Controlling Overtime Costs in the Westerville Division of Fire

Ohio Fire Executive Program

By: Bernie Ingles Westerville Division of Fire Westerville, Ohio

An applied research project submitted to the Ohio Fire Executive Program

ABSTRACT

At the end of the budget year in 2001, the Westerville Division of Fire realized that costs for overtime had skyrocketed from previous years. The Division expected that there would be an increase in costs due to an increase in the use of unscheduled time off during 2001, but was surprised at the amount of the increase at the end of the year.

The reason for this paper was to a.) Examine what created this increase in overtime costs and b.) Attempt to discover ways to control overtime costs in the future. The Division did not change any operations that would have contributed to such a dramatic increase. It appeared that external factors created this overtime problem, and that changes within the Division would need to occur to better control overtime costs in the future. An evaluative process was used to extract data from payroll and daily rosters, and research on reasons for increased overtime and methods of control in other businesses was made to reach conclusions. Also, Division operations were examined to determine if any changes discovered through the research process would benefit the Division.

The results showed that there was a considerable increase in unscheduled time off in 2001, and that most of this was contributed to an increase in personal injuries and the use of accrued sick leave. None of the data pointed to a correlation between the excessive overtime and the increased number of injuries, but it is something that the Division should monitor in the future for any correlation as some of the research suggested. This can be done by carefully examining the factors contributing to any future injuries to see if they are related to excessive work hours. The Division was also faced with a declining part time work force, and this, combined with the increase in unscheduled time off, created this sudden, unexpected increase in overtime costs. Research suggested that the addition of twelve full time personnel would benefit

the Division by both reducing overtime costs and by decreasing the Divisions' reliance on part time personnel.

Research also found that there are ways to better control overtime in the future with some contractual changes. By eliminating the allowance of full time personnel to work their Garcia Days, the restructuring of the compensatory time benefit, and the elimination of the one-half hour overtime for Battalion Chief's, overtime expenditures could be substantially reduced. This could be problematic, though, because it would require a renegotiation of both current contracts.

Table of Contents

Abstract		2
List of Tables	S	5
Introduction		6
Background	& Significance	8
Literature R	eview	14
Procedures		20
Results		22
Discussion/In	nplications	25
Recommenda	ations	28
References Appendices		31
A	Westerville Division of Fire Organizational Chart	33
В	NFPA 1710 Personnel Calculation Worksheet	34
C	Westerville Finance Department Payroll Codes	35
D	Comparison of Hours Used	36

List of Tables

Table 1	Full Time Staff January 2002	Page 9
Table 2	Full Time Personnel Apparatus Assignments	Page 10
Table 3	Increase in Time Off Used	Page 12
Table 4	Proposed Staffing	Page 29

INTRODUCTION

Overtime work is an unavoidable cost of providing fire services. Fire departments require a certain number of people each day to staff emergency vehicles, and if normal daily staffing is inadequate, personnel must be called in at an overtime rate. The Westerville Division of Fire has reduced this liability in the past by utilizing part time employees to fill vacant positions when full time employees are off on earned time. Unfortunately, this has created a problem with the Westerville Division of Fire in a sudden dramatic increase in overtime costs. In 2001, the Westerville Division of Fire spent in excess of \$630,000 to pay full time personnel to work overtime in order to meet the staffing needs of the Division. Overtime costs had been budgeted in the amount of \$400,000 for 2001 based on previous year's experience, and this increase of 63 percent created concern for management. It is projected that overtime costs for 2002 will be even higher than 2001 by approximately \$200,000. It became apparent that in order to remain fiscally responsible to our customers that this issue required immediate attention.

The purpose of this research project was to evaluate what created this increase and propose solutions to address it and better control overtime costs in the future. This report will explain the Division's current staffing and payroll system, describe how overtime funds are distributed, investigate what created this sudden unexpected increase in overtime, evaluate alternative staffing ideas, particularly the National Fire Protection Agency Standard on Fire Department Deployment and Operations (NFPA 1710), and propose solutions to address controlling overtime costs.

By using an evaluative research approach, this paper will attempt to answer the following questions:

1. What factor or factors occurred that led to an increase in overtime costs?

- 2. What operations of the Division are contributing to increasing overtime costs?
- 3. What changes can the Division implement to reduce overtime costs?

BACKGROUND AND SIGNIFICANCE

The Westerville Division of Fire provides emergency services to the City of Westerville and, by contractual agreement, neighboring Blendon Township. Located in northeast Franklin and southern Delaware Counties, Westerville is the largest suburb in the Columbus metropolitan area, and has approximately 35,000 residents with an additional 10,000 residents in Blendon Township. The Divisions response district now encompasses approximately 16.5 square miles, with a major interstate and main thoroughfares conducting traffic from rural areas into the City of Columbus.

The Division of Fire operates out of three stations. Station 111 houses a Medic, an Engine, a Ladder, a Rescue and a Battalion Chief to respond to emergency calls in its' district.

Both the Engine and the Ladder are assigned minimum staffing of one Lieutenant, a pump operator/driver, and one firefighter. The medic is staffed with a minimum of two certified paramedics and an emergency medical technician (EMT). The same crew assigned to the Ladder staffs the Rescue.

Station 112 is equipped with an Engine and a Medic. Minimum staffing for this station is a Lieutenant, one pump operator/driver, one firefighter, two certified paramedics and an EMT.

Station 113, opened in 1997 to address expanding residential development in that area of the city, is equipped with an Advanced Life Support (ALS) engine. Minimum staffing is a Lieutenant, two certified paramedics and a pump operator/driver. The Engine does not have hospital transporting capabilities, but is equipped to handle all medical emergencies in their district until a transport unit can arrive on the scene.

The Division currently has seventy two full-time personnel, of which sixty-three are assigned to work a 3-platoon system of 24 hours on duty and 48 hours off duty (Appendix A).

Twenty-one full time personnel are assigned to each shift including one Battalion Chief, four Lieutenants, ten Firefighter/Paramedics and six Firefighters. These personnel are responsible for staffing all of the Division's frontline apparatus. The following table illustrates current full time staffing for the entire Division:

Table 1 Westerville Division of Fire Full Time Staff January 2002

	·		
	Division	Shift	Personnel /Shift
Chief	1		
Deputy Chief	1		
Battalion Chief	5	3	1
Lieutenants	12	12	4
Paramedics	27	27	9
Firefighters	21	21	7
Inspectors	3		
Secretaries	2		
Total	72	63	21

In addition to full time staff, the Division is authorized to employee up to 45 part time employees (15 per shift) as firefighters/EMT's to fill positions when full time personnel are off duty on earned time. Part time personnel are required to work a minimum of one shift every ninth day (every third shift). During peak vacation times of the year, full time staffing drops to 17 per shift, exclusive of any unscheduled time off such as sick time, injury time or training time. In order to maintain minimum staffing, three part time personnel are required to work every day that four full time personnel are off on earned time. Under this schedule, part time employees now work every ninth day, meeting their minimum job requirements.

The Division requires a minimum of 20 people on duty each shift to operate emergency vehicles in our frontline fleet. Current Standard Operating Procedures allow for up to four full time personnel to take earned leave during each 24-hour shift. Additionally, two people may be allowed off each day for training. This earned time off resulted in a daily need for up to five

personnel to meet Division minimum staffing requirements. The following table illustrates current staffing of Division emergency vehicles according to standard operating procedures:

Table 2
Full Time Personnel
Apparatus Assignments

		Minimum
	Full time	Required
Frontline Fleet	Personnel	<u>Personnel</u>
Battalion Chief	1	1
Ladder 111	4	3
Rescue 111		
Engine 111	3	3
Engine 112	3	3
Engine 113	4	4
Medic 111	3	3
Medic 112	3	3
Total	21	20

As the table illustrates, Rescue 111 is not staffed with full time personnel. Those personnel assigned to Ladder 111 also staff the rescue when it is needed. This is a cost savings measure commonly known as "cross-manning". Cross manning has been used in the Division since it became fulltime in 1973, first by full time personnel on duty responding in the appropriate vehicle dependent upon the type of emergency. Part time personnel and/or volunteers then staffed additional vehicles. As the Division grew, changes in cross-manning techniques were altered to meet the needs of the community, first by cross-manning the ladder and the medic, and later, as the medic vehicle responses grew, by the ladder and the rescue.

All sixty-three full time personnel's working hours and conditions are defined by a Labor Contract between the City of Westerville and IAFF Local 3480. Earned time off is available to all full time personnel according to a contractual agreement between the City and the local Union. Earned time off is available in many different forms, including vacation, personal leave, holiday leave, injury leave, sick leave, military leave, jury duty and compensatory time. This

earned time off reduces the number of full time personnel available to assign to the vehicles, so part time personnel are called in to fill out the vehicle assignments, or when part time employees are not available, full time personnel are called in at an overtime rate.

The contract between the City and the Local includes a provision for "Garcia Days", a scheduled day off every twelve weeks to reduce average weekly hours worked in accordance with the Fair Labor Standards Act (FLSA). FLSA is a federal law that states employees working in excess of 212 hours in a 28-day cycle (4 weeks) must be compensated at one and one half times their hourly rate of pay. A firefighters' schedule, 24 hours on duty and 48 hours off duty, equals 56 hours per week (on average), or 224 hours in a 28-day cycle. The City of Westerville allows firefighters off duty for 24 hours every twelve weeks, reducing their average work week to 54 hours, and pays them four hours overtime every 28-day cycle. In the past, when full time employees were off on their Garcia day, part time personnel were scheduled to cover their positions. But six years ago, the City agreed in contract negotiations to allow firefighters to work their assigned Garcia days for overtime pay instead of hiring additional full time personnel. This change saw more full time personnel working their Garcia Days for overtime pay, resulting in an increase in overtime expenditures, but one that could be easily budgeted.

The contract also includes language that states that time off counts as time worked. This means that any time taken off by employees does not reduce the number of hours worked in a 28-day cycle, so any hours, whether worked or taken as time off, in excess of 212 in a 28-day cycle is paid at an overtime rate. The contract also allows for various types of earned time off including sick leave, personal leave, injury leave, holiday leave, military leave, bereavement leave, compensatory leave, Family Medical Leave, (FMLA) and time off for jury duty.

With the exception of sick leave, all other time off has annual limits of accrual and use. Sick leave is accumulated over the entire career of the employee, with some employees earning 30 hours per month and others earning 24 hours per month. These accrual rates are exceptionally high when compared with other firefighter unions and private businesses in the state of Ohio. The Division has also seen an increase in the use of injury and sick time for work related injuries and off duty illnesses and injuries. The following table illustrates the increase in unscheduled time off used from 2000 to 2001:

Table 3
Increase in Time Off Used

	<u>2000</u>	2001
Injury Leave	0	1471
Training Leave	1486	1921
Military Leave	1298	902
Military – Active Duty	0	624
Family Medical Leave	2060	4687
-	4844	9605

This increase in unscheduled time off used by personnel was significant from 2000 to 2001, especially in the use of injury leave. Most of the injuries were reported as back injuries, many of them resulting in necessary surgery and extended time off. Table 3 also shows an increase in FMLA time used, and this reflects not only injury time reported for FMLA purposes, but extended sick time taken off for injuries that were not work related and/or extended sick time used by employees for themselves or their family members.

Training time for employees also creates an overtime burden. Special training, such as technical rescue, requires that employees attend class on consecutive days, meaning that they attend not only on duty days, but on days they are not on duty. And if training does occur on an employees' duty day at a location offsite, this creates a staffing situation where employees need to be replaced in order to staff emergency vehicles.

A proposal is needed by the Division to address the problem of increased overtime costs. This research paper was designed to look at how the division is currently meeting its' staffing needs and to draw reasonable conclusions on how to address this sudden increase in overtime. By considering other staffing options and evaluating the current contract between the City and the Local, recommendations that will decrease overtime both immediately and in the future will be made.

LITERATURE REVIEW

The literature reviewed for this paper was performed to display a historical perspective on services that the Westerville Division of Fire has provided in the past and what services we currently provide. Historical data was used in an attempt to determine what the Division's immediate needs are and what the future needs of the Division will be in terms of staffing and operations. The literature reviewed offered explanations for staffing changes, along with some alternative methods of operation that could reduce overtime costs.

The literature reviewed also explored the impact that staffing or operational changes will have on the Division and its' ability to deliver quality services to it's' customers in the future.

The literature review involved a search of trade journals, newspapers, library resources, statistical data and the Internet.

Many of the resources used in writing this paper dealt specifically with staffing issues. Research showed that staffing in today's economy is affecting not only the fire service but many other businesses as well. Those employers requiring technical skills are having difficulty finding qualified employees, much less an employee with experience. Employers must offer incentives that go beyond the normal or usual benefits in order to entice highly qualified people to come work for them. As the fire service becomes more and more highly skilled and technical, Westerville finds itself seeking out those more qualified employees. The Division must keep in mind that if it is going to spend additional money to attract and hire quality employees, they must do so in a manner that allows them to hire only those people they can afford to keep.

Without a doubt one of the biggest issues facing the fire service today is the controversy over the recently enacted NFPA 1710 standard. This standard defines the number of firefighters required at an emergency scene and how quickly they should be deployed. It further defines the

amount of time necessary for apparatus to arrive on a scene and begin firefighting operations.

Unfortunately, the methods and definitions that the standard uses leave a gray area for municipalities and firefighters to interpret. (International Association of Fire Chiefs. NFPA 1710: A Decision Guide 2001) recommends that in order to comply with the requirements of the standard, fire departments must be able to achieve the following:

First-unit response time 4 minutes/90% of the time Initial Full Assignment response time 8 minutes/90% of the time First-unit staffing arrival 4 minimum 4 minimum 14/15
Initial attack time N/A

These times reflect from when the units are responding to the scene until they arrive on the scene. There is a 60-second time frame for units to respond once they receive the call from the dispatch center. This is commonly referred to as the turnout time. This increases the time frames to 5 minutes and 9 minutes, respectively. The interesting part of the requirements is the section regarding the number of personnel on the first arriving unit. The standard requires that four firefighters be on the scene in four minutes 90% of the time. This does not state that four personnel are required to be assigned to each vehicle, but it is recommended as a means to easily comply with the standard. This impacts the Divisions' current operations because they currently only staff vehicles with a minimum of three personnel, and adding an additional person to each apparatus would result in additional personnel costs.

By utilizing recent information published by a joint effort between the International Association of Fire Chiefs and the International Association of Fire Fighters, division information was used to determine where current staffing levels are in comparison with levels recommended by NFPA 1710 (Appendix C).

In conjunction with the NFPA document, Mike Maloney (The FBI Law Enforcement Bulletin. 2002), described how a community in California created a hypothetical model city to assist them in determining the impact of community growth on their police department. Their research revealed that as population grows, so does the need for service. Also, communities will expect public service departments to be leaner and more flexible in the future, holding them responsible and accountable for spending funds generated largely through tax revenues. The City recently completed a similar review of future needs regarding growth in the City over the next twenty years called Vision 2020. This report revealed that there is no expected growth of current jurisdictional boundaries, and that any new buildings in the City would be commercial structures. Furthermore, none of the commercial buildings are expected to include nursing homes or senior living centers, which would have an enormous impact on the Division for additional EMS services. Also, any new commercial structures will be required to have sprinkler systems, resulting in no foreseeable need to increase firefighting services.

In the private sector, research showed that many companies are faced with balancing their revenues and personnel expenses by forecasting sales projections (McGarvey, Robert 2002). This can lead many companies to either have too many employees or too few depending on the economy. In order to more appropriately predict staffing levels, companies recommend that needs and projections be revised quarterly. This allows companies to move people around and make cuts in other areas so that their workforce becomes more flexible to changing economic conditions. In other words, instead of downsizing, more companies are using this flexibility to meet the changing needs of the customers they serve. While this is not true for the fire service, it suggested that operations of the fire division could be examined to see if any operational changes

would accomplish more flexibility while at the same time remaining within our budgetary constraints.

Another article from the private sector suggested cross training employees to perform tasks within the company other than what they were hired for (Hoffman, Richard March 19, 2001). This allowed them to utilize current employees to meet their needs without hiring additional personnel. The fire service in central Ohio has been doing this for years, ever since they assumed the responsibility of emergency medical services. Some departments have taken this a step further by equipping engine companies with medical equipment and properly trained personnel and utilizing them as first responders when a medic vehicle is not immediately available.

Additional research revealed that the amount of overtime incurred by workers in the United States has been on the increase for the last twenty years, up 4% since 1980 (Golden, Lonnie and Jorgensen, Helene January, 2002). This increase in overtime is largely due to the increased competitiveness and the need for companies to be flexible with their staffing needs. During the highly productive decade of the 90's, industry found that it was more economical to pay workers that were already trained overtime to increase production than it was to hire and train additional employees. It also benefited the worker by allowing them to substantially increase his/her take home pay. Unfortunately, the impact is now starting to show in the form of less time spent at home, less free time, and an increase in the number of people diagnosed with depression. Research showed that more job related accidents occurred during overtime hours, and workers faced a greater risk of illness from consistently working overtime, resulting in increased time off, which then resulted in increased overtime for others. This correlation between increased overtime and increased unscheduled time off was important in the results of

this research paper, but there was no definable connection found between overtime in the Division and the increase in sick and/or injury leave.

The Westerville Division of Fire may be faced with this issue right now. Prior to 1994, firefighters were given one 24-hour shift off every 12 weeks to reduce the amount of overtime paid in accordance with FLSA standards. In 1994, Local 3480, the union representing full time firefighters with the Division, negotiated a clause into the contract allowing them the option of taking that time off or working the 24 hours for overtime pay. This increased average hours worked from 54 per week to 56 hours per week, all at an overtime rate. This was done because it was less expensive to pay overtime to staff emergency vehicles than to hire additional personnel. But it is now having a negative impact on personnel, with more and more personnel only working the scheduled overtime and refusing call in overtime.

Quite possibly the best research document was the study on overtime costs in the Portland, Oregon police division in 2000 (Portland Police Bureau: A Review of Overtime Management Systems). This organization, although considerably larger than Westerville, faced many of the same staffing issues as the Division of Fire and was easily correlated with this research project. This document revealed that there overtime costs were also related to personnel calling off, but instead of receiving pay to work overtime, officers took compensation in the form of 1½ hours time off for every hour of overtime. This additional time off then resulted in more overtime, which generated more time off. The cycle just kept feeding itself and not solving the problem of increased overtime. Their solution was to address the use of compensatory time off by allowing officers to only take time off hour for hour that they earned. They then paid the officers the remaining ½ hour of overtime. This required a change in their contract, and to do this in Westerville would require the same.

All of the literature reviewed indicated that the Westerville Division of Fire needs to make some staffing changes if it is their intent to lower overtime costs. Reliance on part time personnel is decreasing for a variety of reasons, and the Division should consider becoming a full time department or it will continue to pay overtime to meet its' daily staffing needs. Some research suggested that should the Division continue this current practice, and overtime is required to meet daily staffing needs, it could become harmful to its employees in the form of increased sick leave use and possibly depression.

PROCEDURES

Historical data obtained from past staffing reports, budgets, and earned time used were evaluated to determine if staffing changes are necessary at this time, and where those changes, if any, could be most effective. Data was gathered using the Impromptu system, a data warehouse system installed in 2001 that gathers and stores records for the Division of Fire and the City of Westerville Finance Department, including payroll records, time on duty, time off duty and the type of earned time taken.

The Division of Fire also maintains records on personnel attendance through a computer program called 'Rosters'. Rosters is a program within the H.T.E. software that accounts for personnel on duty and off duty on a daily basis. Each duty day, the officer in charge for each station enters personnel and their status (on duty, vacation, sick leave, injury leave, etc.) into the computer system. Information was extracted utilizing the same Impromptu data warehouse system and compared to the payroll records for any discrepancies that could then be accounted for with further research. Payroll records are only available to chief officers and certain secretarial staff with proper authorization.

Financial reports and past budgets were used to explain the costs associated with any changes that would be recommended. Historical data in this area was also available through the Impromptu database, and future forecasts were calculated based on past expenses and projected costs associated with current staffing practices. This information was then applied to the Divisions' projected budget based on anticipated levy monies to determine if operational and/or staffing changes would resolve the increase in overtime costs.

A staffing Calculation Worksheet and a Marginal Personnel Requirements Worksheet included in the NFPA Implementation Guide was used to determine the recommended number of

full time personnel the Division should have to meet daily staffing needs. By completing the worksheet with current staffing and equipment and projected staff and equipment, and then factoring in average time off used, a conclusion was arrived at that could reduce overtime costs and still satisfy the Divisions' daily staffing needs.

A review of the City 2020 Vision Plan was made to determine what additional responsibilities may be expected of the fire department, and if any increases in annexation and/or new construction would impact current services. A review of past incident types was also performed to determine if the Division was using its' resources properly now and if any changes would impact future operations.

Finally, a comparison of the types of hours that employees used in 2000 and 2001 was made to see where there were significant changes. This information was extracted from the HTE daily roster program and was compared against the Impromptu Data Warehouse information (Appendix D).

RESULTS

The questions initially posed at the start of this project and what research attempted to answer were:

- 1. What factor or factors occurred that led to an increase in overtime costs?
- 2. What operations of the Division are contributing to increasing overtime costs?
- 3. What changes can the Division implement to reduce overtime costs?

Data from the City Impromptu system was obtained by writing a query against the database that is regularly moved to the data warehouse. This query included a listing of each employee by name, position, and the type of earned time used by each employee using the appropriate City payroll code (Appendix C) for injury, training, military, and family medical leave, and the amount of time used from January 1, 2000 to December 31, 2000. This same information was then queried using the same time frame for 2001. This only applied to those employees that were not exempt to overtime according to FLSA. These two figures were then compared for any differences.

A comparison of the data retrieved from City payroll codes was then compared with data queried from the Rosters program for validity.

After retrieving the data from payroll records, this information was then used to complete the Personnel Calculation Worksheet (Appendix B) to determine the number of personnel the Division would require to meet its' daily staffing requirements after all earned time off was taken into consideration, and then the worksheet was further completed to determine the number of additional personnel required to comply with NFPA 1710.

A review of the Vision 2020 Plan completed by the City in late 2001 was used to determine if any changes in growth of the City would have an impact on Fire Division staffing.

The plan showed that the City has no intention of growing, in geographical size, any further than its' existing boundaries for the next 19-20 years. No additional fire stations would be required to meet these anticipated needs, resulting in no additional personnel to staff these stations.

Finally, a listing of all payroll code hours was assembled, again using the Impromptu system, to determine if there were any patterns of earned time used that may have an impact on overtime costs.

1. What factor or factors occurred that led to an increase in overtime costs?

Using the information found from these queries, it was discovered that the main contributing factor to the increase in overtime costs was the sudden rise in the use of unscheduled (injury and/or sick leave) time off. This resulted in the Division calling in overtime to staff positions it was unable to fill with part time employees. No single reason was found that caused this increase in the use of sick and/or injury leave, because personnel were off for numerous reasons including back surgery, back strains, elective surgeries, personal illnesses, and family illnesses.

A second contributing factor to increased overtime costs was in the way the Division operated to meet its' daily staffing requirements, which is the use of part time personnel to replace full time personnel when they are off on scheduled leave. Because of the lack of an adequate number of part time staff, the increase in available shifts due to the increase in unscheduled time off resulted in a strain on the part time personnel system, resulting in the use of full time personnel for daily staffing of vehicles at an overtime rate when part time personnel were not available.

This led to the discovery of a third factor that contributed to increasing overtime costs, and that was the lack of an adequate part time staff. The reasons for the lack of part time staff are many. Many of the part time personnel are employed full time at other fire departments, and they are not available to work their assigned shifts due to overtime opportunities at their full time departments, or they cannot report for duty at Westerville because of the conflict of shift change times. Other part time personnel, in an attempt to secure a full time job, work part time for more than one fire department, and they tend to put their time and efforts into whichever department where they would have the greatest opportunity of moving into a full time position.

A contributing factor that can also be attributed to the steady decline in available part time personnel is the growth of surrounding departments and their need for additional full time personnel. Two years ago when the Division conducted a test for hiring personnel, the top 40 candidates were asked if they were interested in part time employment and only six expressed an interest. All others were interested only in full time employment. During the last four years, the two fire departments directly north of Westerville that were volunteer organizations became full time fire departments, hiring a number of Westerville part time employees as full time firefighters. Over the last four years, the number of part time employees has dropped from forty-five to twenty.

2. What operations of the Division are contributing to increasing overtime costs?

According to 2001 payroll figures, the Westerville Division of Fire spent in excess of \$635,000 in overtime, plus an additional \$385,000 in part time payroll expenses for a total of \$1,020,000 in staffing for positions created by earned time off. The Division expects these costs to rise with contractual wage increases, a decreasing part time work force, and a steadily rising

median employee age resulting in more health problems and more time off due to health and/or injury reasons. The cost for overtime in 2002 is expected to be approximately \$800,000, with an additional \$390,000 in part time personnel wages, which means that the Division may spend nearly 1.2 million dollars to fill positions created by earned time off.

3. What changes can the Division implement to reduce overtime costs?

If the Fire Division wishes to decrease its overtime costs, the hiring of additional full time personnel to replace part time personnel would alleviate the Divisions' reliance on a part time employee system. Scheduled time off would no longer result in any overtime expenditures, and a minimum part time work force could be maintained to work at those times when the Division had additional unscheduled personnel off due to training, extended sick leave, injury leave or extended military leave.

The Personnel Calculation Worksheet (Appendix B) showed that the Division needs to hire 3.36 personnel per shift, or 10.08 additional personnel, to meet current staffing needs without any part time personnel. For approximately the same amount of money the Division is spending on overtime and part time expenses (\$1,020,000), twelve additional full time employees (\$1,080,000) could be hired, eliminating the need for part time or overtime except for unscheduled time off.

DISCUSSION/IMPLICATIONS

The results show that there were many areas where overtime costs could be reduced and controlled. It is desirous of the division to control overtime costs to the best of its ability, maintain a level of safety for firefighters, and continue to deliver quality services to the community. Changes will have to involve buy-in from Division personnel, especially with changes in staffing and contractual items. Efficiency, safety, and effectiveness will have to be explained to all employees so that as operational changes are implemented, transitions are smooth and dissonance is kept to a minimum. The most difficult piece will be reducing part time staffing as full time personnel are hired. Candidates seeking part time employment will diminish as the Division relies on them less and less. The Division may experience difficulty hiring and maintaining an adequate part time staff in the future as their jobs are replaced by full time personnel.

The Division should also be aware that controlling overtime costs is not only a budgetary issue but a safety issue as well, and that when changes are presented that affects personnel's pay and/or working conditions, the safety issue should be paramount, and used as a positive argument when changes are recommended.

If the Division decides to accept the recommendations of this report, the cost savings would be realized through a combination of changes. By hiring additional full time personnel, the use of part time personnel to cover full time positions would no longer be required on a daily basis. Also, the need for full time employees to work their "Garcia Days" will be reduced or eliminated, depending on the number of employees hired. Part time employees would only be needed to fill in for unscheduled time off such as extended sick or injury leave or for training

time. Changes in operations, primarily by combining the functions of the engine and the rescue and reducing medic staffing from three to two, would also allow the Division to staff all of its' first response vehicles in accordance with NFPA 1710.

Should the Division not follow the recommendations of this report and continue to utilize part time employees to staff vehicles, overtime costs will continue to be problematic, and costs will rise as pay increases are afforded to local union members according to the contract. The reliance on a part time work force that has steadily decreased over recent years will continue to create overtime positions that must be filled as fewer part time employees are available to work.

There will also be the need to renegotiate the contracts between the local Union and the Battalion Chiefs. This could be problematic since both organizations have counted on contractual overtime hours as part of their annual income. It should be expected that some type of compensation will have to be offered to compensate for this loss. If this is not done, overtime afforded to union members according to the contract will steadily increase also as pay rates are adjusted annually.

Also, if a health and fitness program is implemented, research will have to be conducted to ensure that the program meets the needs of the Division and the personnel. Progress will have to be measured over a period of years to determine if there is a need to continue, eliminate, or make changes to the program, and injury and sick leave usage will also have to be measured to see what kind of impact the program has on these.

RECOMMENDATIONS

Research revealed that an increase in the use of unscheduled time off by full time employees was directly related to the increased cost of overtime. The reasons for the increased use were not clearly discernable, because all of the time used varied from employee to employee. A change the Division should make to address this would be to implement a health and wellness program that includes individual fitness plans, training on healthy eating habits, a tobacco cessation program, workplace safety training, and annual wellness evaluations. This would assist employees to become more aware of personal health and workplace safety issues, and encourage them to recognize these issues and work to prevent them. This will not eliminate the use of injury and sick time, but could help to reduce it.

It is also apparent from the research that, because of this increase in unscheduled time off, the Division of Fire should move from a system that utilizes part time employees to meet its' daily staffing requirements. The steady decline of available part time personnel, coupled with the increased need for part time employees to staff vehicles, created a void that must be filled with overtime. According to some research, this increase in overtime could eventually create safety concerns for full time employees (Golden, Lonnie and Jorgensen, Helene. January, 2002). This could already be visible with the increase in employee use of sick time, even though there was no direct correlation that could be found. This means that the Division should hire twelve additional full time personnel to decrease and/or eliminate the need for part time personnel. As mentioned earlier, hiring an additional 12 full-time employees would cost approximately \$1, 080,000, compared with current expenditures of \$1,190,000 in overtime and part time costs.

The Division should also change operations in consideration of compliance with NFPA 1710, enhancing the safety and efficiency of its' firefighting staff and substantially reducing the need for overtime to cover earned time off. Combining the functions of the rescue company with those of an existing engine company would allow the Division to staff vehicles according to the following table:

Table 4				
Proposed Staffing				
Engine/Rescue 111	4			
Engine 112	4			
ALS Engine 113	4			
Ladder 111	4			
Medic 111	2			
Medic 112	2			
Battalion 111	1			

21

Currently, the Division has 21 full time personnel assigned to each shift (Table 1). With twelve additional full time personnel, this would increase the total number of full time personnel assigned to each shift to 25, allowing four people to be off each day on earned time without using part time or overtime to meet staffing needs.

Total

Other ways to further reduce overtime costs would be to address contractual issues that require overtime pay for hours worked. This was an agreement in a previous contract put in place to reduce the number of full time firefighters off on duty, thereby reducing the reliance on part time personnel. This idea worked well for a number of years, but as the number of part time employees dwindled, the Division found itself in the same situation prior to the change. Should the Division elect to increase its' staff according to recommendations, the need for additional full time employees would no longer exist except for unscheduled time off. The practice of allowing full time employees to work their Garcia Days would no longer be necessary. Stopping this

practice would amount in a savings to the overtime account of approximately \$181,400 annually, based on 63 employees earning 96 annual hours of Garcia time at an average overtime rate of \$30/hour.

Thirdly, the practice of paying Battalion Chiefs one-half hour of overtime every duty day should be eliminated. The practice came from a time when the Division only operated two stations, and the reasoning for continuing this practice is no longer valid. The Division pays one half-hour of overtime every day of the year at an average rate of \$35 per hour. This equates to approximately \$17.50 each day for a total of \$6387.50 each year to the Battalion Chiefs.

Additionally, contracts between the City and the local Union should be amended to control the use of accrued comp time as recommended by the City of Portland study, where comp time is taken off hour for hour and the half time is taken in pay. Legally, denying the option of comp time in lieu of overtime pay is not allowed, but this measure would help to control a portion of the overtime costs attributable to comp time by 50%.

The Division should not eliminate part time staffing altogether. Part time personnel could still be used to fill in for unscheduled time off such as training, which would allow the Division to expand its' training programs to allow more personnel to attend off duty classes.

If these measures were to be implemented, this would greatly reduce overtime costs.

Overtime would only be necessary when there are more than four people off duty (that may be due to illness or injury). And if the Division maintains a small part time work force, these employees could be used to fill in those excesses. Hours that are charged to the overtime account that will not be affected by these changes would be Holiday Pay and overtime for 40-hour employees. Estimated savings based on research information would be approximately

\$378,637.00 annually. This would reduce the overtime budget back to less than \$400,000, the amount budgeted prior to the sudden increase.

REFERENCES

Coleman, Ronny J. (May 1, 2002). What Makes a Fire Department? A Reality Check. (Fire Chief Magazine.)

Dalbey, Steve (August 1, 1999). A Fresh Look at Two In/Two Out. (Fire Chief Magazine.)

Golden, Lonnie and Jorgensen, Helene (January, 2002). Time After Time. Mandatory Overtime in the U.S. Economy. (http://epinet.org/briefpapers/bp120.html. Accessed February 10, 2003).

Hoffman, Richard (March 19, 2001). How One Provider Solved Its' Staffing Problems and Saved Millions. (Healthcare Review.)

IAFF/IAFC Guidance on the OSHA 2-In/2-Out Policy – Appendix A

Hancock, Harold, 1974. The History of Westerville, Ohio

Foley, Stephen (July, 2001). Firefighter Occupational Safety. (Public Entity Risk Institute. www.riskinstitute.org Accessed May 2002).

International Association of Fire Chiefs. NFPA 1710: A Decision Guide, 2001

NFPA 1710. Standard for the Organization and Deployment of Fire Suppression Operations,

Emergency Medical Operations, and Special Operations to the Public by Career Fire

Departments. 2001. (<u>www.nfpa.org/codesonline</u>. Accessed May, 2002)

McGarvey, Robert (February, 2002). Solving the Personnel Puzzle: Finding the Right Number of Employees is Only Part of the Staffing Picture-The Pieces Also Need to Fit Together.

(Electronic Business: http://www.findarticles.com Accessed May 15, 2002)

"Maloney, Mike (January, 2002). The Impact of Community Growth on the Staffing and Structure of a Midsized Police Department. (The FBI Law Enforcement Bulletin.

http://www.findarticles.com. Accessed May 15, 2002).

Manning, Bill (May, 2002). NFPA 1710: The New "Accountability" Standard. (Fire Engineering Magazine.)

Mayor Dennis Archer Announces Support for Staffing Reforms in Detroit Fire Department," (November 6, 2000) (PR Newswire,. http://www.findarticles.com Accessed May 15, 2002) Portland Police Bureau: A Review of Overtime Management Systems. Audit Services Bureau, City of Portland. November 9, 2000.

(http://www.ci.portland.or.us/auditor/audser/pdfs/272.pdf. Accessed February 10, 2003).

Rhea, Robert (May 1, 2002). Birth of a Rescue Team. (Fire Chief Magazine)

Robertson, Michael (May 1, 2000). Safety in Numbers. (Fire Chief Magazine)

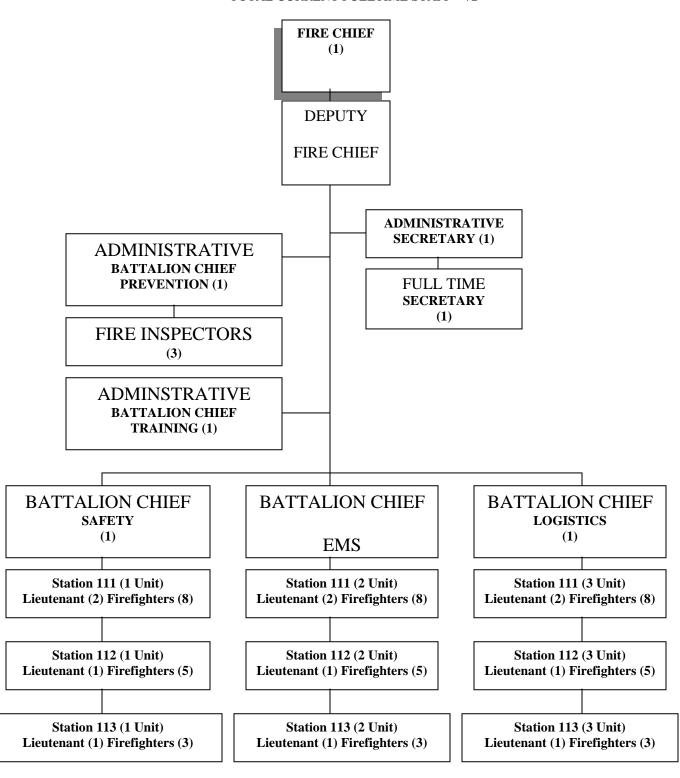
Siarnicki, Ronald Jon (February, 2002). A Strategic Planning Model for Fire Departments. (Fire Engineering Magazine.)

Smitherman, Mark W. (July 19, 2001). British Styles of Incident Safety: Command Decisionmaking and Team Knowledge. (Public Entity Risk Institute. www.riskinstitute.org Accessed May 2002).

Strategies for Marketing Your Fire Department Today and Beyond. Federal Emergency Management Agency. (United States Fire Administration.)

Appendix A WESTERVILLE DIVISION OF FIRE ORGANIZATIONAL CHART

TOTAL FULLTIME STAFF IN 2000 67 TOTAL CURRENT FULLTIME STAFF 72



Appendix B NFPA 1710 Personnel Calculation Worksheet

Hours of work to be covered in 1 year						
Days of w				365		
Hours of work				24		
	otal annual hours of work	K		8760		
Number of shifts	s/platoons			3		
Но	ours worked per group			2920		
Work week (Hou	-			56		
_	Jsed Per Employee (Ho	ours)				
Av	erage Sick Leave			79.55		
Av	erage On Duty Injury L	eave		0		
Av	verage Vacation Leave			199.01	_	
Av	verage Training Leave			23.58		
	verage Holiday Leave			8.00		
	verage Bereavement Lea	ve		4.41		
Av	erage Other Leave			0		
To	tal Average Leave per E	Employee		314.55	5	
Hours Actually \	Worked by Average En	nployee		2605.4	15	
Staffing Factor (Calculation					
Total Annual Hours of Work				8760		
Но	ours Actually Worked by	Average Empl	oyee	2605.4	15	
Staffing Factor				3.36		
(The number of e	mployees required to fill	l one position 24	1/7 withir	the de	partment)	
Apparatus	# of Apparatus	Minimum	Staffin	ıg	Total	
		Staffing	Factor		Personnel	
Engine	2	3	3.36		20.16	
ALS Engine	1	4	3.36		13.44	
Ladder	1	3	3.36		10.08	
Rescue	0	0	3.36			
Chiefs Car	1	1	3.36		3.36	
Medic	2	3	3.36		20.16	
Current Total Personnel 23					67.20	
Apparatus	# of Apparatus	Minimum	Staffin	ıg	Total	
		Staffing	Factor		Personnel	
Engine/Rescue	1	4	3.36		13.44	
Engine	1	4	3.36		13.44	
ALS Engine	1	4	3.36		13.44	
Ladder	1	4	3.36		13.44	
Chiefs Car	1	1	3.36		3.36	
Medic	2	2	3.36		13.44	
Proposed Total 1	Personnel	21			70.56	
Difference between	Difference between Current/Proposed 3.36					

Appendix C Westerville Finance Department Payroll Codes

Regular Hours	1	FF acting as Lieutenant	85
Holiday Hours	2	FF/Medic acting as Lt	86
Vacation	3	Lt. acting as Battalion Chief	87
Personal	4	Adm. Bat Chief Diff Pay	88
Military	5	Comp Time Earned	CE
Workers Comp	6	Comp Time Payout PERS	CO
Bereavement	7	Comp Time Premium	CP
Jury Duty	8	Comp Time Payout Police/Fire	\mathbf{CY}
Leave Without Pay	9	Garcia Day Worked	GR
Sick Day	10	Holiday Payout	HP
Pay in lieu No Pension	11	Holiday worked premium	$\mathbf{H}\mathbf{W}$
Pay in lieu Pension	12	Overtime Adjustment	OA
Comp Time Used	13	Overtime at 100%	OT
•	13 14	Overtime at 100% Premium Hours	OT PH
Comp Time Used			_
Comp Time Used Military Duty-Active	14	Premium Hours	PH
Comp Time Used Military Duty-Active FML-Sick Day Used	14 16	Premium Hours Pro-rated Longevity	PH PL
Comp Time Used Military Duty-Active FML-Sick Day Used FML-Vacation Day Used	14 16 17	Premium Hours Pro-rated Longevity Retro Overtime	PH PL RO
Comp Time Used Military Duty-Active FML-Sick Day Used FML-Vacation Day Used FML-Personal Day Used	14 16 17 18	Premium Hours Pro-rated Longevity Retro Overtime Salary Adjustment	PH PL RO SA
Comp Time Used Military Duty-Active FML-Sick Day Used FML-Vacation Day Used FML-Personal Day Used FML-Unpaid	14 16 17 18 27	Premium Hours Pro-rated Longevity Retro Overtime Salary Adjustment Sick Leave Conversion	PH PL RO SA SC
Comp Time Used Military Duty-Active FML-Sick Day Used FML-Vacation Day Used FML-Personal Day Used FML-Unpaid FML-Workers Comp	14 16 17 18 27 28	Premium Hours Pro-rated Longevity Retro Overtime Salary Adjustment Sick Leave Conversion Sick Leave Annual-Fire	PH PL RO SA SC SF
Comp Time Used Military Duty-Active FML-Sick Day Used FML-Vacation Day Used FML-Personal Day Used FML-Unpaid FML-Workers Comp Admin Leave with pay	14 16 17 18 27 28 50	Premium Hours Pro-rated Longevity Retro Overtime Salary Adjustment Sick Leave Conversion Sick Leave Annual-Fire Sick Pay final-no Pension	PH PL RO SA SC SF SL
Comp Time Used Military Duty-Active FML-Sick Day Used FML-Vacation Day Used FML-Personal Day Used FML-Unpaid FML-Workers Comp Admin Leave with pay Fire Officers w/o of class	14 16 17 18 27 28 50 77	Premium Hours Pro-rated Longevity Retro Overtime Salary Adjustment Sick Leave Conversion Sick Leave Annual-Fire Sick Pay final-no Pension Sick Final	PH PL RO SA SC SF SL SP
Comp Time Used Military Duty-Active FML-Sick Day Used FML-Vacation Day Used FML-Personal Day Used FML-Unpaid FML-Workers Comp Admin Leave with pay Fire Officers w/o of class Wellness Payment	14 16 17 18 27 28 50 77 78	Premium Hours Pro-rated Longevity Retro Overtime Salary Adjustment Sick Leave Conversion Sick Leave Annual-Fire Sick Pay final-no Pension Sick Final Vac Final pay-no pension	PH PL RO SA SC SF SL SP VF

Bold denotes overtime accounts

Appendix D Comparison of Hours Used

Payroll Hour Codes		2000	<u>2001</u>	<u>Difference</u>
Regular hours	1	201242	202841	1599.00
Holiday hours	2	504	520	16.00
Vacation	3	12358	13831	1473.00
Personal	4	4580	4827	247.00
Military	5	1298	902	(396.00)
Workers comp	6	697	742	45.00
Bereavement	7	278	130	(148.00)
Jury duty	8	0	12	12.00
Leave without pay	9	28	0	(28.00)
Sick day	10	5012	5834	822.00
Pay in lieu no pension	11	0	0	0.00
Pay in lieu pension	12	0	0	0.00
Comp time used	13	2757	3354	597.00
Military-Active Duty	14	0	624	624.00
FML-sick day used	16	2060	4590	2530.00
FML-vacation day used	17	0	72	72.00
FML-personal day used	18 27	0	282	282.00
FML-unpaid	27	0	0	0.00
FML-workers comp	28 50	0	1471	1471.00
Administrative with pay	50 77	0	0	0.00
Fire officers w/o of class	77 78	0	0	0.00
Wellness payment Double time	83	0 1382	1190	0.00 (192.00)
	84	1362 54	1190	63.00
Double comp time FF acting as lieutenant	85	355	2517	2162.00
FF/Medic acting lieutenant	86	607	4834	4227.00
Lieutenant acting Battalion	00	007	4034	4227.00
Chief	87	261	720	459.00
Adm. Battalion Chief diffr. Pay	88	0	0	0.00
Comp time earned	CE	2433	3376	943.00
Comp time payout PERS	CO	0	0	0.00
Comp time premuim	CP	2375	3264	889.00
Comp time payout Police &				
Fire	CY	346	1324	978.00
Garcia Day worked	GR	3897	4312	415.00
Holiday payout	HP	4640	4719	79.00
Holiday worked premium	HW	0	0	0.00
Overtime adjustment	OA	1351	1261	(90.00)
Overtime at 100%	OT	13400	13441	41.00
Premium hours	PH PL	13400	13472	72.00
Pro-rated longevity	RO	0	0	0.00
Retro overtime Retroactive pay	RP	0 0	0	0.00 0.00
Salary adjustment	SA	0	0	0.00
Sick leave annual conversion	SC	0	0	0.00
Sick leave annual Fire con	SF	6776	9280	2504.00
Sion leave annual i lie con	O.	0110	3200	2007.00