HAS THE IMPLEMENTATION OF THE POWER SHIFT AT STATION 2 BEEN SUCCESSFUL: AN EVALUATION OF A CHANGE PROCESS

STRATEGIC MANAGEMENT OF CHANGE

BY: Darrell Todd
    Edina Fire Department
    Edina, Minnesota

An applied research project submitted to the National Fire Academy as part of the Executive Fire Officer Program

December 1998

ABSTRACT

The Edina Fire Department instituted a "power shift" of 2 paramedics working weekdays, on an 8-hour shift, and responding from a newly constructed fire station. This fire station was located in what had been determined to be the busiest quadrant in the city. This constituted a significant change in operations and it's implementation met a great deal of resistance. The purpose of this research project was to evaluate the effectiveness of the power shift working out of Station 2, and evaluate how well the resistance to the change was managed.

Descriptive and evaluative research methods were employed to answer the following questions: (1) did the implementation of the power shift operating out of Station 2 meet it's initial change goals, (2) what are typical causes of resistance to change efforts by organizations, (3) what are recommended strategies to reduce employee's resistance to change, were any of the strategies used and how effective were they, (4) what effect did paradigms have on the employee's resistance to the change.

The procedures used in this research project included a review of literature on the topics of organizational change, resistance to change, change management and paradigms as they relate to change; an interview with the fire chief who

implemented the change; and a survey of the personnel at the fire department who were affected by the change.

This research project determined that the change process was statistically successful, however, it had failed in the human relations area. The two main strategies for reducing resistance to change, communication and utilizing employee input, had not been successfully used.

The recommendations were (a) to communicate the needs for the change, (b) solicit input from employees, (c) set new change goals, (d) periodically reevaluate the process.

TABLE OF CONTENTS

INTRODUCTION

The Edina Fire Department instituted a "power shift" of two paramedics responding from a newly constructed second fire station. The power shift was scheduled to work on weekdays during the busiest eight-hour period of ambulance activity. This change in personnel scheduling and vehicle placement was in response to the changing demographics and emergency call patterns in the city. This was a significant change for the organization and it's implementation was met with a great deal of resistance. Now that a year has passed, this major change in the operation of the fire department needs to be evaluated to determine if the change should be modified or institutionalized.

The purpose of this research project was to evaluate the effectiveness of the power shift working out of Station 2, and evaluate how well the resistance to the change was managed. Descriptive and evaluative research methods were employed to answer the following questions:

1. Did the implementation of the power shift operating out of Station 2 meet it's initial change goals?

2. What are typical causes of resistance to change efforts by organizations?

3. What are recommended strategies to reduce employee's resistance to change, were any of the strategies used and how effective were they?

4. What effect did paradigms have on the employee's resistance to the change?

BACKGROUND AND SIGNIFICANCE

In 1992, the fire chief initiated a study of fire department operations to identify problem areas, evaluate services and make recommendations for change. Within the report presented to the city council in the Fall of 1994, the chief identified a trend in the location and time of emergency medical calls. Approximately 50% of these calls occurred between the hours of 9:00 a.m. and 6:00 p.m., and a densely populated developing area of the city, referred to as the "Southeast quadrant", was producing a geographically disproportionately high percentage of calls (Paulfranz, 1994).

Up until this time all paramedics worked out of the one fire station and all of them worked a 24-hour shift. This type of scheduling assumes that calls are spread evenly throughout the day and the city. In response to the findings of the study, the chief recommended construction of a second fire station in the Southeast quadrant of the city that is staffed by two paramedics during the peak demand period of the day. The two paramedic work group is referred to as the power

shift. The goals of this change were: 1. to decrease the response times to calls in the southeast quadrant of the city; 2. to limit the number of ambulance calls transferred to other services to below 2% of all 911 ambulance requests;(T. R. Paulfranz, personal communication, October, 1994) 3. and to a lesser extent, attempt to reduce the stress level of the 24-hour shift paramedics by reducing the number of calls they were responding to (T. R. Paulfranz, personal interview, October 2, 1998).

The fire chief anticipated that there would be resistance to the change due to the firefighter's distrust of fire department and city management, and the natural resistance to change (Paulfranz, 1994).

The power shift was implemented in January of 1996, while the second fire station was being built. In February of 1997, the power shift moved to the new station and the plan was fully implemented.

Now that a year has past, an evaluation of the change is needed. "Whether a change management approach is working is determined by evaluating the effects of the implementation against the goals and objectives set out in the change plan" (National Fire Academy [NFA], 1996, p.2-16). This research project will provide the fire department with a reference point to determine if the change is ready for

institutionalization, or if it needs adjustments to be successful.

This research project is being completed as a part of the Executive Fire Officer Program course "Strategic Management of Change". Evaluating change initiatives is part of the Change Management Model presented in the class.

LITERATURE REVIEW

Change

"The only thing constant is change and these days, change is modem fast" (Austin, 1997, p. 15). "Change will occur regardless of our efforts, so the challenge is to manage it for the betterment of the organization and all concerned" (Frost, 1993, p. 122). Fire departments need to anticipate and accept change. "No department can enjoy self-determination without a progressive diet of intelligent change" (Tehome, 1991, p. 90). Frost warns, "The outcomes for organizations that don't change, resist change or can't change from a segmentalist structure will be a significant loss of resources and perhaps even privatization of service delivery" (1993, p. 124).

The ability to change is essential for any organization, but it is not an easy process.

Coming up with the ideas for change and the plan for implementation, even the management approvals - all this

is easy in a major change effort compared to implementing

the change and making it an established way of "how we do

business" (Bellman, 1992, p. 88).

"Unfortunately, there are no cookie-cutter solutions to

managing change, as every initiative comes complete with its

own set of challenges" (Bruegman and McGrath, 1997, P. 56).

Employees need to be considered during any change

initiative. "Employees and organizations have reciprocal

obligations and mutual commitments, both stated and implied,

that define their relationships" (Strebel, 1996, p. 87). No

matter how necessary, change is an intensely personal

experience, and major changes are inevitably traumatic

(Guthrie, 1995). "Unless managers define new terms and

persuade employees to accept them, it is unrealistic for

managers to expect employees fully to buy into changes that

alter the status quo" (Strebel, 1996, p. 87). Bellman (1992)

warns managers to not overestimate their ability to bring

about change or underestimate the organization's ability to

maintain itself. "If the organization's culture does not

embrace your change initiative, the overall change efforts

will often struggle and fail" (Bruegman, 1997, April, p. 89).

<u>Organizational Culture</u>

Fire departments have very strong organizational

cultures. "First, fire departments posses a degree of order

based on their paramilitary heritage. Second, a fairly rigid structure is normally in place based on our deep roots in the organizational theory of bureaucracy and our scientific management traditions" (Cook, 1990, p. 86). Organizational culture consists of an unwritten understanding of how things are done, long after the reasons have become submerged in the collective subconscious of the organization. This is generally not a problem unless the organizational culture becomes dysfunctional (Cook, 1990).

The fire department is a subculture of the parent culture (the city). "To remain competitive with other cultures within the parent or host culture (such as the parks department, libraries, and the police force), the department must remain dynamic and innovative and integrate new ideas and concepts into its culture (Cook, 1990, p. 90). This, however, is a daunting task. "Real change only can occur if the leader successfully 'unfreezes' the old assumptions and replaces them with new assumptions and then 'refreezes' them into the subconscious of the culture" (Cook, 1990, p. 92).

Resistance to Change

"Success in creating change is rooted in respect for the resistance to it" (Bellman, 1992, p, 258). "Resistance is a natural reaction to change. People on the receiving end of change realize that resistance protects them from harm"

(Maurer, 1996, p. 76). No matter how beneficial the change would be to the organization and the employee, it will meet resistance and often be sabotaged (Bruegman & McGrath, 1997, Lesser & Spiker, 1995). Resisting the change that others are trying to put in place is a primary way for the organization to demonstrate its strength (Bellman, 1992). Some employees resist because they resent having change handed down to them, others honestly believe the change is unnecessary (Austin, 1997). In short, resisters fight back because they perceive that if change occurs then they must lose (Maurer, 1997).

Fire departments are in no way immune to resistance to change. "Even radical and revolutionary organizations tend to resist change within their ranks. Much more so do members of a conservative operation such as a municipal fire department resist change" (Tehome, 1991, p. 90). "The old adage that the fire service is '200 years of tradition, unhampered by change' reflects attitudes we deal with every day" (Bruegman, 1997, April, p. 86). Turner contends that the structure of fire departments is the major cause for resistance.

...there is a single constant in the fire service that
deserves recognition as the primary cause for resistance:
the traditional, pyramidal structure. While this type of
organization may be the most effective for fire

      suppression activities, it's not conducive to

      implementing changes (1987, p. 34).

Fire fighters have a number of "sacred treasures" that they

protect fiercely. These include established work shifts and

beds in fire stations, among other things. When these "sacred

treasures" are threatened, the organization becomes

antagonistic and angry with those forcing the change (Hewitt,

1996).

      Resistance can come in many forms. There are the "in-

your-face" resisters, they resist the change and say so loud

and clear. The "malicious compliance" people say they are

going along with the new approach, but covertly undermine the

change. "Easy agreement" is characterized by employees who

think the change is a good idea, but once they begin to grasp

what it requires in time and effort, resistance begins to

develop. "Denial" occurs when employees refuse to acknowledge

that a problem exists. Lastly, people may truly be confused

about the change, or they may simply be using confusion as a

form of resistance (Lesser & Spiker, 1995).

<u>Overcoming Resistance</u>

      When faced with resistance, using conventional responses

may make matters worse. These conventional responses include

"force of reason", "manipulation" and "use of power". Force of

reason is characterized by trying to overwhelm others with

facts, figures and flowcharts. Manipulation occurs when you find ways to get around people who disapprove of your idea. Managers who rely on use of power assume that resistance should be overpowered (Maurer, 1996).

Contrary to popular belief, viewing resistance as a wall that must be destroyed is counter-productive. Traditional methods to defeat resistance, such as using force of reason, manipulation and power do not work – they may even make the gap between the two sides even bigger (Maurer, 1997, p. 9).

"By far, the most commonly mentioned tool that change agents should use to minimize resistance is communications" (Turner, 1987, p. 64). "Good communication can generate enthusiasm and excitement among those who might otherwise be skeptical and nonreceptive" (Coleman & Granito, 1988, p. 415). This communication should be verbal as well as written. "Firefighters want to hear what is happening in the fire department and how they fit into any proposed changes from a live person who can respond to their questions" (Hewitt, 1996, p. 83).

"Everything managers say – or don't say – delivers a message" (Duck, 1993, p. 111). "Lack of communication sends a message to staff and customers about how little you value their input. It also creates a vacuum. Rumors are spawned in

vacuums because people feel the need to have some control over their circumstances" (Guthrie, 1995, p. 62). Duck concurred with this stating "Of course, people abhor information vacuums; when there is no on-going conversation as part of the change process, gossip fills the vacuum. Usually the rumors are much worse and more negative than anything that is actually going on" (1993, p. 110).

At times small groups or task forces are used to help formulate and institute a change process. Communication by the task force is essential also. "When task force members put off communicating with the rest of the organization, they prevent people from understanding the design principles that guided them, the lessons they learned from previous experience, the trade-offs they had to make" (Duck, 1993, p. 110). Lesser & Spiker (1995) warn that information that is supposedly limited to a few key players leaks out and filters through the grapevine. The danger is that this informal network can easily distort information and consequently provoke resistance to a change process before it has been introduced.

Communications must not only exist, it must be consistent and constant. "If there is a single rule of communications for leaders, it is this: when you are so sick of talking about something that you can hardly stand it, your message is finally starting to get through" (Duck, 1993, p. 111).

Another key to overcoming resistance to change is allowing members of the organization to have input in the process. This input must be sincerely considered or serious consequences can result.

>There is only one management tactic worse than not involving the entire group: pretending to involve the group and then completely disregarding the group's input. This tactic will completely undermine any shred of confidence the employees have in the credibility of the management team and is a serious violation of trust (Kirkham, 1997, p. 121).

Again communication is a key in the process of accepting input from members of the organization.

>If suggestions have been favorably received and are being considered for the plan or for implementation, the individual should be told and given an approximate date as to when to expect to see some results of the suggestion. If a recommendation offered by an individual or a group is to be rejected for any reason, it is just as important - if not more important - to communicate the reasons (Coleman & Granito, 1988, p. 415).

Leadership

"The difference between a successful innovation and an unsuccessful attempt to innovate quite often lies in the

capabilities (or lack of them) of management personnel within a particular fire department" (Coleman & Granito, 1988, p. 412). "As a leader, it's important for you to describe in detail what the change will mean. Understand the chain reactions that will result when the change is made. Identify who in the organization is going to have to let go for the change to be successful" (Bruegman, 1997, July, p. 56).

There are basic requirements for change that a leader needs to address.

- "You need to set the example and be active in the change process, so others in your organization recognize your commitment".

- "There has to be some system of measurement to track the progress of the change at both the big-picture and day-to-day levels".

- "You need to set some tough goals to reach out and push your organization to be the 'best in class'".

- "You need to understand that with any change, you must provide education on why and how the change needs to and will occur" (Bruegman 1997, April, p. 90).

A leader cannot successfully initiate a change without the assistance of key people in the organization (Coleman & Granito, 1988). "To successfully introduce change into your organization, you must build a support system and find

organizational champions who will carry the banner when your not there" (Bruegman & McGrath, 1997, p. 57).

"Leading cultural change really comes down to addressing four key questions:

- Information: What is the change?

- Inspiration: Why is it needed?

- Implementation: How will it be done, both individually and organizationally?

- Institutionalization: How will we know when it's a success" (Bruegman, 1997, April, p. 90)?

Even after a leader has implemented a change, the process is not over. "...Any change should be evaluated. This includes monitoring, receiving feedback, and making appropriate modifications when the need is indicated" (Turner, 1987, p. 64). "The purposes of evaluation are to help managers (and elected officials) improve the implementation of programs, allocate scarce resources, and choose among programs and levels of various activities" (Coleman & Granito, 1988, p. 225). These evaluations assist local governments detect operational deficiencies at an early stage. This allows them to make corrections prior to the deficiency becoming a major problem (Ammons, 1996).

Paradigms

No single component is as important to the outcome of any change initiative within your organization as your attitude and assumptions. It is therefore critical to start with a clear understanding of the organizations culture, as well as the organizational paradigm and your own paradigm as they relate to the change process (Bruegman & McGrath, 1997, p. 57).

"A paradigm is a set of rules and regulations (written or unwritten) that does two things: (1) it establishes or defines boundaries; and (2) it tells you how to behave inside the boundaries in order to be successful" (Barker, 1992, p. 32). "If you've ever said, 'That's how we've always done it,' you've seen and stated a paradigm" (Hendricks, 1994, p. 46).

Paradigms are useful in maintaining organizations by providing a system of beliefs about how to relate to their environment and survive. The core of an organization is the system of beliefs and perceptions that constitute it (Critchley, 1993). "But the limiting effect of a given paradigm on an employee, an entrepreneur or a society can be far reaching" (Hendricks, 1994, p. 44). Paradigms can make it very difficult for organizations and individuals to see the need for change. "...Any data that exists in the real world that does not fit your paradigm will have a difficult time

getting through your filters. You will see little if any of it" (Barker, 1992, p. 86).

Leaders who have struggled to the top of their organizations will find it very difficult to accept that the rules by which they played need to be fundamentally changed. They will usually make changes to the way work is done, often involving what appears to be quite major restructuring. However, they are usually unwilling to question the fundamentals of the organization. These fundamentals include the distribution of power, the principles of reward, the role and purpose of management and the purpose of the organization. These are the deep cultural patterns, routines and assumptions of the organization which lie at the heart of the current paradigm (Critchley, 1993).

Paradigms can be thought of as a framework. Improvements can take place within the framework until the limits of the frame have been reached. At this point a change in paradigms needs to take place (Critchley, 1993). For an organization to remain healthy this shift in paradigms needs to take place. "...New paradigms are always emerging because, as the world changes, the old ones run up against situations they can't handle" (Hendricks, 1994, p. 47).

PROCEDURES

<u>Research Methodology</u>

The purpose of this research project was to evaluate the institution of a power shift operating out of a new fire station. Evaluative research was used to determine if the change in fire department operations had met it's initial goals. The research was also descriptive research in that each member of the fire department was solicited for their opinion and level of satisfaction related to the change process.

A review of memorandums and a study by the fire chief was conducted to establish what the initial change goals were. Fire Chief Ted Paulfranz was interviewed on October 2, 1998. The purpose of the interview was to assist in establishing the reason for the change effort and the initial change goals. Chief Paulfranz was asked (a) why did you conduct the 1992-1994 study on fire department operations, (b) what were your goals when you proposed the implementation of a power shift of paramedics operating out of a new fire station in the Southeast quadrant of the city, (c) what steps did you take to reduce the organizations resistance to the change.

A literature review was conducted to gather information in the areas of organizational change, resistance to change, change management and paradigms as they relate to change.

Fire department records were searched for statistical information on emergency calls from 1996 and 1997. This information was compiled and analyzed to determine if the response time and call transfer goals had been attained.

A survey was developed from information gathered during the literature review (see Appendix A). The survey was distributed to current members of the fire department who were employed during the implementation of the change and were not absent from the department when the survey was conducted. The absences were due to illness, injury, vacation or in the case of some volunteer firefighters, not attending training sessions nor responding to calls. Of the 29 surveys distributed, 24 were completed and returned. The survey contained 13 questions consisting of one open-ended question and 12 closed-ended questions. The results of the survey (see Appendix B) were used to ascertain the level of knowledge department members had in regards to the reason for the change and the change process itself. The survey also solicited department members opinions on the change process, and attempted to identify paradigms held by department members that would add to their resistance to the change.

Assumptions and Limitations

Response times greater than 10 minutes were not included in the statistical analysis when determining if 1997 response

times in the Southeast quadrant were shorter than those in 1996. The number of responses with times greater than 10 minutes was 82 in 1996 and 80 in 1997. The reason these calls were excluded is that they represented calls that a "routine response" was used or calls that occurred during inclement weather that required calls to be held for a response unit to become available.

The survey was distributed to all available firefighters that were employed prior to and during the first year of the change process. The survey was intentionally short in an attempt to have the highest possible number completed and returned. In another attempt to increase the number of surveys returned the author personally distributed the survey and made follow-up requests for completion to each work group. Even with these measures the number of surveys returned fell four short of the number required for the 95% confidence level.

Definition of Terms

Power Shift - this is the two paramedic work group that is scheduled to work from 9:00 a.m. to 5:30 p.m., Monday through Friday, excluding holidays.

Primary Response Personnel - those employees that are designated to immediately respond to all calls for help. This does not include chief officers, administrative officers and fire prevention personnel.

Routine Response - an immediate response to a call for help where responding units do not use emergency lights nor sirens and obey all normal traffic laws.

RESULTS

Answers to Research Questions

1. Did the implementation of the power shift operating out of Station 2 meet it's initial change goals?

The initial change goals were (1) to decrease the response times to calls in the Southeast quadrant of the city; (2) to decrease the number of ambulance calls transferred to other services below two percent of all 911 ambulance requests; and (3) to a lesser extent, attempt to reduce the stress level on the 24-hour shift paramedics by reducing the number of calls they were responding to (T. R. Paulfranz, personal communication, October, 1994, T. R. Paulfranz, personal interview, October 2, 1998).

The first goal of decreasing the response times to calls in the Southeast quadrant of the city was met. The average response time in 1996 to calls in the Southeast quadrant was 6 min 24 s. In 1997, the average response time in this area of the city dropped to 6 min 0 s (see Table 1).

Table 1
1996 - 1997 Southeast Quadrant Response Times

Minutes	1996	1997
1	74	44
2	40	64
3	66	136
4	106	164
5	197	177
6	268	255
7	330	290
8	299	239
9	168	167
10	99	108
Total calls	1647	1644
Total response minutes	10,573	9886
Average response time	6 min 24 s	6 min 0 s

*Based on calls with a response time of 10 min or less.

The second goal of the change was to limit the number of ambulance calls transferred to other services to below 2% of all 911 ambulance requests. A search of fire department records revealed that of the 2755 ambulance calls in 1997, only 32 had to be transferred to other services. This calculates out to 1% of the total ambulance calls being transferred. This goal was also met.

The last goal of the change was to reduce the stress level of the 24-hour shift paramedics by reducing the number of calls they were responding to. Since this is a subjective goal the personnel involved would have to judge this for themselves. Question number three on the survey asked the respondents if they felt the stress level of paramedics had

decreased. The results of the survey were not overwhelming in either direction. Out of the 24 surveys returned 10 respondents either agreed or strongly agreed that stress level had decreased, six either disagreed or strongly disagreed and a full one-third of the respondents had no opinion. In the strictest interpretation, this goal was also met. The only requirement stated in the goal was to "reduce" the amount of stress. Since more respondents felt the stress level was reduced than felt it wasn't, the goal was achieved.

    2. <u>What are typical causes of resistance to change</u> <u>efforts</u> <u>by organizations?</u>

    "Resistance is a natural reaction to change. People on the receiving end of change realize that resistance protects them from harm" (Maurer, 1996, p. 76).

    The literature review identified several causes of organizational resistance to change efforts. These causes include:

- lack of communication
- organizational culture and traditions
- employees feel threatened by the change
- employees not allowed to have input in the process
- employee input not seriously considered
- employees don't see the need for the change
- lack of quality leadership.

3. <u>What are recommended strategies to reduce employee's</u>

   <u>resistance to change, were any of the strategies used and</u>

 <u>how</u>   <u>effective were they</u>?

     Conventional responses to reduce employee resistance seldom work and often lead to an increase in resistance.

     Contrary to popular belief, viewing resistance as a wall that must be destroyed is counter-productive. Traditional methods to defeat resistance, such as using force of reason, manipulation and power do not work - they may even make the gap between the two sides even bigger (Maurer, 1997, p. 9).

     "By far, the most commonly mentioned tool that change agents should use to minimize resistance is communications" (Turner, 1987, p. 64). This is true whether the change is being initiated by an individual or a group. "Lack of communication sends a message to staff and customers about how little you value their input. It also creates a vacuum. Rumors are spawned in vacuums because people feel the need to have some control over their circumstances" (Guthrie, 1995, p. 62). Communication must be an ongoing process. "If there is a single rule of communications for leaders, it is this: when you are so sick of talking about something that you can hardly stand it, your message is finally starting to get through" (Duck, 1993, p. 111).

Allowing employees to have input in the planning and implementation of the change is another tactic for reducing resistance. Common failure with this strategy are not seriously considering input from employees, and failure to communicate with employees whether their input has been accepted or rejected, and if rejected, the reason for the rejection (Kirkham, 1997, Coleman & Granito, 1988).

The final element is an essential and intrinsic component of all approaches to minimizing resistance to change, it is leadership. The leader of the change must have the ability to communicate the need for the change, the process for implementing the change, and the progress of the change process. The leader must solicit, accurately analyze and appropriately utilize or reject input from employees. The leader needs to be committed to the process and keep it focused until it has been institutionalized.

The second part of this question asks if any of the identified strategies used and how effective were they.

Very little written documentation could be found to indicate that the fire department members were kept informed of the need for the change or the process for implementing the change. When asked what he did to reduce the resistance to the change, Chief Paulfranz indicated that he had spent little time attempting to communicate the need and process to

department members. "Text book approaches to reducing resistance to change, lay out the plan, go to the affected people and allow them to have input, doesn't work in fire departments". The reason being is that "...they are not knowledgeable about the change process and they felt that they could prevent any change that they didn't like" (T. R. Paulfranz, personal interview, October 2, 1998).   Survey question numbers 1, 2, 6 and 10 were asked to assess the effectiveness of the communication of the change goals and needs.

Question one asked the respondents to identify what they knew to be the goals of the change. The first goal seemed fairly well understood, all but two respondents properly identified this as one of the change goals. As for the other two stated change goals, limiting call transfers and reducing paramedic stress levels, did not fare as well. Less than half of the respondents identified that they were aware of these two goals. This question also allowed an opportunity for people to write in what they perceived to be other goals of the change. Two individuals stated the goal was to provide better coverage of ambulance calls during the hours of peak demand. The other two individuals writing in a goal felt that the change was made for political reasons.

The Southeast quadrant of the city generated 45% of all calls in the city in 1996 and 46% in 1997 (see Appendix C). Survey question two assessed how well this was communicated to department members. Two of the four available answers to this question could be considered correct and still only roughly half of the respondents accurately identified one of these answers.

The fire chief had tracked the frequency of calls by time of day and day of week establishing a well defined pattern (Paulfranz, 1994). The response to survey question six identified that only 14 of the 24 respondents were aware that this pattern had been identified.

Survey question 10 specifically asked respondents if they were made aware of the reasons for the change prior to it's implementation. A mere 50% of the respondents agreed that they were aware of the reasons.

Given the results of survey questions 1, 2, 6 and 10, it is clear that communication was not effectively used to explain the reasons for and goals of the change process.

Allowing employees to have input in the process and using their input or explaining the reasons for not using their input was the other main key to reducing resistance to change.

Survey questions 11, 12 and 13 were designed to determine if the employees felt that their input was solicited and used.

The results of the survey found that 7 of 20 respondents agreed that they were given an opportunity to supply input into the process. However, only 4 felt their input was taken seriously and only 3 agreed that the reasons for not implementing their suggestions were explained to them.

Again this approach to reducing resistance to change was not effectively used.

4. <u>What effect did paradigms have on the employee's resistance to the change?</u>

"If you've ever said, 'That's how we've always done it,' you've seen and stated a paradigm" (Hendricks, 1994, p. 46).

Survey questions 7, 8, and 9 attempted to identify if fire department personnel had a paradigm regarding the scheduling and distribution of resources, that increased their resistance to the change.

A vast majority of respondents (16 of 24) agreed that all primary response personnel should work on a 24-hour shift. This is the shift that all primary response personnel were scheduled on prior to the implementation of the power shift. However, almost as many respondents (14 of 24) agreed that scheduling personnel during peak demand times, in high call volume areas, is an appropriate use of personnel. Investigating this comparison further, the respondents who agreed that all primary response personnel should work on 24-

hour shifts, split evenly on the question about scheduling personnel to meet high demand times and areas. This even division in the respondents explains the nearly even response to the question of the change being successful.

Clearly department members have paradigms that would tend to resist this change. However, the paradigms don't appear to be the primary source of resistance.

DISCUSSION

The literature review revealed that change is a necessary part of sustained existence for individuals and organizations alike. "No department can enjoy self-determination without a progressive diet of intelligent change" (Tehome, 1991, p. 90). Once the chief had identified that the Southeast quadrant of the city was producing nearly half of all the calls, it was incumbent upon him to reallocate resources to meet this demand for service. However, as Bellman stated,

> Coming up with the ideas for change and the plan for implementation, even the management approvals - all this is easy in a major change effort compared to implementing the change and making it an established way of "how we do business" (1992, p. 88).

The main difficulty that Bellman is referring to is the organization's resistance to change.

"Resistance is a natural reaction to change. People on the receiving end of change realize that resistance protects them from harm" (Maurer, 1996, p. 76). The fire chief anticipated that the change he was proposing would be resisted by the organization (Paulfranz, 1994). The survey indicated that the main cause for the resistance was taking personnel off of the 24-hour shift. This change in established work shifts was one of the "sacred treasures" that Hewitt identified as being a cause of resistance (1996).

The literature indicated that there are two main ways to overcome resistance to change, communication and utilizing employee input. "By far, the most commonly mentioned tool that change agents should use to minimize resistance is communications" (Turner, 1987, p. 64). Communications must not only exist, it must be consistent and constant. "If there is a single rule of communications for leaders, it is this: when you are so sick of talking about something that you can hardly stand it, your message is finally starting to get through" (Duck, 1993, p. 111).

Soliciting input from employees is the other main way to reduce resistance. When input is received it must be seriously considered or the person leading the change will lose all credibility (Kirkham, 1997). Once the input has been analyzed the individual providing the input needs to be informed

whether their suggestion will be used or not, and if not, why not (Coleman & Granito, 1988).

Unfortunately, in this case, these tactics were used sparingly, if at all, by the fire chief. "Text book approaches to reducing resistance to change; lay out the plan, go to the affected people and allow them to have input, doesn't work in fire departments". The reason being is that "...they are not knowledgeable about the change process and they felt that they could prevent any change that they didn't like" (T. R. Paulfranz, personal interview, October 2, 1998).

The results of the survey also indicate that these tactics were not used. None of the three initial change goals the chief established were identified by all respondents. Surprisingly, the goal the chief put the least emphasis on, reducing the stress level on the 24-hour shift paramedics, was identified more frequently than the goal of limiting call transfers, by the respondents. Even the statistical information the chief had compiled, the percentage of calls occurring in the southeast quadrant and the pattern of calls by time of day and day of week, had obviously not been well communicated.

Clearly the majority of respondents to the survey did not feel that their input was wanted, seriously considered, nor were they given a reason for it not being used.

Unfortunately the chief appears to have done what Maurer warned not to do.

Contrary to popular belief, viewing resistance as a wall
that must be destroyed is counter-productive. Traditional
methods to defeat resistance, such as using force of
reason, manipulation and power do not work - they may
even make the gap between the two sides even bigger
(1997, p. 9).

"The difference between a successful innovation and an
unsuccessful attempt to innovate quite often lies in the
capabilities (or lack of them) of management personnel within
a particular fire department" (Coleman & Granito, 1988, p.
412). This appears to be the case in this change process. The
leader's failure to effectively include all members of the
department in the planning and implementation of the change
process significantly increased the resistance to the change.

Paradigms do exist in the fire department. "A paradigm is
a set of rules and regulations (written or unwritten) that
does two things: (1) it establishes or defines boundaries; and
(2) it tells you how to behave inside the boundaries in order
to be successful" (Barker, 1992, p. 32). The firefighters
identified through the survey that they have a paradigm about
scheduling personnel. All but four of the respondents agreed
that all primary response personnel should be scheduled on 24-

hour shifts. However, the response to survey question 2, where more than half of the respondents agreed that scheduling personnel during peak demand times in high call volume areas was appropriate, tempers the weight given to this paradigm as it relates to the resistance to the change.

Paradigms played a role in the resistance to the change process, but they were not a major contributor. Clearly the main source of resistance with this change process was the lack of communication.

Although the statistical goals of the change were met, the human elements of the process have not been successful. This could develop a form of resistance in the department that Lesser and Spiker (1995) refer to as "malicious compliance". The malicious compliance people say that they are going along with the new approach, but covertly undermine the change. Since the fire department personnel are being forced to comply with the change they may look for other ways to rebel. This may be in the form of an attempt to sabotage this process or the frustration may be diverted to another project. The worst possible outcome would be the personnel taking out their frustrations on the citizens, our customers.

RECOMMENDATIONS

While these recommendations are directed to the Edina
Fire Department, the situation is not unique to Edina.
Therefore, the recommendations can be used by other agencies
in similar circumstances.

1. Communicate the reasons that the change is needed.

There is plenty of information available to justify the
need for a change in operations. Distributing this information
is long overdue and should assist in reducing the resistance
by replacing rumors and gossip with facts.

2. Solicit input from affected employees.

Now that a year has passed since the implementation of
the change process the employees will have many suggestions on
how to improve it. A great deal of coaxing may be needed to
get employees to participate. Many of them have indicated that
their suggestions were not handled properly during the initial
change process.

3. Provide feedback on the input received from employees.

It is critical to reestablish credibility in the process
of involving employee's input in the process of change. The
only way to do this is to seriously consider all suggestions
that are received. Of course, not all the suggestions will be
workable, and the reasons for not implementing any suggestion
must be communicated to the person making the suggestion.

4. Establish new change goals.

After considering the input from all personnel a new set of change goals need to be established. These goals need to have specific and measurable objectives, that will be evaluated within a specified time frame.

5. Reevaluate the change process periodically until the organization is ready to institutionalize the change.

This periodic evaluation of the change process will assist in identifying emerging areas of concern so they can be addressed prior to becoming major obstacles. Through this process the leader will be able to identify when the organization is prepared to make this change "the way we do business".

Closing Comments

Readers who are attempting to replicate this process by evaluating a change process in their organization should use the following steps.

1. Identify the original problem or situation that necessitated   the change and the initial change goals.

2. Compare the present state of the process against the initial   change goals. Remember, achieving statistical goals does not   necessarily mean the change process was successful.

3. Realize that resistance to change is natural and try to determine the source of the resistance.

4. Determine if the communication process was effective in informing the affected employees of the need for the change and the process that will be used to institute the change.

5. Determine if the employees were given an opportunity for input, if the input was seriously considered, and if the employees were informed about the reasons for accepting or rejecting their input.

6. Depending upon the results of your findings you may have to fine tune your process or, in more severe cases, the entire process may need to be repeated.

REFERENCE LIST

Ammons, D. N. (1996). Performance measurement in local government. In D. N. Ammons (Ed.), *Accountability for performance: Measurement and monitoring in local government* (pp.15-31). Washington, DC: International City/County Management Association.

Austin, M. R. (1997, August). Managing change. *Manage, 49 (1),* 15 (2).

Barker, J. A. (1992). *Future edge: Discovering the new paradigms of success.* New York: William Morrow and Company, Inc.

Bellman, G. M. (1992). *Getting things done when you are not in charge.* San Francisco: Berrett-Koehler Publishers.

Bruegman, R. R., & McGrath, T. (1997, June). It doesn't matter where you start. *Fire Chief, 41(6),* 56-59.

Bruegman, R. R. (1997, April). Navagating organizational change. *Fire Chief, 41(4),* 86+.

Bruegman, R. A. (1997, July). The psychology of change. *Fire Chief, 41(7),* 56+.

Coleman, R. J., & Granito, J. A. (Eds.). (1988). *Managing fire services.* Washington, D.C.: International City Management Association.

Cook, J. L. (1990, August). Changing your department's organizational culture. *Fire Engineering, 143(8),* 85-86+.

Critchley, B. (1993, March). The myth of managing change. *Leadership & Organization Development Journal, v17, n2*, 48(5).

Duck, J. D. (1993 November-December). Managing change: The art of balancing. *Harvard Business Review, 93602,* 109 - 118.

Frost, B. (1993, August). Managing organizational change. *Fire Chief, 37(8),* 122+.

Guthrie, E. R., (1995, March). Which is the chicken, which is the egg? (managing the corporate transition to a customer-driven service provider). *Management Review, 84 (3),* 62.

Hendricks, M. (1994, August). *Entrepreneur, v22, n8,* 44(3).

Hewitt, W. J. (1996). *Recreating the fire service.* Ottawa, Ontario: Kendall Publications.

Kirkham, D. R. (1997, April). Management is like a body of water. *Fire Engineering, 150(4),* 118+.

Lesser, E. & Spiker, B. K. (1995, March-April). We have met the enemy.... *Journal of Business Strategy, 16 (2)*, 17 (5).

Maurer, R. (1996, April). Put resistance to work for you. *H R Magazine, 41 (4),* 75 (4).

Maurer, R. (1997, October). Transforming resistance. *H R Focus, 74 (10),* 9 (2).

National Fire Academy. (1996, May). *Strategic management of change, student manual* (NFA-SMOC-SM). Emmitsburg, MD: Author.

Paulfranz, T. (1994). *Edina fire department 1992-94 study.* Unpublished study.

Strebel, P. (1996, May/June). Why do employees resist change?. *Harvard Business Review, 74 (3),* 86 (7).

Tehome, M. (1991, November). How to change your department without changing departments. *Fire Engineering, 144(11),* 89-90+.

Turner, G. A. (1987, January/February). Butting heads over change: The fire service's hierarchical structure reinforces the status quo and generates resistance to change. *Chief Fire Executive, 2(1),* 26+.

APPENDIX A

Power Shift / Station Two Survey

1. To your knowledge, what are the goals for operating the
   Power Shift out of Station Two? (place an X next to all
that   apply)

   __ Decrease response times to calls in the southeast
      quadrant of the city.
   __ Decrease the number of ambulance calls transferred to
      other services below 2%of all 911 ambulance requests.
   __ Reduce the stress level on the twenty-four hour shift
      paramedics by reducing the number of calls they were
      responding to.
   __ Other reasons. (list below)

   _____
   _____
   _____

2. Of all the emergency calls in the city, approximately what
   percentage of calls occur in the southeast quadrant of the
   city?

   __ 30%   __40%   __50%   __60%

For questions #3 - #13 the phrase "the change" refers to the
Power Shift operating out of Station Two. Please circle the
answer that best represents your opinion on the question using
the following guide.
SA = Strongly Agree
A   = Agree
N/O = No Opinion
D   = Disagree
SD = Strongly Disagree

3. The change has met the goal of decreasing response times
   to calls in the southeast quadrant of the city?

          SA   A   N/O   D   SD

4. The change has met the goal of decreasing the number of
   ambulance calls transferred to other services below 2% of
all   911 ambulance requests.

          SA   A   N/O   D   SD

5. The change has met the goal of reducing the stress level on the twenty-four hour shift paramedics by reducing the number of calls they were responding to.

     SA   A   N/O   D   SD

(If you listed other goals in your answer to question #1 list them on the back of this page and indicate to what level you feel they were met.)

6. A well defined pattern has been identified that indicates frequency of emergency calls in the City of Edina by the time of day and day of week.

     SA   A   N/O   D   SD

7. All primary response personnel should work on twenty-four hour shifts.

     SA   A   N/O   D   SD

8. Scheduling primary response personnel during peak demand times and in high call volume areas is an appropriate use of personnel.

     SA   A   N/O   D   SD

9. The change of operating the Power Shift out of Station Two was successful.

     SA   A   N/O   D   SD

Answer questions #10 - #13 only if you were employed by the Edina Fire Department prior to the implementation of the change.

10. The reasons for the change were explained to me prior to it's implementation.

     SA   A   N/O   D   SD

11. I was given an opportunity to comment on the change and make recommendations for modifying the change.

     SA   A   N/O   D   SD

12. My comments or recommendations were taken seriously by the fire department and city administration.

      SA   A   N/O   D   SD

13. My comments or recommendations were either implemented or I received an explanation as to why they were not used.

      SA   A   N/O   D   SD

APPENDIX B

Results of Power Shift / Station Two Survey

1. To your knowledge, what are the goals for operating the
   Power Shift out of Station Two? (place an X next to all
that   apply)

   __22__ Decrease response times to calls in the southeast
       quadrant of the city.
   __10__ Decrease the number of ambulance calls transferred to
       other services below 2% of all 911 ambulance requests.
   __11__ Reduce the stress level on the twenty-four hour shift
       paramedics by reducing the number of calls they were
       responding to.
    __4__ Other reasons. (list below)

   1. **To provide a better coverage during busy hours.**
   2. **Political reasons?**
   3. **A political move to lull the former city manager
      into thinking we could do more with less and that we
      are   trying to be proactive in response to our
      increasing call numbers.**
   4. **Staff an ALS ambulance in S.E. quadrant during peek
      [sic] demand times 5 days a week.**

2. Of all the emergency calls in the city, approximately what
   percentage of calls occur in the southeast quadrant of the
   city?

       __1__ 30%   __5__ 40%   __8__ 50%   __10__ 60%

Comments:
1. 45%
2. 42%?
3. 60%+

For questions #3 – #13 the phrase "the change" refers to the
Power Shift operating out of Station Two. Please circle the
answer that best represents your opinion on the question using
the following guide.
SA = Strongly Agree
A   = Agree
N/O = No Opinion
D   = Disagree
SD = Strongly Disagree

3. The change has met the goal of decreasing response times to calls in the southeast quadrant of the city?

SA	A	N/O	D	SD
2	14	3	5	0

Comments:
1. **Only 8 hours a day.**
2. **#1 When they are there. #2 Has not changed during weekend, night, holidays.**
3. **Agree very slightly**
4. **Many complaints from citizens after 17:30. They think the station is a 24 hour station near them.**

4. The change has met the goal of decreasing the number of ambulance calls transferred to other services below 2% of all 911 ambulance requests.

SA	A	N/O	D	SD
2	4	11	6	1

Comments:
1. **Does not change # [sic] of personel [sic] outside the "day time response".**
2. **More a result of increasing # [sic] of paramedics avail [sic] to staff additional vehicles.**
3. **Not sure.**

5. The change has met the goal of reducing the stress level on the twenty-four hour shift paramedics by reducing the number of calls they were responding to.

SA	A	N/O	D	SD
1	9	8	5	1

Comments:
1. **The change reduced some stress and increased/created other stresses.**
2. **See written notes on answer for #3 (#1 When they are there. #2 Has not changed during weekend, night, holidays.)**

(If you listed other goals in your answer to question #1 list them on the back of this page and indicate to what level you feel they were met.)

Comments: (only comment was for "other reason #1)
1. The coverage is only good during business hours which does not change much because we are short staffed after business hours. There was no future thought to using the station as a 24 hr. station or to meet any change or movement in staffing. We are a fire dept. and there should be a crew at sta. 2 who can take fire alarms which account for a large percentage in the city.

6. A well defined pattern has been identified that indicates frequency of emergency calls in the City of Edina by the time of day and day of week.

SA	A	N/O	D	SD
2	12	4	6	0

Comments:
1. I have seen that the calls or pattern of calls were wrong and have changed.
2. Data is not current. We need to addapt [sic] with the changes in patterns & frequency.

7. All primary response personnel should work on twenty-four hour shifts.

SA	A	N/O	D	SD
9	7	4	3	1

Comments:
1. Agree if this question means to change the power shift to 24 hrs.
2. At least on shifts together, not small, unique, segregated shifts.
3. More coverage by same ammount [sic] of people. 56 hrs rather than 40 hr/week.

8. Scheduling primary response personnel during peak demand times and in high call volume areas is an appropriate use of personnel.

SA	A	N/O	D	SD
3	11	1	8	1

Comments:
1. Need to review cost benefit effects.
2. But if you can get the personnel for 16 more hours, why not?

9. The change of operating the Power Shift out of Station Two was successful.

SA	A	N/O	D	SD
1	8	1	9	3

Comments:
1. Agree and disagree. But see answers (written) to questions #3.   (#1 When they are there. #2 Has not changed during weekend,   night, holidays.)

Answer questions #10 - #13 only if you were employed by the Edina Fire Department prior to the implementation of the change.
Note: 20 personnel responded to this set of questions.

10. The reasons for the change were explained to me prior to it's implementation.

SA	A	N/O	D	SD
0	10	1	6	3

11. I was given an opportunity to comment on the change and make   recommendations for modifying the change.

SA	A	N/O	D	SD
1	6	2	9	2

12. My comments or recommendations were taken seriously by the fire department and city administration.

SA	A	N/O	D	SD
0	4	9	4	3

13.My comments or recommendations were either implemented or
   I received an explanation as to why they were not used.

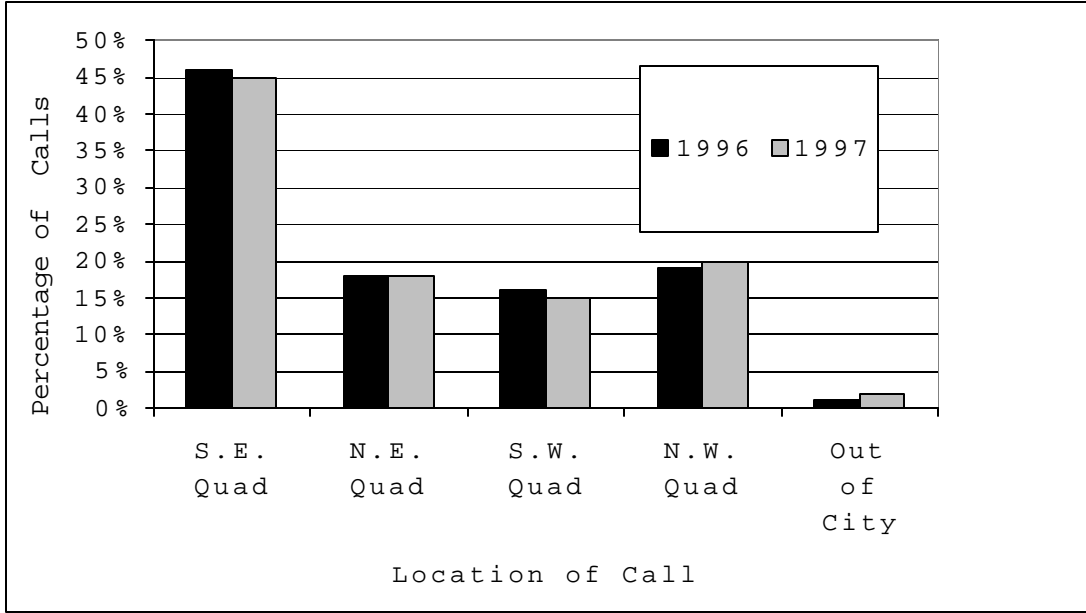|	SA	A	N/O	D	SD
	0	3	6	6	5

Comments:
1. A. Some were implimented [sic] B. Those that wernt [sic]
   were not explained, previous chief lacked quality
   communication skills.

APPENDIX C

1996 - 1997 Distribution of Calls

	1996	1997
S. E. Quadrant	1777	1787
N. E. Quadrant	709	686
S. W. Quadrant	599	608
N. W. Quadrant	784	753
Out of City	51	54
Total	3888	3917