BERKSHIRE ADVISORS, INC.
General Management Consultants

West Palm Beach, Florida

MANAGEMENT STUDY FOR THE FIRE RESCUE DEPARTMENT

August 2009

WEST PALM BEACH, FLORIDA
MANAGEMENT STUDY FOR THE FIRE RESCUE DEPARTMENT

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I – INTRODUCTION AND OVERVIEW

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The West Palm Beach Fire Rescue Department provides the West Palm Beach community with a very high level of fire and emergency medical services. The department provides a fast response to fire calls (70.6 percent of calls are responded to within seven minutes), life threatening medical calls (74.6 percent of calls are responded to within seven minutes), and other emergency medical calls (71.8 percent of calls are responded to within seven minutes[1]). In addition, because the city has invested in specialized training and equipment the fire rescue department has the ability to respond effectively to a range of emergency calls (e.g., hazardous materials incidents[2] and incidents requiring technical rescue capabilities) with in-house staff. This response is provided by capable staff who take pride in providing high quality services to the West Palm Beach community. The department also has excellent leadership. The fire rescue chief and assistant chief, who are committed to making an already good fire department even better, are highly respected by department staff. Indeed, the results of the employee survey conducted for this study – which reflects in large part employee perspective on department leadership – are extremely positive.

While the department is generally well functioning there are a number of opportunities to improve performance. In particular, the department would benefit from taking steps to strengthen fire prevention efforts (especially with regard to conducting fire inspections), make better use of existing information systems, encourage firefighters to make better use of their time when not responding to incidents, modify the organizational structure, make additional investments to recruit a diverse work force, establish fitness requirements, improve training, make more effective use of civilian staff, modify EMS billing, and adjust incentive pay practices. In addition, the department should explore the feasibility of entering into regional or shared service arrangements for selected services.

While addressing these issues will strengthen the department's performance the more fundamental challenge facing the department is to reconfigure service delivery approaches in ways that will enable it to maintain the excellent service the community receives but to do so at a much lower cost. By eliminating redundant capacity and changing work schedules to bring them in line with fire department work schedules in most of the nation substantial savings can be achieved without materially compromising the level of service the community receives.[3] These changes would be warranted regardless of the city's current financial situation. Given the pressure on the city's budget however, taking the steps to reduce costs while maintaining service levels becomes even more important. Through the fire rescue chief's effective leadership the

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[1] Response times include an estimated one minute per call for turnout and one minute per call for dispatch.

[2] The Palm Beach County Wastewater fund supports hazardous materials response.

[3] In developing the study recommendations conservative assumptions were made to ensure that implementing study recommendations would not materially compromise the level of service the department provides. Additional savings might be achieved by relaxing these conservative assumptions or by reducing services to a level lower than that currently provided but that many communities across the nation would find more than acceptable.

department should be able to achieve these reductions in a manner that is seamless to the community and without undue disruption to existing operations.

This introductory chapter briefly reviews the objectives and scope of the study and the methodology used to conduct it. It also presents the organization of this report.

OBJECTIVES AND SCOPE

The goal of this study was to obtain information that will enable the West Palm Beach Fire Rescue Department to develop effective master planning and the city government to make informed decisions for prioritization and allocation of resources.

The objectives of this study were to:

- ***Evaluate present services.*** Examine the adequacy, effectiveness, and costs of the services currently provided

- ***Establishment of services and operations.*** Classify services and operations into a systematic organization that allows costs and effectiveness to be understood and differentiated. These services and operations shall include those expected of modern public fire and emergency departments and not necessarily conform to those currently being provided by the department.

APPROACH AND METHODOLOGY

A range of quantitative and qualitative analytic methods was used to conduct this study. Individual interviews, briefings, and focus groups were held with the mayor, city commissioners, the city administrator, selected members of the city's finance department, the fire rescue chief, and more than 70 (uniform and civilian) department employees. A briefing was also held with leaders of the bargaining unit representing uniform employees. A survey was made available online to all employees and 173 employees (80.0 percent) responded.

Two open drop-in sessions were scheduled by the city to collect information from members of the West Palm Beach community related to fire rescue services. The first session had no attendees. The second session, which was held in conjunction with a community meeting related to construction of a new fire station, was attended by approximately 20 individuals. Lastly, the study team requested and thoroughly reviewed a range of documents and data covering all areas of the fire rescue department's operations.

ARRANGEMENT OF THE REPORT

This report is arranged into ten major chapters and two appendices.

I – Introduction And Overview (this chapter)

II – Executive Summary

III – Apparatus Deployment And Staffing

II – EXECUTIVE SUMMARY

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The West Palm Beach Fire Rescue Department provides the West Palm Beach community with a very high level of fire and emergency medical services. The department provides a fast response to fire calls, life threatening medical calls, and other emergency medical calls. This response is provided by capable staff who take pride in providing high quality services to the West Palm Beach community. The department also has excellent leadership. The fire rescue chief and assistant chief, who are committed to making an already good fire department even better, are highly respected by department staff.

While the department is generally well functioning there are a number of opportunities to improve performance. In particular, by reconfiguring service delivery approaches the department can continue to provide a high level of service to the West Palm Beach community but at a much lower cost. This executive summary, which summarizes key study recommendations, is divided into seven sections: apparatus deployment and staffing; life safety division staffing; organization, management and operations; alternative service delivery approaches; employee survey results; analysis of employee compensation preferences; and implications.

A – APPARATUS DEPLOYMENT AND STAFFING

This section is divided into three parts: current level of service; analysis of apparatus deployment and staffing; and shift scheduling alternatives.

CURRENT LEVEL OF SERVICE

A key measure of the level of service a fire rescue department provides is the time required for apparatus to respond to incidents in the community. Based on this measure the level of service West Palm Beach residents receive for both fire and emergency medical services is high. The department provides a fast response to fire calls (70.6 percent of calls are responded to within seven minutes), life threatening medical calls (74.6 percent of calls are responded to within seven minutes), and other emergency medical calls (71.8 percent of calls are responded to within seven minutes[4]). Stations are generally well located and apparatus are deployed to ensure a fast response to incidents in most areas of the city.

ANALYSIS OF APPARATUS DEPLOYMENT AND STAFFING

Analysis Overview

Two factors must be considered when evaluating a fire rescue department's first alarm response to incident scenes. First, the analysis must ensure that apparatus with needed capabilities and equipment respond. Second, the analysis must ensure that the number of staff responding to the incident is adequate to handle the functions that need to be performed as part of a first alarm.

Ensuring apparatus with needed capabilities and equipment respond. While the types of apparatus responding to an incident is important, apparatus response does not

[4] Response times include an estimated one minute per call for turnout and one minute per call for dispatch.

typically drive response needs at an incident scene. This is true because meeting requirements relating to the number of staff needed to respond to an incident typically ensures more than enough apparatus and equipment will be available at the incident scene. Consider, for example, a response to a structure fire. Two engines, a ladder, and a rescue unit represent an adequate response to such an incident. However, if more than the 12 personnel assigned to these apparatus in West Palm Beach are needed – three firefighters are assigned to each apparatus – additional apparatus will need to be deployed (or more than the number of apparatus needed to effectively handle a first alarm). The number of staff needed at the incident scene – not the number and type of apparatus – therefore is the primary determinant of response needs.

Ensuring sufficient staff respond to an incident. The number of staff that needs to respond to an incident is determined primarily by the activities that need to be performed at an incident scene. There is not one "right" way to respond to fire incidents.[5] Rather, response to incidents depends on the approach fire departments take to managing risk at fire scenes (for example, determining whether assigning more staff to activities in a building is better than providing more resources for rapid intervention support that are deployed outside the building), assessments as to what risks are associated with providing resources (such as a safety officer) as part of a second alarm versus a first alarm, decisions about how crews can be assigned at fire scenes, and decisions about how important it is to have an officer direct most crew activities. In addition, however, from a practical perspective the number of firefighters assigned to apparatus affects response in significant ways. Because firefighters work and train together as teams, a fire department that assigns three persons to apparatus will be more likely to assign three firefighters to perform specific activities at fire scenes. In addition, even if there were agreement that five firefighters are sufficient to perform some activities (for example, responding to car fires with injuries) a fire department such as the West Palm Beach Fire Rescue Department would need to send six firefighters to the incident because West Palm Beach fire apparatus are staffed with three-person crews.

While, from the consultants' perspective, the West Palm Beach Fire Rescue Department deploys more firefighters to some incidents (most notably structure fires) than are needed the consultants also recognize that reducing the number of personnel responding would require significant retraining and would be difficult to implement. For the purposes of the analysis presented in this report, therefore, the fire rescue department's current response to incidents will be used to assess staffing needs. While taking this approach is conservative in terms of evaluating staff resources it also reflects the tradeoff the department currently makes in evaluating how best to manage risk at fire scenes and will not require the department to undergo significant retraining to implement study recommendations.

Assessment Of Apparatus Deployment And Staffing

The analysis of apparatus deployment and staffing has five primary components:

- Establish service expectations
- Conduct a geographic analysis to determine where apparatus should be deployed to ensure response time expectations are met

[5] Indeed, there is considerable variation in how the benchmark jurisdictions surveyed for this engagement respond to incidents.

- Conduct queuing analysis to ensure a high probability that apparatus will be available when needed

- Conduct staffing analysis to ensure sufficient staff will be available to respond to emergency scenes

- Assess the number of staff that should be assigned to each apparatus

Service expectations. With some modifications, the standards set forth in National Fire Protection Association (NFPA) 1710 were used to set service expectations for the West Palm Beach Fire Rescue Department. These response time expectations[6] are as follows:

- Four minutes or less for the arrival of the first arriving engine at a fire suppression incident 90 percent of the time

- Eight minutes or less for the deployment of a full first alarm assignment at a fire suppression incident 90 percent of the time

- Four minutes or less for the arrival of a unit with first responder or higher level capability at an emergency medical incident 90 percent of the time

- Eight minutes or less for the arrival of a rescue unit with advanced life support capabilities that can transport patients 90 percent of the time

Please note that these service expectations represent an extremely high level of service. Many fire rescue departments do not strive to respond to fire suppression incidents within four minutes. Some departments find response times of five minutes (and even longer) acceptable. In addition, the expectation that an advanced life support unit with transport capabilities be available within eight minutes represents an extremely high level of service. NFPA 1710 only establishes the expectation that an ALS capable unit be available to respond within eight minutes 90 percent of the time. (The West Palm Beach Fire Rescue Department has no difficulty meeting this standard because all its apparatus – including fire engines and ladders – have ALS capabilities.) The service expectation that will be used to assess resource requirements for this study – that an ALS capable unit with transport capabilities be available within eight minutes 90 percent of the time – is, therefore, extremely conservative. In short, city decision makers could loosen the standards on which the analysis presented in this report are based and still provide a level of service that residents in most communities across the country would find more than acceptable.

Geographic analysis. West Palm Beach fire engines can respond to incidents in most but not all populated areas of the city within four minutes travel time. There are, however, many areas of the city that can be responded to by more than one engine within four minutes. Providing this redundant coverage provides little added protection to the community and significantly increases costs. Indeed, the engine located at

[6] For the purposes of this analysis, the response time expectations refer to the time required to travel to an incident scene. A one minute turnout time would need to be added to these service expectations to calculate the total response time to incidents.

Station 1 can be eliminated without reducing the areas that can be responded to by a fire engine within four minutes without relying on automatic or mutual aid.

The NFPA 1710 standard that a full first alarm assignment be available at a fire suppression incident within eight minutes is also met in most areas of the city. Indeed, a West Palm Beach ladder truck can respond to most areas of the city within eight minutes. Unlike the deployment of fire engines, however, there is no significant overlap in the areas responded to within eight minutes by ladder trucks. Therefore, no adjustments in ladder truck deployment are recommended.

West Palm Beach rescue units can respond to calls within most areas of the city within eight minutes. (When automatic aid response from Palm Beach County Fire Rescue is considered all populated areas of the city can be responded to within eight minutes.) As with fire engines, however, there is considerable duplicate coverage in the areas that can be reached by rescue units. More than one rescue unit can reach most populated areas of the city in eight minutes or less. Indeed, rescue units can be removed from Stations 2, 3, and 5 without compromising response coverage and without relying on automatic aid.[7]

Availability analysis. It is not sufficient just for apparatus to be deployed at locations throughout the city that will ensure a fast response, they must also be available to respond when they are needed and not be busy responding to other incidents. Queuing analysis[8] was conducted to assess the likelihood that apparatus would be available when needed. With regard to the availability of ALS rescue units, the queuing analysis results indicate that two or three rescue units need to be deployed on a citywide basis (depending on the hour of the day) to ensure an ALS rescue unit with transport capabilities is available 90 percent of the time.[9] Based on this analysis alone, deploying rescue units at Stations 1, 4 and 6 – the deployment of ALS rescue units needed to meet geographic response requirements – would be more than adequate to meet city needs. When evaluated from the perspective of the areas served by individual stations, however, the queuing analysis suggests that one additional rescue unit is needed to ensure a rescue unit will be available for response in the area served by Station 6. (This ALS rescue unit should be deployed from Station 5.)

Queuing analysis was also conducted to determine the probability that a fire suppression vehicle will be out of service when an emergency call is received. The results of this analysis show that depending on the hour of the day the probability that an apparatus will be busy when an emergency call is received ranges between a high of 26.6 percent and a low of 15.9 percent. The probability that two apparatus will be busy is much lower (ranging from a low of 5.7 percent to a high of 14.3 percent). Please note that this

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[7] Please note that this analysis is extremely conservative as additional units could be removed if the department was willing to rely on automatic aid for rescue unit response. This is not an unreasonable expectation given that department engine companies will provide the initial ALS response in most areas of the city.

[8] Queuing analysis is an operations research tool that is used to determine the number of servers (in this case, rescue units) needed to meet an expected service demand.

[9] It is worth noting again that this is an extremely conservative assumption. Given that ALS capable trucks and engines will be able to respond to incidents within four minutes (while NFPA 1710 suggests an eight minute response) the risk posed by a transport unit not arriving within eight minutes is not great.

analysis reflects incident activity throughout the city. The probability that an apparatus from a particular station will be busy when another incident call is received in the same area is much lower.

Analysis of staff needed to respond to emergency incidents. The geographic and queuing analyses suggest that an engine can be removed from Station 1 and that rescue units can be removed from Stations 2 and 3 without compromising the department's ability to meet response time expectations. An analysis of the number of staff that would be available to respond to incidents if these apparatus are no longer deployed indicates that adequate capacity to respond to structure fires exists in all parts of the city except those served by Station 8.[10] [11] In addition, only the areas served by Stations 3, 7 and 8 cannot be reached by the complement of staff needed to handle high-rise fires within eight minutes. To address this issue the rescue unit assigned to Station 3 should be restored.

Assessment of how apparatus should be staffed. Benchmark findings and the consultants' experience suggest that some modifications to the number of staff assigned to apparatus should be considered. Both the benchmark findings and the experience of the consultants suggest that at least three staff should be assigned to each ladder and engine company but that three staff do not need to be assigned to each rescue unit.

In general, three staff are needed to transport a patient only when circumstances require two paramedics to be with the patient during the transport with the third member of the crew driving. If only two paramedics are assigned to a rescue unit a third employee can be borrowed from an engine that has also responded to the incident scene. This, however, removes the engine from service for the duration of the response (an average of 35 minutes in West Palm Beach). Two staff should therefore only be assigned to rescue units if sufficient capacity exists for an engine to be taken out of service without compromising response capabilities.

The analysis of the staffing needed to respond to emergency incidents indicates that only the area served by Station 3 lacks sufficient capacity to provide adequate response if an engine is taken out of service. The rescue units assigned to Stations 1 and 4 should be staffed with three personnel because these stations support response to Station 3 (within eight minutes). The rescue units assigned to Stations 5 and 6, however, can be staffed with two personnel, as these stations do not support Station 3. If the engines assigned to these stations are out of service because they are supporting a rescue call, more than enough capacity remains to respond to even the most labor intensive incident (a high-rise fire).

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[10] If the department were to rely exclusively on its own resources, the areas served by four stations (Stations 3, 6, 7, and 8) would not have sufficient resources available within eight minutes to respond to a structure fire incident based on the department's desired response capacity (which, as noted, exceeds the consultant's assessment of the needed response capacity).

[11] The risk associated with not having the full capacity needed to respond to structure fires in the area served by Station 8 is not great. No working fires were responded to by the apparatus assigned to this station between April 2008 and March 2009.

Staffing Implications

The analysis of apparatus deployment suggests that the department can maintain the high level of service currently provided to West Palm Beach residents while deploying one fewer engine company and one fewer rescue unit. In addition, two of the remaining seven rescue units can be staffed with two personnel. When this recommended deployment has been implemented 40 staff should be assigned to the stations on each shift. However, more than 40 staff must be assigned to each of the three shifts to ensure that 40 firefighters will be working after allowing for sickness, vacations, and other excused absences. A relief factor of 1.39 was calculated based on actual absences among suppression staff. If a minimum of 40 staff need to report to work on each shift, 56 staff (40 times 1.39 equals 55.6) must be employed per shift or a total of 168 over the three shifts.

SHIFT SCHEDULING ALTERNATIVES

At present, operations staff are deployed on one of three rotating 24-hour shifts. This schedule is advantageous to both the city and the employees. From the perspective of employees the schedule is advantageous because they only have to come to work an average of 10 days a month. From the perspective of the city, firefighters work 48 hours a week as compared to the 40 hours a week worked by most city employees.

The city, however, does not take full advantage of the opportunities created by this schedule. The Fair Labor Standards Act (FLSA) allows firefighters to work 53 hours a week without earning overtime and in most areas of the country 53 hours is the standard workweek for firefighters. Indeed, each of the eight benchmark jurisdictions from which information was collected for this study assigns firefighters to either a 53 or 56 hour workweek.

The difference between the 53 and 56 hour workweek employed in most fire departments that assign firefighters to a 24-hour work schedule and the 48-hour workweek employed in West Palm Beach relates to the number of extra days off or "Kelly days" firefighters are granted. Fire rescue departments that choose not to pay overtime to make up the difference between the maximum workweek allowed under FLSA (53 hours per week) and the average 56 hours per week worked when firefighters are employed on a three shift 24-hour schedule grant firefighters 12 Kelly day hours per 28-day period. In West Palm Beach, by contrast, 32 Kelly day hours are earned every 28-day period.

Reportedly the 48-hour workweek has been in place in West Palm Beach for many, many years. Even though this workweek is considerably shorter than the typical workweek for firefighters who work a 24-hour schedule, department employees would understandably balk at any effort by the city to unilaterally increase the firefighter workweek.

One way to encourage employees to accept a longer workweek would be to allow them to work a 48-96 schedule in exchange for accepting a 53-hour workweek. Under such a schedule firefighters work 48 hours consecutively (two days) followed by 96 hours off. From an employee perspective such a schedule is quite advantageous because employees get so many more consecutive days off. (Among other benefits this means the time employees spend commuting is cut in half.) Indeed, one can reasonably infer that West Palm Beach Fire Rescue Department employees would find such a schedule appealing from the fact that in departments where such a schedule has been

implemented on a trial basis, the percentage of employees who vote to keep the schedule range from the mid to high ninety percent range.

B – LIFE SAFETY DIVISION STAFFING

The life safety division lacks the staffing needed to comply with city ordinances and the state fire code relating to fire inspections and code enforcement. A detailed analysis was conducted to determine the number of life safety division positions needed to ensure mandated activities can be performed within the timelines and at the frequency required by City of West Palm Beach ordinances and by the State of Florida fire code. This analysis indicates three additional inspector positions are needed.

C – ORGANIZATION, MANAGEMENT, AND OPERATIONS

This section presents observations and recommendations to strengthen the fire rescue department's organization, management, and operations. The section is divided into the following issue areas: organization; managing how staff spend time when not responding to incidents; improving the efficiency of the life safety division; recruiting a diverse work force; establishing fitness requirements; improving training; making effective use of civilian staff; strengthening information systems; modifying emergency medical services (EMS) billing; and adjusting incentive pay practices.

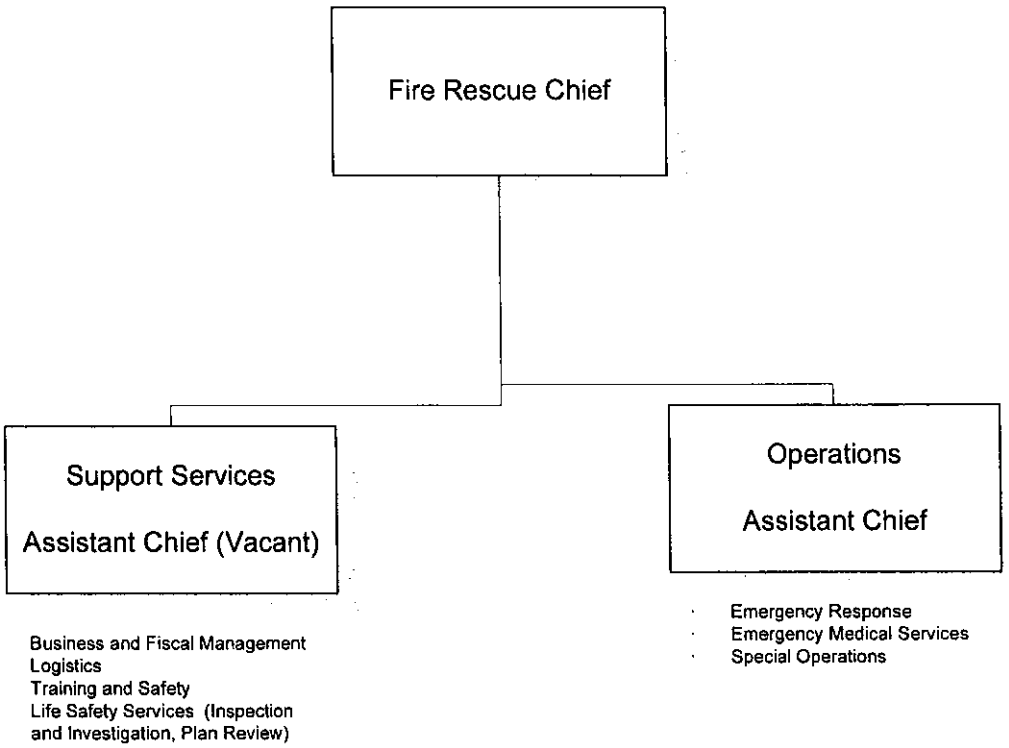
ORGANIZATION

As Exhibit II-1 shows, the department is led by a fire rescue chief who, when all senior management positions are filled, has two assistant chiefs reporting to him. This organizational structure is generally sound. The structure assigns key decision-making responsibilities at appropriate levels in the organization, facilitates the coordination of important services, and does not have excessive organizational layers.

While the current structure generally facilitates effective department operations, there are several shortcomings associated with the structure that should be addressed. In particular, in the current structure, the scope of responsibilities of the support services assistant chief and the operations assistant chief are not comparable. In addition, having the life safety services battalion chief report to an assistant chief is problematic because it communicates that reducing fire loss through inspections and plan review activities is somehow less important than other functions performed by the department. Moreover, in the current organizational structure some senior positions are not fully utilized. In particular, the scope of responsibilities of the special operations battalion chief and the training and safety battalion chief are much more limited than their counterparts. The current structure also creates few opportunities for leadership development. Finally, because Stations 7 and 8 are relatively isolated from the other stations, battalion chiefs have difficulty effectively supervising the staff at these stations. The current structure provides no mechanism for addressing this problem

Exhibit II-1

WEST PALM BEACH FIRE RESCUE DEPARTMENT
CURRENT ORGANIZATION



The recommended organizational structure, which is presented in Exhibit II-2, addresses the shortcomings. The recommended structure has a number of advantages over the current structure.

- Having the life safety services function report directly to the chief raises the division's organizational stature and will facilitate efforts to implement the recommendation to have in-service crews perform building inspections.

- Assigning a civilian support services manager to oversee all support functions places these responsibilities at an appropriate level within the department and takes advantage of the skills and capacity of the existing manager.

- Combining the training and special operations functions makes more effective use of management resources (two battalion chiefs are not needed to manage these functions)

- Establishing an assistant to the chief position provides the fire rescue chief with much needed support capacity he can direct as needed.

- Charging the training captains who are assigned to each shift with responsibility for supervising Stations 7 and 8 will enhance management oversight at these stations

- Creating the assistant to the chief position and charging the training captains with supervisory responsibilities creates opportunities for staff to develop the skills needed to assume more senior positions in the department

Implementing the recommended organizational structure will result in a net reduction of one assistant chief position.

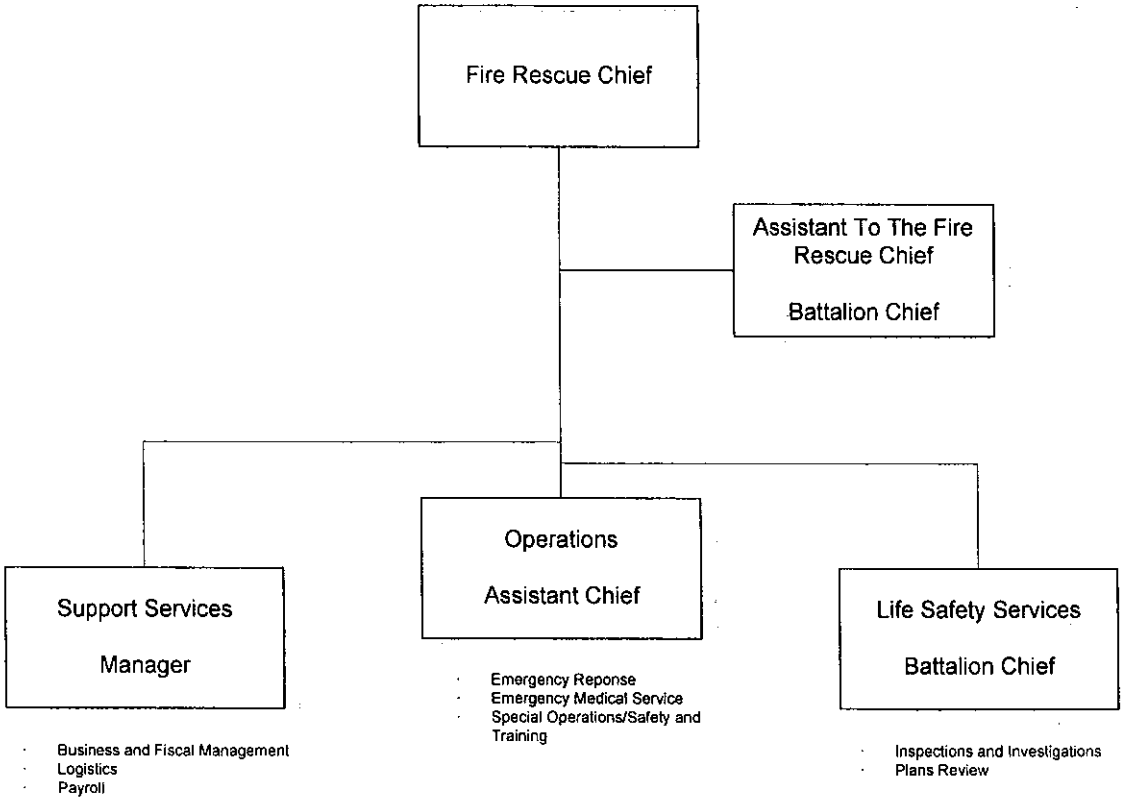
MANAGING HOW STAFF SPEND TIME WHEN NOT RESPONDING TO INCIDENTS

A challenge faced by many fire rescue departments – and the West Palm Beach Fire Rescue Department is no exception – is to ensure operations staff make effective use of their time when not responding to incidents. The nature of the work performed by fire rescue crews is such that periods of intense activity are followed by periods of inactivity. There is a natural tendency for firefighters to relax after completing an incident while awaiting the next alarm. Given that the number of working fire incidents to which the department responds is low, however, it is imperative that firefighters devote a significant amount of this time to training and other activities that will improve their response. Few, if any, firefighters will hone the skills needed for effective response based solely on what they experience at fire scenes. Effective training is therefore essential to effective response.

The department has already taken some worthwhile steps to improve the effectiveness with which firefighters use their time between incidents. Additional emphasis is needed to ensure that firefighters use the time between incidents to develop capabilities that will improve their response in the future. In particular, the department should require firefighters to focus on the following activities when not responding to calls: conducting in-service inspections, developing pre-incident plans; conduct post-incident analyses and participating in physical training.

Exhibit II-2

FIRE RESCUE DEPARTMENT RECOMMENDED ORGANIZATION



IMPROVING THE EFFICIENCY OF LIFE SAFETY DIVISION OPERATIONS

Three opportunities have been identified to improve the efficiency of life safety division operations. First, the department should assign fire inspectors to work four ten-hour days and adjust the operating hours of the division. Changing the schedule in this manner would reduce somewhat the unavoidable down time at the beginning and end of each shift. Second, the efficiency of inspectors should be improved by providing them with a PDA that links to each inspector's laptop computer and a mobile printer. Investing in this technology will allow inspectors to enter inspections information directly into the PDA rather than on paper (which they later must type into the computer) and to print an inspection report at the inspection's site. Third, the life safety division's historical records, which are currently housed in 26 file cabinets in the division offices, should be scanned into the department's FileNet system. Doing so will provide an automated record of all activity associated with an address. It will also decrease the time inspectors spend searching through paper files to find information.

RECRUITING A DIVERSE WORK FORCE

Department leaders are clearly committed to strengthening the diversity of the West Palm Beach Fire Rescue Department. Despite the efforts of department leaders to recruit diverse employees, the West Palm Beach Fire Rescue Department is much less diverse than the overall West Palm Beach community.

Two themes emerge from a review of best practice employed by other jurisdictions to recruit a diverse workforce. First, the broader the range of recruiting strategies that are used the more likely recruiting efforts will be successful. Second, incentives can be helpful in differentiating a department from its competitors. Implementing strategies consistent with either theme, however, will require resources. If recruiting a diverse work force is a department priority, an investment will be needed.

Investments alone, however, are unlikely to ensure success in recruiting more qualified minority applicants. The fact that the West Palm Beach Fire Rescue Department does not train firefighters but instead requires applicants to already be certified to qualify for employment puts the department at a competitive disadvantage when it comes to minority recruiting. It seems likely that establishing a cadet program – through which qualified minority candidates begin working for the department while obtaining their certification – must be married to more intensive (and expensive) recruiting efforts if significant progress in recruiting a diverse work force is to be made.

ESTABLISHING FITNESS REQUIREMENTS

Firefighting is a strenuous occupation and firefighters who are not physically fit put both themselves and other firefighters at risk. Nonetheless, the department does not currently require operations staff to meet minimum physical fitness standards. To address this issue the city, department, and union should work together to establish a wellness program for firefighters and a requirement that firefighters maintain a given level of fitness to remain employed. In developing this program the city, department, and union should review the practices employed by other fire departments that recognize the crucial role firefighter fitness plays in ensuring the safety of all firefighters.

IMPROVING TRAINING

Over the past year the department has worked to strengthen its training program with its first priority being to ensure consistency in providing training across shifts. Despite these efforts the department's current training program has a number of deficiencies including the following: lack of a comprehensive training plan; assigning training captains to serve as company officers on a frequent basis; inconsistent training across shifts; and poor documentation of training. To address these issues the department should develop a comprehensive training plan; assign one training captain to each shift and ensure these staff serve as trainers; establish minimum expectations for the training that should be accomplished on each day on each shift; and require company officers to document daily training activities at least once a week.

To address its training needs the department does not need its own training facility. Instead, it should continue to use the county's training facility which, by all accounts, is more than adequate to meet the department's needs. The fact that fire companies will need to leave the city to train at this facility does not pose a significant risk because the department has more than enough capacity to handle even the most labor intensive incidents (e.g., high-rise fires) in most areas of the city. Therefore, with some redeployment of crews, the department will be able to take selected crews out of service for training at the county facility without materially compromising the safety of the West Palm Beach community.

MAKING EFFECTIVE USE OF CIVILIAN STAFF

As part of this review, a systematic assessment of what positions should be filled by civilians and what positions should be filled by commissioned firefighters was performed. The results of this analysis suggest that four classifications of positions in the West Palm Beach Fire Rescue Department currently held by commissioned firefighters should be assigned to civilians.

STRENGTHENING INFORMATION SYSTEMS

At present, the department uses a number of duplicative information systems that, in many cases, require staff to manually enter data into each redundant system because there are not automatic interfaces between them. The department should take a number of steps to address this issue. First, it should establish FIREHOUSE as the system of record and discontinue the use of the internally developed CODE 3 system. In addition, the department should take full advantage of all the features of its FIREHOUSE software (many of which are not currently used). The department should also develop a process for ensuring that case information is updated after an incident call. Moreover, if the department continues to use the Telestaff scheduling staff designated support staff in the city's information services department and one additional fire rescue department employee should be trained to support the system. (At present, this system is not adequately supported.)

MODIFYING EMS BILLING

The entire EMS billing process is manual and cumbersome. Current processes require the same data to be entered a number of times. In addition, the process for handling customer service calls is convoluted and results in call transfers between the department's EMS billing office and the city's finance department. To address this issue the department should automate the process of automating the process of entering

billing information. Whether the billing function is outsourced on remains in-house automating the data entry process is the key to improving this function's efficiency.

ADJUSTING INCENTIVE PAY

The department currently provides full incentive pay of three percent for each type of special operations certification held by firefighters regardless of whether the certification is required by their work assignment. In many other departments, however, full incentive pay is provided only to individuals who serve as members of a special operations team and therefore use the certification as part of their day-to-day job responsibilities. Some departments provide no incentive pay to firefighters who maintain certifications not required by their assignment while others provide a lower level of compensation to these firefighters.

The department should take a mixed approach to compensating individuals for special operations certifications. 50 hazardous material technicians and 40 technical rescue technicians – the number of positions needed to staff required positions – should receive full incentive pay. The department should establish a one percent incentive pay schedule for firefighters who maintain certifications not required by their current assignment.

D – ALTERNATIVE SERVICE DELIVERY APPROACHES

In addition to taking steps to strengthen its management and operations the department should explore opportunities to reduce costs and/or improve services by implementing alternative approaches to delivering services. Specifically, costs might be reduced and/or service quality improved if the department outsourced responsibility for providing a service to a private firm or if it collaborated more closely with the city or another governmental entity (e.g., the county) to provide the service by, for example, implementing a regional or shared serves approach to delivering services.

PRIVATIZATION

A systematic assessment of the functions and services that should be considered for privatization was conducted as part of this study. The results of this analysis suggests that EMS billing services is a potential candidate for privatization and it would be worthwhile for the city to put this service out to bid. As previously discussed, any bid should include the requirement that the contractor automate the process for entering EMS billing information. The costs, risks, and benefits of contracting should then be compared with the cost, risk and benefits of continuing to providing EMS billing services using in-house staff.

SHARED OR REGIONAL SERVICE DELIVERY

A similar assessment of the potential benefits of entering into shared or regional service delivery arrangements for selected functions was performed. The results of this assessment suggests that shared or regional service delivery should be considered for the following functions:

- Ensure new construction and remodeling projects comply with fire codes
- Provide education services and outreach (the West Palm Beach Fire Rescue Department currently does not have this capacity)

- Conduct arson investigations
- Ensure fire department employees receive needed training (for specialized training)
- Provide dispatch services (this function is already handled by Palm Beach County)
- Maintain department facilities, vehicles, and equipment (vehicle and equipment maintenance services are already provided by the county)
- Provide support to fire department personnel (uniforms, equipment and supplies)

Please note that providing fire suppression and emergency medical services on a shared or regional service delivery basis is not recommended. The automatic aid agreement the city has with the Palm Beach County Fire Rescue Department provides many of the benefits that would result from providing these services on a shared or regional service delivery basis. Ensuring that current deployment approaches reflect this automatic aid creates the benefits associated with shared or regional service delivery without losing the ability to tailor services to meet local needs.

E – EMPLOYEE SURVEY RESULTS

This section presents the results of the employee surveys that were completed by fire rescue department employees in May and June 2009. Of the department's 216 employees, 173 (80 percent) responded to the employee survey. With this high level of response it can be assumed that the survey results generally reflect the opinions of all employees.

The survey is divided into seven parts: organizational climate; leadership, management, and supervision; human resource practices and employee performance management; communications; organizational structure; operating procedures and practices; and vehicles, equipment, apparatus, facilities, radios, and technology.

The results of both employee surveys are generally quite positive. In fact, these results are the most positive the consultants have seen from any employee survey of public safety employees they have conducted. Average responses[12] for all questions in each part of the survey completed by uniform staff are summarized in the following table. What is especially noteworthy about these responses is that in all areas the level of dissatisfaction (that is, the percentage of respondents who disagree or strongly disagree with a survey item) is relatively low.

[12] For questions for which the response "strongly disagree" is the most positive answer data has been adjusted to reflect the positive nature of these responses.

Survey Section	Strongly Agree/Agree	Strongly Disagree/ Disagree
Organizational Climate	81.8%	5.6%
Leadership, Management, And Supervision	73.5%	10.8%
Human Resource Practices And Employee Performance Management	48.9%	19.7%
Communications	52.2%	19.3%
Organizational Structure	57.1%	24.0%
Operating Procedures And Practices	57.9%	18.7%
Vehicles, Equipment, Apparatus, Facilities, Radios, And Technology	63.3%	15.9%

Survey results are even more positive for civilian employees. Fewer than 15 percent of the respondents voiced dissatisfaction for each of the seven survey sections.

Survey Section	Strongly Agree/ Agree	Strongly Disagree/ Disagree
Organizational Climate	71.1%	6.1%
Leadership, Management, And Supervision (a)	54.8%	2.9%
Human Resource Practices And Employee Performance Management (a)	34.1%	14.3%
Communications (a)	44.7%	10.7%
Organizational Structure (a)	33.4%	9.5%
Operating Procedures And Practices	38.1%	9.5%
Vehicles, Equipment, Apparatus, Facilities, Radios, And Technology	57.2%	9.8%

(a) Response data for civilians is somewhat skewed in this area due to a large number of "no opinion" responses to some questions.

F – ANALYSIS OF EMPLOYEE COMPENSATION PREFERENCES

This section summarizes the results of an analysis of employee compensation preferences that was conducted as part of this study. The overall results of the analysis, while not surprising, have significant implications for how compensation for fire rescue department employees should be structured. Put simply, the results indicate that the impact changes in compensation have on employee utility varies, in some cases significantly, depending on the employee's tenure with the department. The implications of this overall finding are straightforward. The city can maximize the benefit created by increasing compensation and minimize the negative impact of reducing compensation by offering as much choice as possible in how employees are paid. "One size fits all" approaches to structuring compensation – while fair on the surface – actually create differential benefits for employees in different tenure groupings.

G – IMPLICATIONS

Implementing the recommendations presented in this report will enable the fire rescue department to strengthen its services while substantially reducing costs. As the following table shows, 32 positions can be discontinued without materially compromising the level of service West Palm Beach residents receive.

Unit	Addition/ (Reduction)
Administration	(1)
Operations	(34)
Life Safety	3
Total	(32)

An additional 18 positions can be discontinued if the workweek for firefighters is increased from 48 hours per week to a more standard (for firefighters) 53 hours per week. This would bring the total number of positions that can be discontinued to 50.

III – APPARATUS DEPLOYMENT AND STAFFING

III – APPARATUS DEPLOYMENT AND STAFFING

This chapter is divided into five sections. The chapter begins by providing a brief overview of how the department's fire suppression and emergency medical response capacity is currently deployed. The level of service the fire rescue department currently provides is then presented. An analysis of how apparatus deployment and staffing can be modified to reduce costs while maintaining the current level of service is presented next. The fourth section presents an alternative approach to scheduling operations staff. The final section presents the staffing implications of implementing these recommendations.

A – CURRENT DEPLOYMENT

This section is divided into two parts: station location, and apparatus deployment and staffing.

STATION LOCATION

The emergency response capabilities of the West Palm Beach Fire Rescue Department is currently deployed at eight stations located throughout the city.

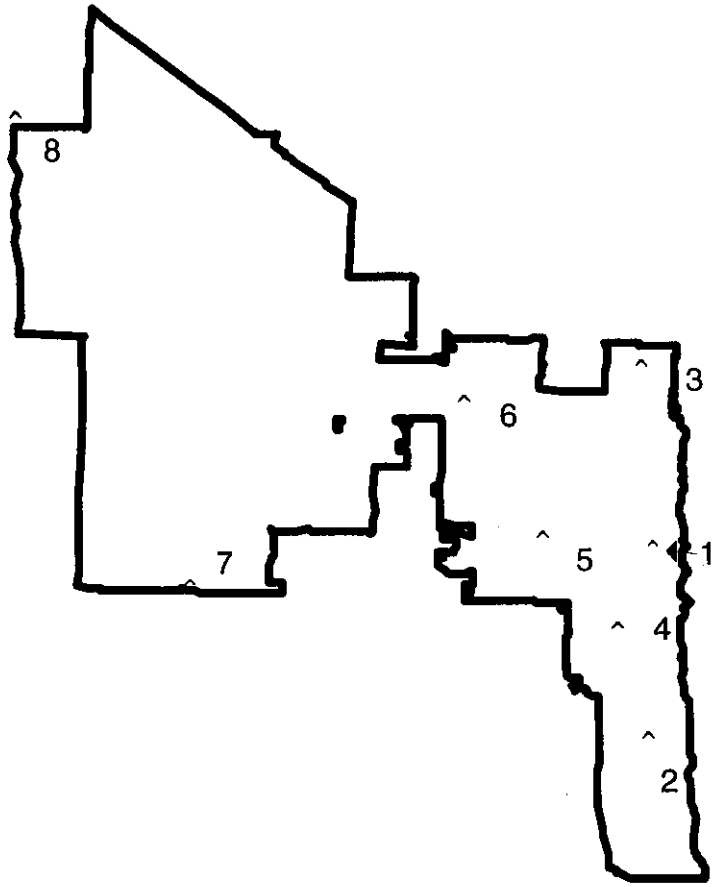
Station	Address
Station 1	500 No Dixie Hwy
Station 2	4301 So Dixie Hwy
Station 3	5050 Broadway
Station 4	1718 Parker Ave
Station 5	700 No Congress Ave
Station 6	3033 Cumberland Dr
Station 7	8007 Okeechobee Blvd
Station 8	10965 Northlake Blvd

As Exhibit III-1 shows, most fire stations are located in the east part of the city where the preponderance of the population and business activity is located. In addition, two fire stations (Station 7 in the southwest edge of the city and Station 8 in the northwest edge of the city) serve isolated pockets of population in areas of the city that cannot be easily accessed by apparatus located at the other stations. Please note that the areas of the city that do not have fire stations are primarily undeveloped areas without any residential or commercial activity.

APPARATUS DEPLOYMENT AND STAFFING

The fire rescue department's emergency response capacity is deployed on three types of apparatus – engines, ladder trucks, and rescues. The primary function of each of these apparatus and the number of staff deployed on each is summarized in the following table.

FIRE STATION LOCATION



Apparatus	Purpose(a)	Staffing
■ Fire Engine/ Heavy Rescue Squad	■ Make initial attack on fire ■ Respond to medical emergencies	■ Lieutenant or Captain ■ Driver ■ Firefighter
■ Ladder Truck	■ Provide assistance at fire scenes (e.g., ventilation, search and rescue) ■ Respond to medical emergencies ■ Attack fire(b)	■ Lieutenant or Captain ■ Driver ■ Firefighter
■ ALS Rescue	■ Respond to medical emergencies ■ Transport individuals requiring medical assistance to hospitals and trauma centers ■ Provide assistance at fire scenes	■ Lieutenant ■ Driver ■ Paramedic

(a) The actual use of each type of apparatus at a particular incident scene will depend on the circumstances at that scene.
(b) Department ladder trucks are vehicles known as quints that carry water in addition to an aerial apparatus.

The department also operates a specialty-equipped apparatus at Station 2 to respond to hazardous materials calls. This unit is staffed with one dedicated driver but other staff on each shift have been specially certified to handle hazardous materials calls.[13] A number of staff are certified to respond to technical rescue calls and the department maintains the equipment needed to respond to such calls. Moreover, because two paramedics are assigned to each apparatus the department is able to provide an advanced life support (ALS) response to all medical emergencies.

In addition to the staff assigned to each apparatus three additional positions are assigned to each shift – a battalion chief provides overall management and leadership to the shift and responds to all structure fire calls, an EMS captain provides technical supervision and quality assurance relating to emergency medical calls, and a training captain[14] oversees the delivery of training on each shift and responds to emergency incidents when needed.

[13] Please note that the staffing of this apparatus (and a special operations battalion chief) are funded through the solid waste district and are responsible for responding to hazardous materials calls outside of West Palm Beach.

[14] While a training captain position is assigned to each shift, this position is not part of the shift minimum staffing requirement.

The total staffing that is needed on each shift at each station is summarized in the following table.

Station	Apparatus	Staffing
Station 1	■ Battalion Chief	1
	■ EMS Captain	1
	■ Fire Engine	3
	■ Ladder Truck	3
	■ Rescue	3
Station 2	■ Fire Engine	3
	■ Rescue	3
	■ Hazardous Materials Truck	1
Station 3	■ Fire Engine	3
	■ Rescue	3
Station 4	■ Fire Engine	3
	■ Rescue	3
Station 5	■ Ladder Truck	3
	■ Rescue	3
Station 6	■ Fire Engine	3
	■ Rescue	3
Station 7	■ Ladder Truck(a)	3
	■ Rescue(a)	
Station 8	■ Fire Engine(a)	3
	■ Rescue(a)	
Total		48

(a) A lieutenant, driver, and firefighter are assigned to Stations 7 and 8. They will respond on one of the two apparatus assigned to their station depending on the type of call received.

B – CURRENT LEVEL OF SERVICE

Most West Palm Beach Residents Receive A Very High Level Of Fire Rescue Department Service

A key measure of the level of service a fire rescue department provides is the time required for apparatus to respond to incidents in the community. Based on this measure the level of service West Palm Beach residents receive for both fire and emergency medical services is quite high.

Response to fire incidents – fire engines. The National Fire Protection Association (NFPA) Standard 1710 has established an expectation that the travel time for the first responding engine company to arrive at a fire suppression scene be four minutes. (If one minute is required to dispatch a call and one minute of "turnout" time is needed the NFPA 1710 standard is six minutes from the time the call is received to the time the first responding apparatus arrives at the incident scene.) Other communities have

established a somewhat longer response time expectation for engine companies – for example, five minutes[15] (or seven minutes if dispatch and turnout time is considered).

When viewed from the perspective of these standards the performance of the West Palm Beach Fire Rescue Department is good. As the following table shows 49.1 percent of all structure fires are responded to within six minutes from the time a call is received and 21.5 percent are responded to within seven minutes.

Response Time	Percent
6 minutes or less	49.1%
6 to 7 minutes	21.5%
7 to 15 minutes	27.8%
15 to 30 minutes	1.6%

These results are not surprising when one conducts an analysis of station locations and the areas that can be reached by an engine company from these stations. As shown in Exhibit III-2, an engine can reach most but not all populated areas of the city within four minutes (which equates to a six minute response time when dispatch and turnout time is considered).

Response to fire incidents – ladder trucks. NFPA 1710 also suggests that the full first alarm assignment at the incident arrive within eight minutes travel time (or ten minutes from the assignment of the call to allow one minute for turnout and one minute for dispatch). As the following table shows, the truck companies that are dispatched with engines[16] meet this service expectation 86.8 percent of the time.

Response Time	Percent
10 minutes or less	86.8%
10 to 11 minutes	4.8%
11 to 15 minutes	6.6%
16 to 30 minutes	1.8%
More than 30 minutes	0.0%

The mapping analysis presented in Exhibit III-3 confirms that truck companies can reach most, but not all, populated areas of the city within eight minutes travel time (or within ten minutes after turnout and dispatch time is considered).

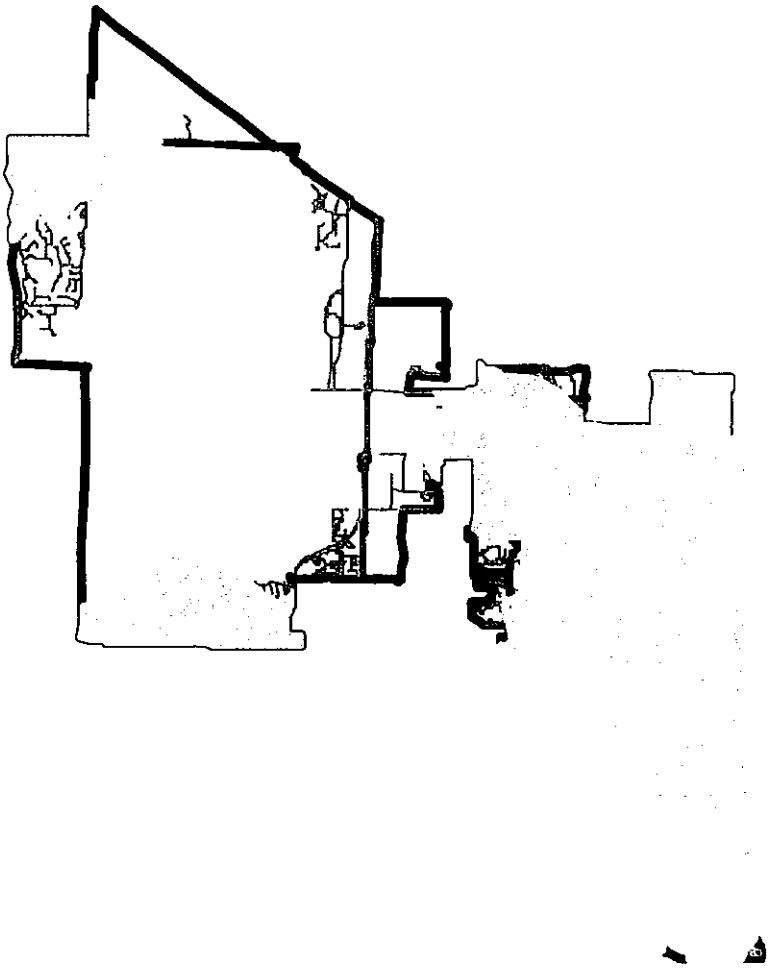
Response to emergency medical calls. Response time is also a key measure of the level of service the department provides to emergency medical calls. NFPA 1710 suggests that a first responder respond to emergency medical incidents within four minutes (or six minutes after considering turnout and dispatch time) and an advanced life support unit within eight minutes (or ten minutes when turnout and dispatch time is considered).

[15] Six minutes is generally considered the outer range of acceptable travel times for first due engines to fire incidents.

[16] This analysis calculates the response time of the first, second, third, and fourth apparatus arriving at an incident scene. Please note that some of these trucks might be dispatched as part of a second alarm.

AREAS THAT CAN BE REACHED WITHIN FOUR MINUTES

(Area covered is shown in gray)



AREAS THAT LADDER TRUCKS CAN REACH WITHIN EIGHT MINUTES

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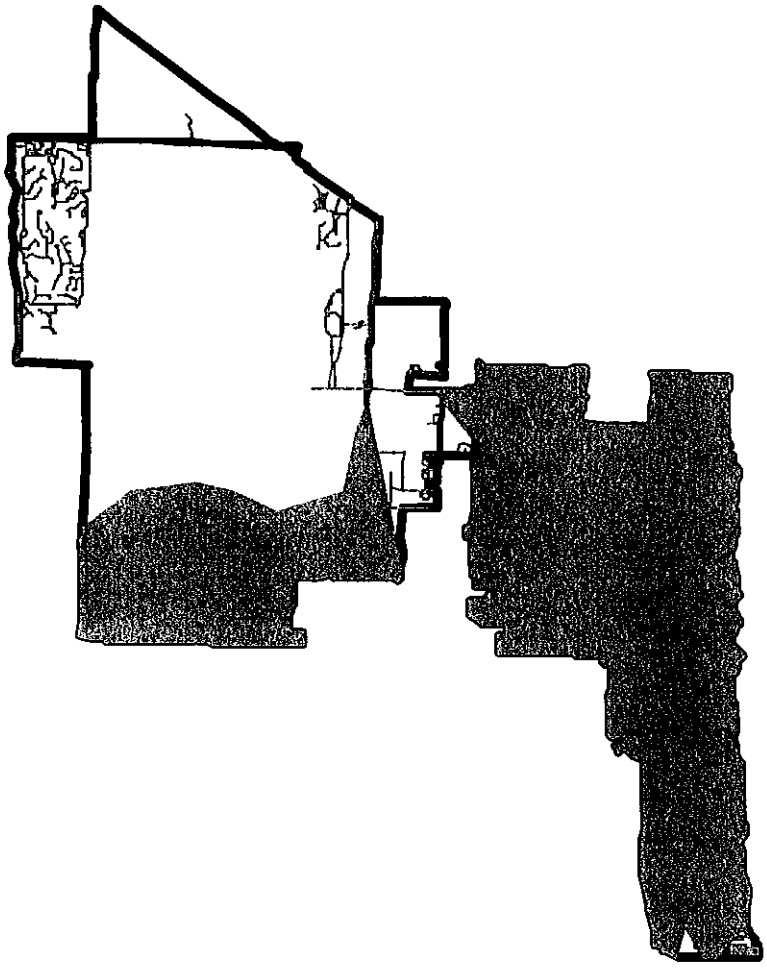


In West Palm Beach 57.2 percent of all life threatening[17] medical emergencies are responded to by an apparatus within six minutes and an additional 17.4 percent are responded to within seven minutes.

Response Time	Life Threatening Percent	Other Emergency Percent
6 minutes or less	57.2%	55.7%
6 to 7 minutes	17.4%	16.1%
7 to 15 minutes	24.5%	27.1%
15 to 30 minutes	0.9%	1.1%
More than 30 minutes	0.0%	0.0%

However, because all West Palm Beach apparatus are ALS capable an ALS equipped unit responds to the same percentage of calls. The department's good performance is not surprising given that, as Exhibit III-4 shows, most areas of the city can be reached by an ALS equipped vehicle within four minutes travel time.

C – ANALYSIS OF APPARATUS DEPLOYMENT AND STAFFING

This section is divided into two parts. First, an introduction to the analysis is presented. Next, a step-by-step assessment of apparatus deployment and staffing needs is presented.

ANALYSIS OVERVIEW

Two factors must be considered when evaluating a fire rescue department's first alarm response to incident scenes. First, the analysis must ensure that apparatus with needed capabilities and equipment respond. Second, the analysis must ensure that the number of staff responding to the incident is adequate to handle the functions that need to be performed as part of a first alarm.

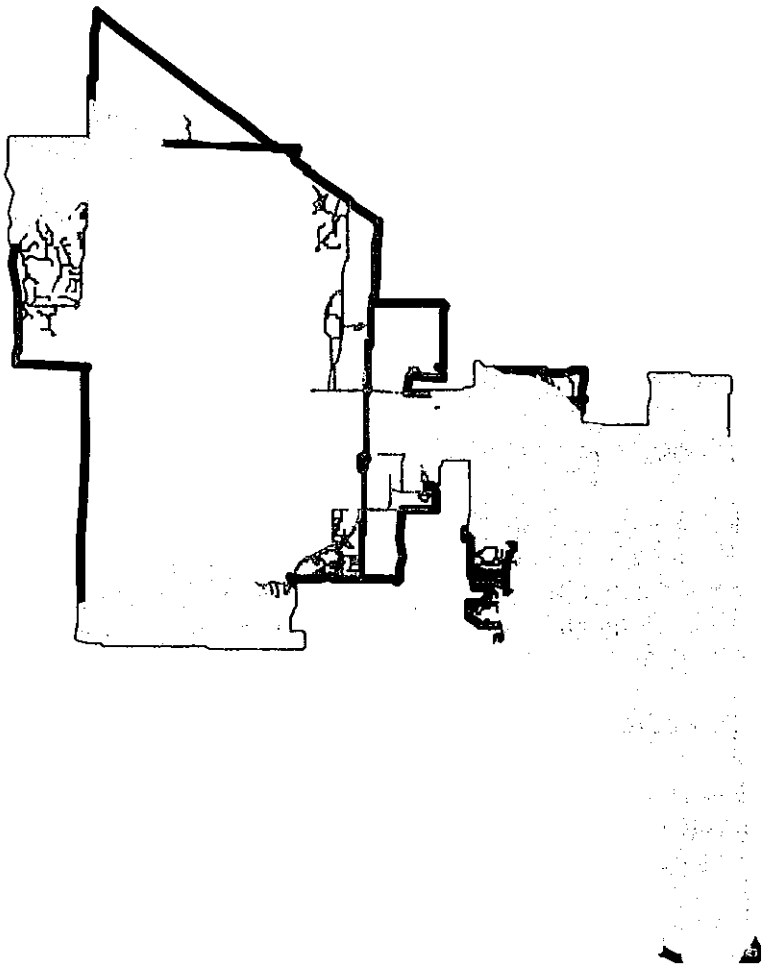
Ensuring Apparatus With Needed Capabilities And Equipment Respond

While the types of apparatus responding to an incident is important, apparatus response does not typically drive response needs at an incident scene. This is true because meeting requirements relating to the number of staff needed to respond to the incident typically ensures more than enough apparatus and equipment will be available at the incident scene. Consider, for example, a response to a structure fire. Two engines, a ladder, and a rescue unit represent an adequate response to such an incident. However, if more than the 12 personnel assigned to these apparatus in West Palm Beach are needed – three firefighters are assigned to each apparatus – additional apparatus will need to be deployed (or more than the number needed to effectively handle a first alarm). The number of staff needed at the incident scene – not the number and type of apparatus – therefore is the primary determinant of staffing needs. Please note that in the discussion of the number of staff needed to respond to incidents which follows, in each and every case the apparatus needed to bring these staff to the incident

[17] Life threatening calls include cardiac, cardiac arrest, choking, trouble breathing, toxic fume exposure, seizure, stroke, diabetic problem, allergic reaction, fall, burns, electrocution, traffic accident – pedestrian, boat accident, small aircraft incident, car in canal, industrial accident, suicide attempt, shooting, stabbing, drowning, diving accident, water skiing accident, SCUBA accident, poisoning, and overdose.

AREAS THAT RESCUE UNITS CAN REACH WITHIN FOUR MINUTES

(Area covered is shown in gray)



scene are more than adequate to effectively handle the incident as part of a first alarm response.

Ensuring Sufficient Staff Respond To An Incident

The number of staff that needs to respond to an incident is determined primarily by the activities that need to be performed at an incident scene. Exhibit III-5 presents a summary of the activities required at each incident scene and Berkshire Advisors' assessment of the number of staff needed to perform each activity and the total number of staff needed for response. As Exhibit III-6 shows, the recommended response differs from the current West Palm Beach response in a number of ways. As indicated in Exhibit III-6 these differences relate primarily to the following factors:

- West Palm Beach currently deploys three staff to rescues while, in the consultants' assessment, two staff are sufficient to respond to most incidents (as long as staff from another apparatus are available to provide additional support when needed)

- West Palm Beach uses three-person teams to perform most fire suppression activities (e.g., ventilation, search and rescue) while in the consultants' assessment two staff can perform these functions

- West Palm Beach provides less capacity outside the fire structure for rapid intervention support than the consultant recommendation

- West Palm Beach provides a safety officer as part of a first alarm response to structure fires whereas the consultants would provide a safety officer as part of a second alarm response

Please note that there is not one "right" way to respond to fire incidents. (Indeed, as Exhibit III-7 shows, there is considerable variation in how the benchmark jurisdictions respond to incidents.) Response to incidents depends on the approach fire departments take to managing risk at fire scenes (for example, determining whether assigning more staff to activities in a building is better than providing more resources to provide rapid intervention support that are deployed outside the building), assessments as to what risks are associated with providing resources (such as a safety officer) as part of a second alarm versus a first alarm[18], decisions about how crews can be assigned at fire scenes,[19] and decisions about how important it is to have an officer direct most crew

[18] Providing capacity as part of a first alarm ensures resources are available at the fire scene immediately. Resources provided as part of a second alarm will arrive four to eight minutes later but are only deployed when they are needed. Assigning more resources as part of a first alarm is a more risk averse but expensive approach to responding to incidents because many of the resources deployed to the incident will, in most instances, not be needed.

[19] For example, two-person crews are used by many fire departments to perform key activities at fire scenes (e.g., search and rescue, and ventilation). Assigning staff to apparatus in multiples of two facilitates assigning staff to these functions (when two-person crews are used to perform the functions). On the other hand, when a three-person crew is used one staff from the crew can be split off to provide command capacity leaving two persons to perform other activities.

ASSESSMENT OF INITIAL RESPONSE STAFFING NEEDS

Type Of Incident	Activity	Outside Building	Inside Building	Total
Car Fire (No Injuries Reported)	Attack fire with initial line	3		3
	Total Response Needed	3		3
Car Fire (With Injuries)	Attack fire with initial line	3		3
	Provide medical care and transport (if necessary)	2		2
	Total Response Needed	5		5
Dumpster/Trash Fire(a)	Attack fire with initial line	3		3
	Total Response Needed	3		3
Grass/Brush Fire(a)	Attack fire with initial line	3		3
	Total Response Needed	3		3
Structure Fire(b)	Attack fire with initial line(c)	1	2	3
	Command incident	1		1
	Search and rescue		2	2
	Ventilation		2	2
	Medical care and transportion	2		2
	Rapid Intervention Team	4		4
	Total Response Needed	8	6	14
Structure Fire With Injuries Reported(b)	Attack fire with initial line	1	2	3
	Command Incident	1		1
	Search and rescue		2	2
	Ventilation		2	2
	Medical care and transportion	2		2
	Rapid Intervention Team	6		6
	Total Response Needed	10	6	16
High Rise Fire(c)(d)	Lobby command	2		2
	Secondary command	2		2
	Investigation team		2	2
	Ventilation (one floor above)		2	2
	Search and rescue		2	2
	Back-up support (as needed)			2
	Water supply	2	2	4
	Attack fire with initial line		2	2
	Medical care and transportation	2		2
	Rapid Intervention Team/Support	8		8
	Total Response Needed	16	10	28
ALS and BLS Medical Emergencies	Medical care and transportation	2		2
	Total Response Need	2		2
ALS2 Emergencies	Medical care and transportation	3		3
	Total Response Need	3		3

(a) Assumes identifying and interviewing witnesses can be delayed until initial attack on fire has been completed.
(b) Assumes establishing secondary water source and overhaul and salvage operations can be delayed until a second alarm response.
(c) Assumes advance of second line can be delayed until second alarm response.
(d) Assumes establishment of rehab team can be delayed until a second alarm response.

COMPARISON OF INITIAL RESPONSE RECOMMENDATIONS AND WEST PALM BEACH CURRENT PRACTICES

Incident Type	Recommendation	West Palm Beach Current Response	Comments
Car Fire (No Injuries Reported)	3	3	
Car Fire (With Injuries)	5	6	West Palm Beach currently assigns three personnel to a rescue unit. The consultants suggest that two personnel can handle the incidents with assistance, if needed, from the engine company responding to the incident scene.
Dumpster/Trash Fire	3	3	
Grass/Brush Fire	3	3	
Structure Fire	14	20	West Palm Beach deploys a safety officer as part of a first alarm response while the consultants would deploy a safety officer as part of a second alarm. West Palm Beach uses three-person crews to perform ventilation and search and rescue activities while the consultants would deploy two-person crews to perform these activities. The consultants would deploy a two-person squad to provide medical support (if needed) while three-person crews are assigned to the rescue squads in West Palm Beach. Rapid intervention crews outside the structure are higher for the consultants than for West Palm Beach using current deployment strategies.
Structure Fire (Injuries Reported)	16	23	One additional two-person rescue squad would be deployed under the consultants recommendation as compared to an additional three-person rescue squads under West Palm Beach current deployment practices.
High-Rise Fire	28	27	West Palm Beach deploys three-person crews to perform most activities at the fire scene while the consultants would assign two-person crews to perform most of these activities. Rapid intervention crews outside the structure are higher for the consultants than for West Palm Beach using current deployment strategies.
BLS Medical Emergency	2	3	West Palm Beach responds to all medical calls (including BLS calls) with a three-person rescue squad (or a three-person squad from another apparatus). The consultants recommend two personnel to handle BLS calls.
ALS Medical Emergency	3	3	Three personnel are not needed on all ALS calls. However, if the situation requires that two staff provide care to the patient during transport one additional personnel will be needed to drive the vehicle.

COMPARISON OF BENCHMARK DEPARTMENT RESPONSE TO INCIDENT TYPES

Incident Type	Recommendation	West Palm Beach Current Response	Denton, TX	Flagstaff, AZ	High Point, NC	Midland, TX	N. Charleston, S.C.	Palm Bay, FL	Sioux City, IA
Car Fire (No Injuries Reported)	3	3	3 to 6	3	3	3	4	4	3
Car Fire (With Injuries)	5	6	5	3	6	6	4	4	5
Dumpster/Trash Fire	3	3	3	3	3	3	4	4	3
Grass/Brush Fire	3	3	Varies	3	3	6	4	8	3
Structure Fire	14	20	16	13	13 to 16	21	14	20	18
Structure Fire (Injuries Reported)	16	23	(a)	13	16 to 19	24	14	20	20
High-Rise Fire	28	27	(a)	25	16 to 19	30	20	20	24
BLS Medical Emergency	2	3	5	3	3	2	3	4	3
ALS Medical Emergency	3	3	5	3	N/A	(a)	N/A	4	5

(a)Data not provided.

activities.[20] In addition, however, from a practical perspective the number of firefighters assigned to apparatus affects response in significant ways. Because firefighters work and train together as teams, a fire department that assigns three persons to apparatus will be more likely to assign three firefighters to perform specific activities at fire scenes. In addition, even if there were agreement that five firefighters are sufficient to perform some activities (for example, responding to car fires with injuries) a fire department such as the West Palm Beach Fire Rescue Department would need to send six firefighters to the incident because fire apparatus are staffed with three-person crews.

While, from the consultants' perspective, the West Palm Beach Fire Rescue Department deploys more firefighters to some incidents (most notably structure fires) than are needed the consultants also recognize that reducing the number responding would require significant retraining and would be difficult to implement. For the purposes of the analysis presented in this report, therefore, the fire rescue department's current response to incidents will be used to assess staffing needs. While taking this approach is conservative in terms of evaluating staff resources it also reflects the tradeoff the department currently makes in evaluating how best to manage risk at fire scenes and will not require the department to undergo significant retraining to implement study recommendations.

ASSESSMENT OF APPARATUS DEPLOYMENT AND STAFFING

The analysis of apparatus deployment and staffing has three primary components:

- Conduct a geographic analysis to determine where apparatus should be deployed to ensure response time expectations are met
- Conduct queuing analysis to ensure a high probability that apparatus will be available when needed
- Conduct staffing analysis to ensure sufficient staff will be available to respond to emergency scenes

The analysis of apparatus deployment and staffing was conducted in ten steps.

Step 1: Establish baseline service expectations for emergency medical and fire suppression response. With some modifications, the standards set forth in NFPA 1710 were used to set service expectations for the West Palm Beach Fire Rescue Department. These response time expectations[21] were as follows:

- Four minutes or less for the arrival of the first arriving engine at a fire suppression incident 90 percent of the time

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[20] When three persons are deployed to handle an activity an officer can direct the crew. When two persons are deployed the fire department must have sufficient confidence in the training of those firefighters to ensure they will make sound decisions without the direction of an officer.

[21] For the purposes of this analysis, the response time expectations refer to the time required to travel to an incident scene. A one minute turnout time would need to be added to these service expectations to calculate the total response time to incidents.

- Eight minutes or less for the deployment of a full first alarm assignment at a fire suppression incident 90 percent of the time

- Four minutes or less for the arrival of a unit with first responder or high level capability at an emergency medical incident 90 percent of a time

- Eight minutes or less for the arrival of a rescue unit with advanced life support capabilities that can transport patients 90 percent of the time

Please note that these service expectations represent an extremely high level of service. As previously mentioned many fire rescue departments do not strive to respond to fire suppression incidents within four minutes. Some departments find longer response times of five minutes (and even longer, especially to predominantly new construction areas) acceptable. In addition, the expectation that an advanced life support unit with transport capabilities be available within eight minutes represents an extremely high level of service. NFPA 1710 only establishes the expectation that an ALS capable unit be available to respond within eight minutes 90 percent of the time. Any West Palm Beach apparatus responding to medical incidents are ALS capable. For the purposes of this analysis, however, the extremely conservative assumption is that ALS capable units with transport capabilities be available 90 percent of the time. In short, city decision makers could loosen the standards on which the analysis presented in this report are based and still provide a level of service that residents in most communities across the country would find more than acceptable.

Step 2: Assess the deployment of fire engines. As shown in Exhibit III-8, West Palm Beach fire engines can respond to incidents in most but not all populated areas of the city within four minutes.[22] However, when automatic response[23] from the Palm Beach County Fire Rescue Department (PBCFR) and Palm Beach Gardens is considered[24], the populated areas that cannot be responded to within four minutes is reduced, although some areas – most notably in the city's northwest (the area served by Station 8) – cannot be reached within four minutes (see Exhibit III-9). It should be noted that engines from fire stations in Riviera Beach (with which WPBFR has a mutual aid agreement)[25] do not materially improve response (see Exhibit III-10). For the most part this coverage duplicates coverage provided by automatic aid agreements with PBCFR. From a geographic perspective therefore the NFPA requirement is met for response of fire engines and first responders in almost all areas of the city.

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[22] Because ladder trucks in West Palm Beach are quints and carry the water needed to make an initial attack on a fire, ladder trucks are considered fire engines for the purposes of this analysis.

[23] Under the department's automatic response agreement with the Palm Beach County Fire Rescue Department, county fire rescue apparatus automatically respond to calls in West Palm Beach as part of a first alarm and West Palm Beach apparatus automatically respond to calls in the county.

[24] Palm Beach County Fire Rescue (PBCFR) fire engines located in stations 17, 23, 24 and 34 and Palm Beach Gardens 63 improve response coverage in West Palm Beach. Other PBCFR engines do not improve coverage in West Palm Beach.

[25] Under this mutual aid agreement assistance will be provided to calls when requested.

AREAS THAT ENGINES CAN REACH WITHIN FOUR MINUTES

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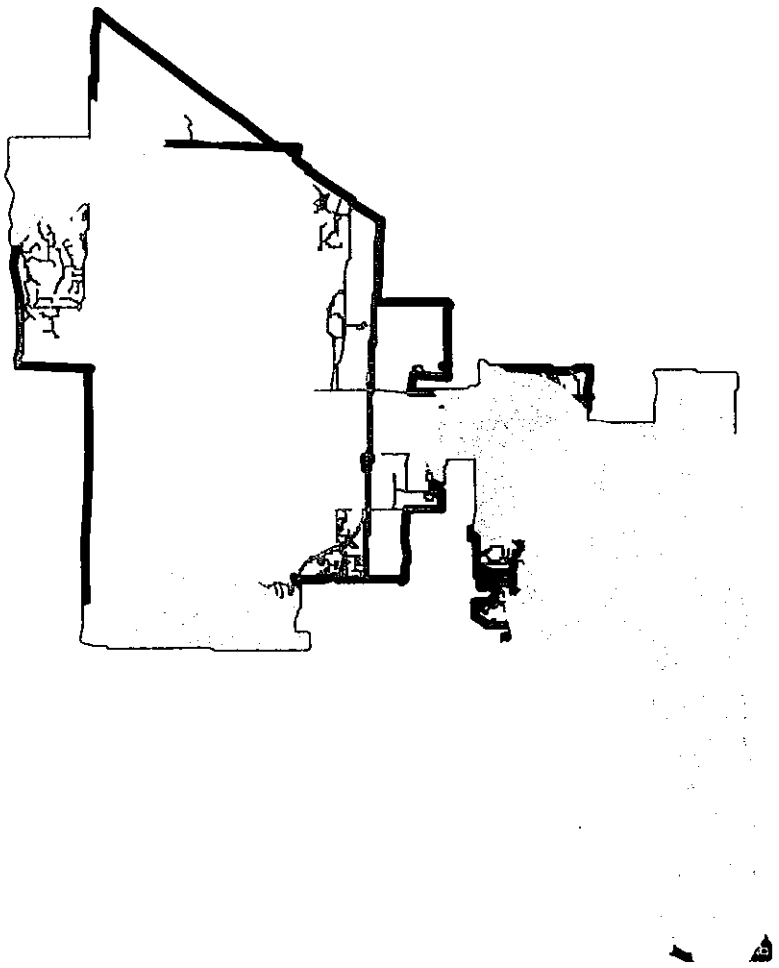
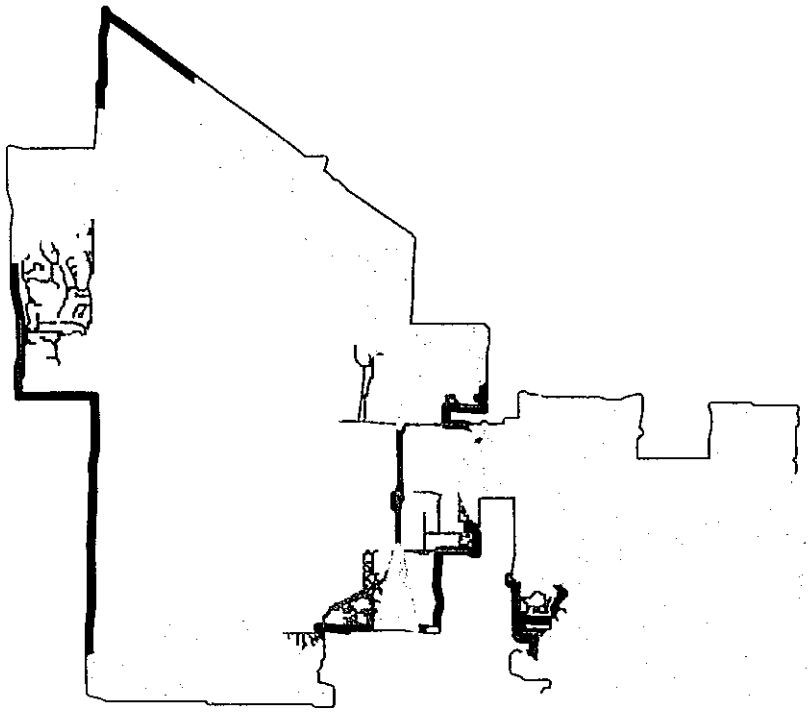


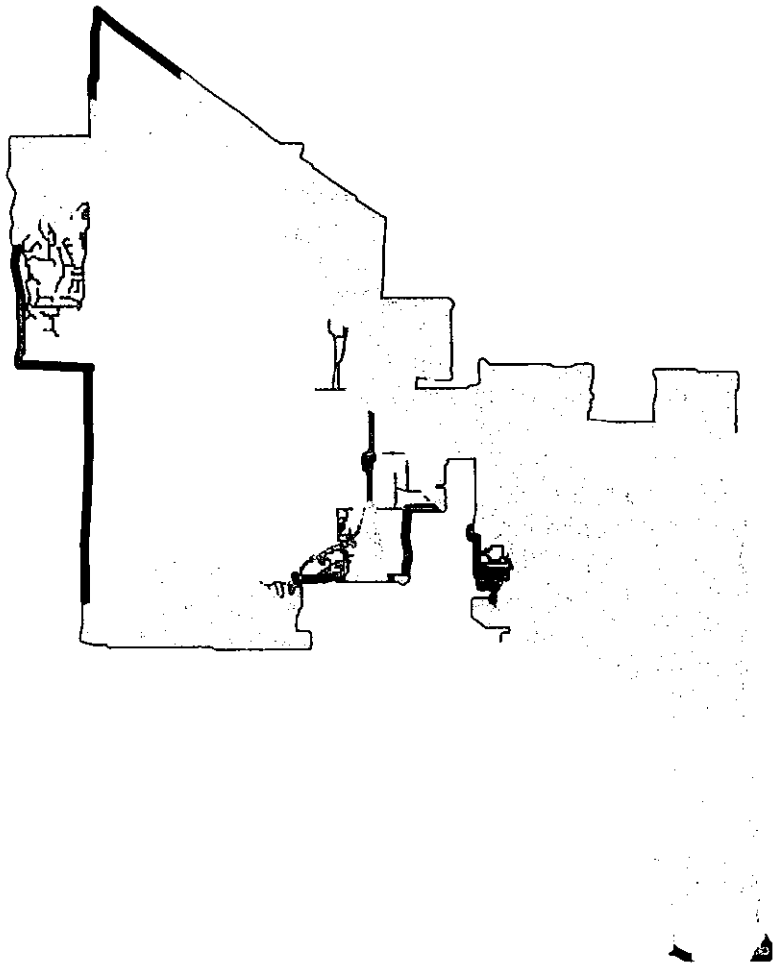
AREAS THAT CAN BE REACHED WITHIN FOUR MINUTES WITH PBCFR AND PALM BEACH GARDENS AUTOMATIC RESPONSE

(Area covered is shown in gray)



AREAS THAT CAN BE REACHED WITHIN FOUR MINUTES WITH AUTOMATIC RESPONSE AND MUTUAL AID

(Area covered is shown in gray)



There are, however, many areas of the city that can be responded to by more than one engine within four minutes (see Exhibit III-11). If the probability of receiving simultaneous requests for assistance is not high,[26] providing redundant coverage in an area provides little added protection to a community and significantly increases costs. Indeed, the engine located at Station 1 can be eliminated without reducing the areas that can be responded to within four minutes and without relying on automatic or mutual aid (see Exhibit III-12).[27]

Step 3: Assess deployment of ladder trucks. A West Palm Beach ladder truck can respond to most areas of the city within eight minutes (see Exhibit III-13). Neither automatic aid response from PBCFR ladder trucks[28] nor automatic aid response from Palm Beach Gardens[29] (see Exhibit III-14) increases the coverage area. In addition, mutual aid agreements do not increase the coverage area (see Exhibit III-15). Please note that the risk posed by a ladder truck not being able to reach some areas of the city within eight minutes is not great as these areas have few structure fires.

There is no significant overlap in the areas responded to within eight minutes by ladder trucks. Therefore, no adjustments in ladder truck deployment are recommended.

Step 4: Assess deployment of rescue units. West Palm Beach rescue units can respond to calls within most areas of the city within eight minutes (see Exhibit III-16). When automatic aid response from PBCFR and Palm Beach Gardens is considered all populated areas of the city can be responded to within eight minutes (see Exhibit III-17).[30]

As with fire engines, there is considerable duplicate coverage in the areas that can be reached by rescue units. As Exhibit III-18 shows, more than one rescue unit can reach most populated areas of the city in eight minutes or less. Indeed, rescue units can be removed from Stations 2, 3, and 5 without compromising response coverage (see Exhibit III-19)[31] and without relying on automatic aid. Please note that this analysis is extremely conservative as additional units could be removed if the department was

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[26] The likelihood that apparatus will be available when needed is assessed in Steps 6 and 7 of this analysis.

[27] An engine could also be removed from Station 4 without reducing the areas that can be reached within four minutes without relying on automatic or mutual aid.

[28] The ladder located at Station 7 can also reach the area of the city that can be reached by PBCFR Ladder 29.

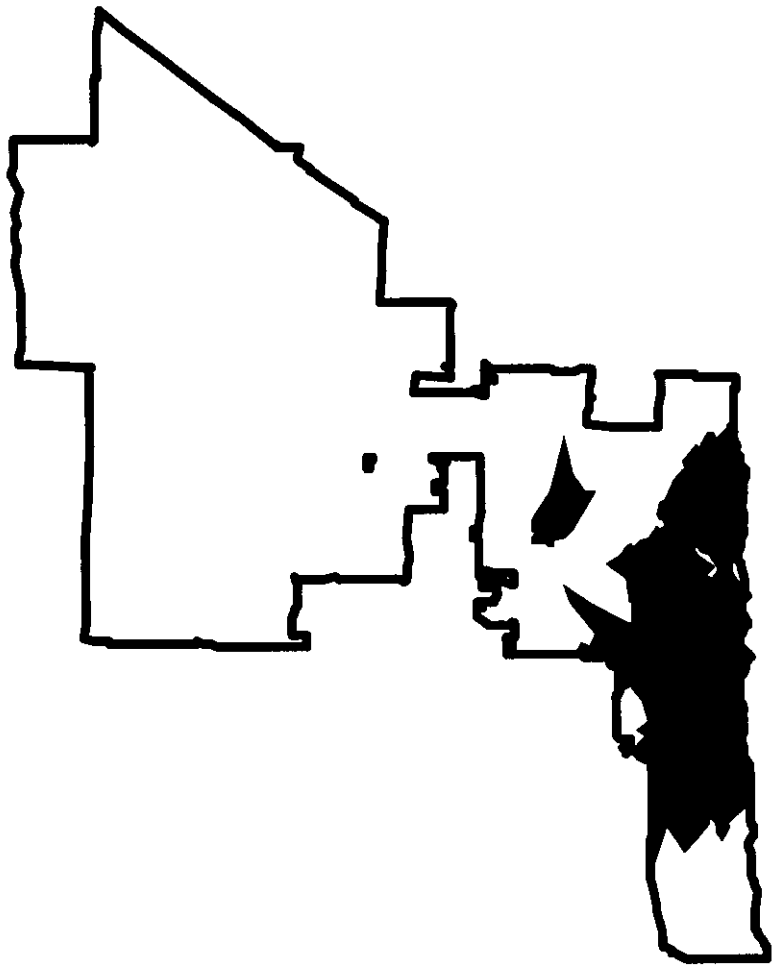
[29] The ladder located at Station 5 can also reach most of the area of the city that can be reached by Palm Beach Gardens Quint 61.

[30] PBCFR rescue units 17 and 26 can respond to some areas of West Palm Beach within eight minutes.

[31] Alternatively, rescue units could be removed from Stations 1 and 5 without reducing the populated areas of the city that can be responded to by a rescue unit within eight minutes.

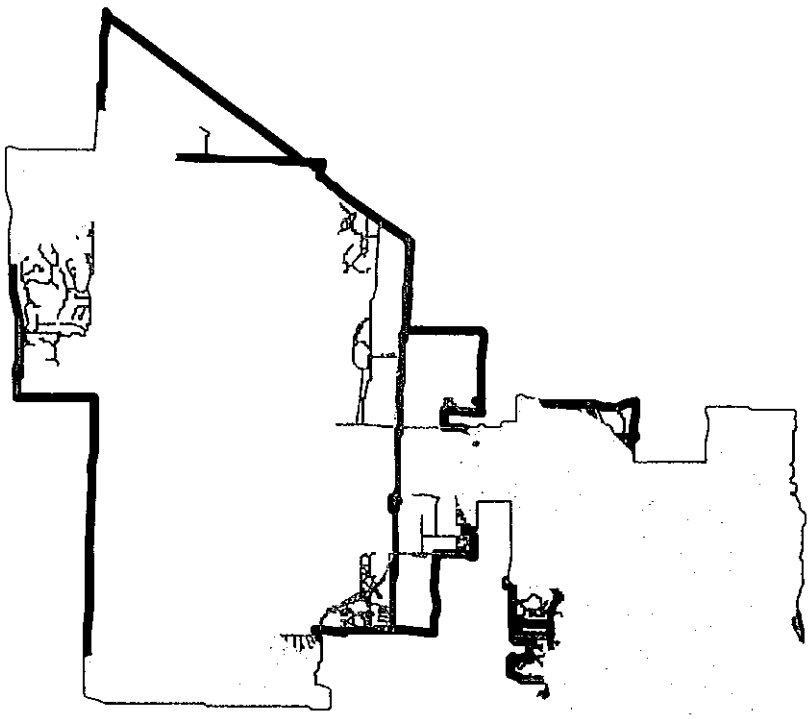
AREAS THAT CAN BE RESPONDED TO BY MORE THAN ONE ENGINE WITHIN FOUR MINUTES

(Area with redundant coverage is shown in black)



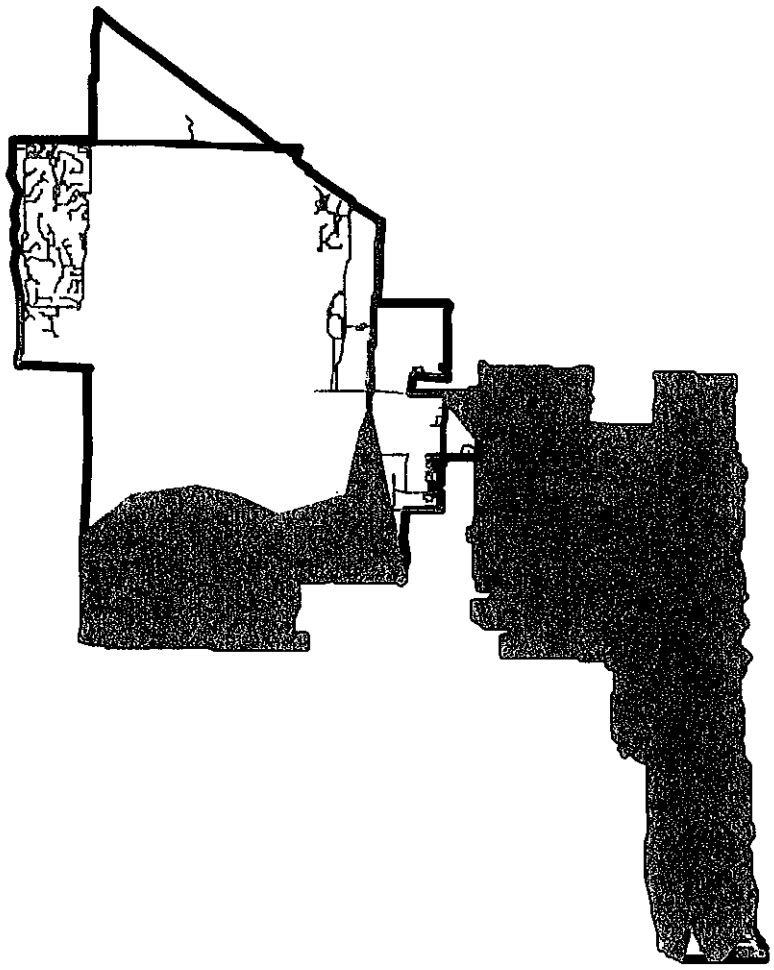
AREAS THAT CAN BE RESPONDED TO WITHIN FOUR MINUTES WITHOUT THE ENGINE AT STATION 1

(Area that can be reached is shown in gray)



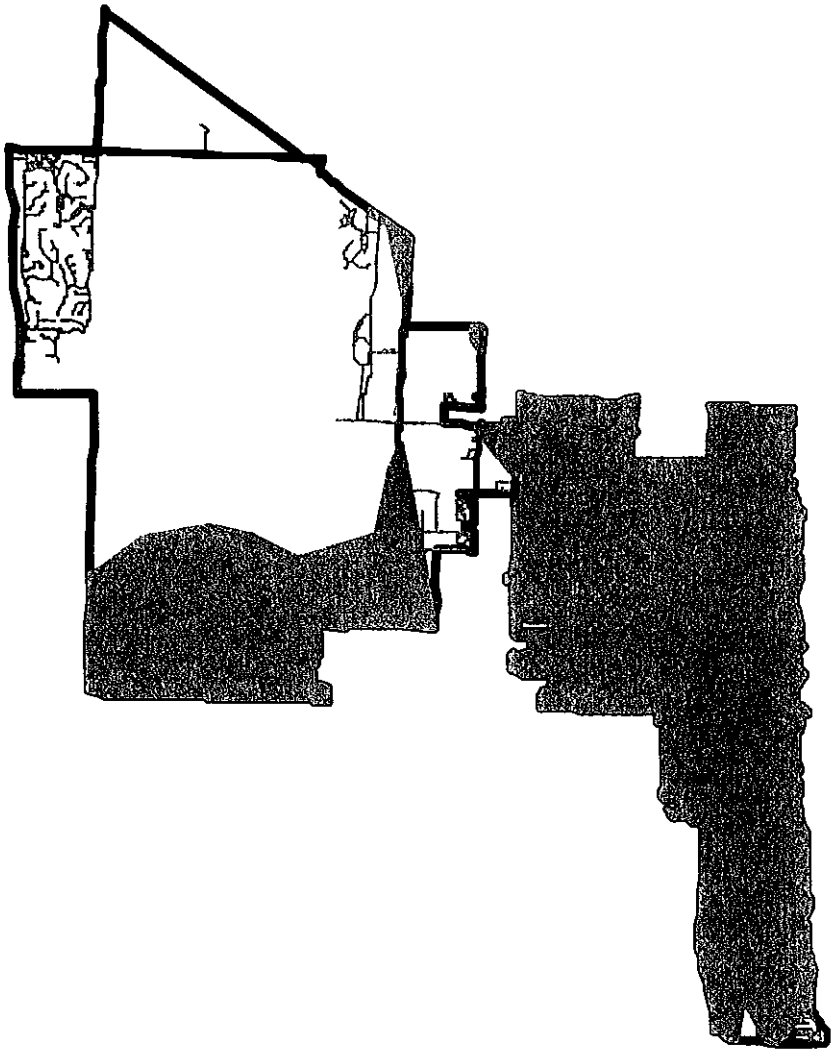
AREAS THAT LADDER TRUCKS CAN RESPOND TO WITHIN EIGHT MINUTES

(Area that can be reached is shown in gray)



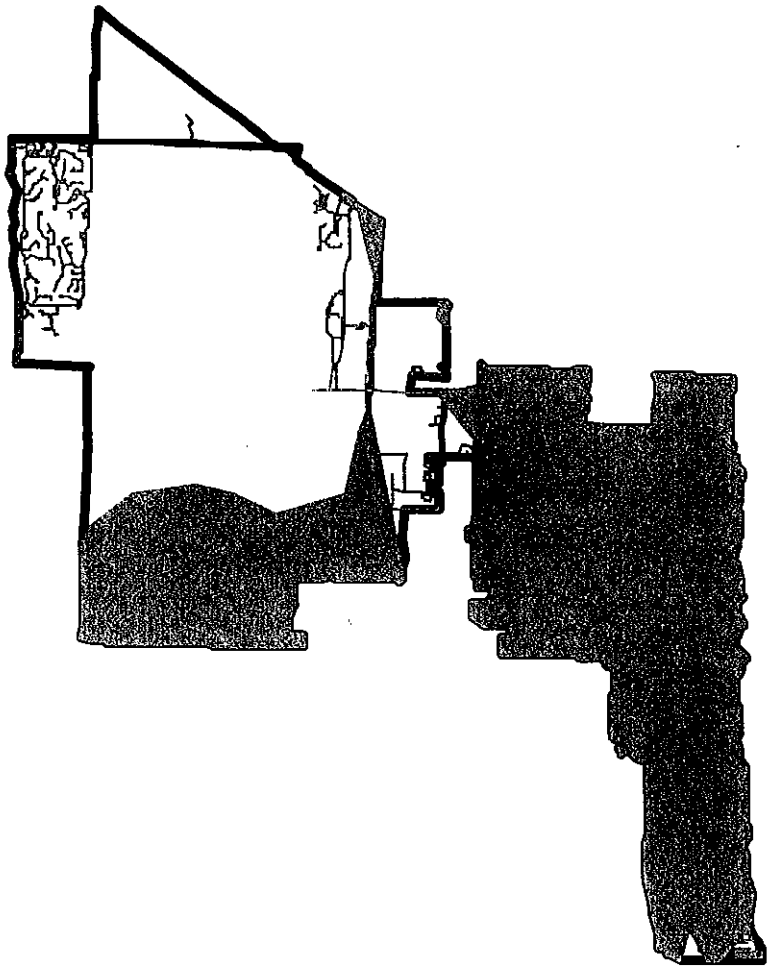
AREAS THAT LADDER TRUCKS WITH PBCFR AND PALM BEACH GARDENS AUTOMATIC AID RESPONSE CAN RESPOND TO WITHIN EIGHT MINUTES

(Area that can be reached is shown in gray)



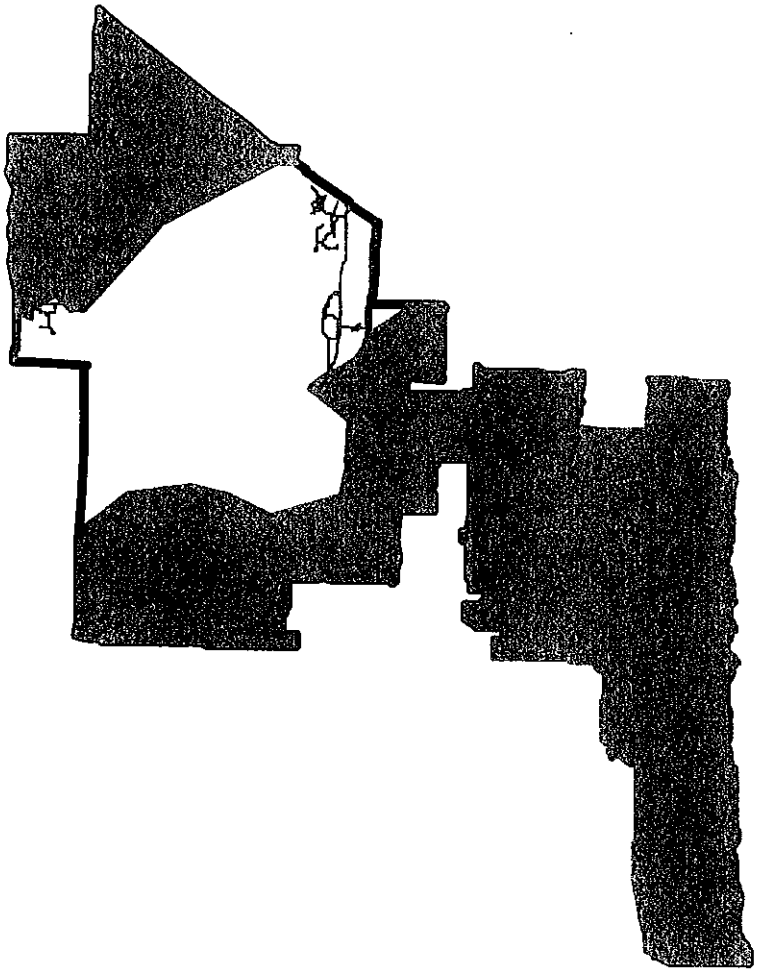
AREAS THAT LADDER TRUCKS WITH AUTOMATIC AID AND MUTUAL AID RESPONSE CAN RESPOND TO WITHIN EIGHT MINUTES

(Area that can be reached is shown in gray)



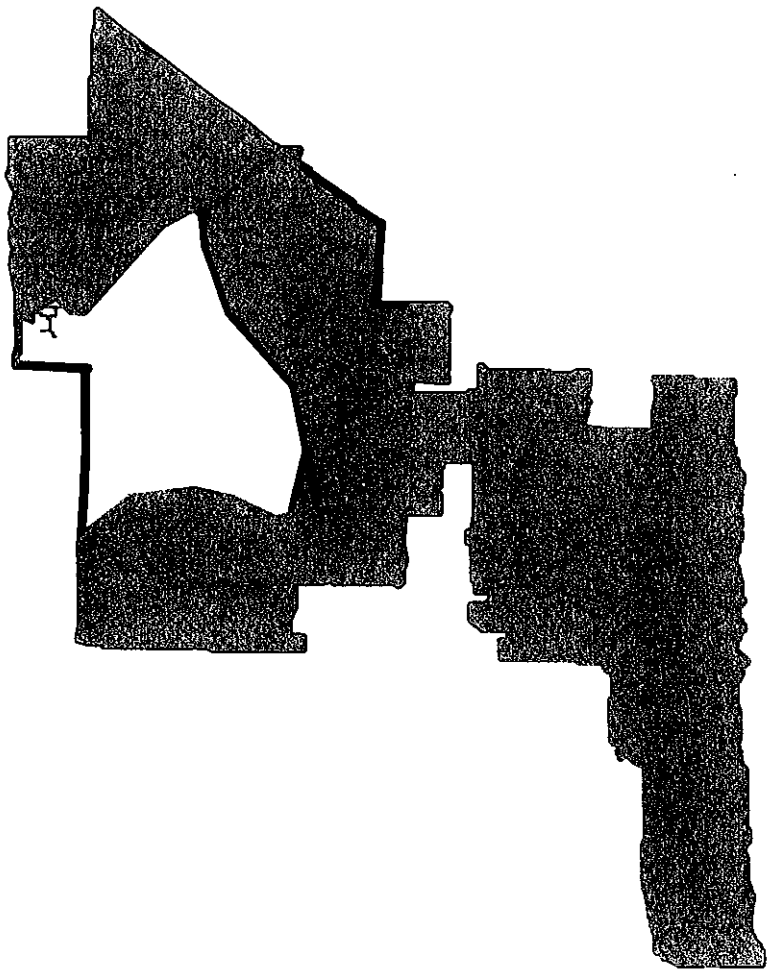
AREAS THAT RESCUE UNITS CAN RESPOND TO WITHIN EIGHT MINUTES

(Area that can be reached is shown in gray)



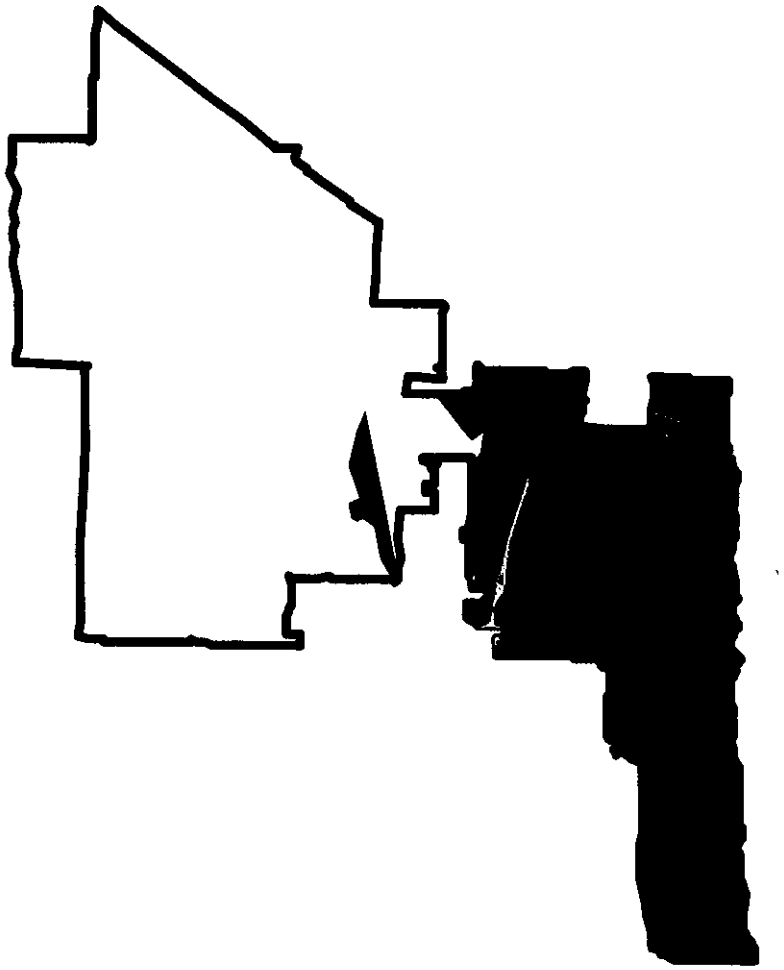
AREAS THAT RESCUE UNITS WITH AUTOMATIC AID CAN RESPOND TO WITHIN EIGHT MINUTES

(Area that can be reached is shown in gray)



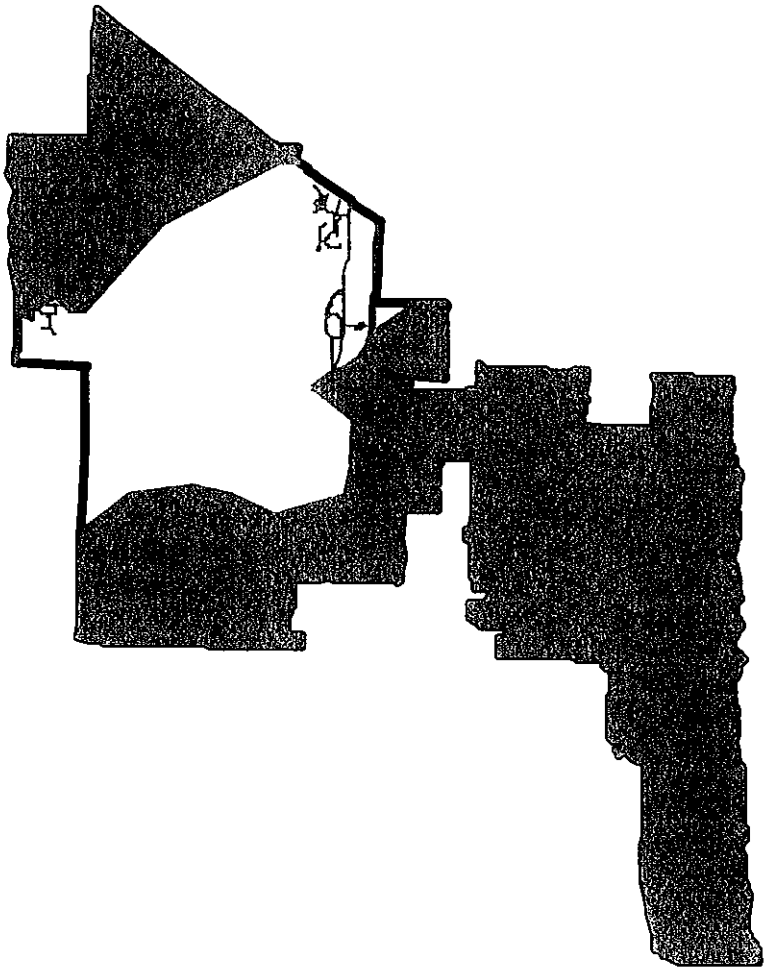
AREAS WHERE MORE THAN ONE RESCUE UNIT CAN RESPOND WITHIN EIGHT MINUTES

(Area with redundant coverage is shown in black)



AREAS WHERE RESCUES UNITS CAN RESPOND WITHIN EIGHT MINUTES IF UNITS ARE ELIMINATED FROM STATIONS 2, 3, AND 5

(Area that can be reached is shown in gray)



willing to rely on automatic aid for rescue unit response.[32] (This is a not unreasonable expectation given that department engine companies will provide the initial ALS response in most areas of the city.)

Step 5: Determine the probability that a rescue unit will be available when needed and determine whether additional units are needed. The deployment of rescue units at stations 1, 4, 6, 7, and 8 ensures adequate geographic coverage – an ALS unit with transport capabilities can reach all areas of the city within eight minutes – but provides no assurance a rescue unit will be available when needed. To assess the likelihood that an ALS unit with transport capabilities will be available queuing analysis is used.[33] The results of this analysis[34] – which assume a rescue unit should be available for response 90 percent of the time – is presented in Exhibit III-20. As this exhibit shows, two or three rescue units need to be deployed on a citywide basis (depending on the hour of the day) to ensure an ALS rescue unit with transport capabilities is available.[35]

In addition to assessing the probability a rescue unit will be available on a citywide basis, analysis was also conducted to determine the number of rescue units that need to be deployed in selected areas of the city. Exhibit III-21 presents the results of this analysis. As this exhibit shows, two ALS rescue units are needed in the areas served by Stations 1, 4, and 6 to ensure at least one unit will be available 90 percent of the time. (Please note that Station 1 will respond to calls from Station 2, Station 4 will respond to calls from Station 3 and half of the calls from Station 5 and Station 6 will respond to half of the calls from Station 5.) However, an ALS rescue unit from Station 1 can respond within eight minutes to part of the area served by Station 4 and the ALS rescue unit from Station 4 can respond within eight minutes to part of the areas served by Station 1. Therefore, no additional ALS capacity needs to be added to these areas.

By contrast, no other West Palm Beach ALS rescue unit can respond to life threatening medical emergencies in the area served by Station 6 within eight minutes. If the department relies only on its own ALS rescue units to handle these calls one additional rescue unit is needed to serve this area. When the ALS rescue capacity provided through automatic aid with the county is considered, however, the department has more than enough ALS rescue capacity to ensure a rescue unit will be available 90 percent of the time without adding additional capacity to the area served by Station 6.[36]

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[32] When automatic aid response from PBCFR and Palm Beach Gardens is considered, rescue units could be removed from Stations 2, 3, 4, and 6 (leaving rescue units at Stations 1, 7, and 8) while still ensuring all populated areas of the city can be responded to by a rescue unit within eight minutes.

[33] Queuing analysis is an operations research tool that is used to determine the number of servers (in this case, rescue units) needed to meet an expected service demand.

[34] The number of life threatening medical emergencies by hour from April 2008 to March 2009 (5,305 incidents) and the average out of service time to respond to these incidents (35 minutes) was used when conducting this analysis.

[35] It is worth noting again that this is an extremely conservative assumption. Given that ALS capable trucks and engines will be able to respond to incidents within four minutes (while NFPA 1710 suggests an eight minute response) the risk posed by a transport unit not arriving within eight minutes is not great.

[36] In addition to the ALS rescue unit assigned to Station 6, county rescue units R23 and R24 can respond within eight minutes (for a total of three including the Station 6 rescue unit).

THE NUMBER OF ALS UNITS NEEDED FOR EACH HOUR AND DAY

Hour	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
0	2	2	2	2	2	2	2
1	2	2	2	2	2	2	2
2	2	2	2	2	2	2	2
3	2	2	2	2	2	2	2
4	2	2	2	2	2	2	2
5	2	2	2	2	2	2	2
6	2	2	2	2	2	2	2
7	2	2	2	2	2	2	2
8	2	3	2	2	3	2	2
9	2	3	3	3	3	3	2
10	2	3	3	3	3	3	3
11	2	3	3	3	3	3	2
12	2	3	3	2	3	3	3
13	3	3	2	3	3	3	3
14	2	3	3	2	3	3	2
15	3	3	2	3	3	3	2
16	2	3	3	3	2	2	3
17	3	2	2	3	3	2	3
18	2	3	2	3	2	3	3
19	2	2	2	2	3	2	3
20	2	3	2	2	2	3	3
21	2	2	2	2	2	3	3
22	2	2	2	2	2	3	3
23	2	2	2	2	2	2	3

RESCUE UNITS NEEDED BY HOUR TO ENSURE 90 PERCENT AVAILABILITY

Station 1 responding to calls from Stations 1 and 2

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
0	2	1	1	1	1	1	1
1	2	1	1	1	1	1	2
2	2	1	1	1	1	1	1
3	2	0	1	1	1	1	2
4	1	1	1	0	1	1	1
5	1	1	1	1	1	1	1
6	1	1	1	1	0	1	1
7	1	1	2	1	2	1	2
8	2	2	2	2	2	2	1
9	1	2	2	2	2	2	2
10	2	2	2	2	2	2	2
11	2	2	2	2	2	2	1
12	2	2	2	2	2	2	2
13	2	2	2	2	2	2	2
14	2	2	2	2	2	2	2
15	2	2	2	2	2	2	2
16	2	2	2	2	2	1	2
17	2	2	2	2	2	2	2
18	2	2	1	2	2	2	2
19	2	2	2	2	2	1	2
20	2	2	2	2	2	2	2
21	2	2	2	2	2	2	2
22	2	1	1	2	1	2	2
23	1	1	2	1	1	2	2

RESCUE UNITS NEEDED BY HOUR TO ENSURE 90 PERCENT AVAILABILITY

Station 4 responding to calls from Stations 3 and 4 and half of calls from Station 5

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
0	2	1	2	1	1	2	2
1	2	1	1	1	2	1	2
2	1	0	1	1	2	1	2
3	2	1	1	1	1	1	1
4	1	1	1	1	1	1	1
5	2	1	0	1	1	1	2
6	1	1	1	2	1	1	1
7	2	2	2	2	1	2	1
8	2	2	2	2	2	2	2
9	2	2	2	2	2	2	2
10	2	2	2	2	2	2	2
11	2	2	2	2	2	2	2
12	2	2	2	2	2	2	2
13	2	2	2	2	2	2	2
14	2	2	2	2	2	2	2
15	2	2	2	2	2	2	2
16	2	2	2	2	2	2	2
17	2	2	2	2	2	2	2
18	2	2	2	2	2	2	2
19	2	2	2	2	2	2	2
20	2	2	2	2	2	2	2
21	2	2	2	2	2	2	2
22	2	2	2	2	2	2	2
23	1	2	2	1	2	2	2

RESCUE UNITS NEEDED BY HOUR TO ENSURE 90 PERCENT AVAILABILITY

Station 6 with half of Station 5

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
0	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	2
3	1	1	1	1	1	1	1
4	1	1	1	1	1	1	1
5	1	1	1	1	1	1	1
6	1	1	1	1	1	1	1
7	1	1	1	1	1	1	1
8	2	2	1	2	2	2	1
9	1	2	2	2	2	2	2
10	1	2	2	2	1	2	2
11	1	2	2	2	2	2	2
12	2	2	2	2	2	2	2
13	2	1	1	2	2	1	2
14	2	2	1	2	2	2	1
15	2	2	2	2	2	2	1
16	1	2	2	2	1	2	2
17	2	1	1	2	2	1	2
18	2	2	2	2	1	2	2
19	2	2	2	1	2	2	1
20	2	2	1	2	1	2	2
21	1	2	2	2	2	2	1
22	1	1	1	1	1	2	1
23	1	2	1	1	1	1	2

RESCUE UNITS NEEDED BY HOUR TO ENSURE 90 PERCENT AVAILABILITY

Station 7

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
0	0	0	0	0	0	1	0
1	0	0	0	0	0	1	0
2	0	0	1	1	0	0	0
3	0	0	0	0	0	1	0
4	0	0	0	1	0	1	0
5	0	0	0	1	0	0	0
6	1	1	0	0	1	1	1
7	0	0	1	0	0	1	0
8	1	1	1	0	1	0	0
9	0	0	1	0	1	0	1
10	1	1	1	1	0	0	1
11	0	1	1	1	0	1	1
12	1	0	1	1	0	1	1
13	1	1	1	1	1	1	1
14	0	1	1	1	1	1	1
15	1	1	1	0	1	1	1
16	0	1	0	0	1	1	1
17	1	1	1	0	1	0	1
18	1	1	1	0	1	1	0
19	1	1	1	0	0	1	0
20	1	0	1	1	0	1	0
21	0	1	1	0	0	1	1
22	0	0	1	0	0	1	1
23	1	0	0	1	1	1	1

RESCUE UNITS NEEDED BY HOUR TO ENSURE 90 PERCENT AVAILABILITY

Station 8

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0

The staffing recommendations for this study, however, assume that a rescue unit should be added back to the area served by Station 6 and that this rescue unit should be located at Station 5. This is an extremely conservative assumption based on the view that the risk to West Palm Beach residents is reduced somewhat if it relies primarily on its own resources.

Step 6: Determine the probability that fire suppression units will be available when needed. Queuing analysis was also conducted to determine the probability that a fire suppression vehicle will be out of service when an emergency call is received. The results of this analysis, which is presented in Exhibit III-22, show that depending on the hour of the day the probability that an apparatus will be busy when an emergency call is received ranges between a high of 26.6 percent and a low of 15.9 percent. The probability that two apparatus will be busy is much lower (ranging from a low of 5.7 percent to a high of 14.3 percent). Please note that this analysis reflects incident activity throughout the city. The probability that an apparatus from a particular station will be busy when another incident call is received in the same area is much lower.

Step 7: Confirm that an adequate complement of staff and apparatus will be available within eight minutes to respond to fire emergencies. An analysis of the total number of West Palm Beach apparatus and staff that would be available within eight minutes to respond to fire emergencies based on geographic coverage requirements is presented in the following table. This analysis assumes that rescue units will be removed from Stations 2 and 3 and that an engine company will be removed from Station 1.

Station	Available Staff(a)
Station 1	25
Station 2	22
Station 3	19
Station 4	31
Station 5	31
Station 6	19
Station 7	3
Station 8	3

(a) Includes battalion chief and EMS captain

These numbers should be adjusted, however, to reflect the fact that (based on the analysis conducted in Step 6) the likelihood that one rescue unit will be out of service is reasonably high. Adjusted available staffing that reflects one rescue unit may be out of service follows.

PROBABILITY APPARATUS WILL BE BUSY WHEN A CALL IS RECEIVED BY HOUR

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Probability 1 Unit Will Be Busy	19.4%	17.9%	17.2%	16.1%	15.9%	16.6%	17.8%	21.3%	24.7%	26.1%	26.6%	26.5%	26.2%	26.2%	26.1%	26.1%	26.0%	25.7%	25.7%	24.7%	25.1%	24.3%	22.8%	21.2%
Probability 2 Units Will Be Busy	7.8%	7.0%	6.4%	5.9%	5.7%	6.1%	6.8%	9.2%	11.9%	13.4%	14.3%	13.7%	13.9%	13.9%	13.4%	13.6%	13.3%	13.2%	13.0%	12.0%	12.6%	11.8%	10.5%	9.3%
Probability 3 Units Will Be Busy	1.4%	1.2%	1.1%	1.0%	0.9%	1.0%	1.2%	1.9%	2.8%	3.4%	3.8%	3.5%	3.7%	3.7%	3.5%	3.5%	3.4%	3.4%	3.3%	2.9%	3.2%	2.8%	2.4%	2.0%
Probability 4 Units Will Be Busy	0.3%	0.3%	0.2%	0.2%	0.2%	0.2%	0.3%	0.4%	0.5%	0.6%	0.7%	0.6%	0.7%	0.7%	0.6%	0.7%	0.6%	0.7%	0.6%	0.6%	0.6%	0.5%	0.5%	0.4%
Probability 5 Units Will Be Busy	0.1%	0.1%	0.1%	0.0%	0.0%	0.1%	0.1%	0.2%	0.1%	0.2%	0.1%	0.1%	0.1%	0.2%	0.1%	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Probability 6 Units Will Be Busy	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%	0.1%	0.2%	0.2%	0.1%	0.2%	0.2%	0.2%	0.1%	0.1%	0.2%	0.2%	0.2%	0.1%	0.1%	0.1%	0.1%
Probability 7 Units Will Be Busy	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%	0.1%	0.2%	0.2%	0.2%	0.3%	0.3%	0.3%	0.2%	0.2%	0.3%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Probability 8 Units Will Be Busy	0.1%	0.1%	0.0%	0.0%	0.1%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%	0.2%	0.1%	0.1%	0.1%	0.2%	0.1%	0.1%	0.2%	0.1%	0.1%	0.1%
Probability 9 Units Will Be Busy	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Probability 10 Units Will Be Busy	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Probability 11 Units Will Be Busy	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Probability 1 Unit Will Be Busy	19.4%	17.9%	17.2%	16.1%	15.9%	16.6%	17.8%	21.3%	24.7%	26.1%	26.6%	26.5%	26.2%	26.2%	26.1%	26.1%	26.0%	25.7%	25.7%	24.7%	25.1%	24.3%	22.8%	21.2%
Probability 2 Or Fewer Units Will Be Busy	27.2%	24.9%	23.6%	22.0%	21.6%	22.6%	24.6%	30.5%	36.6%	39.5%	40.9%	40.2%	40.1%	40.1%	39.5%	39.7%	39.2%	38.8%	38.7%	36.8%	37.7%	36.1%	33.3%	30.4%
Probability 3 Or Fewer Units Will Be Busy	28.6%	26.1%	24.7%	23.0%	22.5%	23.6%	25.8%	32.4%	39.4%	42.9%	44.7%	43.7%	43.8%	43.8%	43.0%	43.3%	42.6%	42.2%	42.0%	39.7%	40.8%	38.9%	35.7%	32.4%
Probability 4 Or Fewer Units Will Be Busy	28.9%	26.4%	24.9%	23.2%	22.7%	23.8%	26.1%	32.8%	39.9%	43.6%	45.3%	44.2%	44.6%	44.5%	43.6%	44.0%	43.2%	42.9%	42.7%	40.3%	41.4%	39.5%	36.2%	32.8%
Probability 5 Or Fewer Units Will Be Busy	28.9%	26.4%	24.9%	23.2%	22.7%	23.9%	26.2%	33.0%	40.0%	43.8%	45.4%	44.4%	44.7%	44.7%	43.7%	44.1%	43.3%	43.0%	42.8%	40.4%	41.6%	39.6%	36.2%	32.9%
Probability 6 Or Fewer Units Will Be Busy	29.0%	26.5%	25.0%	23.3%	22.8%	24.0%	26.2%	33.2%	40.1%	44.0%	45.6%	44.5%	44.9%	45.0%	43.9%	44.3%	43.5%	43.3%	43.0%	40.6%	41.7%	39.8%	36.4%	33.0%
Probability 7 Or Fewer Units Will Be Busy	29.1%	26.6%	25.0%	23.4%	22.9%	24.0%	26.4%	33.4%	40.2%	44.2%	45.8%	44.7%	45.2%	45.3%	44.2%	44.5%	43.6%	43.5%	43.2%	40.8%	41.9%	39.9%	36.6%	33.2%
Probability 8 Or Fewer Units Will Be Busy	29.2%	26.7%	25.1%	23.4%	22.9%	24.0%	26.4%	33.6%	40.3%	44.4%	46.0%	44.7%	45.4%	45.4%	44.3%	44.6%	43.7%	43.7%	43.3%	40.9%	42.0%	40.1%	36.7%	33.3%
Probability 9 Or Fewer Units Will Be Busy	29.2%	26.7%	25.1%	23.4%	22.9%	24.1%	26.4%	33.6%	40.3%	44.4%	46.0%	44.8%	45.4%	45.5%	44.3%	44.7%	43.7%	43.8%	43.3%	41.0%	42.1%	40.1%	36.8%	33.3%
Probability 10 Or Fewer Units Will Be Busy	29.2%	26.7%	25.1%	23.4%	22.9%	24.1%	26.4%	33.6%	40.3%	44.4%	46.0%	44.8%	45.4%	45.5%	44.3%	44.7%	43.7%	43.8%	43.3%	41.0%	42.1%	40.1%	36.8%	33.3%
Probability 11 Or Fewer Units Will Be Busy	29.2%	26.7%	25.1%	23.4%	23.0%	24.1%	26.4%	33.6%	40.3%	44.4%	46.0%	44.8%	45.4%	45.5%	44.3%	44.7%	43.7%	43.8%	43.3%	41.0%	42.1%	40.1%	36.8%	33.3%
Probability 12 Or Fewer Units Will Be Busy	29.2%	26.7%	25.1%	23.4%	23.0%	24.1%	26.4%	33.6%	40.3%	44.4%	46.0%	44.8%	45.4%	45.5%	44.3%	44.7%	43.7%	43.8%	43.3%	41.0%	42.1%	40.1%	36.8%	33.3%

Station	Available Staff Assuming One Rescue Unit Will Be Out Of Service(a)
Station 1	22
Station 2	19
Station 3	16
Station 4	28
Station 5	28
Station 6	16
Station 7	3
Station 8	3

(a) Includes battalion chief and EMS captain

As this analysis indicates if the department was to rely exclusively on its own resources the areas served by four stations (Stations 3, 6, 7 and 8) would not have sufficient resources available within eight minutes to respond to a structure fire incident based on the department's desired response capacity (presented in the analysis overview). In addition, Station 2 would not have sufficient resources to respond to a structure fire with injuries incidents.[37] Only Stations 4 and 5 however would have sufficient capacity to respond to high-rise fire incidents.

When automatic aid from PBCFR and Palm Beach Gardens is considered, however, adequate capacity to respond to structure fires exists in all parts of the city except those served by Station 8[38]. In addition, only the areas served by Stations 3, 7 and 8 cannot be reached by the complement of staff needed to handle high-rise fires within eight minutes.

Station	Available Staff(a)	Available Staff Assuming One Rescue Unit Will Be Out Of Service(a)
Station 1	31	28
Station 2	43	40
Station 3	25	22
Station 4	43	40
Station 5	46	43
Station 6	49	46
Station 7	21	21
Station 8	9	9

(a) Includes battalion chief and EMS captain

Restoring the rescue unit assigned to Station 3 would provide close to the capacity needed to respond to high-rise fires in the area served by Station 3. (After the rescue unit is restored 25 staff will be available to respond to high-rise fires in the area served by Station 3 while the department has established an expectation that 27 staff

[37] Based on Berkshire Advisors' assessment of the staff needed to respond to emergency incidents, however, sufficient staff would be available to respond to all structure fires (including structure fires with injuries) in the areas served by all stations except Stations 7 and 8.

[38] Please note that not having the staffing needed to respond to structure fires in the area served by Station 8 within eight minutes does not pose a significant risk as no working structure fires were reported in this area from April 2008 to March 2009.

respond.[39]) Falling two firefighters short of the number needed to respond to high-rise fires within eight minutes as part of a first alarm does not create a significant risk given that only two high-rise incidents were responded to in the area served by Station 3 over the past year. Indeed, the city could justify a decision not to restore the rescue unit to Station 3 since additional resources would be available as part of a second alarm.

The number of staff available for response in the areas served by each station after the Station 3 rescue unit is restored follows.

Station	Available Staff(a)	Available Staff Assuming One Rescue Unit Will Be Out Of Service(a)
Station 1	34	31
Station 2	43	40
Station 3	28	25
Station 4	46	43
Station 5	46	43
Station 6	49	46
Station 7	21	21
Station 8	9	9

(a) Includes battalion chief and EMS captain

Step 8: Determine how apparatus should be staffed. Benchmark findings and the consultants' experience suggest that some modifications to the number of staff assigned to apparatus should be considered. Both the benchmark findings and the experience of the consultants suggest that at least three staff should be assigned to each ladder and engine company. There is not, however, a need to staff each rescue unit with three staff. The two benchmark departments (Denton, Texas and Midland, Texas) that provide ALS transport services staff EMS rescue units with two staff. In addition, in a third benchmark jurisdiction (Sioux City, Iowa) where a private provider provides ALS transport services, the private provider staffs its rescue units with two staff. Moreover, all the fire rescue departments the consultants have evaluated staff rescue units with two personnel.

In general, three staff are needed to handle a rescue call when circumstances require two paramedics to be with the patient during the transport with the third member of the crew driving. If only two paramedics are assigned to a rescue unit a third employee can be borrowed from an engine that has also responded to an incident scene. This, however, removes the engine from service for the duration of the response (an average of 35 minutes in West Palm Beach). Two staff should therefore only be assigned to rescue units if sufficient capacity exists for an engine to be taken out of service without compromising response capabilities.

Based on the analysis presented in Step 7, only the area served by Station 3 lacks sufficient capacity to provide adequate response if an engine is taken out of service. The rescue unit assigned to Station 3 should, therefore, be staffed with three personnel. In addition, the rescue units assigned to Stations 1 and 4 should also continue to be staffed with three personnel because these stations support response to Station 3 (within eight minutes).

[39]According to the consultants 28 staff are needed to respond to high-rise fires.

The rescue units assigned to Stations 5 and 6, however, can be staffed with two personnel, as these stations do not support Station 3. If the engines assigned to these stations are out of service because they are supporting a rescue call, more than enough capacity remains to respond to even the most labor-intensive incident (a high-rise fire).

Step 9: Calculate total staffing needs at each station. Once the desired deployment of apparatus and how staff should be assigned to each apparatus has been determined staffing needs for each station can be calculated. As the following table indicates 40 staff should be assigned to the stations.

Station	Apparatus/Function	Staffing(a)
Station 1	Ladder 1	3
	Rescue 1	3
	Battalion Chief	1
	EMS Captain	1
Station 2	Engine 2	3
	Haz Mat 2(b)	1
Station 3	Engine 3	3
	Rescue 3	3
Station 4	Squad 4	3
	Rescue 4	3
Station 5	Ladder 5	3
	Rescue 5	2
Station 6	Engine 6	3
	Rescue 6	2
Station 7	Ladder/Rescue 7	3
Station 8	Engine/Rescue 8	3
TOTAL		40

(a) While it is recommended that a training captain continue to be assigned to each shift, this position is not part of minimum staffing requirements.
(b) The location of this unit should be moved if eliminating the rescue unit affects the ability to handle haz mat incidents

Step 10: Calculate staffing needs after adjusting for expected absences. More than 40 staff must be assigned to each of the three shifts to ensure that 40 firefighters will be working after allowing for sickness, vacations, and other excused absences. A relief factor of 1.39 was calculated based on actual absences among suppression staff. If a minimum of 40 staff need to report to work on each shift, 56 staff must be employed (40 times 1.39 equals 55.6) per shift or a total of 168 over the three shifts.

D – SHIFT SCHEDULING ALTERNATIVES

The Current Shift Schedule Does Not Allow The Department To Take Full Advantage Of A Firefighter's 24-Hour Workday

At present, operations staff are deployed on one of three rotating 24-hour shifts. This schedule is advantageous to both the city and the employees. From the perspective of employees the schedule is advantageous because they only have to come to work an average of 10 days a month. From the perspective of the city, firefighters work 48 hours a week as compared to the 40 hours a week worked by most city employees.

The city, however, does not take full advantage of the opportunities created by this schedule. The Fair Labor Standards Act (FLSA) allows firefighters to work 53 hours a week without earning overtime and in most[40] areas of the country 53 hours is the standard workweek for firefighters. Indeed, each of the eight benchmark jurisdictions from which information was collected for this study assigns firefighters to either a 53 or 56 hour workweek.

The difference between the 53 and 56 hour workweek employed in most fire departments that assign firefighters to a 24-hour work schedule and the 48-hour workweek employed in West Palm Beach relates to the number of extra days off or "Kelly days" firefighters are granted. Fire rescue departments that choose not to pay overtime to make up the difference between the maximum workweek allowed under FLSA (53 hours per week) and the average 56 hours per week worked when firefighters are employed on a three shift 24-hour schedule grant firefighters 12 Kelly day hours per 28-day period. In West Palm Beach, by contrast, 32 Kelly day hours are earned every 28-day period.

The City Should Offer A 48-96 Work Schedule To Entice Firefighters To Accept A 53-Hour Workweek

Reportedly the 48-hour workweek has been in place in West Palm Beach for many, many years. Even though this workweek is considerably shorter than the typical workweek for firefighters who work a 24-hour schedule, department employees would understandably balk at any effort by the city to unilaterally increase the firefighter workweek.

One way to encourage employees to accept a longer workweek would be to allow them to work a 48-96 schedule in exchange for accepting a 53-hour workweek. Under such a schedule firefighters work 48 hours consecutively (two days) followed by 96 hours off. From an employee perspective such a schedule is quite advantageous because employees get so many more consecutive days off. (Among other benefits this means the time employees spend commuting is cut in half.) Indeed, one can reasonably infer that West Palm Beach Fire Rescue Department employees would find such a schedule appealing from the fact that in departments where such a schedule has been implemented on a trial basis, the percentage of employees who vote to keep the schedule range from the mid to high ninety percent range.

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[40] For historical reasons in the northeast most firefighters work a 48-hour or 42-hour workweek. However, typically firefighters in these jurisdictions are not assigned to a 24-hour schedule but instead work a schedule consisting of 10-hour day shifts and 14-hour night shifts.

Aside from providing leverage to encourage department employees to accept a workweek more in line with other fire rescue departments across the nation, a 48-96 schedule creates a number of benefits for the city including the following:

- Sick time use typically declines[41]
- Costs relating to laundry services for sheets, bedding, uniforms, and gym clothes is substantially reduced (by as much as 50 percent in some departments)
- With fewer shift changes, the risk of information being lost during shift changes is reduced
- Time spent on necessary activities that must be performed once per shift (for example, going to the store for food, setting up shift turnouts) is cut in half because the number of shifts is cut in half
- Overtime relating to holdovers from one shift to another is cut in half
- An expectation can be established that a company can accomplish most of its standard duties (e.g., inventory, equipment checks) on the first day of the shift leaving the second day to support special projects and training

Certainly, establishing a 48-96 shift schedule creates challenges for managers. In particular, communication is more difficult due to the length of time employees are off between shifts, and senior managers have a greater challenge in creating consistency among shifts. Implementing this shift schedule requires flexibility on the part of senior managers who may be required to adjust their work schedules in order to address issues on a particular shift when that shift is scheduled to work their 48 hours over a weekend. In addition, the chief must be vigilant in holding regular staff meetings with shift managers and expanding the use of the department's intranet to share information. However, numerous fire departments have found the benefits of a 48-96 schedule to outweigh the costs. In addition to one of the benchmark fire departments (Flagstaff, Arizona[42]) 44 additional fire departments have been identified that have adopted this schedule.

E – STAFFING IMPLICATIONS

Implementing the recommendations presented in this chapter will enable the department to substantially reduce the cost of responding to emergency incidents without materially affecting the quality of service provided. Indeed, as discussed throughout this chapter, the assumptions made in performing this analysis are conservative. Additional staffing reductions could be considered without significantly increasing the risk to West Palm Beach residents.

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[41] Eight studies completed by medium to large departments found that sick time use was reduced by an average of 33 percent when the 48-96 schedule was implemented.

[42] Interviews with managers from the Flagstaff Fire Department were enthusiastic about the benefits of the 48-96 schedule.

The following table summarizes current and recommended operations staffing if the existing work schedule is maintained. As this table shows, 34 positions can be discontinued without changing the current shift schedule.

Position	Current	Recommended	Addition/ (Reduction)
Battalion Chief	3	3	0
EMS Captain	3	3	0
Captain(a)	22	22	0
Lieutenant	31	25	(6)
Driver	33	36	3
Firefighter	110	79	(31)
Total	202	168	(34)

(a) Please note that training captains are not included, as these positions should focus on training.

If the department negotiates with its employees to increase its workweek to 53 hours per week (the workweek that is standard in most fire departments that use a 24-hour schedule) additional savings are possible. Increasing the firefighters standard workweek will allow the department to discontinue 52 positions, or 18 positions more than if a change in the work schedule is not negotiated.

Position	Current	Recommended	Addition/ (Reduction)
Battalion Chief	3	3	0
EMS Captain	3	3	0
Captain(a)	22	22	0
Lieutenant	31	25	(6)
Driver	33	36	3
Firefighter	110	61	(49)
Total	202	150	(52)

(a) Please note that training captains are not included, as these positions should focus on training.

IV – LIFE SAFETY DIVISION STAFFING

IV – LIFE SAFETY DIVISION STAFFING

Seven uniformed staff in addition to the fire marshal staff the life safety division. This staff includes one captain who serves as assistant fire marshal, one captain who focuses attention on plan reviews and performs some inspections, and five lieutenants who serve as inspectors.

The Division Lacks The Staffing Needed To Comply With City Ordinances And The State Fire Code Relating To Fire Inspections And Code Enforcement

The workload of the life safety division is primarily driven by the inspection schedule mandated by both the city's ordinances and the state fire code, by mandates related to reviewing plans for new construction and renovations related to fire alarm and fire suppressions systems, and by the need to inspect the installation of these systems. The division's workload is also driven by following up and performing inspections related to complaints[43] filed regarding compliance with fire safety ordinances and regulations and the need to provide fire prevention education, particularly in high risk settings (i.e., dormitories, nursing homes, hospitals). In addition the fire marshal, deputy fire marshal, and some fire inspectors serve as arson investigators.

Staffing Of The Life Safety Division Should Be Substantially Increased

Detailed analysis was conducted to determine the number of life safety division positions needed to ensure mandated activities can be performed within the timelines and at the frequency required by City of West Palm Beach ordinances and by the State of Florida fire code. This analysis, which is summarized in Exhibit IV-1, consisted of a number of steps.

- ***Step 1: Develop a list of activities required by the life safety code.*** An activity analysis was completed to develop a comprehensive list of all required fire alarm, fire inspection, and fire prevention education activities.

- ***Step 2: Determine the frequency with which each activity must be completed.*** For each activity identified in Step 1, the frequency[44] with which the activity must be conducted to comply with city ordinances and state fire code requirements was determined.

- ***Step 3: Determine number of sites for which each type of inspection must be conducted.*** The number of sites of each type was determined based on a review of city records. This data was also used to determine the number of sites where on-site fire prevention education is recommended.

[43] These complaints originate from several sources including fire companies, police, members of the community, and other city departments.

[44] Data related to the frequency of some activities performed by the division was not available.

FIRE INSPECTOR STAFFING

Category	Activity	No.	Freq.	Short Transaction			Average Transaction			Long Transaction			Total Minutes
				Time In Minutes	Percent Of All Activities	Total Minutes	Time In Minutes	Percent Of All Activities	Total Minutes	Time In Minutes	Percent Of All Activities	Total Minutes	
Fire Alarms	Review/record alarm testing reports (UTR-Uniform Testing Report)	0	0.5	7	0.22	0.00	24	0.24	0.00	116	0.54	0.00	0.00
	Review/record sprinkler system reports	0	0.5	10	0.13	0.00	24	0.27	0.00	92	0.60	0.00	0.00
	Review/record suppression system reports and data (kitchen, gas station, etc)	0	0.5	12	0.26	0.00	25	0.31	0.00	44	0.43	0.00	0.00
	Review all plans for fire alarm system installation	320	0.5	17	0.22	598.40	37	0.53	3137.60	83	0.25	3320.00	7056.00
	Inspect rough wiring for alarm system	320	0.5	5	0.10	80.00	14	0.30	672.00	70	0.60	6720.00	7472.00
	Perform acceptance tests for fire alarms after installation	320	0.5	45	0.30	2160.00	102	0.37	6038.40	240	0.33	12672.00	20870.40
	Total Off-Site Activities	640							Off-Site Minutes				28342.40
									Travel Minutes For Off-Site Activities				19200.00
									Total Fire Alarm				54598.40
Fire Safety	Provide fire safety training at preschools and K-12 schools	39	0.5	98	0.23	439.53	174	0.56	1900.08	158	0.21	647.01	2986.62
	Provide fire safety training to staff at nursing homes, skilled medical facilities, and hospitals	51	0.5	53	0.21	283.82	113	0.58	1671.27	203	0.21	1087.07	3042.15
	Provide fire safety training to residents and staff at college dormitories and assisted living and elderly housing	20	0.5	60	0.25	150.00	120	0.50	600.00	240	0.25	600.00	1350.00
	Total Off-Site Activities	110							Fire Safety Minutes				7378.77
									Travel Minutes For Off-Site Activities				3300.00
									Total Fire Safety				10678.77
Inspection	Educational facility inspections	72	1	26	0.34	636.48	75	0.19	1026.00	240	0.47	8121.60	9784.08
	Municipal/Merchant facility inspections	5716	0.5	28	0.32	25607.68	60	0.33	56588.40	135	0.35	135040.50	217236.58
	Marina inspections - small	1	1	27	0.34	9.18	66	0.40	26.40	180	0.26	46.80	82.38
	Marina inspections - large	2	1	24	0.25	12.00	72	0.39	56.16	204	0.36	146.88	215.04
	Gasoline station inspections	48	1	16	0.30	230.40	54	0.50	1296.00	105	0.20	1008.00	2534.40
	Bed and breakfast (large) inspections	3	1	25	0.30	22.50	90	0.60	162.00	180	0.15	81.00	265.50
	Bed and breakfast (small) inspections	2	1	30	0.27	16.20	50	0.60	60.00	90	0.20	36.00	112.20
	Hotel inspections	36	1	25	0.46	414.00	91	0.28	917.28	264	0.44	4181.76	5513.04
	Nursing home inspections	11	1	30	0.44	145.20	93	0.35	358.05	225	0.21	519.75	1023.00
	Medical facilities (hospitals, outpatient, diagnostic centers)	558	1	60	0.37	12387.60	120	0.50	33480.00	270	0.13	19585.80	65453.40
	Dormitory inspections	7	1	36	0.42	105.84	57	0.42	167.58	135	0.16	151.20	424.62
	Apartment building inspections	38		33	0.38	476.52	93	0.30	1060.20	165	0.32	2006.40	3543.12
	Elderly housing inspections	35	1	35	0.38	465.50	57	0.31	618.45	135	0.31	1464.75	2548.70
	Church inspections	26	0.5	27	0.43	150.93	54	0.31	217.62	128	0.26	432.64	801.19
	"Places of assembly" (i.e. restaurants, serve liquor, amplified music) inspections	430	1	33	0.44	6243.60	72	0.15	4644.00	180	0.41	31734.00	42621.60
	Nightclub inspections (over 100 people, amplified music, most of income from liquor sales)	196	1	30	0.44	2687.20	57	0.27	3016.44	158	0.29	8980.72	14684.36
	Smoke and co-detector inspections	1	0.5	23	0.46	5.29	87	0.27	11.75	257	0.27	34.70	51.73
	Follow up on violation notices issued by city/reinspections	485	0.5	32	0.42	3259.20	87	0.24	5063.40	270	0.34	22261.50	30584.10
	Follow up on all fire safety complaints	86	0.5	30	0.39	503.10	57	0.24	588.24	121	0.37	1925.11	3016.45
	Plan review for new construction/ renovations and additions (AC, smoke detectors)	1	0.5	28	0.17	2.38	72	0.57	20.52	246	0.26	31.98	54.88
	Once new construction/additions building permit issued walk site to determine correct location for detectors	1	0.5	28	0.10	1.40	58	0.40	11.60	130	0.50	32.50	45.50
	Issue tent/special events permits	0	0.5	24	0.48	0.00	53	0.38	0.00	105	0.24	0.00	0.00
	Review and approve all new temporary/ annual licenses issued by city	0	0.5	30	0.27	0.00	63	0.50	0.00	120	0.23	0.00	0.00
	Review all license renewals	535	0.5	28	0.25	1872.50	55	0.48	7062.00	123	0.27	8883.68	17818.18
	Supervise removal of underground storage tanks and inspect area for any oil in ground	0	0.5	20	0.90	0.00	30	0.05	0.00	40	0.05	0.00	0.00
	Total Off-Site Activities	8290							Inspection Minutes				418314.05
									Travel Time Minutes				248700.00
									Total Minutes Of Inspection Time				667014.05
									Total Minutes - Fire Prevention/Education Services				732291.22
												Hours	12204.85
												Productive Hours Per Day	6.25
												Total Days	1952.78
												Days Per Year	260
												Staffing Needed	7.51
												Relief Factor	1.23
									TOTAL INSPECTORS NEEDED				9.24
									INSPECTORS NEEDED (Rounded)				9

- ***Step 4: Determine the annual volume of required inspections.*** The annual volume of required activity was determined by calculating the frequency with which each activity needs to be performed (i.e. Priority 1 inspections annually and Priority 2 inspections bi-annually).

- ***Step 5: Determine the time required to complete each activity.*** The number of minutes required to complete each activity was then estimated (based on surveys completed by current inspectors). These estimates were confirmed through comparison with the consultants' data from reviews of other departments. This data was then used to calculate the total staff minutes and the hours needed per year.

- ***Step 6: Determine the number of workdays needed to complete activities.*** The number of workdays was determined by dividing the annual work hours by the number of hours per day. Division staff work a five day administrative schedule of eight hours per day. The analysis assumes employees will be productive for 6.25 hours a day (which allows for lunch, other breaks, and time to report to the office before going to the field and to return to the office from the field each day). This analysis indicates that a total of 1952.78 workdays are needed to complete required activities.

- ***Step 7: Determine total staffing needs.*** The total number of inspectors needed was determined by dividing the total number of required workdays by the total number of days per year a division employee works (260 days). This calculation indicates that 7.51 positions are needed to complete all assigned activities. The number of employees was then multiplied by a relief factor (1.23) to account for expected absences. This calculation indicates that 9.24 inspectors are needed to meet this mandated level of service after allowing for expected absences. This number should be rounded down to 9 as the assistant fire marshal performs some inspections and the fire marshal also performs plan review functions.

Three additional inspector positions are needed to meet the workload requirements resulting from the mandates of city ordinances and the state fire code.

V – ORGANIZATION, MANAGEMENT, AND OPERATIONS

V – ORGANIZATION, MANAGEMENT, AND OPERATIONS

This chapter presents observations and recommendations to strengthen the fire rescue department's organization, management, and operations. The chapter is divided into the following issue areas: organization; managing how staff spend time when not responding to incidents; improving the efficiency of the life safety division; recruiting a diverse work force; establishing fitness requirements; improving training; making effective use of civilian staff; strengthening information systems; modifying emergency medical services (EMS) billing; and adjusting incentive pay practices.

A – ORGANIZATION

While Generally Sound, The Department's Current Organizational Structure Has Several Shortcomings

As Exhibit V-1 shows, the department is led by a fire rescue chief who, when all senior management positions are filled, has two assistant chiefs reporting to him. One assistant chief oversees operations and has five battalion chiefs reporting to him – one battalion chief assigned to each of the three shifts, one battalion chief who is responsible for emergency medical services[45], and one battalion chief who is responsible for special operations (primarily hazardous materials and technical rescue response). A second assistant chief oversees support services and has four managers reporting to him – a battalion chief who oversees training and safety, a battalion chief who serves as fire marshal and oversees life safety services (fire inspections, plan review, and arson investigations), a firefighter who oversees logistics and is primarily responsible for coordinating equipment and apparatus maintenance[46], and a civilian fiscal services manager who oversees business and fiscal management (including budget management, EMS transport billing, fire alarm nuisance billing, capital project management, grants, and procurement).

This organizational structure is generally sound. The structure assigns key decision-making responsibilities at appropriate levels in the organization, facilitates the coordination of important services – in particular, having the EMS battalion chief report directly to the operations assistant chief helps to ensure that EMS is effectively incorporated into the department's overall operations – and does not have excessive organizational layers.

While the current structure generally facilitates effective department operations, there are several shortcomings associated with the structure that should be addressed. These shortcomings include the following:

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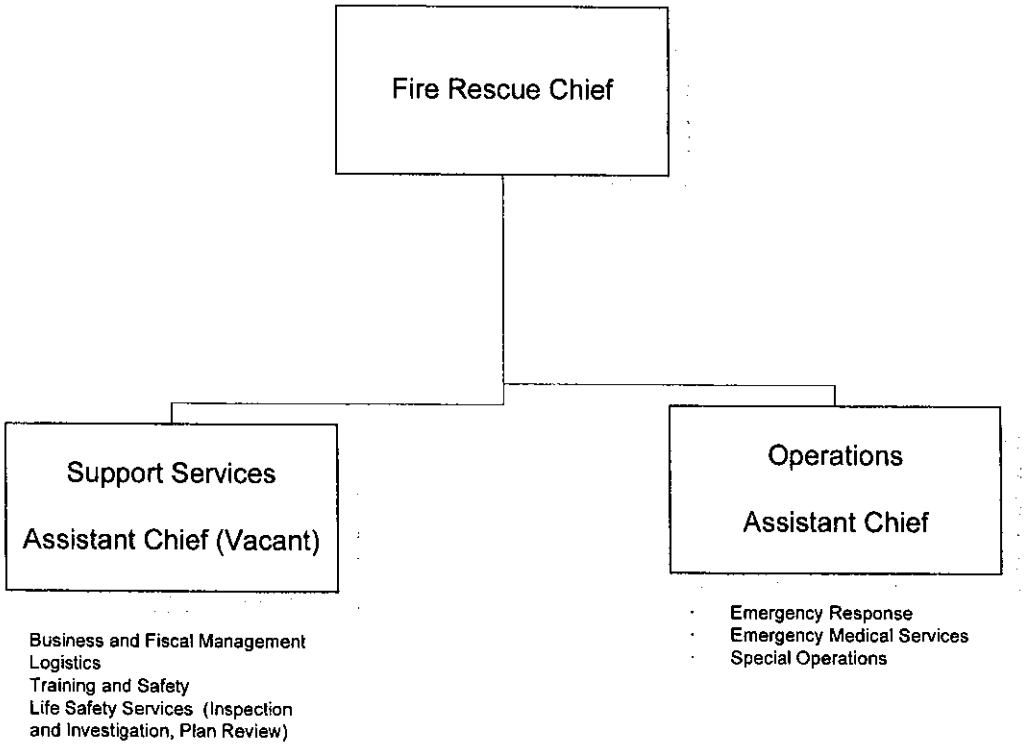
[45] At present, because one assistant chief position is vacant the battalion chief who oversees life safety services reports directly to the chief.

[46] Palm Beach County provides apparatus maintenance services.

WEST PALM BEACH FIRE RESCUE DEPARTMENT
CURRENT ORGANIZATION



- ***Scope of responsibilities of senior managers.*** In the current structure, the scope of responsibilities of the support services assistant chief and the operations assistant chief are not comparable. The operations assistant chief oversees the bulk of the department's personnel and is directly responsible for the preponderance of the services the department provides. By contrast, the support services assistant chief oversees only a small number of support activities – which are not highly complex given the department's relatively small size – and the life safety services function.

- ***Reporting relationships.*** Having the life safety services battalion chief report to an assistant chief is problematic for a number of reasons. First, from a communications perspective, having this function report one level below the chief communicates that reducing fire loss through inspections and plan review activities is somehow less important than other functions performed by the department. In fact, however, these activities play a crucial role in the department's overall effort to save lives and reduce fire loss. Nonetheless, the perception of many inspections staff that they are "second class" citizens within the department is reinforced by this organizational placement.[47]

  In addition, the department's ability to successfully implement the recommendations (presented later in this chapter) that in-service fire/EMS crews conduct inspections will be difficult unless the life safety function has a higher organizational profile. If the current structure is not changed the inevitable problems that will arise as operations crews assume inspections responsibilities will need to be referred to the support services assistant chief who will then need to work with the operations assistant chief to address them. At best, following the chain of command in this manner will be cumbersome and, at worst, could pose a barrier to successfully implementing the recommendation.

- ***Workload.*** Put simply, in the current organizational structure some senior positions are not fully utilized. In particular, the scope of responsibilities of the special operations battalion chief and the training and safety battalion chief are much more limited than their counterparts.

- ***Geographic barriers to providing oversight.*** At present, the operations battalion chiefs who oversee shifts have difficulty providing oversight to Stations 7 and 8. To a significant extent this is less a problem with the current organizational structure and is more a reflection of the unique geography associated with current station locations. While a span of control of eight stations for a shift battalion chief is somewhat broad, Stations 7 and 8 do not receive needed oversight primarily because they are geographically isolated not because shift battalion chiefs have too many stations to oversee. Current organizational arrangements, however, make no accommodation to the unique supervisory needs of Stations 7 and 8.

- ***Leadership development.*** The current structure creates few opportunities for leadership development. Given the large number of senior managers who are eligible to retire in the next several years, the department's senior managers

[47] A more thorough discussion of the plan review and inspection function was presented in Chapter IV.

recognize an acute need to strengthen succession planning and leadership development. The current organizational structure, however, provides relatively few opportunities to train future leaders. Indeed, in the current structure until someone is promoted to the battalion or assistant chief positions they will have had few opportunities to develop the skills needed to successfully fill those positions.

The Department's Organizational Structure Should Be Modified To Address The Shortcomings Associated With The Existing Structure

The recommended organizational structure, which is presented in Exhibit V-2, addresses the shortcomings associated with the current structure. In the recommended structure four key managers report to the fire rescue chief.

- ***Operations assistant chief.*** In the recommended structure the operations assistant chief will continue to oversee the battalion chiefs assigned to each shift and the EMS battalion chief. In addition, a new battalion chief position that combines the responsibilities of the current special operations and training and safety battalion chief will report to this manager.

- ***Life safety service battalion chief.*** Rather than report through an assistant chief, in the recommended structure the life safety service battalion chief will report directly to the fire rescue chief.[48]

- ***Support services director.*** In the recommended structure a civilian position is established to oversee all support services including business and fiscal management, logistics, and payroll (a function that currently reports to the operations assistant chief).

- ***Assistant to the fire rescue chief battalion chief.*** This new position will be responsible for providing flexible as needed support to the fire rescue chief. In particular, this position will be available to handle special projects and to troubleshoot issues (with both internal and external stakeholders) that require senior management attention.

The recommended structure has a number of advantages over the current structure.

- ***Life safety services.*** Having the life safety services function report directly to the chief raises the division's organizational stature and will facilitate efforts to implement the recommendation to have in-service crews perform building inspections.

- ***Support services.*** Assigning a civilian support services director to manage all support functions places these responsibilities at an appropriate level within the department and takes advantage of the skills and capacity of the existing manager. Moreover, since the functions assigned to support services will be held by civilians when the study recommendations are implemented making this change will provide a career path for civilian employees.

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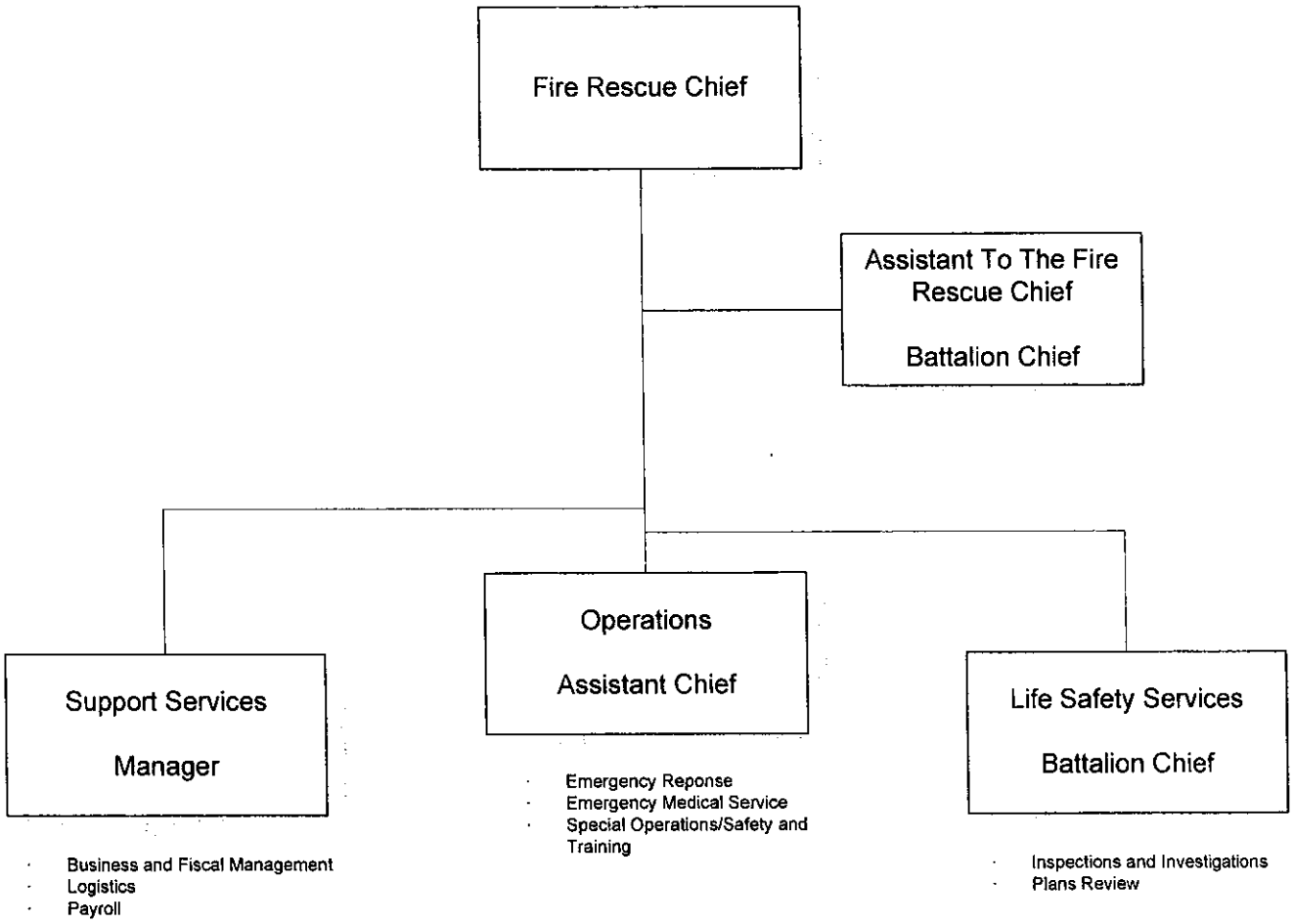
[48] As previously noted, the life safety services battalion chief currently reports to the fire rescue chief because the assistant chief position is vacant.

FIRE RESCUE DEPARTMENT RECOMMENDED ORGANIZATION



- ***Special operations and training.*** Combining the training and special operations functions makes more effective use of management resources (two battalion chiefs are not needed to manage these functions). In addition, because training captains are currently assigned to operations shifts, having the battalion chief that oversees training also report to the operations assistant chief will reduce the likelihood of organizational conflict.

- ***Overall oversight and management.*** The recommended structure provides the fire rescue chief with needed management support. At present, with one assistant chief position vacant, only two senior managers (the operations assistant chief and the life safety services battalion chief) report to the fire rescue chief. While this limits his span of control it also limits the number of people to whom he can delegate responsibilities. At present the number of issues the chief must handle himself creates a significant management challenge. Unless additional support is provided, this situation will become untenable when the chief is charged with implementing the study recommendations.

  Establishing an assistant to the chief position provides the chief with a flexible support capacity he can direct as needed. In addition to providing as needed support for the chief this position should be charged with leading the implementation of the study recommendations and for serving as the department's public information officer. This new position should also assume two responsibilities currently assigned to the operations assistant chief – updating standard operating procedures and implementing the FIREHOUSE/information technology system. (Assigning these responsibilities to the assistant to the fire chief will reduce the operations assistant chief's administrative burden.)

- ***Shift supervision.*** When the recommended structure is implemented the training captains assigned to each shift should also be charged with supervising Stations 7 and 8. The training activities they coordinate should be conducted during the hours when activity levels at Stations 7 and 8 are the lowest (but between the hours of 8:00 a.m. and 9:00 p.m.). This will minimize the likelihood that the training captains will be unavailable to provide supervision at incident scenes responded to by Station 7 and 8 crews. Implementing this recommendation will have the added benefit of making more effective use of the training captains' time. Training typically takes place during one eight-hour period during a shift and it has been difficult for the department to devise roles for these officers during the remainder of the shift that makes effective use of their time but does not conflict with their primary training responsibilities.[49] Assigning these officers responsibility for providing supervision over Stations 7 and 8 makes effective use of their time while addressing the need to provide more consistent supervision over these stations.

- ***Leadership development.*** The recommended structure provides positions that can be used to develop the skills needed to assume more senior positions in the

[49] The department has worked creatively to make effective use of the training captains when they are not provided training. For example, they serve as safety officers at fire scenes. In addition, they fill in vacant positions when it is feasible to do so without conflicting with their primary training related duties.

department. In particular, battalion chiefs – who should rotate through the assistant to the chief position on a two-year cycle – will develop the skills to lead the department in the future. Likewise, training captains will develop the skills needed to serve effectively as operations battalion chiefs.

Implementing The Recommended Organizational Structure Will Result In A Net Reduction Of One Position

When the recommended organizational structure has been implemented the current training and safety and special operations battalion chief positions will be combined. The net savings of one battalion chief position should be reassigned to serve as the assistant to the chief. The assistant chief position should be discontinued.

B – MANAGING HOW STAFF SPEND TIME WHEN NOT RESPONDING TO INCIDENTS

Operations Staff Do Not Consistently Make Effective Use Of Their Time When Not Responding To Incidents

A challenge faced by many fire rescue departments – and the West Palm Beach Fire Rescue Department is no exception – is to ensure operations staff make effective use of their time when not responding to incidents. The nature of the work performed by fire rescue crews is that periods of intense activity are followed by periods of inactivity. There is a natural tendency for firefighters to relax after completing an incident while awaiting the next alarm. Given that the number of working fire incidents to which the department responds is low, however, it is imperative that firefighters devote a significant amount of this time to training and other activities that will improve their response. Few, if any, firefighters will hone the skills needed for effective response based solely on what they experience at fire scenes. Effective training is therefore essential to effective response.

The department has already taken some worthwhile steps to improve the effectiveness with which firefighters use their time between incidents. In particular, the decision to assign training captains to shifts was made to improve the consistency with which training activities are conducted on shifts. By most accounts, this initiative has been successful.

Additional emphasis is needed to ensure within reason,[50] that firefighters use the time between incidents to develop capabilities that will improve their response in the future. At present, a consistent expectation has not been established that training will take place on all shifts (even when the shift falls on a weekend). Reportedly, training and other related activities take place on all shifts (regardless of the day of the week) on some shifts and not on others (where the perspective is that on weekends firefighters should be free of training responsibilities). In addition, some functions that can be performed between incidents are either not performed at all or are not consistently performed.

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[50] Please note that it is not unreasonable for firefighters to have downtime during the evening and sleep between calls at night. Indeed, as discussed in Chapter III, the fact that firefighters can sleep at their stations between incidents at night makes the 24-hour shift (and average 53-hour per week work schedule) possible.

These include in-service inspections, pre-incident planning, post-incident analysis, and physical training.

The Department Should Take Steps To Ensure Operations Staff Make Effective Use Of Their Time When Not Responding To Calls

The department should establish clear expectations for the types of activities that should be performed between incidents, the time that should be devoted to these activities, and the consistency with which the activities should be performed. In particular, fire crews should be expected to meet these expectations on weekends as well as week days. Indeed, given that firefighters report to work only 10 days a month (an average of 2.5 days per week) there is no justification for making a distinction between week days and weekends with regard to the activities firefighters are expected to perform.[51] Firefighters should be expected to make effective use of their time regardless of the day of the week they report to work.

In addition to efforts to strengthen training (which will be discussed in more detail later in this chapter) the department should require firefighters to focus on the following activities when not responding to calls.

- ***Conducting in-service inspections.*** In-service crews have the capacity to perform some building inspections and should be assigned responsibility for conducting appropriate inspections. Not only will implementing this recommendation relieve the burden on the inspectors assigned to the life safety division (and allow them to focus their attention on buildings that create major risks) but when conducting inspections crews will create a familiarity with buildings that will be beneficial in the event they respond to an incident in the building.

  Please note, however, that it is not reasonable to expect in-service crews to complete inspections in all types of establishments. An analysis therefore was performed to identify the types of inspections that crews should be expected to conduct when not responding to incidents. Criteria, which are presented in Exhibit V-3, were established for determining when in-service crews can perform an activity. These criteria were then used to evaluate each type of inspection currently performed by the life safety unit. The results of this analysis, which indicates that in-service crews can effectively perform 10 activities, are presented in Exhibit V-4. Please note that before this recommendation can be implemented emergency operations lieutenants and captains will need to receive training and certification as inspectors.

[51] An exception to this general rule should, of course, be made with regard to activities involving residents or commercial establishments that may not be open or otherwise available on Sundays.

CRITERIA FOR DETERMINING WHETHER AN IN-SERVICE CREW CAN BE ASSIGNED TO PERFORM FUNCTION OR ACTIVITY

Supports Assignment To In-Service Crew	***Fully Supports Assignment To In-Service Crew***	***Somewhat Supports Assignment To In-Service Crew***	***Does Not Support Assignment To In-Service Crew***	***Does Not Support Assignment To In-Service Crew***
Specialized skills, training, or expertise are not needed to perform the function	●	◖	○	Specialized skills, training, or expertise are needed to perform the function
Specialized equipment or vehicles are not needed to perform the function	●	◖	○	Specialized equipment or vehicles are needed to perform the function
Performing the activity would not prevent an in-service crew from carrying out its other responsibilities	●	◖	○	Performing the activity would prevent an in-service crew from carrying out its other responsibilities
Performing the activity would not require the in-service crew to leave its primary response area	●	◖	○	Performing the activity would require the in-service crew to leave its primary response area
Assigning an in-service crew to perform the function or activity would reduce costs	●	◖	○	Assigning an in-service crew to perform the function or activity would increase costs

ASSESSMENT OF INSPECTION FUNCTIONS THAT CAN BE HANDLED BY IN-SERVICE CREWS

Function	*Need For Specialized Skills Or Expertise*	*Need For Specialized Equipment Or Vehicles*	*Ability To Perform Other Activities*	*Need To Leave Primary Response Area*	*Costs*	*Implications*	*Comments*
Apartment building inspections (existing)	●	●	●	◖	●	Assign	Limit assignment to primary response area
Apartment building inspections (new)	○	●	◖	◖	●	Do Not Assign	Primary response area to assist
Bed and breakfast inspections (existing)	●	●	●	◖	●	Assign	Limit assignment to primary response area
Bed and breakfast inspections (new)	○	●	◖	◖	●	Do Not Assign	
Church inspections (existing)	●	●	●	◖	●	Assign	Limit assignment to primary response area
Church inspections (new)	○	●	◖	◖	●	Do Not Assign	Primary response area to assist
Municipal/merchant facility inspections (existing)	●	●	●	◖	●	Limit Assign	Limit assignment to those with no hazmat, < 10,000 sq. ft and in primary response area
Municipal/merchant facility occupancy inspections (new)	○	●	◖	◖	●	Do Not Assign	Primary response area to assist
Dormitory inspections (existing)	○	●	◖	◖	●	Do Not Assign	
Dormitory inspections (new)	○	●	◖	◖	●	Do Not Assign	
Follow up on all fire safety complaints	●	●	●	◖	●	Assign	Time sensitive and need to testify in court
Gas station inspections (existing)	●	●	●	◖	●	Assign	Limit assignment to primary response area
Gas station fuel line installation inspections (new)	○	◖	○	○	●	Do Not Assign	
Gas station fuel pump installation inspections (new)	○	◖	○	○	●	Do Not Assign	
Gas station fuel tank installation inspections (new)	○	◖	○	○	●	Do Not Assign	
Hazardous material spill clean up inspection	○	◖	○	◖	●	Do Not Assign	

ASSESSMENT OF INSPECTION FUNCTIONS THAT CAN BE HANDLED BY IN-SERVICE CREWS

Function	*Need For Specialized Skills Or Expertise*	*Need For Specialized Equipment Or Vehicles*	*Ability To Perform Other Activities*	*Need To Leave Primary Response Area*	*Costs*	*Implications*	*Comments*
High-rise inspections (existing)	○	●	◖	◖	●	Do Not Assign	Primary response area to assist
High-rise inspections (new)	○	●	◖	◖	●	Do Not Assign	Primary response area to assist
Hospital inspections (existing)	○	●	◖	◖	●	Do Not Assign	Primary response area to assist
Hospital inspections (new)	○	●	○	◖	●	Do Not Assign	Primary response area to assist
Hotel inspections (existing)	○	●	○	◖	●	Do Not Assign	Primary response area to assist
Hotel inspections (new)	○	●	○	◖	●	Do Not Assign	Primary response area to assist
Inspections of buildings proposing to store hazardous materials (new)	○	●	◖	◖	●	Do Not Assign	Primary support area to assist
Inspections of buildings storing hazardous materials (existing)	○	●	○	○	●	Do Not Assign	Primary support area to assist
Nightclub inspections (existing - over 100 people, amplified music, most of income from liquor sales)	●	●	●	◖	●	Assign	Limit assignment to primary response area
Nightclub inspections (new - over 100 people, amplified music, most of income from liquor sales)	○	●	◖	◖	●	Do Not Assign	Primary response area to assist
Nursing home inspections (existing)	●	●	●	◖	●	Assign	Limit assignment to primary response area
Nursing home inspections (new)	○	●	◖	◖	●	Do Not Assign	Primary response area to assist
Places of assembly inspections (existing - restaurants, serve liquor, amplified music)	●	●	●	◖	●	Assign	Limit assignment to primary response area
Places of assembly inspections (new - restaurants, serve liquor, amplified music)	○	●	◖	◖	●	Do Not Assign	Primary response area to assist
Reinspections on violation notices issued by the department (major)	◖	●	◖	◖	●	Do Not Assign	Need to testify in court
Reinspections on violation notices issued by the department (minor)	◖	●	◖	◖	●	Do Not Assign	Need to testify in court

ASSESSMENT OF INSPECTION FUNCTIONS THAT CAN BE HANDLED BY IN-SERVICE CREWS

Function	*Need For Specialized Skills Or Expertise*	*Need For Specialized Equipment Or Vehicles*	*Ability To Perform Other Activities*	*Need To Leave Primary Response Area*	*Costs*	*Implications*	*Comments*
Educational facility inspections (existing)	○	●	◖	◖	●	Assign	Primary response area to assist
Educational facility inspections (new)	○	●	◖	◖	●	Do Not Assign	Primary response area to assist
Underground and aboveground storage tank - supervise removal of and inspect area for any oil on ground	○	◖	○	◖	●	Do Not Assign	
Underground fuel tank removal inspection	○	◖	○	◖	●	Do Not Assign	
Warehouses/industrial/storage facility inspections	○	◖	◖	◖	●	Do Not Assign	Primary response area to assist

- ***Pre-incident planning.*** At present, the department focuses relatively little attention on developing pre-incident plans for handling potential fires in buildings (and other hazards). To address this shortcoming, which has been recognized by the department's leadership, the department has begun the process of updating the procedures that guide pre-incident planning. In addition, the department should take advantage of the module in the FIREHOUSE records management system that allows the department to coordinate the in-service inspection process with pre-incident planning. Most important, of course, will be for battalion chiefs to place greater emphasis on pre-incident planning and to require all crews on all shifts to meet expectations for completing pre-incident plans.

- ***Post-incident analysis.*** To improve performance the department must consistently assess its response to major incidents, identify strengths and shortcomings, and implement training to address areas where performance needs to be improved. At present, however, relatively few post-incident analyses are completed. Battalion chiefs should therefore be charged with ensuring post-incident analyses and critiques are completed after all major incidents and that a formal summary is prepared that details operational strengths and shortcomings.

- ***Physical training.*** Firefighting is a strenuous occupation that requires firefighters to function effectively under conditions of tremendous stress. A firefighter who is not physically fit puts both himself or herself and other firefighters at risk. Despite the importance of physical training to their health and safety, firefighters currently spend only limited time on physical training. Indeed, based on documentation provided by the department the average firefighter devotes only 9.4 hours to physical training a year. Moreover, data provided by the department indicates that 30 of the department's 206 firefighters (14.6 percent) devoted no time to physical training over the past year. To address this issue, the department should require that firefighters devote a set number of hours to physical training on each shift.

C – IMPROVING THE EFFICIENCY OF LIFE SAFETY DIVISION OPERATIONS

Three opportunities have been identified to improve the efficiency of life safety division operations. The first part of this section discusses changes to the schedule of fire inspectors, the second part discusses the need to invest in enhanced technology, and the third part discusses the need to scan historical records into department systems.

The Department Should Assign Fire Inspectors To Work Four Ten-Hour Days And Adjust The Operating Hours Of The Division

The schedule for fire inspectors should be changed to four 10-hour days each week from the five 8-hour days each week they are currently working. Changing the schedule in this manner would reduce somewhat the unavoidable down time at the beginning and end of each shift. Assuming 30 minutes of time is spent at the beginning of each shift checking into the office, 15 minutes is spent at the end of each shift returning vehicles and paperwork, and 60 minutes is devoted to breaks and lunch each day taking this step would improve the productive capacity of each operations and support employee by 1.75 hours per week (4.4 percent).

When inspectors are assigned to 10-hour shifts the operating hours of the division should be changed to 7:00 a.m. to 7:00 p.m. Monday through Friday. This schedule will improve services to customers and enhance scheduling of inspections in the field. Under the recommended schedule, inspectors would work staggered shifts with some inspectors working 7:00 a.m. to 5:00 p.m. and others working 9:00 a.m. to 7:00 p.m. Inspectors' days off should also be staggered so that adequate coverage is provided five days a week.

Improved Technology Should Be Provided To Inspectors To Enhance Their Efficiency

Currently inspectors take handwritten notes while they perform inspections and then return to the office to complete required documentation at their desks. The efficiency of inspectors would be improved by providing them with mobile technology. Each inspector should be provided with a PDA loaded with FIREHOUSE software that links to each inspector's laptop computer. Each vehicle assigned to the life safety division should also be equipped with a mobile printer. Investing in this technology will allow inspectors to enter inspections information directly into the PDA rather than on paper (which they later must type into the computer) and to print an inspection report at the inspection's site. Service to customers will also be improved because they will be provided with an immediate report on the inspection and any violations that need to be corrected.

Historical Inspection Records Should Be Scanned Into The FileNet System

The life safety division's historical records are currently housed in 26 file cabinets in the division offices. When historical inspection and complaint information is needed inspectors must search through paper files to locate the information. These files should be scanned into FileNet. Doing so will provide an automated record of all activity associated with an address. It will also decrease the time inspectors spend searching through paper files to find information.

D – RECRUITING A DIVERSE WORK FORCE

Resources And Resolve Are Necessary To Increase The Diversity Of The West Palm Beach Fire Rescue Department

Department leaders are clearly committed to strengthening the diversity of the West Palm Beach Fire Rescue Department. Not only was the need to strengthen diversity raised as an issue in discussions with department leaders, but also the department has taken important steps to recruit diverse employees. In particular, consistent with the city's human resources policies, all vacant positions are marketed to a diverse work force. In addition, the department ensures its hiring team is diverse (and includes African American, Hispanic, White, and female members).

Despite these efforts the West Palm Beach Fire Rescue Department is much less diverse than the overall West Palm Beach community. Across all racial groups (except Whites) the percentage of department employees within that group falls short of the percentage of that group that makes up the city's overall population.

Racial Group	Percentage Of City Population	Percentage Of Fire Rescue Department Employees
White (non-Hispanic)	36.1	71%
African American	36.2	12%
Hispanic/Latino	18.2	16%
Other	9.5	1%

In addition, the number of female firefighters employed (seven percent of the operations work force) is far less than the percentage of females in the overall population.

A review of practices employed in other jurisdictions to recruit a diverse work force includes a variety of strategies and approaches including:

- Sending department recruiters out-of-state in an effort to broaden the applicant pool
- Developing a marketing plan that emphasizes the benefits of a particular department
- Offering incentives, including benefit packages, tuition reimbursement, mentoring programs
- Implementing programs focused on identifying youth who might be interested in a fire service career
- Establishing internships
- Developing public service announcements in different radio formats (e.g., "hip hop" radio)
- Recruiting at military bases

Two themes emerge from a review of these best practice findings. First, the broader the range of recruiting strategies that are used the more likely recruiting efforts will be successful. Second, incentives can be helpful in differentiating a department from its competitors. Implementing strategies consistent with either theme, however, will clearly require resources. If recruiting a diverse work force is a department priority, an investment will be needed.

Investments alone, however, are unlikely to ensure success in recruiting more qualified minority applicants. The fact that the West Palm Beach Fire Rescue Department does not train firefighters but instead requires applicants to already be certified to qualify for employment puts the department at a competitive disadvantage when it comes to minority recruiting. It seems likely that establishing a cadet program – through which qualified minority candidates begin working for the department while obtaining their certification – must be married to more intensive (and expensive) recruiting efforts if significant progress in recruiting a diverse work force is to be made.

E – ESTABLISHING FITNESS REQUIREMENTS

The Department Should Establish Minimum Fitness Requirements for All Firefighters

As previously discussed, firefighting is a strenuous occupation and firefighters who are not physically fit put both themselves and other firefighters at risk. Nonetheless, the department does not currently require operations staff to meet minimum physical fitness standards. The extent to which this is a problem is suggested by the results of the employee survey. More than 42 percent (42.7 percent) of the sworn survey respondents disagree or strongly disagree that all staff who respond to fire and medical emergencies are sufficiently physically fit to perform their duties while 13.4 percent disagree or strongly disagree that most staff who respond to fire and medical emergencies are sufficiently physically fit to perform their duties.

To address this issue the city, department, and union should work together to establish a wellness program for firefighters and a requirement that firefighters maintain a given level of fitness to remain employed. In developing this program the city, department, and union should review the practices employed by other fire departments that recognize the crucial role firefighter fitness plays in ensuring the safety of all firefighters. At the very least, this program should include the following components: annual fitness evaluations, individual fitness plans (based on the results of each individual's physical examination and fitness evaluation), mandatory physical fitness training as part of the daily schedule at each station, and peer fitness coaching (in support of implementation of individual fitness plans).

F – IMPROVING TRAINING

A Number Of Issues Related To The Department's Training Program Have Been Identified

Over the past year the department has worked to strengthen its training program with its first priority being to ensure consistency in providing training across shifts. To this end, the department has moved the three captain positions assigned to provide training to each of the three shifts and adjusted their schedules to a 24-hour shift schedule from a 40- hour (five 8-hour day) schedule. However, because one of the three training positions is vacant one shift has received minimal training support.

The department's current training program has a number of deficiencies.

- ***Lack of a comprehensive training plan.*** The department does not have a comprehensive training plan that integrates firefighter, EMS, special operations and company officer training requirements. The battalion chiefs assigned to oversee special operations and EMS work to ensure training requirements related to specific certifications are maintained but communication between these units and training captains is at best spotty and these training efforts are not coordinated.

- ***Use of training captains.*** The time of the two training captains assigned to shifts is not dedicated to providing and coordinating training. These captains are often used to meet minimum staffing requirements on their shifts and are consistently pulled from training to serve as company officers for more than half of each shift. A daily

schedule that includes training is not followed on Saturdays and Sundays by all shifts in part because on Sundays training captains are assigned to serve as company officers.

- ***Inconsistency of training across shifts.*** Firefighters do not receive a consistent level of training across shifts. Training records provided by the department indicate each firefighter receives an average of 206.8 hours of training per year with a range from 8.5 hours per year to 554.8 hours per year. Firefighters assigned to Stations 2 and 4, where special operations units are housed, account for a disproportionate number of training hours, even after accounting for the additional training mandated for special operations staff. Also, as previously discussed, physical fitness training is optional and based on the documentation provided by the department little actually occurs.

- ***Poor documentation of training.*** Because training records are maintained inconsistently across shifts and are not up-to-date it is difficult to determine the extent to which training may be occurring and just not documented.

The Department Should Take A Number Of Steps To Improve Its Training Program

The department should take the following steps to improve its training program:

- ***Develop a comprehensive training plan.*** The battalion chief who oversees training and special operations, the EMS battalion chief, and the training captains should develop a comprehensive training plan. This plan should specify the responsibilities of training captains, EMS captains, and operations captains in providing training. This plan should also detail the baseline level of training that each firefighter must receive based on their assignment (including those assigned to special operations units).

- ***Assign one training captain to each shift and adjust role.*** The vacant training captain position should be filled so that one training captain position is assigned to each shift. These training captain positions should not be assigned to provide coverage and should serve as trainers during all scheduled shifts. As discussed earlier in this chapter, the training captain on each shift should be based at either Station 7 or 8 to assist the battalion chief in the supervision of those stations.

- ***Establish standards for daily training schedule.*** While the daily training schedule can differ among shifts minimum expectations should be established that must be followed by each shift. These minimum expectations should include the requirement that training be part of the daily schedule seven days per week, including weekends and holidays. These minimum expectations should also establish the requirement that the daily schedule at each station include at least one hour per day of mandatory physical fitness training. This physical fitness training should be based on individual fitness plans developed for every firefighter based on the results of each individual's physical examination and a comprehensive fitness evaluation.

- ***Maintain timely training records.*** To ensure training records remain current company officers should be responsible for documenting daily training activities into the FIREHOUSE system at least once a week. In addition, the training captains should enter any specialty training into FIREHOUSE and review training records for

their individual shift on at least a monthly basis to ensure baseline training expectations are being adhered to on their shift.

West Palm Beach Does Not Need Its Own Training Facility

The county has established a training facility that the West Palm Beach Fire Rescue Department can use. By all accounts this facility is more than adequate to address the department's training need. One challenge in using this facility, however, is that fire suppression and rescue crews must be taken out of service to train at this facility. The analysis presented in Chapter III, however, indicates that after the study recommendations are implemented the department will have more than enough capacity to handle even the most labor intensive incidents (e.g., high-rise fires). Therefore, with some redeployment of crews, the department will be able to take selected crews out of service for training at the county facility without materially compromising the safety of the West Palm Beach community.

G – MAKING EFFECTIVE USE OF CIVILIAN STAFF

A Systematic Approach Was Taken To Evaluating What Positions Should Be Filled By Civilians And What Positions Should Be Filled By Commissioned Firefighters

In general, it is worthwhile to assess whether assigning functions currently assigned to uniformed firefighters to civilians can save money. There is no reason, however, to assess whether civilians can fill line fire suppression and EMS positions. Not only would this not be cost effective but also the skills and training of a commissioned firefighter or firefighter paramedic are essential to performing these responsibilities. For other positions, by contrast, assessing whether civilians or commissioned officers should fill the positions is worthwhile. Not only do civilians tend to be paid less compensation than commissioned firefighters but also the recruit and in-service training firefighters receive is much more extensive and costly than the training civilian employees receive.

A three-step process was used to evaluate the fire rescue department positions for which civilianization should be considered. These three steps included: determining whether assigning a civilian to a position held by a commissioned firefighter has the potential to reduce costs; determining whether an unambiguous case can be made for assigning positions to commissioned firefighters; and assessing additional factors, other than costs, that may justify assigning a commissioned firefighter to perform a function that could effectively be handled by a civilian.

If civilianization has the potential to reduce costs, an assessment was conducted of whether an unambiguous case can be made for assigning a commissioned firefighter. An unambiguous case for assigning a position to a commissioned firefighter was made if:

- A legal requirement requires that the job be performed by a commissioned firefighter or paramedic

- The skills, training, and experience of a commissioned firefighter are needed to effectively perform the job duties

- The job functions that justify the assignment of a commissioned firefighter comprise the preponderance of the position's functions and duties

If an unambiguous case for assigning the position to a commissioned officer cannot be made and civilianization would be cost effective, it still may make sense for the position to be assigned to a commissioned firefighter in some circumstances. Three factors were considered in assessing when a position should be assigned to a sworn firefighter despite the fact that the preponderance of the position's job functions do not require the skills and training of a commissioned firefighter and assigning the position to a civilian would reduce costs.

- ***Credibility.*** In some cases, assigning a commissioned firefighter to fill a position provides the credibility needed to effectively perform the position's job responsibilities

- ***Operational knowledge and experience.*** For some functions, the operational knowledge and perspective of a commissioned firefighter is helpful in performing job duties. However, the need for operational knowledge and expertise should only provide a rationale for assigning the function to a commissioned firefighter if the need for this knowledge and perspective is consistent and frequent and if the negative consequences that may result from not having this knowledge and perspective is sufficiently severe that the additional costs associated with assigning a commissioned firefighter to the position are warranted.

- ***Leadership development.*** In some instances, while a commissioned firefighter is not needed to fill a position, assigning a commissioned firefighter to the position is helpful in developing the skills of future leaders. This rationale for assigning commissioned firefighters to a position should be used only if the level of technical skills and professional expertise needed to perform the function are not excessive (i.e., a commissioned firefighter rotating through the assignment on a three year cycle[52] can quickly develop the skills and expertise needed to perform the job) and if the best way to become familiar with the function or activity is by managing or performing it on a day-to-day basis.

Four Classifications Of Positions Currently Held By Commissioned Firefighters Should Be Assigned To Civilians

A framework incorporating these evaluation criteria was used to assess the positions within the department that should be assigned to commissioned and civilian staff. The results of this analysis are presented in Exhibit V-5.[53] The results of this analysis suggest that four classifications of positions in the West Palm Beach Fire Rescue Department currently held by commissioned firefighters should be assigned to civilians:

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[52] If the primary reason for assigning the function or service to a commissioned firefighter is leadership development, potential leaders should rotate through the position so that a number of potential future leaders can benefit from the experience of holding the position.

[53] Please note that positions for which an unambiguous case can be made for assigning the position to a commissioned firefighter are not presented in this exhibit. In general, the exhibit only presents civilianization analysis for positions for which additional analysis was needed to determine whether the position should be filled by a commissioned firefighter or a civilian are presented.

CIVILIANIZATION ANALYSIS

		Complete Only If There Is Not An Unambiguous Case For Commissioned Officer						Complete Only If Operational Knowledge And Perspective Of Commissioned Officer Is Helpful			Complete Only If Assigning Commissioned Officer Is Helpful In Developing Leadership Skills				
Unit	Position	Legal Requirement That The Job Be Performed By A Commissioned Firefighter ? (Yes Or No)	Skills, Training, And Experience Of A Commissioned Firefighter Required? (Yes Or No)	Job Duties Requiring Commissioned Firefighter Comprise Preponderance Of Job Function? (Yes Or No)	Unambiguous Case For Commissioned Firefighter? (Yes Or No)	Credibility Of Commissioned Firefighter Needed? (Yes Or No)	Operational Knowledge And Perspective Of Commissioned Firefighter Helpful? (Yes Or No)	Need For Knowledge And Perspective Of Commissioned Firefighter Is Consistent And Frequent? (Yes Or No)	Negative Consequences Of Making Decisions Without Knowledge And Skills Of A Commissioned FirefighterAre Significant? (Yes Or No)	Assigning Commissioned Officer To The Position Is Helpful In Developing The Skills Of Future Leaders? (Yes Or No)	Technical Skills And Professional Expertise Needed To Fulfill Function Are Not Excessive? (Yes Or No)	Best Way To Become Familiar With Function Is To Manage Or Perform It On A Day-To-Day Basis? (Yes Or No)	Summary Assessment: Position (As Currently Configured) Should Be Held By Commissioned Officer ? (Yes Or No)	Comments
Support Section - Logistics Division	Lieutenant	No	No	No	No	No	No			No			No	
Support Section - Life Safety Division	Lieutenant (Inspector)	No	No	No	No	No	No			No			No	
Support Section - Life Safety Division	Captain - Plan Review	No	No	No	No	No	No			No			No	
Support Section - Life Safety Division	Captain - Fire Inspections and Investigations	No	No	No	No	No	No	No	No	Yes	No	Yes	No	Unless a shared services agreement is made with PBCFR related to conducting arson investigations, this position should continue to be held by a commissioned officer to provide back up and assistance to the fire marshal in conducting arson investigations.

- Lieutenant[54] – Support Section – Logistics Division
- Lieutenant – Support Section – Life Safety Division
- Captain (Plan Review) – Support Section – Life Safety Division
- Captain (Fire Inspections and Investigations)[55] – Support Section – Life Safety Division

H – STRENGTHENING INFORMATION SYSTEMS

The Department Uses Several Duplicative Information Systems That Do Not Interface

Not only does the department use a number of duplicative information systems, in many cases these systems require staff to manually enter data into each redundant system because there are not automatic interfaces between them. A discussion of each of the information systems used by the fire department follows.

FIREHOUSE and CODE 3. The department utilizes two records keeping systems, FIREHOUSE[56] and CODE 3, an internally developed record keeping system. While FIREHOUSE is considered the main record tracking system and the "system of record" it is not always properly updated after calls are completed. In part this is because no monitoring or sign-off of cases to ensure completion is embedded into the system. Department personnel also report the EMS modules of FIREHOUSE are not user friendly. Some of the problems with compliance in regards to case completion relate to the fact that although FIREHOUSE is the system of record all calls are also entered into CODE 3 because staff are more comfortable with that system. This duplication of effort increases the likelihood of errors.

CODE 3, which is used for tracking EMS incidents only, has limited functionality and is not supported by the city's information services department. Instead, a current senior employee of the department who developed CODE 3 and sold the product to the department maintains sole responsibility for system support. FIREHOUSE, by contrast, has extensive functionality including: record tracking on incidents; staff scheduling; tracking of training hours; inspections performed, and fire investigations (linked to incidences); life safety activities reporting; and false alarm reporting. Many of these functions, however, are not currently used and others are underutilized. The EMS modules, for example, are not used in part because the CODE 3 software is available

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[54] The department has already taken steps to civilianize this position.

[55] This position should only be civilianized if the department can enter into a shared services agreement for arson investigation services with the police department. Until then the position should be held by a commissioned firefighter to provide back up in arson investigations to the fire marshal.

[56] FIREHOUSE was purchased several years ago and has still not been fully implemented due to internal resistance to discontinuing use of older and in some cases home grown systems.

and in part because department managers are dissatisfied with some features of that module.

Telestaff. Telestaff is the main roster and time management system for all fire rescue department line personnel staffing requirements and is used for payroll. However, the department overrides many of its automated scheduling functions. While the city's information services department supports the server only one city employee (a fire rescue department employee) is trained to make hard code changes.

FileNet. Filenet is a document imaging system that will house inspection reports once they have been scanned.

Oracle and EMS Consultants. Oracle, which is the accounting software used by the city finance department, houses permitted inspection information and EMS billing invoices. The EMS billing department also uses EMS Consultants software to create and generate ambulance transport and inspection invoices. This software does not reconcile payments with Oracle, however. Instead, information for creating invoices in EMS Consultants must be manually input into the system.

Vision Fire. Vision Fire is an older system that houses incident reports that is no longer used by the fire rescue department. This system is still maintained by the city's information services department for record retrieval purposes only.

The Department Should Streamline Its Information Systems

The department should take the following steps to streamline its information systems:

- ***Establish FIREHOUSE as system of record and discontinue the use of the CODE 3 system***. The department should use only one system to meet all of its reporting requirements. Since FIREHOUSE contains all the functionality the department needs, it should be the only system used and use of CODE 3 should be discontinued. Over the long term the use of commercial software product rather than a combination of homegrown systems ensures the sustainability of the department's information services. If the CODE 3 system were retained the department would be dependent on the developer – a current department employee – for maintenance and support when that employee retires but would have no guarantee that the system could continue to be effectively maintained over the long-term.

- ***Fully implement FIREHOUSE***. The department should take full advantage of all the features of its FIREHOUSE software. As part of this process, the city's information services department should be charged with working with the software provider to address department's concerns relating to FIREHOUSE's EMS modules. User training on FIREHOUSE should then be established as a high priority.

- ***Migrate information from CODE 3***. Migrating information from CODE 3 to FIREHOUSE should not be difficult because much of the information in CODE 3 and FIREHOUSE is required by the state. As a consequence, data fields in the two systems align. Migrating data to the FIREHOUSE system could be accomplished by writing a program import from CODE 3 to FIREHOUSE.

If the city chooses not to implement this recommendation and continues to use both FIREHOUSE and CODE 3, however, an interface should be built between the systems to decrease the need for redundant information entry. Building an interface to move data from CODE 3 to FIREHOUSE will be costly. Since creating a nightly batch file to update FIREHOUSE with CODE 3 information would be complicated, the city would need to outsource the creation and management of this interface. Leaders of the city's information services department indicate there are currently no city resources available to write the code, monitor the batching, and ensure quality control of the interface.

- ***Assign responsibility for completing incident records.*** Regardless of whether the department moves to only using FIREHOUSE or continues to use both systems, a process needs to be developed to ensure that case information is updated after an incident call. A review process should be put in place that requires an officer to sign-off on the fact that all case information has been updated before the case can be closed. The quality control sign-off functionality in FIREHOUSE should be used to support the implementation of this recommendation.

- ***Adjust use of Telestaff.*** Given the department overrides many of the scheduling features in Telestaff, the scheduling module of FIREHOUSE should be used to schedule staff. If the department is going to continue to use other components of Telestaff[57] designated support staff in the city's information services department and one additional fire rescue department employee should be trained to support the system.

- ***Evaluate compatibility of software involved with EMS billing.*** The compatibility of the EMS Consultants software with FIREHOUSE and Oracle software should be evaluated by the city's information services department to determine if interfaces can be created to decrease the duplicative manual entry of information.

I – MODIFYING EMS BILLING

The Current EMS Billing Process Is Cumbersome And Inefficient

The entire EMS billing process is manual and cumbersome. Current processes require the same data to be entered a number of times. In addition, the process for handling customer service calls is convoluted and results in call transfers between the department's EMS billing office and the city's finance department. The efficiency of the operation is also reduced because several times a week staff must leave the office to invoices to a print shop.

Automating The Process For Entering EMS Billing Information Is The Key To Improving Efficiency

A functional time breakout analysis was performed to determine if it would be cost effective to outsource the EMS billing function. This analysis indicates that 60 percent of one staff person's monthly time is spent manually entering billing information and an

[57] The department and its employees are very pleased with the call-in and automated coverage call components of the Telestaff system.

additional 20 percent of her time is spent on customer service calls, especially those related to insurance and legal documents. The actual billing process itself requires only 50 percent of a clerical associates time. (One clerical associate spends 20 percent of her time billing for West Palm Beach and the second clerical associate splits 30 percent of her time between billing for West Palm Beach and billing for two outside agencies that contract with West Palm Beach for EMS billing services.)

This analysis suggests that the greatest opportunity to improve the efficiency of the EMS billing process would be to automate the process of entering billing information. While the analysis of privatization alternatives presented in Chapter VI suggests privatizing this function has the potential to be beneficial, any savings associated with privatization would be small unless the process of entering billing information is automated. Therefore, the department should require that any vendor that bids to provide EMS billing services also provide the systems needed to automate the input of EMS billing information.

J – ADJUSTING INCENTIVE PAY

Firefighters Currently Receive Full Incentive Pay For Special Operation Certifications Even If Not Required By Their Assignment

The department currently provides full incentive pay of three percent for each type of special operations certification to all firefighters who maintain the certification regardless of whether the certification is required by their work assignment. While the department's employees should be commended for their desire to obtain additional training, the current number of certified hazardous materials technicians and technical rescue technicians far exceeds the number needed. Ninety firefighters are certified and receive full incentive pay as hazardous materials technicians although only 50 are required to staff Stations 2 and 4 (including providing for relief). Moreover, eighty firefighters are certified and receive incentive pay as technical rescue technicians although only 40 are required to staff that function.

The Department Should Adjust Its Approach To Providing Incentive Pay For Special Operation Certifications

In most departments full incentive pay is provided only to individuals who serve as members of a special operations team and therefore use the certification as part of their day-to-day job responsibilities. Some departments provide no incentive pay to firefighters who maintain certifications not required by their assignment while others provide a lower level of compensation to these firefighters.

The department should take a mixed approach to compensating individuals for special operations certifications. Fifty hazardous material technicians and 40 technical rescue technicians – the number of positions needed to staff required positions – should receive full incentive pay. The department should establish a one percent incentive pay schedule for firefighters who maintain certifications not required by their current assignment. Adjusting the schedule will encourage firefighters to obtain and maintain special operations certifications while recognizing the differing job requirements of those firefighters who are assigned to special operations units. This approach will also provide the department with a "farm team" of certified individuals to fill positions vacated due to promotion or transfer.

VI – ALTERNATIVE SERVICES DELIVERY APPROACHES

VI – ALTERNATIVE SERVICE DELIVERY APPROACHES

In addition to taking steps to strengthen it's management and operations the department should explore opportunities to reduce costs and/or improve services by implementing alternative approaches to delivering services. Specifically, costs might be reduced and/or service quality improved if the department outsourced responsibility for providing a service to a private firm or if it collaborated more closely with the city or another governmental entity (e.g., the county) to provide the service (i.e., implemented a regional or shared serves approach to delivering services).

This chapter is divided into two sections. The first section presents an analysis of which services should be considered for privatization and the second section analyzes the potential benefits of entering into shared service or regional service delivery arrangements to provide services.

PRIVATIZATION

In some instances, private firms may be able to provide services at a lower cost than the West Palm Beach Fire Rescue Department regardless of how well the department manages its operations. One cannot assume, however, that private providers will necessarily be more efficient because governments have a built-in cost advantage that gives them a significant edge over their private sector "competition."[58] Indeed, the only way to know for sure whether private firms can provide services more cost-effectively than a government is to put the service out to bid (which is an expensive and time consuming process). However, even if a service is put out to bid and it can be shown that outsourcing saves money, a rational government might choose not to outsource the service if the costs and risks associated with outsourcing exceed the benefits. It is prudent therefore, to make a qualitative assessment of the potential benefits of privatization, and then to weigh those potential benefits against privatization's costs and risks, before incurring the costs of putting a service out to bid.

A systematic assessment was conducted to determine for which department functions and activities investing the time and resources needed to solicit outside bids appears prudent.[59] This analysis was undertaken in three steps:

- Assess the potential benefits of privatization
- Assess the costs and risks of privatization
- Weigh the costs and risks of privatization against the potential benefits

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[58] Governments pay no taxes, have no marketing or sale expenses, have no shareholders who expect to earn a profit, and are able to take advantage of tax exempt financing.

[59] Please note that just because the department solicits bids to perform a function or activity does not mean the department will necessarily outsource the service. On the contrary, soliciting bids will provide the department with the information it needs to precisely calculate the benefits of outsourcing the service. Even if savings are possible, however, the costs and risks of privatization may exceed those savings.

Assess The Potential Benefits Of Privatization

Despite the significant cost advantages the department has in providing services, using private firms to provide services can be beneficial if:

- Contracting out non-core services allows managers to focus more attention on improving core service offerings
- Private firms have structural advantages that allow them to out-perform even effectively managed governments (for example, private firms may be able to take advantage of economies of scale not available to the department)
- Outsourcing will allow the department to manage random fluctuations in workload and seasonal workload peaks more effectively
- Department managers can use private contractors to overcome barriers to change
- Private firms have more flexibility in acquiring needed equipment and hiring needed staff in a timely manner than the department
- Risks associated with technological change can be shifted to the contractor

A qualitative assessment of the likely benefits of privatization relating to each of these factors was conducted using the scale presented in Exhibit VI-1. The results of this qualitative assessment are presented in Exhibit VI-2. As indicated on this exhibit privatization has the potential to be beneficial for one function: provide records and billing services for EMS.

Assess The Costs And Risks Of Privatization

For functions and services for which an affirmative management case for outsourcing can be made, the costs and risks associated with using private contractors should be carefully evaluated. The costs associated with using private contractors may be grouped into a number of broad categories:

- ***Transaction costs.*** These costs include the administrative and legal expenditures associated with searching for potential contractors, selecting and contracting with them, monitoring the contract, and re-contracting.
- ***Costs associated with loss of synergy.*** Staffs assigned to different units often help each other on an informal basis to meet peak workload demands. If the work performed by a unit is transferred to a contractor, staff from other units are much less likely to provide informal assistance without significant management intervention. Likewise, contractors are unlikely to provide informal assistance to other units unless they are paid for doing so. Where synergies are significant, the hidden costs associated with outsourcing services may be large.

CRITERIA FOR EVALUATING WHETHER PRIVATIZATION HAS THE POTENTIAL TO BE BENEFICIAL

Supports Privatization	High Benefits	Modest Benefits	Limited Benefits	No Benefits	Does Not Support Privatization
Contracting out non-core services allows managers to focus more attention on improving core services	●	◖	○	---	Contracting out non-core services does not allow managers to focus more attention on improving core services
Private firms have structural advantages	●	◖	○	---	Private firms do not have structural advantages
Outsourcing will allow the department to manage fluctuations in workload	●	◖	○	---	Outsourcing will not allow the department to manage fluctuations in workload
Department managers can use private contractors to overcome barriers to change	●	◖	○	---	Department managers cannot use private contractors to overcome barriers to change
Private firms have advantages in flexibly acquiring equipment and hiring	●	◖	○	---	Private firms do not have advantage in flexibly acquiring equipment and hiring
Risks associated with technological change can be shifted to contractor	●	◖	○	---	Risks associated with technological change cannot be shifted to contractor

PRELIMINARY ASSESSMENT OF SERVICES FOR WHICH PRIVATIZATION SHOULD BE CONSIDERED

Service	Expertise/ Focus	Structural Advantages	Managing Fluctuations In Workload	Barriers To Change	Flexibility In Procurement And Human Resource Management	Technological Change	Privatization Candidate?
External							
■ Respond to medical emergencies	---	○	---	---	---	---	No
■ Respond to and mitigate any emergency (fire, natural or manmade disaster)	---	○	---	---	---	---	No
Ensure new construction and remodeling projects comply with fire codes	---	---	○	---	---	---	No
Conduct life safety inspections for new and existing buildings for compliance with fire codes	---	---	---	---	---	---	No
■ Conduct fire/safety inspections for special events	---	---	○	---	---	---	No
■ Investigate all fires to determine cause	---	---	---	---	---	---	No
■ Maintain records of hazardous materials	---	---	---	---	---	---	No
■ Provide education services and outreach services to support fire prevention efforts	---	---	---	---	---	---	No
■ Conduct arson investigations	---	---	---	---	---	---	No

PRELIMINARY ASSESSMENT OF SERVICES FOR WHICH PRIVATIZATION SHOULD BE CONSIDERED

Service	Expertise/ Focus	Structural Advantages	Managing Fluctuations In Workload	Barriers To Change	Flexibility In Procurement And Human Resource Management	Technological Change	Privatization Candidate?
Internal							
■ Ensure fire department employees receive the training needed to effectively fulfill their responsibilities	○	---	○	---	---	---	No
■ Provide administrative services to support the fire department's mission	○	---	---	---	---	---	No
■ Maintain all department facilities, vehicles, and equipment	○	○	---	---	---	---	No
■ Provide all support to fire department personnel (uniforms, equipment and supplies)	○	○	---	---	---	---	No
■ Provide records and billing services for EMS	○	◖	◖	---	---	○	Yes

- ***Organizational costs.*** Using private contractors is disruptive. This disruption may manifest itself in the form of political resistance to privatization initiatives. In addition, using private contractors disrupts the lives of workers, many of whom may have been long-time employees of the department. Although these organizational costs are difficult to quantify, depending on the size of the function being privatized, they may not be inconsequential.

The risks associated with using private contractors may also be grouped into a number of broad categories. These categories include:

- ***Risks associated with loss of control.*** Clearly, when a private contractor is used to perform a function or service the department becomes more vulnerable because it no longer directly controls operations.

- ***Non-performance risks.*** No matter how carefully a contract is structured, there is always a chance that a contractor will fail to adhere to the terms of the agreement. When this happens, administrative and legal costs are substantially increased. Moreover, the quality of services residents receive may be compromised.

- ***Lack of competition.*** Lack of competition can also prevent the potential benefits of using private contractors from being realized. A competitive market will not be created unless a critical mass of competitors is willing to bid for the work.

- ***Lack of information.*** For highly technical functions, the department may not have the "know how" to effectively evaluate contractor service offerings. Without this knowledge, it is difficult for the department to make the best decisions about which contractor to select. Moreover, for highly technical functions, it is difficult to monitor and evaluate contractor performance once a contract has been let.

A qualitative assessment of these costs and risks was conducted using the following scale:

High Costs Or Risks	●
Modest Costs Or Risks	◖
Limited Costs Or Risks	O
Low Costs Or Risks	---

Weigh The Costs And Risks Of Privatization Against The Potential Benefits

To determine for which functions and services it is worthwhile to invest the time and resources to solicit bids from private service providers the results of the assessment of the benefits associated with privatization should be compared to the assessment of the costs and risks. The results of this assessment (which are presented in Exhibit VI-3) suggest that EMS records and billing services should be put out to bid. As discussed in the previous chapter, however, any bid should include a requirement that the contractor automate the process for inputting EMS billing information.

ASSESSMENT OF SERVICES FOR WHICH BIDS FROM OUTSIDE FIRMS SHOULD BE SOLICITED

Service		Costs			Risks				
	Benefits	Transaction Costs	Loss Of Synergy	Organizational Costs	Loss Of Control	Non-Performance Risk	Lack Of Competition	Lack Of Information	Bid Services?
■ Provide records and billing services for EMS	◖	O	O	---	---	O	---	---	Yes

SHARED OR REGIONAL SERVICE DELIVERY

There are a number of reasons why entering into a shared or regional service delivery arrangement has the potential to be beneficial. These benefits include:

- Taking advantage of operational economies of scale
- Taking advantage of purchasing economies
- Spreading risks through risk pooling
- Leveraging expertise
- Addressing intermittent and seasonal service needs by coordinating service delivery efforts

The results of a systematic assessment of these potential benefits are presented in Exhibit VI-4. As this exhibit shows, shared or regional service delivery should be considered for the following functions:

- Ensure new construction and remodeling projects comply with fire codes
- Provide education services and outreach (the West Palm Beach Fire Rescue Department currently does not have this capacity)
- Conduct arson investigations
- Ensure fire department employees receive needed training (for specialized training)
- Provide dispatch services (this function is already handled by Palm Beach County)
- Maintain department facilities, vehicles, and equipment (vehicle and equipment maintenance services are already provided by the county)
- Provide support to fire department personnel (uniforms, equipment and supplies)

Please note that providing fire suppression and emergency medical services on a share or regional service delivery basis is not recommended. The automatic aid agreement the city has with the Palm Beach County Fire Rescue Department provides many of the benefits that would result from providing these services on a shared or regional service delivery basis. Ensuring that current deployment approaches reflect this automatic aid[60] creates the benefits associated with shared or regional service delivery without losing the ability to tailor services to meet local needs.

[60] Please note that the analysis presented in Chapter III takes this approach.

PRELIMINARY ANALYSIS OF SERVICES FOR WHICH SHARED SERVICES SHOULD BE CONSIDERED

Service	Economies Of Scale	Purchasing Economies	Risk Pooling	Leveraging Expertise	Intermittent And Seasonal Services Needs	Candidate For Shared Services?
External						
■ Respond to medical emergencies	O	---	---	---	---	No, if deployment of WPB resources reflects automatic aid capabilities
■ Respond to and mitigate any emergency (fire, natural or manmade disaster)	O	---	---	---	---	No, if deployment of WPB resources reflects automatic aid capabilities
■ Ensure new construction and remodeling projects comply with fire codes	●	---	---	---	O	Yes
■ Conduct life safety inspections for new and existing buildings for compliance with fire codes	---	---	---	---	---	No
■ Conduct fire/safety inspections for special events	---	---	---	---	O	No
■ Investigate all fires to determine cause	---	---	---	---	---	No
■ Maintain records of hazardous materials	---	---	---	---	---	No
■ Provide education services and outreach services to support fire prevention efforts	O	---	---	O	---	Yes
■ Conduct arson investigations	O	---	---	O	---	Yes
Internal						
■ Ensure fire department employees receive the training needed to effectively fulfill their responsibilities	O	---	---	O	---	Yes, for selected types of training

PRELIMINARY ANALYSIS OF SERVICES FOR WHICH SHARED SERVICES SHOULD BE CONSIDERED

Service	Economies Of Scale	Purchasing Economies	Risk Pooling	Leveraging Expertise	Intermittent And Seasonal Services Needs	Candidate For Shared Services?
■ Provide administrative services to support the fire department's mission	---	---	---	○	---	No
■ Provide dispatch services	◖	○	---	○	---	Yes (service is already provided on shared service basis)
■ Maintain all department facilities, vehicles, and equipment	○	◖	---	○	---	Yes (vehicle and equipment maintenance is already provided on a shared service basis)
■ Provide all support to fire department personnel (uniforms, equipment and supplies)	○	◖	---	○	---	Yes
■ Provide records and billing services for EMS	○	---	---	○	---	No (primary savings come from automating data entry process)

VII – BENCHMARK COMPARISONS

VII – COMPARISONS WITH OTHER DEPARTMENTS

While an assessment of the needs of any fire rescue department should be based on an assessment of the need for fire and emergency medical services in the community served and the level of service the city wants to provide, comparisons with other jurisdictions can provide a useful context for these discussions. To provide this context, the West Palm Beach Fire Rescue Department was compared with the fire departments from a number of other jurisdictions.

POPULATION AND AREA SERVED

West Palm Beach has the third smallest population of the nine departments for which benchmark information will be presented and ranks eighth in terms of square miles. West Palm Beach, however, has the highest population density of the benchmark cities.

City	Population	Square Miles	Population Per Square Mile
Denton, TX	119,000	75.0	1,586.7
Palm Bay, FL	105,803	98.0	1,079.6
Midland, TX	100,889	66.0	1,528.6
High Point, NC	100,442	70.0	1,434.9
Flagstaff, AZ	98,490	63.6	1,548.6
Lakeland, FL	95,266	80.0	1,190.8
West Palm Beach, FL	*89,302*	*55.1*	*1,620.7*
North Charleston, SC	84,491	73.0	1,157.4
Sioux City, IA	82,385	54.8	1,503.4

POVERTY

West Palm Beach ranks fourth in terms of the percentage of the population below the poverty level.

City	Percent Of Population Below Poverty Level	Rank
North Charleston, SC	24.1%	1
Denton, TX	19.1%	2
Flagstaff, AZ	19.0%	3
West Palm Beach, FL	*18.2%*	*4*
High Point, NC	17.3%	5
Sioux City, IA	16.2%	6
Lakeland, FL	14.4%	7
Midland, TX	14.3%	8
Palm Bay, FL	10.0%	9

STAFFING

In terms of overall staffing, the West Palm Beach Fire Rescue Department has the third highest staffing of the benchmark departments.

City	Staffing	Rank
High Point, NC	224	1
North Charleston, SC	220	2
West Palm Beach, FL	*216*	*3*
Midland, TX	202	*4*
Denton, TX	164	5
Lakeland, FL	149	6
Palm Bay, FL	134	7
Sioux City, IA	118	8
Flagstaff, AZ	100	9

Since the need for fire suppression services varies primarily with geographic area while the need for emergency medical services varies with both geographic area and population it is also useful to compare department staffing on these dimensions. As compared to the other jurisdictions, West Palm Beach ranks second in terms of the number of employees per thousand population and first in terms of the number of employees per square mile.

City	Staffing Per 1000 Population	Rank	Staffing Per Square Mile	Rank
North Charleston, SC	2.60	1	3.01	4
West Palm Beach, FL	*2.42*	*2*	*3.92*	*1*
High Point, NC	2.23	3	3.20	2
Midland, TX	2.00	*4*	2.14	7
Lakeland, FL	1.56	5	3.06	3
Sioux City, IA	1.43	6	2.15	6
Denton, TX	1.38	7	2.19	5
Palm Bay, FL	1.27	8	1.37	9
Flagstaff, AZ	1.02	9	1.57	8
Average (excluding West Palm Beach)	1.69		2.34	

None of the benchmark departments employ a significant percentage of civilians. Indeed, West Palm Beach Fire Rescue has the third lowest percentage of sworn employees but 95.4 percent of the department's staff are sworn.

City	Sworn Employees	Civilian Employees	Percent Sworn	Rank
North Charleston, SC	217	3	98.6%	1
Lakeland, FL	144	5	96.6%	2
Sioux City, IA	114	4	96.6%	3
Denton, TX	158	6	96.3%	4
Flagstaff, AZ	96	4	96.0%	5
High Point, NC	214	10	95.5%	6
West Palm Beach, FL	*206*	*10*	*95.4%*	*7*
Midland, TX	192	10	95.0%	8
Palm Bay, FL	118	17	87.5%	9
Average (excluding West Palm Beach)	156.6	7.4	95.3%	

BUDGET

When making budget comparisons it is important to recognize that each benchmark department provides a different range and level of service. Budget comparisons do provide some, albeit limited, context, however.

West Palm Beach's overall fire department budget ranks first as compared to the benchmark fire departments.

City	Operating Budget	Rank
West Palm Beach, FL	*$31,306,210*	*1*
Denton, TX	$20,249,839	2
High Point, NC	$18,474,109	3
Midland, TX	$16,200,000	4
North Charleston, SC	$13,974,392	5
Lakeland, FL	$13,064,000	6
Palm Bay, FL	$13,000,000	7
Sioux City, IA	$12,000,000	8
Flagstaff, AZ	$11,030,114	9
Average (excluding West Palm Beach)	$14,749,057	

From a budget perspective, West Palm Beach ranks first in terms of fire rescue department budget per 1000 population and first in terms of budget per square miles.

City	Budget Per 1000 Population	Rank	Budget Per Square Mile	Rank
West Palm Beach, FL	*$350,566*	*1*	*$568,171*	*1*
High Point, NC	$183,928	2	$263,916	3
Denton, TX	$170,167	3	$269,998	2
North Charleston, SC	$165,395	4	$191,430	6
Midland, TX	$160,573	5	$196,970	4
Sioux City, IA	$145,658	6	$218,978	5
Lakeland, FL	$137,132	7	$163,300	8
Palm Bay, FL	$122,870	8	$132,653	9
Flagstaff, AZ	$111,992	9	$173,429	7

INCIDENTS

West Palm Beach handled the most overall incidents of the nine jurisdictions. Indeed, the number of incidents handled in West Palm Beach is almost twice as high as the average for the eight benchmark districts (excluding West Palm Beach).

City	Incidents	Rank
West Palm Beach, FL	*19,833*	*1*
Lakeland, FL	19,550	2
Midland, TX	11,664	3
High Point, NC	11,038	4
Denton, TX	10,657	5
Flagstaff, AZ	9,894	6
Palm Bay, FL	9,780	7
Sioux City, IA	5,788	8
North Charleston, SC	5,496	9
Average (excluding West Palm Beach)	10,483	

West Palm Beach also ranks first in terms of incidents per 1000 population but ranks third in terms of incidents per employee.

City	Incidents Per Employee	Rank	Incidents Per 1000 Population	Rank
Lakeland, FL	131.21	1	205.21	2
Flagstaff, AZ	98.94	2	100.46	5
West Palm Beach, FL	*91.82*	*3*	*222.09*	1
Palm Bay, FL	72.99	4	92.44	6
Denton, TX	64.98	5	89.55	7
Midland, TX	57.74	6	115.61	3
High Point, NC	49.28	7	109.89	4
Sioux City, IA	49.05	8	70.26	8
North Charleston, SC	24.98	9	65.05	9
Average (excluding West Palm Beach)	68.65		106.06	

When incidents are broken down by type, West Palm Beach ranks fourth in terms of fire incidents responded to and second in terms of EMS incidents responded to.

City	Fire Incidents	Rank	EMS Incidents	Rank
Lakeland, FL	2452	1	17,098	1
North Charleston, SC	749	2	2,496	7
High Point, NC	653	3	7,819	3
West Palm Beach, FL	*478*	*4*	*15,124*	*2*
Denton, TX	412	5	6,897	5
Palm Bay, FL	335	6	5,700	6
Flagstaff, AZ	254	7	7,596	4

FIRE STATIONS

Of the nine comparison jurisdictions, West Palm Beach ties for second in terms of the number of fire stations per square mile.

City	Fire Stations	Fire Stations Per Square Mile	Rank
High Point, NC	14	0.20	1
North Charleston, SC	11	0.15	2
West Palm Beach, FL	*8*	*0.15*	*3*
Midland, TX	9	0.14	4
Sioux City, IA	7	0.13	5
Flagstaff, AZ	7	0.11	6
Denton, TX	7	0.09	7
Lakeland, FL	7	0.09	8
Palm Bay, FL	5	0.05	9
Average (excluding West Palm Beach)		0.12	

EMS SERVICES

West Palm Beach offers a broader array of emergency medical services than many of the benchmark jurisdictions. Like West Palm Beach, six of the eight benchmark jurisdictions offer EMS services using in-house staff. (Five of these jurisdictions provide ALS services in house and one relies on a private provider for ALS services[61].) However, only two jurisdictions offer advanced life support (ALS) transport services using in-house staff (and in a third jurisdiction ALS transport services are offered by a private provider). Without exception EMS staff are also firefighters in the jurisdictions that provide EMS services using in-house staff.

Only limited information on EMS billing was provided by the benchmark jurisdictions. Both of the jurisdictions that provided information on EMS billing outsource the service. One jurisdiction pays 11 percent of collections for this service and the second pays 6 percent of collections for this service.

APPARATUS STAFFING

The preponderance of the benchmark jurisdictions staff engines and ladders with three personnel and squads with two personnel.

City	Squad	Engine	Ladder
Denton, TX	2	3	4
Flagstaff, AZ	N/A	3	3
High Point, NC	2	3	3
Lakeland, FL	2	3	3
Midland, TX	2	3	3
North Charleston, SC	N/A	3	3
Palm Bay, FL	2	4	4
Sioux City, IA	2	3	3
West Palm Beach, FL	*3*	*3*	*3*

SHIFT SCHEDULE

Of the eight departments (including West Palm Beach) providing information all but one assigns EMS and fire suppression staff to work a 24 hours on, 48 hours off schedule. (The remaining department assigns staff to work a 48 hours on, 96 hours off schedule.) Each of these departments assigns inspectors to work a five day, eight hour per day schedule and all but one assigns arson investigators to this same schedule. The schedule for training officers, however, varies. Five of the departments assign training officers to a five day, eight hour per day schedule and three assign them to a 24 hours on, 48 hours off schedule.

[61] This jurisdiction (Sioux City, IA) will begin providing ALS services with in-house staff in 2010.

City	EMS	Fire Suppression	Arson Investigators	Inspectors	Training Officers
West Palm Beach, FL	*24 hours on, 48 hours off*	*24 hours on, 48 hours off*	*8 hours per day; 5 days per week*	*8 hours per day; 5 days per week*	*24 hours on, 48 hours off*
Denton, TX	24 hours on, 48 hours off	24 hours on, 48 hours off	8 hours per day; 5 days per week	8 hours per day; 5 days per week	24 hours on, 48 hours off
Flagstaff, AZ	48 hours on, 96 hours off	48 hours on, 96 hours off	48 hours on, 96 hours off	8 hours per day; 5 days per week	8 hours per day; 5 days per week
High Point, NC	N/A	24 hours on, 48 hours off	8 hours per day; 5 days per week	8 hours per day; 5 days per week	8 hours per day; 5 days per week
Midland, TX	24 hours on, 48 hours off	24 hours on, 48 hours off	8 hours per day; 5 days per week	8 hours per day; 5 days per week	8 hours per day; 5 days per week
Palm Bay, FL	N/A	24 hours on, 48 hours off	N/A	8 hours per day; 5 days per week	24 hours on, 48 hours off
Lakeland, FL	24 hours on, 48 hours off	24 hours on, 48 hours off	8 hours per day; 5 days per week	8 hours per day; 5 days per week	24 hours on, 48 hours off
Sioux City, IA	24 hours on, 48 hours off	24 hours on, 48 hours off	8 hours per day; 5 days per week	8 hours per day; 5 days per week	8 hours per day; 5 days per week

PAID WORKWEEK

Firefighters and EMS staff in West Palm Beach are paid for 48 hours per week while in the other jurisdictions the hours paid per week range from 51 to 56. Arson investigators and inspectors are paid for 40 hours per week in most departments.

City	EMS	Fire Suppression	Arson Investigators	Inspectors
West Palm Beach, FL	*48*	*48*	*40*	*40*
Denton, TX	53	53	40	40
Flagstaff, AZ	56	56	46	40
High Point, NC	N/A	56	40	40
Midland, TX	56	56	40	40
North Charleston, SC	51	51	51	40
Palm Bay, FL	N/A	54	N/A	40
Lakeland, FL	56	56	40	40
Sioux City, IA	56	56	40	40

DISPATCH SERVICES

Dispatch services are not provided in-house in any of the benchmark jurisdictions. In six of the jurisdictions the police department provides dispatch services and in the remaining jurisdictions either the city or county provides dispatch services. None of the jurisdictions currently employs a priority dispatch system but one department (Sioux City, IA) plans to do so in 2010.

TRAINING

Training staff. West Palm Beach has somewhat more staff assigned to provide training (3.0) than the average for the benchmark jurisdictions (2.25).

City	Staff Assigned To Provide Training
Lakeland, FL	4.00
High Point, NC	3.00
Palm Bay, FL	3.00
West Palm Beach, FL	*3.00*
Denton, TX	2.00
Midland, TX	2.00
North Charleston, SC	2.00
Flagstaff, AZ	1.00
Sioux City, IA	1.00
Average (excluding West Palm Beach)	2.25

Training facilities. Five of the benchmark jurisdictions have a training facility available within their city limits and a training facility is being built in the city for a sixth department. (In two of the departments for which the training facility is not within the city limits the training facility is five miles away; in the third department the training facility is 30 miles away[62].) At least a portion of the training is provided at a regional training facility in three of the eight departments.

Training for new hires. Six of the eight benchmark jurisdictions require new hires to be certified firefighters. The training these new hires receive ranges from none to 22 weeks. Three of the departments provide two weeks of training for new recruits. (The average new recruit training for the eight benchmark jurisdictions is 7.2 weeks.)

In-service training. A minimum of two hours per shift is devoted to in-service training in five of the departments. Three hours of in-service training per shift is required in two departments.

INCENTIVE AND LONGEVITY PAY

While some of the benchmark jurisdictions do not provide incentive or longevity pay, those than do tend to offer incentives for some common certifications and/or training.

[62] This is the jurisdiction (Denton, TX) that is building a training facility within the city limits.

City	Haz Mat	Paramedic	Arson Investigator	Technical Rescue	Longevity
West Palm Beach, FL	*X*	*X*	*X*	*X*	*X*
Denton, TX	X	X			
Flagstaff, AZ	X	X	X	X	X(a)
High Point, NC					
Midland, TX	X		X		X
North Charleston, SC					X
Palm Bay, FL					X
Lakeland, FL		X		X	X
Sioux City, IA	X	X		X	X

(a) For engineers only.

Other types of incentive pay provided include the following: intermediate firefighter, firefighter, master firefighter (Denton, TX); state certification for structure fire, ARFF, inspector, peace officer, instructor, associates degree, bachelors degree (Midland, TX); and master firefighter (Sioux City, IA). Inspectors receive incentive pay in West Palm Beach.

Some of the benchmark jurisdictions place a limit on the amount of incentive pay that can be earned. For example, Flagstaff, AZ places a limit of three assignment pays and Midland, TX limits incentive pay to $120 per month (excluding pay for degrees). In West Palm Beach firefighters are limited to three incentive payments (excluding payments for education).

FIRE INSPECTIONS

Fire inspectors in six of the benchmark jurisdictions are uniform firefighters while civilians perform this function in two of the benchmark fire departments.

ARSON INVESTIGATIONS

Arson investigations are performed by uniform firefighters in seven of the eight benchmark jurisdictions and in five of the benchmark fire departments at least one of the arson investigators is a certified law enforcement officer. In five of these departments arson investigations are the sole responsibility of the fire department while in the remaining three departments responsibility for arson investigations is shared with the police department.

ORGANIZATION

The number of deputy chiefs or assistant chiefs ranges from one to three.

City	Number Of Deputy Chiefs Or Assistant Chiefs
West Palm Beach, FL	*2*
Denton, TX	1
Flagstaff, AZ	2
High Point, NC	3
Midland, TX	3
North Charleston, SC	2
Palm Bay, FL	2
Lakeland, FL	2
Sioux City, IA	1
Average (excluding West Palm Beach)	2

The number of stations battalion chiefs oversee ranges from an average of 3.5 to 9.

City	Average Number Of Stations Overseen
Midland, TX	9.0
West Palm Beach, FL	*8.0*
Denton, TX	7.0
Flagstaff, AZ	7.0
High Point, NC	7.0
Sioux City, IA	7.0
North Charleston, SC	5.5
Palm Bay, FL	5.0
Lakeland, FL	3.5
Average (excluding West Palm Beach)	6.4

Special operations is integrated into the suppression function in five of the eight benchmark jurisdictions and has its own chief (at least for hazardous materials) in three of the departments.

FIRE PREVENTION

Fire department plan review is separate from city building and code offices in each of the six benchmark departments providing information on this issue.

Three of the eight benchmark departments require in-service crews to support fire inspections. In the jurisdictions where in-service crews support inspection activities they focus on less complicated occupancies.

RESPONSE TIMES

Each of the benchmark jurisdictions providing information on average travel time report that the time to travel to incidents (excluding dispatch and turnout time) of less than six minutes.

City	Average Travel Time (Minutes)
West Palm Beach, FL	*6.23(a)*
Flagstaff, AZ	3:44
High Point, NC	3:21
Midland, TX	5:15
North Charleston, SC	5:00
Palm Bay, FL	Less than 6

(a)Estimated based on one minute turnout and one minute dispatch

OVERTIME EXPENDITURES

Not surprisingly, overtime expenditures relating to EMS and suppression activities comprise the preponderance of overtime expenditures in each of the benchmark departments.

City	Total Overtime	EMS/Suppression Overtime	Percent EMS/Suppression
West Palm Beach, FL	$1,065,639	$1,065,639	100.0%
Denton, TX	$600,000	$500,000	83.3%
Flagstaff, AZ	$435,736	$435,736	100.0%
High Point, NC	$300,000	$290,000	96.7%
Midland, TX	$640,268	$549,833	85.9%
North Charleston, SC	$250,000	$250,000	100.0%
Palm Bay, FL	$652,100	$652,100	100.0%
Lakeland, FL	$868,555	$855,000	98.4%

West Palm Beach ranks fifth in terms of overtime expenditures as a percentage of the total department budget.

City	Overtime As A Percentage Of Operating Budget	Rank
Lakeland, FL	6.6%	1
Palm Bay, FL	5.0%	2
Midland, TX	4.0%	3
Flagstaff, AZ	4.0%	4
West Palm Beach, FL	*3.4%*	*5*
Denton, TX	3.0%	6
North Charleston, SC	1.8%	7
High Point, NC	1.6%	8

PUBLIC EDUCATION

Five of the eight benchmark fire departments employ dedicated public education staff. One full-time equivalent employee is assigned this duty in three of these departments. In two of the departments the employee responsible for public education performs other duties as well. In the departments that do not employ dedicated public education staff suppression staff and/or fire inspectors support public education efforts.

PUBLIC INFORMATION

While four of the eight benchmark fire departments employ dedicated public information staff in only one of these departments is a full-time employee assigned this responsibility. In the remaining two departments staff perform the public information function in addition to other responsibilities. In departments without dedicated public information staff, the public information function is performed by the city public information officer (in three of the departments) or training staff (in one of the departments).

FIRE ALARM RESPONSE

Five of the eight benchmark fire departments provide a less resource intensive response to residential and commercial fire alarms. In these departments, however, no distinction is made in the response to residential and commercial alarms.

OPERATIONAL RESPONSE

The number of staff assigned to perform activities at a fire scene varies among the benchmark departments.

City	Rapid Intervention Crew	Ventilation	Search And Rescue	Safety
West Palm Beach, FL	*3*	*3*	*3*	*1*
Denton, TX	3	2	2	1
Flagstaff, AZ	3 to 4	3 to 4	2 to 4	1
High Point, NC	2 to 3	3	2	1
Midland, TX	2 to 4	2 to 3	2 to 4	1
North Charleston, SC	2 to 3	2	2	1
Palm Bay, FL	2	Varies	Varies	1
Lakeland, FL	2	2	2	1
Sioux City, IA	3	2	2	1

Likewise, the number of staff responding as part of an initial response varies by department (see Exhibit III-7).

TECHNOLOGY

A range of records management systems is used in the benchmark departments.

City	Records Management System
West Palm Beach, FL	Firehouse
Denton, TX	Vision Air
Flagstaff, AZ	Firehouse
Midland, TX	NIFRS and EMS
North Charleston, SC	Vision Air
Palm Bay, FL	HTE/Rescue Medic
Lakeland, FL	24Seven

Seven of the eight benchmark fire departments use 800 MHZ radio systems. Each of these radio systems is interoperable with the city police department system and with neighboring fire department systems (although in one department a patch through dispatch is needed to communicate with the police department).

VIII – EMPLOYEE SURVEY RESULTS

VIII – EMPLOYEE SURVEY RESULTS

This chapter presents the results of the employee surveys that were completed by fire rescue department employees in May and June 2009. The chapter is divided into three sections. The first two sections present information on the survey process and on the employees who responded to the survey. A brief summary of survey results is presented in the third section. (Survey results are presented in detail in Appendices A1 and A2.)

A – SURVEY PROCESS

The consultants prepared draft survey instruments that were reviewed by city and department staff. Two survey instruments were developed – one for uniform employees and one for civilian employees. (The civilian survey did not include some questions about which civilian employees would be unlikely to have an opinion and did not include an employee compensation preference component[63].)

After the survey instruments were finalized links to the on-line survey were distributed to the department's employees. The department provided each sworn employee with scheduled time at headquarters to complete the survey to avoid interruption by calls for service. Of the department's 216 employees, 173 (80 percent) responded to the employee survey. With this high level of response it can be assumed that the survey results generally reflect the opinions of all employees.

B – SURVEY RESPONDENTS

This section presents information on the 173 fire rescue department employees who completed the survey. Information on their role in the fire department (i.e., whether they are managers/supervisors or line employees), whether they are civilian or uniform, and the length of time they have worked in the department is presented. Because there are only 10 civilian employees in the department information on their roles in the department and the length of time they have worked for the department was not collected to ensure their survey results would remain confidential.[64]

Role. Slightly more than two-fifths (41.7 percent) of the survey responses were received from employees who identified themselves as managers or supervisors. The remaining 58.3 percent of the survey respondents were line employees. The high percentage of staff who identify themselves as managers or supervisors is the result of the rank structure in the fire rescue department where the supervisory span of control is quite small and officers who hold the ranks of lieutenant, captain, and battalion chief all are assigned supervisory roles.

Civilian or sworn. Of the employees who responded 163 (94.2 percent) were uniform and 10 (5.8 percent) were civilian. Roughly four-fifths (79.1 percent) of the department's uniform officers completed the survey. All of the department's civilian employees (100 percent) completed it.

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[63] The results of the employee compensation preferences survey are presented in Chapter IX.

[64] With so few civilian employees it would be possible to determine who completed a survey based on the employee's characteristics. For example, there might only be one civilian employee in a given role.

Tenure. Over 40 percent of the uniform survey respondents have worked for the department for six or less years. A little more than half (51.3 percent) of the survey respondents have worked for the department for more than ten years.

Tenure	Percent of Respondents
Less than 1 year	0.0%
1 to 6 years	40.1%
7 to 9 years	8.6%
10 to 19 years	24.1%
20 or more years	27.2%

Division. Of the survey respondents 89.0 percent are assigned to the operations division and 8.5 percent are assigned to the life safety services division.

Division	Percent Of Respondents
Office of the Chief	2.5%
Operations	89.0%
Support Services	0.0 %
Life Safety Services	8.5%

C – SURVEY RESULTS

The survey is divided into seven parts: organizational climate; leadership, management, and supervision; human resource practices and employee performance management; communications; organizational structure; operating procedures and practices; and vehicles, equipment, apparatus, facilities, radios, and technology.

The results of both employee surveys are generally quite positive. In fact, these results are the most positive the consultants have seen from any employee survey of public safety employees they have conducted. Average responses[65] for all questions in each part of the survey completed by uniform staff are summarized in the following table. What is especially noteworthy about these responses is that in all areas the level of dissatisfaction (that is, the percentage of respondents who disagree or strongly disagree with a survey item) is relatively low.

[65] For questions for which the response "strongly disagree" is the most positive answer data has been adjusted to reflect the positive nature of these responses.

Survey Section	Strongly Agree/Agree	Strongly Disagree/ Disagree
Organizational Climate	81.8%	5.6%
Leadership, Management, And Supervision	73.5%	10.8%
Human Resource Practices And Employee Performance Management	48.9%	19.7%
Communications	52.2%	19.3%
Organizational Structure	57.1%	24.0%
Operating Procedures And Practices	57.9%	18.7%
Vehicles, Equipment, Apparatus, Facilities, Radios, And Technology	63.3%	15.9%

Survey results are even more positive for civilian employees. Fewer than 15 percent of the respondents voiced dissatisfaction for each of the seven survey sections.

Survey Section	Strongly Agree/ Agree	Strongly Disagree/ Disagree
Organizational Climate	71.1%	6.1%
Leadership, Management, And Supervision (a)	54.8%	2.9%
Human Resource Practices And Employee Performance Management (a)	34.1%	14.3%
Communications (a)	44.7%	10.7%
Organizational Structure (a)	33.4%	9.5%
Operating Procedures And Practices	38.1%	9.5%
Vehicles, Equipment, Apparatus, Facilities, Radios, And Technology	57.2%	9.8%

(a) Response data for civilians is somewhat skewed in this area due to a large number of "no opinion" responses to some questions.

Survey results are presented in two parts in Appendix A. Appendix A-1 presents complete survey results for uniform employees. Appendix A-2 presents the complete survey results for civilian employees.

IX – ANALYSIS OF EMPLOYEE COMPENSATION PREFERENCES

IX – ANALYSIS OF EMPLOYEE COMPENSATION PREFERENCES

This chapter presents the results of an analysis of employee compensation preferences that was requested as part of the study scope. The chapter is divided in two sections. The first section presents the methodology used to assess compensation preferences and the second part presents the analysis results.

A – METHODOLOGY

Conjoint analysis is a statistical tool that market researchers have used for more than 35 years to help private sector companies understand how to develop products and services that are valued by customers. In the context of this study, conjoint analysis was used to determine how employees value the various elements of their compensation and how the value of compensation elements vary by an employee's tenure with the department.

Conjoint surveys were included as part of the employee survey (the results of which are presented in Chapter VIII). The conjoint part of the survey asked respondents to make tradeoffs among various elements of the compensation systems and when doing so to consider three options: an increase in city expenditures of $500; no change in city expenditures; and a reduction in city expenditures of $500.

Survey respondents completed two levels of conjoint surveys. The first tier survey grouped compensation into four categories[66]:

- Cash compensation (base salary, incentive pay, assignment pay, certification pay, longevity pay, stand by pay, call back pay)
- Time off (Kelly days, annual leave, sick leave, holiday leave)
- Medical and insurance benefits (health insurance, dental insurance, vision insurance, life insurance)
- Pension

The second tier surveys focused on understanding preferences within a primary (first tier) category as shown in the following table:

[66] Please note that the city's education benefit does not fit within any of these categories and has been excluded from the analysis.

Primary Category	Secondary Category
Cash Compensation(a)	■ Base Salary ■ Incentive Pay ■ Certification Pay ■ Longevity Pay
Time Off	■ Kelly Days ■ Annual Leave ■ Sick Time ■ Holiday Leave
Medical And Insurance Benefits	■ Health Insurance ■ Dental Insurance ■ Vision Insurance ■ Life Insurance

(a) Standby pay and call back pay are excluded.

B – ANALYSIS OF COMPENSATION PREFERENCES

The results of the conjoint survey yield "utility" scores. These utility scores indicate the relative level of utility, or benefit, gained or lost by adjusting compensation from existing levels. Please note that because the preferences reflected in the conjoint results require the same increase or reduction in expenditure by the city ($500), the city can use the conjoint results to determine where, for a given level of expenditures, it can generate the most utility (or benefit) for employees. Likewise, the city can assess where reducing expenditures by a given amount will have the least and greatest benefit on utility. In other words, the conjoint results provide the information the city needs to structure changes in compensation in ways that will yield the greatest benefit for employees (or that will have the least negative impact if compensation levels are reduced).

This discussion of the conjoint analysis results is divided into four parts. First, a brief discussion of the summary findings of the analysis is presented. The next three parts present the first tier analysis results, the second tier analysis results, and composite results based on a weighting of the first and second tier results.

OVERVIEW

The overall results of the conjoint analysis, while not surprising, have significant implications for how compensation for fire rescue department employees should be structured. Put simply, the conjoint results indicate that the impact changes in compensation have on employee utility varies, in some cases significantly, depending on the employee's tenure with the department. The implications of this overall finding are straightforward. The city can maximize the benefit created by increasing compensation and minimize the negative impact by offering as much choice as possible in how employees are paid. "One size fits all" approaches to structuring compensation – while fair on the surface – actually create differential benefits for employees in different tenure groupings.

TIER ONE RESULTS

The results of the tier one conjoint results (which are presented in Exhibit IX-1) indicate that pension benefits and cash contributions are the two most highly valued forms of compensation for most employee groupings. However, for employees with six years of tenure or less increased time off creates more value than an increase in cash compensation. The other employee tenure groups, by contrast, value additional time off much lower than employees with six years of tenure. For these employee groupings increased time off creates the least relative value. In addition, the utility created by increasing the city's contribution to medical and insurance benefits is much more highly valued for employees with 7 to 19 years of tenure than for other employee tenure categories.

It should also be noted that for tier one compensation components increasing city expenditures on compensation creates less positive utility than decreases in compensation create negative utility. In particular, reductions in the city's contribution to pension benefits has a particularly significant negative impact on employee utility.

TIER TWO RESULTS

Time Off

From the perspective of all employees, time off provided in Kelly days is valued the most highly (see Exhibit IX-2). Employees with 20 years or more of tenure, however, value an increase in annual leave more highly than Kelly days. (Likewise, a reduction in annual leave has a more negative impact on the utility of employees with 20 years or more of tenure than a reduction in the number of Kelly days.)

Cash Compensation

As Exhibit IX-3 shows, how cash compensation is valued by firefighters varies significantly by tenure group. Employees with 7 to 19 years of tenure value increases in incentive pay much more highly than employees in other tenure groupings (and even value these increases more highly that an increase in base salary). Reductions in both incentive pay and certification pay also have a much higher negative impact on employees in this tenure grouping than for other employees. Moreover, not surprisingly employees with 20 or more years of tenure value increases in longevity pay more highly than other employee groupings and a reduction in longevity pay has a greater negative impact on the utility of these employees than for other employees.

Insurance Contributions

For all employee groupings increases in the city's contribution to health insurance have the greatest positive impact on employee utility and reductions in the city's contribution to health insurance has the greatest negative impact (see Exhibit IX-4). Dental insurance, by contrast, is valued less by employees with 7 to 19 years of tenure than for other tenure groupings.

SUMMARY OF TIER ONE CONJOINT RESULTS

	All		6 Years Or Less		7 To 19 Years		20 Or More Years	
	Utilty Score	Rank	Utilty Score	Rank	Utilty Score	Rank	Utilty Score	Rank
Increase the city's contribution to your pension benefits	50.82	1	46.42	1	50.47	1	57.95	1
Increase yearly cash compensation	46.76	2	43.29	3	49.07	2	49.38	2
Increase the city's contribution to your medical and insurance	35.23	3	28.74	4	45.04	3	33.85	3
Increase time off	34.66	4	45.65	2	26.32	4	27.48	4
Decrease the city's contribution to your medical and insurance benefits	(45.99)	5	(41.83)	5	(54.68)	6	(42.33)	6
Reduce time off	(51.97)	6	(65.90)	7	(42.02)	5	(42.19)	5
Decrease yearly cash compensation	(56.58)	7	(55.90)	6	(59.22)	7	(54.58)	7
Decrease the city's contribution to your pension benefits	(77.99)	8	(72.26)	8	(73.18)	8	(92.25)	8

SUMMARY OF TIER TWO CONJOINT RESULTS - TIME OFF

	All		6 Years Or Less		7 To 19 Years		20 Or More Years	
	Utilty Score	Rank	Utilty Score	Rank	Utilty Score	Rank	Utilty Score	Rank
Increase the number of Kelly days	51.24	1	55.67	1	54.61	1	39.81	3
Increase the number of holidays	45.19	2	44.85	2	40.79	2	51.02	2
Increase the amount of annual leave	42.18	3	36.53	3	37.81	3	58.43	1
Increase the number of sick days	31.42	4	30.11	4	36.49	4	26.02	4
Decrease the number of sick days	(41.81)	5	(44.53)	5	(44.88)	5	(33.59)	5
Decrease the number of holidays	(51.41)	6	(52.23)	6	(47.12)	6	(55.14)	7
Decrease the amount of annual leave	(62.99)	7	(56.28)	7	(55.69)	7	(82.91)	8
Decrease the number of Kelly days	(73.76)	8	(79.81)	8	(82.62)	8	(53.09)	6

SUMMARY OF TIER TWO CONJOINT RESULTS - CASH COMPENSATION

	All		6 Years Or Less		7 To 19 Years		20 Or More Years	
	Utilty Score	Rank	Utilty Score	Rank	Utilty Score	Rank	Utilty Score	Rank
Increase base salary	59.29	1	62.13	1	17.53	3	62.00	1
Increase incentive pay	50.35	2	53.72	2	90.57	1	48.91	2
Increase certification pay	49.20	3	53.79	3	60.43	2	42.57	3
Increase longevity pay	34.23	4	25.78	4	13.02	4	41.07	4
Decrease longevity pay	(47.82)	5	(34.16)	5	(10.97)	5	(59.02)	8
Decrease certification pay	(48.38)	6	(51.55)	6	(72.48)	7	(39.32)	5
Decrease incentive pay	(55.33)	7	(59.42)	7	(113.55)	8	(49.08)	6
Decrease base salary	(55.39)	8	(59.45)	8	(21.44)	6	(58.02)	7

SUMMARY OF TIER TWO CONJOINT RESULTS - INSURANCE CONTRIBUTIONS

	All		6 Years Or Less		7 To 19 Years		20 Or More Years	
	Utilty Score	Rank	Utilty Score	Rank	Utilty Score	Rank	Utilty Score	Rank
Increase city's contribution to health insurance	66.22	1	72.31	1	61.59	1	61.70	1
Increase city's contribution to dental insurance	41.92	2	45.41	2	35.06	3	44.58	2
Increase city's contribution to vision insurance	34.09	3	30.16	3	38.90	2	34.75	3
Increase city's contribution to life insurance	23.48	4	21.73	4	24.88	4	24.69	4
Decrease city's contribution to life insurance	(26.83)	5	(26.97)	5	(27.24)	5	(26.06)	5
Decrease city's contribution to vision insurance	(40.83)	6	(36.30)	6	(46.33)	6	(41.64)	6
Decrease city's contribution to dental insurance	(49.89)	7	(52.29)	7	(47.25)	7	(49.11)	7
Decrease city's contribution to health insurance	(91.78)	8	(93.21)	8	(94.50)	8	(85.97)	8

COMPOSITE RESULTS

Composite results for the tier one and tier two conjoint results were calculated based on the relative weightings of both the tier one and tier two results.[67] It should be noted that some tier two utilities are greater than the tier one utilities of which the tier two rating is a part. For example, the utility associated with an increase in base salary (57.44) (which is part of tier one cash compensation) is higher than the overall utility associated with an increase in cash compensation (46.76). This result occurs because the increase in base salary accounts for a disproportionate amount of the overall utility associated with increases in cash compensation.

As Exhibit IX-5 shows, the impact increasing the city's contribution for various compensation components varies significantly by employee category. In particular, these results reinforce the high value employees with 7 to 19 years experience place on incentive pay. By contrast, employees with six years or less tenure place the highest value on increases in Kelly days and employees with the most tenure value increases in base salary the most highly. In addition, while in terms of absolute utility all employee groupings value increases in pension benefits (the utility associated with increasing pension benefits ranges from 46.42 for employees with six years or less of tenure to 57.95 for employees with 20 or more years of tenure) when the utility associated with pension benefits is ranked for each employee grouping the relative ranking of increases in pension benefits (eighth) is much lower for employees with six years or less experience than for the other employee groupings.

The negative impact on utility associated with reducing the city's contribution for various compensation components also varies significantly by employee category (see Exhibit IX-6). Decreases in the city's contribution for health and pension benefits have a negative impact on utility for all employee groupings. Reductions in Kelly days by contrast, have a much greater negative impact on utility for employees with six years or less of tenure than for other employee groupings. Reductions in sick days also have a greater negative impact on utility for employees with the least tenure than for other employees. For employees with 7 to 19 years of experience reductions in incentive pay have by far the greatest negative impact on utility as compared to reduction in other forms of compensation. These reductions also have a much greater negative impact on the utility for employees in this tenure grouping than for other employees.

[67] Please note that there are some methodological problems with the analysis presented in this section. This analysis assumes that the relative utility scores are proportional across the conjoint surveys, which may not be an accurate assumption. Nonetheless, this analysis provides a good overall estimate of how utility values vary for individual compensation components.

SUMMARY OF COMPOSITE CONJOINT RESULTS - INCREASES IN COMPENSATION

	All		6 Years Or Less		7 To 19 Years		20 Or More Years	
	Utilty Score	Rank	Utilty Score	Rank	Utilty Score	Rank	Utilty Score	Rank
Increase base salary	57.44	1	55.06	2	18.95	12	62.94	1
Increase city's contribution to health insurance	56.31	2	49.01	6	69.17	2	50.40	3
Increase the city's contribution to your pension benefits	50.82	3	46.42	8	50.47	4	57.95	2
Increase incentive pay	48.78	4	55.06	4	97.92	1	49.66	4
Increase certification pay	47.66	5	55.06	3	65.33	3	43.22	5
Increase the number of Kelly Days	41.78	6	60.81	1	33.88	7	24.97	11
Increase the number of holidays	36.85	7	48.99	7	25.30	9	32.00	9
Increase city's contribution to dental insurance	35.65	8	30.78	11	39.37	6	36.42	8
Increase the amount of annual leave	34.40	9	39.91	9	22.64	11	36.65	7
Increase longevity pay	33.16	10	55.06	5	14.08	13	41.70	6
Increase the city's contribution to vision insurance	28.99	11	20.44	12	43.69	5	28.39	10
Increase the number of sick days	25.62	12	32.89	10	23.45	10	16.32	13
Increase city's contribution to life insurance	19.97	13	14.73	13	27.94	8	20.17	12

SUMMARY OF COMPOSITE CONJOINT RESULTS - INCREASES IN COMPENSATION

	All		Six Years Or Less		7 To 19 Years		20 Or More Years	
	Utilty Score	Rank	Utilty Score	Rank	Utilty Score	Rank	Utilty Score	Rank
Decrease the city's contribution to life insurance	(23.57)	1	(21.62)	1	(27.67)	3	(21.76)	1
Decrease the city's contribution to vision insurance	(35.88)	2	(29.09)	2	(47.06)	7	(34.77)	3
Decrease the number of sick days	(37.79)	3	(50.41)	5	(32.75)	4	(25.22)	2
Decrease the city's contribution to dental insurance	(43.84)	4	(41.91)	4	(47.99)	8	(41.00)	5
Decrease the number of holidays	(46.48)	5	(59.13)	7	(34.38)	5	(41.40)	6
Decrease longevity pay	(52.30)	6	(37.33)	3	(11.90)	1	(62.72)	11
Decrease certification pay	(52.92)	7	(56.34)	6	(78.61)	11	(41.78)	7
Decrease the amount of annual leave	(56.94)	8	(63.71)	8	(40.64)	6	(62.26)	10
Decrease incentive pay	(60.52)	9	(64.95)	9	(123.14)	13	(52.16)	8
Decrease base salary	(60.58)	10	(64.98)	10	(23.25)	2	(61.66)	9
Decrease the number of Kelly Days	(66.68)	11	(90.35)	13	(60.29)	9	(39.86)	4
Decrease the city's contribution to pension benefits	(77.99)	12	(72.26)	11	(73.18)	10	(92.25)	13
Decrease city's contribution to health insurance	(80.65)	13	(74.71)	12	(95.98)	12	(71.78)	12

X – IMPLEMENTATION

X – IMPLEMENTATION

This chapter is divided into four sections. The first section presents barriers to change that should be considered as the department works to implement study recommendations. The second section presents a framework for change that should guide the West Palm Beach Fire Rescue Department's overall implementation efforts and ensure barriers for change are addressed. The third section highlights important implementation activities. The final section presents the recommended implementation plan.

BARRIERS TO CHANGE

A number of potential barriers to change have been identified that must be considered as the city and department proceed with implementing the study's recommendations. These barriers include:

- ***Lack of resources***. Implementing some of the study recommendations will require resources the availability of which may be limited
- ***Lack of time***. While some study recommendations can be implemented quickly, time will be required to successfully implement other recommendations
- ***Lack of training***. Implementing some study recommendations (for example, the recommendation to have in-service crews complete inspections) will require training
- ***Culture***. Fire rescue departments are conservative organizations and resistance to change will need to be overcome
- ***Collective bargaining agreements***. Implementing some of the study's recommendations will require changes to the collective bargaining agreement

FRAMEWORK FOR CHANGE

Implementing the recommendations presented in this report will result in many changes in how the fire rescue department manages itself. Change efforts that have been successful typically include the following seven components:

- Achieving an appropriate balance between the need for urgency and the need for quality and focus
- Forming a powerful guiding coalition
- Creating a vision
- Communicating the vision
- Removing obstacles to change
- Planning for and creating short-term wins
- Consolidating improvement and institutionalizing new approaches

Each of these components is briefly described in the following paragraphs.

Achieving an appropriate balance between the need for urgency and the need for quality and focus. Needed change will not take place in an organization unless staff at all levels recognize that change is needed. At the same time, however, the sense of urgency needed to bring about change cannot be allowed to get in the way of providing quality services that are focused on achieving overall objectives. An appropriate balance, therefore, must be struck between the need to maintain a sense of urgency – without which the *status quo* will likely prevail – and the need to maintain a focus on the city's overall objectives.

Forming a powerful guiding coalition. Opposition to change in any organization can be considerable. The leadership team that guides the change effort, therefore, must be powerful and influential enough to withstand the forces supporting the *status quo.*

Creating a vision. One of the leadership team's first tasks should be to develop a picture of the future that is easy to understand and that communicates how performance will be enhanced if the vision is realized. Without a sensible vision, an improvement effort can easily dissolve into a list of confusing and incompatible programs, plans, and directives that can take the organization in the wrong direction or nowhere at all.

Communicating the vision. To make an organization's vision a reality, managers and employees from throughout the organization must understand the vision and believe that things will work better once the vision has been implemented. Without credible communications, and a lot of it, the hearts and minds of "the troops" will never be captured.

Removing obstacles to change. A variety of obstacles can stand in the way of change. The city's and department's leadership must anticipate these obstacles and develop strategies to overcome them.

Planning for and creating short-term wins. Success breeds success. By creating opportunities for success, and effectively communicating those success stories throughout the organization, momentum for the improvement effort will begin to "snowball."

Consolidating improvement and institutionalizing new approaches. In addition to removing institutional obstacles to change, institutional incentives that reinforce the change effort must be established. What city leaders "say" is important must be consistent with how employees are held accountable for their performance. In addition, management systems must provide managers with the tools they need to bring about needed change.

KEY IMPLEMENTATION ACTIVITIES

This section discusses the key steps the city and department should take to implement the study recommendations.

Adopt The Study Recommendations

The city commission and mayor must be committed to implementing the study recommendations if implementation is to be successful.. Initially, the city commission should review the report and adopt its recommendations in principle.[68]

Establish Implementation Task Force

The city administrator should work with the fire rescue chief to establish a task force to guide the implementation of study recommendations. The city administrator and fire rescue chief should charge this task force with driving the implementation process. This task force should include representatives from each division of the fire department and from city departments, including finance, human resources, and information services, who will be charged with implementation responsibilities. The task force should develop an overall implementation plan and should be held accountable by the city administrator and the fire rescue chief for ensuring that plan timelines are met. The task force should meet approximately every two weeks during the implementation process.

In addition to guiding the implementation of the study recommendations, the task force should be specifically charged with addressing the barriers to change identified in the previous section. Overcoming these barriers will be critical to the success of the implementation effort and therefore task force members should view one of their primary functions to be eliminating these obstacles. The personal power, influence, and relationships of individual task force members should, as appropriate, be brought to bear on eliminating these obstacles.

Clarify The Personnel And Labor Implications Of The Study Recommendations

Uncertainty is associated with any change of the magnitude outlined in this report. Of primary concern to many department employees will be how the change will affect them directly, especially if they are currently assigned to units where staffing reductions are indicated or recommendations to civilianize staff have been identified. Clarifying the status of these employees will remove much of the uncertainty associated with recommended organizational changes and will allow the department to move forward with the implementation process. If employees are waiting for the "other shoe to drop" they will not be able to focus on supporting the recommended program for change.

IMPLEMENTATION PLAN

An implementation plan to guide the city and the fire rescue department in implementing the recommendations detailed in this report is presented in Exhibit X-1.

[68] Please note that adopting recommendations "in principle" does not mean the city commission commits the department to implementing each and every recommendation in detail. Instead, this means that the city commission generally agrees with the recommendations in the report and will make a good faith effort to evaluate and implement the study recommendations.

IMPLEMENTATION PLAN

Recommendation	Responsibility	Begin Implementation[69]	Complete Implementation
♁ Adopt the study recommendations in principle	♁ Mayor ♁ City Commission	Immediately	---
♁ Establish implementation task force	♁ City Administrator ♁ Finance Director ♁ Fire Rescue Chief	Immediately	One Week
♁ Clarify personnel and labor implications of study recommendations	♁ Human Resources Director ♁ Fire Rescue Chief	Immediately	Three Weeks
Apparatus, Deployment, and Staffing			
♁ Reduce the staffing of the operations unit by 34 positions	■ Mayor ■ City Commission ■ City Administrator ■ Fire Rescue Chief		
○ Discontinue the engine at Station 1	■ Mayor ■ City Commission ■ City Administrator ■ Fire Rescue Chief	Immediately	October 2009
○ Discontinue the rescue unit at Station 2	■ Mayor ■ City Commission ■ City Administrator ■ Fire Rescue Chief	Immediately	October 2009
○ Reduce the number of paramedics assigned to Rescue 5 and Rescue 6 from three to two	■ Mayor ■ City Commission ■ City Administrator ■ Fire Rescue Chief	Immediately	October 2010

[69] "Begin Implementation" indicates that on the date indicated the city should begin any planning processes needed to implement that specific recommendation.

IMPLEMENTATION PLAN

Recommendation	Responsibility	Begin Implementation	Complete Implementation
☞ Work with the bargaining unit to change to a 48-96 schedule and accept a 53-hour workweek	■ City Administrator ■ Finance Director ■ Human Resources Director ■ Fire Rescue Chief	Immediately	August 2010
Life Safety Division Staffing			
☞ Establish three additional fire inspector positions	■ City Commission ■ Finance Director ■ Fire Rescue Chief	October 2009	October 2010
Organization, Management, and Operations			
■ Revise the department's organizational structure			
o Discontinue one assistant chief position	■ Fire Rescue Chief	Immediately	---
o Assign one battalion chief position to serve as assistant to the chief	■ Fire Rescue Chief	August 2009	October 2009
o Assign one battalion chief position to oversee special operations and training	■ Fire Rescue Chief	August 2009	October 2009
o Reclassify the current financial operations manager as support services manager	■ Human Resources Director ■ Fire Rescue Chief	August 2009	October 2009
o Assign the life safety service battalion chief as a direct report to the chief	■ Fire Rescue Chief	Immediately	---
o Assign one training captain to each shift and redefine their role to include support of Stations 7 and 8	■ Fire Rescue Chief	Immediately	December 2009

IMPLEMENTATION PLAN

Recommendation	Responsibility	Begin Implementation	Complete Implementation
⇩ Ensure operations staff make effective use of their time when not responding to calls			
○ Ensure lieutenants and captains assigned to emergency operations become certified as fire inspectors	■ Fire Rescue Chief ■ Assistant Chief ■ Life Safety Battalion Chief	October 2009	January 2011
○ Conduct in-service inspections	■ Fire Rescue Chief ■ Assistant Chief ■ Life Safety Battalion Chief	October 2010	Ongoing
○ Conduct pre-incident planning	■ Assistant Chief ■ Battalion Chiefs	Immediately	Ongoing
○ Ensure post-incident analyses and critiques are completed after all major incidents and that a formal summary is prepared that details operational strengths and shortcomings	■ Fire Rescue Chief ■ Assistant Chief	October 2009	Ongoing
○ Ensure firefighters devote a set number of hours each day to physical training	■ Fire Rescue Chief ■ Battalion Chiefs ■ Training Captains	January 2010	Ongoing
⇩ Assign fire inspectors to work a four 10-hour day schedule and adjust the operating hours of the division	■ Fire Rescue Chief ■ Life Safety Battalion Chief	October 2009	---
⇩ Improve the technology provided to fire inspectors	■ Fire Rescue Chief ■ Finance Director	April 2010	May 2011
⇩ Scan historical inspections reports into FileNet	■ Fire Rescue Chief ■ Finance Director ■ Director of Information Services	September 2009	March 2010

IMPLEMENTATION PLAN

Recommendation	Responsibility	Begin Implementation	Complete Implementation
Take steps to improve the diversity of the work force	■ City Administrator ■ Finance Director ■ Fire Rescue Chief	April 2010	Ongoing
Establish minimum fitness requirements for all firefighters	■ City Administrator ■ Human Resources Director ■ Fire Rescue Chief	Immediately	December 2010
Develop a comprehensive training program	■ Assistant Chief ■ Battalion Chiefs ■ Training Captains	December 2009	July 2010
Establish training standards for the daily schedule	■ Assistant Chief ■ Battalion Chief –Training and Special Operations ■ Training Captains	December 2009	July 2010
Maintain timely training records	■ Assistant Chief ■ Battalion Chiefs ■ Training Captains	Immediately	Ongoing
Assign four position classifications currently held by uniform firefighters to civilians	■ Human Resources Director ■ Fire Rescue Chief	Immediately	April 2010
Streamline information systems	■ Director of Information Services ■ Fire Rescue Chief	October 2009	October 2010
Put EMS billing services out to bid with the requirement that any contractor automate the process for inputting EMS billing information	■ City Administrator ■ Finance Director ■ Fire Rescue Chief	January 2010	October 2010

IMPLEMENTATION PLAN

Recommendation	Responsibility	Begin Implementation	Complete Implementation
♁ If the EMS billing process remains a department function, automate EMS billing	■ Director of Information services ■ Finance Director ■ Support Services Director	August 2010	April 2011
♁ Adjust approach to providing incentive pay for special operations certifications	■ City Administrator ■ Human Resources Director ■ Finance Director ■ Fire Rescue Chief	August 2010	February 2011
■ Consider entering into shared or regional service delivery for some functions	■ City Administrator ■ Fire Rescue Chief	January 2010	January 2011

APPENDICES

West Palm Beach Fire Rescue Uniform Employee Survey Demographics of Respondents

General Information

Is your position primarily managerial or supervisory?	Yes	41.7%
	No	58.3%
Are you a male or female employee?	Male	94.9%
	Female	5.1%
Select the answer below that best describes your race.	Caucasian/White	65.2%
	African American/ Black	12.9%
	Hispanic/ Latino	15.5%
	Asian	0.9%
	Other	6.50%
In what fire-rescue unit do you work?	Office of the Chief	2.5%
	Operations	89.0%
	Support Services	0.0%
	Life Safety Services/Fire Marshal	8.6%
How long have you worked for the West Palm Beach Fire-Rescue Department?	Less than 1 year	0.0%
	1 to 6 years	40.1%
	7 to 9 years	8.6%
	10 to 19 years	24.1%
	20 years or more	27.2%

Uniform Employee Survey Results

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	No Opinion	Strongly Agree/ Agree	Strongly Disagree/ Disagree
Organizational Climate I am proud to say I work for the West Palm Beach Fire Rescue Department.	76.4%	17.2%	2.5%	1.9%	0.6%	1.3%	93.6%	2.5%

Uniform Employee Survey Results

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	No Opinion	Strongly Agree/ Agree	Strongly Disagree/ Disagree
I am proud of the effort I put into my job.	87.9%	9.6%	1.3%	0.6%	0.0%	0.6%	97.5%	0.6%
West Palm Beach Fire Rescue Department employees have a strong work ethic.	56.1%	36.9%	3.8%	2.5%	0.0%	0.6%	93.0%	2.5%
Fire-rescue employees are dedicated to providing the residents of West Palm Beach with high quality fire and rescue services.	73.2%	22.9%	1.9%	0.6%	0.6%	0.6%	96.1%	1.2%
The West Palm Beach community values the services provided by the fire rescue department.	38.9%	42.7%	9.6%	6.4%	0.6%	1.9%	81.6%	7.0%
The West Palm Beach Fire Rescue Department enjoys good relationships with the West Palm Beach community.	43.9%	45.2%	7.6%	0.6%	0.6%	1.9%	89.1%	1.2%
The work environment in the West Palm Beach Fire Rescue Department is supportive.	26.8%	50.3%	14.6%	5.1%	1.9%	1.3%	77.1%	7.0%
Fire rescue department managers and supervisors treat subordinates with respect.	27.4%	51.0%	14.0%	4.5%	1.9%	1.3%	78.4%	6.4%
Fire rescue department employees treat each other with respect.	26.8%	49.7%	19.1%	1.9%	1.3%	1.3%	76.5%	3.2%
The work performed by staff in all department divisions and units is valued by department managers.	20.4%	46.5%	17.8%	7.6%	3.8%	3.8%	66.9%	11.4%
The work performed by staff in all department divisions and units is valued by employees in other divisions and units.	18.5%	42.7%	21.7%	12.7%	1.9%	2.5%	61.2%	14.6%
The work performed in my division is valued by department managers.	30.6%	51.0%	8.3%	7.0%	0.6%	2.5%	81.6%	7.6%

Uniform Employee Survey Results

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	No Opinion	Strongly Agree/ Agree	Strongly Disagree/ Disagree
The work performed in my division is valued by other department employees.	27.4%	45.2%	17.2%	5.7%	1.3%	3.2%	72.6%	7.0%
Fire rescue department employees treat West Palm Beach residents with respect.	56.7%	31.8%	9.6%	0.6%	0.6%	0.6%	88.5%	1.2%
Civilian fire rescue department employees are treated with as much respect as uniform employees.	31.8%	36.9%	19.1%	5.7%	2.5%	3.8%	68.7%	8.2%
Fire rescue department employees of all races are treated with equal respect.	50.3%	27.4%	8.3%	7.0%	5.1%	1.9%	77.7%	12.1%
Female fire rescue department employees are treated with as much respect as male employees.	50.3%	35.0%	10.2%	3.8%	0.0%	0.6%	85.3%	3.8%
Employees strive to improve the fire rescue department's performance.	54.8%	32.5%	9.6%	1.9%	0.6%	0.6%	87.3%	2.5%
Leadership, Management, and Supervision								
The fire rescue department benefits from strong, effective leadership (Chief and Assistant Chief).	31.2%	40.1%	16.6%	4.5%	5.1%	2.5%	71.3%	9.6%
Roles and responsibilities of mid-managers (Battalion Chiefs) within the fire rescue department are clearly defined.	27.4%	40.1%	15.3%	10.8%	2.5%	3.8%	67.5%	13.3%
Roles and responsibilities of mid-managers (Battalion Chiefs) enable the department to make effective use of the skills and experience of these managers.	22.9%	45.9%	15.9%	8.9%	3.8%	2.5%	68.8%	12.7%

Uniform Employee Survey Results

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	No Opinion	Strongly Agree/ Agree	Strongly Disagree/ Disagree
Roles and responsibilities of first-line supervisors (Lieutenants and Captains) within the fire rescue department are clearly defined.	32.5%	44.6%	12.7%	8.9%	0.6%	0.6%	77.1%	9.5%
Roles and responsibilities of first-line supervisors (Lieutenants and Captains) enable the department to make effective use of the skills and experience of these supervisors.	34.4%	38.2%	16.6%	8.9%	1.3%	0.6%	72.6%	10.2%
Roles and responsibilities of EMS supervisors (EMS Captains) are clearly defined.	37.6%	50.3%	7.6%	1.9%	0.0%	2.5%	87.9%	1.9%
Roles and responsibilities of EMS supervisors (EMS Captains) enable the department to make effective use of the skills and experience of these supervisors.	37.3%	45.1%	9.2%	4.6%	0.7%	3.3%	82.4%	5.3%
Fire rescue department leaders (Chief and Assistant Chief) have the authority to make decisions needed to improve the fire rescue department's performance.	20.9%	33.3%	16.3%	16.3%	10.5%	2.6%	54.2%	26.8%
Fire rescue department leaders (Chief and Assistant Chief) use the authority they have been granted to improve the fire rescue department's performance.	19.9%	41.0%	19.2%	10.9%	5.8%	3.2%	60.9%	16.7%
Fire rescue department leaders (Chief and Assistant Chief) are held accountable for the decisions they make.	21.0%	38.2%	20.4%	10.2%	6.4%	3.8%	59.2%	16.6%
Mid-managers (Battalion Chiefs) within the fire rescue department have the authority to make decisions needed to improve the performance of the units they manage.	26.7%	54.8%	8.9%	5.1%	3.8%	0.6%	81.5%	8.9%

Uniform Employee Survey Results

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	No Opinion	Strongly Agree/ Agree	Strongly Disagree/ Disagree
Mid-managers (Battalion Chiefs) within the fire rescue department use the authority they have been granted to improve the performance of the units they manage.	19.1%	52.9%	14.6%	8.3%	3.8%	1.3%	72.0%	12.1%
Mid-managers (Battalion Chiefs) within the fire rescue department are held accountable for the decisions they make.	20.4%	49.0%	13.4%	8.9%	5.1%	3.2%	69.4%	14.0%
First-line supervisors (Lieutenants and Captains) have the authority to make decisions needed to improve the performance of the employees they supervise.	23.6%	53.5%	8.9%	11.5%	1.3%	1.3%	77.1%	12.8%
First-line supervisors (Lieutenants and Captains) use the authority they have been granted to improve the performance of the employees they supervise.	24.8%	47.8%	17.8%	7.0%	1.9%	0.6%	72.6%	8.9%
First-line supervisors (Lieutenants and Captains) are held accountable for the decisions they make.	28.7%	39.5%	12.1%	12.1%	6.4%	1.3%	68.2%	18.5%
EMS supervisors (EMS Captains) have the authority to make decisions needed to improve the performance of the employees they supervise.	29.9%	51.6%	12.1%	3.2%	0.6%	2.5%	81.5%	3.8%
EMS supervisors (EMS Captains) use the authority they have been granted to improve the performance of the employees they supervise.	29.9%	52.9%	12.1%	2.5%	0.6%	1.9%	82.8%	3.1%
EMS supervisors (EMS Captains) are held accountable for the decisions they make.	29.3%	54.1%	7.6%	3.8%	2.5%	2.5%	83.4%	6.3%
I am held accountable for my performance.	53.5%	37.6%	5.1%	2.5%	0.6%	0.6%	91.1%	3.1%

Uniform Employee Survey Results

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	No Opinion	Strongly Agree/ Agree	Strongly Disagree/ Disagree
Fire rescue department leaders (Chief and Assistant Chief) maintain a visible presence throughout the department.	17.8%	43.3%	21.7%	12.1%	3.2%	1.9%	61.1%	15.3%
High expectations for the performance of all employees have been established.	26.8%	44.6%	10.8%	12.7%	3.2%	1.9%	71.4%	15.9%
Managers and supervisors provide clear direction to their subordinates.	17.8%	43.9%	26.1%	6.4%	3.2%	2.5%	61.7%	9.6%
I receive the supervision I need to effectively perform my job.	28.0%	49.7%	12.7%	6.4%	1.9%	1.3%	77.7%	8.3%
The manager or supervisor who evaluates my performance works with me on a regular and consistent basis.	29.9%	36.9%	16.6%	11.5%	3.8%	1.3%	66.8%	15.3%
I understand what is expected of me in my job.	50.3%	41.4%	6.4%	0.6%	0.6%	0.6%	91.7%	1.2%
Human Resource Practices and Employee Performance Management								
The hiring process is fair.	25.5%	35.7%	15.3%	8.3%	10.8%	4.5%	61.2%	19.1%
Persons who are hired by the fire rescue department are competent.	8.3%	45.9%	28.7%	10.8%	5.1%	1.3%	54.2%	15.9%
The hiring process is timely.	7.6%	46.5%	21.0%	13.4%	4.5%	7.0%	54.1%	17.9%
The promotional process is fair.	22.3%	42.7%	14.0%	8.3%	8.3%	4.5%	65.0%	16.6%
The best candidates for promotion are selected.	9.6%	34.4%	20.4%	17.8%	14.0%	3.8%	44.0%	31.8%
The promotional process is timely.	13.4%	49.7%	17.8%	8.9%	3.8%	6.4%	63.1%	12.7%

Uniform Employee Survey Results

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	No Opinion	Strongly Agree/ Agree	Strongly Disagree/ Disagree
The factors that are considered when making promotional decisions are clearly articulated.	16.6%	43.9%	17.2%	9.6%	7.6%	5.1%	60.5%	17.2%
Disciplinary processes are fair.	7.6%	28.0%	19.1%	19.1%	22.3%	3.8%	35.6%	41.4%
Discipline is consistently applied across fire rescue department divisions and units.	6.4%	17.2%	23.6%	22.9%	27.4%	2.5%	23.6%	50.3%
Decisions relating to discipline are timely.	7.0%	30.6%	28.0%	17.2%	12.7%	4.5%	37.6%	29.9%
The grievance process is fair.	7.6%	43.3%	26.1%	9.6%	3.2%	10.2%	50.9%	12.8%
The grievance process is timely.	7.0%	38.9%	35.7%	5.7%	1.9%	10.8%	45.9%	7.6%
The steps in the grievance process are well articulated.	10.2%	45.2%	26.1%	8.3%	1.3%	8.9%	55.4%	9.6%
The performance evaluation process is fair.	8.9%	44.6%	24.2%	14.0%	7.0%	1.3%	53.5%	21.0%
My performance evaluation is completed on a timely basis.	16.6%	52.9%	17.8%	7.0%	3.8%	1.9%	69.5%	10.8%
The performance evaluation process is useful in helping me improve my performance.	14.0%	42.7%	19.1%	14.6%	8.3%	1.3%	56.7%	22.9%
The performance evaluation process is not unduly cumbersome or time-consuming.	9.6%	40.1%	25.5%	12.1%	7.6%	5.1%	49.7%	19.7%
Fire rescue department employees who are not meeting performance expectations receive the support they need to improve their performance.	10.2%	43.9%	24.2%	12.1%	5.7%	3.8%	54.1%	17.8%
Fire rescue department employees who continually fail to meet performance expectations are encouraged to resign or are fired.	5.1%	11.5%	21.7%	28.7%	23.6%	9.6%	16.6%	52.3%

Uniform Employee Survey Results

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	No Opinion	Strongly Agree/ Agree	Strongly Disagree/ Disagree
The process for firing employees who continually fail to meet performance expectations is not unduly cumbersome or time-consuming.	5.7%	15.9%	31.2%	14.6%	17.2%	15.3%	21.6%	31.8%
New uniform employees receive the training they need to effectively perform their job duties.	34.4%	54.1%	8.3%	1.9%	0.6%	0.6%	88.5%	2.5%
New civilian employees receive the training they need to effectively perform their job duties.	7.6%	19.1%	30.6%	1.9%	0.6%	40.1%	0.0%	0.0%
Newly promoted uniform managers and supervisors receive the training they need to perform effectively in their new roles.	9.6%	22.3%	28.7%	19.7%	12.1%	7.6%	31.9%	31.8%
Newly promoted civilian managers and supervisors receive the training they need to perform effectively in their new roles.	7.0%	9.6%	35.7%	3.8%	1.9%	42.0%	16.6%	5.7%
Civilian employees receive the ongoing training they need to effectively perform their job duties.	5.7%	12.1%	35.7%	1.3%	2.5%	42.7%	17.8%	3.8%
The training I receive is reinforced by my immediate supervisor.	21.0%	53.5%	12.7%	8.3%	3.2%	1.3%	74.5%	11.5%
My job performance has improved as a result of the training I have received.	31.8%	48.4%	12.7%	3.8%	2.5%	0.6%	80.2%	6.3%
All staff who respond to fire and medical emergencies are sufficiently physically fit to effectively perform their duties.	9.6%	26.1%	21.0%	30.6%	12.1%	0.6%	35.7%	42.7%

Uniform Employee Survey Results

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	No Opinion	Strongly Agree/ Agree	Strongly Disagree/ Disagree
Most staff who respond to fire and medical emergencies are sufficiently physically fit to effectively perform their duties.	17.2%	56.7%	12.1%	9.6%	3.8%	0.6%	73.9%	13.4%
I have sufficient opportunities for career advancement.	21.7%	52.2%	10.2%	8.9%	6.4%	0.6%	73.9%	15.3%
Communications Fire rescue department priorities, goals and objectives are effectively communicated.	17.8%	45.9%	16.6%	14.0%	4.5%	1.3%	63.7%	18.5%
The information I need to perform my job is effectively communicated to me.	15.9%	56.1%	18.5%	6.4%	2.5%	0.6%	72.0%	8.9%
The communication of needed information within my unit or division is adequate.	16.6%	60.5%	15.3%	4.5%	2.5%	0.6%	77.1%	7.0%
The communication of needed information across organizational units is adequate.	10.8%	46.5%	23.6%	10.8%	4.5%	3.8%	57.3%	15.3%
Communication with other city departments is adequate to ensure issues of common concern can be addressed.	10.2%	28.0%	29.3%	19.1%	3.8%	9.6%	38.2%	22.9%
Communication with the county fire-rescue department is adequate to ensure issues of common concern can be addressed.	6.4%	27.4%	26.8%	23.6%	8.9%	7.0%	33.8%	32.5%
Communication with neighboring fire-rescue departments is adequate to ensure issues of common concern can be addressed.	6.4%	33.1%	30.6%	16.6%	5.7%	7.6%	39.5%	22.3%
Communication with community leaders is adequate to ensure issues of common concern can be addressed.	7.0%	29.3%	29.3%	19.7%	7.0%	7.6%	36.3%	26.7%

Uniform Employee Survey Results

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	No Opinion	Strongly Agree/ Agree	Strongly Disagree/ Disagree
Organizational Structure								
The number of senior managers (Chief and Assistant Chiefs) employed by the fire rescue department is adequate.	7.0%	36.3%	15.9%	28.0%	9.6%	3.2%	43.3%	37.6%
The number of senior managers (Chief and Assistant Chiefs) employed by the fire rescue department is excessive.	5.1%	10.8%	15.3%	40.1%	25.5%	3.2%	15.9%	65.6%
The number of mid-managers (Battalion Chiefs) employed by the fire rescue department is adequate.	8.9%	35.7%	15.9%	26.1%	12.1%	1.3%	44.6%	38.2%
The number of mid-managers (Battalion Chiefs) employed by the fire rescue department is excessive.	4.5%	6.4%	11.5%	47.1%	28.7%	1.9%	10.9%	75.8%
Spans of control for managers (other than first-line supervisors) within my unit or division are reasonable.	9.6%	43.3%	18.5%	17.2%	10.8%	0.6%	52.9%	28.0%
The organization of functions within the West Palm Beach Fire Rescue Department facilitates effective operations.	9.6%	51.0%	22.9%	10.8%	2.5%	3.2%	60.6%	13.3%
Operating Procedures and Practices								
I am familiar with the fire rescue department's standard operating procedures.	37.6%	56.7%	5.1%	0.0%	0.0%	0.6%	94.3%	0.0%
The fire rescue department's standard operating procedures guide my activities on a day-to-day basis.	31.2%	58.6%	8.9%	0.6%	0.0%	0.6%	89.8%	0.6%
The fire rescue department's standard operating procedures are updated in a timely manner.	17.2%	47.1%	21.7%	9.6%	3.8%	0.6%	64.3%	13.4%
Adequate controls are in place to ensure adherence to standard operating procedures.	12.1%	49.7%	21.7%	10.2%	4.5%	1.9%	61.8%	14.7%

Uniform Employee Survey Results

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	No Opinion	Strongly Agree/ Agree	Strongly Disagree/ Disagree
Paperwork requirements within the fire rescue department are not excessive.	7.6%	25.5%	24.8%	29.3%	10.2%	2.5%	33.1%	39.5%
The department makes effective use of pre-fire planning to enhance its ability to respond to emergencies.	15.3%	36.3%	21.0%	18.5%	7.6%	1.3%	51.6%	26.1%
The department makes effective use of post-incident analyses to improve its response to future incidents.	10.8%	36.3%	24.2%	19.1%	8.3%	1.3%	47.1%	27.4%
Response to non-high rise fire emergencies is effective.	28.7%	54.8%	10.8%	2.5%	1.9%	1.3%	83.5%	4.4%
Response to fire emergencies in high rises is effective.	20.4%	49.7%	15.3%	9.6%	3.2%	1.9%	70.1%	12.8%
Response to medical emergencies is effective.	43.9%	43.9%	9.6%	0.6%	0.6%	1.3%	87.8%	1.2%
The department's response to fire emergencies with county personnel is effectively coordinated.	9.6%	31.8%	29.9%	14.6%	8.3%	5.7%	41.4%	22.9%
The department's response to medical emergencies with county personnel is effectively coordinated.	7.6%	36.3%	29.9%	12.7%	7.0%	6.4%	43.9%	19.7%
The stations to which operations personnel are assigned on a given shift reflect an assessment of operational needs.	10.8%	45.2%	22.3%	12.1%	4.5%	5.1%	56.0%	16.6%
Battalion chiefs make an effort to assign personnel to the same station from one shift to another.	14.6%	51.6%	13.4%	9.6%	7.6%	3.2%	66.2%	17.2%
Battalion chiefs make an effort to assign personnel to the same apparatus (at the same station) from one shift to another.	8.9%	47.1%	19.1%	14.0%	7.0%	3.8%	56.0%	21.0%

Uniform Employee Survey Results

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	No Opinion	Strongly Agree/ Agree	Strongly Disagree/ Disagree
I am assigned to the same station more than 65 percent of the time.	37.6%	30.6%	11.5%	9.6%	7.6%	3.2%	68.2%	17.2%
I am assigned to the same apparatus (at the same station) more than 65 percent of the time.	33.1%	28.7%	13.4%	14.0%	7.0%	3.8%	61.8%	21.0%
All operations staff are assigned to rescue vehicles with sufficient frequency to maintain their emergency medical response skills at a high level.	12.7%	24.8%	24.2%	16.6%	18.5%	3.2%	37.5%	35.1%
Most operations staff are assigned to rescue vehicles with sufficient frequency to maintain their emergency medical response skills at a high level.	16.6%	32.5%	22.3%	13.4%	11.5%	3.8%	49.1%	24.9%
The county provides dispatch services that meet the fire rescue department's needs.	5.7%	36.3%	22.3%	19.1%	15.9%	0.6%	42.0%	35.0%
County dispatchers are professional.	8.3%	45.2%	24.8%	12.7%	7.6%	1.3%	53.5%	20.3%
County dispatchers are courteous.	6.4%	38.9%	31.2%	13.4%	8.9%	1.3%	45.3%	22.3%
Uniform staff do not spend an excessive amount of time performing duties that could be delegated to appropriately trained civilians.	19.1%	29.3%	24.2%	8.3%	7.0%	12.1%	48.4%	15.3%
The number of civilian employees currently employed by the fire rescue department is sufficient to ensure effective operations.	8.3%	28.0%	29.9%	12.7%	6.4%	14.6%	36.3%	19.1%

Uniform Employee Survey Results

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	No Opinion	Strongly Agree/ Agree	Strongly Disagree/ Disagree
Vehicles, Equipment, Apparatus, Facilities, Radios, and Technology								
Vehicles								
I have sufficient access to the vehicles (other than emergency response apparatus) I need to effectively perform my job responsibilities.	15.5%	45.8%	22.6%	7.1%	1.3%	7.7%	61.3%	8.4%
I have access to the vehicles (other than emergency response apparatus) I need to perform my job responsibilities safely.	13.5%	43.9%	26.5%	6.5%	0.6%	9.0%	57.4%	7.1%
The fire rescue department vehicles (other than emergency response apparatus) I use are well maintained.	11.0%	48.4%	25.2%	5.2%	3.2%	7.1%	59.4%	8.4%
Equipment								
I have access to the equipment I need to effectively perform my job responsibilities.	21.9%	63.2%	12.3%	1.3%	0.6%	0.6%	85.1%	1.9%
I have access to the equipment I need to perform my job responsibilities safely.	22.6%	63.2%	12.9%	0.6%	0.0%	0.6%	85.8%	0.6%
The equipment I use is well maintained.	21.9%	63.2%	11.0%	3.2%	0.0%	0.6%	85.1%	3.2%
I have access to the supplies I need to safely perform my job responsibilities.	21.3%	64.5%	11.6%	1.9%	0.0%	0.6%	85.8%	1.9%

Uniform Employee Survey Results

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	No Opinion	Strongly Agree/ Agree	Strongly Disagree/ Disagree
Apparatus								
The department has sufficient apparatus to effectively respond to fire emergencies.	11.6%	45.8%	18.7%	17.4%	4.5%	1.9%	57.4%	21.9%
The department has sufficient apparatus to effectively respond to medical emergencies.	13.5%	47.7%	12.3%	19.4%	5.8%	1.3%	61.2%	25.2%
Apparatus used to respond to fire emergencies are effectively deployed.	14.8%	60.6%	13.5%	8.4%	1.3%	1.3%	75.4%	9.7%
Apparatus used to respond to medical emergencies are effectively deployed.	17.4%	61.3%	12.3%	5.2%	2.6%	1.3%	78.7%	7.8%
The department's apparatus are well maintained.	16.1%	58.7%	14.8%	6.5%	2.6%	1.3%	74.8%	9.1%
The department's apparatus are well equipped.	22.6%	61.3%	12.3%	2.6%	0.0%	1.3%	83.9%	2.6%
The department's apparatus are safe.	20.0%	61.3%	16.1%	0.6%	0.6%	1.3%	81.3%	1.2%
Facilities								
My work area is conducive to productive work activity.	12.9%	61.3%	12.9%	8.4%	3.2%	1.3%	74.2%	11.6%
My work area is appropriately secure.	11.0%	56.8%	12.9%	12.9%	5.2%	1.3%	67.8%	18.1%
Fire rescue department stations are appropriately located.	14.2%	59.4%	16.8%	5.2%	2.6%	1.9%	73.6%	7.8%
Fire rescue department buildings are clean.	9.0%	51.6%	21.9%	11.6%	5.2%	0.6%	60.6%	16.8%
Fire rescue department buildings are well maintained.	5.2%	35.5%	25.8%	21.9%	11.0%	0.6%	40.7%	32.9%

Uniform Employee Survey Results

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	No Opinion	Strongly Agree/ Agree	Strongly Disagree/ Disagree
Radios Fire rescue department employees in the field are able to communicate with each other when needed.	12.3%	52.9%	14.8%	13.5%	5.8%	0.6%	65.2%	19.3%
Fire rescue department employees in the field are able to communicate with counterparts from other fire-rescue agencies when needed.	6.5%	46.5%	25.8%	14.2%	3.2%	3.9%	53.0%	17.4%
I have sufficient access to portable radios to effectively perform my job responsibilities.	19.4%	60.0%	15.5%	3.9%	0.6%	0.6%	79.4%	4.5%
I have sufficient access to portable radios to safely perform my job responsibilities.	20.0%	62.6%	11.0%	4.5%	1.3%	0.6%	82.6%	5.8%
Fire rescue department employees in the field are able to communicate with the dispatch center from all areas of the city.	8.4%	29.7%	16.8%	20.6%	23.2%	1.3%	38.1%	43.8%
Technology The fire rescue department makes effective use of technology to enhance performance.	41.9%	20.6%	16.8%	7.7%	2.6%	10.4%	62.5%	10.3%
The fire rescue department makes effective use of technology to reduce paperwork requirements.	5.8%	29.0%	23.9%	23.2%	16.8%	1.3%	34.8%	40.0%
The technology used by the department makes it easy to record needed information.	6.5%	36.1%	26.5%	18.7%	11.6%	0.6%	42.6%	30.3%
The technology used by the department makes it easy to access needed information.	5.8%	38.7%	26.5%	18.1%	9.0%	1.9%	44.5%	27.1%
Needed technology is implemented in a timely manner.	5.8%	30.3%	32.3%	18.1%	12.9%	0.6%	36.1%	31.0%

Uniform Employee Survey Results

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	No Opinion	Strongly Agree/ Agree	Strongly Disagree/ Disagree
I have sufficient access to computers to effectively perform my job responsibilities.	10.3%	38.1%	18.7%	20.0%	12.3%	0.6%	48.4%	32.3%
Appropriate training is provided on how to make effective use of available technology.	8.4%	34.8%	28.4%	16.8%	10.3%	1.3%	43.2%	27.1%
The fire rescue department's technology infrastructure is well maintained.	5.8%	40.0%	27.7%	16.1%	9.0%	1.3%	45.8%	25.1%

West Palm Beach Fire Rescue Civilian Employee Survey Results

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	No Opinion	Strongly Agree/ Agree	Strongly Disagree/ Disagree
Organizational Climate								
I am proud to say I work for the West Palm Beach Fire Rescue Department.	40.0%	60.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%
I am proud of the effort I put into my job.	70.0%	30.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%
West Palm Beach Fire Rescue Department employees have a strong work ethic.	20.0%	70.0%	0.0%	0.0%	0.0%	10.0%	90.0%	0.0%
Fire rescue employees are dedicated to providing the residents of West Palm Beach with high quality fire and rescue services.	20.0%	60.0%	10.0%	0.0%	0.0%	10.0%	80.0%	0.0%
The West Palm Beach community values the services provided by the fire rescue department.	30.0%	60.0%	10.0%	0.0%	0.0%	0.0%	90.0%	0.0%
The West Palm Beach Fire Rescue Department enjoys good relationships with the West Palm Beach community.	30.0%	70.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%
The work environment in the West Palm Beach Fire Rescue Department is supportive.	20.0%	40.0%	0.0%	30.0%	0.0%	10.0%	60.0%	30.0%
Fire rescue department managers and supervisors treat subordinates with respect.	30.0%	50.0%	20.0%	0.0%	0.0%	0.0%	80.0%	0.0%
Fire rescue department employees treat each other with respect.	20.0%	30.0%	30.0%	10.0%	0.0%	10.0%	50.0%	10.0%

West Palm Beach Fire Rescue Civilian Employee Survey Results

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	No Opinion	Strongly Agree/ Agree	Strongly Disagree/ Disagree
The work performed by staff in all department divisions and units is valued by department managers.	20.0%	30.0%	50.0%	0.0%	0.0%	0.0%	50.0%	0.0%
The work performed by staff in all department divisions and units is valued by employees in other divisions and units.	20.0%	20.0%	40.0%	10.0%	0.0%	10.0%	40.0%	10.0%
The work performed in my division is valued by department managers.	20.0%	50.0%	20.0%	10.0%	0.0%	0.0%	70.0%	10.0%
The work performed in my division is valued by other department employees.	20.0%	20.0%	30.0%	20.0%	0.0%	10.0%	40.0%	20.0%
Fire rescue department employees treat West Palm Beach residents with respect.	20.0%	60.0%	10.0%	0.0%	0.0%	10.0%	80.0%	0.0%
Civilian fire rescue department employees are treated with as much respect as uniform employees.	20.0%	20.0%	20.0%	30.0%	0.0%	10.0%	40.0%	30.0%
Fire rescue department employees of all races are treated with equal respect.	20.0%	50.0%	30.0%	0.0%	0.0%	0.0%	70.0%	0.0%
Female fire rescue department employees are treated with as much respect as male employees.	20.0%	50.0%	30.0%	0.0%	0.0%	0.0%	70.0%	0.0%
Employees strive to improve the fire rescue department's performance.	20.0%	50.0%	20.0%	0.0%	0.0%	10.0%	70.0%	0.0%

West Palm Beach Fire Rescue Civilian Employee Survey Results

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	No Opinion	Strongly Agree/ Agree	Strongly Disagree/ Disagree
Leadership, Management, and Supervision The fire rescue department benefits from strong, effective leadership (Chief and Assistant Chief).	37.5%	37.5%	12.5%	12.5%	0.0%	0.0%	75.0%	12.5%
Roles and responsibilities of mid-managers (Battalion Chiefs) within the fire rescue department are clearly defined.	12.5%	25.0%	25.0%	0.0%	0.0%	37.5%	37.5%	0.0%
Roles and responsibilities of mid-managers (Battalion Chiefs) enable the department to make effective use of the skills and experience of these managers.	12.5%	25.0%	25.0%	0.0%	0.0%	37.5%	37.5%	0.0%
Roles and responsibilities of first-line supervisors (Lieutenants and Captains) within the fire rescue department are clearly defined.	12.5%	12.5%	37.5%	0.0%	0.0%	37.5%	25.0%	0.0%
Roles and responsibilities of first-line supervisors (Lieutenants and Captains) enable the department to make effective use of the skills and experience of these supervisors.	12.5%	12.5%	37.5%	0.0%	0.0%	37.5%	25.0%	0.0%
Roles and responsibilities of EMS supervisors (EMS Captains) are clearly defined.	12.5%	50.0%	12.5%	0.0%	0.0%	25.0%	62.5%	0.0%
Roles and responsibilities of EMS supervisors (EMS Captains) enable the department to make effective use of the skills and experience of these supervisors.	12.5%	37.5%	25.0%	0.0%	0.0%	25.0%	50.0%	0.0%

West Palm Beach Fire Rescue Civilian Employee Survey Results

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	No Opinion	Strongly Agree/ Agree	Strongly Disagree/ Disagree
Fire rescue department leaders (Chief and Assistant Chief) have the authority to make decisions needed to improve the fire rescue department's performance.	37.5%	25.0%	12.5%	25.0%	0.0%	0.0%	62.5%	25.0%
Fire rescue department leaders (Chief and Assistant Chief) use the authority they have been granted to improve the fire rescue department's performance.	25.0%	50.0%	25.0%	0.0%	0.0%	0.0%	75.0%	0.0%
Fire rescue department leaders (Chief and Assistant Chief) are held accountable for the decisions they make.	25.0%	37.5%	12.5%	0.0%	0.0%	25.0%	62.5%	0.0%
Mid-managers (Battalion Chiefs) within the fire rescue department have the authority to make decisions needed to improve the performance of the units they manage.	12.5%	25.0%	25.0%	0.0%	0.0%	37.5%	37.5%	0.0%
Mid-managers (Battalion Chiefs) within the fire rescue department use the authority they have been granted to improve the performance of the units they manage.	12.5%	37.5%	12.5%	12.5%	0.0%	25.0%	50.0%	12.5%
Mid-managers (Battalion Chiefs) within the fire rescue department are held accountable for the decisions they make.	12.5%	25.0%	25.0%	0.0%	0.0%	37.5%	37.5%	0.0%
First-line supervisors (Lieutenants and Captains) have the authority to make decisions needed to improve the performance of the employees they supervise.	12.5%	12.5%	25.0%	0.0%	0.0%	50.0%	25.0%	0.0%
First-line supervisors (Lieutenants and Captains) use the authority they have been granted to improve the performance of the employees they supervise.	12.5%	25.0%	25.0%	12.5%	0.0%	25.0%	37.5%	12.5%

West Palm Beach Fire Rescue Civilian Employee Survey Results

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	No Opinion	Strongly Agree/ Agree	Strongly Disagree/ Disagree
First-line supervisors (Lieutenants and Captains) are held accountable for the decisions they make.	12.5%	12.5%	25.0%	0.0%	0.0%	50.0%	25.0%	0.0%
EMS supervisors (EMS Captains) have the authority to make decisions needed to improve the performance of the employees they supervise.	25.0%	25.0%	25.0%	0.0%	0.0%	25.0%	50.0%	0.0%
EMS supervisors (EMS Captains) use the authority they have been granted to improve the performance of the employees they supervise.	12.5%	25.0%	25.0%	0.0%	0.0%	37.5%	37.5%	0.0%
EMS supervisors (EMS Captains) are held accountable for the decisions they make.	12.5%	25.0%	25.0%	0.0%	0.0%	37.5%	37.5%	0.0%
I am held accountable for my performance.	37.5%	62.5%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%
Fire rescue department leaders (Chief and Assistant Chief) maintain a visible presence throughout the department.	25.0%	62.5%	12.5%	0.0%	0.0%	0.0%	87.5%	0.0%
High expectations for the performance of all employees have been established.	25.0%	37.5%	37.5%	0.0%	0.0%	0.0%	62.5%	0.0%
Managers and supervisors provide clear direction to their subordinates.	25.0%	12.5%	37.5%	12.5%	0.0%	12.5%	37.5%	12.5%
I receive the supervision I need to effectively perform my job.	50.0%	37.5%	12.5%	0.0%	0.0%	0.0%	87.5%	0.0%

West Palm Beach Fire Rescue Civilian Employee Survey Results

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	No Opinion	Strongly Agree/ Agree	Strongly Disagree/ Disagree
The manager or supervisor who evaluates my performance works with me on a regular and consistent basis.	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%
I understand what is expected of me in my job.	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%
Human Resource Practices And Employee Performance Management								
The hiring process is fair.	14.3%	14.3%	28.6%	0.0%	14.3%	28.6%	28.6%	14.3%
Persons who are hired by the fire rescue department are competent.	14.3%	14.3%	42.9%	0.0%	0.0%	28.6%	28.6%	0.0%
The hiring process is timely.	14.3%	14.3%	28.6%	0.0%	0.0%	42.9%	28.6%	0.0%
The promotional process is fair.	14.3%	14.3%	14.3%	14.3%	0.0%	42.9%	28.6%	14.3%
The best candidates for promotion are selected.	14.3%	14.3%	14.3%	14.3%	0.0%	42.9%	28.6%	14.3%
The promotional process is timely.	14.3%	14.3%	14.3%	0.0%	0.0%	57.1%	28.6%	0.0%
The factors that are considered when making promotional decisions are clearly articulated.	14.3%	14.3%	0.0%	0.0%	14.3%	57.1%	28.6%	14.3%
Disciplinary processes are fair.	14.3%	14.3%	42.9%	0.0%	0.0%	28.6%	28.6%	0.0%
Discipline is consistently applied across fire rescue department divisions and units.	14.3%	14.3%	14.3%	28.6%	0.0%	28.6%	28.6%	28.6%
Decisions relating to discipline are timely.	14.3%	14.3%	14.3%	28.6%	0.0%	28.6%	28.6%	28.6%

West Palm Beach Fire Rescue Civilian Employee Survey Results

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	No Opinion	Strongly Agree/ Agree	Strongly Disagree/ Disagree
The grievance process is fair.	14.3%	0.0%	14.3%	14.3%	0.0%	57.1%	14.3%	14.3%
The grievance process is timely.	14.3%	0.0%	28.6%	0.0%	0.0%	57.1%	14.3%	0.0%
The steps in the grievance process are well articulated.	14.3%	0.0%	14.3%	0.0%	0.0%	71.4%	14.3%	0.0%
The performance evaluation process is fair.	14.3%	14.3%	14.3%	28.6%	0.0%	28.6%	28.6%	28.6%
My performance evaluation is completed on a timely basis.	14.3%	71.4%	0.0%	14.3%	0.0%	0.0%	85.7%	14.3%
The performance evaluation process is useful in helping me improve my performance.	28.6%	14.3%	42.9%	0.0%	0.0%	14.3%	42.9%	0.0%
The performance evaluation process is not unduly cumbersome or time-consuming.	14.3%	42.9%	28.6%	0.0%	0.0%	14.3%	57.2%	0.0%
Fire rescue department employees who are not meeting performance expectations receive the support they need to improve their performance.	14.3%	14.3%	14.3%	14.3%	0.0%	42.9%	28.6%	14.3%
Fire rescue department employees who continually fail to meet performance expectations are encouraged to resign or are fired.	0.0%	0.0%	28.6%	14.3%	14.3%	42.9%	0.0%	28.6%
New civilian employees receive the training they need to effectively perform their job duties.	14.3%	28.6%	0.0%	42.9%	14.3%	0.0%	42.9%	57.2%

West Palm Beach Fire Rescue Civilian Employee Survey Results

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	No Opinion	Strongly Agree/ Agree	Strongly Disagree/ Disagree
Civilian employees receive the ongoing training they need to effectively perform their job duties.	14.3%	57.1%	14.3%	0.0%	0.0%	14.3%	71.4%	0.0%
The training I receive is reinforced by my immediate supervisor.	28.6%	42.9%	28.6%	0.0%	0.0%	0.0%	71.5%	0.0%
My job performance has improved as a result of the training I have received.	28.6%	42.9%	0.0%	28.6%	0.0%	0.0%	71.5%	28.6%
All staff who respond to fire and medical emergencies are sufficiently physically fit to effectively perform their duties.	0.0%	14.3%	28.6%	0.0%	14.3%	42.9%	14.3%	14.3%
Most staff who respond to fire and medical emergencies are sufficiently physically fit to effectively perform their duties.	0.0%	28.6%	28.6%	0.0%	0.0%	42.9%	28.6%	0.0%
I have sufficient opportunities for career advancement.	14.3%	0.0%	14.3%	42.9%	14.3%	14.3%	14.3%	57.2%
Communications								
Fire rescue department priorities, goals, and objectives are effectively communicated.	14.3%	28.6%	42.9%	14.3%	0.0%	0.0%	42.9%	14.3%
The information I need to perform my job is effectively communicated to me.	14.3%	71.4%	14.3%	0.0%	0.0%	0.0%	85.7%	0.0%
The communication of needed information within my unit or division is adequate.	14.3%	57.1%	0.0%	14.3%	0.0%	14.3%	71.4%	14.3%

West Palm Beach Fire Rescue Civilian Employee Survey Results

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	No Opinion	Strongly Agree/ Agree	Strongly Disagree/ Disagree
The communication of needed information across organizational units is adequate.	14.3%	28.6%	0.0%	28.6%	14.3%	14.3%	42.9%	42.9%
Communication with other city departments is adequate to ensure issues of common concern can be addressed.	14.3%	28.6%	42.9%	0.0%	0.0%	14.3%	42.9%	0.0%
Communication with the county fire-rescue department is adequate to ensure issues of common concern can be addressed.	0.0%	28.6%	28.6%	14.3%	0.0%	28.6%	28.6%	14.3%
Communication with neighboring fire-rescue departments is adequate to ensure issues of common concern can be addressed.	0.0%	14.3%	42.9%	0.0%	0.0%	42.9%	14.3%	0.0%
Communication with community leaders is adequate to ensure issues of common concern can be addressed.	0.0%	28.6%	28.6%	0.0%	0.0%	42.9%	28.6%	0.0%
Organizational Structure The number of senior managers (Chief and Assistant Chiefs) employed by the fire rescue department is adequate.	14.3%	14.3%	28.6%	14.3%	0.0%	28.6%	28.6%	14.3%
The number of senior managers (Chief and Assistant Chiefs) employed by the fire rescue department is excessive.	0.0%	0.0%	28.6%	28.6%	0.0%	42.9%	0.0%	28.6%
The number of mid-managers (Battalion Chiefs) employed by the fire rescue department is adequate.	0.0%	28.6%	14.3%	14.3%	0.0%	42.9%	28.6%	14.3%

West Palm Beach Fire Rescue Civilian Employee Survey Results

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	No Opinion	Strongly Agree/ Agree	Strongly Disagree/ Disagree
The number of mid-managers (Battalion Chiefs) employed by the fire rescue department is excessive.	0.0%	0.0%	14.3%	28.6%	14.3%	42.9%	0.0%	42.9%
Spans of control for managers (other than first-line supervisors) within my unit or division are reasonable.	14.3%	14.3%	14.3%	14.3%	0.0%	42.9%	28.6%	14.3%
The organization of functions within the West Palm Beach Fire Rescue Department facilitates effective operations.	14.3%	28.6%	28.6%	14.3%	0.0%	14.3%	42.9%	14.3%
Operating Procedures and Practices								
I am familiar with the fire-rescue department's standing operating procedures.	14.3%	28.6%	14.3%	0.0%	0.0%	42.9%	42.9%	0.0%
Paperwork requirements within the fire-rescue department are not excessive.	28.6%	14.3%	42.9%	0.0%	0.0%	14.3%	42.9%	0.0%
The number of civilian employees currently employed by the fire rescue department is sufficient to ensure effective operations.	0.0%	28.6%	28.6%	0.0%	28.6%	14.3%	28.6%	28.6%
Vehicles, Equipment, Apparatus, Facilities, Radios and Technology								
Equipment								
I have access to the equipment I need to effectively perform my job responsibilities.	14.3%	71.4%	0.0%	0.0%	0.0%	14.3%	85.7%	0.0%
I have access to the equipment I need to perform my job responsibilities safely.	14.3%	71.4%	0.0%	0.0%	0.0%	14.3%	85.7%	0.0%

West Palm Beach Fire Rescue Civilian Employee Survey Results

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	No Opinion	Strongly Agree/ Agree	Strongly Disagree/ Disagree
The equipment I use is well maintained.	14.3%	71.4%	0.0%	0.0%	0.0%	14.3%	85.7%	0.0%
I have access to the supplies I need to safely perform my job responsibilities.	14.3%	71.4%	0.0%	0.0%	0.0%	14.3%	85.7%	0.0%
Facilities My work area is conducive to productive work activity.	14.3%	28.6%	14.3%	14.3%	14.3%	14.3%	42.9%	28.6%
My work area is appropriately secure.	14.3%	42.9%	0.0%	0.0%	28.6%	14.3%	57.2%	28.6%
Fire rescue department buildings are clean.	14.3%	14.3%	28.6%	0.0%	28.6%	14.3%	28.6%	28.6%
Fire rescue department buildings are well maintained.	14.3%	0.0%	42.9%	28.6%	0.0%	14.3%	14.3%	28.6%
Technology The fire rescue department makes effective use of technology to enhance performance.	14.3%	42.9%	14.3%	0.0%	0.0%	28.6%	57.2%	0.0%
The fire rescue department makes effective use of technology to reduce paperwork requirements.	14.3%	28.6%	14.3%	28.6%	0.0%	14.3%	42.9%	28.6%
The technology used by the department makes it easy to record needed information.	14.3%	28.6%	28.6%	14.3%	0.0%	14.3%	42.9%	14.3%
The technology used by the department makes it easy to access needed information.	14.3%	14.3%	57.1%	0.0%	0.0%	14.3%	28.6%	0.0%
Needed technology is implemented in a timely manner.	14.3%	14.3%	57.1%	0.0%	0.0%	14.3%	28.6%	0.0%

West Palm Beach Fire Rescue Civilian Employee Survey Results

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	No Opinion	Strongly Agree/ Agree	Strongly Disagree/ Disagree
I have sufficient access to computers to effectively perform my job responsibilities.	14.3%	71.4%	0.0%	0.0%	0.0%	14.3%	85.7%	0.0%
Appropriate training is provided on how to make effective use of available technology.	28.6%	42.9%	14.3%	0.0%	0.0%	14.3%	71.5%	0.0%
The fire rescue department's technology infrastructure is well maintained.	14.3%	57.1%	14.3%	0.0%	0.0%	14.3%	71.4%	0.0%