	15,144	20,003,155
Transferencias Corrientes	**3,477,574,000**	38%	2,950,598,770	-	2,950,598,770	526,975,230	245,883,231
Total	**9,063,649,000**	**100%**	**7,307,156,742**	**-**	**7,307,156,742**	**1,756,492,258**	**608,929,729**

Bomberos Budget 2006

Instituto Nacional de Seguros

Presupuesto de Egresos en Nivel de Actividad

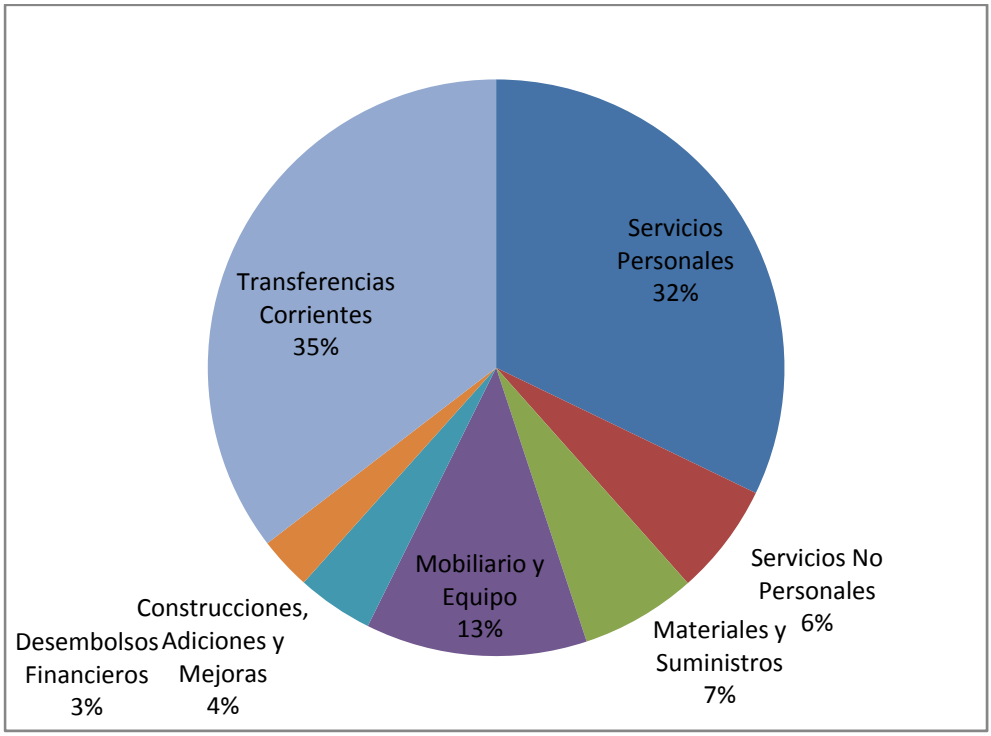
Periodo Comprendido del 01 de Enero a Diciembre del 2006

	Presupuesto	Porcentaje	Gastado	Compro-metido	Dispuesto	Disponible	Gasto Mensual	Erog. Estm. Resto Año	Diferencia Eroga/Dis
Servicios Personales	**3,768,121,000**	38%	2,597,387,799	0	2,597,387,799	1,104,198,201	236,126,164	236,126,164	868,072,037
Servicios No Personales	**454,568,000**	5%	259,442,706	358,618,582	618,061,289	66,271,711	23,585,701	23,585,701	42,686,011
Materiales y Suministros	**441,792,000**	4%	239,927,907	190,846,681	430,774,588	75,812,412	21,811,628	21,811,628	54,000,784
Mobiliario y Equipo	**1,200,069,000**	12%	148,768,597	959,858,149	1,108,626,746	90,852,254	13,524,418	13,524,418	77,327,836
Desembolsos Financieros	**341,100,000**	3%	223,073,464	0	223,073,464	118,026,536	20,279,406	20,279,406	97,747,130
Transferencias Corrientes	**3,794,677,000**	38%	2,421,013,657	0	2,421,013,657	4,365,682,343	220,092,151	220,092,151	4,145,590,193
Total	**10,000,327,000**	**100%**	**5,889,614,130**	**1,509,323,413**	**7,398,937,543**	**5,820,843,457**	**535,419,466**	**535,419,466**	**5,285,423,991**

Bomberos Budget 2007

Instituto Nacional de Seguros
Subprograma Servicios de Bomberos
Presupuesto Ordinario 2007

	Presupuesto	Porcentaje
Servicios Personales	**3,938,033,000**	**32.15%**
Servicios No Personales	**767,374,000**	**6.27%**
Materiales y Suministros	**795,716,000**	**6.50%**
Mobiliario y Equipo	**1,521,560,000**	**12.42%**
Construcciones, Adiciones y Mejoras	**525,000,000**	**4.29%**
Desembolsos Financieros	**362,686,000**	**2.96%**
Transferencias Corrientes	**4,337,074,000**	**35.41%**
TOTAL	**12,247,443,000**	
Presupuesto Ordinario INS-CETAC 2007	**607,750,000**	
Proporción	5.13%	



Law of the Bomberos

PODER LEGISLATIVO
LEYES

Nº 8228

LA ASAMBLEA LEGISLATIVA

DE LA REPÚBLICA DE COSTA RICA

Decreta:

Ley del Cuerpo de Bomberos del Instituto Nacional de Seguros

CAPÍTULO I
Del Cuerpo de Bomberos

Artículo 1º—**Creación del Cuerpo de Bomberos.** Créase el Cuerpo de Bomberos como un órgano de desconcentración mínima adscrito al Instituto Nacional de Seguros (INS), del cual dependerá administrativa y presupuestariamente.

Artículo 2º—**Capacidad jurídica.** El Cuerpo de Bomberos contará con capacidad jurídica instrumental, la cual recaerá en la persona de su Director, para los efectos exclusivos de:
a) Presentación de acciones ante los Tribunales de Justicia en demanda del cumplimiento de la presente Ley.
b) La recepción directa y con cargo a sus ingresos presupuestarios de donaciones de bienes muebles e inmuebles.

Artículo 3º—**Declaratoria de interés público.** Decláranse de interés público las actividades públicas o privadas que busquen prevenir, capacitar, planificar la atención y entrenar a las personas, sobre las situaciones específicas de emergencia.

Artículo 4º—**Definiciones**. Para los efectos de la presente Ley, se definen los siguientes términos:
a) **Normalización técnica**: Conjunto de normas de carácter técnico en materia de seguridad, emitidas por el Poder Ejecutivo, el Cuerpo de Bomberos y el Instituto de Normalización Técnico (INTECO).
b) **Plan básico:** Documento que contiene las acciones planificadas para prevenir y atender una situación específica de emergencia. Este plan deberá ser elaborado de acuerdo con el Reglamento de la presente Ley, la normalización técnica y el ordenamiento emitido al efecto por el Cuerpo de Bomberos. Se distingue del "Plan Regulador" de la Ley Nacional de Emergencia en que para ser emitido no necesita de una declaratoria de emergencia; además, se refiere al riesgo específico de una propiedad, bien o riesgo individual, tiene un carácter fundamentalmente preventivo y es elaborado directamente por el interesado.
c) **Protocolo de incendio**: Ordenamiento técnico emitido por el Cuerpo de Bomberos.
d) **Situación específica de emergencia:** Circunstancia de amenaza, peligro, riesgo o daño para la vida humana o los bienes, específica y derivada de hechos de la naturaleza, hechos de comportamiento animal o de hechos accidentales o intencionales provocados por seres humanos. Se distingue de la "emergencia" o de la "situación de riesgo inminente de emergencia" reguladas en la Ley Nacional de Emergencia, en el tanto en que no son originadas en una situación de guerra, conmoción interna o calamidad pública, ni requieren potestades extraordinarias del Gobierno para ser controladas. Sus efectos se circunscriben a esferas particulares de los sujetos, considerados individualmente; tampoco son necesarias potestades extraordinarias de los entes estatales para prevenirlas y atenderlas.

Artículo 5º—**Funciones**. El Cuerpo de Bomberos tendrá las siguientes funciones:

a) La coordinación de las situaciones específicas de emergencia con las distintas entidades privadas y los órganos del Estado, cuya actividad y competencia se refieren a la prevención, atención y evaluación de tales situaciones.
b) La prevención, atención, mitigación, el control, la investigación y evaluación de los incendios.
c) La colaboración en la atención de los casos específicos de emergencia.
d) El otorgamiento de medallas u otras distinciones, en reconocimiento de la trayectoria, la entrega o los actos de servicio extraordinario de los bomberos, permanentes o voluntarios, del Cuerpo de Bomberos de Costa Rica o de otros países
e) Cualesquiera otras funciones necesarias para aplicar la presente Ley y su Reglamento.
En los demás aspectos de seguridad, las autoridades nacionales y el Cuerpo de Bomberos deberán respetar la normalización técnica que dicte o acoja la institución respectiva.

Artículo 6º—**Excepciones**. Prohíbese la participación del Cuerpo de Bomberos en actividades de carácter represivo. No obstante, cuando se presenten situaciones de emergencia derivadas de la represión estatal de actividades delictivas, que atenten contra la seguridad y la tranquilidad general, el Cuerpo de Bomberos estará obligado a atender la emergencia una vez que, a su criterio, esté controlado el conflicto y asegurada la escena por parte de los cuerpos policiales.

Artículo 7º—**Organización**. El Cuerpo de Bomberos contará con las dependencias operativas, técnicas y administrativas necesarias para el fiel cumplimiento de sus cometidos públicos, de acuerdo con la organización administrativa que determine el INS.
El INS deberá vigilar que el Cuerpo de Bomberos cuente con los funcionarios necesarios para cumplir los objetivos propios de su gestión; además, queda autorizado para crear puestos y habilitar las plazas vacantes.

Artículo 8º—**Estaciones de bomberos.** El INS, previo dictamen del Cuerpo de Bomberos, será el encargado de crear y mantener las estaciones de bomberos que soliciten las comunidades o que se deriven de los respectivos estudios técnicos.
Los requisitos mínimos para establecer una estación de bomberos se establecerán en el Reglamento de la presente Ley.

Artículo 9º—**Régimen de los bomberos**. Para el ejercicio del cargo, los bomberos serán funcionarios con la autoridad, las facultades y las atribuciones que les brindan la presente Ley, su Reglamento y la demás reglamentación emitida al efecto por el INS. El régimen disciplinario de los bomberos deberá corRespondent con la naturaleza de sus funciones y la importancia de su cometido público.
El régimen laboral, la jornada de trabajo y el régimen de jubilación de los trabajadores integrantes del Cuerpo de Bomberos, deberán atender las condiciones especiales de la prestación de sus servicios y los derechos laborales incluidos en la legislación y la convención colectiva vigentes.
El Régimen de los Bomberos Voluntarios, Adscritos, Honorarios, el Régimen de los Brigadistas y otros de similar naturaleza, serán reglamentados por el INS.

CAPÍTULO II

De la prevención y atención de emergencias

Artículo 10.—**Plan básico**. Todo grupo poblacional, centro de trabajo, asociación comunal, empresa, municipalidad o institución estatal, deberá contar con un plan básico para prevenir y atender situaciones específicas de emergencia, según los preceptos que se regulan en la presente Ley y su Reglamento.
El plan básico deberá ser elaborado de conformidad con la normalización técnica y las disposiciones emitidas por el Cuerpo de Bomberos; será revisado cada doce meses y deberá divulgarse entre los miembros de los cuales depende su ejecución.

Artículo 11.—**Colaboración ante la emergencia**. Las personas físicas o jurídicas públicas o privadas deberán conducirse diligentemente, para evitar una situación específica de emergencia y, en caso de que esta suceda, deberán prestar la máxima colaboración a las autoridades o los organismos de socorro, salvamento y seguridad,

para que se ejecute, eficaz y eficientemente, el operativo de respuesta, se proteja la vida humana, se eviten o aminoren los daños, se esclarezcan las causas y se determinen los efectos de la emergencia.

Artículo 12.—**Sometimiento al mando de la emergencia**. Los funcionarios públicos y los particulares que, con el consentimiento de los organismos de socorro, colaboren en la respuesta a una situación específica de emergencia, se someterán al mando del primer encargado del cuerpo de socorro que arribe al sitio. No obstante, asumirá el mando el cuerpo de socorro equipado y capacitado, técnica y profesionalmente, para atender la emergencia.

CAPÍTULO III

Prevención contra incendios y otras emergencias

Artículo 13.—**Obligación de prevenir**. La prevención de los incendios y las situaciones específicas de emergencia es responsabilidad del Estado costarricense, sus instituciones y órganos, así como de todos los habitantes del territorio nacional.

Artículo 14.—**Requerimientos técnicos en edificaciones**. Las instalaciones, construcciones, obras civiles o plantas industriales, según se establezca, deberán contar con los requerimientos técnicos, las previsiones y los requisitos de edificación; asimismo, cumplirán lo estipulado en la normalización técnica y en el Reglamento de la presente Ley.

Artículo 15.—**Autoridades competentes.** Las autoridades competentes, en el momento de verificar los requisitos para otorgar permisos de funcionamiento, realización de actividades, ejercicio del comercio, patentes, aprobación de planos o diseños y otros de similar naturaleza, revisarán si el administrado cumple lo dispuesto en el artículo anterior.

Artículo 16.—**Equipos de detección de incendios**. Los edificios, las instalaciones, las obras civiles, las plantas industriales y los proyectos urbanísticos deberán contar con sistemas fijos y portátiles de detección contra incendios. Asimismo, contendrán los medios de evacuación y otros de protección pasiva y activa, de acuerdo con la normalización técnica y el Reglamento de la presente Ley.
La maquinaria, los equipos o los instrumentos dispuestos para prevenir incendios y otras emergencias similares, deberán ser instalados, ubicados y operados de acuerdo con lo establecido en la normalización técnica emitida para ese efecto.

Artículo 17.—**Inspecciones**. Para corroborar la adecuada disposición de los medios de detección de incendios indicados en el artículo anterior y el cumplimiento de las reglas de la normalización técnica en la materia, el Cuerpo de Bomberos podrá realizar las inspecciones necesarias en el sitio de interés. Para el procedimiento de verificación, el personal capacitado en la materia pasará a ser autoridad pública.
Si el propietario o encargado del inmueble no permite el ingreso de los inspectores del Cuerpo de Bomberos u obstaculiza la ejecución del procedimiento, la autoridad judicial competente será la encargada de autorizar el ingreso de los inspectores, una vez que se justifiquen las razones o presunciones para ejecutar el procedimiento de verificación.
En una situación específica de emergencia, el personal del Cuerpo de Bomberos, debidamente identificado, sin realizar trámite especial y sin restricción de horario, queda facultado para ingresar a las áreas de las instalaciones, obras, infraestructuras e inmuebles afectados por la emergencia, con el fin de ejecutar las labores necesarias de socorro y salvamento.

Artículo 18.—**Potestad de autoridad**. La potestad de ejercer actos de autoridad en los recintos indicados en el artículo anterior es excepcional; únicamente se llevará a cabo en las labores propias de su cargo y deberá efectuarse según los límites generales de razonabilidad, proporcionalidad y empleo del procedimiento técnico

Artículo 19.—**Información sobre las condiciones de la amenaza.** A efecto de atender una emergencia, las fábricas, las instalaciones industriales, las plantas de producción y los sitios de similar naturaleza, según lo establezca el

Reglamento a la presente Ley, deberán disponer de una vitrina o mueble protegido, con la información técnica trascendental sobre las condiciones de amenaza o riesgo, para controlar situaciones de emergencia por parte del Cuerpo de Bomberos.

Artículo 20.—**Confidencialidad de la información**. La información de carácter confidencial que recaben las autoridades y el Cuerpo de Bomberos con motivo de la situación específica de emergencia, no podrá ser divulgada sin el consentimiento de su titular, con la responsabilidad civil y penal que implica tal violación. Esa información solamente podrá ser utilizada por las autoridades y el Cuerpo de Bomberos, para efectos de la atención eficiente de la emergencia, su prevención o investigación.

Artículo 21.—**Aviso de materiales peligrosos**. En lo relativo a la importación, el transporte, el almacenamiento, la producción y la comercialización de elementos y materiales peligrosos, el Ministerio de Salud deberá poner en conocimiento del Cuerpo de Bomberos el registro de las autorizaciones brindadas a las personas físicas o jurídicas públicas o privadas para ejercer tales actividades, cuyos datos incluirán, entre otros, la carga y las cantidades de esos elementos y materiales.
La información suministrada al Cuerpo de Bomberos será de estricta confidencialidad y solamente podrá ser utilizada para efectos de prevenir y planificar la debida respuesta ante las situaciones específicas de emergencia, en atención de las responsabilidades civiles y penales que puedan derivarse de su uso ilegal.

Artículo 22.—**Brigadas contra incendio**. El Cuerpo de Bomberos es el órgano, con carácter exclusivo, facultado para autorizar el funcionamiento de brigadas contra incendio. Estas deberán acatar los decretos ejecutivos y los lineamientos públicos emitidos al efecto, así como la normalización técnica y los protocolos del Cuerpo de Bomberos. En las situaciones específicas de emergencia que atiendan o en las que colaboren, deberán actuar, irrestrictamente, bajo el mando del Cuerpo de Bomberos.

CAPÍTULO IV

Protección contra incendios y otras emergencias

Artículo 23.—**Servicio sin distinciones**. El Cuerpo de Bomberos será el órgano responsable de dirigir y atender, con facultades de máxima autoridad y responsabilidad, las operaciones para enfrentar los incendios, mitigar sus efectos e investigar sus causas, en cuanto a los aspectos técnicos de su competencia.
Los organismos públicos y las entidades privadas estarán en el deber de colaborar con el Cuerpo de Bomberos y facilitar los materiales, la maquinaria, los equipos y las herramientas que les sean requeridos para el desarrollo y la atención eficiente de las operaciones de emergencia en casos de incendios, así como para su investigación y prevención.

Artículo 24.—**Abastecimiento de agua**. El Cuerpo de Bomberos podrá abastecerse, sin costo alguno, de los acueductos y las fuentes de agua, públicos o privados, para la atención de emergencias y otras actividades propias de sus funciones.

Artículo 25.—**Manejo de desechos**. Durante una situación específica de emergencia o como consecuencia de esta, el tratamiento y la disposición final de los desechos generados que representen un peligro para la seguridad o la salud de las personas, deberán ser removidos, estabilizados o eliminados, en forma inmediata, por:
a) La persona causante del daño o la emergencia que originó los desechos, en primer término.
b) El propietario o representante legal de la organización afectada en su actividad, edificación, inmueble, planta, industria o estructura.

Artículo 26.—**Transporte de materiales peligrosos.** El propietario, el transportista o el responsable del almacenamiento, la manipulación o el transporte de materiales peligrosos, deberá:
a) Cumplir las normas y los reglamentos respectivos.
b) Sufragar los gastos que implique la atención de escapes o derrames de materiales peligrosos, desechos sólidos, líquidos o gaseosos, cuando estos sean el resultado de su actuar culposo o doloso.

c) Hacerse responsable de una adecuada disposición final de los desechos o remanentes de la emergencia.

CAPÍTULO V

Prohibiciones y sanciones

Artículo 27.—**Normas aplicables**. Las disposiciones del presente capítulo se aplicarán a las contravenciones y los delitos, los cuales serán de conocimiento de los tribunales penales ordinarios, mediante la legislación procesal penal.
La denominación salario base utilizada en esta Ley es la contenida en el artículo 2º de la Ley Nº 7337, del 5 de mayo de 1993.

Artículo 28.—**Uso de logos, lema y distintivos**. Se impondrá una multa de tres a diez salarios base, de conformidad con lo dispuesto en el Código Penal, Ley Nº 4573, de 4 de mayo de 1970, y sus reformas, a quien, careciendo de autorización del INS use el nombre, la insignia, la imagen, los escudos o los distintivos del Cuerpo de Bomberos.

Artículo 29.—**Manejo inadecuado de desechos**. Se impondrá una multa de tres a diez salarios base, de conformidad con las disposiciones del Código Penal, Ley Nº 4573, de 4 de mayo de 1970, y sus reformas a quien:
a) Acumule o permita acumular basura, malezas y otros desechos o materiales que representen un riesgo de incendio.
b) Queme, en forma negligente o imprudente, basura o desechos que atenten contra la salud, la vida, la seguridad o los bienes.

Artículo 30.—**Transporte de materiales peligrosos**. Se impondrá una multa de tres a diez salarios base, de conformidad con lo establecido en el Código Penal, Ley Nº 4573, de 4 de mayo de 1970, y sus reformas, al propietario, transportista o al responsable del almacenamiento, la manipulación o el transporte de materiales peligrosos que:
a) Incumpla las normas y los reglamentos respectivos.
b) No sufrague los gastos derivados de la atención de escapes o derrames de materiales peligrosos, desechos sólidos, líquidos o gaseosos, cuando sean el resultado de su actuar culposo o doloso.
c) No realice una disposición final adecuada de los desechos o remanentes de la emergencia.

Artículo 31.—**Obstrucción en una emergencia**. Se impondrá una multa de tres a diez salarios base, de conformidad con lo dispuesto en el Código Penal, Ley Nº 4573, de 4 de mayo de 1970, y sus reformas, a las personas que, en forma culposa, en una situación específica de emergencia incurran en las siguientes acciones:
a) Obstaculicen la acción del Cuerpo de Bomberos o no le presten la colaboración necesaria.
b) Se nieguen a brindar información o brinden información falsa que agrave la situación de emergencia o sus consecuencias.
La pena será de quince salarios base si la conducta es dolosa.

Artículo 32.—**Activación injustificada de un sistema de emergencia**. Se impondrá una multa de dos a cinco salarios base, de conformidad con lo establecido en el Código Penal, Ley Nº 4573, de 4 de mayo de 1970, y sus reformas, al propietario, representante o apoderado del medio por el cual se suministre información falsa y se active un procedimiento de emergencia del Cuerpo de Bomberos.

Artículo 33.—**De los fondos**. El producto de las multas recaudadas, una vez cubiertos los gastos administrativos que requiere su cobro, será girado en su totalidad al INS, que lo destinará, en forma exclusiva, al desarrollo de campañas de prevención.

CAPÍTULO VI

Disposiciones finales

Artículo 34.—**Directrices**. El Cuerpo de Bomberos, cuando así lo autorice el INS tendrá la competencia de emitir los reglamentos de organización y servicio y los protocolos de incendio, que servirán de guía y marco para elaborar los planes básicos indicados en la presente Ley.

Artículo 35.—**Justificación de los efectos ocasionados**. En la previsión o atención de la emergencia, las personas encargadas de ejecutar los procedimientos, los operativos o las maniobras para controlar el riesgo, y de disminuir o minimizar la pérdida de vidas humanas y bienes, tendrán justificación legal de proceder, razonablemente y dentro de las reglas propias de su profesión o cargo, siempre y cuando el menoscabo patrimonial se limite estrictamente al necesario para atender, controlar o reacondicionar la zona de influencia de la emergencia o para prevenirla.

Artículo 36.—**Recuperación de los gastos.** Quienes generen una situación específica de emergencia, sea por dolo, negligencia o culpa grave, serán responsables por los gastos en que hagan incurrir al Estado, sus instituciones y órganos, encargados de labores de socorro, salvamento y seguridad. En estos casos, será también responsable solidaria la persona, física o jurídica, pública o privada, encargada de vigilar la conducta del responsable directo.

Artículo 37.—**Sitios de reuniones públicas.** El responsable de una reunión pública con accesos controlados deberá:
a) Contar con un plan básico, de acuerdo con lo dispuesto en la presente Ley, así como con un dispositivo de información que identifique la capacidad máxima de personas permitida, según las normas y los reglamentos vigentes.
b) No exceder de la capacidad máxima autorizada, según se establece en el inciso anterior y bajo la responsabilidad directa de la empresa o persona que organiza. En las instalaciones o los sitios que cuenten con diferentes recintos o ambientes, a efecto de determinar la capacidad máxima, cada uno se considerará en forma individualizada.
c) Impedir el ingreso de más personas y proceder al desalojo de ocupantes hasta que se respete el máximo permitido.

Artículo 38. —**Inclusión en actividades académicas**. Las universidades públicas y privadas, el Instituto Nacional de Aprendizaje y otras instituciones de educación podrán incluir, en sus actividades académicas, contenidos o prácticas que adiestren, capaciten y formen a los educandos y profesores en la prevención y atención de situaciones específicas de emergencia.
El Cuerpo de Bomberos podrá colaborar en la elaboración del diseño curricular de los planes de estudio.

Artículo 39.—**Medios de comunicación**. Durante una situación de emergencia, en caso de que el Cuerpo de Bomberos no cuente con el equipo necesario, los medios de comunicación públicos o privados deberán prestar su colaboración en el envío de mensajes como parte del procedimiento para atender la emergencia.

Artículo 40.—**Financiamiento del Cuerpo de Bomberos**. Créase el Fondo del Cuerpo de Bomberos, el cual será destinado exclusivamente, al financiamiento de las actividades de dicho órgano. Estará constituido por:
a) El cuatro por ciento (4%) de las primas de todos los seguros que se vendan en el país.
b) Las multas, los cobros o resarcimientos producto de esta Ley.
c) Los intereses y réditos que genere el propio Fondo.
d) Las donaciones de entes nacionales o internacionales.

Artículo 41.—**Reglamentación**. El Poder Ejecutivo reglamentará la presente Ley en un plazo de noventa días a partir de su publicación.
Rige a partir de su publicación.

Tipo: Ley **Número:** 8228 **Fecha:** 19/03/2002
Nombre: **Ley del Cuerpo de Bomberos del Instituto Nacional de Seguros**
Ente emisor: Asamblea Legislativa
Fecha de vigencia desde: 24/04/2002
Publicación **Nº Gaceta:** 78 **Fecha:** 24/04/2002

Appendix B:

Survey of U.S. Fire Departments

Contents:

Questionnaire

Fire Department:
Location:
Respondent:
Contact Number:
Date:
Questions:

1. Is your department a private fire department?
2. How many years has your department operated in this setting?
3. How did the department become contracted? Was it contracted from the beginning of its operation?
4. What are the terms of the contract? Is it a contract for a number of years? Does it renew every odd number of years?
5. What determines the amount of money that the department receives from the contract? Is the money received fixed for a number of years or is it evaluated periodically?
6. If it is evaluated, what is the process? Is there a budget the department applies for?
7. Does the city impose any requirements on the department's operation (performance and financial requirements for example)?
8. Can the city terminate the contract and for what reasons?
9. In your opinion, is being a private fire company is beneficial or not?
10. Is there anything in a public fire department that you don't have as a private fire department?
11. Does the department receive any revenue other than contract revenue? If so, what are the other sources' shares of total revenue and how are they obtained?
12. What are the major benefits and drawbacks of the XXX source of revenue?
13. What services does the Fire Department provide aside from fighting fires?
14. What is the department's budget? On what basis is money appropriated?
15. What have been the department's budgets for the past three years?
16. What is the overall number of firefighters working for the department?
17. How many of the firefighters are career (i.e. full-time, paid), on-call (part-time paid), and volunteer firefighters.
18. What is the population density of the area served?
19. Is the area thickly developed, suburban, or rural?
20. How many calls are made? What is the average response time?
21. Do you use mutual aid? How much do you rely on it? Is it automated, or how is it set up?

Information Request E-mail Template

Dear Sir or Madam,

We are four undergraduate students from Worcester Polytechnic Institute in Worcester, Massachusetts. We are conducting research for a project about alternative sources of funding for fire departments. In this stage of our project, we are interested in collecting information from contracted fire departments throughout the United States. We are contacting you to request information about your fire department. Attached with this e-mail is a questionnaire that asks for the information we are hoping to obtain.

We are looking forward to your response and appreciate your contribution to this project.

Sincerely,

Greg Hesler

Larry Loomis

David Nill

Stefan Rashkov

Initial Contact List of Fire Departments

Fire Dept Name	HQ City	HQ State	Dept Type	Organization Type
Contract-Career Fire Department				
Air Force Plant 42 Fire Department	Palmdale	CA	Career	Contract fire department
Clackamas County Rural Fire Protection Dist. #68	Beavercreek	OR	Career	Contract fire department
INEEL Fire Department	Central Facilities Area	ID	Career	Contract fire department
LaVergne Fire Department, Inc.	LaVergne	TN	Career	Contract fire department
NSB Kings Bay Fire Department	Kings Bay	GA	Career	Contract fire department
Rio Verde Fire District	Rio Verde	AZ	Career	Contract fire department
Rural Metro Fire Department	Apache Junction	AZ	Mostly Career	Contract fire department
Rural / Metro Fire Department - Tucson	Tucson	AZ	Mostly Career	Contract fire department
Swannanoa Volunteer Fire Department	Swannonoa	NC	Mostly Career	Contract fire department
Town of Port Royal Fire Department	Port Royal	SC	Career	Contract fire department
Pantex Fire Department	Amarillo	TX	Career	Contract fire department
The Woodlands Fire Dept	The Woodlands	TX	Career	Private or industrial fire brigade
Martinez Volunteer Fire Department	Martinez	GA	Mostly Volunteer	Private or industrial fire brigade
Private Departments- Career				
Merrill Fire Department	Merrill	WI	Career	Local
Rio Verde Fire District	Rio Verde	AZ	Career	Contract fire department
Anton Anderson Memorial Tunnel Fire Department	Girdwood	AK	Career	Private or industrial fire brigade
San Onofre Fire Department	San Clemente	CA	Career	Private or industrial fire brigade
Potlatch Corporation Fire/Rescue	Lewiston	ID	Career	Private or industrial fire brigade
Contract-Volunteer				
Cape Canaveral VFD	Cape Canaveral	FL	Mostly Volunteer	Contract fire department
Cloverleaf Volunteer Fire Department	Houston	TX	Mostly Volunteer	Contract fire department
Coolspring Volunteer Fire Department	Michigan City	IN	Volunteer	Contract fire department
Guil-Rand Fire Department	Archdale	NC	Mostly Volunteer	Contract fire department
Hatfield Volunteer Fire Company	Hatfield	PA	Volunteer	Contract fire department
Lake Carmel Fire Department	Carmel	NY	Volunteer	Contract fire department
METRO FIRE DEPT, LTD.	Hamtramck	MI	Volunteer	Contract fire department
Steese Area Volunteer Fire Department	Fairbanks	AK	Mostly Volunteer	Contract fire department
Sun Prairie Volunteer Fire Department, Inc.	Sun Prairie	WI	Volunteer	Contract fire department
Union Hill Fire Department	Union Hill	NY	Mostly Volunteer	Contract fire department
Private Volunteer				
Abbot Laboratories Fire Department	North Chicago	IL	Mostly Volunteer	Private or industrial fire brigade
Abingdon Fire Department	Abingdon	IL	Volunteer	Local
Abbott Laboatories Fire Department, Abbott Park	Abbott Park	IL	Mostly Volunteer	Private or industrial fire brigade

Abingdon Volunteer Fire and Rescue, Inc.	Bena	VA	Volunteer	Private or industrial fire brigade
Alcoa Fire Department	Newburgh	IN	Mostly Volunteer	Private or industrial fire brigade
Barnard Vol. Fire Dept.	Barnard	VT	Volunteer	Private or industrial fire brigade
Bethlehem Fire And Rescue Inc.	Navarre	OH	Volunteer	Private or industrial fire brigade
Burton Fire and Rescue	Burton	OH	Mostly Volunteer	Private or industrial fire brigade
C & H Sugar Co. Fire Department	Crockett	CA	Mostly Volunteer	Private or industrial fire brigade
Carpenter Fire & Rescue Services	Reading	PA	Volunteer	Private or industrial fire brigade
CENTRAL UTAH CORRECTIONAL FACILITY	GUNNISON	UT	Volunteer	Private or industrial fire brigade
Colchester Center Volunteer Fire Company	Colchester	VT	Volunteer	Private or industrial fire brigade
Cordero Rojo Mine Emergency Squad	Gillette	WY	Volunteer	Private or industrial fire brigade
Four Communities Fire Department	Cocoa	FL	Volunteer	Private or industrial fire brigade
Greenhills Fire Department	Greenhills	OH	Volunteer	Private or industrial fire brigade
Hamel Volunteer Fire Department	Hamel	MN	Volunteer	Private or industrial fire brigade
Essex Rescue	Essex Junction	VT	Mostly Volunteer	Private or industrial fire brigade
Munson Fire Department	Chardon	OH	Mostly Volunteer	Private or industrial fire brigade
Thetford Volunteer Fire Department	Thetford Center	VT	Mostly Volunteer	Private or industrial fire brigade
Public Fire Departments				
Worcester Fire Dept	Worcester	MA	Career	Local
Holden Fire Department	Holden	MA	Mostly Volunteer	Local
Boston Fire Department	Boston	MA	Career	Local
Plainfield Fire Company	Plainfield	CT	Volunteer	Local
Fairfax County Fire and Rescue Department	Fairfax	VA	Mostly Career	Local

Contact List of Non-Profit Fire Departments

Fire Dept Name	HQ City	HQ State	Dept Type	Organization Type
Aid TWP Volunteer Fire Department, Inc.	Willow Wood	OH	Volunteer	Contract fire department
Battle Lake Area Fire Association	Battle Lake	MN	Volunteer	Contract fire department
Bighorn Fire Company	Bozeman	MT	Mostly Volunteer	Contract fire department
Bloomfield Volunteer Fire Department	Jackson	OH	Volunteer	Contract fire department
Bucks Lake Fire Department	Quincy	CA	Volunteer	Contract fire department
Cataract Volunteer Fire Department, Inc.	Spencer	IN	Volunteer	Contract fire department
Chester Twp New Burlington Fire Dept	Wilmington	OH	Volunteer	Contract fire department
Clinton Rural Fire Protection Inc.	Clinton	MO	Mostly Volunteer	Contract fire department
Crooksville Fire Department	Crooksville	OH	Volunteer	Contract fire department
Tuscarora Township Fire Department	Indian River	MI	Volunteer	non-profit corp
Emerado Rural Volunteer Fire Department, Inc.	Emerado	ND	Volunteer	Contract fire department
Fort Russell Fire Protection District	Edwardsville	IL	Volunteer	Contract fire department
Franklinville Fire Department	Franklinville	NC	Mostly Volunteer	Contract fire department
Gaston Volunteer Fire Department, Inc.	Gaston	IN	Volunteer	Contract fire department
Groveton Fire Dept	Groveton	NH	Volunteer	Contract fire department
Harrison Township Volunteer Fire Company, Inc	Columbus	IN	Volunteer	Contract fire department
Hebron Volunteer Fire Company, Inc	Salem	NY	Volunteer	Contract fire department
Hudson Oaks Fire Department	Hudson Oaks	TX	Mostly Volunteer	Contract fire department
Indian Field Volunteer Fire Department	Harleyville	SC	Volunteer	Contract fire department
Jackson TWP Fire Department	Auburn	IN	Volunteer	Contract fire department
Kiron Fire Deptment Inc.	Kiron	IA	Volunteer	Contract fire department
Lake George Fire Department	Lake George	MN	Volunteer	Contract fire department
Lake Villa Volunteer Fire Department	Lake Villa	IL	Volunteer	Contract fire department
Lanesville Volunteer Fire Department	Lanesville	IN	Volunteer	Contract fire department
Longville Volunteer Fire Department	Longville	MN	Volunteer	Contract fire department
Magnolia Bend Volunteer Fire Department	Conroe	TX	Volunteer	Contract fire department
Merry Hill- Midway Volunteer Fire Department, Inc.	Merry Hill	NC	Volunteer	Contract fire department
Miller Hose Company, Inc.	Newfane	NY	Volunteer	Contract fire department
Morrison Volunteer Fire Department	Greenleaf	WI	Volunteer	Contract fire department
Mount Mourne Volunteer Fire Department	Mooresville	NC	Volunteer	Contract fire department
Niagara Active Hose Company, Inc.	Niagara Falls	NY	Volunteer	Contract fire department
North Columbia Fire & Rescue	Appling	GA	Mostly Volunteer	Contract fire department
Nunda Fire Dept	Nunda	NY	Volunteer	Contract fire department
Patriot Volunteer Fire Department	Patriot	IN	Volunteer	Contract fire department
Pokagon Volunteer Fire Department, Inc.	Niles	MI	Volunteer	Contract fire department

Roann Volunteer Fire Department	Roann	IN	Volunteer	Contract fire department
Sandy Bottom Volunteer Fire Department	Kinston	NC	Volunteer	Contract fire department
Seven Lakes Volunteer Fire Department, Inc.	West End	NC	Mostly Volunteer	Contract fire department
Sherrill Emergency Services	Sherrill	IA	Volunteer	Contract fire department
South Monterey County Fire Protection District	Monterey	CA	Mostly Volunteer	Contract fire department
ST Paul Volunteer Fire Department	St Paul	IN	Volunteer	Contract fire department
Toga Volunteer Fire Department, Inc. (part of Buckingham VFD)	Dillwyn	VA	Volunteer	501(c) (4) non-profit org. Fire Department
Town of Dunkirk Volunteer Fire Company #1, Inc. (East Dunkirk Fire Department)	Dunkirk	NY	Volunteer	Contract fire department
Trail City Fire Dept	Trail City	SD	Volunteer	Contract fire department
Tripoli Volunteer Fire Department	Tripoli	WI	Volunteer	Contract fire department
Union Center Fire Company, Inc.	Endicott	NY	Volunteer	Contract fire department
Wallace Special Fire District	Avoca	NY	Volunteer	Contract fire department
West Hoosick Fire Department	Hoosick Falls	NY	Volunteer	Contract fire department
Wildwood Volunteer Fire Department	Village Mills	TX	Volunteer	Contract fire department

Public Fire Department Responses

Fairfax County Fire and Rescue Services (Virginia)

Fire Department: Fairfax County Fire and Rescue Services

Location: Fairfax County, VA

Respondent: Administrator

Date: December 10, 2007

1. What are the department's sources of funding by amount and by share of total funding? The Fire and Rescue Department's (FRD's) budget is based on an allocation from the County's General Fund. The majority of the County's General Fund revenue is from Real Estate Taxes at 59.9%, the second largest revenue category for the General Fund is Personal Property taxes at 16.6% followed by Local Taxes at 14.7%. FRD's approved budget for Fiscal Year 2008 is $167.9 million, which accounts for approximately 5% of the General fund disbursements.

2. Why do you choose to rely primarily on XXX source of revenue?

3. What are the major benefits and drawbacks of the XXX source of revenue? Benefit = large source of revenue; Drawback = dependant on the fluctuations of the real estate market.

4. What services does the Fire Department provide aside from fighting fires? Emergency Medical Services, Prevention – including inspections, Public Education and Outreach, Training.

5. What is the department's budget? On what basis is money appropriated? The FY2008 Adopted Budget is $167.9 million. It is appropriated by the General Fund based on available funding and historical spending.

6. What have been the department's budgets for the past three years?

   FY 2006 Actual = $151.2 Million
   FY 2007 Actual = $162.3 Million
   FY 2008 Adopted = $167.9 Million

7. What is the overall number of firefighters working for the department? 1356 uniform employees; 128 civilians.

8. How many of the firefighters are career (i.e. full-time, paid), on-call (part-time paid), and volunteer firefighters? All 1356 listed above are full-time paid. We also have approximately 300 operational volunteers.

9. What is the population density of the area served? 1,085,404

10. Is the area thickly developed, suburban, or rural? Fairfax County is densely developed and is considered a once suburban county that is rapidly urbanizing.

11. How many calls are made each year? What is the average response time? We responded to 92,087 incidents in FY 2007.

12. Do you use mutual aid? How much do you rely on it? Is it automated, or how is it set up? Yes, we use and provide mutual aid. Northern Virginia region is unique as we operate with seamless boarders with our automatic aid partners which including Arlington, Alexandria, and Fairfax City. The arrangement it set up though mutual aid agreements and usually operates with the closest unit to the scene being dispatched.

Plainfield Volunteer Fire Company (Connecticut)

Fire Department: Plainfield Volunteer Fire Company

Location: Plainfield, CT

Respondent: Fire Chief: Dan Hutchinson

1. What are the department's sources of funding by amount and by share of total funding?

   Main source of funding are from the fire taxes that are assessed to every property owner that lives in the town of Plainfield. The town is divided into 4 Villages, Plainfield, Moosup, Central Village, and Wauregan, and each village has their own fire department. Each department gets a percentage of the total taxes that are collected based on the size of their respective village and population.

2. Why do you choose to rely primarily on XXX source of revenue?

   The fire department is a town run service, which allows us to get a respectable amount of money from the governments. The fire department belongs to the town but operate by themselves.

3. What are the major benefits and drawbacks of the XXX source of revenue?

   The only drawback that has been seen in being funded by the town is that they might have some say in what gets done. It has happened before where a person from the town hall will try to step in to make decision when it is actually better to have the chief make them.

4. What services does the Fire Department provide aside from fighting fires?

   Fire prevention-We provide open houses and go into the grade schools each year for fire prevention week. Some schools come to the fire house and do a tour with the fire fighters. We explain what to do if there is a fire, and how to prevent fires.
   First Respondent EMS- Many of the members are certified Emergency Medical Technician and Medical Response Technician, that perform basic prehospital care for ill or in need patients. We are a non transport service and transfer our patient to the ambulance when they arrive on scene.
   Limited HAZMAT- We perform limited amount of Hazardous Material operations. If the need arises we call in help for the state HAZMAT team.
   Rescue – Preform rescues whether from car accidents to rope rescues to persons being injured in the state forest.
   Dive Team- The town as a whole has dive team that responds to all water rescues. They assist the police with searching for evidence also when needed.

5. What is the department's budget? On what basis is money appropriated?

   Budget not available at to send right now should be able to get it this weekend. Money is appropriate basically on a need basis. A budget is formed factoring in the repair and maintenance on the trucks, new turnout gear for members who need it, basic building repairs, stipends for the firefighters, and other. Over the past year we bought a new vehicle F295, 10 new sets of turnout gear, replace a tank in the Engine tanker, bought new hose after hose testing and some failed, and many other items. The calendar year is divided into quarters in which the volunteers get reimbursed for their time. Each call that they go on they receive a point and at the end of each quarter the points are tallied up and money is split be percentage of call that you went on.

6. What have been the department's budgets for the past three years?

   Is looking up and will send when available.
7. What is the overall number of firefighters working for the department?

   We have approximately 40 firefighters/ EMT that serve in our department. 10 officers, Chief, deputy chief,2 captains, and 6 lieutenants and 30 firefighter/EMT/MRT.

8. How many of the firefighters are career (i.e. full-time, paid), on-call (part-time paid), and volunteer firefighters.

   Our department is all volunteer and is made up with about 40 men and women from the community. Members volunteer to be on call during the night and respond to all possible calls that may be received.

9. What is the population density of the area served?

   We serve a population of about 5000 people. With in the town we have multiple elderly complexes along with four schools, a number of different manufacturing facilities, along with farms scattered throughout the country side.

10. Is the area thickly developed, suburban, or rural?

    There are areas that are heavily concentrated with houses and then there are wide open areas. It all depends on what part of town that you are in.

11. How many calls are made? What is the average response time?

    We average around 850 calls per year, most of them being medical calls. We average around 2-3 calls per day, but it is hit and miss. Some days we won't have any and others we will have one right after or during the other. Since the station is never manned, people respond when they can from where they are, usually at home. So our average response

time from the time that our pagers go off to the time that we are on-scene is between 7-10 minutes. There are times when the response is quicker and on very few occasions when we don't even roll our truck.

12. Do you use mutual aid? How much do you rely on it? Is it automated, or how is it set up?

    Yes we use mutual aid. Since the department is volunteer and does not have enough members around during the day we rely heavily on mutual aid. For example, during the day mutual aid is started automatically for all fire calls in the village of Plainfield from the village of Moosup. All structure fires have an automatic mutual aid set up with the first alarm response.

Private Fire Department Responses

Rural Metro Pima County (Arizona)

Fire Department: Rural Metro Fire and Rescue

Location: Pima County, Arizona

Respondent: Administrator Heather Talley

1. **What are the department's sources of funding by amount and by share of total funding?** Subscription service, send out bills to customers. Customers can choose to pay or not pay and not support. If they pay and support, and then have incident, there will not be a fee. If they do not pay, there will be a fee, substantially larger than the regular fee for subscription. The firefighters are trained to treat people on the street as payers, because it is the firefighters' obligation to serve the people. After service, then research what happened. Document per-hour fee. 1000/truck/hr, 100/firefighter. If there is a technical rescue, there will be special fees for procedure. 100-400/Ambulance. Try to stay very competitive with cost. There is not a lot of municipal waste.

2. **Why do you choose to rely primarily on XXX source of revenue?** We do not receive taxes from the County to provide service

3. **What are the major <u>benefits</u> and <u>drawbacks</u> of the XXX source of revenue?** The service is not mandatory so we do not have 100% of the population we service paying

4. **What services does the Fire Department provide aside from fighting fires?** Emergency medical, first Respondent, wild land firefighting, Hazardous Materials, Technical rescue.

5. **What is the department's budget? On what basis is money appropriated?** Not able to release.

6. **What have been the department's budgets for the past three years?** Not able to release.

7. **What is the overall number of firefighters working for the department?** All Full Time, paid - 194

8. **How many of the firefighters are career (i.e. full-time, paid), on-call (part-time paid), and volunteer firefighters?** All Full Time, paid - 194

9. **What is the population density of the area served?** Est. 250,000

10. **Is the area thickly developed, suburban, or rural?** All three

11. **How many calls are made? What is the average response time?** 22,000 calls (est.) for 2006. Average response time is 8 minutes.

12. **Do you use mutual aid? How much do you rely on it? Is it automated? If not, how is it set up?** Do not use mutual aid

The Woodlands Community Fire Department (Texas)

Fire Department: Woodlands Community Fire Department

Location: The Woodlands, TX 77380

Respondent: Anita Courville

The attached link directs you to our website and the budgets and audited financial statements for the respective homeowners' associations that fund The Woodlands Fire Department.

http://www.thewoodlandsassociations.org/site/assessinfo/

1. What are the fire department's sources of funding by amount and by share of total funding?

   The Woodlands Fire Department gets its funding from The Woodlands Association, The Woodlands Commercial Owners Association, and The Woodlands Community Association.

   Additionally, The Woodlands Fire Department (WFD) has various contracts that it receives revenue from. (i.e. - billings to private entities outside of The Woodlands for fire services, billings to the hospital district to house ambulances in the fire stations, billings for providing county wide dispatch services, various grants) These additional revenues are used to offset what the three homeowners' associations fund.

2. What is the fire department's budget? On what basis is money appropriated?

   This allocated funding is determined each year by the assessed value of the properties located in each association as compared to the total. An assessment fee is determined that will cover all expenses of the respective association as well as the pro-rata share of expenses for The Woodlands Recreation Center and The Woodlands Community Service Corporation (the "management company") AND The Woodlands Fire Department

3. What have been the department's budgets for the past three years?

   In 2007 the budgeted expenses for The Woodlands Fire Department were $12M, in 2006 budgeted expenses were $10.6M, and in 2005 budgeted expenses were $9.7M.

4. What is the overall number of firefighters working for the department?

   We currently employ 89 firefighters which are members of a union.

5. How many of the firefighters are career (i.e. full-time, paid), on-call (part-time paid), and volunteer firefighters.

   All Firefighters are full-time, paid.

6. What is the population density of the area served?

   The current population is 86,449 with 32,128 homes. It is situated on 27,000 acres 27 miles north of Houston, Texas

8. Is the area thickly developed, suburban or rural?

   It is a suburban area.

9. How many calls are made? What is the average response time?

   http://www.thewoodlandsassociations.org/site/firedept/

10. Do you use mutual aid? How much do you rely on it? Is it automated, or how is it set up?

    We have a mutual aid agreement with the fire districts in Montgomery County. Outlying areas rely on the WFD more than the WFD relies on the other fire districts. Mutual aid is dispatched through our dispatch facility located nearby.

Here is the website for Reston, Virginia which I mentioned may be comparable to our community. Perhaps a search for 'unincorporated master planned community' would lead to others. Although, as you probably know, we are a rare breed!

http://www.restonweb.com/

I am attaching audited financial statements for The Woodlands Fire Department for the last three years.

The budget files are extremely large and I am unable to e-mail those at this time. Will the audited financial statements suffice for the information that you need?

Good luck! Please let me know if you need any additional information.

Thanks!

Anita

Non-Profit Fire Department Responses

Munson Fire Department (Ohio)

Fire Department: Munson Fire Department

Location: Geauga County, Ohio

Respondent: Bernie Harchar, Fire Chief

Date: January 30, 2008

1. Is your department a private fire department?

   Munson Fire Department is a nonprofit private Fire Department with all assets owned by Munson Township.
2. How many years has your department operated in this setting?

   Since 1952.
3. How did the department become contracted? Was it contracted from the beginning of its operation? Yes.

4. What are the terms of the contract? To provide Fire and Emergency Service to Munson Twp.

   Is it a contract for a number of years? One Year.
   Does it renew every odd number of years? No.
5. What determines the amount of money that the department receives from the contract? Taxes levies approved by the voters and EMS billing revenue.

   Is the money received fixed for a number of years or is it evaluated periodically?
   The money is received monthly and evaluated annually as part of the Township budget.
6. If it is evaluated, what is the process? Is there a budget the department applies for? Yes, a budget is proposed and the Township Trustees and the Fire Chief resolve the budget.

7. Does the city impose any requirements on the department's operation (performance and financial requirements for example)? Yes, a monthly report and we are currently assembling a review committee made up of one resident with a business back ground, one resident with a fire back ground as a Chief Officer, and one Township Trustee. We believe in others opinion.

8. Can the city terminate the contract and for what reasons? No, the Fire Department is a permanent fixture of the community. The Munson Fire Department is highly respected by the community, and the community supports the Fire Department.

9. In your opinion, is being a private fire company is beneficial or not? Not really, but the full-time employees who are vested within the Fire Department stand to lose if the Fire Department went public. The employees currently do not qualify for a state pension like a public Fire Department would we have discussed the pros and cons and if we went public then we may offer the vested employees the opportunity to stay private and new employees public employees.

10. Is there anything in a public fire department that you don't have as a private fire department? Our Fire Department has everything that the public Fire Department has. The requirements for employment are the same as a public Fire Department.

11. Does the department receive any revenue other than contract revenue? No if so, what are the other sources' shares of total revenue and how are they obtained?

12. What are the major benefits and drawbacks of the XXX source of revenue? N/A

13. What services does the Fire Department provide aside from fighting fires?

    Fire Fighting, Emergency Medical Services, Haz-Mat, Structural Collapse, Water Rescue, and public assistance.

14. What is the department's budget? About one million dollars

    On what basis is money appropriated?

15. What have been the department's budgets for the past three years? The budget has increased about 4.5 percent per year for the past four years.

16. What is the overall number of firefighters working for the department? 33

17. How many of the firefighters are career (i.e. full-time, paid), on-call (part-time paid), and volunteer firefighters. 15 fulltime, 15 part-time, and 3 volunteers

18. What is the population density of the area served? 25 square miles

19. Is the area thickly developed, suburban, or rural? A little suburban and rural combined.

20. How many calls are made? Average 1,400 per year

    What is the average response time? 5 minutes 80% of the time.

21. Do you use mutual aid? Yes

    How much do you rely on it? Our county uses it a lot.
    Is it automated, or how is it set up? Depending on the type of call, it is automatic for structure fire calls we have three other units from neighboring Fire Departments respond.

Seven Lakes Volunteer Fire Department (North Carolina)

Fire Department: Seven Lakes Volunteer Fire Department

Location: West End, NC

Respondent: Calvin Loy

Date: January 30, 2008

1. Is your department a private fire department? Yes

2. How many years has your department operated in this setting? Since 1976.

3. How did the department become contracted? Was it contracted from the beginning of its operation? Back in 1976, population was very sparse. Someone decided they needed a fire department. Founded a fire dept., incorporated, and contracted to the town.

4. What are the terms of the contract? Is it a contract for a number of years? Does it renew every odd number of years? It states what the town expects us to provide, what they will pay for them, and certain standards of performance. Just renewed in 2006 and will run until 2009.

5. What determines the amount of money that the department receives from the contract? Is the money received fixed for a number of years or is it evaluated periodically?

   The budget request, which is yearly, includes money they need to operate with. The performance over the past year. The value of properties in the district, say seven cents per 100 dollar value. If value of properties go up. Many fire departments put on paid people, and that takes money. They might give us more money or start taxing more. Have to go in front of County Commissioners and Emergency Services Management to justify budget and its increases

6. If it is evaluated, what is the process? Is there a budget the department applies for?

7. Does the city impose any requirements on the department's operation (performance and financial requirements for example)?

   The department has to respond in a certain number of minutes with a certain number of manpower. The other thing is that the dept has to participate in the state reporting system of all alarm calls. Every alarm, send it to state reporting system. Not just alarms, but for every time the dept is called out. They also must participate in a Mutual Aid contract between all fire departments that surround district. They must conduct a fire investigation to determine causes of fire. Don't have hydrants in all of areas, so they draw water from lakes and streams. Any lakes and streams decide they're going to use, they have to maintain paperwork and annually test water flow. They have to follow county emergency plan in case of disaster. Plan to dispose any equipment, must contact every fire department in area to determine need. Members must participate in National Instant Management System

training. Dept. must agree to allow the county emergency management to come and give an assessment on facilities.

Financial Requirements: If they wanted a new vehicle. If it's 30,000, the department needs to present three other bids. Must maintain certain accounting procedures for the maintenance monies and yearly audit. Must provide workers' comp, insurance on all autos and buildings.

8. Can the city terminate the contract and for what reasons? Either department can terminate with written within 30 days if failure to perform within contract.

9. In your opinion, is being a private fire company is beneficial or not?

   No complaints.

10. Is there anything in a public fire department that you don't have as a private fire department? The public fire department has 24/7 coverage in house. There is always somebody paid to work at the fire house. Private, incorporated fire departments cannot do that because of lack of funds. Private companies are agreeing that they need more money for paid staff. The paid people that the private company has is very part time. 20hrs a week.

11. Does the department receive any revenue other than contract revenue? If so, what are the other sources' shares of total revenue and how are they obtained?

    Have the opportunity to participate in Federal Grants, State Grants, Private Industries Grants. Have gotten one state grant, no federal grants. One company offered to donate thermal imaging cameras.

12. What are the major benefits and drawbacks of the XXX source of revenue?

13. What services does the Fire Department provide aside from fighting fires?

14. What is the department's budget? On what basis is money appropriated?

15. What have been the department's budgets for the past three years?

16. What is the overall number of firefighters working for the department?

    32 volunteers, including 3 juniors (16-17 year old)

17. How many of the firefighters are career (i.e. full-time, paid), on-call (part-time paid), and volunteer firefighters. 4 part time paid. One full-time (30 hr week).

18. What is the population density of the area served? 7,000

19. Is the area thickly developed, suburban, or rural? Partly developed, partly rural.

20. How many calls are made? What is the average response time? Response times are on average, 3.5 minutes.

Trail City Volunteer Fire Department (South Dakota)

Fire Department: Trail City Volunteer Fire Department.
Location: Trail City, South Dakota
Respondent: William Bickle

1. Is your department a private fire department? Yes

2. How many years has your department operated in this setting?

   Re-organized the private fire department in 1991. The town of Trail City has been in existence for a long time. Trail City has 20 people. The fire department is contracted with the Bureau of Indian Affairs. Two separate counties, two separate Indian Reservation. 200,000 acres of Standing Rock reservation, 300,000 of another reservation. Primary response area of three other communities. 3 million acres contracted.
3. How did the department become contracted? Was it contracted from the beginning of its operation? Since Inception.

   It's a different organization. BIA realizes they can't protect themselves, so decide to pay fire department.
4. What are the terms of the contract? Is it a contract for a number of years? Does it renew every odd number of years?

   Payment was on a daily rate, depending what they were running on a given day. Now it has changed to an hourly rate. Some of the trucks are probably 100/hr. Have to have all of the protective equipment, light bars, and everything that's required. 300 gallons and maneuverable. The tanker truck is 80/90 dollars an hour, but they carry more water. Set in one location and refill a truck. Equipment was discarded from other fire departments. Someone might donate spare parts.
   The terms of the contract are renewed when they want be renewed, but a contract is signed yearly. When the BIA gets short of money, they start to cut out the fire service.
5. What determines the amount of money that the department receives from the contract? Is the money received fixed for a number of years or is it evaluated periodically?

6. If it is evaluated, what is the process? Is there a budget the department applies for?

7. Does the city impose any requirements on the department's operation (performance and financial requirements for example)?

   The stipulations the fire department is under is that their trucks' have all the necessary equipment and maintained. Every fighter is armed with PPE Head-to-toe. The truck has to have personal fire shelters, extinguishers. When out on a call, they must maintain having these things on the team otherwise can be written up for non-compliance. The firefighters

vary in age and ability. Some are twenty years old, some are aged. The trucks must be able to pump a certain water flow. Have to carry about 800 ft of hose per truck.

8. Can the city terminate the contract and for what reasons? The fire department is obligated to the year. But up until contract runs out, they are obligated to serve. The BIA hasn't paid for 2006 or 2007. BIA has their own trucks, and pay their own people.

9. In your opinion, is being a private fire company is beneficial or not? The BIA restricts payment to fires that burn reservation land on a per-fire basis. Go to all fires but only paid for those that are burning trust land, or Indian lands. There are a lot of people that are non-Native American that live here. Privately owned land by NNAs does not have to pay. In his area, 10% of the land is compensable land, so 90% is non-compensated.

10. Is there anything in a public fire department that you don't have as a private fire department? Most fire departments have a population base like a city. City taxes help keep the fire department going. This area has a lack of population. They cover more property than any other fire department that he knows of but has the smallest amount of resources to cover it.

11. Does the department receive any revenue other than contract revenue? If so, what are the other sources' shares of total revenue and how are they obtained? Donations from people locally. Very little comes from counties, paid 2200 on an annual basis. Paid little or nothing based on lack of population. Large area protected with populated. Majority of calls are wildfires. In 2006 was a bad year, 2007 hardly any calls at all. If people kept track, probably had 100 fires in 2006. 3 or 4 different fires each day for 3 months. Possibly 1 structure fire a year.

12. What are the major benefits and drawbacks of the XXX source of revenue?

13. What services does the Fire Department provide aside from fighting fires?

14. What is the department's budget? On what basis is money appropriated?

15. What have been the department's budgets for the past three years?

16. What is the overall number of firefighters working for the department?

    38 on the roster, all volunteer.

17. How many of the firefighters are career (i.e. full-time, paid), on-call (part-time paid), and volunteer firefighters. All volunteer. Farmers and ranchers until alarm goes off and then we're firefighters.

18. What is the population density of the area served? Total population of primary response area is 300 people.

19. Is the area thickly developed, suburban, or rural? The area is mostly real rugged ranch ground. Live along Missouri River. Rolling hills, grass country.

20. How many calls are made? What is the average response time? Fifteen fire trucks, leave them stationed out on ranches, the other are housed in a fire hall in Trail City. General Response time is 10-15 minutes. The covered area is 50-60 miles from fire department. These fire trucks operate like a microstation. A truck can be kept at 30 miles away from department. The watering system comprises of wells and tanks. Most every ranch has some ability to haul water. Every resident is part of the watering system. 10% of people in community are part of the fire department.

21. Do you use mutual aid? How much do you rely on it? Is it automated, or how is it set up?

    Do use mutual aid with bordering towns and the two BIAs they are working with. Depending on how big the fire, every town fire department in a 50 mile radius may be called.

Tuscarora Township Fire Department (Michigan)

Fire Department: Tuscarora Township Fire Department

Location: Indian River, MI

Respondent: Bob Jordan

Date: January 30, 2008

1. Is your department a private fire department?

   Yes a Non-profit corp.
2. How many years has your department operated in this setting?

   72 years
3. How did the department become contracted? Was it contracted from the beginning of its operation?

   Founded 1947 as a public fire department
4. What are the terms of the contract? Is it a contract for a number of years? Does it renew every odd number of years?

   Fire protection base budget send townships bills renewed annually.
5. What determines the amount of money that the department receives from the contract? Is the money received fixed for a number of years or is it evaluated periodically?

   .5 mill state equalized value since inception

6. If it is evaluated, what is the process? Is there a budget the department applies for?

7. Does the city impose any requirements on the department's operation (performance and financial requirements for example)?

   No

8. Can the city terminate the contract and for what reasons?

   Yes at the end of the year.
9. In your opinion, is being a private fire company is beneficial or not?

   Beneficial because of governing board each member has a vote to how money is spent all are firefighters are governing board members and understand firefighting and can make a more informed decision than a normal town's person
10. Is there anything in a public fire department that you don't have as a private fire department?

Fire board sell fire protection put money back into equipment like its 14 vehicles.

11. Does the department receive any revenue other than contract revenue? If so, what are the other sources' shares of total revenue and how are they obtained?

No.

12. What are the major benefits and drawbacks of the XXX source of revenue?

13. What services does the Fire Department provide aside from fighting fires?

Rescue with jaws of life, all terrain vehicles, and snowmobile.

14. What is the department's budget? On what basis is money appropriated?

Would not disclose this information.

15. What have been the department's budgets for the past three years?

Would not disclose this information.

16. What is the overall number of firefighters working for the department?

35 Volunteers

17. How many of the firefighters are career (i.e. full-time, paid), on-call (part-time paid), and volunteer firefighters.

All Volunteers.

18. What is the population density of the area served?

Rural resort town so no high rises.

19. Is the area thickly developed, suburban, or rural?

Suburban

20. How many calls are made? What is the average response time?

130-135 annually

21. Do you use mutual aid? How much do you rely on it? Is it automated, or how is it set up?

Yes. No by request only.

Franklinville Fire Department (North Carolina)

Fire Department: Franklinville Fire Department

Location: Franklinville, NC

Respondent: Kyle Dixon, Fire Department Chief

Date: January 30, 2008

1. Is your department a private fire department?

   Yes a Private Non-Profit.
2. How many years has your department operated in this setting?

   Since 1964.
3. How did the department become contracted? Was it contracted from the beginning of its operation?

   Founded non-profit.
4. What are the terms of the contract? Is it a contract for a number of years? Does it renew every odd number of years?

   It takes 120 days notice to cancel and is renewed annually.
5. What determines the amount of money that the department receives from the contract? Is the money received fixed for a number of years or is it evaluated periodically? Amount town pays taxed based .7% on 100 dollars property value.This is reevaluated annually

6. If it is evaluated, what is the process? Is there a budget the department applies for?

   Based on property values and would fluctuate when the market fluctuates. If the percentage of the property value is to be changed the Commissioner's office holds a vote based on the Fire Chief's Report.
7. Does the city impose any requirements on the department's operation (performance and financial requirements for example)?

   Financial reports annually and monthly. Also continuously reporting the amount of training.
8. Can the city terminate the contract and for what reasons?

   120 days notice county can terminate the contract by written notification. They can terminate it for any reason.
9. In your opinion, is being a private fire company is beneficial or not?

   It is extremely beneficial because having the fire department reduces homeowner's insurance rates when they have a capable fire department
10. Is there anything in a public fire department that you don't have as a private fire department?

Set your own rules and standards no town interference.

11. Does the department receive any revenue other than contract revenue? If so, what are the other sources' shares of total revenue and how are they obtained?

    Grants(written in house)

12. What are the major benefits and drawbacks of the XXX source of revenue?

    No drawbacks FEMA grants

13. What services does the Fire Department provide aside from fighting fires?

    All emergencies. Rescue training forest. EMS HAZMAT

14. What is the department's budget? On what basis is money appropriated?

    $450,000

15. What have been the department's budgets for the past three years?

    The budget is the second from the lowest out of the 3 departments in the town. Then they got the percentage raised from 6.5% to 7.5%. Last year.

16. What is the overall number of firefighters working for the department?

    40 total 3 full time employees.

17. How many of the firefighters are career (i.e. full-time, paid), on-call (part-time paid), and volunteer firefighters.

18. What is the population density of the area served?

    11800 63 sq miles

19. Is the area thickly developed, suburban, or rural?

    Rural, little sub

20. How many calls are made? What is the average response time?

    1000 calls annually. 5min. even

21. Do you use mutual aid? How much do you rely on it? Is it automated, or how is it set up?

Wildwood Volunteer Fire Department (Texas)

Fire Department: Wildwood Volunteer Fire Department

Location: Village Mills, Texas

Respondent: Fire Chief Randy Odom.

Date: February 5, 2008

1. Is your department a private fire department?

   Resort Retirement community that shares a post office with a small town called Village Mills. Fire department serves Wildwood resort community and the town of Village Mills.
2. How many years has your department operated in this setting? 4 years.

3. How did the department become contracted? Was it contracted from the beginning of its operation? Village Mills Emergency Service District number 8. Part of two counties. 25 sq. miles. Was not founded as a contract fire department. Founded in 1968. EFD has been in existence for 4 years to gain finances. Started off as a non-profit organization and all the money received was less than 3,000 dollars a year from the two counties served. Other than that, all fundraisers and donations. The emergency service district has a county appointed board. They have some rules they go by in the Texas Health and Safety code. They are a taxable entity that have to commit monies to an account with plans for using it. Internet research of Texas Health and Safety Code and Emergency Service Districts. They have a tax rate of .03 per hundred dollar property for the land and home owners protected. There are also fire districts in Texas. Emergency Service Districts can also provide emergency in addition to fire districts. If fire district, need to vote for emergency service district change.

4. What are the terms of the contract? Is it a contract for a number of years? Does it renew every odd number of years? The contract covers the services provided, fire and rescue, but not emergency medical services. The contract has been used for 4 years now and haven't had to renew a contract yet. There are a couple of clauses where either party can get rid of the other, if either is not pleased with the other. This Emergency Service District can contract out to a neighboring fire department.

5. What determines the amount of money that the department receives from the contract? Is the money received fixed for a number of years or is it evaluated periodically? The ESD sets the tax rate that all the properties and homes are charged within service district boundary. The fire department presents a budget. Insurance companies rate a fire department, and that has some say in how insurance companies will charge a homeowner for insurance. The more equipment training, the lower the ISO (Insurance Service Organization) number, and more savings to homeowner, better service. The ISO number is a rating of the fire department. About 40 percent of this derived water-system infrastructure. 50% of that number is on the fire department itself: It's equipment, its training, all about the fire department. The last ten percent is on dispatch and communications within the emergency

services. The 3 cents per hundred dollar property evaluation. The local county appraisal district does the property evaluation. The ISO tests the fire department so often, and the department is rated every time. With lower numbers, the department will tell homeowners to tell their insurance companies the departments' ISO number, and the insurance companies will lower cost of property insurance, reducing prices. This reduced cost can make the homeowner save money.

6. If it is evaluated, what is the process? Is there a budget the department applies for? The fire department is not evaluated by the town. The meetings are open to the public, but the town has no authority on issue.

7. Does the city impose any requirements on the department's operation (performance and financial requirements for example)? There aren't any hard terms for performance, the fire departments promises to provide the best service they can.

8. Can the city terminate the contract and for what reasons? Not city, ESD. The ESD can terminate the contract, and the fire department can do the same.

9. In your opinion, is being a private fire company is beneficial to the department or the community not? Doesn't see it being that much different from a public fire department. The fire chief reports to town manager. The fire chief in a their private department does not report to anybody.

10. Is there anything in a public fire department that you don't have as a private fire department? The first thing in public fire departments is more career employees. The private fire department operates with more liberties than a public fire department. In the public fire department, there will be mostly appointed personnel. The private fire department has elected personnel, voted by the members of the fire department.

11. Does the department receive any revenue other than contract revenue? If so, what are the other sources' shares of total revenue and how are they obtained?

    Donations. Successful fundraising: Barbecues, fish fries, things like that. Sometimes there will be an October evening, there will be a fish fry when people get out of work. There isn't an intersection that will do a fireman's boot type of donation. Have sent out letters to property owners to ask for donation if there is a specific project in mind.
12. What are the major benefits and drawbacks of the XXX source of revenue?

13. What services does the Fire Department provide aside from fighting fires?

    Fire prevention with children of community, offer assistance to replace batteries in smoke detectors. One school in community, did a fire prevention week with them.
14. What is the department's budget? On what basis is money appropriated?

    Around 20,000/year from the ESD
15. What have been the department's budgets for the past three years?

16. What is the overall number of firefighters working for the department?

    14 all volunteer.
17. How many of the firefighters are career (i.e. full-time, paid), on-call (part-time paid), and volunteer firefighters.

    Everybody is volunteer.
18. What is the population density of the area served? 1100 people on a 25 sq. mile.

19. Is the area thickly developed, suburban, or rural? Mostly rural. In the resort community people are close together, in Village Mills, population is spread out.

20. How many calls are made? What is the average response time?

    Approximately 60 calls per year. 98-97, lots of wildfires.
21. Do you use mutual aid? How much do you rely on it? Is it automated, or how is it set up? Yes, with surrounding fire departments.

Colchester Center Volunteer Fire Company (Vermont)

Fire Department: Colchester Center Volunteer Fire Company

Location: Colchester, VT

1. What are the department's sources of funding by amount and by share of total funding?

Revenue from Town	308,602	69%
Contributions	520	0.1%
Interest Income	1,467	0.3%
Miscellaneous Income	1,900	0.4%
Reimbursements	24,844	5.6%
Lock Reimbursement	2,115	0.5%
Grants	104,598	24%

2. What is the department's budget? On what basis is money appropriated?
   $308,602 is the budget we present to the Town of Colchester.
3. What have been the department's budgets for the past three years? 03-04 $297,900 04-05 $327,500 05-06 $332,500
4. What is the overall number of firefighters working for the department? 30
5. How many of the firefighters are career (i.e. full-time, paid), on-call (part-time paid), and volunteer firefighters. All Volunteer
6. What is the population density of the area served? 17,000 for 36 square miles
7. Is the area thickly developed, suburban, or rual? We are considered rual, with a few areas of suburban.
8. How many calls are made? What is the average response time? 650 calls, average response time is 6 minutes
9. Do you use mutual aid? How much do you rely on it? Is it automated, or how is it set up? We use mutual Aid for areas on the north and east part of the town. West and south parts of town we use Automatic Aid.

Appendix C:

Case Studies

Contents:

Case Study: Rural Metro Pima County Fire Department

Rural Metro operates fire departments in four hundred communities across the United States. One of these four hundred communities served by Rural Metro is Pima County, Arizona. The Pima County Fire Department is a private fire department located in south central Arizona and is comprised of six fire stations serving an area of 9,000 square miles and a population of 250,000 people. The territory covered by the Pima County Fire Department is comprised of urbanized, suburban, and rural areas, including wild lands. Aside from fighting fires, Rural Metro offers EMS, first Respondent, hazardous materials, and technical rescue services.

In 2006, Rural Metro Pima County attended to 22,000 calls. Rural Metro Pima County employs 194 full-time career firefighters. All of these characteristics of Rural Metro's operation—the size of their operation, the size of the population and land area protected, and the varying degree of urbanization–make Rural Metro Pima County Fire Department an important case for comparison with the Bomberos.

Revenue structure

Rural Metro has not provided us with budget statements. However, they have told us that over half of their revenue comes from subscriptions. The remaining portion of the revenue is collected in the form of usage fees.

The fire department has established separate subscription fee schedules for each community served. There are two ways that subscription fees are calculated. In Sahuarita and Oro Valley, subscribers are charged a certain rate per $100 of assessed property value. In the remainder of the communities, charges are based on the square footage of the property. It is also important to note that residential and commercial subscribers are charged at different

rates. However, Rural/Metro is in the process of bringing all the rates to an equal level. Commercial rates increase has been slower than that of residential rates because Rural/Metro has calculated that commercial subscribers are more likely to drop service with drastic increase in subscription rates. *(See Appendix E: Rural Metro Pima County Membership Rates)*

Case Study: The Woodlands Fire Department in Woodlands, Texas

The Community Associations of the Woodlands, Texas, is a planned community located north of Houston, TX. It is set on 27,000 acres of land. The Woodlands began in October 1974. Currently the Woodlands has an estimated population of about 86,000. In 1992, the Woodlands Community Association was created to offer municipal services to the community. These services include fire and police protection, garbage collection and recycling, and park maintenance. The fire department is responsible for the entire community. Because the community is private, and the fire department operates solely for the community, the fire department is considered private. Aside from fighting fires, the fire department responds to medical and hazardous materials emergencies.

The Woodlands community charges an annual assessment fee to the property owners or the mortgage company within the community. The assessment fee is a mandatory fee that pays for all essential services that the community provides. When a property is purchased, the new property owner is automatically registered as a member of one of the four different associations. Of the four associations, three are residential community associations and the fourth is commercial.

Of the total amount of assessment fees collected by the community, each service gets a percentage. The fire department gets the largest percentage of the money, approximately 26.3%. The fire department is a career department that has five fully staffed engine companies and a fully staffed ladder company. Since the fire department is career based, most of the expenses for them are to pay for personnel, approximately 78 percent *(See Woodlands Fire Department Budget in Appendix D)*.

Calculating Assessment Fee and System of Collection

When determining what to charge the property owners of the community, each property is assessed annually. For every property that is not under construction, the property owner is charged an assessment fee by using the fair market value of the property determined by the Montgomery County Central Appraisal District and by factoring in the taxable improvements made to the property. For properties that are under construction, the association is responsible for estimating the fair market value for the current year. The property value is then multiplied by a rate that is set by the community association's board. Commercial properties are charged the same rate as residential properties. The current assessment fee is at a rate of forty two cents per every one hundred dollars of assessed property value.

The housing association has a straightforward procedure for collecting dues. When a property owner does not pay their fee on time, the housing association sends a letter of delinquency with a fine attached to the original fee (assuming prime rate). After this, if the bill is still outstanding, then a lien would be placed on the property. A lien is a legal way of enforcing debt collection or obligation fulfillment of the property owner. The assessment fee is considered an obligation of living within the Woodlands. With the filing of the lien on the house comes another fine in addition to the other fees accrued. Then a certified letter is sent by law to the homeowner. If all this fails to persuade the property owner to pay the assessment fee, the homeowner will be pursued via legal actions.

To determine Costa Rica's readiness to establish a subscription fee for fire service through property value, we need to find the following information: Does Costa Rica conduct property assessments? What is the entity that makes those assessments? What are the costs

associated with it? How frequently are assessments updated? Are the assessments used for calculating property tax?

The Woodlands is much like a condominium association. If a person owns a house in a condominium complex then they are part of the condominium association. Similarly if a person owns a home within the Woodlands community, they are part of the Community Associations of the Woodlands, Texas. The role of a condominium association is to create a budget, figure out what services are required to maintain the complex, set fees, collect fees, and pay the bills for the services provided. The Community Associations of the Woodlands is the same way except on a much larger scale. Instead of paying for things such as grounds maintenance as a condominium association would, they provide the same services that a town would take care of such as general road and park maintenance, police protection, and fire protection.

This assessment fee is mandatory for every property owner as it is part of the owner's decision to join the community and the property owner assumes this responsibility when they buy the property.

Case Study: Elfin Forest / Harmony Grove Fire Department

The Elfin Forest / Harmony Grove Fire Department is the only private fire department in the county of San Diego. It protects around twelve hundred people spread across eleven square miles. Of the nearly twelve hundred people, there are 260 homes, most of which are rural estates.

The Elfin Forest / Harmony Grove Fire Department Inc. is located outside San Diego, California, and was established in 1972 by the Elfin Forest Vacation Ranch. It was created to protect the Elfin Forest Vacation Ranch community as well as a limited few others (Elfin Forest / Harmony Grove Fire Department, 2007). Originally, it was funded by a "self-imposed benefit fee" as well as by private investors. When first created, the Fire Company was very primitive; the only fire truck they had was a flat bed pickup-truck with a manual pump on the back of it. As the fire company grew, community donations and tax dollars helped with renovations and expansions to the fire department (EFHGFD, 2007). In 1988, the fire company signed a contract with the county of San Diego which stipulated the Elfin Forest / Harmony Grove Fire Department would provide fire protection services to all communities outside the CSA 107 (EFHGFD, 2007).

The company is comprised of twenty-eight volunteers. The fire department had an annual budget of $125,000 in the 2000-2001 fiscal year: $95,000 of that was provided by the benefit fee, while the remaining $30,000 was obtained through community wide fundraisers as well as through grants.

Case Study: Essex Rescue Corporation, Vermont

Essex Rescue is a non-profit, private emergency medical service that operates in five communities in Vermont, serving approximately 40,000 people. They are self-funded. Their revenue structure has two main facets: an EMS billing structure and a subscription service.

Essex rescue provides EMS care for residents and non-residents, and then bills the patients insurance companies. Some insurance policies cover the entire expense and some do not. If the insurance company does not cover all of the service, the remainder of the bill is sent to the patient. The patient can then pay in full, or through a schedule of smaller payments. Most health insurance companies don't pay the entire bill, so Essex Rescue has set up a subscription system for the five communities which it serves.

The subscription system is comprised of an annual payment. Upon making this payment, in the event of an emergency, Essex Rescue will waive the amount the insurance companies do not cover. If the patient does not have health insurance, the entire service fee is waived. Executive director Craig Butkus says that this subscription plan is great from a business standpoint because it is guaranteed income regardless of whether or not service is provided. Mr. Butkus says much money comes into the organization without providing much service.

The community residents approve of the subscription fee because they know they are not giving taxes towards emergency medical service and community members like giving the modest subscription fee for the good cause. Furthermore, there are different levels of subscription to the emergency rescue service. Residents can pay up to two hundred dollars. Another benefit to the resident is the amount over the base rate can be accounted as a tax write off.

In terms of mutual aid, Essex Rescue does cooperate with surrounding communities not under their jurisdiction, and both Essex Rescue and the cooperating fire departments honor each other's relationships with their own towns. This means if a fire department responds to a call in Essex Rescue's jurisdiction, the fire department will charge the insurance company, and if the insurance company doesn't pay for the entire emergency medical service, then the fire company will waive the rest of the bill. Likewise, if Essex Rescue responds to a call in another community, they will bill in the manner that the native fire department would.

Essex Rescue employs a few other funding sources. For projects, the operation applies for and receives government grants. Currently, Essex Rescue is constructing another building with grant money. Because Essex Rescue is a non-profit organization and does not have a growing savings account,, the organization completes projects with help from the community. The building under construction is being put up by students from local trade schools. The excavation and cement work was done by a local company for the good cause of emergency medical service. Since this building is being constructed by volunteers, those involved are trying to complete the project as efficient as possible.

Essex Rescue also receives donations from the community. The town governments of the communities serve donate small amounts of money. Also, when residents in the community pass away, they donate to Essex Rescue because they believe in the good cause the volunteer organization stands for. People with trust funds contribute greatly when they pass away.

Essex Rescue has one fund raising event that proved to be a great success. The event is a dinner that goes for 150 US dollars a plate. The price includes a nice dinner and party with dancing, and a ticket to a raffle. During dinner, numbers are drawn to win expensive prizes

donated by businesses within the community. Just one of these events has yielded thirty thousand US dollars in one evening.

Essex Rescue devises its financials on a need basis. The organization has an operating budget, which takes into account everything needed to run their service, and a capital accrual account, which is an annual fund that serves to replace major equipment, such as ambulances. By combining their operating budget, which only includes the labor cost of four full-time employees, and the capital accrual account, Essex Rescue determines their necessary revenue for the year. From this projected required revenue, the company determines its billing rates. Billing rates tend to stay the same for years at a time but are subject to change from year to year. The billing rates are all inclusive in terms of operating cost. The billing rates are determined by all materials used on a yearly basis, including paid labor. Also, with subscription participation growing steadily, the subscription fee is calculated into the projected revenue. In terms of savings, Essex Rescue only saves on a yearly basis. There is not a company fund with hundreds of thousands of dollars in savings. The company acquires as much as it needs on a yearly basis.

A main point to remember about Essex Rescue is that they are almost completely volunteer. There are 64 volunteer members of the organization and only four paid individuals. Executive director Craig Butkus says volunteerism is part of the communities' culture. Some use the volunteer time as a step in career development. Young EMTs may volunteer fo as a step to get into medical school. Some volunteers donate their time in hopes of acquiring a paid position with the organization. Others donate their time because they obtain satisfaction of taking care of their community. Considering all the volunteers, the ages vary from eighteen to sixty-four.

Appendix D:

Budgets of U.S. Fire Departments

Contents:

The Woodlands Fire Department, Inc.

Operating Budget for Year Ending December 31, 2006 (In Whole Dollars)

	Actual 2004	*Budget 2005*	*Forecast 2005*	*Budget 2006*	*Budget to Forecast*
CONTRACTED REVENUES					
Contract Service Revenues					
Assignment From WCA	$4,215,769	$4,581,786	$4,064,348	$4,900,149	20.6%
Assignment From TWA	3,463,306	4,332,940	3774819.121	5,089,841	34.8%
Assignment From WCOA	718,643	937,936	829599.4457	1,072,074	29.2%
Total Contract Service Revenues	$8,397,718	$9,852,662	$8,668,767	$11,062,064	27.6%
Town Center Improvement District Operations	467,024	399,000	399,000	405,600	1.7%
Town Center Improvement District Capital	-	100,000	100,000	51,000	(49.0%)
Hospital District	6,000	6,000	20,000	22,500	12.5%
Texas Commission Reimbursement	-	110,000	110,000	90,000	(18.2%)
Fire Act Grant - Data Terminals	-	-	-	67,500	100.0%
Fire Act Grant - Station Refurbishment	-	-	-	34,100	100.0%
Montgomery County Dispatch Agreement	-	-	-	137,500	100.0%
Economic Development Zone - Equipment	-	-	-	309,500	100.0%
Economic Development Zone -Station and Engine	-	-	-	6,727,000	100.0%
Other Revenue	106,441	130,000	135,000	130,000	(3.7%)
Total Contracted Revenues	**$8,977,183**	**$10,597,662**	**$9,432,767**	**$19,036,764**	**101.8%**
CONTRACTED EXPENSES					
Fire and EMS Management	$2,142,625	$2,450,200	$2,341,536	$2,646,406	13.0%
Fire Protection	5,659,328	6,490,860	5,909,685	7,002,425	18.5%
Dispatch	476,800	525,225	525,625	613,180	16.7%
Total Contracted Expenses	**$8,278,753**	**$9,466,285**	**$8,776,846**	**$10,262,011**	**16.9%**
NET SURPLUS BEFORE INTEREST	$698,430	$1,131,378	$655,920	$8,774,753	1,237.8%
INTEREST EXPENSE	54,299	207,125	131,925	328,475	149.0%
NET SURPLUS FROM OPERATIONS	$644,131	$924,253	$523,995	$8,446,277	1,511.9%
DEPRECIATION	687,017	759,888	759,888	810,156	6.6%

NET REVENUES OVER EXPENSES	$(42,886)	$164,365	$(235,893)	$7,636,121	(3,337.1%)
MEMO: REVENUE ALLOCATIONS					
Allocable Revenues, Subtotal	$8,397,718	$9,852,663	$8,668,767	$10,856,889	
Capital allocated at average rate	-	-	-	205,175	
TOTAL ALLOCABLE REVENUES	$8,397,718	$9,852,663	$8,668,767	$11,062,064	
% ALLOCABLE TO WCA	49.2%	46.5%	46.9%	44.5%	
% ALLOCABLE TO TWA	41.6%	44.0%	43.5%	45.9%	
% ALLOCABLE TO WCOA	9.2%	9.5%	9.6%	9.7%	
TOTAL % ALLOCABLE	100.0%	100.0%	100.0%	100.0%	

WORCESTER FIRE DEPARTMENT

Gerard A. Dio, Fire Chief
Fire Department Headquarters
141 Grove Street
Worcester, Massachusetts 01605
(508) 799-1816

Departmental Mission Statement: The mission of the Worcester Fire Department is to protect the lives and property of the visitors and citizens of Worcester from the adverse effects of fire, medical emergencies, or any other hazardous condition both man-made and natural.

Support Services Division: Provides personnel, payroll, and budgetary support through the administrative staff; is responsible for WFD apparatus and equipment acquisition, maintenance, and repair; manages the internal and public information systems; provides the communications support for the department; processes grant applications, maintains all WFD buildings; Emergency Management plans, prepares, and allocates resources to deal with any natural or man-made disaster within the City of Worcester.

Fire Prevention Division: Helps to prevent the occurrence of fire, in order to protect lives and to preserves property through education, enforcement, and engineering.

- Education: provides public safety awareness education in the identification and protection of common risks from fire and other potential hazards.
- Enforcement: enforces all requirements of M.G.L. Ch. 148, CMR 527, and all adopted city fire codes and ordinances, and administers all permits and licenses along with the necessary inspections to issue the same.
- Engineering: reviews and approves all fire protection documents in addition to witnessing a satisfactory functional test of all fire protection systems prior to the issuance of a Certificate of Occupancy.

Operations Division: The Operations Division has as its primary responsibility the protection of all of the City's citizens and visitors and their property, during emergencies, by extinguishing all fires, responding to emergency medical calls and the mitigation of all hazardous conditions. The Special Operations sector within this division has specialized training in order to stabilize and mitigate critical incidents outside of ordinary emergencies such as ice and water rescue, technical rescue and hazardous materials incidents. The Training sector within the Operations Division provides the highest quality professional development training sessions to all personnel allowing for the safe and efficient discharge of duties by members of the Worcester Fire Department.

Health & Safety Division: Monitors all aspects of the operation of the Fire Department that impact the health and safety of its members; identifies the predictable risks encountered and develops/implements plans to manage those risks; and ensures the education of firefighters in the areas of fitness and wellness in order to increase the effectiveness of the force by adding to a better quality of life.

Departmental Overview:

The Worcester Fire Department provides fire protection and life safety services to an area encompassing 39 square miles, and a population of 172,648. The diversity in scope of protection in this area ranges from densely populated multi-family dwellings; to office high rise buildings and a mixture of manufacturing and industrial complexes. Also, a major state highway passes directly through the city, producing potential hazards of undetermined proportions, due to the nature of the materials traveling along the highway.

BUDGET SUMMARY INFORMATION

	Actual Fiscal 2005	Approved Budget for Fiscal 2006	Account Number	Recommended Appropriation Fiscal 2007
EXPENDITURES				
Salaries	$27,183,944.61	$26,846,073.38	91100	$ 29,372,207.90
Overtime	681,856.43	730,000.00	91200	1,054,000.00
Total Personal Services	$27,865,801.04	$27,576,073.38	91000	$ 30,426,207.90
Total Ordinary Maintenance	$1,181,792.16	$1,067,000.00	92000	$ 1,213,292.00
Equipment (Contractual)	$34,599.11	$25,000.00	93000	$ 25,000.00
Total Expenditures	$29,082,192.31	$28,668,073.38		$ 31,664,499.90
FUNDING SOURCES				
Vacancy Factor	$0.00	$380,000.00		380,000.00
Reserve Funds	0	4,000.00		4,000.00
General Fund Revenue	29,082,192.11	28,284,073.38		31,280,499.90
Total Funding Source	$29,082,192.11	$28,668,073.38		31,664,499.90
Total Authorized Positions	490	490		491
Unfunded Positions	-44	-62		-70
Subtotal	446	428		421
Positions Without Funding	0	0		0
Early Retirement	0	0		0
Terminated Positions	0	0		0
New Positions Requested	0	1		0
Total Positions	446	429		421

* Employee salaries for fiscal 2005 and 2006 are based on a 52.2 week pay period; employee salaries for fiscal 2007 are based on 52 week pay period.

FISCAL 2007 BUDGET OVERVIEW

Expenditures:

The gross recommended budget for the Fire Department for Fiscal 2006 is $31,664,499.90, an increase of $2,996,426.52 from the Fiscal 2006 approved budget of 28,668,073.38. The recommended total Personal Services budget increases by $2,850,134.52 and the ordinary maintenance account increases by $146,292.

The personal services increase includes all applicable aspects of the Joint Labor Management Commission (JLMC) arbitration decision and award issued May 1, 2006, the funding plan for which was approved by the Worcester City Council May XX, 2006. The JLMC decision and award includes the same salary package as the city's model contract through Fiscal 2007. In addition to the model contract, the budget recognizes the cost associated with a 0.43% increase the longevity benefit for firefighters with 5 or more years of service in the department (approximately $250 per firefighter), the $250 confined spaces training stipend and an additional $500 per firefighter increase to base salary awarded in exchange for an expansion of the period during which vacations may be taken. For fire department employees who are not members of Local #1009, the budget includes all elements of the city's model contract. In addition to this wage settlement, overall budgeted salary levels have increased due to regular step increases (as applicable), and other minor adjustments associated with personnel turnover.

The recommended total Ordinary Maintenance (OM) budget of $1,213,292.00 reflects an increase of $146,292.00 from the approved Fiscal 2006 budget of $1,067,000. This increase is primarily due to higher utility expenses and vehicular fuels. Diesel and Unleaded fuel budgets increased $53,000 in recognition of escalating gasoline costs. The Department's natural gas budget has been increased by $75,000 to reflect the significant increase in natural gas costs associated with heating the department's fire stations. Other ordinary maintenance accounts, including office supplies, maintenance and repair, telephone, other personal services, and automotive supplies increased a total of $34,012 over the fiscal 2006 amounts.

The department's overtime allotment is recommended to increase to $1,054,000 in Fiscal 2007, and increase of $324,000 over the fiscal 2006 budget. This increase reflects a realistic projection of overtime use for the department given the current staffing levels. With fewer firefighters, the department is more likely to have to rely on manpower overtime to maintain an adequate daily staffing level. This amount also reflects the overtime increases that will result from the JLMC award and decision described above.

FISCAL 2006 DEPARTMENTAL ACCOMPLISHMENTS

- **Operations Division:** The Operations Division has met all its goals set forth in their FY06 Goals and Objectives. With the objective of having an average response time to all emergency incidents less than six minutes from dispatch, the actual response time achieved was 4 minutes and 8 seconds. In addition, the Fire Department was able to provide 16 firefighters to the scene of a fire within eight minutes of dispatch approximately 91.6% of the time, in line with nationally recognized standards. The Operations Division also met their goal of performing at least 1600 in-service inspections during the course of FY06 with a total of 2201 inspections. These inspections are invaluable in helping to reduce the number of fires occurring in the City. And finally, the Training sector within the Operations Division met its goal of having 90% of available line personnel attend all of the professional development training classes held by the Department. In FY06, the Training Division provided 11 different training modules attended by 90.4% of available personnel, thereby enhancing the proficiency and professionalism in the discharge of duties performed by the members of the Worcester Fire Department.

- **Support Division:** Goal of electrical standardization for aerial companies was met at a substantial savings; a reserve engine was outfitted with new equipment; contracts for 2 new aerial trucks were awarded; job reclassification within the division has allowed for timely in-house repairs and maintenance of WFD buildings and systems; new Fire Prevention car purchased; smooth bore nozzles for hi-rise firefighting added to company inventories; HVAC systems received thorough assessments to improve heating and cooling efficiencies; specifications for the next generation of WFD engines were completed. Groundbreaking for the Leary Building, which will house Emergency Management as well as a physical training center, took place in the spring of 2006. EM achieved "Storm Ready" certification from the National Weather Service; EM successfully led efforts to obtain federal re-imbursement for flood-damaged city-owned properties. Management Information Systems has completed installation of radio equipment for the ADA-compliant McKeon Road backup dispatch; MIS also developed payroll office automation and applied on-line payment capabilities for Fire Prevention permit fees; MIS continues to apply for and receive grant funding through Federal Homeland Security and state firefighting grants

- **Health & Safety**

  - Conversion of all ladder companies and Rescue 1 from 30 minute to 45 minute, Self Contained Breathing apparatus (SCBA) air cylinders. This effort is undertaken as a result of one of the recommendations in the National Institute of Occupational Safety and Health (NIOSH) report following the Cold Storage Warehouse fire.

  - Institution and implementation of voluntary, tuberculosis screening, program in cooperation with the Department of Public Health. This will allow the department to establish baselines in this area for participating members.

  - Performed required annual Flow tests on over 230 Self Contained Breathing Apparatus units, to ensure proper performance under emergency conditions. Defects and malfunctions were identified and all required repairs were made. Follow up flow testing was conducted to verify the repairs.

  - Performed 420 SCBA face piece fit tests with all active personnel. This ensures that members have a complete seal, for maximum pulmonary protection, when working in contaminated atmospheres.

  - Completed the installation of a booster system and fragmentation protection in the Self Contained Breathing Apparatus Mobile Unit (SRU). This will allow the SRU to refill SCBA cylinders at the scene of emergency incidents.

  - Projected to act as the Incident Safety Officer at approximately three-dozen emergency incidents. This allows the incident commander to focus on the tactics and strategies necessary to mitigate the incident, while the ISO concentrates solely on the factors affecting the safety of the firefighters.

  - Investigated and presented written reports on approximately 32 vehicle accidents that WFD apparatus were involved in during the fiscal year.

FISCAL 2006 DEPARTMENTAL ACCOMPLISHMENTS (Continued)

- The Safety Chief received, from the Commonwealth of Massachusetts, official certification as a Fire Department Safety Officer.

- Established, through MIS, separate desktop folders for disseminating Fitness / wellness information and posting miscellaneous Safety Bulletins to the members.

- Completed the specifications for the purchase of two replacement Aerial Apparatus for the department.

- Completed the inspection of all active members' Personal Protective Equipment. This ensures that Fire "turnout" Gear is complete, adequate and in proper condition to afford them the protection that it was originally designed to give.

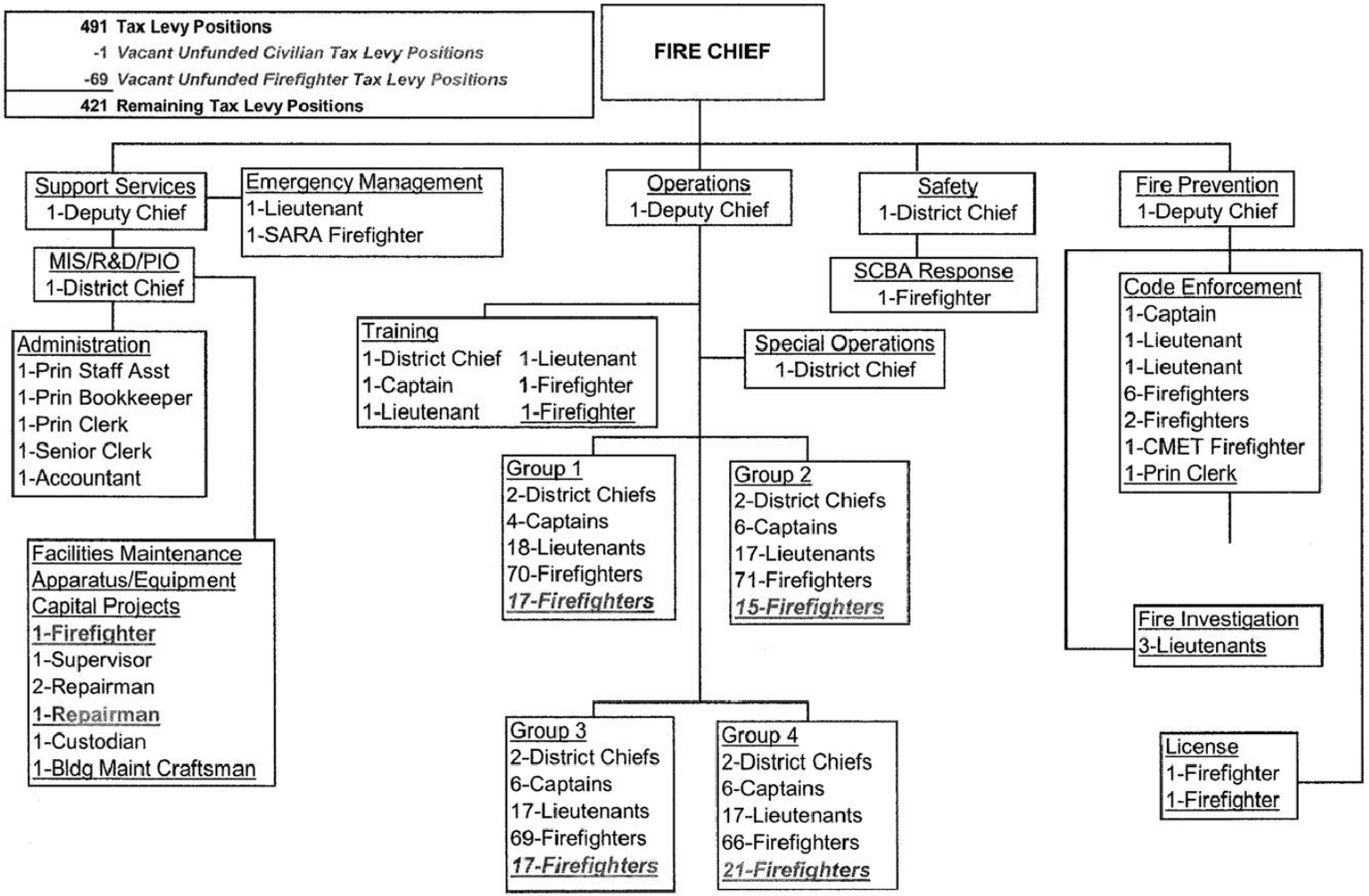
- **Fire Prevention**:

  - Education - The Fire Prevention Division was awarded for calendar year 2005 a grant of $10,498 for the Student Awareness of Fire Education program. This program is earmarked toward educating elementary students to recognize the dangers of fire, specifically the hazards posed by materials related to smoking. Our SAFE Instructors have reached approximately 350 students during FY05 (Jan – June).

  - Fire Prevention Enforcement – To enforce the statutes mandated by fire laws, codes and ordinances, this division issued over 5,000 permits and performed approximately 7,000 inspections.

  - Fire Prevention Engineering – This office reviewed approximately 800 building plans that included viewing the site for a Certificate of Occupancy approval.

WORCESTER FIRE DEPARTMENT
ORGANIZATION CHART



CITY OF WORCESTER - RECOMMENDED APPROPRIATION FOR FISCAL 2007
WORCESTER FIRE DEPARTMENT - DEPARTMENT #260 (TOTAL)

FY06 POSITIONS	APPROVED FY 06 AMOUNT	PAY GRADE	TITLE - PAY GRADE	FY 07 TOTAL POSITIONS	RECOMMENDED FY 07 AMOUNT
1	$ 103,506.34	55EM	FIRE CHIEF	1	$ 107,290.80
3	278,636.50	50EM	DEPUTY FIRE CHIEF	3	288,765.88
1	49,287.60	40M	PRINCIPAL STAFF ASSISTANT	1	56,340.94
12	958,911.91	93	DISTRICT FIRE CHIEF	13	1,131,186.96
25	1,792,813.18	92	CAPTAIN - FIRE DEPARTMENT	24	1,887,215.85
77	4,965,347.49	91	LIEUTENANT - FIRE DEPARTMENT	77	5,423,696.20
300	16,673,784.45	90	FIREFIGHTER	292	17,888,378.27
1	57,784.56	41M	SENIOR REPAIRMAN - FIRE DEPARTMENT	1	60,722.68
1	43,242.48	34	SIGNAL REPAIRMAN - FIRE DEPARTMENT	1	43,940.13
1	43,242.48	34	FOREMAN - FIRE APPARATUS REPAIRMAN	1	40,884.90
1	40,235.76	32	FIRE APPARATUS REPAIRMAN	1	40,884.90
1	33,950.88	32	ACCOUNTANT	1	38,890.52
1	35,245.44	30	BUILDING MAINTENANCE CRAFTSMAN	1	39,585.88
1	35,245.44	28	PRINCIPAL BOOKKEEPER	1	38,761.10
2	67,901.76	27	PRINCIPAL CLERK	2	74,063.31
1	28,689.12	22	SENIOR CLERK TYPIST	1	31,673.58
429	$ 25,207,825.39		REGULAR SALARIES	421	$ 27,192,281.90
VACANT POSITIONS AUTHORIZED / NOT FUNDED:					
61	$ -	90	FIREFIGHTERS	69	$ -
1	-	32	FIRE APPARATUS REPAIRMAN	1	-
62	$ -			70	$ -
491	$ 25,207,825.39		SUBTOTAL - REGULAR SALARIES	491	$ 27,192,281.90
	104,500.00		DEFIBRILLATOR STIPENDS (For Uniformed Personnel)		$ 102,500.00
	-		CONFINED SPACES TRAINING STIPEND		$ 102,500.00
	13,255.00		EDUCATIONAL STIPENDS (Fire Chief and 3 Deputies)		13,281.00
	10,181.00		LONGEVITY (Fire Chief and 3 Deputies)		14,002.00
	2,489.00		HAZARDOUS MATERIAL STIPEND (Fire Chief and 3 Deputies)		2,564.00
	12,978.00		EM INCENTIVE PAY		15,525.00
	115,000.00		OUT OF GRADE PAY		124,230.00
	1,379,845.00		HOLIDAY PAY		$1,500,823.29
	1,638,248.00		CONTRACTUAL OBLIGATIONS		1,875,425.29
			ARBITRATION AWARD FUNDING		
	$ -		LONGEVITY INCREASE		$ 101,500.00
	$ -		VACATION PERIOD EXPANSION		$ 203,000.00
	$ -		TOTAL ARBITRATION FUNDING		$ 304,500.00
491	$ 26,846,073.39		TOTAL REGULAR SALARIES	491	$ 29,372,207.18
	(380,000.00)		VACANCY FACTOR		(380,000.00)
	$ 26,466,073.39		TOTAL RECOMMENDED SALARIES		$ 28,992,207.18
			MANPOWER OVERTIME (ORDINARY TIME)		205,437.00
			MANPOWER OVERTIME (SUMMER 3 MONTHS)		188,214.00
			CONTRACTUAL SQUAD OVERTIME		253,271.00
			TRAINING OVERTIME		130,203.00
			SPECIAL OPERATIONS OVERTIME		79,386.00
	730,000.00		OTHER OVERTIME		197,489.00
	730,000.00		TOTAL RECOMMENDED OVERTIME		1,054,000.00

CITY OF WORCESTER - RECOMMENDED APPROPRIATION FOR FISCAL 2007
WORCESTER FIRE DEPARTMENT - DEPARTMENT #260 (TOTAL)

FY 06 TOTAL POSITIONS	APPROVED FY 06 AMOUNT	PAY GRADE	TITLE	RECOMMENDED FY 07 AMOUNT
	$ 34,400.00		ADMINISTRATION ORDINARY MAINTENANCE	$ 97,533.00
	270,300.00		MAINTENANCE ORDINARY MAINTENANCE	228,691.00
	9,800.00		PREVENTION ORDINARY MAINTENANCE	9,900.00
	11,600.00		TRAINING ORDINARY MAINTENANCE	34,474.00
	10,000.00		SUPPRESSION ORDINARY MAINTENANCE	6,800.00
	7,800.00		SPECIAL OPERATIONS ORDINARY MAINTENANCE	19,266.00
	3,800.00		HEALTH & SAFETY ORDINARY MAINTENANCE	3,990.00
	31,200.00		SCBA RESPONSE UNIT ORDINARY MAINTENANCE	35,998.00
	17,900.00		EMERGENCY MANAGEMENT ORDINARY MAINTENANCE	4,160.00
	418,000.00		CLOTHING ALLOWANCES	410,000.00
	69,000.00		ELECTRICITY	73,000.00
	75,000.00		NATURAL GAS	150,000.00
	39,200.00		HEATING OIL	17,000.00
	30,000.00		AUTO GASOLINE UNLEADED	30,900.00
	39,000.00		DIESEL FUEL	91,580.00
	$ 1,067,000.00		TOTAL ORDINARY MAINTENANCE	$ 1,213,292.00
			FUNDING SOURCES:	
	(4,000.00)		FROM RESERVE FUNDS	(4,000.00)
	(4,000.00)		TOTAL FUNDING SOURCES	(4,000.00)
	$ 1,063,000.00	260-92000	**TOTAL RECOMMENDED ORDINARY MAINTENANCE**	$ 1,209,292.00
	$ 25,000.00	260-93000	**SAFETY EQUIPMENT (CONTRACTUAL)**	$ 25,000.00
	$ 28,284,073.39		**TOTAL RECOMMENDED TAX LEVY**	$ 31,280,499.18

CITY OF WORCESTER - RECOMMENDED APPROPRIATION FOR FISCAL 2007
WORCESTER FIRE DEPARTMENT - DEPARTMENT #2601 ADMINISTRATION

FY 06 TOTAL POSITIONS	APPROVED FY 06 AMOUNT	PAY GRADE	TITLE - PAY GRADE	FY 07 TOTAL POSITIONS	RECOMMENDED FY 07 AMOUNT
1	$ 103,506.34	55EM	FIRE CHIEF	1	$ 107,290.80
1	92,878.83	50EM	DEPUTY FIRE CHIEF	1	96,255.29
1	80,351.46	93	DISTRICT CHIEF	1	87,521.71
1	49,287.60	40M	PRINCIPAL STAFF ASSISTANT	1	56,340.94
1	33,950.88	32	ACCOUNTANT	1	38,890.52
1	35,245.44	28	PRINCIPAL BOOKKEEPER	1	38,761.10
1	33,950.88	27	PRINCIPAL CLERK	1	37,361.65
1	28,689.12	22	SENIOR CLERK TYPIST	1	31,673.58
8	$ 457,860.55		REGULAR SALARIES	8	$ 494,095.59
	750.00		DEFIBRILLATOR STIPENDS		750.00
			STIPEND		750.00
	7,117.72		EDUCATIONAL STIPENDS (Fire Chief and 3 Deputies)		6,793.17
	5,218.36		LONGEVITY (Fire Chief and 3 Deputies)		8,756.92
	1,244.62		HAZARDOUS MATERIAL STIPEND (Fire Chief and 3 Deputies)		1,320.00
	7,483.14		EM INCENTIVE PAY		7,979.00
	1,300.00		OUT OF GRADE PAY		$1,366.53
	14,176.00		HOLIDAY PAY		$35,701.24
	37,289.84		CONTRACTUAL OBLIGATIONS		63,416.85
			ARBITRATION AWARD FUNDING		
	$ -		LONGEVITY INCREASE		$ 101,500.00
	$ -		VACATION PERIOD EXPANSION		$ 203,000.00
	$ -		**TOTAL ARBITRATION FUNDING**		$ 304,500.00
8	$ 495,150.39		TOTAL REGULAR SALARIES	8	$ 862,012.44
	16,700.00		TOTAL RECOMMENDED OVERTIME		$52,973.00
8	$ 511,850.39	260-91000	**TOTAL RECOMMENDED PERSONAL SERVICES**	8	$ 914,985.44
	$34,400.00		ADMINISTRATION ORDINARY MAINTENANCE		$97,533.00
	3,000.00		ADMINISTRATION CLOTHING ALLOWANCE		3,000.00
	$69,000.00		ELECTRICITY		$73,000.00
	$75,000.00		NATURAL GAS		150,000.00
	$9,400.00		HEATING OIL		17,000.00
			FUNDING SOURCES:		
	(4,000.00)		FROM RESERVE FUNDS		(4,000.00)
	(4,000.00)		TOTAL FUNDING SOURCES		(4,000.00)
	$ 186,800.00	260-92000	**TOTAL RECOMMENDED ORDINARY MAINTENANCE**		$336,533.00
	$ 25,000.00	260-93000	**SAFETY EQUIPMENT (CONTRACTUAL)**		$ 25,000.00
	$ 723,650.39		**TOTAL RECOMMENDED TAX LEVY**		$ 1,276,518.44

CITY OF WORCESTER - RECOMMENDED APPROPRIATION FOR FISCAL 2007
WORCESTER FIRE DEPARTMENT - DEPARTMENT #2602 MAINTENANCE

FY 06 TOTAL POSITIONS	APPROVED FY 06 AMOUNT	PAY GRADE	TITLE - PAY GRADE	FY 07 TOTAL POSITIONS	RECOMMENDED FY 07 AMOUNT
1	$ 64,149.62	91	LIEUTENANT - FIRE DEPARTMENT	0	$ -
1	56,059.67	90	FIREFIGHTER	0	
1	57,784.56	41M	SENIOR FIRE APPARATUS REPAIRMAN	1	60,722.68
1	43,242.48	34	SIGNAL MAINTAINER FIRE	1	43,940.13
1	43,242.48	34	WORKING FOREMAN - FIRE APPARATUS REPAIRMAN	1	40,884.90
1	40,235.76	32	FIRE APPARATUS REPAIRMAN	1	40,884.90
1	35,245.44	30	BUILDING MAINTENANCE CRAFTSMAN	1	39,585.88
7	$ 339,960.01		REGULAR SALARIES	5	$ 226,018.50
VACANT POSITIONS AUTHORIZED / NOT FUNDED:					
0			FIREFIGHTER	1	$ -
1	$ -	32	FIRE APPARATUS REPAIRMAN	1	$ -
1				2	
	500.00		DEFIBRILLATOR STIPENDS		-
			STIPEND		
	6,818.00		HOLIDAY PAY		-
	7,318.00		CONTRACTUAL OBLIGATIONS		-
8	$ 347,278.01		TOTAL REGULAR SALARIES	7	$ 226,018.50
	10,300.00		TOTAL RECOMMENDED OVERTIME		10,149.00
8	$ 357,578.01	260-91000	**TOTAL RECOMMENDED PERSONAL SERVICES**	7	$ 236,167.50
	$270,300.00		MAINTENANCE ORDINARY MAINTENANCE		$228,691.00
	2,000.00		MAINTENANCE CLOTHING ALLOWANCE		-
	$30,000.00		AUTO GASOLINE UNLEADED		30,900.00
	$39,000.00		DESIEL FUEL		91,580.00
	$29,800.00		HEATING OIL		-
	$371,100.00	260-92000	**TOTAL RECOMMENDED ORDINARY MAINTENANCE**		$351,171.00
	$ 728,678.01		**TOTAL RECOMMENDED TAX LEVY**		$ 587,338.50

GERARD A. DIO, FIRE CHIEF

CITY OF WORCESTER - RECOMMENDED APPROPRIATION FOR FISCAL 2007

WORCESTER FIRE DEPARTMENT - DEPARTMENT #2603 FIRE PREVENTION

FY 06 TOTAL POSITIONS	APPROVED FY 06 AMOUNT	PAY GRADE	TITLE - PAY GRADE	FY 07 TOTAL POSITIONS	RECOMMENDED FY 07 AMOUNT
1	$ 92,878.83	50EM	DEPUTY FIRE CHIEF	1	$ 96,255.29
1	72,699.98	92	CAPTAIN - FIRE DEPARTMENT	1	79,250.30
5	312,504.70	91	LIEUTENANT - FIRE DEPARTMENT	5	353,970.09
12	676,947.32	90	FIREFIGHTER	12	739,715.11
1	33,950.88	27	PRINCIPAL CLERK	1	36,701.65
20	$ 1,188,981.71		REGULAR SALARIES	20	$ 1,305,892.45
	4,750.00		DEFIBRILLATOR STIPENDS		4,750.00
			STIPEND		4,750.00
	3,068.64		EDUCATIONAL STIPENDS (Fire Chief and 3 Deputies)		3,243.80
	2,230.91		LONGEVITY (Fire Chief and 3 Deputies)		2,358.25
	622.19		HAZARDOUS MATERIAL STIPEND (Fire Chief and 3 Deputies)		622.19
	1,831.62		EM INCENTIVE PAY		3,773.00
	3,600.00		OUT OF GRADE PAY		$3,851.12
	65,283.00		HOLIDAY PAY		$57,376.36
	81,386.36		CONTRACTUAL OBLIGATIONS		80,724.73
20	$ 1,270,368.07		TOTAL REGULAR SALARIES	20	$ 1,386,617.18
	24,400.00		TOTAL RECOMMENDED OVERTIME		$35,958.06
20	$ 1,294,768.07	260-91000	**TOTAL RECOMMENDED PERSONAL SERVICES**	20	$ 1,422,575.24
	$ 9,800.00		PREVENTION ORDINARY MAINTENANCE		$9,900.00
	19,000.00		PREVENTION CLOTHING ALLOWANCE		19,000.00
	$ 28,800.00	260-92000	**TOTAL RECOMMENDED ORDINARY MAINTENANCE**		$ 28,900.00
	$ 1,323,568.07		**TOTAL RECOMMENDED TAX LEVY**		$ 1,451,475.24

GERARD A. DIO, FIRE CHIEF

CITY OF WORCESTER - RECOMMENDED APPROPRIATION FOR FISCAL 2007

WORCESTER FIRE DEPARTMENT - DEPARTMENT #2604 TRAINING

FY 06 TOTAL POSITIONS	APPROVED FY 06 AMOUNT	PAY GRADE	TITLE - PAY GRADE	FY 07 TOTAL POSITIONS	RECOMMENDED FY 07 AMOUNT
1	$ 80,899.56	93	DISTRICT FIRE CHIEF	1	$ 88,114.22
1	71,121.46	92	CAPTAIN - FIRE DEPARTMENT	1	77,543.87
2	128,803.50	91	LIEUTENANT - FIRE DEPARTMENT	2	136,862.19
2	112,207.03	90	FIREFIGHTER	2	125,201.63
6	$ 393,031.55		REGULAR SALARIES	6	$ 427,721.91
	1,500.00		DEFIBRILLATOR STIPENDS		1,500.00
			STIPEND		1,500.00
	2,300.00		OUT OF GRADE PAY		$2,484.59
	22,274.00		HOLIDAY PAY		$15,236.76
	26,074.00		CONTRACTUAL OBLIGATIONS		20,721.35
6	$ 419,105.55		TOTAL REGULAR SALARIES	6	$ 448,443.27
	120,900.00		TOTAL RECOMMENDED OVERTIME		$130,203.00
6	$ 540,005.55	260-91000	**TOTAL RECOMMENDED PERSONAL SERVICES**	6	$ 578,646.27
	$ 11,600.00		TRAINING ORDINARY MAINTENANCE		$34,474.00
	6,000.00		TRAINING CLOTHING ALLOWANCE		6,000.00
	$ 17,600.00	260-92000	**TOTAL RECOMMENDED ORDINARY MAINTENANCE**		$ 40,474.00
	$ 557,605.55		**TOTAL RECOMMENDED TAX LEVY**		$ 619,120.27

CITY OF WORCESTER - RECOMMENDED APPROPRIATION FOR FISCAL 2007
WORCESTER FIRE DEPARTMENT - DEPARTMENT #2605 SUPPRESSION

FY 06 TOTAL POSITIONS	APPROVED FY 06 AMOUNT	PAY GRADE	TITLE - PAY GRADE	FY 07 TOTAL POSITIONS	RECOMMENDED FY 07 AMOUNT
1	$ 92,878.83	50EM	DEPUTY FIRE CHIEF	1	$ 96,255.29
8	638,010.32	93	DISTRICT FIRE CHIEF	9	780,246.90
23	1,648,991.74	92	CAPTAIN - FIRE DEPARTMENT	22	1,730,421.68
68	4,394,205.37	91	LIEUTENANT - FIRE DEPARTMENT	69	4,861,197.73
284	15,772,423.07	90	FIREFIGHTER	277	16,962,104.98
384	$ 22,546,509.33		REGULAR SALARIES	378	$ 24,430,226.58
VACANT POSITIONS AUTHORIZED / NOT FUNDED:					
61	$ -	90	FIREFIGHTERS	68	$ -
	96,000.00		DEFIBRILLATOR STIPENDS		94,500.00
			STIPEND		94,500.00
	3,068.64		EDUCATIONAL STIPENDS (Fire Chief and 3 Deputies)		3,243.80
	2,731.73		LONGEVITY (Fire Chief and 3 Deputies)		2,887.66
	622.19		HAZARDOUS MATERIAL STIPEND (Fire Chief and 3 Deputies)		622.19
	3,663.24		EM INCENTIVE PAY		3,773.00
	107,800.00		OUT OF GRADE PAY		$116,527.48
	1,256,559.00		HOLIDAY PAY		$1,376,878.47
	1,470,444.80		CONTRACTUAL OBLIGATIONS		1,692,932.60
445	$ 24,016,954.13		TOTAL REGULAR SALARIES	446	$ 26,123,159.18
	(380,000.00)		VACANCY FACTOR		(380,000.00)
	467,600.00		TOTAL RECOMMENDED OVERTIME		$730,441.94
445	$ 24,104,554.13	260-91000	**TOTAL RECOMMENDED PERSONAL SERVICES**	446	$ 26,473,601.12
	$ 10,000.00		SUPPRESSION ORDINARY MAINTENANCE		$6,800.00
	384,000.00		SUPPRESSION CLOTHING ALLOWANCE		378,000.00
	$ 394,000.00	260-92000	**TOTAL RECOMMENDED ORDINARY MAINTENANCE**		$ 384,800.00
	$ 24,498,554.13		**TOTAL RECOMMENDED TAX LEVY**		$ 26,858,401.12

GERARD A. DIO, FIRE CHIEF

CITY OF WORCESTER - RECOMMENDED APPROPRIATION FOR FISCAL 2007
WORCESTER FIRE DEPARTMENT - DEPARTMENT #2606 SPECIAL OPERATIONS

FY 06 TOTAL POSITIONS	APPROVED FY 06 AMOUNT	PAY GRADE	TITLE - PAY GRADE	FY 07 TOTAL POSITIONS	RECOMMENDED FY 07 AMOUNT
1	$ 78,751.01	93	DISTRICT FIRE CHIEF	1	$ 87,189.91
1	$ 78,751.01		REGULAR SALARIES	1	$ 87,189.91
	250.00		DEFIBRILLATOR STIPENDS		250.00
			STIPEND		250.00
	4,214.00		HOLIDAY PAY		4,572.74
	4,464.00		CONTRACTUAL OBLIGATIONS		5,072.74
1	$ 83,215.01		TOTAL REGULAR SALARIES	1	$ 92,262.65
	67,100.00		TOTAL RECOMMENDED OVERTIME		$79,386.00
1	$ 150,315.01	260-91000	**TOTAL RECOMMENDED PERSONAL SERVICES**	1	$ 171,648.65
	$ 7,800.00		SPECIAL OPERATIONS ORDINARY MAINTENANCE		$19,266.00
	1,000.00		SPECIAL OPERATIONS CLOTHING ALLOWANCE		1,000.00
	$ 8,800.00	260-92000	**TOTAL RECOMMENDED ORDINARY MAINTENANCE**		$ 20,266.00
	$ 159,115.01		**TOTAL RECOMMENDED TAX LEVY**		$ 191,914.65

GERARD A. DIO, FIRE CHIEF

CITY OF WORCESTER - RECOMMENDED APPROPRIATION FOR FISCAL 2007
WORCESTER FIRE DEPARTMENT - DEPARTMENT #2607 HEALTH & SAFETY

FY 06 TOTAL POSITIONS	APPROVED FY 06 AMOUNT	PAY GRADE	TITLE - PAY GRADE	FY 07 TOTAL POSITIONS	RECOMMENDED FY 07 AMOUNT
1	$ 80,899.56	93	DISTRICT FIRE CHIEF	1	$ 88,114.22
1	$ 80,899.56		REGULAR SALARIES	1	$ 88,114.22
	250.00		DEFIBRILLATOR STIPENDS		250.00
			STIPEND		250.00
	4,214.00		HOLIDAY PAY		4,214.00
	4,464.00		CONTRACTUAL OBLIGATIONS		4,714.00
1	$ 85,363.56		TOTAL REGULAR SALARIES	1	$ 92,828.22
	17,200.00		TOTAL RECOMMENDED OVERTIME		$9,843.00
1	$ 102,563.56	260-91000	**TOTAL RECOMMENDED PERSONAL SERVICES**	1	$ 102,671.22
	$ 3,800.00		HEALTH & SAFETY ORDINARY MAINTENANCE		$3,990.00
	1,000.00		HEALTH & SAFETY CLOTHING ALLOWANCE		1,000.00
	$ 4,800.00	260-92000	**TOTAL RECOMMENDED ORDINARY MAINTENANCE**		$ 4,990.00
	$ 107,363.56		**TOTAL RECOMMENDED TAX LEVY**		$ 107,661.22

GERARD A. DIO, FIRE CHIEF

CITY OF WORCESTER - RECOMMENDED APPROPRIATION FOR FISCAL 2007

WORCESTER FIRE DEPARTMENT - DEPARTMENT #2610 EMERGENCY MANAGEMENT

FY 06 TOTAL POSITIONS	APPROVED FY 06 AMOUNT	PAY GRADE	TITLE - PAY GRADE	FY 07 TOTAL POSITIONS	RECOMMENDED FY 07 AMOUNT
1	65,684.30	91	LIEUTENANT - FIRE DEPARTMENT	1	$ 71,666.19
1	$ 65,684.30		REGULAR SALARIES	1	$ 71,666.19
	250.00		DEFIBRILLATOR STIPENDS		250.00
			STIPEND		250.00
	3,396.00		HOLIDAY PAY		3,685.00
	3,646.00		CONTRACTUAL OBLIGATIONS		4,185.00
1	$ 69,330.30		TOTAL REGULAR SALARIES	1	$ 75,851.19
	3,200.00		TOTAL RECOMMENDED OVERTIME		$5,046.00
1	$ 72,530.30	260-91000	**TOTAL RECOMMENDED PERSONAL SERVICES**	1	$ 80,897.19
	$ 17,900.00		EMERGENCY MANAGEMENT ORDINARY MAINTENANCE		$4,160.00
	1,000.00		EMERGENCY MANAGEMENT CLOTHING ALLOWANCE		1,000.00
	$ 18,900.00	260-92000	**TOTAL RECOMMENDED ORDINARY MAINTENANCE**		$ 5,160.00
	$ 91,430.30		**TOTAL RECOMMENDED TAX LEVY**		$ 86,057.19

GERARD A. DIO, FIRE CHIEF

CITY OF WORCESTER - RECOMMENDED APPROPRIATION FOR FISCAL 2007

WORCESTER FIRE DEPARTMENT - DEPARTMENT #2608 SCBA RESPONSE UNIT

FY 06 TOTAL POSITIONS	APPROVED FY 06 AMOUNT	PAY GRADE	TITLE - PAY GRADE	FY 07 TOTAL POSITIONS	RECOMMENDED FY 07 AMOUNT
1	56,147.36	90	FIREFIGHTER	1	$ 61,356.55
1	$ 56,147.36		REGULAR SALARIES	1	$ 61,356.55
	250.00		DEFIBRILLATOR STIPENDS		250.00
			STIPEND		250.00
	2,911.00		HOLIDAY PAY		3,158.73
	3,161.00		CONTRACTUAL OBLIGATIONS		3,658.73
1	$ 59,308.36		TOTAL REGULAR SALARIES	1	$ 65,015.27
	2,600.00		TOTAL RECOMMENDED OVERTIME		$0.00
1	$ 61,908.36	260-91000	**TOTAL RECOMMENDED PERSONAL SERVICES**	1	$ 65,015.27
	$ 31,200.00		SCBA RESPONSE UNIT ORDINARY MAINTENANCE		$35,998.00
	1,000.00		SCBA RESPONSE UNIT CLOTHING ALLOWANCE		1,000.00
	$ 32,200.00	260-92000	**TOTAL RECOMMENDED ORDINARY MAINTENANCE**		$ 36,998.00
	$ 94,108.36		**TOTAL RECOMMENDED TAX LEVY**		$ 102,013.27

GERARD A. DIO, FIRE CHIEF
CITY OF WORCESTER
WORCESTER FIRE DEPARTMENT
HOLIDAY PAY STATISTICS FY02 - FY06

Holiday	Final FY04	Final FY05	Projected FY06	Budgeted FY07
July 4th	$105,670.48	$115,151.01	$116,482.40	$120,086.25
Labor Day	$114,452.48	$116,175.58	$116,077.75	$130,066.31
Columbus Day	$112,676.23	$115,206.22	$114,814.94	$128,047.74
Veterans Day	$110,685.50	$115,929.89	$115,016.94	$125,785.43
* Thanksgiving	$152,294.09	$158,605.21	$158,761.23	$173,070.34
* Christmas	$136,685.39	$158,437.33	$140,218.49	$155,332.27
* New Year's	$138,650.72	$148,873.93	$161,496.80	$157,565.72
MLK day	$109,554.63	$116,164.80	$115,881.76	$124,500.28
President's Day	$110,850.23	$114,688.98	$114,219.90	$125,972.63
Patriots Day	$114,708.45	$118,007.83	$115,034.28	$130,357.20
Memorial Day **	$114,429.04	$118,315.69	$115,693.60	$130,039.67
Actual Total	**$1,320,657.24**	**$1,395,556.47**	**$1,383,698.09**	**$1,500,823.84**
Budget Amount	$1,328,848.15	$1,376,750.00	$1,379,845.00	$1,500,823.84

*** Includes Super Holiday Amounts**
**** Estimated**

OUT of Grade PAY HISTORY--FY00 to FY06	
Fiscal Year	Total OUT OF GRADE
2000	$107,113.78
2001	$116,695.15
2002	$131,682.73
2003	$115,177.59
2004	$101,965.18
2005	$108,737.20
2006*	$102,000.00
7 Year Average	**$111,910.23**
Fiscal 2007 Budget**	$124,230.00

* 2006 Includes a projection to the fiscal year end
** Includes adjustments associated with the model contract and arbitration award

GERARD A. DIO, FIRE CHIEF
CITY OF WORCESTER
WORCESTER FIRE DEPARTMENT
OVERTIME STATISTICS BY FY06 and FY07

FY06 OVERTIME COSTS BY OVERTIME TYPE

Overtime Types / Month	FY06 Contractual (Rescue)	FY06 Manpower	FY06 Training	FY06 Special Ops	FY06 Other	FY06 TOTAL
July	21,040.34	79,405.65	2,473.41	5,033.28	13,015.60	120,968.28
August	30,193.11	66,203.17	1,364.82	5,650.32	11,477.95	114,889.37
September	33,053.32	52,951.88	5,882.03	1,294.08	12,298.03	105,479.34
October	29,057.85	20,219.38	10,987.67	11,216.76	12,735.94	84,217.60
November	18,525.87	11,800.31	15,093.52	5,243.16	16,461.64	67,124.50
December	24,821.08	13,312.96	15,270.18	8,069.10	16,029.40	77,502.72
January	11,225.85	17,711.90	15,979.26	6,384.18	16,918.66	68,219.85
February	2,873.49	20,920.75	11,315.39	3,269.75	14,501.47	52,880.85
March	10,143.90	15,629.99	7,044.71	4,617.72	16,118.20	53,554.52
April	19,201.74	14,940.08	21,292.47	9,983.76	16,196.89	81,614.94
May*	16,147.93	21,855.21	10,939.93	5,202.78	17,046.30	71,192.16
June*	17,143.91	27,861.60	2,359.23	7,202.16	19,217.55	73,784.45
FY06 TOTAL	233,428.38	362,812.88	120,002.62	73,167.05	182,017.64	971,428.57

* projected

FY07 OVERTIME COSTS PROJECTION BY OVERTIME TYPE

FY06 Overtime costs increased by the model contract percentages for FY07 costs

Overtime Types / Month	FY07 Contractual (Squad)	FY07 Manpower	FY07 Training	FY06 Special Ops	FY07 Other	FY07 TOTAL
July	22,829.00	**86,155.00**	2,684.00	5,461.00	14,122.00	131,251.00
August	32,760.00	**71,830.00**	1,481.00	6,131.00	12,454.00	124,656.00
September	35,863.00	57,453.00	6,382.00	1,404.00	13,343.00	114,445.00
October	31,528.00	21,938.00	11,922.00	12,170.00	13,818.00	91,376.00
November	20,101.00	12,803.00	16,376.00	5,689.00	17,861.00	72,830.00
December	26,931.00	14,445.00	16,568.00	8,755.00	17,392.00	84,091.00
January	12,180.00	19,217.00	17,337.00	6,927.00	18,357.00	74,018.00
February	3,118.00	22,699.00	12,277.00	3,548.00	15,734.00	57,376.00
March	11,006.00	16,959.00	7,644.00	5,010.00	17,488.00	58,107.00
April	20,834.00	16,210.00	23,102.00	10,832.00	17,574.00	88,552.00
May	17,520.00	23,713.00	11,870.00	5,645.00	18,495.00	77,243.00
June	18,601.00	**30,229.00**	2,560.00	7,814.00	20,851.00	80,055.00
FY07 TOTAL	253,271.00	393,651.00	130,203.00	79,386.00	197,489.00	1,054,000.00

Appendix E:

Additional Documents from U.S. Fire Departments

Contents:

Rural Metro Pima County Rate Schedules

Fairfax County EMS Billing Brochure

Town of Dryden Fire Protection Contract

CATALINA FOOTHILLS
Rural/Metro Pima County
Rate Schedule
Effective 07/01/2007 through 6/30/2008

The following rates shall be charges for annual account services (**does not include registration fee of $35.00)** Memberships for properties based upon square footage must include all buildings, living areas, basements, garages, storage buildings and barns. Contiguous unimproved land up to five acres included at no extra charge.

MOBILE HOME (Renewals only; mobile home rate will no longer be used on new business as of 7/1/2007, use SFR rate)

Square feet	**Annual Rate**
0- 999	$ 123.00
1000-1899	$ 154.00
1900-over	$ 197.00

SINGLE FAMILY RESIDENTIAL PROPERTY

Square feet	**Annual Rate**
0-1399	$ 157.00
1400-1699	$ 210.00
1700-2099	$ 262.00
2100-2599	$ 325.00
2600-3199	$ 416.00
3200-3699	$ 519.00
3700-over	$0.163 / Sq. Ft.

Residential Safety Discounts

Automatic fire sprinkler system.....20%
Central station monitored fire alarm system..10%

Includes the following TRS

12 14 30
12 14 31 12 14 32
12 14 33 13 14 1
13 14 213 14 3
13 14 413 14 5
13 14 613 14 7
13 14 813 14 9
13 14 10 13 14 11
13 14 12 13 14 13
13 14 14 13 14 15
13 14 16 13 14 17
13 14 18 13 14 19
13 14 20 13 14 21
13 14 22 13 14 23
13 14 24 13 14 25
13 14 26 13 14 27
13 14 28 13 15 5
13 15 613 15 7
13 15 813 15 16
13 15 17 13 15 18
13 15 19 13 15 20
13 15 21 13 15 28
13 15 29 13 15 30
13 15 31 13 15 32
13 15 33

UNIMPROVED (Vacant) LAND

$60.00 for minimum of 1st acre and $1.00 for each additional acre over one.

COMMERCIAL PROPERTY

Square feet	**Annual Rate**
First - 1000	$770.00
1001 - 50,000	$770.00 + $0.231 per sq ft. over 1,000

50,001-100,000.....$11,672.00 + $0.215 per sq ft. over 50,000
100,000 & over …….$22,291.00 + $0.146 per sq ft. over 100,000

Commercial Safety Discounts **(verification must be received to apply any discount)**

- Property located within 1,000 feet of a fire Hydrant - 10%
- Property equipped with automatic fire sprinkler - 25%
- Property equipped with central station monitored fire alarm system - 10%

Apartment complexes: (no other discounts apply)
(more than 4 units under one roof) -40%

MAXIMUM COMMERCIAL DISCOUNT IS 45%

6% increase on SFR/10% increase on MH/15% increase on commercial & vacant land

EASTSIDE
Rural/Metro Pima County
Rate Schedule
Effective 07/01/2007 through 6/30/2008

The following rates shall be charges for annual account services (**does not include registration fee of $35.00)** Memberships for properties based upon square footage must include all buildings, living areas, basements, garages, storage buildings and barns. Contiguous unimproved land up to five acres included at no extra charge.

MOBILE HOME (Renewals only; mobile home rate will no longer be used on new business as of 7/1/2007, use SFR rate)

Square feet	**Annual Rate**
0- 999	$ 128.00
1000-1899	$ 154.00
1900-over	$ 197.00

SINGLE FAMILY RESIDENTIAL PROPERTY

Square feet	**Annual Rate**
0-1399	$ 157.00
1400-1699	$ 210.00
1700-2099	$ 262.00
2100-2599	$ 326.00
2600-3199	$ 415.00
3200-3699	$ 519.00
3700-over	$0.163 / Sq. Ft.

Includes the following TRS

13 15 13 13 15 14 13 15 15 13 15 22 13 15 23 13 15 24 13 15 25 13 15 26 13 15 27 13 15 34 13 15 35 13 15 36 13 16 16 13 16 17 13 16 18 13 16 19 13 16 20 13 16 21 13 16 27 13 16 28 13 16 29 13 16 30 13 16 31 13 16 32 13 16 33 13 16 34 13 16 35 14 15 1 14 15 24 14 15 25 14 16 214 16 3 14 16 414 16 5 14 16 614 16 7 14 16 814 16 18 14 16 19 14 16 30 14 16 31

Residential Safety Discounts

Automatic fire sprinkler system.....20%
Central station monitored fire alarm system..10%

UNIMPROVED (Vacant) LAND

$60.00 for minimum of 1st acre and $1.00 for each additional acre over one.

COMMERCIAL PROPERTY

Square feet	**Annual Rate**
First - 1000	$770.00
1001 - 50,000	$770.00 + $0.231 per sq ft. over 1,000
50,001-100,000	$11,672.00 + $0.215 per sq ft. over 50,000
100,000 & over	$22,291.00 + $0.146 per sq ft. over 100,000

Commercial Safety Discounts **(verification must be received to apply any discount)**

- Property located within 1,000 feet of a fire Hydrant - 10%
- Property equipped with automatic fire sprinkler - 25%
- Property equipped with central station monitored fire alarm system - 10%

Apartment complexes: (no other discounts apply)
(more than 4 units under one roof) -40%

MAXIMUM COMMERCIAL DISCOUNT IS 45%

6% increase on SFR/10% increase on MH/15% increase on commercial & vacant land

Northwest Side and Sahuarita (non-assessed)
Rural/Metro Pima County
Rate Schedule
Effective 07/01/2007 through 6/30/2008

The following rates shall be charges for annual account services (**does not include registration fee of $35.00)** Memberships for properties based upon square footage must include all buildings, living areas, basements, garages, storage buildings and barns. Contiguous unimproved land up to five acres included at no extra charge.

MOBILE HOME (Renewals only; mobile home rate will no longer be used on new business as of 7/1/2007, use SFR rate)

Square feet	**Annual Rate**
0- 999	$ 130.00
1000-1899	$ 159.00
1900-over	$ 201.00

SINGLE FAMILY RESIDENTIAL PROPERTY

Square feet	Annual Rate
0-1399	$ 154.00
1400-1699	$ 206.00
1700-2099	$ 258.00
2100-2599	$ 320.00
2600-3199	$ 408.00
3200-3699	$ 509.00
limits	
3700-over	$0.159 / Sq. Ft.

Includes the following TRS (Northwest)

11 13 20 12 13 5
11 13 21* 12 13 7
11 13 22* 12 13 8
11 13 28 12 13 16*
11 13 29 12 13 17
11 13 32 12 13 21
11 13 33* 12 13 22*
11 13 34* 12 13 23*
12 12 112 13 26
12 12 11 12 13 27
12 12 12 12 13 28
12 12 13 12 13 33
12 12 14 12 13 35
Honeywell 12 13 36

*** = excludes Oro Valley town limits**

Sahuarita TRS see next page

Residential Safety Discounts

Automatic fire sprinkler system.....20%
Central station monitored fire alarm system..10%

UNIMPROVED (Vacant) LAND

$60.00 for minimum of 1st acre and $1.00 for each additional acre over one.

COMMERCIAL PROPERTY

Square feet	**Annual Rate**
First - 1000	$770.00
1001 - 50,000	$770.00 + $0.231 per sq ft. over 1,000
50,001-100,000	$11,672.00 + $0.215 per sq ft. over 50,000
100,000 & over	$22,291.00 + $0.146 per sq ft. over 100,000

Commercial Safety Discounts **(verification must be received to apply any discount)**

- Property located within 1,000 feet of a fire Hydrant - 10%
- Property equipped with automatic fire sprinkler - 25%
- Property equipped with central station monitored fire alarm system - 10%

Apartment complexes: (no other discounts apply)
(more than 4 units under one roof) -40%

MAXIMUM COMMERCIAL DISCOUNT IS 45%

6% increase on SFR/10% increase on MH/15% increase on commercial & vacant land

Sahuarita TRS

16 14 29
16 14 30
16 14 31
16 14 32*
16 14 33
16 14 34
16 14 35
16 14 36
17 12 1
17 12 19
17 12 20
17 12 21
17 12 22
17 12 23
17 12 24
17 12 25
17 12 26
17 12 27
17 12 28
17 12 29
17 12 30
17 12 31
17 12 32
17 12 33
17 12 34
17 12 35
17 12 36
17 13 2*
17 13 3
17 13 4
17 13 5
17 13 6
17 13 7
17 13 8
17 13 9
17 13 10
17 13 15
17 13 16
17 14 1
17 14 2
17 14 3
17 14 4
17 14 5*
17 14 8*
17 14 9
17 14 10
17 14 11
17 14 12
17 14 13
17 14 14
17 14 15
17 14 16
17 14 17*
17 14 19*
17 14 20
17 14 21
17 14 22
17 14 23
17 14 24
17 14 25
17 14 26
17 14 27
17 14 28
17 14 29
17 15 6
17 15 7
17 15 18
17 15 19
17 15 30

17 13 19
17 13 20
17 13 21
17 13 22*
17 13 29
17 13 30

* excludes properties within Sahuarita town limits

Oro Valley
Rural/Metro Pima County
Rate Schedule
Effective 07/01/2007 through 6/30/2008

The following rates shall be charged for annual account services
(does not include registration fee of $35.00)

ALL PROPERTIES will be based at $1.89 per $100.00 secondary assessed value.

Discounts are not automatic. Verification must be provided.

Residential Safety Discounts

Automatic fire sprinkler system.....20%
Central station monitored fire alarm system..10%

Commercial Safety Discounts **(verification must be received to apply any discount)**

- Property located within 1,000 feet of a fire Hydrant - 10%
- Property equipped with automatic fire sprinkler - 25%
- Property equipped with central station monitored fire alarm system - 10%

MAXIMUM COMMERCIAL DISCOUNT IS 45%

Sahuarita Assessed
Rural/Metro Pima County
Rate Schedule
Effective 07/01/2007 through 6/30/2008

The following rates shall be charges for annual account services
(**does not include registration fee of $35.00)**

ALL PROPERTIES will be based at $1.75 per $100.00 secondary assessed value.

Residential Safety Discounts

Automatic fire sprinkler system.....20%
Central station monitored fire alarm system…….10%

Commercial Safety Discounts **(verification must be received to apply any discount)**

- Property located within 1,000 feet of a fire Hydrant - 10%
- Property equipped with automatic fire sprinkler - 25%
- Property equipped with central station monitored fire alarm system - 10%

Apartment complexes: (no other discounts apply)
(more than 4 units under one roof) -40%

MAXIMUM COMMERCIAL DISCOUNT IS 45%

Southside
Rural/Metro Pima County
Rate Schedule
Effective 07/01/2007 through 6/30/2008

The following rates shall be charges for annual account services (**does not include registration fee of $35.00)** Memberships for properties based upon square footage must include all buildings, living areas, basements, garages, storage buildings and barns. Contiguous unimproved land up to five acres included at no extra charge.

MOBILE HOME (Renewals only; mobile home rate will no longer be used on new business as of 7/1/2007, use SFR rate)

Square feet	**Annual Rate**
0- 999	$ 117.00
1000-1899	$ 142.00
1900-over	$ 180.00

SINGLE FAMILY RESIDENTIAL PROPERTY

Square feet	Annual Rate
0-1399	$ 144.00
1400-1699	$ 192.00
1700-2099	$ 241.00
2100-2599	$ 299.00
2600-3199	$ 381.00
3200-3699	$ 476.00
3700-over	$0.150 / Sq. Ft.

Residential Safety Discounts

- Automatic fire sprinkler system.....20%
- Central station monitored fire alarm system.... 10%

UNIMPROVED (Vacant) LAND

$60.00 for minimum of 1st acre and $1.00 for each additional acre over one.

COMMERCIAL PROPERTY

Square feet	**Annual Rate**
First - 1000	$770.00
1001 - 50,000	$770.00 + $0.231 per sq ft. over 1,000
50,001-100,000	$11,672.00 + $0.215 per sq ft. over 50,000
100,000 & over	$22,291.00 + $0.146 per sq ft. over 100,000

Commercial Safety Discounts **(verification must be received to apply any discount)**

Includes the following TRS			
14 14 21	15 15 6		
14 14 28	15 15 7		
14 14 33	15 15 8		
14 14 34	15 15 17		
15 14 21	5 15 20		
15 14 31	5 15 29		
15 14 41	5 15 30		
15 14 9	16 14 3		
15 14 10	16 14 5		
15 14 11	16 14 6		
15 14 13	16 14 7		
15 14 14	16 14 10		
15 14 15	16 14 11		
15 14 22	16 14 12		
15 14 25	16 14 13		
15 14 26	16 14 14		
15 14 27	16 14 15		
15 14 28	16 14 18		
15 14 29	16 14 19		
15 14 30	16 14 20		
15 14 31	16 14 29		
15 14 34	16 14 30		
15 13 35	16 14 33		
15 13 24* (*Mission View)			
16 14 31	16 14 34		
16 14 32	16 14 35		
16 14 36			

- Property located within 1,000 feet of a fire Hydrant - 10%
- Property equipped with automatic fire sprinkler - 25%
- Property equipped with central station monitored fire alarm system - 10%

Apartment complexes: (no other discounts apply)
(more than 4 units under one roof) -40%

MAXIMUM COMMERCIAL DISCOUNT IS 45%

6% increase on SFR/10% increase on MH/15% increase on commercial & vacant land

Fairfax County EMS Billing Brochure

Dear Fairfax County Residents,

Using a *"service first"* philosophy, the Fairfax County Fire and Rescue Department strives to provide the best emergency medical service possible to its residents and visitors. Our people, training, equipment, and professionalism enable us to give you around-the-clock quality emergency medical care. We do it with competence, compassion, and an intense sense of duty to the people we serve.

Emergency Medical Service (EMS) transport billing is scheduled to begin on April 1, 2005, in Fairfax County. We want residents to know, without fail, that ***no one will ever be denied service because of ability to pay or for lack of health insurance***. When residents need emergency assistance, we want them to call ***9-1-1*** without hesitation.

Our billing program is based on concern for the medical and financial health of our county residents. We have designed this program to minimize the out-of-pocket costs for county residents. As such, after patients' insurance companies, Medicare or Medicaid are billed for services, we will waive remaining co-pays and deductibles for county residents. Uninsured residents will be treated with compassion and provided with options to ensure financial hardship is avoided. There will be no charge for emergency medical care treatment if the patient is not transported.

EMS resources dedicated to our residents and visitors continue to grow, in recognition of the needs of the people we serve. Our almost 400 advanced life support (ALS) providers, all of our firefighter/emergency medical technicians, our 35 ALS fire engines, 22 ALS units, and 18 ambulances form the foundation for a second-to-none, high quality EMS system. We believe it is the best in the country.

Our commitment to you is providing the best EMS care possible—period. We are proud and privileged to do so.

Respectfully,

Michael P. Neuhard
Fire Chief

Frequently Asked Questions

When will Fairfax County implement EMS billing?
Program implementation is scheduled for April 1, 2005.

How does billing work?
Fairfax County has contracted with a company to handle the EMS transport billing. After patient care is provided, insurance information will be obtained routinely, often at the hospital. Fairfax County will waive co-payments and deductibles for county residents. Residents will receive an initial statement from the billing company. For county residents who are uninsured, Fairfax County has adopted a compassionate billing policy.

What are the charges for emergency medical transport services?

Charges include:

- $300 for Basic Life Support (BLS) transport
- $400 for Advanced Life Support, level 1 (ALS1) transport, (serious medical problems or traumatic injury)
- $550 for Advanced Life Support, level 2 (ALS2) transport, (cardiac arrest)
- $7.50 per mile, from pick-up point to the hospital for ground transport

If I don't have health insurance, and cannot pay my bill, what options do I have?
Patients transported who do not have health insurance will be sent a request for information that will include a hardship waiver form. The County will waive the transport charge for financial hardship.

Will visitors or non-county residents be charged a co-payment?
Yes, only county residents will have their co-payments and deductibles waived.

What if my insurance company will not cover my ambulance transport bill?
The County's billing service will attempt to gain all information required to show the medical necessity of the transport. However, if the claim is ultimately rejected, the Department will consider the charge uncollectible for county residents.

I receive requests from county volunteer fire departments (VFDs) for donations. Does this replace volunteer funding?
No. Money collected from EMS billing goes directly into the county's general fund. The VFDs do receive financial support from the county for some capital assets; however, the majority of the VFD capital and operating expenses are covered by donations received from the community.

Who will I call if I have a billing or insurance problem?
The billing company will have customer service representatives to address billing and insurance questions. If you are not satisfied, you may contact the Fire and Rescue Department Patient Advocate at 703-246-2266.

How will my privacy be protected?
All Department members have been trained on patient privacy Health Insurance Portability and Accountability Act (HIPAA) requirements and will strictly adhere to those standards.

If the co-payment for EMS transport is being waived, will there be any out-of-pocket expenses incurred?
There will be no additional charges for EMS transport for county residents who have health insurance, Medicare, or Medicaid.

As a combined career and volunteer department, we are committed to providing service that is second-to-none. When our residents need help, we want them to call 9-1-1 without hesitation. Our firefighters and advanced life support providers have been given the best possible equipment and training to ensure your safety and well being. As a county resident, your insurance company, Medicare, or Medicaid will be charged for transport to a medical facility. For county residents who are uninsured, the Department is committed to working with you to ensure that if you cannot pay your bill, you will not suffer financial hardship. We will include a hardship waiver for residents who need one. No one should ever hesitate to call 9-1-1 because of inability to pay or lack of insurance.

Our Guiding Principles govern our strong commitment to all Fairfax County residents and visitors.

Guiding Principles

- Ability to pay will never be considered when providing service. No one will suffer financial hardship as a result of an emergency medical transport.
- The system of providing Emergency Medical Services in Fairfax County will remain caring and compassionate.
- The Department will continue to provide the highest quality care possible.
- Implementation of a charge for EMS transport services will never diminish the way care is provided by county EMS providers.

This information will be provided in alternative formats, such as large print or braille. Please allow ten days to process your request.

For more information, questions, or to schedule a community presentation, please call 703-246-2266; TTY 711. Additionally, a fact sheet is available on our web site at

www.fairfaxcounty.gov/fire

Fairfax County Resident

Fire and Rescue Department
4100 Chain Bridge Road
Fairfax, Virginia 22030

www.fairfaxcounty.gov/fire

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Town of Dryden Fire Protection Contract

FIRE PROTECTION CONTRACT

PARTIES:	(1) TOWN - which for the purposes of this contract shall mean the Town of Dryden, Tompkins County, New York, acting through the Town Board.
	(2) COMPANY - which for the purposes of this agreement shall mean any of the following: Fire Department; Fire Company; Fire District; or Corporation existing under the New York Not-for-Profit Corporation Law.
	(3) VILLAGE - which for the purposes of this contract shall mean the Village of Freeville, Tompkins County, New York acting through the Board of Fire Commissioners, or if none exist, through the Village Board.
TERM:	The year 2004.
PAYMENT:	$161,400.00
TERRITORY:	The Town of Dryden Fire Protection District.
RECITALS:	(1) The Town established the Town of Dryden Fire Protection District on or about February 15, 1941, which includes all the territory of the Town outside the corporate limits of the Village of Dryden and Village of Freeville.
	(2) The Company was established according to law on or about July 2, 1938.
	(3) A public hearing was held on November 5, 2003 after due notice and describing in general the terms of this proposed contract.
	(4) The Town deems it desirable and in the public interest to contract with the Company for fire protection and emergency and rescue service in the territory.
	(5) The Company is willing to provide such fire protection and emergency and rescue service in the territory upon the terms herein stated.
	(6) The Town was authorized to enter into this contract by a resolution duly adopted by the Town Board on _____, 2004.

W. B. Strong

(7) The Company was authorized to enter into this agreement by a resolution duly adopted on _____, 2004.

(8) The Village authorized the Company to enter into this agreement by a resolution duly adopted on _____, 2004.

AGREEMENT:

(1) The Town hereby agrees and contracts with the Company for fire protection and emergency and rescue service in the territory for the term and payment herein expressed and the Company agrees to furnish fire protection and emergency and rescue service in the territory for the term and payment herein expressed.

(2) The Standard Fire Contract Provisions are agreed to by the parties and are attached hereto and incorporated herein by reference.

(3) The Additional Provisions (if any) are agreed to by the parties and are attached hereto and incorporated herein by reference.

(4) This Fire Protection Contract is executed by duly authorized individuals of the respective parties and only after all approvals or consents (if any) have been obtained.

TOWN: TOWN OF DRYDEN

by _____
Steven Trumbull, Supervisor

COMPANY: W.B. STRONG FIRE COMPANY OF FREEVILLE, INC.

by _____

VILLAGE: VILLAGE OF FREEVILLE

by _____
Thomas Lyson, Mayor

STANDARD FIRE CONTRACT PROVISIONS

1. The Company will respond to any call for the extinguishment of a fire or to any call for its emergency rescue and first aid squad occurring in the territory, unless the Company is unable to respond to such call because of a serious conflagration or other emergency to which it has previously responded.

2. In consideration of the fire protection and emergency rescue service given to the territory, the Town agrees to pay to or for the Company for all of the services rendered hereunder, the payment called for herein. No payment will be made until such time as the Town has received this Fire Protection Contract signed by the Company.

3. It is further understood and agreed that for and in consideration of the monies paid by the Town pursuant to this contract the Company shall defend, indemnify and hold harmless the Town on behalf of the Town of Dryden Fire Protection District for any and all liability, causes of action and damages, loss or expense incurred by the Company arising out of the Company's operations including any loss or damage to or expenses incurred in the operation of fire apparatus or other equipment belonging to the Company and the cost of any materials used in connection with any call for assistance, as provided in Section 209(2) of the General Municipal Law.

4. The Company as owner of the equipment to be used in answering calls for assistance in the Town, agrees that it will assume full responsibility for injuries to persons or property or deaths resulting from negligence in the operation of any such equipment while answering any such calls, and will obtain liability insurance therefor. The Company shall provide the Town with a Certificate of Insurance evidencing the existence of such insurance, which Certificate shall name the Town as an additional insured. Such Certificate shall also provide for fifteen (15) days prior written notice to the Town of the cancellation or failure to renew such policy.

5. It is expressly understood and agreed that the number of firefighters and the nature of equipment dispatched in answer to calls, the manner of fighting fires, and other operations at the scene of a fire, accident or other incident to which the Company is called, are matters within the judgment of the chief of the Company and other officers of the said Company who may be in charge at the time, and there shall be no liability upon the Company for any mistake of judgment in connection therewith.

6(a) The Company shall provide to the Town any and all such incident reporting information as the Company may from time to time be required to provide to the State of New York. The information that shall be provided shall be in such form and shall contain such information as required by the State of New

York. All such information shall be provided in writing, at least once per month and in a form in accordance with form DOS-438, (a copy of which is attached hereto as Schedule A), and subsequent amendments thereto.

(b) The Company agrees that monthly it shall file with the Town Clerk of the Town of Dryden an up-to-date list of all members of the Company including a list of the Officers and the Board of Directors. Such list shall also indicate those members who are certified paramedics, emergency medical technicians (indicating advanced or basic) and certified first responders.

7. It is hereby mutually covenanted and agreed that the relation of the Company to the services to be performed by it under this contract shall be that of an independent contractor.

8. In accordance with the provisions of Section 109 of the General Municipal Law, the Company is hereby prohibited from assigning, transferring, conveying, subletting or otherwise disposing of this agreement, or of its right, title or interest in this agreement, or its power to execute this agreement, to any other person or corporation without the previous consent in writing of the Town.

9. Each and every provision of law and clause required by law to be inserted in this contract shall be deemed to have been inserted herein. If any such provision is not inserted through mistake or otherwise, then upon the application of either party, this contract shall be physically amended.

10. The Company acknowledges that it is subject to the provisions of the Open Meetings Law (Public Officers Law Article 7) and the Freedom of Information Law (Public Officers Law Article 6).

11. The Company shall at all times comply with all applicable laws, statutes, codes, rules and regulations.

12. This agreement is governed by the laws of the State of New York.

13. This agreement constitutes the complete understanding of the parties. No modifications of any provisions thereof shall be valid unless in writing and signed by both parties.

14. No waiver of any breach of any condition of the agreement shall be binding unless in writing and signed by the party waiving said breach. No such waiver shall in any way affect any other term or condition of this agreement or constitute a cause or excuse for a repetition of such or any other breach unless the waiver shall include the same.

15. This agreement shall take effect on the 1st day of January

during the term and shall continue in effect for a period of one year, expiring on the 31st day of December of the term.

16. In addition to the payment to the Company provided for in this Fire Protection Contract, the Town agrees to reimburse the Company for: a) the Company's purchase of OSHA approved turnout gear; b) training; c) OSHA mandated physicals for firefighters; d) public education and public assistance expenses. The reimbursement shall be 50% of the total amount spent for such gear, training, physicals, education or public assistance with a maximum reimbursement by the Town of $5,000.00. Request for payment must be submitted by voucher accompanied by written proof of the expenditures by the Company. Payment shall be made by the Town to the Company within forty-five (45) days of receipt of such voucher and proof.

17. The Town may request an independent audit or review, no more than once per year, of the financial affairs of the Company for the present and/or prior years as the Town may determine. The form, content and Certified Public Accountant performing such audit or review shall be determined by the Town. The Town shall pay the direct costs of the Company related to such audit or review not to exceed $1,000.00, which costs are to be documented by the Company. The Company agrees to make diligent and reasonable efforts to fully, completely and timely comply with reasonable requests of the Certified Public Accountant performing such audit or review for the production of all records, receipts, bills, vouchers, contracts, bank statements, checks, financial statements and any other similar documents requested by such person.

18. The Company agrees to establish a capital equipment reserve account to purchase capital equipment. The Company agrees that $_____ of the first payment made under this contract shall be deposited into said account and the use of such funds shall be restricted by the Company to capital equipment purchases.

TOWN: TOWN OF DRYDEN

by_____
Steven Trumbull, Supervisor

COMPANY: W.B. STRONG FIRE COMPANY OF FREEVILLE, INC.

by _____

VILLAGE: VILLAGE OF FREEVILLE

by _____
Thomas Lyson, Mayor

ADDITIONAL PROVISIONS

1. It is expressly understood and agreed that the Village has obtained insurance in accordance with the provisions of the Volunteer Firemen's Benefit Law from the State Insurance Fund and that volunteer firefighters who are regular members of the Company are included in and covered by such insurance plan if and when they respond to any fire alarm, call for assistance in the extinguishment of a fire, emergency or rescue service. The Village agrees to provide such insurance at its own expense, for all persons required to be covered under such law.

2. The parties hereto recognize that the primary obligation of the Company is for the protection of persons and property in the Village, and in the event of a serious conflagration or other emergency within the Village during which, in the judgment of the chief or other person in charge of the Company, it shall be unwise to send men or equipment outside of the Village, the Company shall not be obligated while such emergency continues to answer calls from the Town of Dryden Fire Protection District.

3. Payment will be made by the Town to the Company as follows:

February 20, 2004 - $_____
July 20, 2004 - $_____
September 20, 2004 - $_____
November 20, 2004 - $_____

TOWN: TOWN OF DRYDEN

by_____
Steven Trumbull, Supervisor

COMPANY: W.B. STRONG FIRE COMPANY OF FREEVILLE, INC.

by _____

VILLAGE: VILLAGE OF FREEVILLE

by _____
Thomas Lyson, Mayor

Appendix F:

Other Documents

Contents:

Summary of Interview with Michael Wren

Summary of Interview with Michael Wren

Date: Tuesday, November 06, 2007

Interviewee: Michael Wren, information systems consultant and developer, specializing in fire service strategic information systems, author of the Financial Management chapter in the *Fire Chief's Handbook*

Interviewers: Stefan Rashkov and David Nill

Subject: Performance measurements; sampling methods; sources of revenue

We contacted Mr. Wren and discussed the following items with him:

1. ***Performance measurement:***

   Measuring loss, such as capital and human loss is often done in terms of reporting, however it is a dangerous measurement to compare fire departments because 1 incident can skew results. He said we should compare life and property *at risk*, a baseline that indicates what percentage of the population lives in substandard housing, which does not meet the fire safety standards. Another thing he talked about was a national U.S. objective had been set a few decades ago to reduce fire fatalities by 50%. This was met by developing low-cost smoke-detectors and improving response-time. This is an important performance indicator at a national scale. This gives us an idea to examine trends over years in fire department losses of comparable fire departments. Also, identifying whether or not the fire departments use mutual aid from surrounding communities and their degree of reliance is important.

2. ***Sampling Method***

   Mr. Wren suggested that the best performing departments in terms of losses are the ones with community populations of 50,000-200,000 (NFPA would be a good source for this). We can confirm this by looking at the statistical curve of fire loss and damage sustained.

Professor Wren told us that we should always compare two similar communities with similar tax base or socio-economic base, or stretch it out over a number of years and talk about trends. He stressed the importance of categorizing the departments based on various criteria, including the composition of career, part-time, and purely volunteer. Factors to consider in our sampling include the size and density of population, land size, and density of structures.

3. Private Sources of Revenue

When it comes to evaluating revenue sources, he stressed on the importance of a good connection between the service provided and revenue collected. He said that a model that may be suitable for Costa Rica is the "Public utility model". Under that model, each property owner would be assessed a particular amount for fire service availability. Such a model is used in the United States for EMS service: availability is paid for, but actual use of service is billed.

A lot is involved on model balancing:

- A fee for availability – low one
- Bill for actual use

An issue may arise, especially in rural areas, where users may not have paid. To address this, regulation may be written that says you have to subscribe to the annual fire protection availability fee before you can buy property insurance, once you're subscribed the insurance company would pay for response fees. Insurance will then cover any fees for actual usage.